

Sustainability of PaNOSC

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AG Sustaining EOSC**



Sustainability plan for the Photon and Neutron EOSC

Why is it important?

- To increase credibility in science;
- To provide a better service for users of our facilities;
- The provision of FAIR data is a requirement for Horizon Europe projects;
- Countries are developing and/or implementing National data policies, so RIs will not be exempt from adhering
- Substantial investments in PaNOSC developments (€12 M) and EOSC Future-> opportunity for others to benefit from this experience and the project outputs



Sustainability plan for the Photon and Neutron EOSC

Interview with WP leaders

Integration with ExPaNDS, others?

- **Common solutions**
 - AAI -> Umbrella
 - Jupyter notebooks, data analysis
 - PaN simulation package
 - PaN portal, including search and pushing data to third parties
 - Metadata schema, ontologies and controlled vocabularies
 - PaN software catalogue
 - Standard formats (HDF5)
 - Software for data transfer
 - User support (helpdesk)



Sustainability plan for the Photon and Neutron EOSC

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Integration with ExPaNDS, others?

- **Common branding**
 - PaN portal
 - PaN learning platform (maybe integrated in the portal?)
 - PaN software catalogue
 - PaN website and communication material
- **Common principles**
 - Data policy
 - DMP



Sustainability plan for the Photon and Neutron EOSC

Interview with WP leaders

Integration with ExPaNDS, others?

What we aim at:

- Involvement of all PaN RIs -> the success of some of the outputs depend on this
- Finding a suitable governance and business model -> studying now
- Continue implementing the common branding
- Strategy to align outputs (if different, e.g. data policy framework)
- Develop a strategy and business models for RI managers and collect feedback (e.g. through the IT working groups of LEAPS and LENS, ERF, ..)
- Work in the last 12 months to the implementation of any necessary measures (MoU, constitution of a legal entity, etc.) to establish the governance and consolidate the business model.



Sustainability plan for the Photon and Neutron EOSC

Interview with WP leaders

Integration with ExPaNDS

What we would like to achieve:

- Sustainability of the outputs of PaNOSC and ExPaNDS;
- A common approach or “single tool” from the users’ perspective, specific enough to address the needs of the PaN community but when possible looking for a broader uptake;
- Exploit opportunities for cost optimisation to effectively manage digital assets over time;
- Exploit synergies and maximise the output with the limited IT resources facilities have;
- Exploit opportunities for external funding, where a solid partnership is better positioned;
- A greater influence through alignment.



What comes next

Strategy

**Essential
services**

(federated + local
instance)

**Desirable
services**

PaN specific or across clusters

Internal vs external factors

Business models

- Cost analysis to be finalised shortly
- Analyse advantages and disadvantages of different options
- Collect feedback to assess their feasibility
- Implement the business models asap



Three main streams of business models to explore:

1. RIs maintain their data management services and the federated instance
2. Link to other communities (e.g. life science, environment) or service providers
3. Establish a RI for the management of data services for the PaN communities (and beyond?)



Possible business models for the PaN services

- **Project funding -> for new developments (not operation)**
- **Agreements between RIs**
- **Agreements including other funding agencies**
- **Agreements with third parties**
- **New legal entity**



Possible business models for the PaN services

- **Project funding -> for new developments (not operation)**

+

Project funding is very convenient to develop further some of the solutions (e.g. EOSC Future)

It allows to expand the capacity of the RI (beneficiary)

It allows to team up with experienced partners

The outputs are usually made available for the whole community

-

Beneficiaries are usually a limited number of RIs

Cover the costs of new developments but not operation

Outputs need to be maintained after the project end -> a strategy is necessary

Limited timeframe and somewhat rigid structure



Possible business models for the PaN services

- **Agreements between RIs (more details later)**

+

Strong relationship of the RI with the issue

Some flexibility in the allocation of budget

Possibility to showcase the services and assess the impact

Freedom to decide the terms

-

RIs should allocate competing resources

RIs may have different capacities, both in terms of allocation of budget and personnel

RIs need to have an aligned vision on priorities

Limited capacity to enforce the agreements, so limited sustainability



Possible business models for the PaN services

- **Agreements including other funding agencies**

+

No need to redimension the budget of the RI

Some stability in the funding stream

Possibility to bring funders closer to RIs and their impact

Possible involvement of other national stakeholders

-

Could become a lengthy process

Need to reach the right person and communicate effectively

Difficulties due to different national policies may arise

The bureaucracy involved may be a burden for both, the funding agency and the RI.



Possible business models for the PaN services

- **Agreements with third parties**

+

Fast, flexible and usually easy to implement

Some degree of customisation may be possible (depending on the supplier)

Services provided by the best players in the area, up to date, assistance available, etc

Complete flexibility to adapt to demand or changing partnership

-

An exit strategy is needed, and may be painful

The sustainability depends on a third party

May be more standard solutions, not custom made

To benefit from economies of scale, most partners need to be on board



Possible business models for the PaN services

- **New legal entity**

+

- Long term sustainability
- Increased governance and specialisation
- Increased reactivity, more independence
- Single beneficiary for project funding
- Economy of scale

-

- It requires involving most facilities from the beginning. This may require long negotiations and quite some bureaucracy
- It may require involving the MS or other funders, committing to a long term investment
- Need to establish a governance that satisfies all parties



Possible business models for the PaN services

Agreements between facilities for specific services (specific)

PROS:

- Flexible: the partners involved and the conditions can change from service to service
- In response to a need (timewise)

CONS

- They require negotiation for every service
- Less efficient and partial
- The LT sustainability is weak
- Lack of a strategy



Possible business models for the PaN services

Agreements between facilities for all the services (framework + specific)

PROS:

- Comprehensive, following a strategy
- Require negotiation once, but cover all possible services

CONS

- They may require a longer initial negotiation and quite some information
- They may seem heavier for the Ris
- They require the onboarding of most facilities from the beginning



Understanding the context

Next WP 2023-3024 being discussed in these days (priorities), programme committee to meet in October

Has your facility adopted and implemented a data policy?

Are you aware of the costs involved in data management in your facility?

Do you have a dedicated funding for developing services and providing them
to your users?
to the wider community?



Your thoughts?



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