The Institut Laue-Langevin is the largest neutron scattering facility (38 instruments, 4500 users every 18 months, 3 associate countries + 11 scientific partners, 200 days of operation per year at 58MW).

European neutron scattering user community:
- 12000 users every 18 months (rate of 30% to 50% new users every 24 months) shared amongst 6 major EU facilities
- Embraces extremely diverse scientific communities: condensed matter physics, chemistry, biology, nuclear & particle physics, materials science ... A mix of small (<10) and medium size (<100) collaborations.
- In its form, very similar to X-Ray facilities’ user community. 30% of users in common.

Huge data volume increase (70 TB for a single experiment vs 100’s MB) -> change of data access/transport/analysis paradigms: from network/usb disks -> to cars -> to no more raw data movement but analysis performed on facility premises.

ILL Open Data Policy (3 to 5 years embargo period) which came into force in Oct 2012, 1st data recently made publically available.

Raw experimental data archived at the ILL (since 1973).

PaNData: Strong Data Infrastructure collaboration between X-Ray and Neutron facilities (Data policy framework, FIM - Umbrella, data portal, ...).
Challenges:

- Building **on premises analysis capacity** for users’ data analysis/reduction and “live analysis” that could **easily be extended**. During experiments, analysis is used to calibrate and correct errors, latency is a key issue in that usage.
- **Complement the local analysis capacity for facility users** when resources are insufficient. It should provide access to data, software and hardware resources.
- Data treatment resources for non facility users and public - **open data**. RIs could provide data but have no mandate to provide resources for this purpose.

Key elements / Potential issues:

- Open standards (APIs, metrics, contract, ...)
- A global and useable FIM (AARC project currently seems to understand well the problematics)
- Scientists involvement
- Governance and funding models

Potential solutions have been discussed and elaborated by EIROForum IT-TWG: [http://zenodo.org/record/7592](http://zenodo.org/record/7592) & [http://dx.doi.org/10.5281/zenodo.13148](http://dx.doi.org/10.5281/zenodo.13148)

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