

IIF: The I.FAST Innovation Fund

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IFAST Steering Committee
March 2, 2022



WP4 [CERN, CNRS, GSI, HUD, INFN, NNK, RHP, WWU]

- WP4 promotes innovation by structuring and implementing an internal funding for financing cutting-edge innovations explored within I-FAST.
- The IIF is a competitive call for innovation-oriented projects in collaboration with industry. Performed starting from Y2 of the I.FAST. Its allocated budget allows supporting *5 - 10 projects*.
- WP4 will monitor the advancement of the funded projects assessing results and properly allocation of funds according to established workplans.

IFF in a nutshell

- Funding between 100 and 200 kEUR;
- Consortium: at least one I.FAST beneficiary and one industry;
- TRL of 4 or higher;
- Project has to improve sustainability of particle accelerator technologies;
- Project must have potential for industrialisation or commercialisation.
- The project must have potential to attract more resources than what deployed by IFAST alone.

today it is requested approval of STC:

Methodology for managing IIF

→ described in the guideline document distributed by PC to STC

Selection Criteria

→ described in the excel document distributed by PC to STC.

STC is also asked to appoint a *Selection Panel* for the IIF.

→ It is proposed to include industrial partners and community members.

The Selection Panel will score proposals according to the criteria and select projects to fund, in transparent and structured process.

WP4 will monitor the project selected, propose the funding distribution, verify that the money is spent according to scope and it is used in effective and proper way.

guidelines document

It provides explanation to applicants on the way the I.FAST IIF works.

It informs about areas of interest and funding

- areas of interest for projects are the 9 *IFAST thematic areas* and the additional area of improved sustainability / reduced environmental impact of accelerator technologies.
- the funding is 100 – 200 Keuro per project (1 Meuro is total capacity of fund)

It informs about Rules of engagement

It provides templates/ formats for presentations and informs modalities of applications



About Eligibilities

- Only applications with participation of at least one IFAST beneficiary are eligible
- Only applications with participation of at least one industry are eligible
- Applicants shall respect timing/modalities as described in the guidelines.
- Most work will be done online, the paper work is kept on purpose reduced
- 2 rounds of selections, with a in-person presentation to be done at the final round

Selection Criteria 1/

- **Quality** is a criteria with 3 sub-criteria each scored from 0 to 5
 - Innovative Aspect of the proposal
 - Clarity and Pertinence of the objectives
 - state-of-the-art and demonstration of innovation potential

Selection Criteria 2/

- **Impact** is a criteria with 3 sub-criteria. It is questioned the relative weight. For me each should have the same weight
 - innovation capacity with involvement of industries, capacity to create new market opportunities, to reinforce competitiveness and growth of companies or bring other important benefits to society especially in reference to climate change challenges
 - measures to disseminate and exploit the project results, including management of IPR
 - How it is addressed sustainability and reduced environmental impact

Selection Criteria 3/

- **Implementation** is a criteria with 3 sub-criteria. Each with same weight.
 - soundness of the concept, credibility of the proposed methodology in terms of meeting specific market needs. Credibility and soundness of the Industrialization /Business Plan.
 - Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables: credibility and soundness of budget plan and schedule and of industries involvement.
 - Capability to mobilize additional resources, internal and external to the proposal, for post-IIF implementation and project further follow up and development

IIF applications

- Application of proposals will be web-based
- Applicants will be asked to web-fill a submission form [template provided]
 - The submission form will allow categorization of the proposals and first check on eligibility
- Applicants will be asked to submit a 10 slides pitch [template provided]
 - Pitch will provide mandatory information necessary to Evaluation Committee for the competitive scoring

IIF selection and award

- Evaluation Panel, appointed by IFAST STC, at the deadline of the call will score the proposals.
- 2 rounds of selections will be run:
 - first run will select the first 10 proposals, and invite projects to a 45 min in-person presentation of the project.
 - Second run will select the first 5 projects to be funded, on the base of the presentations made.
- Selection criteria in the 2 rounds of selections will be the same.
- The first 10 projects will be publicly announced on the I.FAST webpage: opportunities of showcase of technologies

IIF timeline

Disclose the call: IFAST AM and Industrial Workshop	May 2, 2022
Deadline for submission of proposals	August 31, 2022
Deadline for first round of evaluation	September 30, 2022
Deadline for second round of evaluations	November 30, 2022.

IIF Evaluation Panel. It is requested for appointment of STC:

- chair
- IFAST PC ex-officium ?
- Representatives of IFAST WP
- Representatives of industries
- Representatives of IFAST IAB

- Ev Panel shall have to work independently on tight schedules and to meet in-person few times to form and consolidate decisions
- Ev Panel must guarantee independence and not for conflict of interests

IIF monitoring

IIF projects management → from start of the project till IFAST end

Requires definition of appropriate deliverables projects and follow-up / monitoring of execution, schedule of payments.

Projects monitoring will be in charge of CERN (WP4) with support of INFN and CNRS

Conclusion

- IIF management methodology has been drafted, reviewed and submitted to STC for approval.
- Pending STC approval, at the IFAST AM in May 2022 it could be officially disclosed the call and activities could start
- The IIF shall provide opportunities to reinforce industries engagement in IFAST thematic areas.
- IIF could show the engagement of accelerator community in EU to address technological areas related to environmental protection and energy.

WP4 is also engaged into 2 R&D industrial activities

- **GRAPH&BEAMWIN:** a collaborative project to develop beam windows for next generation of accelerators
 - Activities is progressing. Technical Student selected and hired to work at CERN on selection and simulations of different materials under irradiation.
 - Most materials have been procured, samples are in preparation
 - Materials will be irradiated in GSI end of March.
- **Innovative material industrial developments**
 - Technical specification with required material properties for graphitic composites defined, discussed and accepted by industry (Nanoker)
 - Activities at Nanoker:
 - Plates of Molybdenum-Graphite with upscaled dimension produced: results close to above mentioned spec. Iterations to optimize the properties have been proposed
 - A possible alternative to MoGr, named “Chromium-Graphite” CrGr has been identified with lower production cost. The goal is to improve some of its properties and match the Tech specification
 - The identification of CrGr as a possible alternative to MoGr is scope of the milestone MS14, which is under preparation. Extensive thermophysical characterization of the material has just been completed at CERN, at the EN-MME Mechanical Laboratory

iFAST

Thank you !



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under GA No 101004730.