# News from the European XFEL User Organization

## Andrea Eschenlohr

Chairperson of the European XFEL UOEC

Faculty of Physics and Center for Nanointegration Duisburg-Essen (CENIDE) University Duisburg-Essen 47048 Duisburg, Germany

andrea.eschenlohr@uni-due.de

https://www.xfel.eu/users/user\_organization/index\_eng.html

European XFEL User Organization

## **Current members of the User Organization Executive Committee (UOEC)**



Filipe Maia Uppsala Uni. SPB/SFX



Wojciech Gawelda UAM FXE



Mark Hunter SLAC/LCLS SPB/SFX



Maria Naumova DESY FXE



Marc Simon Sorbonne Uni. SQS

**Giuseppe Sansone** 

Uni. Freiburg

SQS



Andrea Eschenlohr Uni. Duisburg Essen SCS



Sorbonne Uni.

**HED** 



Saša Bajt DESY MID

Stefano Bonetti Stockholm Uni. & Uni. Venice SCS



Thomas Kluge HZDR HED



Robert Grisenti Uni. Frankfurt MID

**European XFEL** 

European XFEL User Organization

## **UOEC election 2023**

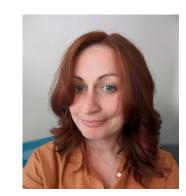
#### new UOEC members from 2023

re-elected





Kartik AyyerGiulia Fulvia ManciniMPSDUni. PaviaSPB/SFXFXE



Emma McBride Uni. Belfast HED



Giacomo Baldi Uni. Trento MID



Marcel Mudrich Uni. Aarhus SQS



Stefano Bonetti Stockholm Uni. & Uni. Venice SCS

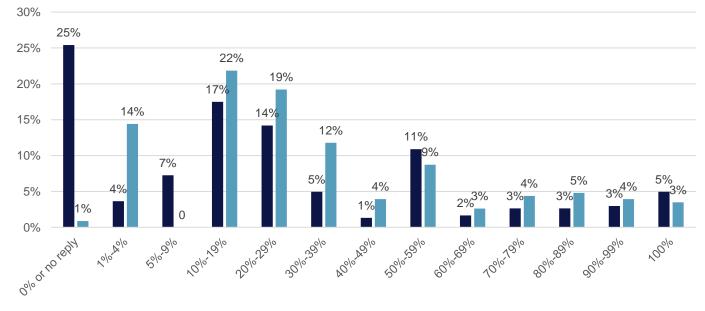
Many thanks to the outgoing and new members, all candidates and voters!

## User survey 2022

## Thank you for your participation!

	2022		2021	
Survey participants (> 1 reply possible)	(total 303 subn	nissions)	(total 229 submissions)	
	percentage	#	percentage	#
Users in beamtime	67%	203	77%	176
Main Proposers	23%	<b>7</b> 0	36%	82
Pls	16%	48	27%	62
Co-proposers	32%	97	53%	122
Co-authors of publications with EuXFEL data	28%	86	45%	103

To which degree is your research activity **dependent on access to the European XFEL** facility?



■2022 ■2021

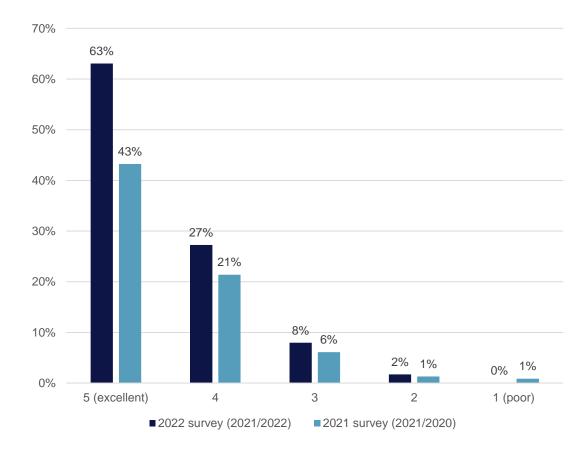
## How did you receive initial information for the preparation of your proposal?

	How many used it		How many used it	
Information sources:	2022	#	2021	#
EuXFEL website	37%	85	43%	98
Discussion with BL scientists	48%	111	55%	127
Discussion with colleagues already involved in				
beamtime	39%	89	43%	98
Users' Meetings or EuXFEL workshops	23%	53	32%	73
Other	3%	6	3%	6

Would receiving more information about the facility be beneficial for the preparation of your proposals? If yes, in which form?

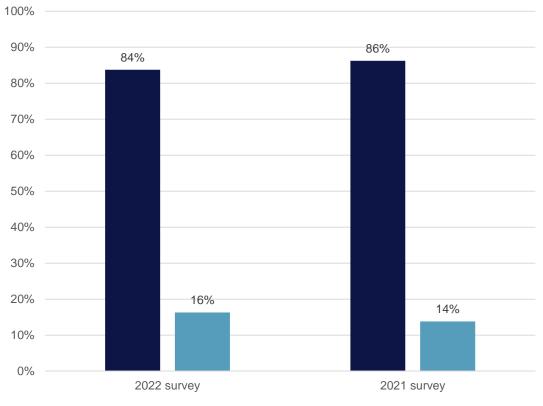
- More detailed and live updates on the current instrument parameters and the status of planned installations and technical developments
- Detailed 2D or 3D drawings of the beamline and instrument hutch to better understand the layout and constraints of the setup, especially if the users want to bring their own instrumentation

## How do you rate the **communication with beamline scientists** before and after the experiment in the last 2 years?



European XFEL User Organization

# During the preparation of beamtime, did you receive sufficient information to prepare your data analysis?



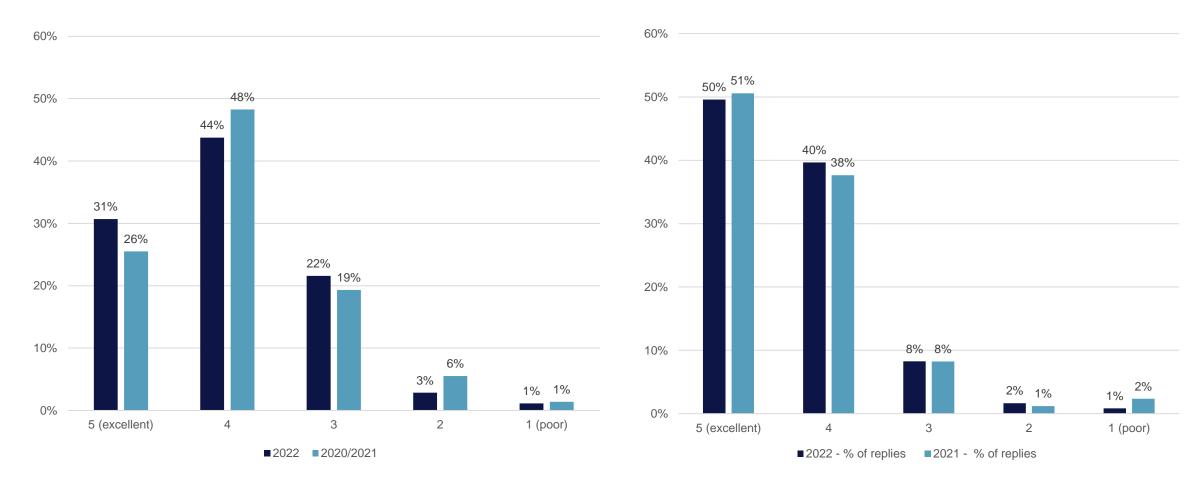
■Yes ■No

6

## How do you rate the **experimental** conditions during the beamtime?

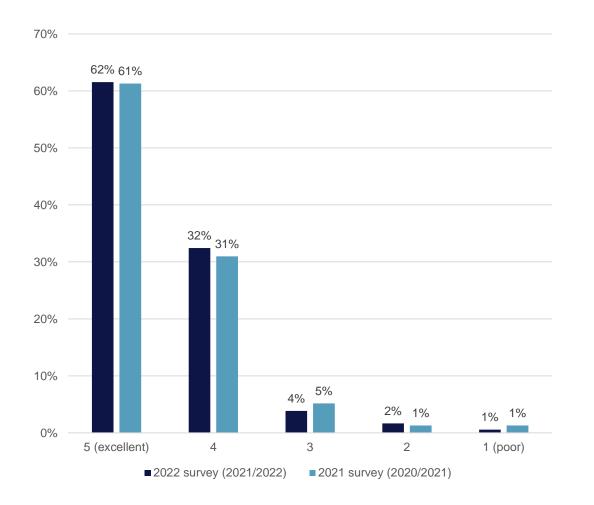
European XFEL User Organization

### Satisfaction with user labs?



European XFEL

## How do you rate the support received during the experiment?



European XFEL User Organization

"Beamline scientists have been exceptional"

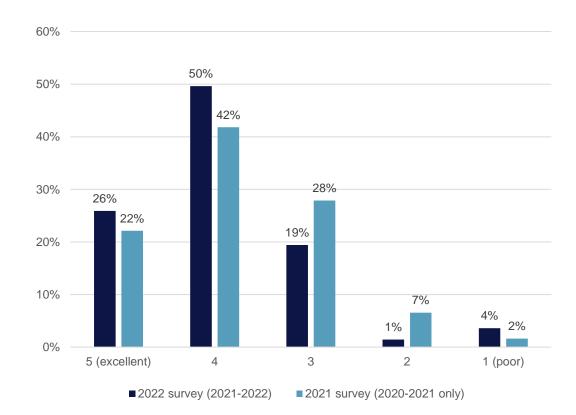
European XFEL started to run in the so-called **priority mode** since 2021, i.e. continuous operation from 7-23 h on one instrument. If you have already used this mode, please comment on your experience:

"Better experience"

"Much better suited for user experiments than 12/12"
 "Definitely more efficient than the previous operation mode"

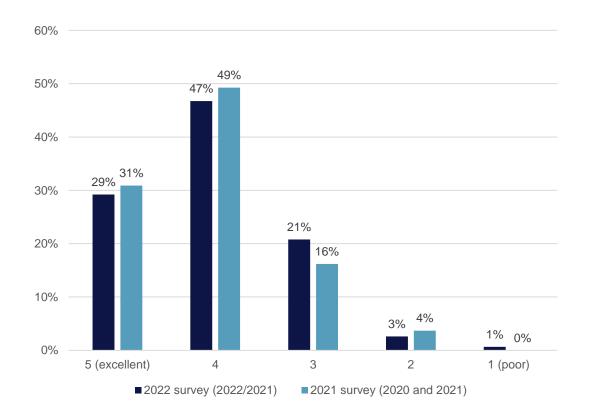
- "24 h operations would be better, even if in a 'low support' mode after 23h"
- "Unclear if/when there is a chance to use the beam during the night"
- "Too much work load, so errors happened more often"

If you have been involved in data acquisition and analysis in the framework of an experiment, please rate your level of satisfaction with the performance.



European XFEL User Organization

## Please rate your level of satisfaction with the quality of your data?



European XFEL

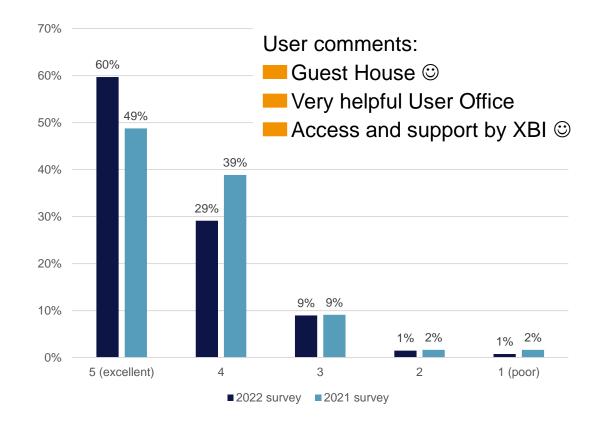
# What limitations to real-time access and (partial) analyses of acquired data did you encounter during your recent experiment(s)?

- > 30% are reporting long delays to access and see the data, Maxwell and Jupiter hub crashes, long time for data transfer and download
- 25% could only make it work thanks to the intervention of the Beamline Scientist or IT and the support was highly appreciated
- 23% mention lack of valuable documentation and tutorials or access to script libraries
- 21% are mentioning they needed a (large) team of experts to be successful
- "My experiment used a standard setup, and the beamline had efficient tools to get analysis in real time"
  "Close cooperation with the data analysis group was essential for the success of the experiment"

If you were involved in **post-beamtime data access**, have you encountered any issues (e.g. regarding cluster stability, support, availability of scripts, data transfer if needed...)?

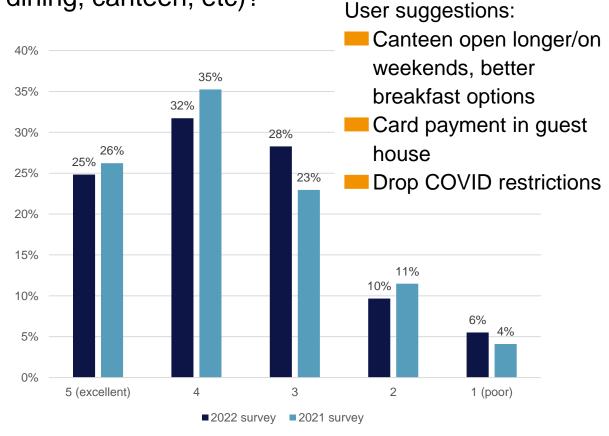
- 24% had difficulties with remote access
- 18% had issues with transferring the data
- 15% had issues with the data structure and format that kept changing
- "This worked very well", "we did not encounter any issues"
- "Bulk download of data was not straightforward","Data transfer with globus didn't work"
- "Online Jupyter notebooks are buggy", "crash of kernels and difficulty to implement our own functions"

How do you rate the **support for the practical arrangements** for the participation to the beamtime (access to the facility, accommodation, travel information, etc.)?



European XFEL User Organization

How satisfied are you with the **support during the beamtimes** (access to the facility by public transportation, on-site dining, canteen, etc)?





### $\rightarrow$ Bestowal of the Young Scientist Award

12

European XFEL

## **European XFEL Young Scientist Award 2023**

Recognizes outstanding contributions of researchers in the early stages of their career to science at XFELs, in particular European XFEL.

Young researchers <6 years after PhD, not yet appointed to a tenured professorship position, are eligible.

The UOEC carefully considers:

- demonstration of scientific leadership,
- major contributions to XFEL beamtime(s),
- impact to the European XFEL facility and potentially globally as well,
- data analysis and/or interpretation by means of theory and/or modelling

Thank you for all nominations!

The next call for nominations will open in late 2023.

## Re-nomination possible!

## **European XFEL Young Scientist Award 2023**

## Dr. Elke de Zitter

Institut de Biologie Structurale (IBS), Grenoble, France

- PhD in Biochemistry and Biotechnology from KU Leuven, Belgium, 2018
- PostDoc at SOLEIL (2018-2019)
- PostDoc, recently CNRS Associate Scientist, at IBS

**European XFEL** 

- For her high profile work on serial femtosecond crystallography, in particular the structure determination of naturally occurring nanocrystals of mosquitocidal toxins performed at European XFEL and LCLS
- She is main developer of the Xtrapol8 data analysis code for structure determination of low occupancy intermediate states in time-resolved crystallography, which is already being adopted by the international XFEL structural biology community
- Her work resulted in recent publications in Nature Communications, Angewandte Chemie, JACS and Nature Methods



#### European XFEL User Organization

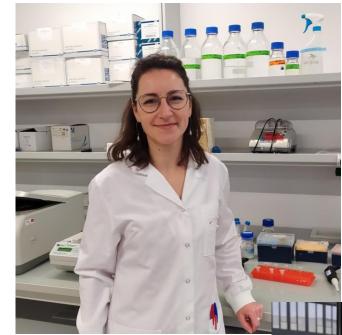


Photo: CEA/O. Cavoret



#### Photo: European XFEL