



European X-Ray Free-Electron Laser Facility GmbH

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Policy for the allocation of beam time at the European XFEL Facility

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1 Principles

1.1 Scope

A distinction has to be made between the allocation of beam time

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

The elements in this document refer to non-proprietary beam time.

1.2 Peer review

Beam time 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 beam time allocation will be supervised by the European XFEL Scientific Advisory Committee (SAC).

1.3 Flexibility

The general framework for beam time 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 beam time allocation scheme and be carried out within the Management's contingency beam time entirely with a posteriori justification.
- To guarantee long-term access to scientifically excellent projects that require beam time over a long period.

2 Beam time 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 beam time

A part (20%) of the available beam time at the instruments is not to be subjected to the peer review system. This beam time 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 beam time to allow 5%
 - rapid access to beamlines for high priority work
 - beam time 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 beam time

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 beam time, as laid out in the "Scheme of repartition of the operating costs

among the Shareholders”, the beam time allocated to that party/partner can be limited to the level corresponding to their actual contribution.

3 Beam time 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 beam time for test experiments will be allocated based on the results of this peer review.

4 Beam time 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 beam time 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 beam time is prioritized.

Beam time 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 beam time 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 beam time for commissioning of the contributed instrumentation.

The allocation of priority access beam time requires the submission of an application similar to a regular beam time proposal. Priority access beam time 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 beam time

The application for priority access beam time 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 beam time applications shall have the same high standard for scientific excellence.

Submission of proposals for priority access beam time 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 beam time proposals will be used. In each allocation period the percentage of priority access beam time shall not exceed 30% of total beam time at a given instrument, thus leaving at least 50% of total beam time 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 beam time available in three

years on the corresponding instrument, an extension of this three year period may be granted.

4.3 Review of priority access beam time applications

Similar to regular beam time 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 beam time. Allocation of shifts for priority access beam time proposals will be done by management.

4.4 Reporting and publication

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

4.5 Funding

Users involved in these preferred access beam time allocation will not receive travel and subsistence allowances for the associated beam time 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 beam time 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 beam time will be attributed to the beam time 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 beam time 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.