



Memorandum

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To: All PRC members,
all Beamline managers
cc: R. Abela, S. Jansen, C. Quitmann,
H. J. Weyer, DUO

Guidelines for Beamtime Allocation at the Swiss Light Source (SLS)

Preamble

The SLS is a user facility. It constructs and operates experimental facilities using synchrotron radiation for research by national and international users. The SLS also supports in-house research and development of instruments and methods.

Beamtime is allocated on the basis of proposals which are reviewed by an international committee. The selection of proposals is solely based on scientific merit. In addition the SLS offers services for proprietary research on a full cost recovery basis.

Users supporting the SLS in the development of beamlines or instrumentation through their own resources negotiate special conditions which are detailed in a contract between PSI and such users.

Proposal system

- Available beamtime:
Shifts not marked as beamline- or machine-development are allocated as follows

Title	Amount
User time	70%
Commissioning and in-house research time	25%
Directors time	5%

One shift is 8 hours of beamtime. The total number of user hours per year is ca 5000.

- Beamtime proposals:
Scientists are invited to submit proposals asking for a specified amount of the user time. A call for proposals is published by email and on the SLS web site. There are two calls for proposals per year for materials science, soft- and hard condensed matter, and environmental science; three calls per year for protein crystallography.
The proposals are submitted to and handled by the Digital Users Office (DUO).

- Dates:

PX beamlines						
	2006			2007+		
Period	I	II	III	I	II	III
Call	08.09.-)	08.01.	08.05.	08.09.-)	08.01.	08.05.
Submission deadline	15.10.-)	15.02.	15.06.	15.10.-)	15.02.	15.06.
Start period	01.01.	15.05.	15.09.	01.01.	01.05.	01.09.
End period, Normal/Test	14.05.	14.09.	31.12.	30.04.	31.08.	31.12.
End period, Long term	31.12.+)	30.04.++)	31.08.++)	31.12.+)	30.04.++)	31.08.++)

Non PX beamlines				
	2006		2007+	
Period	I	II	I	II
Call	08.08.-)	10.02.	08.08.-)	08.02.
Submission deadline	15.09.-)	15.03.	15.09.-)	15.03.
Start period	01.12.-)	01.06.	01.01.	01.07.
End period, Normal/Test	31.05.	31.12.	30.06.	31.12.
End period, Long term	31.05.+)	31.12.+)	30.06.+)	31.12.+)

-) previous year
- +) next year
- ++) year after next

- Types of proposals

- Normal proposals:

Asking for beamtime in the next allocation period to perform an experiment with a specific scientific goal. The results of such experiments must be published in the open literature.

- Long term proposals (Non PX beamlines):

Long term proposals run for 18 months and can be granted to users investing time or resources into novel experiments or methods.

Examples: building a new end station, making a new instrument or method available to the general user community, developing a novel detector, etc.

A beamline typically does not commit more than 30% of the user beamtime to long-term proposals.

- Long term proposals (PX beamlines):

Long term proposals run for 24 months and can be granted to users with very challenging projects, requiring reliable access to beamtime over a longer period.

- Test proposals:
Users wanting to perform feasibility tests may submit a test proposal, asking for no more than 3 shifts at non PX-beamlines or no more than 1 shift at the PX-beamlines.
Acceptance criteria for test proposals are lower than for normal proposals. Results from such test proposals may later be used to support normal proposals.
- Pilot proposals:
Pilot proposals are granted to users willing to collaborate on the commissioning of a beamline. Pilot proposals aim at testing and improving beamline functionality and performance. These proposals are only feasible in collaboration with the beamline staff.
They are rated on the basis of their potential to improve the beamline and their scientific merit.
- Proprietary proposals:
Asking for time to perform proprietary experiments which will be treated confidential in all phases of the proposal and the project.
Proprietary proposals are handled by the *SLS TechnoTrans AG* and the users pay PSI on a full cost recovery basis.
- Multiple proposals:
The same proposal must not be submitted separately to different beam lines.
- Main proposer:
A proposal is submitted by the main proposer who is responsible for this proposal. All information from the DUO and the SLS is sent to the main proposer, who is responsible for distributing this information to the co-proposers.
- Travel expenses:
The SLS can reimburse the users for part of their travel expenses and accommodation costs. Details are published on the SLS web site.
- Technical feasibility:
The technical feasibility is judged by the beamline manager. If a proposal is not feasible for technical reasons the beamline manager will reject it.
- Safety:
Users are responsible for listing all samples which will be brought to the SLS and for detailing any potential hazard. The user declarations are checked by the safety officers.
If a proposal is not feasible for safety reasons, the safety officer will refuse the proposal.
Users are required to follow a brief electronic safety training course before the start of their experiment.

Proposal review committee

- The proposal review committee (PRC) is an international committee advising the head of the department SYN on the distribution of user beamtime.
- PRC members are appointed by the SYN director for a period of 3 years. An additional appointment of 3 years is possible. PSI pays for travel and accommodation expenses of the committee members.
- The PRC splits into two committees for Protein crystallography (PX) and one for all other beamlines (Non-PX).
The SYN director appoints one PRC member as chairperson for PX and Non-PX respectively.

- All proposals are rated by the PRC. The rating is done in accordance with the [IUPAP Recommendations for the Use of Major Physics Users Facilities](#) and is based on
 - 1.) Scientific merit
 - 2.) Technical feasibility
 - 3.) Previous record of the proposers
 - 4.) Availability of the resources required
 Every proposal is rated by a minimum of 2 PRC members.
- The PRC forms subcommittees to rate proposals belonging to individual beamlines and to similar scientific topics.
- If a proposer asks for an unreasonable amount of beamtime, the PRC suggests how much beamtime is realistically needed.
- If the feasibility of a proposal is uncertain, the PRC may change the proposal type to *Test* and suggest resubmission after successful completion of the test experiment.
- In cases where the PRC has good reasons to expect synergies, it may suggest merging two proposals. The beamline manager asks the proposers if they agree with such a merger.
- PRC-members absent themselves from the discussion of proposals in which they are proposers or co-proposers.

Beamtime distribution

- Following the ranking of the PRC and its recommendations, the BL managers draw up the list of experiments that are to receive beamtime during the next allocation period. Small adjustments of the allocated number of shifts may be necessary for logistic reasons.
- The LSY laboratory heads check for consistency in proposal acceptance and number of shifts across beamlines.
- The head of the department SYN takes the final decision on proposal acceptance and shift allocation and distributes the reserved director's time.
- Proposers are informed about acceptance of their proposal, the rating and the type of proposal (long term, normal, pilot, and test).
- The BL managers ask proposers for their scheduling preference and draw up the beamtime schedule, taking into account:
 - 1.) facility operation conditions
 - 2.) scheduling preferences by the users
- If an experiment cannot be performed due to problems caused by the beamline or the facility, it can be rescheduled using the reserve time (typically about 4 days at the end of the running period). The rescheduling decision is taken by the BL manager.

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(Head SYN department)