

Guidelines for the ISIS Facility Access Panels (FAPs)

The **Remit** of the ISIS FAPs is:

- To recommend to the Director of the ISIS Neutron and Muon Source a balanced science programme based upon the criteria of **scientific excellence and timeliness** (all within the bounds of technical feasibility and safety implications) and, where appropriate, the potential economic impact and contribution to knowledge exchange and transfer.
- To comment on the appropriateness of the number of beam days requested for the experiments proposed.
- To identify after each proposal round scientific trends and facility development issues (including software development) which are of relevance to the ISIS instrument suite and to report those through the FAP chairs.

Panel Subject Areas

ISIS presently has ten Panels:

- Crystallography
- Disordered Materials
- Excitations
- Molecular Spectroscopy
- Muons
- Engineering
- Small Angle Scattering
- Reflectometry
- Chip Irradiation
- Cultural Heritage

Changes may be made periodically to the above arrangement in the light of changing science requirements or proposal subject areas.

Panel Composition and Membership

Each FAP consists of between 8 and 15 members, depending on the number and breadth of proposals typically received. Members are drawn from the wider science community, from both UK and overseas scientists, academic and industrial. Members are chosen because of their expertise in a particular science area, or their knowledge of neutron or muon techniques applied to a given area. Members typically serve for three years, with one third of the panel being renewed each year. Where necessary, members can be renewed yearly for periods beyond three years, but none should serve for more than five years unless they are appointed as panel Chair.

One member will be asked to Chair the panel; this is often (but need not necessarily be) an existing member who has already served on the panel for a period. A member will normally Chair a panel for up to three years; their total membership time on the panel may be up to six years.

Two ISIS staff members attend panel meetings to provide technical information to help with proposal assessment, and to provide logistical and secretarial support.

When new members are needed for a panel, the existing panel should discuss the expertise required in the new members, and can suggest possible candidates. Vacancies will be advertised to the community to generate a pool of possible researchers who can be called upon to fill panel vacancies as they arise. Panel diversity will be taken into account when appointing new members.

The Chair of each panel and the appropriate ISIS representative will attend the FAP Chairs briefing meeting prior to the FAP meetings, and the wind-up Chairs meeting which follows the FAP meetings.



In the event that a panel member is unable to attend, they should notify the relevant panel secretary or the Facilities User Office as soon as possible in advance so that a substitute member can be found if necessary. Written comments are expected from non-attending members. On rare occasions, panel members who are unable to attend in person may be offered the ability to attend by video conference or Skype; however this is normally only done where last-minute difficulties (e.g. ill health or transport problems) have prevented attendance.

FAP members are paid a small honorarium to acknowledge the work involved in preparing for panel meetings (the honorarium for the Chair is slightly higher as this role involves additional work). Reasonable travel and subsistence costs are reimbursed to members when attending panel meetings.

Panel Working Method and Protocols

Panel members are provided with all proposals for their panel in advance of the meeting. Each proposal will be assigned to two panel members who act as primary speakers to give their assessment of the proposal at the panel meeting. Written comments and an initial score are asked for in advance from the two spokespeople. Proposals are then discussed by the panel as a whole, taking into account any technical issues raised by ISIS representatives. The panel should arrive at a grade for each proposal (see Proposal Grading and Prioritisation below). Panels will be notified of the number of days available to them for each instrument being considered, and panels should recommend, based on the days available, which proposals should be awarded beam time and the number of days to be given.

Proposals which have indicated that the work is being carried out under a funded research grant which has been evaluated through a peer review process are flagged so that this can be taken into consideration.

When arriving at a mark for each proposal, panels should take into account the use of previous beamtime, including whether experimental reports have been submitted for previous experiments, and whether a publication record exists commensurate with the amount of beamtime awarded previously.

Comments should be provided by panels to be fed back to proposers, particularly where beam time is not awarded or significantly reduced. Panels may suggest submission of a Rapid Access proposal where technical information is lacking in an otherwise strong case; or an Xpress measurement to gauge the suitability of samples before a full beam time award is made.

Panel members should highlight any proposal where they consider there to be ethical issues. This may include unethical practice (e.g. plagiarism), but also where additional protocols may be necessary before an experiment can be allowed to take place (e.g. use of biological material, material from human subjects, genetic modification, etc.).

ISIS sometimes receives proposals on the same or very similar materials requesting very similar measurements from different groups. In general, we do not allocate time for very similar measurements to multiple groups. Instead, panels may recommend that the two groups collaborate; if this is not felt to be feasible, a panel should choose between the two proposals based on proposal quality and likelihood of a successful experiment leading to publication.

Panel Code of Practice

The work of the FAPs is covered by the Code of Practice adopted by STFC to embrace the 'Seven Principles of Public Life' (attached to these Guidelines). In particular, panel members should declare all conflicts of interest. Members are expected to leave the room during consideration of these proposals and also if proposals from their own departments are being considered. The FAP Chair is responsible for deciding on potential conflicts of interest where these are raised.

All papers relating to the proposal review are to be treated as **confidential** and should not be discussed outside the meeting; panel discussions and results of the peer review process should also be kept confidential.

Proposal grading and prioritisation

The ISIS FAPs will peer review all submitted proposals and agree an overall grade for each proposal. The grades and an indication of the associated definitions and expected outcomes are given in the table below.

Proposals which are scientifically or technically flawed should be rejected and marked X. Proposals which would have been ranked 1 to 10, **except for an identified and correctable element**, should be marked R for resubmission; panels may wish to recommend use of the ISIS Rapid or Xpress access routes in such cases.

Grade	Expected Review Outcome	Definition – For guidance
10	Beam time allocation is essential	Outstanding, world class
9		
8	Beam time allocation is recommended	Excellent
7		
6	Beam time allocation is possible	Good
5		
4	Beam time allocation should not be made	Fair
3		
2		Uncompetitive
1		Unsatisfactory
R	Panel would like to see a resubmission with panel comments addressed. Rapid or Xpress routes could be recommended. Proposals requiring ISIS Deuteration Lab effort must be resubmitted via the Direct Access route only	Resubmit
X	Panel do not want to see a resubmission	Reject

Post-FAP meeting adjustments

FAPs recommend to the ISIS Director a balanced science programme based upon the criteria of scientific excellence and timeliness (all within the bounds of technical feasibility and safety implications). Following FAP meetings, ISIS management may make a number of changes to the allocation results produced by the FAPs. This might be for reasons such as ensuring fair country balance across the whole programme, other balancing across techniques or instruments, or other reasons to do with facility operations. Such changes normally amount to a very small percentage of total proposals received; FAP chairs will be informed where such changes have been made.

ISIS Access Mechanisms

1. Direct Access

Direct access is suitable for all ISIS experiments. Proposals are submitted to two calls for proposals each year with deadlines in April and October each year. All direct access proposals are peer reviewed by the ISIS Facility Access Panels (FAPs). Proposals which are allocated beamtime are scheduled by ISIS scientists normally between 3 months and 8 months after the proposal deadline, depending on ISIS run cycles.

2. Rapid Access

When beamtime is needed more rapidly than is possible through the Direct Access route, researchers can submit a Rapid Access proposal. There are a variety of reasons why Rapid Access might be needed which include but aren't limited to: a new material that has been discovered; samples with short lifetimes; PhD student or post-doc needing beamtime before their project ends; etc.

Rapid access beamtime proposals can be submitted at any time and will be peer-reviewed by members of the Facility Access Panels (FAPs). Proposals allocated time will be scheduled as soon as possible.

3. Xpress access

The ISIS Xpress service is ideal for straightforward, short measurements which are run on behalf of a researcher by an ISIS scientist. The measurement may be needed to provide a 1-off crystal structure, or to demonstrate a sample's suitability before full allocation of beamtime, or a single measurement to finish off an experiment.

There is no advance peer review for this service, and proposals do not require a science case; a short description of the measurement is needed for technical assessment. Samples are sent by courier to ISIS for measurement and fully reduced and corrected high-quality data, ready for analysis, is provided in return.

Xpress access is in principle available on almost any ISIS instrument, although some instruments currently offer dedicated days when Xpress proposals are run.

4. Industrial Collaborative R&D Programme

The ISIS Collaborative R&D (ICRD) programme has been offered since 2011 and is a fast-track route for industries with a UK manufacturing or research base to use ISIS neutron and muon beams. Requests for ICRD time can be submitted at any time via the process described on the ISIS website. Requests are reviewed by a small panel with appropriate expertise, including the relevant FAP chair, under strict confidentiality rules.

Industrial users may also buy beamtime directly by contacting the ISIS Industrial Liaison Officer.

The Seven Principles of Public Life

Drawn up by the Nolan Committee and endorsed by the UK Parliament.

Selflessness

Holders of public office should take decisions solely in terms of the public interest. They should not do so in order to gain financial or other material benefits for themselves, their family or their friends.

Integrity

Holders of public office should not place themselves under any financial or other obligation to outside individuals or organisations that might influence them in the performance of their official duties.

Objectivity

In carrying out public business, including making public appointments, awarding contracts, or recommending individuals for rewards and benefits, holders of public office should make choices on merit.

Accountability

Holders of public office are accountable for their decisions and actions to the public and must submit themselves to whatever scrutiny is appropriate to their office.

Openness

Holders of public office should be as open as possible about all the decisions and actions that they take. They should give reasons for their decisions and restrict information only when the wider public interest clearly demands.

Honesty

Holders of public office have a duty to declare any private interests relating to their public duties and take steps to resolve any conflicts arising in a way that protects the public interest.

Leadership

Holders of public office should promote and support these principles by leadership and example.