

Advice on writing a good proposal

PIONEERING SYNCHROTRON
SCIENCE



An ESRF proposal consists of

- an online **Proposal** form,
- online **Sample** forms, and
- a **Project Description** form

➤ **Proposal form**

- completed in ESRF User Portal by Principal Investigator and/or Alternative Contact if one is named

➤ **Sample forms**

- completed in ESRF User Portal by Principal Investigator and Co-Investigators named in the proposal

➤ **Project Description form**

- main document describing your proposal; template exists as Word document, to be uploaded as a pdf file
- uploaded in ESRF User Portal by Principal Investigator and/or Alternative Contact if one is named
- always use the latest template (download from User Portal or from 'Applying for Beamtime' web pages)
- respect template format, font size and length limit, according to the proposal type you are submitting
 - follow the structure of the template and any help-text given
 - reviewers do not appreciate a reduced font size as the proposal is more difficult to read
 - panels will reject a proposal if the template is not respected

There is **high competition** for beam time at ESRF:

~45% acceptance rate (~1000 out of 2200 proposals received)

➤ **Proposal must be scientifically compelling and competitive!**

- only <1% rejected, mostly for technical reasons
- almost all are proposals which could be done, giving useful results
- grading guidelines to identify those that could be done; should be done; must be done; highlights
- geared towards research specifically benefitting from SR measurements
- strong scientific case where SR could give a result which would allow a field to significantly advance
- highly targeted proposal; avoid vague or too broad aims
 - preliminary measurements or characterisation strongly recommended when appropriate
 - have full portfolio requiring now SR to provide answers/information on specific point(s)

➤ Lots of proposals !

- reviewers have many proposals to review and discuss
- proposal must be **self-contained**
- all important information should be given in the proposal
- reviewers don't necessarily have time to get extra information from references
- technically poorly written proposals (typos, errors, non-respect of template and format) have high chance of automatic poor grade
- structure is important; clear and easy to read
- prepare...

➤ Consult Beamline Staff

- target measurements based on beamline; clearly identify how your experiment can be done and whether it can give you the answers you need
- advice on number of shifts required for each experiment

➤ Reports & Publications

- very important !

**Use of PUBLICLY-FUNDED ESRF beamtime
= OBLIGATION to PUBLISH and REPORT on beamtime used**

➤ Reporting

- Users allocated beamtime must provide a 2-page Experiment Report after each experiment within 3 months of the experiment end date:
 - made available to Proposal Review Panels who monitor effective use of beamtime
 - required as support for new requests for beamtime
 - especially important in absence of publication
 - proposals include information on relevant reports and reports on recent beamtime (status of project, productivity)
 - the selected relevant reports are automatically attached to the proposal
 - ensure the reports are submitted otherwise they cannot be attached!
 - Experiment Reports are confidential until the end of the data embargo period (3 years after the experiment)

**Use of PUBLICLY-FUNDED ESRF beamtime
= OBLIGATION to PUBLISH and REPORT on beamtime used**

➤ Publications in the Proposal Form

- Publications illustrate the productivity and activity of the whole proposer team at the ESRF
- The list of ESRF publications from the proposer team is automatically generated:
 - publications of the Principal and Co-Investigators as declared in their “My publications” page
 - even if not closely linked to topic in question
 - only publications pertaining to ESRF data (fully or partially)
 - only publication from the last 4 years
 - Proposal Review Panels pay special attention to publication record....groups not publishing are unlikely to be given further beamtime
- Highlight publications – up to 10 to be selected from the full list of ESRF publications
 - to allow proposers to highlight those that are of particular relevance to the current proposal
- Non-ESRF publications
 - for new and recent users or for proposers to indicate important non-ESRF work related to the current proposal
 - add non-ESRF publications using DOI or manual entry.

- Choose the correct **proposal type** (see [specific guidelines](#) for description)
- Choose the correct **experiment group** (if requested)
- Choose the correct **proposal lineage** – reviewers will reject proposals that are not correctly labelled (e.g. if you label your proposal as ‘new’ when it is a ‘resubmission’)
 - “**New**”
 - new proposal never previously submitted to the ESRF
 - “**Continuation**”
 - direct follow-on of a proposal submitted in last 4 rounds for which beamtime was awarded
 - ensure experiment report(s) on previous beamtime is(are) submitted
 - continuation details are mandatory, explaining link with previous proposal
 - “**Resubmission**”
 - resubmission of proposal submitted in last 2 previous rounds but not allocated beamtime
 - the proposal form will be pre-filled based on the original proposal
 - edit as required because [improvements are obligatory](#)
 - summarise changes and improvements for reviewers in resubmission details section of form
- **Create** your proposal

General

➤ Summary

- Title and Abstract
 - will be made **public** on the DOI landing page of the experiment if beamtime is awarded
- Continuation or Resubmission proposal **details**, if applicable

➤ Categories & Framework

- Keywords, Scientific Discipline, Societal Challenge and Industrial Involvement
 - all are used for accurate reporting to member countries and associates
 - all are used to monitor ESRF activity and trends
 - industrial involvement in public beamtime proposals is strongly supported as long as results are published

➤ Terms & Conditions

- acceptance and respect of the ESRF T&Cs are **mandatory** in order to apply for beamtime

Beamlines & Labs

➤ Beamlines and beamtime

- careful and informed choice
- correct beamline ([target the proposal](#)) and correct beamtime in shifts
- [talk to the beamline scientist!](#)
- depending on the proposal type, up to 2 principal beamlines can be selected (each requiring a different technique) and up to 2 alternative beamlines can be selected for each

➤ Beam requirements

- used for technical evaluation and scheduling
- indicate if any specific requirement, otherwise use the beamline standard

➤ Laboratory support request

- use the links to see what each support lab can offer

➤ Technical reasons for ESRF & Experience with SR

- consulted by reviewers as complementary information

Investigators

➤ Investigators

- list scientific drivers as Co-Investigators (CI)
- choose an Alternative Contact (AC) from list of CIs if desired; the AC can also modify and submit the proposal
- reviewers consider that a single Principal Investigator is unlikely to be able to perform a SR experiment single-handedly so please list CIs to clarify the team involved
- only include ESRF staff if they are one of scientific drivers and ask permission before

➤ Experiment team resources

- indicate any support requested from ESRF staff at the different steps of your experiment
- used for technical evaluation
- be honest – a very inaccurate assessment of your needs may affect future proposals

➤ Data management plan

- indicate roughly the total volume of data expected from your experiment (used to anticipate IT needs)
- check beamline webpages or ask the beamline scientist if you are unsure

Sample Environment

➤ Equipment and products

- indicate any equipment and products either requested from the ESRF or that will be provided by the user group
- used for technical and safety evaluation
- give as complete information as possible

Safety

➤ Experiment safety & risks

- self-assessment of overall risk of the experiment
- for technical feasibility & safety assessment

➤ Sample declaration

- samples are declared via the submission of online sample forms (outside the online proposal form)
- at least one sample form is mandatory for proposal submission
- materials with similar composition should be grouped in one sample form.

Publications

➤ Relevant reports

- table lists ESRF proposals allocated beamtime from the proposer team over last 5 years, and the submission status of the associated experiment report
- table updates automatically as CIs are added or removed
- reviewers have access to this information and pay particular attention to reports on past beamtime; they are likely to reject a proposal if reports on previous beamtime are missing
- indicate any relevant reports that may support the new proposal - up to 3 may be selected

➤ ESRF publications

- see slide 6
- automatically generated list - ensure PI and all CIs have updated their “My publications” page
- select up to 10 highlight publications that are particularly relevant to the current proposal

➤ Non-ESRF publications

- see slide 6
- for new and recent users or for proposers to indicate important non-ESRF work related to the current proposal

➤ Proposal Summary

- probably most important part !
- equivalent to abstract of scientific paper, one paragraph
- clear statement on essence of proposal – **what** are you trying to do, **how** you intend to do it, and **why** you are doing it (impact, importance of study)
- reviewers should understand exactly what the proposal is about from this summary; details are given in the following sections

➤ Scientific Background

- set the scene for the interest of your research
- reviewers from many different backgrounds, not necessarily experts in your direct field
- indicate fundamental and societal importance of your work
- lead to the open question stated in the summary
- refer to any previous measurements or preliminary characterisation
- a figure is always useful, can replace many words (general process; previous data to pinpoint problem...)

➤ Experiment Plan

- exactly how are you going to carry out the experiment; strategy
- details and quantity of samples
- description of sample preparation when appropriate (this is especially important for biological samples)
- technique and setup; special requirements
- show reviewers you are ready and prepared
- allow beamline scientists to make technical feasibility assessment
- prior discussion with beamline scientist is strongly advised

➤ Beamline & Beamtime Requirements

- make sure you mention the same beamline as on front page of proposal!
- support the choice of beamline; preferred and alternatives
- justify the beamtime requested, how is this calculated (relate to Experiment Plan)
- can be relatively short

➤ Results Expected & Impact

- what is your **hypothesis**, what **results** are you expecting,
- how will these results **allow you to answer the specific question(s)** stated in summary
- what will be the **impact** of answering this question on your field of research

➤ References

- illustrate importance of topic by citing one or two **milestone papers in your field**
- **recent exciting developments** in or around specific topic of proposal
- indicate level of your research by citing **own recent, relevant publications** (with or without ESRF data)
- should not expect that reviewers will have time to read references so **all essential information must be in the proposal!**

When the 3 parts of the proposal application have been completed:

Check carefully your proposal content in the pdf file

AND

Don't forget to submit your proposal !