

**To Directors, technical contacts, Governing Board representatives and members of the Institutions that have participated in EU funded projects for collaborative particle accelerator R&D**

9 May 2019

Dear colleague,

The European Commission will open in November 2019 the Horizon 2020 call INFRAINNOV-04-2020 for **Innovation Pilot** projects, which are directed at Research Infrastructure networks to kick-start the implementation of common strategies and roadmaps for technological developments required for improving their services through partnership with industry. Thanks to the high level of integration reached by our community and to the quality of our previous initiatives, the Commission has selected “**Innovation in accelerator technologies**” as one of the priority domains for this call. Our particle accelerator community is invited to submit by the call deadline of **17 March 2020** a proposal for a collaborative project with an overall EC contribution of 10 Million Euros. The new project is expected to start in May 2021 at the end of the present ARIES project and to last for 4 years.

As for previous proposals, the submission will be coordinated by the TIARA Collaboration Council (Test Infrastructure and Accelerator Research Area, [www.eu-tiara.org](http://www.eu-tiara.org))[[1]](#footnote-1) and will be supported by the ongoing ARIES Integrating Activity Project (Accelerator Research and Innovation for European Science and Society, <https://aries.web.cern.ch/>). In view of the complexity of this new instrument, the preparation has to be started as soon as possible to meet the March 2020 deadline.

With the goal of preparing a coherent and ambitious proposal that corresponds to the requirements of our community, TIARA and ARIES are now launching a **call for proposals for collaborative actions** to be included in the final Workplan of the Innovation Pilot project. The proposals have to be prepared using the enclosed template and sent to accelerator.innovation@cern.ch before **31 August 2019**. The proposals will be evaluated by a Committee nominated by the TIARA Council members and the results of the evaluation made public at end of October 2019.

The proposals for actions should belong to one of the three categories below:

1. **Strategies**: identification of key techniques and trends that are crucial for the future construction or upgrade of accelerator Research Infrastructures or for their impact on society, and definition of roadmaps and strategic agendas for their development. These actions are performed by small consortia of institutions, in close partnership with industrial partners.

The proposed **requested EC contribution** for “Strategies” is approximately **300 k€**, which will complement matching funds (including overheads) from the participating institutions.

1. **Developments**: development of fundamental technologies or techniques underpinning the efficient and joint use of Research Infrastructures or their impact on society. These actions are early stage developments of critical components by a small number of partners, to be whenever possible realized in partnership with industry. Technology Readiness Level[[2]](#footnote-2) (TRL) for these actions shall be between 2 (technology formulator) and 4 (small scale prototype).

The proposed **requested EC contribution** for “Developments” is approximately **100 k€**, which will complement matching funds (including overheads) from the participating institutions.

1. **Prototypes**: prototyping of higher performance technologies or instrumentations, including testing, needed to upgrade the Research Infrastructure, or construct their next generation, or enhance their impact on society. These actions consist in advanced developments of critical components, resulting from a previous preliminary development or feasibility study, involving an appropriate number of partners, and must be realized in partnership with industry. TRL of these actions shall be between 4 (small scale prototype) and 7 (demonstration system).

The proposed **requested EC contribution** for “Prototypes” is approximately **500 k€**, which will complement matching funds (including overheads) from the participating institutions.

The **duration** of the individual actions will be comprised between a minimum of 12 months and the full duration of the Innovation Pilot project, 48 months.

More details on establishing the **budget** are given in the attached application form. As for previous accelerator R&D projects, we expect that the EC contribution will cover about 50% of the total project cost, including overheads. In special cases, higher funding rates not exceeding 70% can be negotiated with industrial partners. We assume that the contribution from the partners will mainly consist in internal personnel made available to the project.

The **evaluation** of the proposals will be done accordingly to the following list of **criteria**:

1. Scientific and technological excellence;
2. Impact on Research Infrastructure users and/or on society;
3. Methodology of the implementation;
4. Innovation content;
5. Transnationality and integration of new partners;
6. Level of co-funding;
7. Risk management;
8. Cost vs. Impact;
9. Level and quality of industry involvement;
10. Coherence with the priorities of the community;
11. Continuity with previous EC-funded activities.

While scientific and technological excellence will be the main criterion for the selection of projects, the relative weight of the other criteria will be defined by the TIARA Council and made available in July 2019. The selection process will be fully transparent and the results of the evaluation and the ranking of all submitted actions will be made public at the end of October 2019.

The evaluation committee will define as well the relative sharing between the three types of actions within the project, based on the quantity and quality of the proposals received. A fraction of the total EC contribution will be reserved for a **second internal call** for proposals, which will take place approximately one year after the start of the project.

Please diffuse the present information in your Institution and invite all people interested in participating in the new Innovation Pilot for accelerators to submit a proposal using the attached template to accelerator.innovation@cern.ch before 24:00 on **Saturday 31 August 2019**.

We look forward to your help in setting up a new exciting project that will promote accelerator science for the next decades.

Yours sincerely

Maurizio Vretenar, CERN, coordinator of the ARIES Project

Roy Aleksan, CEA, coordinator of the TIARA Council

1. The TIARA consortium is governed by a MoU signed by CEA (France), CERN (International Organization), CNRS (France), CIEMAT (Spain), DESY (Germany), GSI (Germany), INFN (Italy), PSI (Switzerland), STFC (UK), Uppsala University (Sweden, representing other Scandinavian institutions), Henryk Niewodniczanski Institute of Nuclear Physics (Poland, representing other Polish institutions). [↑](#footnote-ref-1)
2. See e.g. <https://www.nasa.gov/pdf/458490main_TRL_Definitions.pdf> [↑](#footnote-ref-2)