



European X-Ray Free-Electron Laser Facility GmbH
Holzkoppel 4
22869 Schenefeld
Germany

Policy for the allocation of beamtime at the European XFEL Facility

Approved by the Council at its 6th meeting on 28–29 October 2010

Amended by the Council at its 12th meeting on 24–25 October 2012

Amended by the Council at its 20th meeting on 26–27 November 2015

Last amended by the Council at its 39th meeting on 15–16 November 2023

Contents

1	Principles	3
	1.1 Scope	3
	1.2 Peer review	3
	1.3 Flexibility.....	3
2	Beamtime to be allocated	4
	2.1 Machine operation.....	4
	2.2 Specific use of beamtime	4
	2.3 Contributions to operating costs and limitation of beamtime.....	4
	2.4 Juste retour balancing.....	5
3	Beamtime allocation during commissioning of beamlines	5
4	Beamtime allocation to User Consortia (priority access mode)	6
	4.1 Conditions for priority access by User Consortia	6
	4.2 Allocation of priority access beamtime	6
	4.3 Review of priority access beamtime applications.....	7
	4.4 Reporting and publication.....	7
	4.5 Funding	8
5	Review Committees for regular operation	8
6	Users from non-Contracting Party countries	8
	6.1 Collaboration with groups from Contracting Party countries .	8
	6.2 In their own right, after peer review	8
	6.3 Funding	9
7	Revisions	9

1 Principles

1.1 Scope

A distinction has to be made between the allocation of beamtime

- for non-proprietary research where the results are open for publication, and
- for non-refereed access to beamtime, e.g. for proprietary research.

The elements in this document refer to non-proprietary beamtime.

1.2 Peer review

Beamtime will be allocated based on scientific excellence of the proposals. Priorities will be decided by peer review committees composed of highly qualified scientists, mainly from the community of Contracting Party countries and associated partners.

Fair beamtime allocation will be supervised by the European XFEL Scientific Advisory Committee (SAC).

1.3 Flexibility

The general framework for beamtime allocation is based on a six-month cycle. However, while such a scheme is adequate for standard proposals, sufficient flexibility will be incorporated:

- To allow rapid access to beamlines for high priority work. Under special circumstances, a proposal may bypass the general beamtime allocation scheme and be carried out within the Management's contingency beamtime entirely with a posteriori justification.
- To guarantee long-term access to scientifically excellent projects that require beamtime over a long period.

2 Beamtime to be allocated

2.1 Machine operation

It is assumed that, in addition to occasional shutdown periods for major upgrades and interventions on the accelerator complex, a part of the operation time of the facility is used for machine maintenance, upgrading and machine physics.

2.2 Specific use of beamtime

A part (20%) of the available beamtime at the instruments is not to be subjected to the peer review system. This beamtime should be used in the following way:

- Maintenance, upgrading and development of the photon beam systems and the instruments, and in-house research 15%
- Management's contingency beamtime to allow 5%
 - rapid access to beamlines for high priority work
 - beamtime for projects involving industry-based proposers and providing potential for industrial application.

In addition, periods of priority access under the scheme of User Consortia have to be considered. The number of hours to be allocated depends on the contribution value and is stipulated in the User Consortium agreement. This priority access shall be allocated in a time period not exceeding three years from the end of commissioning of the contributed instrumentation.

2.3 Contributions to operating costs and limitation of beamtime

If a Contracting Party or an associated partner does not increase its contributions towards the operating costs of the facility in relation to its use of beamtime, as laid out in the "Scheme of repartition of the operating costs among the Shareholders", the beamtime allocated to that party/partner can be limited to the level corresponding to their actual contribution.

2.4 Juste retour balancing

In order to enable a fair and balanced use of the Facility (cf. Art. 6 para. 3 of the Convention), the Management can, in exceptional cases, prioritize proposals in order to support users with special development potential. This is based on the Management Board's responsibility to arrange the schedule, which also includes the option to balance the usage of established communities and those with special development potential upon request. For this juste retour balancing, only proposals that were ranked sufficiently high by the corresponding peer-review panel to be eligible for beamtime allocation (scores "very good" and above) shall be considered. The Management Board would inform the peer review committees and SAC about proposals re-prioritized based on juste retour balancing, and would report to the Council, including feedback provided by SAC, on the feasibility, fairness, and efficiency of the balancing.

3 Beamtime allocation during commissioning of beamlines

During commissioning, beamline components are being tested and, in many cases, modified as a result of these tests. It is essential that some of these tests are performed under proper experimental conditions, aimed at producing scientific results involving outside users.

During the early commissioning phase, when emphasis is placed on the performance of beamline components, the proposals are in general evaluated in-house by the Management Board and the beamline scientists.

At a later stage of the commissioning phase, when the beamline gradually approaches its final state, more emphasis will be placed on the scientific merit of the proposals. Each proposal will then be peer-reviewed by two outside experts in the field and beamtime for test experiments will be allocated based on the results of this peer review.

4 Beamtime allocation to User Consortia (priority access mode)

As described in the document XFEL_Council_11-05, User Consortia approved by the European XFEL GmbH obtain rights in using beamtime in a priority access mode in compensation for additional resources contributed to the European XFEL. This paragraph describes the regulations applied for such preferred access.

4.1 Conditions for priority access by User Consortia

The number of hours of priority access is calculated according to the rule that for each contributed value of 270 000 € (indicative number, 2005 € value, see regulations for User Consortia), one day (24 hrs) of beamtime is prioritized. Beamtime will be allocated in units of shifts only (eight or twelve hours (t.b.d.)).

Priority access for a User Consortium shall be allocated in a time period not exceeding three years from the end of commissioning of the contributed instrumentation. Priority access beamtime not allocated until three years after the end of commissioning shall expire.

Commissioning of contributed instrumentation shall be achieved within maximum one year from installation. For allocation of commissioning shifts the same rules apply as for normal instrumentation. The User Consortium agreement shall precise the number of days of beamtime for commissioning of the contributed instrumentation.

The allocation of priority access beamtime requires the submission of an application similar to a regular beamtime proposal. Priority access beamtime is only allocated on the instrument(s) to which the User Consortium contributed and which is (are) defined in the User Consortium agreement.

4.2 Allocation of priority access beamtime

The application for priority access beamtime requires scientific and technical review. The application shall enable the assessment of technical feasibility, of

safety issues, and the compliance with scientific and ethical standards set up for European XFEL. Priority access beamtime applications shall have the same high standard for scientific excellence.

Submission of proposals for priority access beamtime requires approval by the User Consortium. The User Consortium should submit only proposals corresponding to the provided slot for priority access, outlined in the following paragraph.

Identical allocation periods as for regular beamtime proposals will be used. In each allocation period the percentage of priority access beamtime shall not exceed 30% of total beamtime at a given instrument, thus leaving at least 50% of total beamtime for regular user access. In the exceptional case of User Consortia making such a large contribution that their priority beam entitlement exceeds 30% of the total available beamtime available in three years on the corresponding instrument, an extension of this three-year period may be granted.

4.3 Review of priority access beamtime applications

Similar to regular beamtime proposals and following the requirements as described in Section 4.2., these applications require technical and scientific evaluation.

This review will be performed using internal expertise, for the technical and safety related issues, complemented with a scientific peer-review by the regular peer-review panels. The purpose of the peer-review is to establish that the proposals are scientifically sound and correspond to a worthwhile use of the allocated beamtime. Allocation of shifts for priority access beamtime proposals will be done by management.

4.4 Reporting and publication

For priority access beamtime the same rules for reporting and publication apply as for regular user beamtime.

4.5 Funding

Users involved in these preferred access beamtime allocation will not receive travel and subsistence allowances for the associated beamtime slots.

5 Review Committees for regular operation

The European XFEL Facility will comprise instruments with specific properties of brilliance, energy resolution, spatial resolution, tuneable range, etc. Each instrument serves users from a variety of scientific disciplines. In order to evaluate the relative scientific excellence of different proposals for a given science instrument and to establish a transparent review and beamtime allocation process, the review committees shall be grouped according to scientific instruments. Each committee shall be composed of experts from scientific and instrumentation fields relevant to the respective instrument. Therefore, each proposal should be evaluated for its scientific excellence by a review committee whose members are specialists in the specific areas of science and instrumentation for the scientific proposals competing for time at this instrument. In special cases, the review committees may use external referees. After two to three years of user operation, this organization of proposal review committees shall be evaluated.

6 Users from non-Contracting Party countries

6.1 Collaboration with groups from Contracting Party countries

In the case of joint proposals by users from Contracting Party countries or associated partners and from non-Contracting Party countries, the allocated beamtime will be attributed to the beamtime contingent of the corresponding Contracting Party or Parties or associated partner(s).

6.2 In their own right, after peer review

There are at least two circumstances in which allocation of beamtime to proposals from exclusively non-Contracting Party countries should be considered:

- Proposals of exceptional scientific quality;
- Proposals offering exceptional technical benefits in FEL radiation technology that would directly benefit the European XFEL Facility and other FEL centres.

6.3 Funding

Users affiliated with institutes in non-Contracting Party countries will not receive travel and subsistence allowances as foreseen for user from Contracting Party countries.

7 Revisions

This policy will be subject to future revisions.