

Facility Update & Information about 11th Call for Proposals



Serguei Molodtsov

Scientific Director, European XFEL

Virtual user information meeting -11th call for proposals

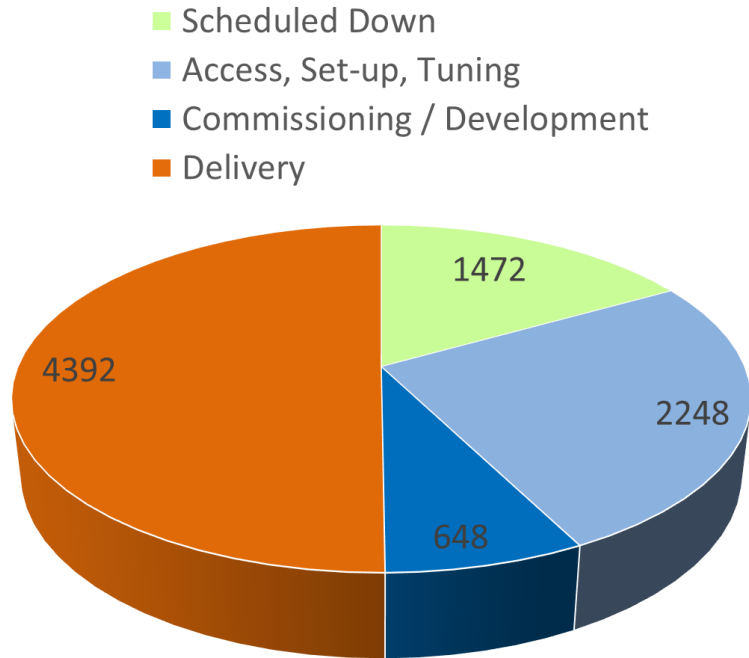
Remote Meeting, Schenefeld/Zoom

20 April, 2023

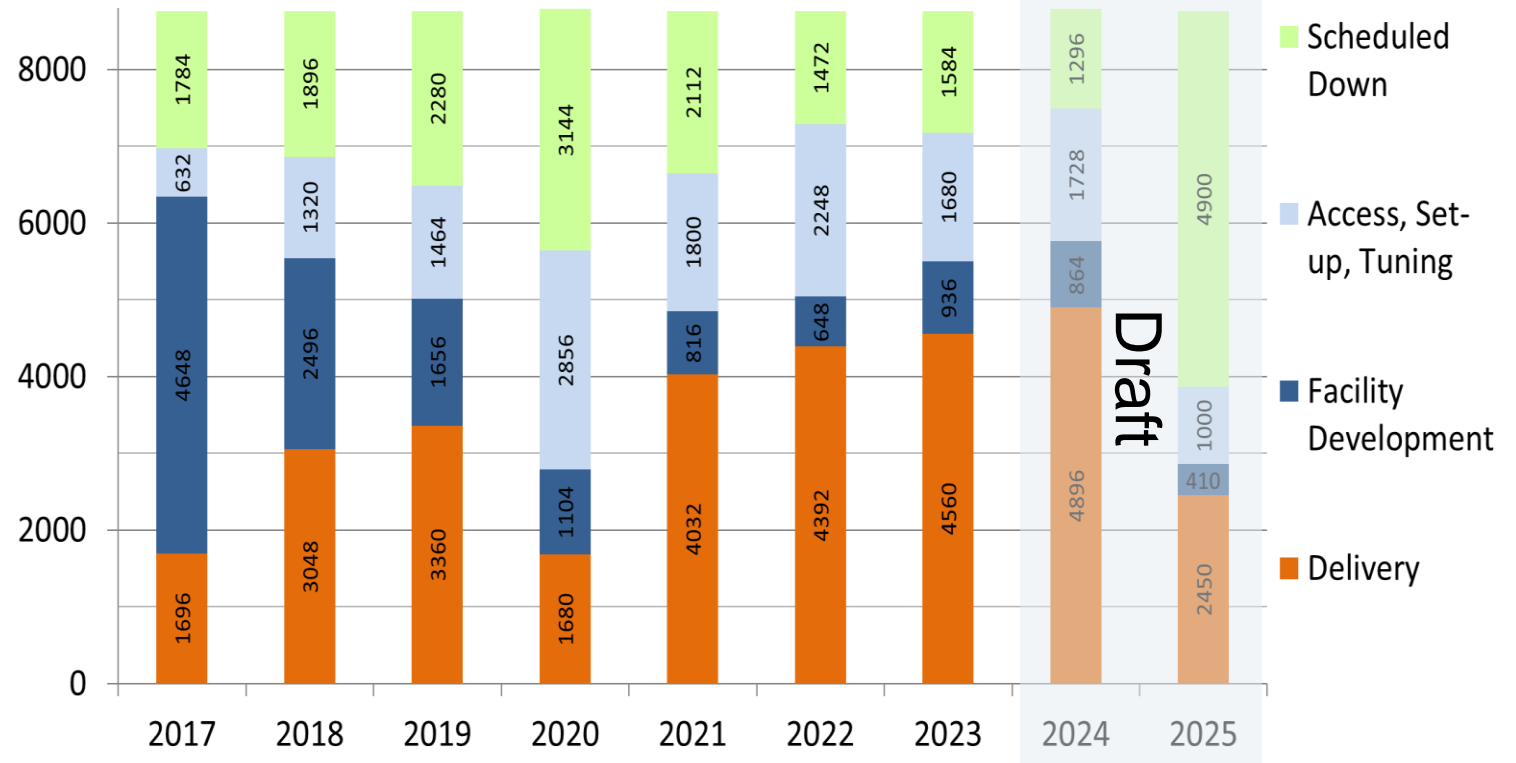
Status of operation 2022/23

Over 4000 hours of scheduled X-Ray Delivery

Operating hours distribution 2022

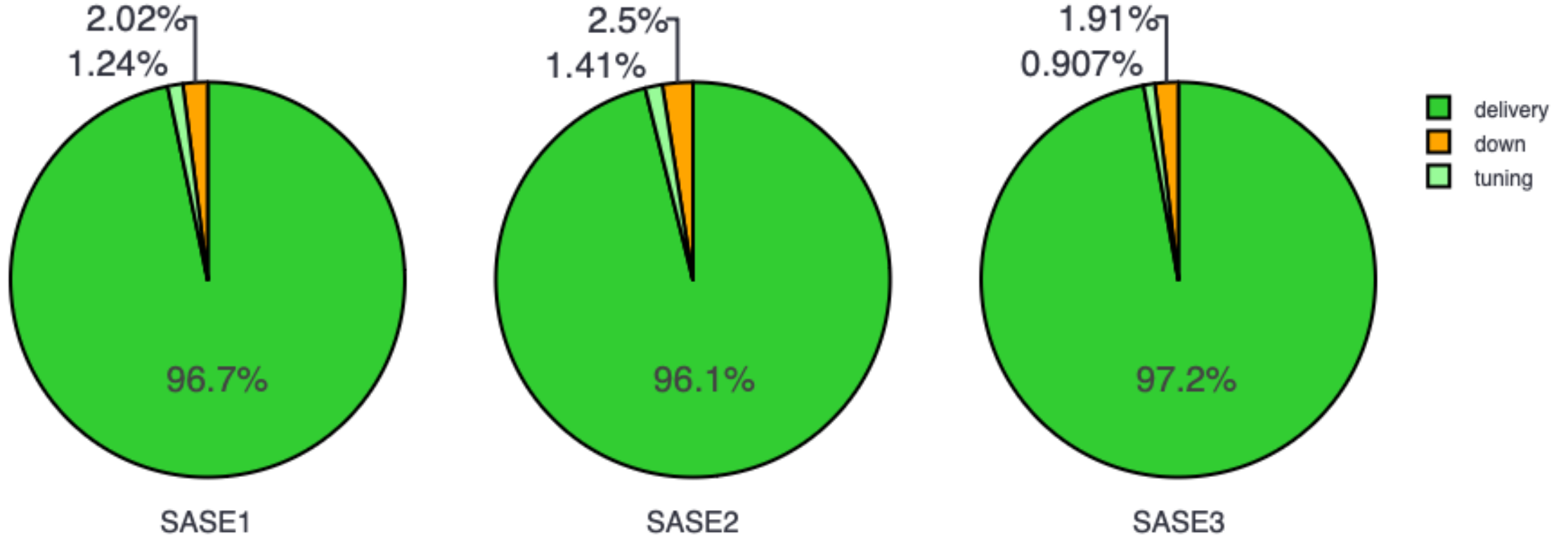


Development since start of the facility



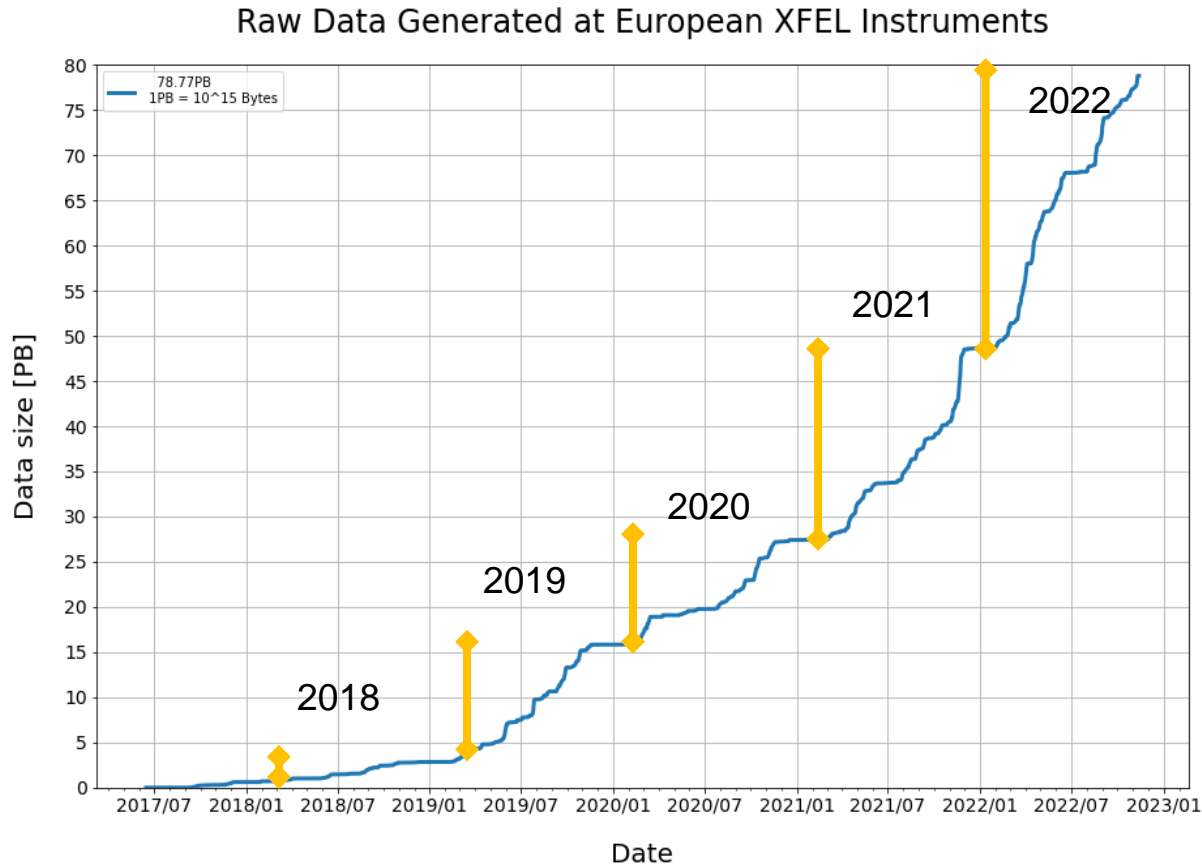
Accelerator performance

Summary for 2023 week: 9 to 13 from 2023-02-28T07:00 to 2023-04-03T07:00 24.0 days (576.0 h)



Data becoming ever more important

The DOC approach has been very successful

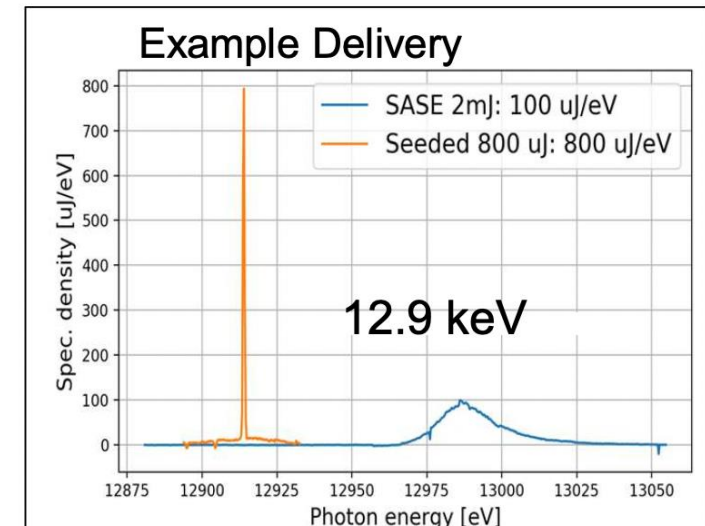
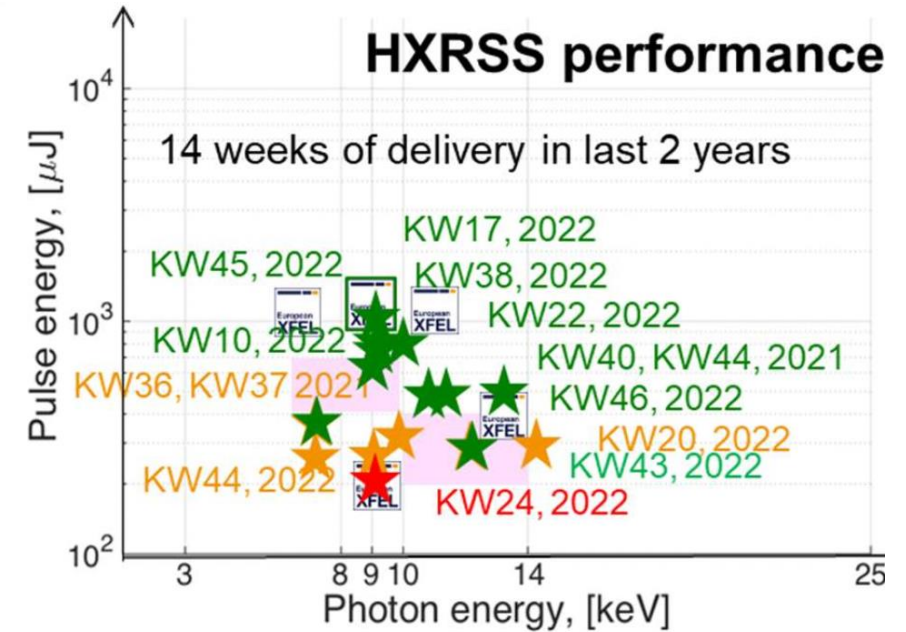


Karabo will become open source in 2023
Positive user comments on Karabo

New developments and capabilities

HXRSS delivery

- 14 weeks delivered so far
- 13 (out of 30) weeks requested for 2023
- 7 keV to 14 keV with up to 1 mJ pulse energy
- Up to 400 bunches with little performance variation
- Performance depends crucial on initial set-up, sometimes not sufficient time after parameter changes or technical problems before ,common' tuning knobs are frozen
- Bandwidth control better understood, should be able to further improve
- Pedestal control better understood, align measurements of experiment and facility

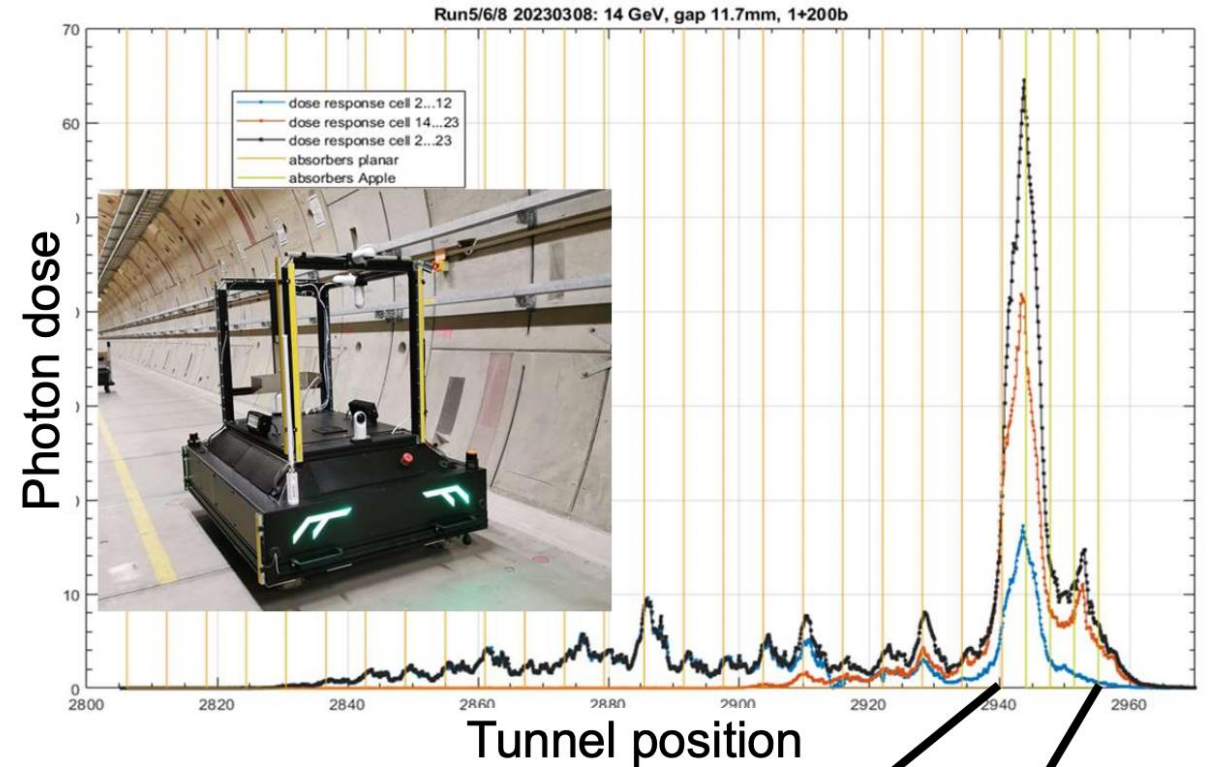


APPLE-X Undulators in SASE3

First lasing in APPLE-X undulators at various polarization settings

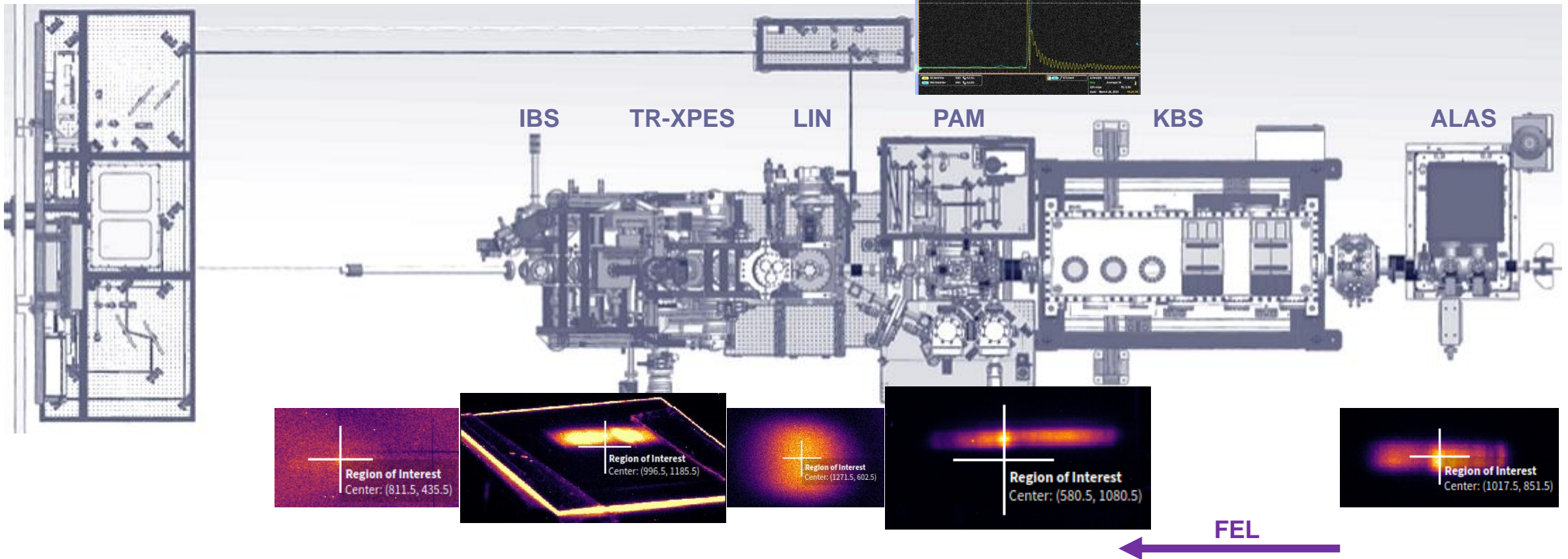
Motors show radiation damage from spontaneous synchrotron radiation from upstream undulator

- APPLE-X undulators removed in summer 2022
- Repair of motors successful, field measurement going on
- Re-installation pending verification of shielding measures



SXP updates

- FEL beam aligned through all components
- First time signal in the PAM wire



Beamtime to Users

2022: The first year really close to full user operation

	2018 (FXE/SBP/SCS/ SQS only)	2019	2020	2021	2022
Instrument Hours	1 356	3 348	1 908	4664	8080
No. of experiments	25	56	23	44	95
User Publications	2	4	15	16	18

- 8 080 instrument hours to users in 2022, closer to our mid-term target of 10 500
- Strong increase in number of user experiments (incl screening experiments)
- Slow increase in user publications – delayed by ~2 years?
 - *Stronger focus on user publications in the beamtime review process*

Previous runs - allocation

	Call 8	Call 9	Call 10
Allocation period	2022-II	2023-I	2023-II
Total proposals submitted	167	156	157
Allocated	49	46	44 (*)
Success rate	29%	29%	28%

■ (*) acceptances still pending

Call 11 and user access

Event	Dates / deadlines
User run 2023-01	Feb-June 2023
Call for Proposals 11 - deadline	11 May 2023 16:00 CEST
Experiment reports due	15 May 2023
Proposal Review Panel Meetings Call 11	28-29 & 29-30 June 2023
User run 2023-02	Aug-Nov 2023
Outcome call 11	October 2023
User run 2024-01	Feb-June 2024

Next call 12 (run 2024-02): October 2023

Events and News 2023

Users' Meeting 2023

- UM2023: Over 1100 scientists from over 25 countries
- UM2022: more than 2000 (2117) scientists from 40 countries
- UM2021: around 2000 (2095) scientists from 40 countries
- UM2020: more than 1300 scientists from 28 countries
- UM2019: around 1100 researchers from 30 nations

342 Posters

73 for EuXFEL Facility

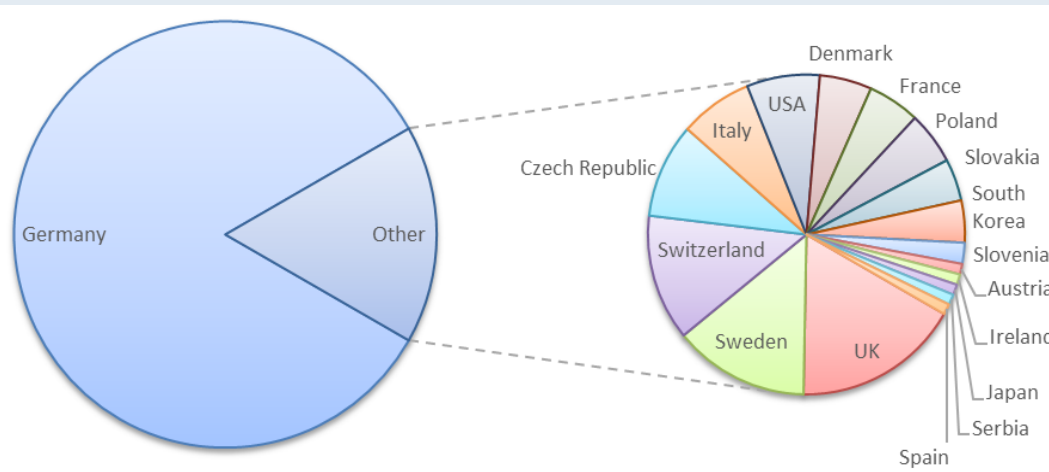
38 staff posters (@xfel.eu)

636 On-site participants

570 Badges picked up

70 Late registrations

On-site participants by country



5 Satellite Meetings from EuXFEL

Plenary Zoom

EuXFEL Session

- 196 concurrent viewers
- 338 unique viewers

FLASH Session and Joint Soft X-Ray Session

- 106 concurrent viewers (excluding panelists)
- 247 unique viewers



Elke de Zitter (L) receives Young Scientist award from Andrea Eschenlohr, Chairwomen of the European XFEL User Organisation (R)

XHO Office Building - Update

■ Last week our staff moved into the building



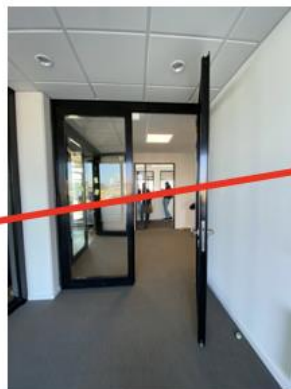
The User Office has moved!

To new office building **XHO** (ground floor)
with other key colleagues for user support (e.g. DOC,
Data Department, Safety & Radiation Protection...)



Previous
User
Office
location

- K** Office building (XHO)
- L** Visitor and conference centre, school labs (XHV)
- M** Main entrance and gate house (XHGATE)
- N** Side entrance
- O** Temporary office building (XTOB)



The European Lighthouse visitor center (XHV)

- Constructions started in early 2023
- Formal start of constructions by BMBF State Secretary M. Brandenburg
- Roofing ceremony planned for 1. September 2023
- Start of operation is planned for Q1 2024



Updates about on-site food options

- Experience of BeamStop restaurant opening on 3 test weekends before COVID-19 in 2019 not successful

- **Two test weekend openings planned in May and June 2023!**

- Meal options outside opening hours of the on-site restaurant:

- “Beam-stop freshly made” frozen meals to microwave (e.g. pasta, vegetable and chicken curry)

- ▶ from BeamStop (cafeteria opening hours - Mo-Fr 07:00-15:00)

and

- ▶ from the freezer in XHQ foyer - at any time

- Pizza-baking machine installed on the plaza (in front of main building XHQ)



- Meal freezer in the XHQ foyer (above) & the pizza machine next outside XHQ



Thank you for your attention!

