Technical Talk

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

- CERIC-ERIC and our team.
- The Portal Architecture test experience
- Progress status report
- COVID and the impact on the team’s roadmap

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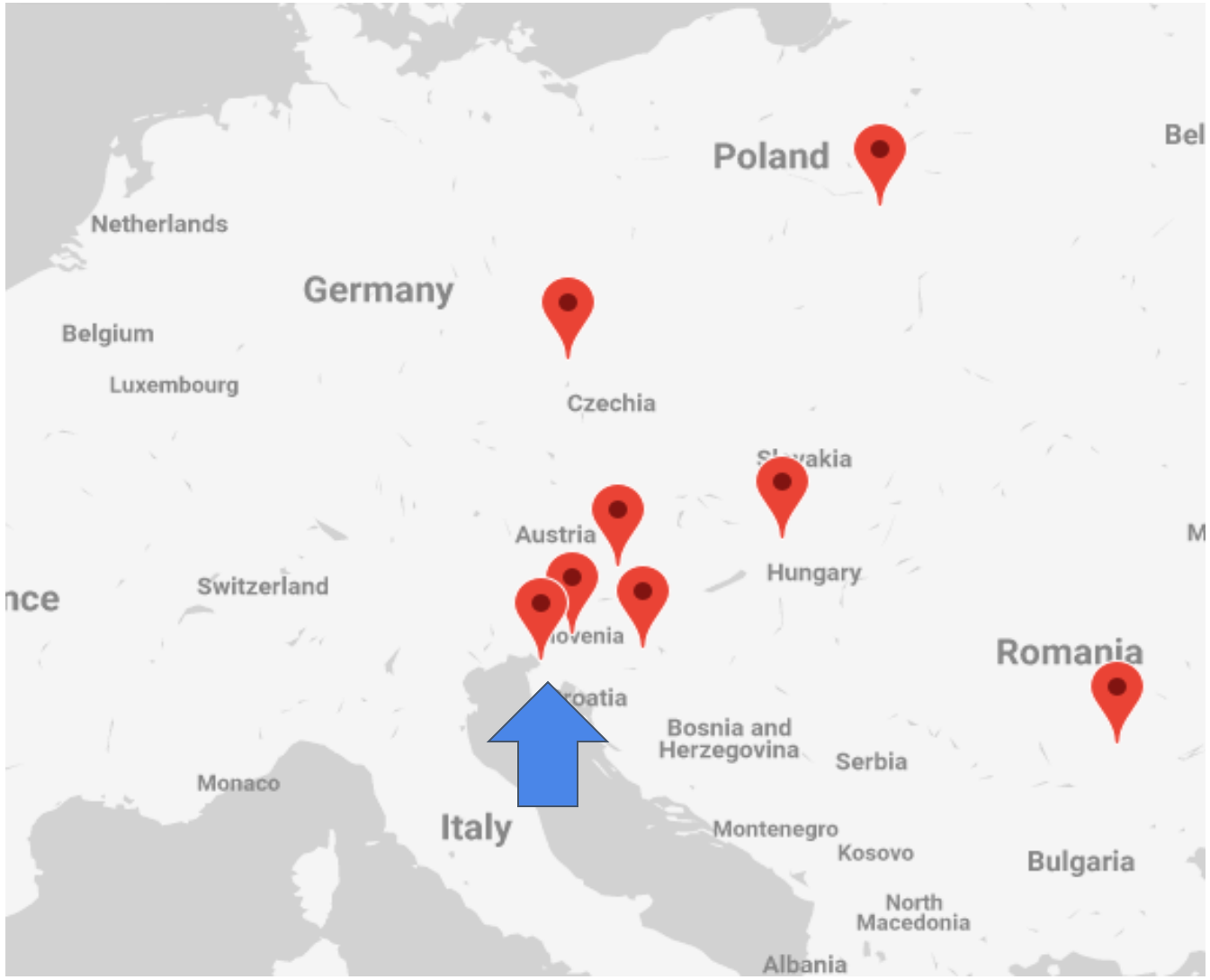
CERIC Facilities

CERIC-ERIC includes many facilities:

- Small angle scattering - Graz University of Technology
- Ion beam - Ruđer Bošković Institute
- Surface science - Charles University Prague
- Neutron source - Hungarian Academy of Sciences – Centre for Energy Research
- Elettra Sincrotrone Trieste
- SOLARIS - Polish Ministry of Science and Higher Education
- Electron microscopy - National Institute of Material Physics
- NMR centre - National Institute of Chemistry

red = synchrotrons
green = neutron sources
white = other

Test deployment is being performed on Elettra, located in Trieste, Italy, with the purpose of building a mini-EOSC with all our facilities.



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Team

Aljosa Hafner
Computational Physicist
Expertise in scientific computing and optics
Contributes to WP5, cloud simulation environment (Oasys)

Andrea Lorenzon
Data Scientist / Developer
Expertise in statistics, python, modeling
Contributes to WP4 Data Analysis tools (h5nuvola).

Daniel Webster
Open Science Consultant
Expertise in OpenShift
Contributes to WP3 Data Catalogue, WP4, Containerization

Marco De Simone
System Administrator/Developer
Expertise in DevOps, Kubernetes, python/html5
Contributes to WP3 Data Catalogue, WP4, RAFEC

Alessandro Olivo
Software Developer
Expertise in Python, C++, Tango Control System
Contributes to WP3, Data and Metadata acquisition

Emiliano Coghetto
Web Developer
Expertise in Web Development
Contributes to WP3 Data Catalogue, WP4

(we are not hiring extra personnel at the moment)

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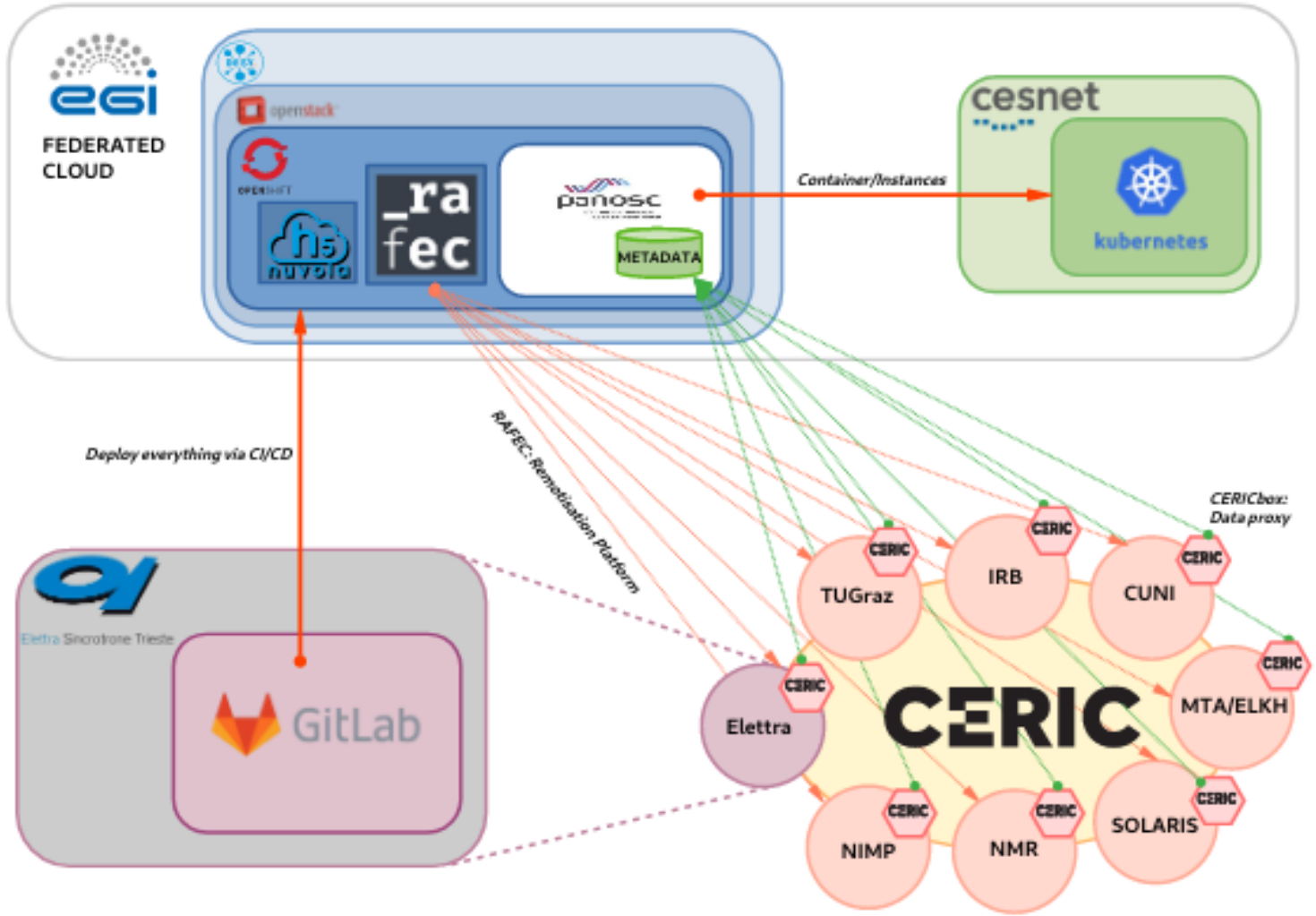
The Portal Architecture test experience

- OpenShift/K8s clusters deployed at EGI
  Elettra Gitlab serves as CI/CD for CERIC
- Towards automated deployment
  The frontend Portal is not ready

gap: CERIC needs to implement a "Mini-EOSC" in order to federate our IDs and data, and this will take infrastructure.



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The Portal Architecture test experience

Component	Status
Frontend	
API Service	
Database	
ICAT data catalogue	
Cloud Service	

Component	Status
Desktop service	
Cloud provider Kubernetes	
Account Service	
Integration ?	

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Facility needs for the Portal

- Name the features you would prioritize/what does the portal needs in order to run in your facility?
  - Integration with existing Virtual Unified Office
  - Singularity compatibility

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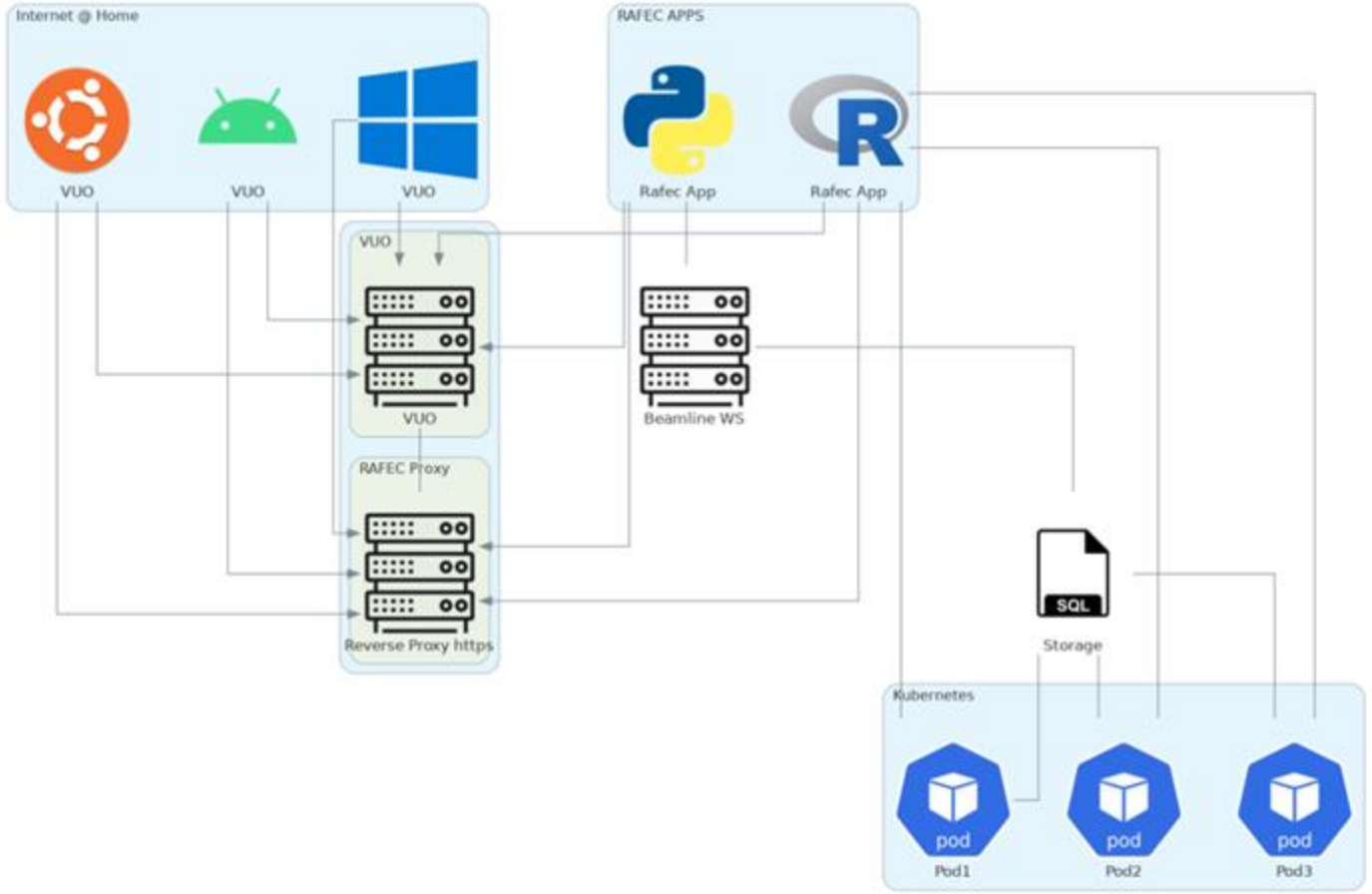
COVID-19 and the impact on our team

For 2020, the IT department had to change its priorities and focus on:

- Remotization: users can **access** many **control system** computers for **data acquisition** using just a **browser**
- Remote working: the team is **delocalized**, almost everyone working from home. **Smart working** needs async communication systems, less videoconf more documentation



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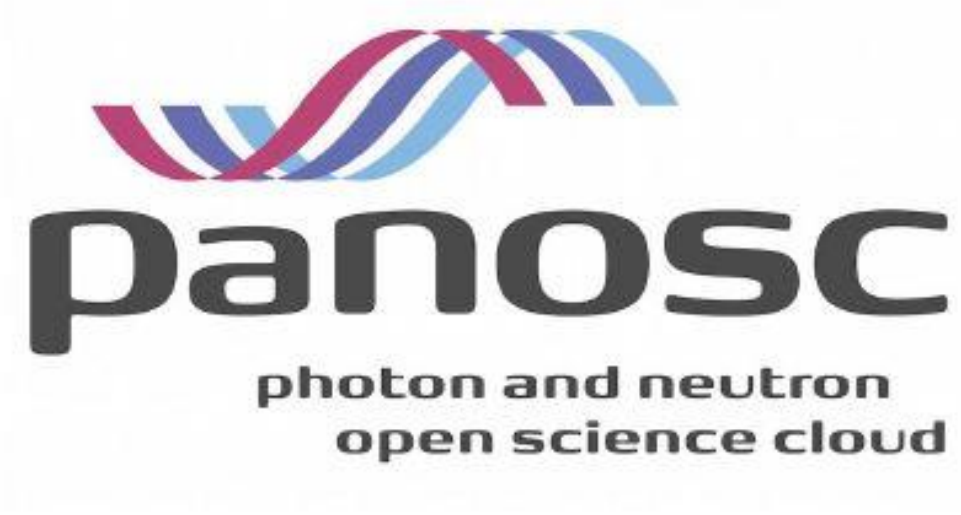

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