

# How to prepare an application to the AIFIRA platform

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## 1. Before your first application to the AIFIRA platform

### a. External users

If you are not already involved in any collaboration with CENBG for this proposal, please contact **before filling the proposal** the person in charge of the experimental programme (Dr S. Sorieul, [sorieul@cenbg.in2p3.fr](mailto:sorieul@cenbg.in2p3.fr)) who will allocate you a liaison scientist.

The liaison scientist will advise you on selecting the optimum conditions of analysis you need for the purpose of your study and will help you filling the proposal. Proposals not carrying the comments of a CENBG liaison scientist will not be accepted.

### b. External users in collaboration with the CENBG and internal CENBG users

It is strongly recommended that you discuss the technical aspects of the proposed experiment with AIFIRA staff **before** filling the proposal form. The internal users involved in the application are expected to be competent to judge the technical feasibility of the experiment and to know the platform specificities.

## 2. Completing the application form

### a. First page of the application form

- Experiment title: this should be concise but informative.
- Keywords: they should be representative of the experiment. Not more than 5 keywords.
- Proposal: select the items corresponding to your experiment. For a continuation of an experiment, please give the experiment number that appears on the AIFIRA schedule.
- Project spokesperson: give the name, surname, laboratory or institute, postal address, phone and fax numbers, and the email address of the project stockperson.
- List of participants: give the name, affiliation, position and email of the people who will come for the experiment.
- Beamlines: give the corresponding beamline. Five beamlines are available designated as<sup>1\*</sup> :
  - external beamline
  - macro beamline
  - nano beamline
  - irradiation micro-beamline
  - physics beamline
- Time requirement: write the number of days you think you need in order to perform the experiment. It can be several periods of days if necessary\*.

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\* If you don't know, ask to your liaison scientist if you are an external user or to the AIFIRA staff if you are an internal user.

- Ion species: three ions are available: proton ( $H^+$ ), deuterons ( $D^+$ ) and helium ions ( $He^+$ ). The selection of the ion species depends on the analysis technique or nuclear reaction you want to use<sup>x</sup>.
- Energy: the energy of the beam. The available range is from 800 keV to 3.5 MeV<sup>x</sup>.
- Beam current: the current of the beam measured **on the sample**. The working current range is from < 50 pA to around 5  $\mu A^x$ .
- Preferred period and unacceptable dates: tell which is (are) the date(s) or period(s) of time when you want (don't want) that your experiment are scheduled.
- Information about samples or target: check off the nature of the samples among the four possibilities. Please specify a little more the nature of the samples in the "Give more details" section (composition, size, numbers...).
- Experiment out of the working hours: check off if you are ready or not to work out of the working hours.
- Technical constraint or specific conditions: list the potential constraints or conditions associated to your experiment i.e. specific radiation protection, specific detectors, need of radioactive sources, waste management...
- Potential risks: If your proposed experiment or the samples constitute a potential health and safety hazard, you must contact the Radiation Safety Officer **before** submitting the proposal (Mr S. Roudeau; [roudeau@cenbg.in2p3.fr](mailto:roudeau@cenbg.in2p3.fr)). A statement of hazard and safe operating procedures will be required before the proposal is accepted. The applicant is responsible for notifying AIFIRA of any hazards associated with the samples. Access to the facility may be denied if this is not done.
- Reasons for applying to the AIFIRA platform: Explain for which reasons (scientific or technical) you need to make analysis on the AIFIRA platform.
- Publications: indicate the articles, and/or the talks/posters published (given) within the 12 months dealing with experiments conducted or partially conducted **with AIFIRA ion beams**. You are strongly encouraged to send with your proposal the most representative of your articles (in pdf format) concerning experiments conducted with AIFIRA ion beams.
- Scientific context: is the work part of a national or international project/scientific program. Did you obtain any specific funding for this work?

## b. Second page of the application form

- Experiment title: report the same title than previously given in the first page
- Description of the experiment:
- This section is divided into four parts:
  - Goals and scientific background of the experiment.
    - These should be well-detailed to help the referees in their decision. It should be informative, accessible to a non specialist, and indicate the general scope of the study.
  - Description of the samples.
    - A detailed description of the samples, their composition and nature, their origin and how they will be prepared for the experiment.

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<sup>x</sup> If you don't know, ask to your liaison scientist if you are an external user or to the AIFIRA staff if you are an internal user.

- Conditions of analysis requested
  - Give ion species and energy and explain why these conditions are required to achieve the purpose of your study.
- Summary of the expected results
  - Summarize briefly what you'll expect of this experiment and which will be the possible conclusions depending of the results you'll have.

### 3. Reports on beamtime used

After each beamtime period you will be asked to submit a short report on the outcomes within 2 months. This will be used by the panel when assessing any subsequent application for a continuation for the project.

### 4. Publication & Confidentiality

Note that all proposals and reports relating to the use of AIFIRA may be published on the AIFIRA website or in other ways. **If you do not wish** any part of the documentation you submit to be published, please contact Dr S. Sorieul before submission and provide instead a short resume of the project.

### 5. The assessment process

Applications for beam time are prioritised at meeting of the Programme Advisory Panel. This is a panel of internal CENBG and external experts in both ion beam techniques and the major applications areas. The meetings are held at six month intervals, usually in June and December.

Proposals are assessed by the panel on the basis of the following criteria:

- The quality and content of submitted proposals.
- The quality and content of reports arising from prior beam time periods on the same project.
- Written reports of two specialist assessors (normally panel members, but if the project falls outside the expertise available on the panel, external specialists may be used). Assessors are asked to provide comments to feed back to applicants.
- The proposer's presentation at the public panel meeting.
- The proposer's response to questions asked by panel members at the public meeting.

The decision of the panel will be one of:

- Allocate all the beam time requested.
- Allocate a reduced amount of beam time.
- Do not allocate.

This decision will be used by the AIFIRA staff when preparing the detailed schedule for the semester.

## 6. The public presentations

A limited number of proposers will be asked to make a short presentation (20 minutes, in English) at public session held on the morning of the panel meeting. This should present the project to a general audience.

For the new project, a senior scientist who is involved in the project is mandatory in order to answer to the questions of the committee and of the audience.

Additionally there is a period at the end of the formal presentations when any panel member may question representatives of **any** of the submitted proposal about the details of their submissions. It is strongly recommended that proposal consortia should have at least one representative present at the public meeting.

## 7. Questions

Any questions about the application process should be addressed in the first instance to Dr S. Sorieul.