



LEAPS

League of European
Accelerator-based
Photon Sources

LEAPS \longleftrightarrow EOSC

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ESRF

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LEAPS \leftrightarrow EOSC Outline

- EOSC landscape
- EOSC association
- PaNOSC + ExPaNDS
- EOSC wish list from LEAPS/LENS
- LEAPS/LENS wish list from EOSC
- Conclusion

EOSC Landscape



- The initial vision of a European Open Science Cloud as a platform for Open Science becomes gradually a reality:
“EOSC will offer 1.7 million European researchers and 70 million professionals in science, technology, the humanities and social sciences a virtual environment with open and seamless services for storage, management, analysis and re-use of research data, across borders and scientific disciplines by federating existing scientific data infrastructures”
- Many projects^(*) have been funded to build a “system of systems” for making open (FAIR) data available and to provide EOSC services:
 - EOSC portal, guidelines, training
 - connection of European RIs and e-infrastructures
 - Implementation of FAIR, FAIR-compliant certification scheme
 - development and provision of research-enabling services, e.g. distributed data processing and management (both public and commercial)

* <https://eosc-portal.eu/about/eosc-projects>

EOSC Association

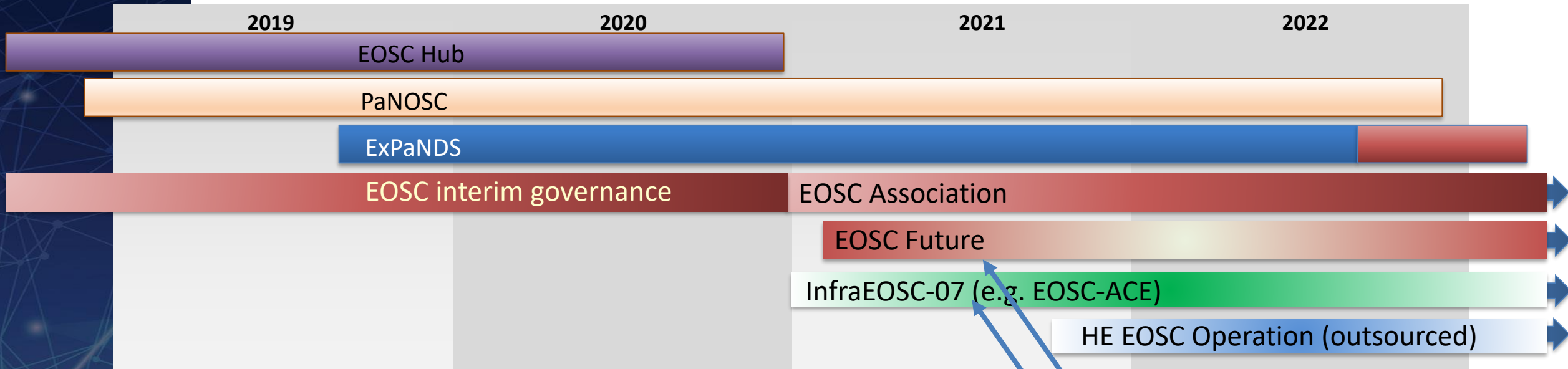
- The **EOSC governance will change at the end of the year** → transition from interim governance to **EOSC association** (AISBL) (next slide)
- The Interim governance works on the SRIA – the Strategic Research and Innovation Agenda. This work will be followed up by the EOSC Association
- The SRIA will find its way into the H-Europe work programme
- → **it is important that as many RIs as possible become members of the EOSC-Association**
- RIs are key stakeholders in EOSC for providing and consuming services such as open data catalogues (based on FAIR), data analysis services, training, communication, ML applications with open data
- LEAPS and LENS are participating in the EOSC construction with the PaNOSC and ExPaNDS projects

EOSC Association

- The EOSC Association is expected to play a crucial role to actively contribute to and monitor future EOSC developments
- It will be a single forum for all EOSC stakeholders and strongly interact with the Commission and member countries through the EOSC partnership
- The EOSC Association will have members and observers. The **first round of admission is closed**. Members and observers will be officialised at the first General Assembly on **17 Dec 2020** (~15 mandated organisations, ~130 member organisations, ~50 observer organisations, <https://www.eoscsecretariat.eu/expressions-of-interest>)
- President/Directors will be elected and annual fees voted at the 1st GA

Connecting LEAPS and LENS to EOSC: PaNOSC, ExPaNDS

Timeline



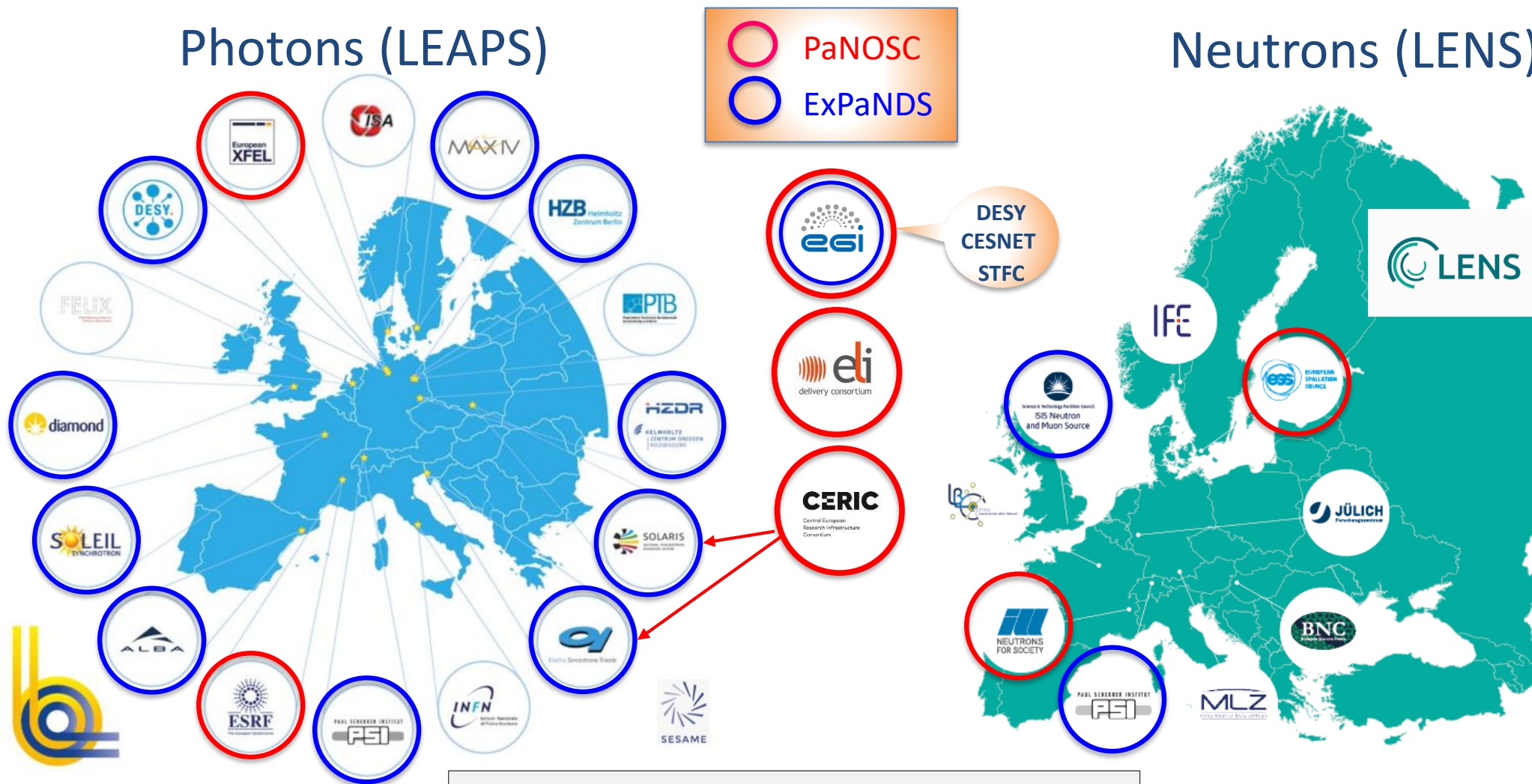
	PaNOSC	ExPaNDS
Call	INFRAEOSC 04	INFRAEOSC 5B
Budget	12 M€	6 M€
Partners/Facilities	5 ESFRIs / 1 ERIC + EGI	10 National RIs + EGI
Start	12-01-2018	01-09-2019
End	30-11-2022	31-08-2022 / 30-02-2023

EOSC-Future = 40M€
 INFRAEOSC-07 = 30M€ out of
 which 8M€ for EOSC-ACE

→ LEAPS and LENS facilities in PaNOSC and ExPaNDS

Photons (LEAPS)

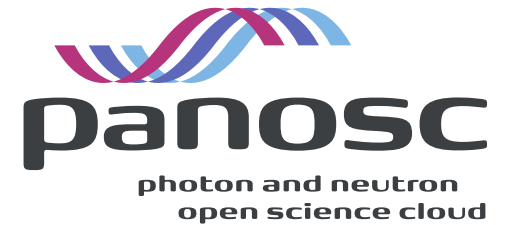
Neutrons (LENS)



PaNOSC and ExPaNDS work closely together
PaNOSC and ExPaNDS = LEAPS

PaNOSC/ExPaNDS Objectives

- Participate in the **construction of the EOSC**
- **Increase the impact** of RIs by data re-use
- Facilitate the **adoption of open data policies** and data stewardship
- **Make scientific data** from Europe's PaN RIs **FAIR**
 - Data policy implementation
 - Data catalogues, metadata capture
 - Search API, PIDs
- Provide or prepare **innovative data services**, eg visualisation, analysis, simulation, ML



PaNOSC and ExPaNDS – list of achievements

1. Data policies are being made FAIR
2. A search API is defined and being implemented
3. Data are being exposed to OpenAIRE
4. NeXus is being promoted as standard
5. Standard vocabularies are being defined
6. Electronic logbooks are being generalized
7. An alpha version of the data portal is available
8. Jupyter services are being implemented
9. HDF5 viewer is developed
10. Simulation software packages have been aligned and extended
11. User identity is now EOSC compatible
12. EOSC compatible Data Transfer mechanisms are being tested and implemented
13. A training platform is available
14. Trainings have taken place
15. Publications and dissemination
16. Participated in many EOSC events

Science Cluster Projects + EOSC



- The science clusters bring together 72 world class RIs among which many ESFRI projects, and the e-Infrastructures provide inclusive services to the benefit of science
- Together, we have brainstormed to reflect what we think **merits to be emphasized for the Strategic Research and Innovation Agenda (SRIA)**
- Another complementary paper was jointly prepared by the PaNOSC and ExPaNDS projects

Common Science Clusters and e-Infrastructure SRIA feedback:

<https://zenodo.org/record/4044010#.X3wbg-dS8uV>

Common ExPaNDS and PaNOSC SRIA feedback:

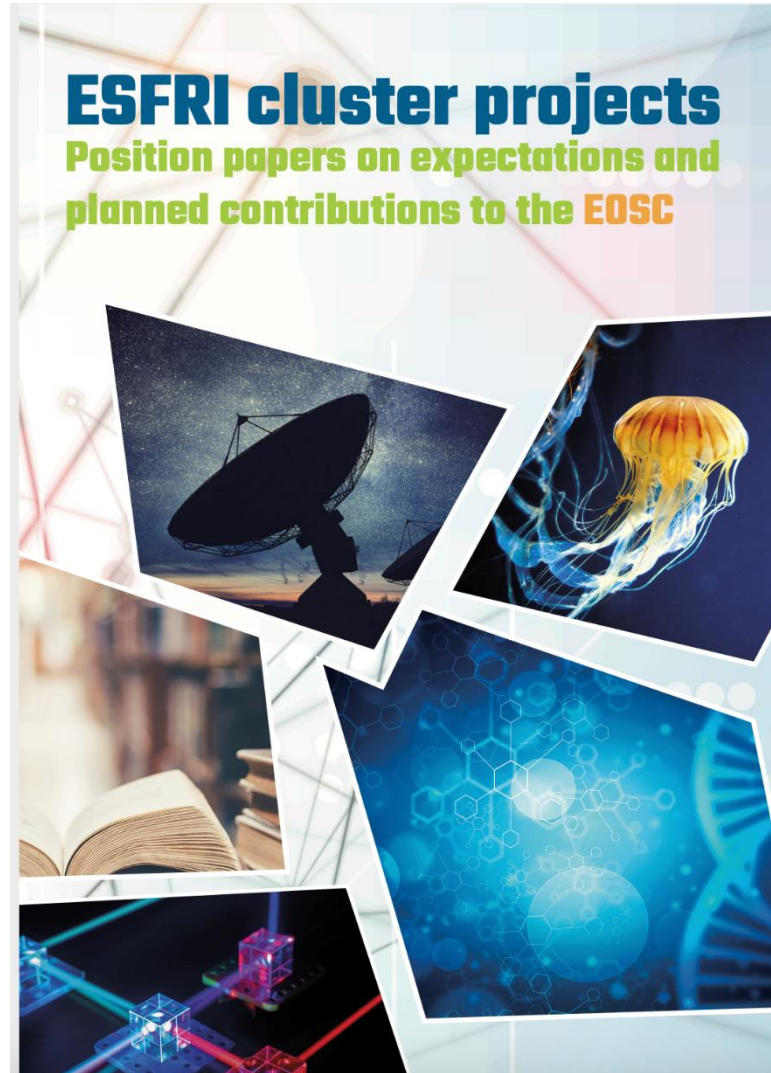
https://www.eoscsecretariat.eu/system/files/expands_and_panosc_position_paper_on_eosc.pdf



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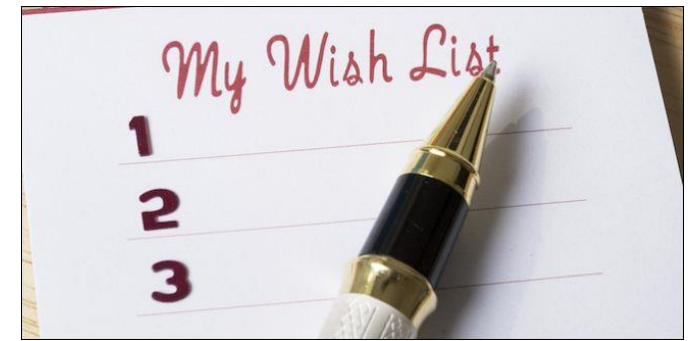
ESFRI Science Cluster Project position papers



<https://zenodo.org/record/3675081>

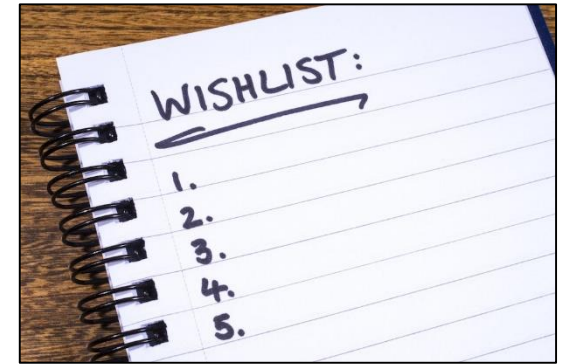


EOSC wish list from LEAPS/LENS



- ✓ Make EOSC known
- ✓ Connect our user communities to EOSC (via pertinent scientific use cases, outreach and training)
- ✓ Provide open and FAIR data
- ✓ Provide search API and portal to find data
- ✓ Provide services as the PaN software catalogue
- ✓ Interact with EOSC governance to help define and build the EOSC

LEAPS/LENS wish list from EOSC



- Open and FAIR data
- Sustainable services such as AAI, PIDs, high-speed data transfer (*)
- Long-term data preservation
- Compute resources for data analysis and simulation (*)
- Training and collaboration platform

* If this does not materialize, LEAPS/LENS RIs will be asked to sustain these services

Conclusions

- ✓ The current work in Calipsoplus, ExPaNDS and PaNOSC is perfectly in line with the LEAPS-IT agenda
- ✓ However, the sustainability of the project outputs may become an issue
- ✓ LEAPS-IT should define now additional joint activities where it makes sense joining forces, also in view joint efforts for future funding opportunities, eg:
 - A **PaN data committee** – to define PaN data stewardship, bring together scientists and IT specialists, promote FAIR data and open science
 - Common efforts in the **PaN analysis software catalogue**
 - **AI/ML developments**



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**My special thanks go to Andy and Patrick for their
relentless dedication and efforts to bring the PaN
community together through PaNOSC and ExPaNDS**

Thanks

Bedankt

Danke

Merci

Grazie

Gracias

Tak

Tack

Dziękuję

<https://leaps-initiative.eu>

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