Overview

- Facility: Elettra Sincrotrone Trieste
- Team: Roberto Pugliese, Georgios Kourousias, Ivan Andrian, Iztok Gregori, Dario Palmisano
- The Portal Architecture test experience
- COVID and the impact on the team’s roadmap

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.

Facility

Elettra - Sincrotrone Trieste S.C.p.A.
S.S. 14 - km 163,5 in AREA Science Park
34149 Basovizza, Trieste, Italy

ELETTRA third-generation italian synchrotron radiation facility (28 Beamlines)
FERMI seeded free electron laser (FEL) facility (6 Beamlines)

TwinMic	MCX (Materials Characterisation by X-ray diffraction)
Nanospectroscopy	ALOISA (Advanced Line for Overlayer, Interface and Surface Analysis)
NanoESCA	BEAR (Bending magnet for Emission, Absorption and Reflectivity beamline)
storage ring FEL	LILIT (Laboratory for Interdisciplinary LIThography)
ESCA Microscopy	BACH (Beamline for Advanced diCHroism)
SuperESCA	SISSI (Synchrotron Infrared Source for Spectroscopy and Imaging)
Spectro Microscopy	APE (Advanced Photoelectric Effect experiments)
VUV Photoemission	X-Ray Fluorescence
CiPo (circula Polarization)	DXRL (Deep X-ray lithography)
SAXS (Small Angle X-ray Scattering)	IUVS (Inelastic Ultra Violet Scattering)
XRD1 (X-ray diffraction 1)	BaDElPh (Band Dispersion and Electron-Phonon coupling)
Materials Science	XAFS (X-ray Aborption Fine Structure)
SYRMEP (SYnchrotron Radiation for MEdical Physics)	XRD2 (X-ray Diffraction 2)
GasPhase Photoemission	Xpress (High pressure diffraction beamline)
EIS-TIMEX (Elastic and Inelastic Scattering)	LDM (Low Density Matter)
EIS-TIMER (Elastic and Inelastic Scattering)	TeraFERMI
DiProI (Diffraction and Projection Imaging)	MagneDYN

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JRA2 Elettra Team

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System Analyst

Iztok Gregori

System Administrator

Dario Palmisano

System Administrator

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The Portal Architecture test experience

- The backend and frontend was well developed and smoothly put in place, the integration with Umbrella and Guacamole required some effort
- Tests were conducted on a single system using docker containers, enough for appreciating the communication mechanisms
- The availability of time and a more extensive testing infrastructure would have allowed an “almost production” deployment

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Facility needs for the Portal

Should the Portal service become a production deployment, larger resources should be put at work, one of the most useful could be a Kubernetes cluster

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COVID-19 impact

- Italian Government and Elettra promptly adopted several measures to contrast pandemic like lockdown and “Smart Working”
- Lockdown →
  - most colleagues started working from home
  - only few colleagues worked on premises
- Selected experiments were carried out in a “sample mail-in mode”
- Support to the smart workers was done via remote desktop access and control

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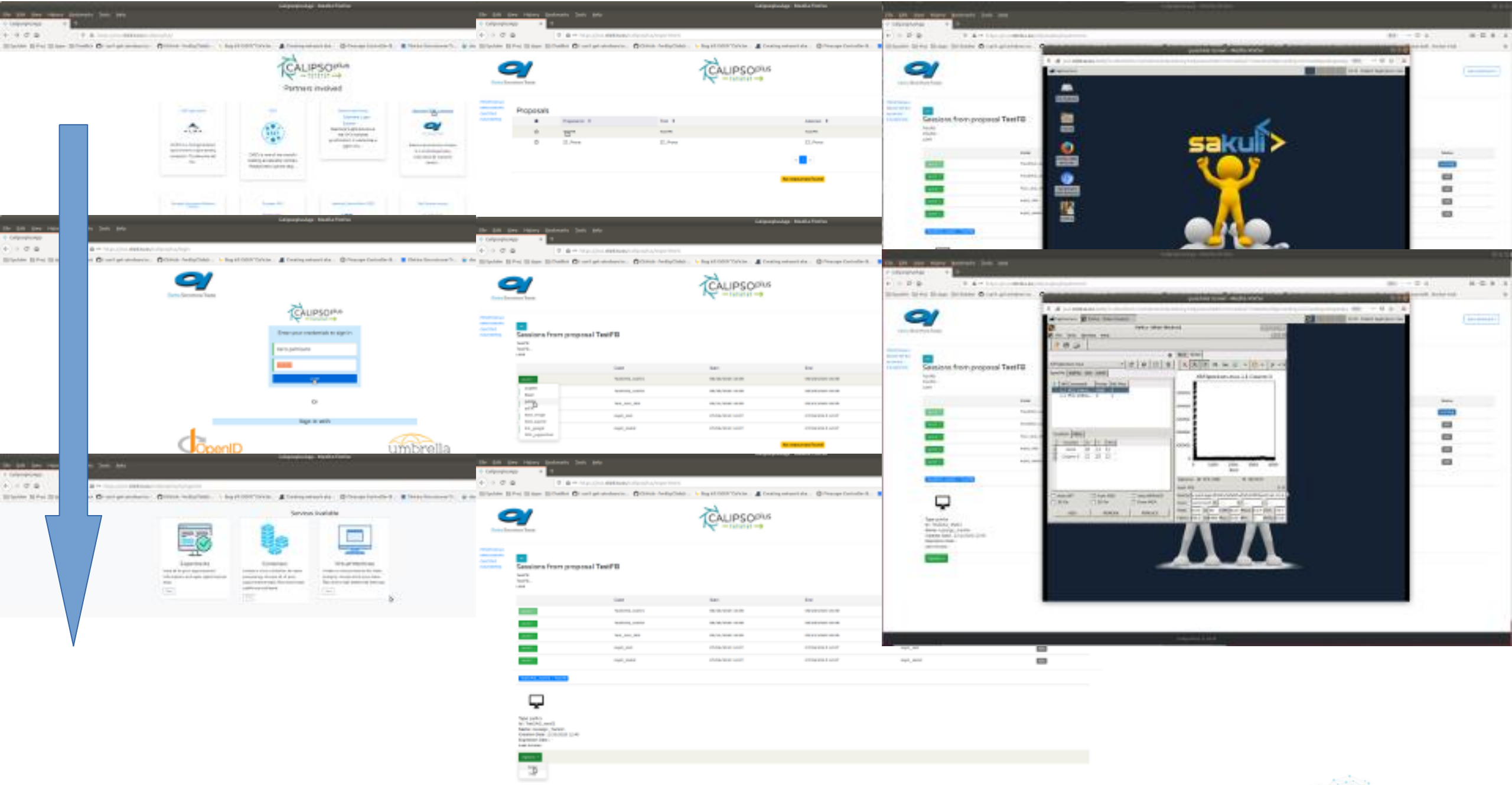

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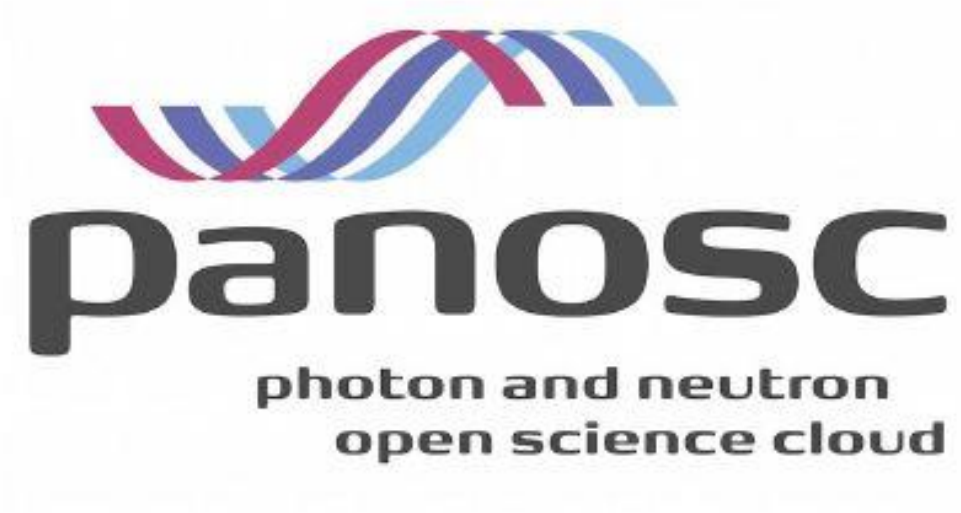

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