

Procurement at European XFEL

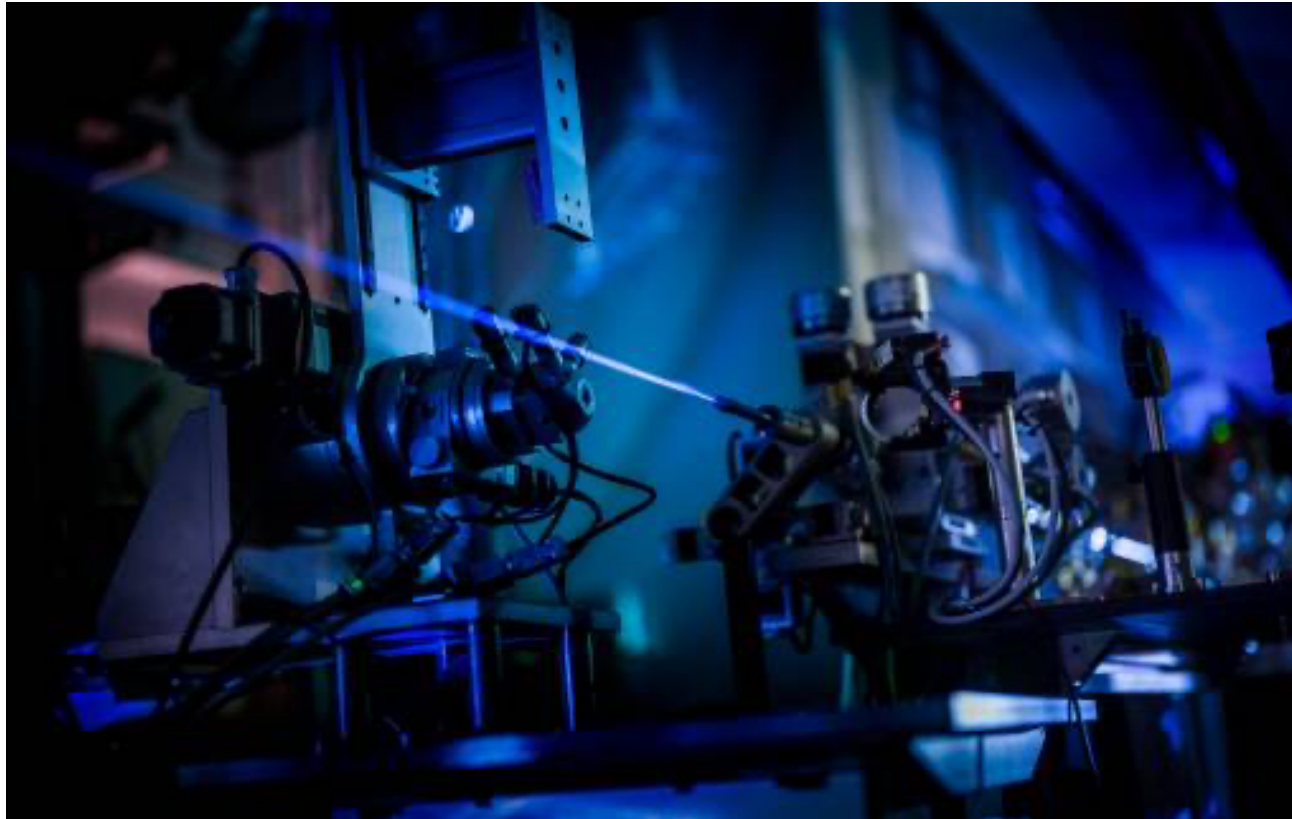


XFEL Enlightening Science

Dr. Nicole Elleuche

Managing and Administrative Director
Hamburg, November the 24th, 2020

European XFEL—a leading new research facility



■ The European XFEL is a new research facility that uses high-intensity X-ray light to study the structure of matter.

■ User facility with more than 500 employees (+250 from DESY)


■ Location: Hamburg and Schenefeld, Germany

■ September 2017 start of user operation

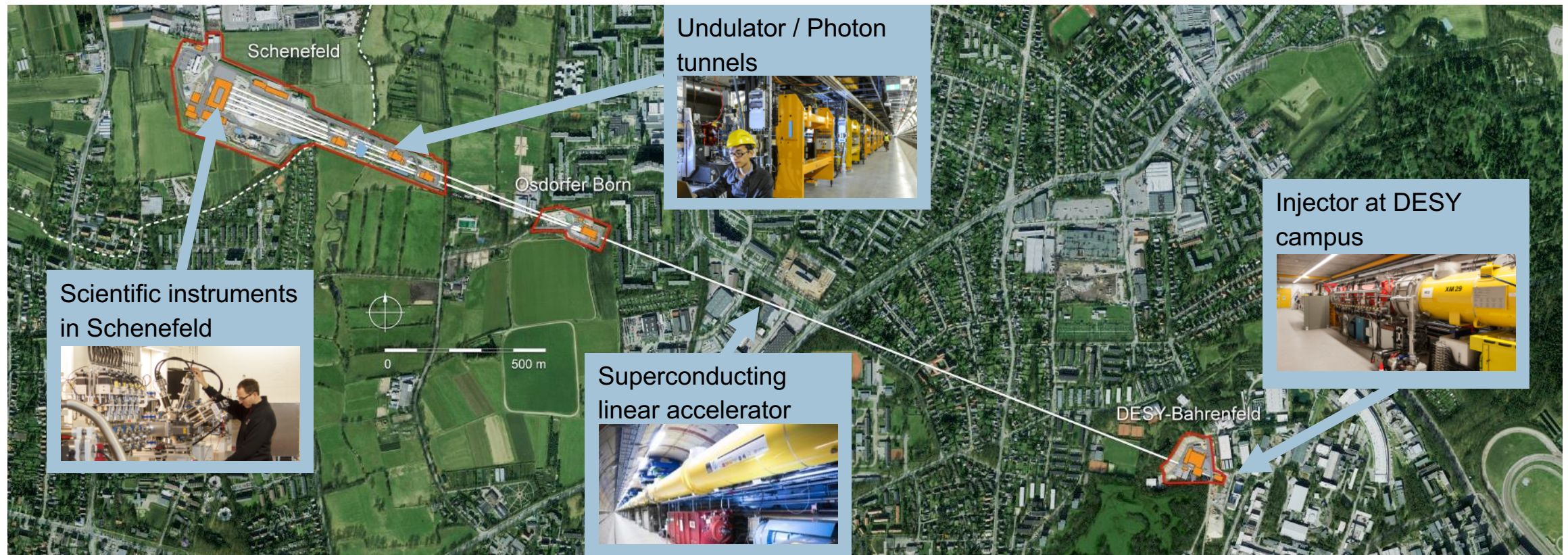


Schenefeld research campus on 14 August 2017

A few facts about European XFEL GmbH

- ...was organized as a non-profit corporation in 2009 with the mission of design, construction, operation, and development of the free-electron laser
- ...is supported by 12 partner countries 
- ...the German Government (represented by DESY) as biggest shareholder covers 57% of the costs; followed by Russia who contributes 26%; each of the other international shareholders 1–3%
- ...total budget for construction (including commissioning)
 - for construction (including commissioning): 1.25 billion € at 2005 prices, 600 M€ contributed in cash, over 550 M€ as in-kind contributions (mainly manufacture of parts for the facility)
 - operating budget: about 134 M€

General layout of the European XFEL





2017 - 2020

Three years of operation including the pandemic situation

1261

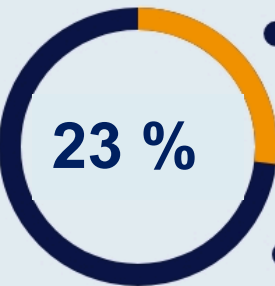
users from across the world have visited European XFEL for their experiments since operation began in September 2017.

95

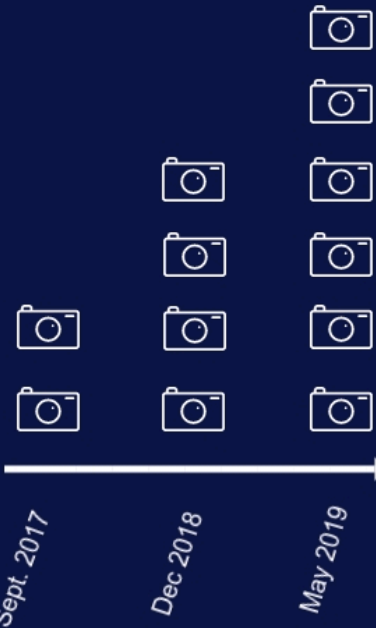
experiments have been carried out at the facility.

109 Proposals finished or scheduled (i.e. accepted)

466 submitted



From 2 to 6 operational instruments in 2 years.



6036

Hours of beamtime provided for user experiments since operation began.



19

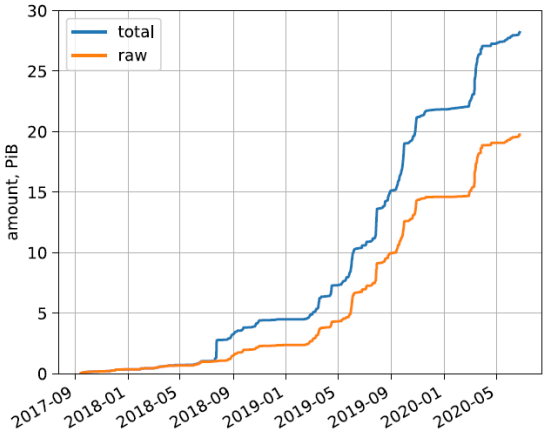
Petabytes of data produced during user experiments.



21

User publications published in peer-reviewed journals during the first 3 years. Many more are in preparation.

Data profile



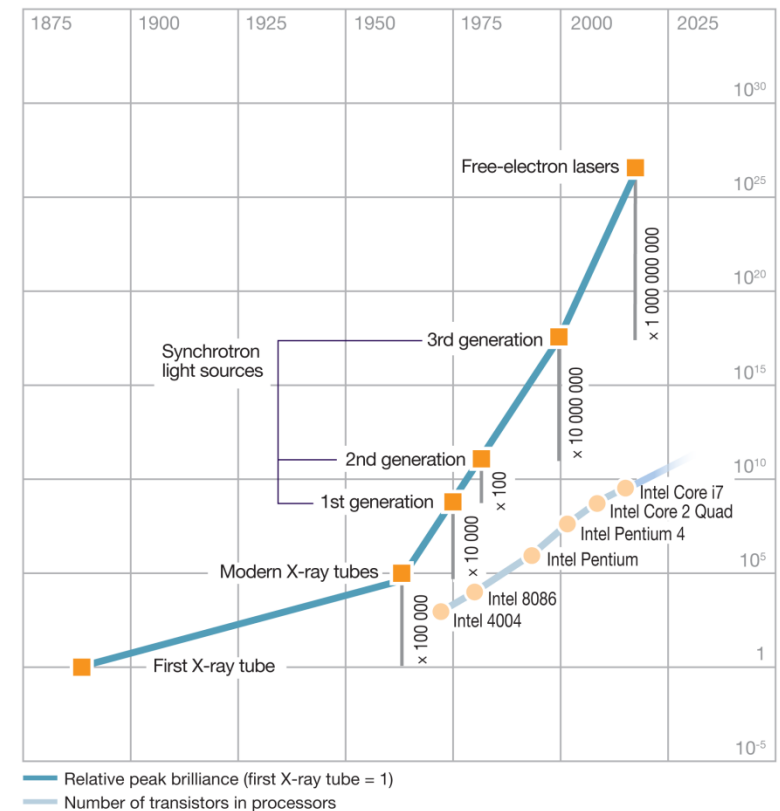
	bytes		
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SPB	3.2 PiB	8.5 PiB	11.6 PiB
MID	2.7 PiB	4.6 PiB	7.2 PiB
SCS	352.9 TiB	2.7 PiB	3.1 PiB
FXE	1.2 PiB	1.3 PiB	2.5 PiB
SQS	59.0 TiB	429.4 TiB	488.4 TiB
HED	18.4 TiB	25.6 TiB	44.0 TiB
total	7.5 PiB	17.5 PiB	25.1 PiB

X-ray free-electron lasers worldwide



Suppliers of European XFEL develop technology and knowledge not limited to our facility. but also for big science market, light sources and for other FEL facility in the world.

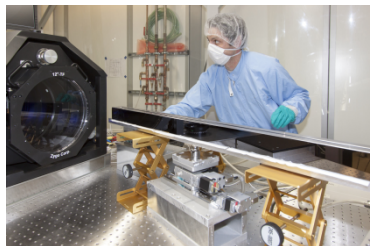
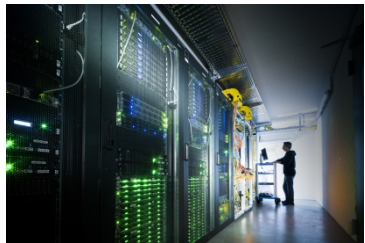
The development of light source facilities has been faster than the increase in computer processing capacity (i.e., Moore's Law)



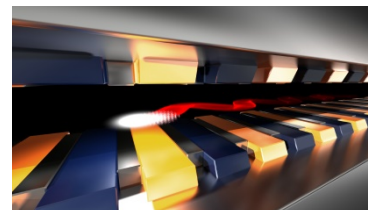
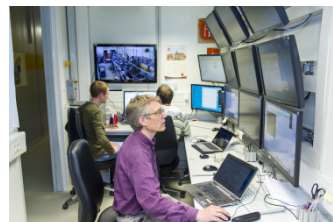
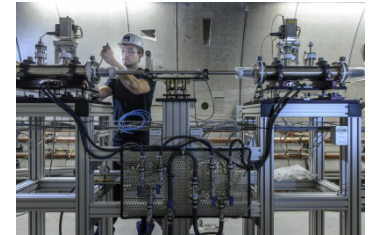
Procurement Standards at European XFEL

- As a non-profit organisation European XFEL is subject to apply the respective EU Public Procurement Law and Regulations.
- EU Public Procurement Law sets out rules to establish a tool to ensure equal treatment for all businesses across Europe
 - They were transferred into national legislation and apply to tenders whose monetary value exceeds a certain threshold (currently 214 k €).
 - For tenders of lower value (>1.000,00 €), German national public tender rules apply. Nevertheless, these national rules have to respect the general principles of EU law.
- European XFEL announces all EU tenders via SIMAP/TED and on the European XFEL homepage.
- In the year 2019 more than 7000 purchase orders were processed and goods and services with a total value of 30 Mio € were ordered.
- The award of contracts/tenders applies the best value for money practise.

Total procurement budget in the period 2020-2024



- The procurement budget for period 2020 – 2024 is estimated to be 340 million EUR.
- The campus is still growing and further developed, with additional user infrastructures such as a guesthouse, an additional office building and a visitor's center on the way. There are also two more tunnels (SASE 4 & 5) which are waiting to be equipped for future use. Main procurements:
 - Diagnostics, Detectors, Sensors, Optics and Instruments
 - Big Data and Artificial Intelligence, User Interfaces
 - Instrumentation & Control
 - Superconducting Magnets
 - Cryogenic technology, Vacuum and leak detection technologies
 - Building & Construction
 - Interior fittings of the guesthouse (furniture and other equipment's)
 - Interior fittings of the Visitors center (incl. laboratories and exhibition)



National ILO involvement in industrial collaborations and procurement activities

- European XFEL is working on an ILO, supplier, and business strategy (ILO, PROC, MB)
- In order to expand EuXFEL pool of suppliers and industrial collaborations, following actions are planned in the next future
- **Contact database for potential suppliers:** Online registration will be possible to the database. The national ILOs will help us to promote it and to invite the companies to register
- Information about planned purchasing, adaptation of internal processes
- EuXFEL is planning to organize an **ILO general meeting** once a year, with the national representatives and European XFEL procurement
- EuXFEL website for tenders under review to better address different suppliers and international ILOs.

Thank you for your attention and please contact us:

procurement@xfel.eu and https://www.xfel.eu/organization/procurement/index_eng.html

ilo@xfel.eu and https://www.xfel.eu/organization/industrial_liaison/index_eng.html

A supplier database is under construction and will be launched 2021 – keep in touch



Thanks for
your
attention!