
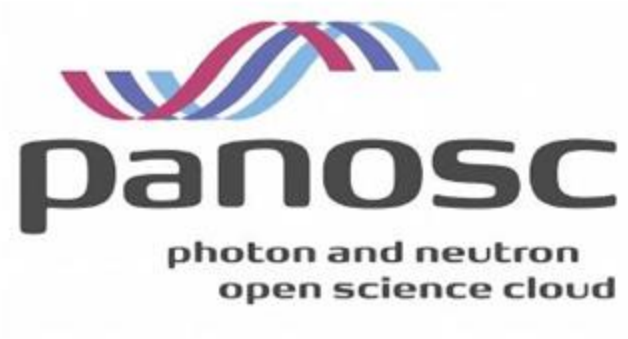


# Technical Talk - ELI

*8th of October 2020*

The ExPaNDS project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 857641.
The PaNOSC project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 823852.

# Overview

- ELI and involved people
- The Portal Architecture test experience
- COVID and the impact on the team’s roadmap

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# Facility

**ELI (Extreme Light Infrastructure)**

ELI Beamlines (CZ)

ELI ALPS (HU)

Beamlines in operation:

- Several beamlines are already operational
- We are still in the commissioning process (several beamlines will be operational in the near future)

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# Team

**Jakub Grosz** (ELI Beamlines)
Software Developer – RP6 Theory and Simulation: VBL Team
Expertise in UI,UX, Web 3D and VR/AR technologies
Will contribute to WP4 Data Analysis Services, 0,5 FTE

**Jiří Majer** (ELI Beamlines)
Software Developer – RP6 Theory and Simulation: VBL Team
Expertise in frontend web technologies
Will contribute to WP4 Data Analysis Services, FTE

**Mariana Kecová** (ELI Beamlines)
Software Developer – RP6 Theory and Simulation: VBL Team
Expertise in scientific visualization and Web 3D technologies
Will contribute to WP4 Data Analysis Services, 0,25 FTE

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# Team

**Teodor Ivanoaica** (ELI-DC International Association AISBL)
Senior Coordinator for Scientific Computation and Data Management
Expertise in Storage and Computing, Distributed storage and Computing technologies
Will coordinate the integration of the computing tools with the Portal

**Florian Gliksohn** (ELI-DC International Association AISBL)
Deputy Director - Integrated Organisational Development
Will contribute to WP 1 Management

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# Team

**Lajos Schrettner** (ELI ALPS)
Software Engineering Group leader - Engineering Department
Expertise in software engineering methodologies, programming languages, parallel and distributed computing technologies
Will contribute to WP3 Data Catalogue Services

**Tamás Gaizer** (ELI ALPS)
Software Architect
Expertise in database technologies
Will contribute to WP6 EOSC Integration

**Róbert Rácz** (ELI ALPS)
Software Engineer - Engineering Department
Expertise in database and web application technologies
Will contribute to WP3 Data Catalogue Services

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# The Portal Architecture test experience

- What went well?
  - Deployment on Kubernetes using Helm charts
  - Integration of frontend with related services
- What could go better?
  - More complete documentation including overall architecture of the portal and the search infrastructure
- What is the gap between what's in your facility and what the Portal needs?
  - Availability of infrastructure based on Search API
  - Finalizing deployment infrastructure (k8s, slurm + jupyter nb integration)

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# Portal prerequisites

- Name the features you would prioritize/what does the portal need in order to run in your facility?
  - Connecting local slurm manager w/ backend services
  - File catalogue creation / Data Management Systems / AAI integrations
  - Additional functionality for accessing other web services for users and facility staff: 3D experiment configurator, 3D interactive data visualization

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# Current technical challenges

- Bridge between DAQ and computing infrastructure
- Implementation of data catalogue
- Search API reflection - return its capabilities and available filters
- Integration of shared data portal and different computing infrastructures on the two ELI sites
- Portal work: scalable UI system, advanced search solution

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# Hiring

- WP3 + WP4: Software Engineer - DataOps (ELI BL)
- WP3: Data Engineer (ELI ALPS)
- WP6: Data Steward (ELI ALPS)

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# COVID-19 and the impact on your team

- Delayed work on computing infrastructure for remote data analysis
- Delayed hiring

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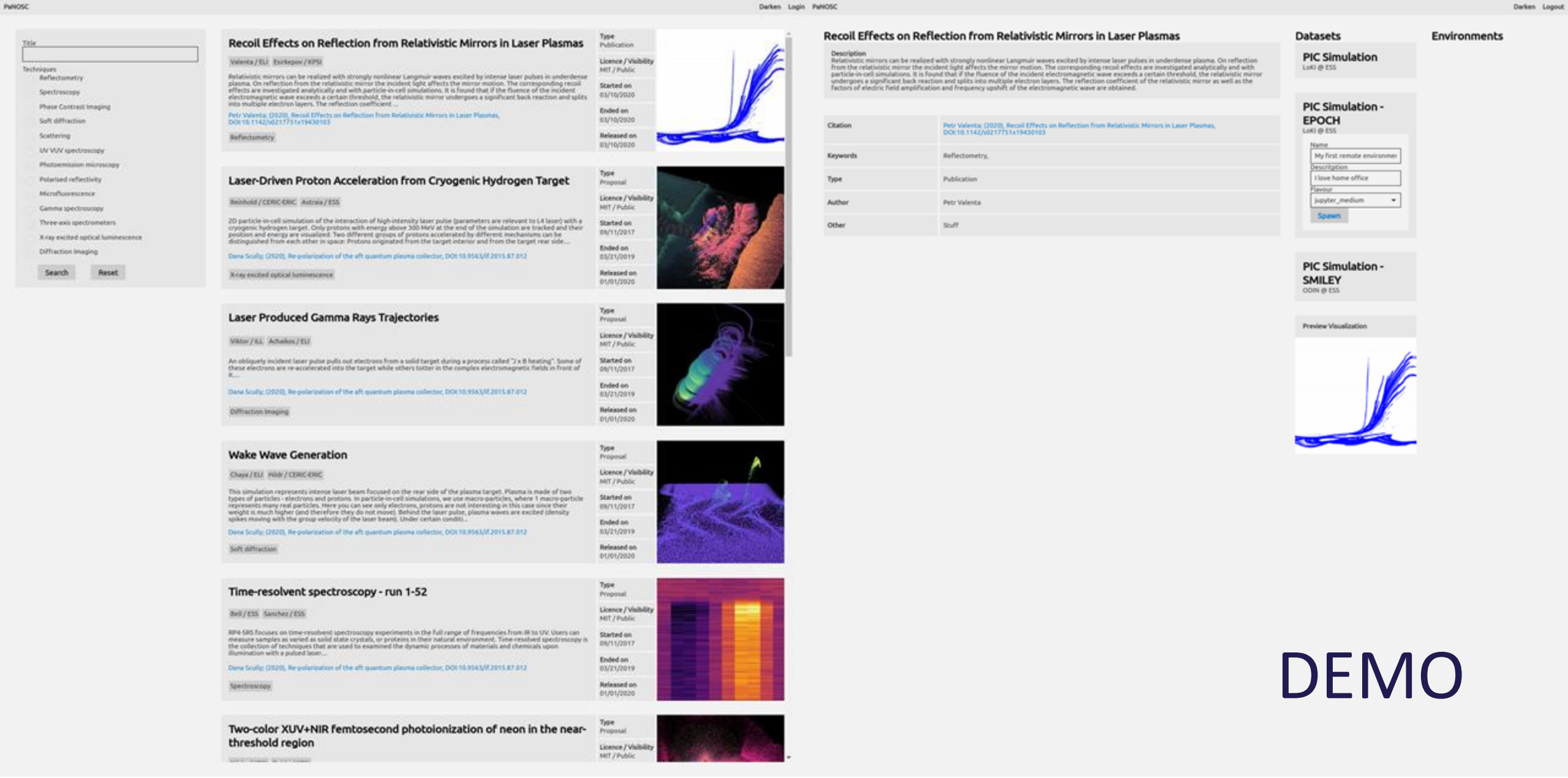


DEMO

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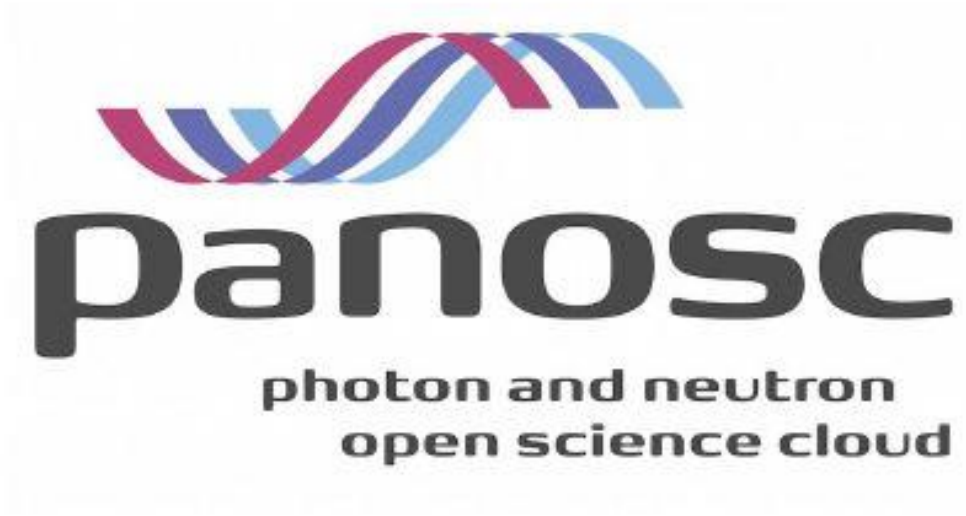


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