

Welcome to the Users Meeting 2021

~2000 participants registered

368 posters

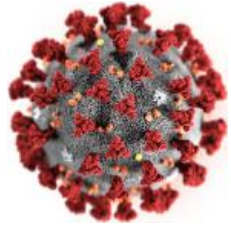


Status 2020 - Outlook for 2021

Corona impacted strongly on operation in 2020 and will continue to do so into most of 2021

- Status 2020
- COVID-19 Impact on Operation 2021
- Status on Beamtime for Users and Proposals
- Update Guesthouse

Impact of the COVID-19 spread on the operation on 2020 of European XFEL



Start of COVID-19 spread in Hamburg area



Severe Impact on the Users Program

19 experiments cancelled

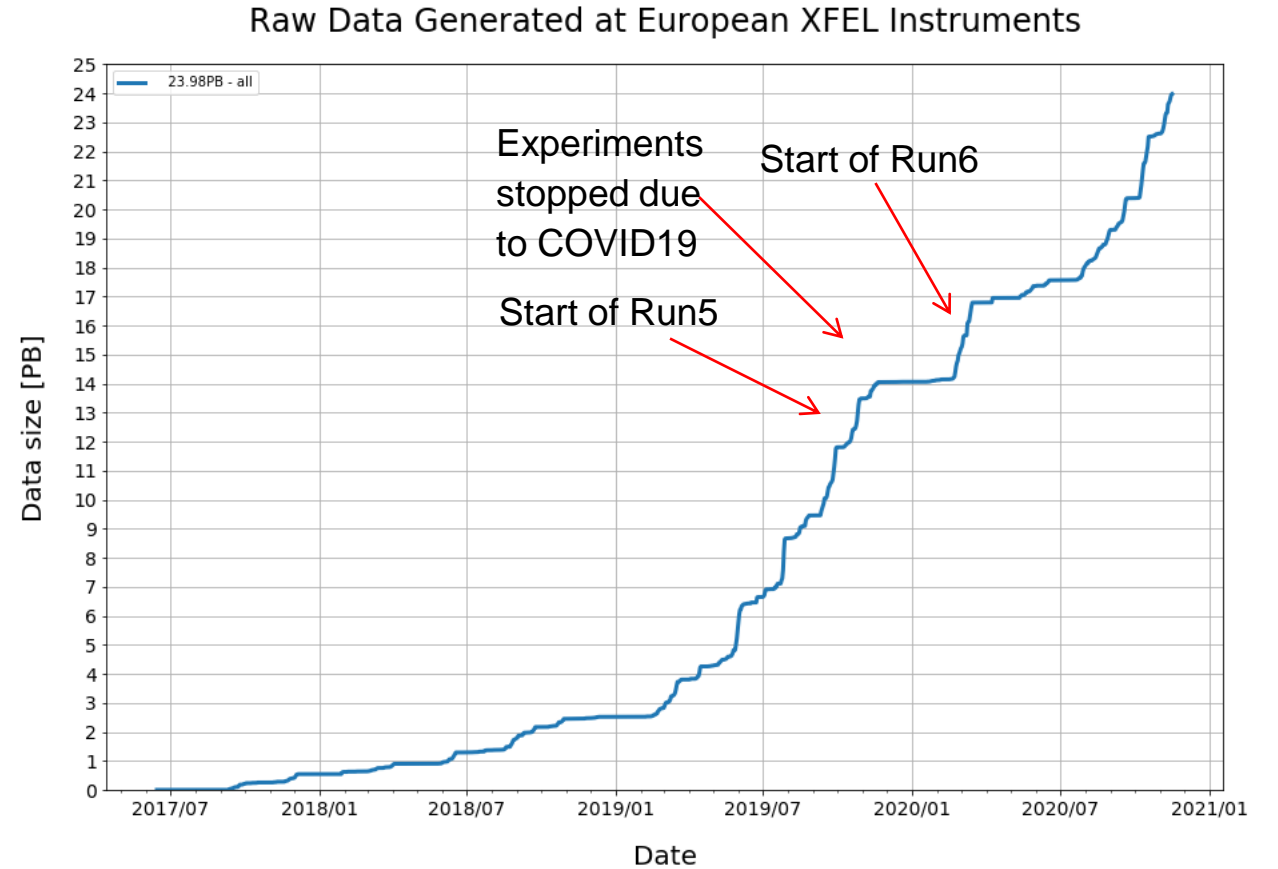
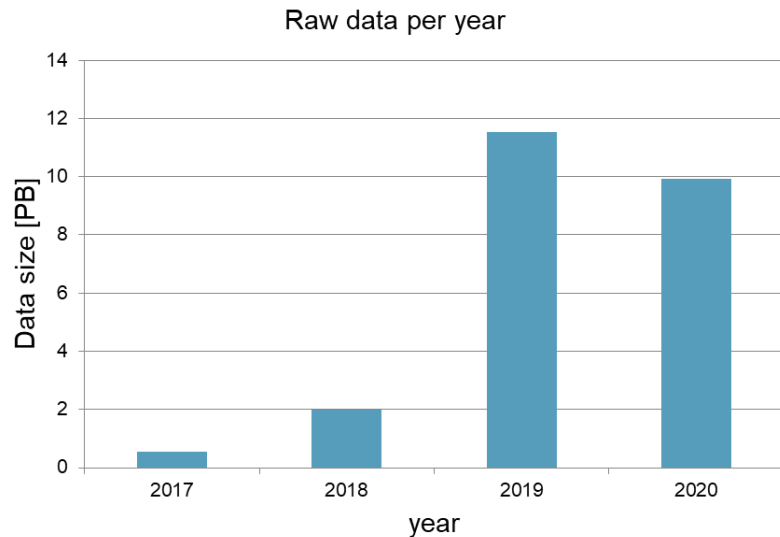
Still we collected 10 PB of data in 2020

We plan with restrictions in most of 2021

16 users on-site

Accumulated RAW Data Volume during COVID-19

10PB of raw data collected in 2020



COVID-19: Impact on user programme

■ Users are mostly online – about 16 were on-site in 2020



Quick Status 2020 European XFEL

- 23 experiments completed
 - 30 postpone to 2021
 - 19 asked to resubmit
- 9 user publication published
- Accelerator worked very well in 2020 after the restart in the s
 - >5600 linac pretation hours with 98% availability
 - >1680 SASE delivery hours with 95% availability
- Operational envelope expanded with HXRSS and 2CPP commisioning
 - First user experiments planned in 2021 (COVID-19 deper
- First studies of pulse length manipulation with reduced charge compression, the later in principle possible for individual bea
- Regular winter shut down (start 21 November 2020) for main
- Received 168 proposals for run 7 (run 6 was 98)

News from FXE



- Chris Milne (SwissFEL) new group leader
- Start end of 2020

Construction of third port SXP at SASE 3 started



- Manuel Izquierdo new group leader

Beamtime to Users – Status end of 2020

- The goal for 2021 was to increase the amount of beamtime delivered to the users compared to 2019. This will be difficult

Shift allocation

2017 : 49

2018 : 113

2019 : 279

2020 : ~ 159 (planned were ~ 343)

2021 : in preparation

Status End of 2020	Total proposals.	Finished in run 5 2020-1	Finished in run 2020-2	Tentativ planned 2021-1	Must resubmit
Run 5 Scheduled	32	4	12	11	5
Run 6 Shortlisted	40		7	19	14

Positive news : Proposals call 7 (deadline December 2020) – a large increase!

Submitted proposals call 7	Call 6	Call 7
SPB202102	26	26
FXE202102	--	32
MID202102	23	33
HED202102	15	27
SQS202102	14	32
SCS202102	20	18
	98	168

Anticipated (modified) 2021 Operation due to COVID-19

- Accelerator restart after operational break (“Christmas vacations”) is postponed until 1 February.
 - January: Shutdown works will be completed
 - February: Stretched start of accelerator. Setting up all FELs and x-ray beam transports in order to avoid later conflict with the **prioritized delivery to SASE1/SPB/SFX**
 - March: Beam delivery to SPB, getting ready to receive beam on the other instruments
 - April: **User experiments on SPB**, beam delivery to all other instruments with priority for SPB
 - May: **Start of User Experiments on remaining instruments**
- The summer shutdown period is kept as planned.
- The winter shutdown period 2021/22 is also kept as planned
- New allocation schedule for the entire 2021 is in the planning
- The operation will be conducted in **“7-Eleven mode”** through a October to decide whether to continue in 2022 with this mode
- **Data Operation Center (DOC)** will start.

New group leader data analysis



- Luca Gelisio
- Start 1 June

“7-Eleven mode” of operation – to be tested in 2021

- Coronavirus pandemic places additional demands on staff
- Must optimize use of X-ray delivery in coming months and explore new modes of operation
- 7-Eleven mode:
 - Alternate use of X-ray delivery weeks by the two instruments
 - Beam delivered to users only between 7h-23h with best possible support

	Instrument #1	Instrument #2
Week 1	X-ray Operation	Setup
Week 2	Setup	X-ray Operation

- Advantages:
 - Optimal support to users
 - Less compromises for choice of beam parameters
 - More effective use of beamtime → no branch change every 12h (re-align, retune SASE)
 - Effective beamtime very comparable
 - More robust against Corona restrictions

COVID Impact on User Programme for 2021

- The user's experiments scheduled for 2021-1 (run 6) will rescheduled and also spread into 2021-2. All proposal originally schedules for beamtime will get beamtime in 2021/22.
- All proposals scheduled for run 6 in 2021-1 will get beamtime, unclear when.
- We have new proposals (run 7) going to be evaluated by the PRP in February
- The succesfull proposals from run 7 will be scheduled in late 2021-2 and in 2022-1.
- The regular call for proposals in the summer 2021 will be cancelled.
- New allocation schedule for 2021 is in planning

Data Operations Centre

- Starting early 2021 for new 7-Eleven Instrument Operating Mode for User Experiments
- Allow the data department to provide proactive monitoring of data systems during x-ray delivery, such as detector acquisition & calibration, data analysis software and motion control systems, etc.
 - Physical Room with extensive monitoring facilities and access to Controls Network
 - Occupied by a Data Shift Leader and Data Shift Deputy from 0700-2300, covered by 2 shifts
 - Supported by Data Run Coordinator which will oversee operation of DOC for 6 days at a time
 - Supported by 2nd Level On-Call-Duty provided by Data Department
 - Communication infrastructure for efficient communication
 - Act as physical location for efficient problem solving, and coordination of ad-hoc intervention
- Act as a single point of contact to the scientific instruments, tunnel systems and machine control room at DESY.

European XFEL is proud to present its new guest house!



Conveniently located on the European XFEL campus, the guest house offers comfortable accommodations, including a lounge, kitchenette, and laundry room as well as self check-in and high-speed Internet—a home away from home during beamtime.



Grand Opening:
May 2021

Thank you for your attention

