

Vision for the DMSC

The other site

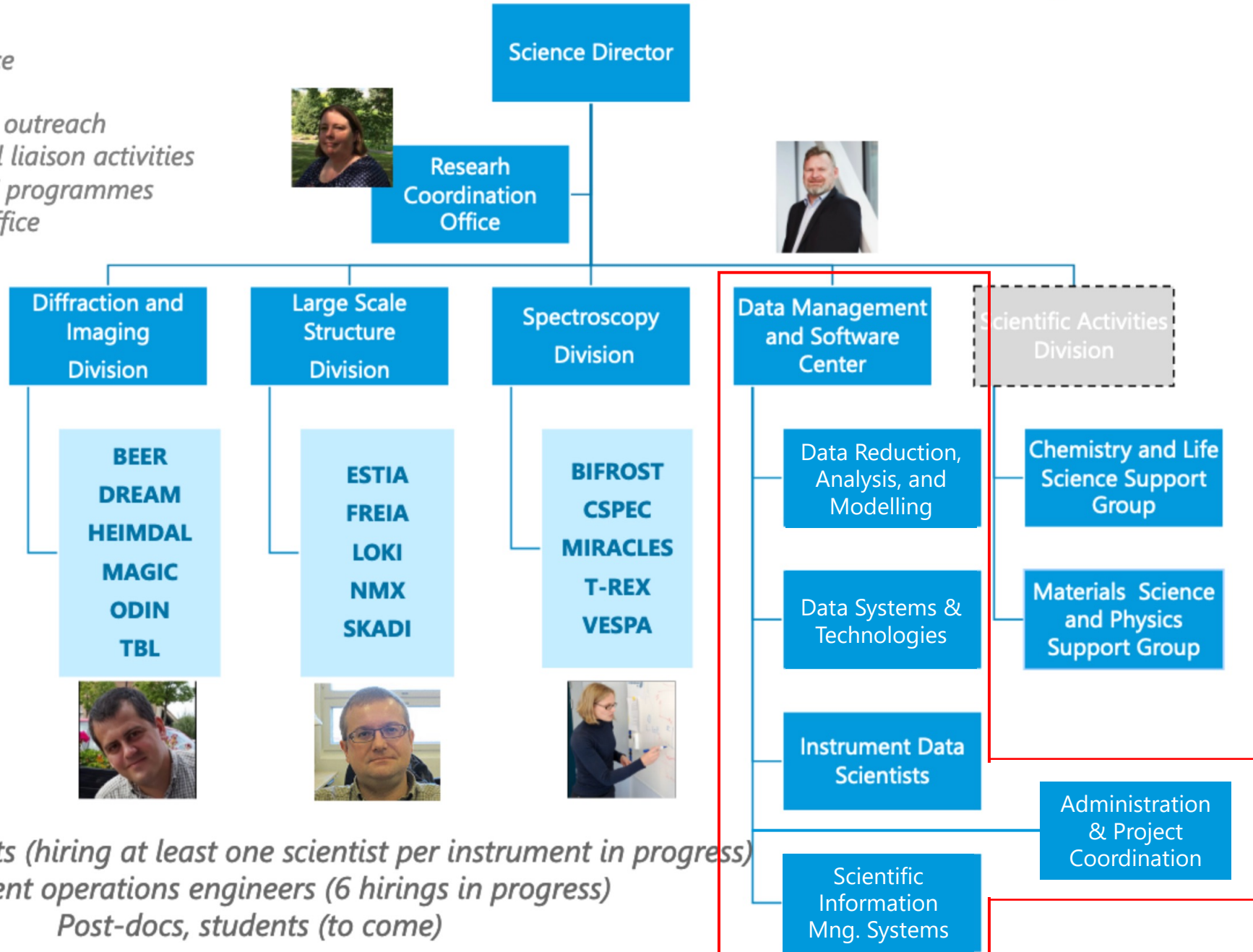
past, present & future

THOMAS HOLM ROD, HEAD OF THE DMSC DIVISION

Science Directorate new organogram 1st January 2024



- ❖ *User office*
- ❖ *Library*
- ❖ *Scientific outreach*
- ❖ *Industrial liaison activities*
- ❖ *Students' programmes*
- ❖ *Grants office*



Instrument scientists (hiring at least one scientist per instrument in progress)

Instrument operations engineers (6 hirings in progress)

Post-docs, students (to come)

Technical Design Report (2013)

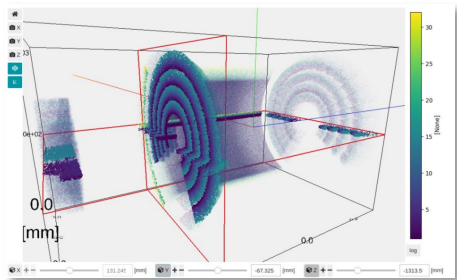
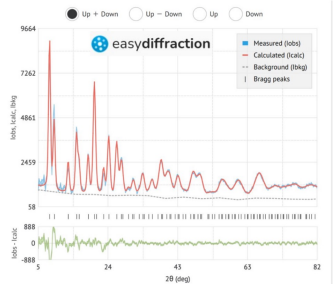
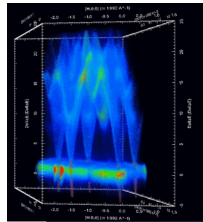
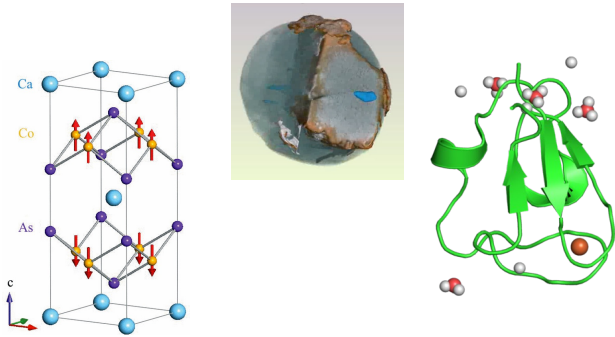


Importance of computing was emphasized already in design phase

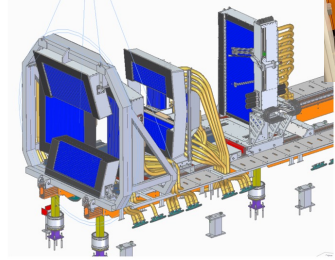
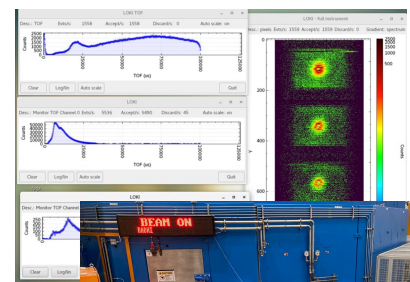
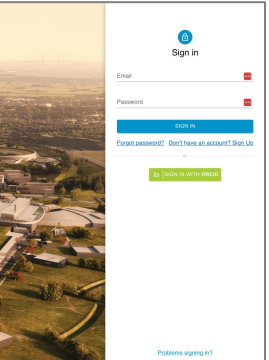
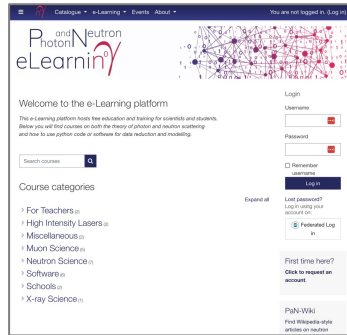
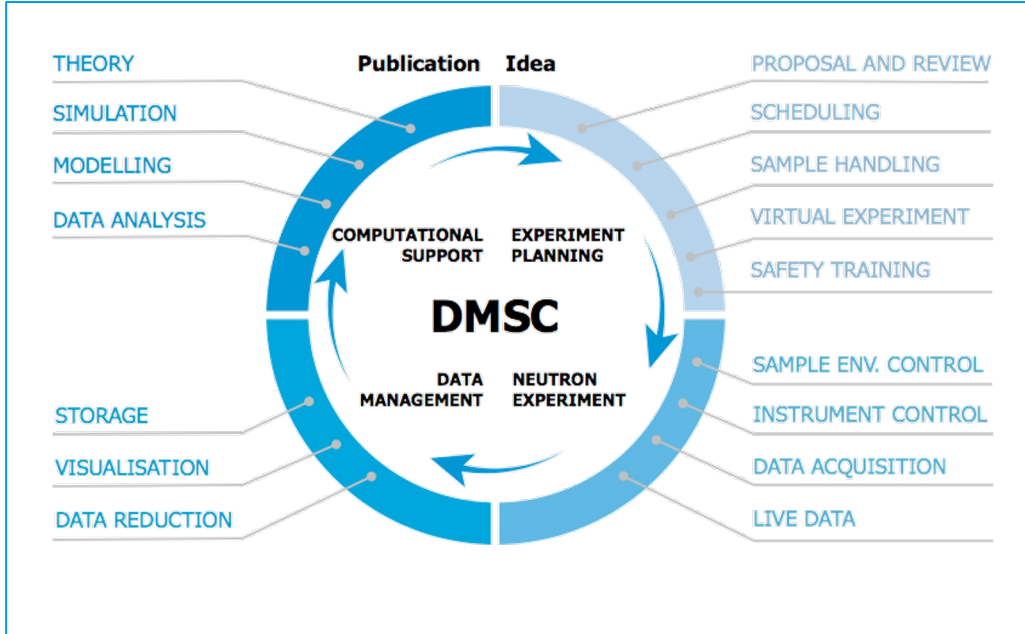


User journey

Support user from idea to publication with scientific computing tools & services



Search	Results
Search	1-31
1	10/10/2024
2	10/10/2024
3	10/10/2024
4	10/10/2024
5	10/10/2024
6	10/10/2024
7	10/10/2024
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31	10/10/2024





ESS has two sites and two host nations

DMSC is the site in Denmark



The illustration depicts two landmasses separated by a body of water with a bridge. The left landmass features a building, an ESS flag, and the Swedish flag. The right landmass features a building labeled 'DMSC', an ESS flag, and the Danish flag. The background is a light blue gradient.

Contact ESS

The European Spallation Source is based in Lund, Sweden. Our Data Management & Software Centre is north of Copenhagen, Denmark.



High ambitions and expectations

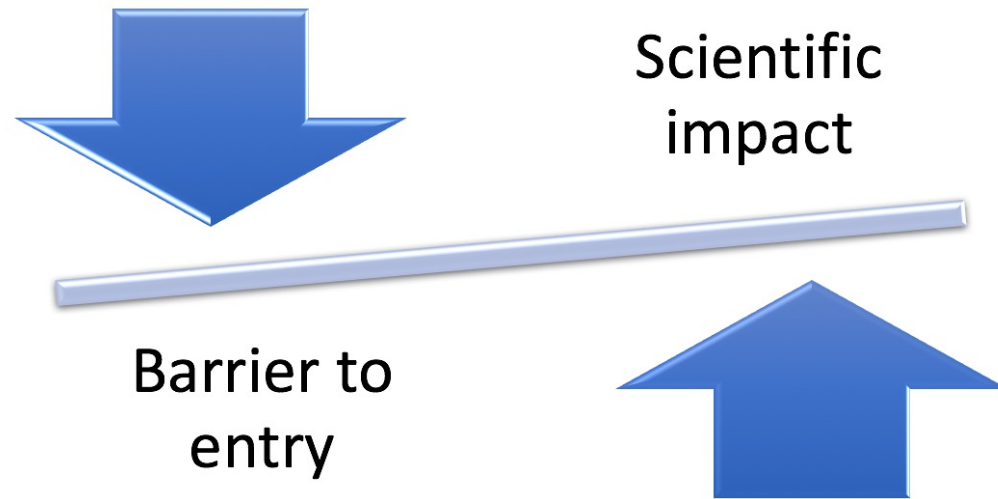
DMSC Vision (Helmut's version) presented at e.g. IKON and for council

ESS's DMSC site will be recognized as one of the major international players in its field. It will be recognized for its outstanding role in enabling scientific experiments at the world's most powerful neutron source and in converting the outcome of these experiments into scientific knowledge and knowhow of the highest impact.



We are aiming to

Minimise the time it takes to analyze and interpret experimental data

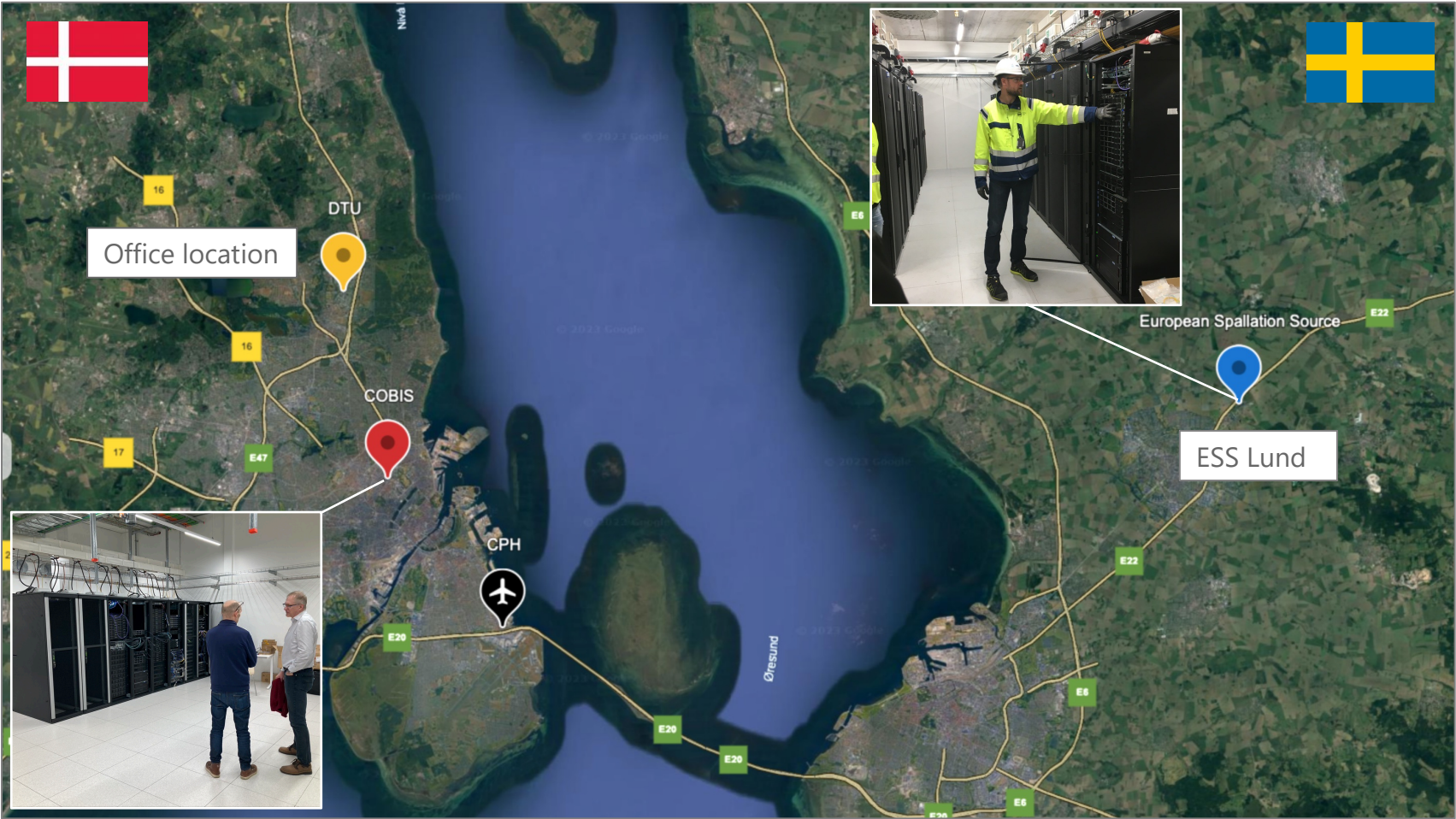


Facilitate that users will leave the facility with results

Maximise the scientific impact and success of ESS by serving the needs of both non-expert and advanced users

DMSC office location

Geographic distribution of DMSC activities





New DMSC offices

In the campus of Technical University of Denmark



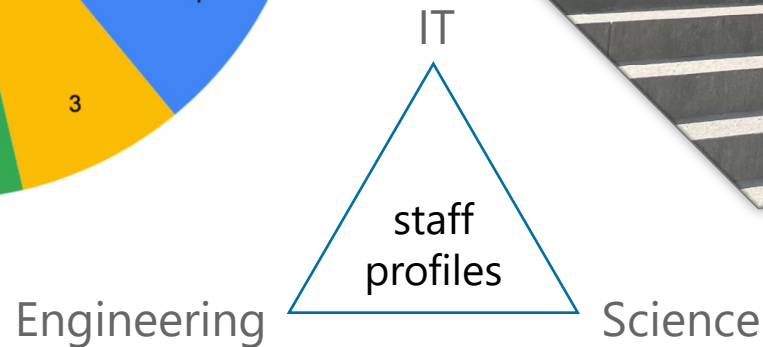
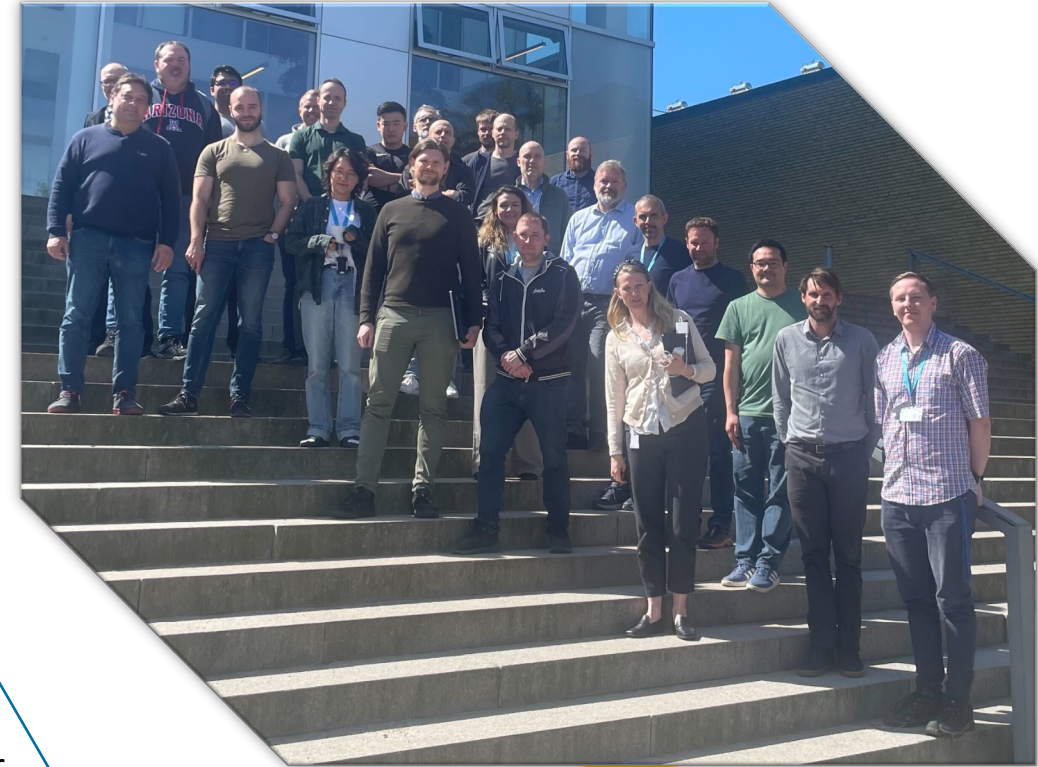
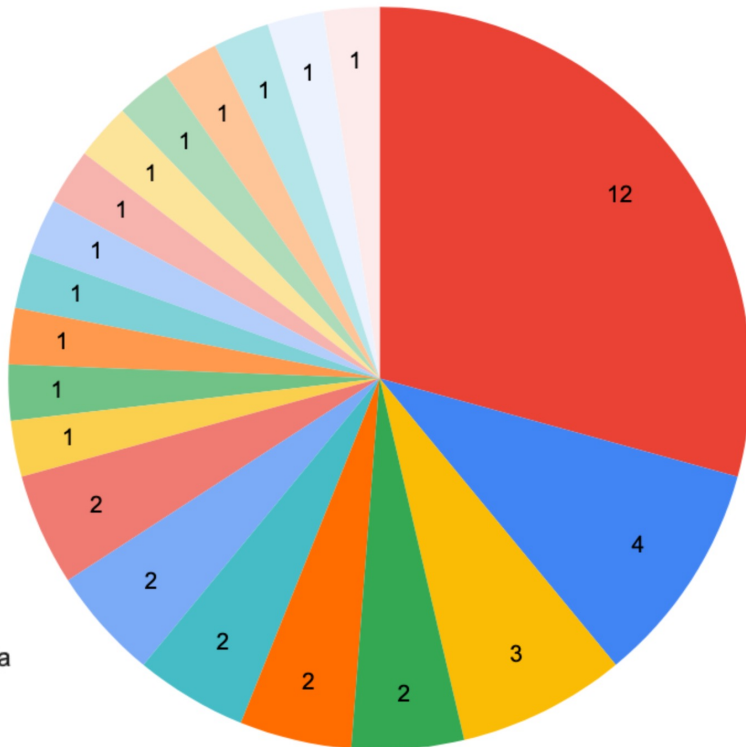
Who are we at DMSC?

DMSC has attracted highly skilled staff internationally

41 staff members (incl. ECDC-DK, consultants and student workers)

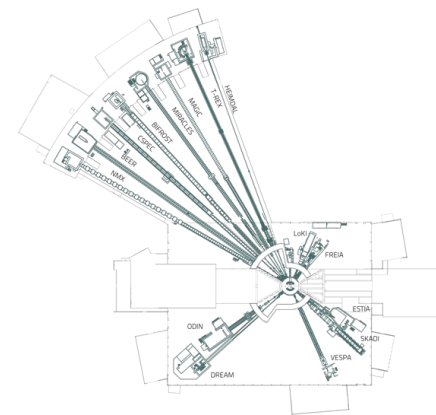
Nationalities

- Denmark
- Sweden
- Germany
- France
- Hungary
- India
- UK
- USA
- Australia
- Belarus
- Brazil
- Bulgaria
- China
- Iceland
- Italia
- North Macedonia
- Poland
- Romania
- South Korea



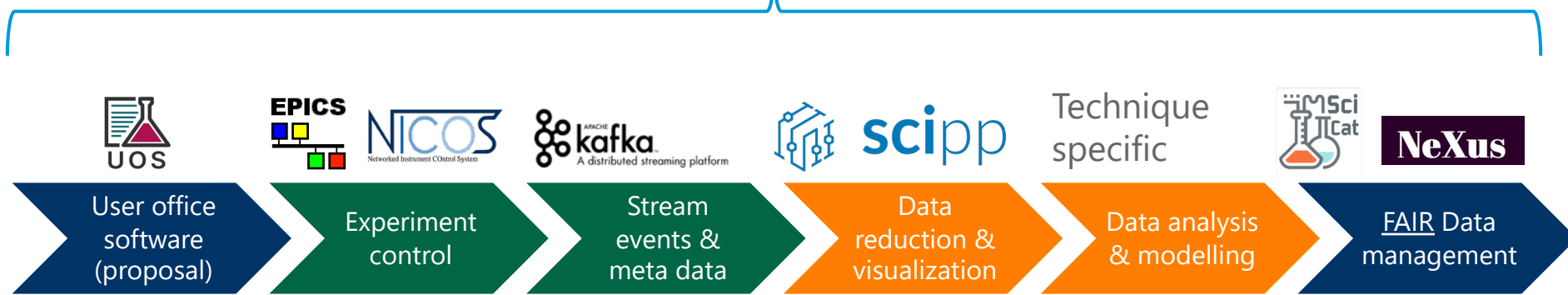
Integrated data pipeline

for each instrument



Instrument Data Scientists:

- Interface to instrument teams
- Customization to instruments
- User support

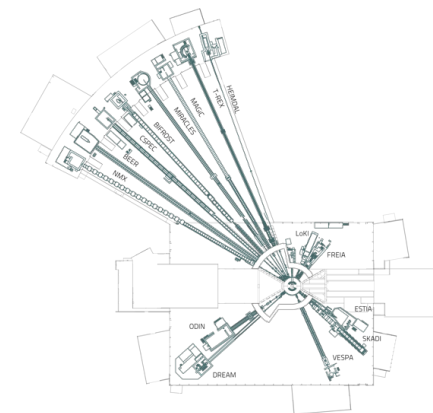


Data Systems & Technologies:

This block features a green background. On the left, the text 'Data Systems & Technologies:' is written in white. To the right, there are three logos: VISA (a blue and green circular logo), jupyter (an orange circular logo with a white 'j'), and Remote Access (text below the jupyter logo). Further right is a photograph of a person in a high-visibility vest and hard hat standing in a server room aisle, pointing towards a rack of servers.

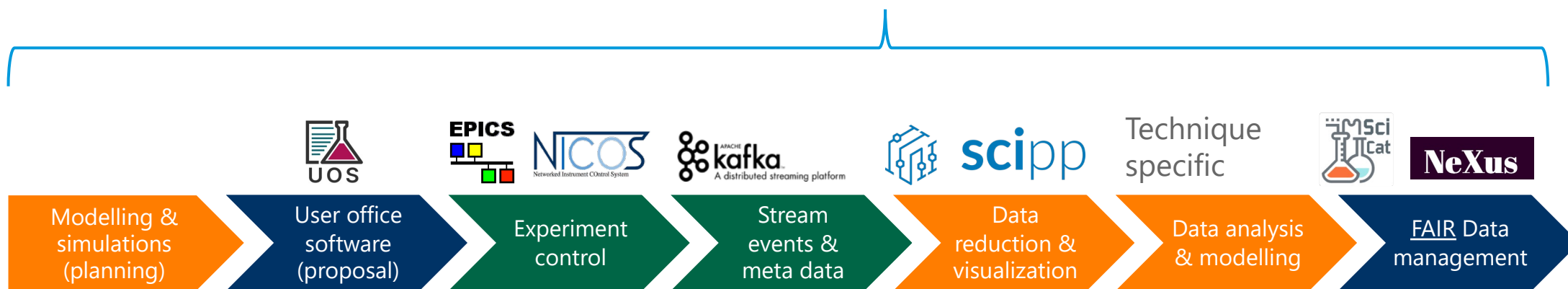
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Data Systems & Technologies:





Staffing (SSO)_{Now}

SSO 2028

Administration



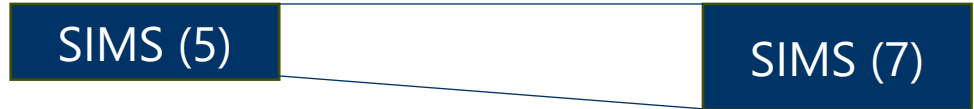
Mng, Admin, and staff support

Data Systems & Technologies



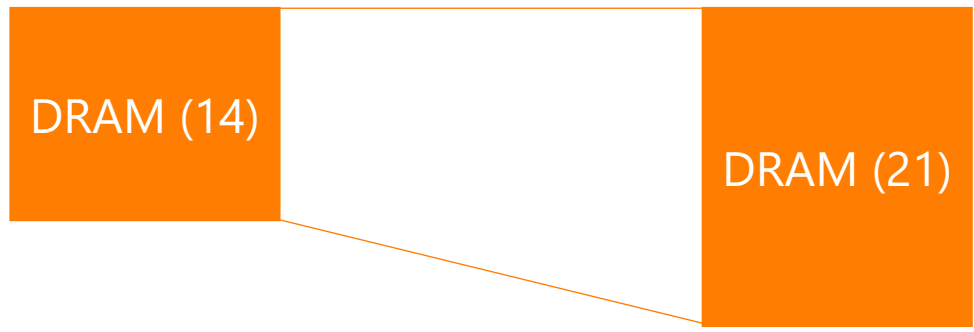
Storage and computing infrastructure, Less staff will be needed in 2028

Scientific Information Management Systems



User office, data catalogue, data curation. Likely too small!

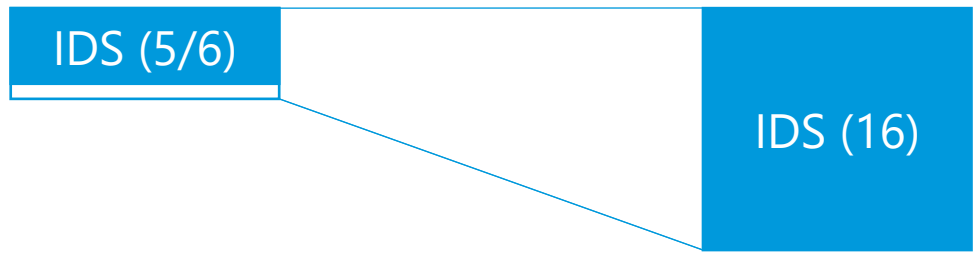
Data Reduction, Analysis, and Modelling



Data reduction, modelling, and simulations software.

Support to instrument teams with instrument simulations

Instrument Data Scientists



*1 FTE / instrument
Hands-on support for analysis and modelling. Research activities.
University collaborations.*

Questions

