

LSC - RULES FOR EXPERIMENTAL PROPOSALS

A Collaboration may submit a written proposal for experimental activity at LSC in three different forms, an Expression of Interest (EoI), a Letter of Intent (LoI) or a full Experimental Proposal (EP). Addenda or Status reports connected to these documents may be submitted in later times. Often, but not necessarily, the EoI and the LoI are the first steps toward an EP.

Each document will receive a label by LSC, Director's Office. The first element of such a label will be EoI, LoI or EP respectively, the second will be a sequential number, the third the year of presentation. The approved experiments will be labelled as EXP- sequential number-year.

Any document to be considered in a given meeting of the Scientific Committee must reach the LSC at least two weeks before the meeting. The LSC is responsible for the distribution to the Committee members.

Safety and environmental issues are a primary concern of the Laboratory. The following circumstances must be taken explicitly into account. The facility is:

- Located underground.
- Located in contact with the aquifer of the mountain
- Close to a motor-way
- Located in an environmental sensitive region
- Located in a seismic region

Safety rules are specified by Spanish and European laws, by the safety manual of the Laboratory and by specific instructions of the Laboratory. The Laboratory has the responsibility to enforce the observance of these laws and rules. No infrastructure or object may be introduced in the Laboratory without previous approval. Any infrastructure or object to be introduced in the Laboratory must be checked by the safety service of the Laboratory before approval, and the related operations must be compliance to the foreseen procedures. Any person must be duly formed and informed before being allowed to work in the laboratory.

The **Expression of Interest** is the simplest document. It should contain the basic scientific, economic and organizational elements that are necessary to the Laboratory to start the evaluation process, with the help of the Scientific Committee. Necessary pieces of information are

- Description of the science case, including comparison with other experiments or ongoing proposals, specifying the reasons to be underground
- First order evaluation of backgrounds
- First evaluation of environmental impact

- R&D phases as foreseen
- Description of the prototypes, if needed
- First approximation of a time scale
- The requests to LSC, in a first approximation (space underground, duration, requests to the laboratory Services)
- The structure of the Collaboration
- The Spokesperson

The **Letter of Intent** is at more advanced level of elaboration of an EoI, but not yet at the level of an EP. It should contain all the scientific, economic and organizational elements that are necessary to the Laboratory to reach, in case, the approval stage, with the help of the Scientific Committee. It should contain at least the following chapters

- **Description of the experiment**
 - Detailed description of the science including complete comparison with other experiments and ongoing proposals.
 - Evaluation of the backgrounds supported by Montecarlo simulations
 - Research and development program, both outside LSC and in LSC
 - Description of the prototypes
 - Description of the construction plan and schedule
 - Environmental resources (water, energy, etc.) and forecast of emissions, related to the installation, commissioning, running and decommissioning
- **Requests to LSC**
 - Request of underground space, specifying the relevant characteristics of the items to be installed, the geometry and the weights.
 - The times needed for installation, commissioning, running and decommissioning.
 - Requests of electrical power, water, cryogenics and other fluids
 - Requests of space in the External Facility and corresponding time occupancy
 - Requests of services (chemistry, screening, mechanics, cryogenics etc.)
 - Requests of special infrastructures, if needed
- **Structure of the Collaboration, Management, Funding**
 - The structure of the Collaboration, including author's names and institutions
 - The spokesperson, the responsible person of each collaborating Institution
 - The responsibilities of each Institution (as defined at the time of the presentation)
 - The definition of the main tasks and the name of the task leaders
 - First order definition of the milestones and of the schedule
 - First order evaluation of the total cost and of the expected financial contributions

The **Experimental Proposal** is a complete document containing all the necessary scientific, managerial, economic, environmental and organizational elements. It should contain the same elements of a LoI, but at an advanced elaboration stage, and additional elements necessary to build, install, commission, run and decommission the experiment. In particular, a **risk analysis**, will be developed together with LSC, before the final approval. The EP should contain at least the following chapters

- **Description of the experiment**

- Full description of the science.
- Evaluation of the backgrounds supported by advanced Montecarlo simulations and preliminary experimental measurements, when needed
- Research and development program, both outside LSC and in LSC
- Full description of the prototypes
- Detailed construction plan and schedule
- Accurate evaluation of the environmental resources (water, energy, etc.) and forecast of emissions, related to the installation, commissioning, running and decommissioning (a mass balance could be necessary)

- **Requests to LSC**

- Request of underground space, specifying the relevant characteristics of the items to be installed, the geometry and the weights.
- The times needed for installation, commissioning, running and decommissioning.
- Requests of electrical power, water, cryogenics and other fluids
- Requests of space in the External Facility and corresponding time occupancy
- Requests of services (chemistry, screening, mechanics, cryogenics etc.)
- Requests of special infrastructures, if needed

- **Structure of the Collaboration, Management, Funding**

- The structure of the Collaboration, including author's names and institutions
- The Spokesperson, the responsible person of each collaborating Institution
- The GLIMOS (Group Leader in Matter of Safety)
- The On-site Contact Person
- The responsibilities of each Institution
- The definition of the main tasks and the name of the task leaders
- Detailed definition of the milestones and of the schedule
- Total cost and break down in its components, both into items and into phases (R&D, construction, installation, commissioning, running, decommissioning)
- The expected financial contribution of each Institution and their time scales
- The granted financial contribution of each Institution and their time scales.