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I.FAST Annual Meeting
Industry Collaboration: the I.FAST legacy

M. Morandin for the WP3 group

CERN - 21 October 2025

What we have learned in these four years

- The IAB
- The Industry Workshop
- The WP3 investigations
- The AIPF
- Final comment

The IAB

- **11 representatives from European companies**, not directly involved in I.FAST
  - participation balanced across countries, industrial sectors and size of companies
- IAB members participated:
  - in the selection of the proposals for the **Innovation Fund program** (WP4)
  - as Advisory Board for the AMICI **Technology Infrastructures coordination project** (WP13)
    - providing adivce on the evolution of the **Technology infrastructure for Accelerators**
  - with its feedback on issues proposed by I.FAST in several specific areas:
    - **WP3 activities**
      - **program of the I.FAST Industry events**
      - **effectiveness of industrial partner engagement in I.FAST** as co-innovators
    - **Next EC Work Programme**
    - I.FAST **Training program** for industry

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    - **Effectiveness of industrial partner** innovators
    - **Next EC Work Programme**
    - Evolution of the **Technology infrast**
    - I.FAST **Training program**
    - in shaping the program of the **I.FAST**

IAB Members

1. **Large and constructive participation of companies in the I.FAST IAB demonstrated the significant interest of industry in being engaged and contribute: in this respect, the IAB was definitely a success.**
2. **To setup the IAB, it was very helpful to engage in the process the network of the ILOs (PERIIA, - www.periia.eu/)**
3. **Most of the feedback provided by the IAB was related to activities within WP3 and WP4 but probably the IAB could have been exploited even more.**
4. **The fundamental limitation of the IABs, in the context of a sequence of projects like I.FAST, turned out to be its transient nature: one of the reasons that convinced us to create the AIPF.**

WP3 in I.FAST

HTS workshop
18 April - Trieste

Industry Engagement

Industry Workshops

- Three workshops organized
  - **Industry Co-innovation Workshop** May 3 2022, at CERN
    - 80 participants, more than 50% from industry
  - **HTS Industry workshop** in Trieste
    - 24 participants from industry
  - **Industry Workshop on Cryogenics** in Big Science

    16-17 April 2024 in Paris
    - Co-organized with AIDAInnova and LEAPS-INNOV
    - 20 participants from industry

HTS workshop
18 April '23 - Trieste

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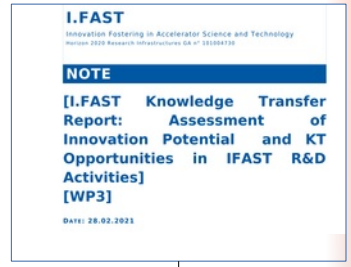
1. **Originally only one industry event was planned, but the success of the first event and the IAB's feedback led us to implement a broader program**
2. **In general we noticed much interest and good participation by Industry in all the workshops**
3. **These events are important opportunities that should be organized also in the future:**
   - **to illustrate projects's activities to a wider audience of European companies**
   - **create opportunities for interactions and exchanges that can open the way to further collaborations**

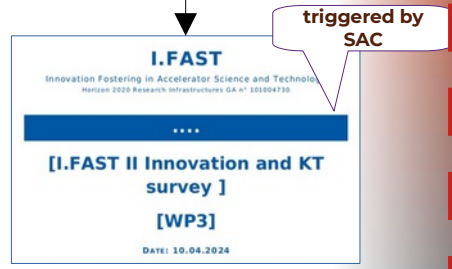
WP3 in I.FAST

HTS workshop
18 April - Trieste

Industry Engagement

I.FAST WPs and IIF projects





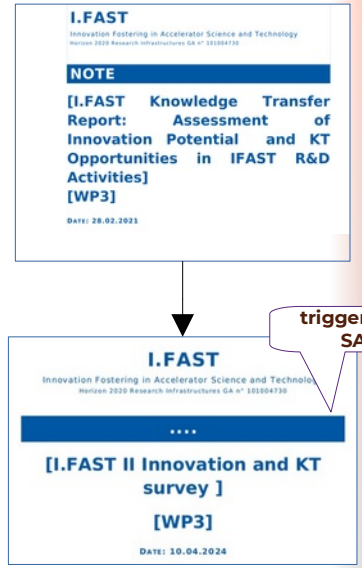
INDUSTRY AND RIs

INDUSTRY

WP3 investigations

- Two surveys on **Innovation and Technology transfer in I.FAST activities**, collecting information from WP and task leaders
  - first in the second half of 2022
    to collect the initial evaluation of the **R&D activities' potential and expected TRL trajectories**
  - second between end of 2023 and beginning of 2024
    to address specific SAC's questions formulated in 'May 23 about **"realistic pathway to identified markets and the time scales Izequired**",
    achievements in increasing the TRLs, real impact of I.FAST.
- A survey aimed at the **companies working in I.FAST**
  - to obtain a detailed assessment of the activities carried out and the results obtained, particularly from an industrial point of view.
- Finally, an in-depth study on all aspects that influence the possibility of creating **more effective and early collaborations with industry** in R&D activities such as those carried out in I.FAST.
  - This required conducting **numerous interviews with various stakeholders:** companies (16), RIs (3), ILOs (6).

I.FAST WPs and IIF projects



INDUSTRY AND RIs

INDUSTRY

WP3 investigation

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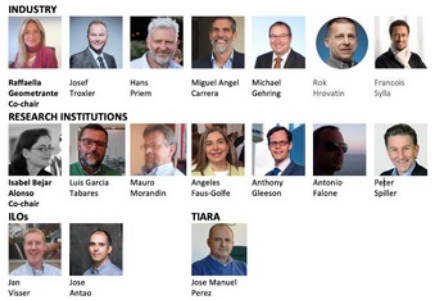
1. **The surveys carried out by WP3 have produced a rather clear and complete characterization of the innovation content of the I.FAST activities and its evolution**
2. **Now there is a benchmark that can be used in the future for relative assessments in other projects**
3. **The study on collaboration with Industry in R&D activities can also be considered a reference document**
   1. **it has already been used as a basis of discussion in the AIPF's**
   2. **it can be also used to check in the future if and where there has been progress in the direction of a more effective collaboration with industry**

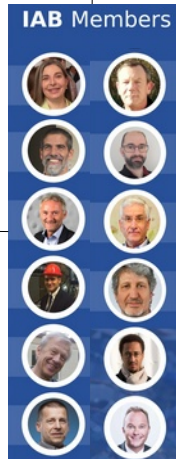
WP3 in I.FAST

HTS workshop
18 April - Trieste

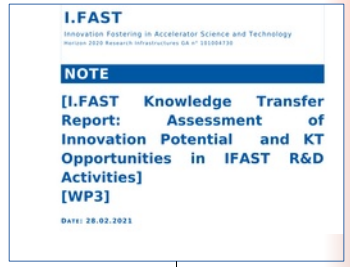
IAPF



Industry Engagement



I.FAST WPs and IIF projects



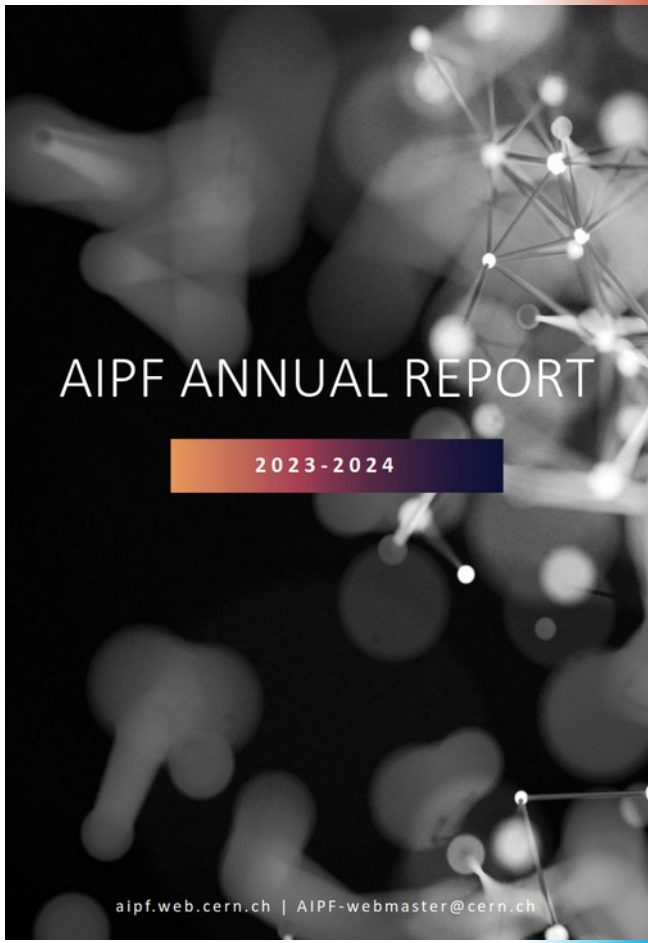
INDUSTRY AND RIs

INDUSTRY

Update on AIPF activities

Accelerator Science and Technology Industry Permanent Forum

- Carried out after the presentation at the '24 Annual Meeting
- **Working groups** created within the AIPF:
  - Promote the **integration, classification and distribution of information for industrial partners**
  - **Industry involvement on R&D funding programs**
  - Promote the **integration of roadmaps with synergetic communities**
  - Strengthening the **relationships between industry and research institutions**
  - Promote **mechanisms to share the risk between research infrastructures and industry**
- Delivery of the **AIPF Annual Report** in June 2024
- **AIPF@BSBF24**
  - satellite meetings organized at BSBF in Trieste, with an **open session** focused on the topics addressed in the Forum: first opportunity to present the activities of the Forum to a wide audience
  - initial discussions about the possibility to **align the R&D needs** in accelerator related technologies with the other relevant technology developers in the Light Sources, Fusion and Space communities.



Update on AIPF activities (II)

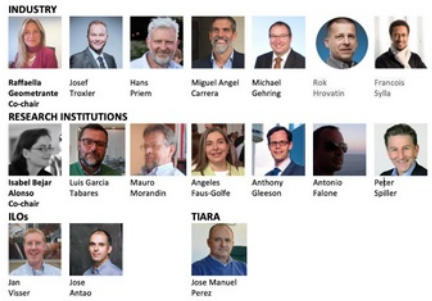
Accelerator Science and Technology Industry Permanent Forum

- **Support provided to TIARA** addressing several aspects:
  - participated in a meeting organized by TIARA in January 2025 to identify priority technologies for future accelerators and their users and provided the industry perspective;
  - supported the identification of enabling technologies for funding proposals;
  - helped consolidate ideas for emerging technology calls.
- **Interactions with ERMINe (Enterprise Risk Management Networking)** - 14, 16 May 2025
  - exchange of lessons learned and validated practices about mechanisms to share the risk between research infrastructures and industry

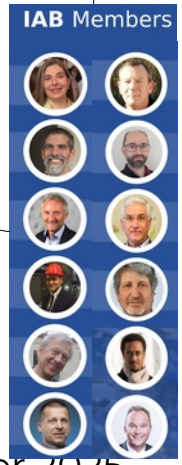
WP3 in I.FAST

HTS workshop
18 April - Trieste

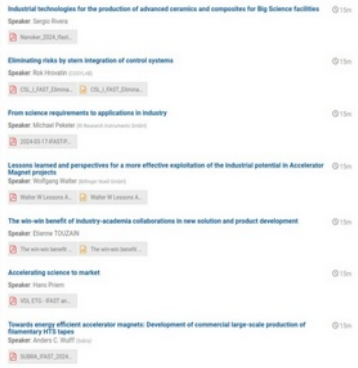
IAPF



Industry Engagement

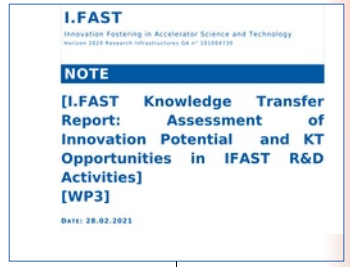


Industry driven session at the Annual Meeting



INDUSTRY AND RIs

I.FAST WPs and IIF projects



triggered by SAC

mainly interviews: 20 companies, 7 ILOs, 3 institutions and 2 collab. bodies

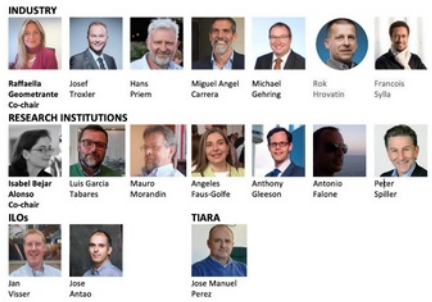
The AIPF legacy

- The creation of the AIPF was not foreseen to happen in I.FAST but it's probably the most **relevant legacy that the project** leaves for what concerns the relationships with industry in future projects
- The fact that the Forum is permanent makes it possible to involve industry in playing a role not only in projects' advisory boards, but **also in more strategic discussions** (e.g. within TIARA)
- The Forum can also create opportunities for industry **to be more proactive, to sometime stake the floor and to express their views** to the community rather than just reacting to specific requests.
  - this may include, e.g., future interactions on **how to align the needs and perspectives of industry with those of research infrastructure**
  - or proposal of joint initiatives that might be capable of **attracting (additional) EC funding** ?
    - in the HTS workshop L. Bottura underlined the need of improving and expanding the infrastructure for HTS conductor and magnet R&D, and in particular test facilities that could be interesting for industrial developments too.
- No doubt, the AIPF has the potential to bring the cooperation between industry and the I'FAST academic community to a different level, but it comes with its **own risks and challenges**
  - In this respect the fact that AIPF activities are going to be supported in EPITA is surely a **very good step forward.**

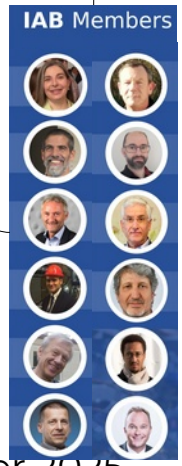
WP3 in I.FAST

HTS workshop
18 April - Trieste

IAPF



Industry Engagement



Industry driven session
at the Annual Meeting

I.FAST WPs and IIF projects

INDUSTRY AND RIs

INDUSTRY

The Business Development case study

- One of the activities planned in WP3 was to explore the possibility of providing TT support to I.FAST activities
- Eventually we decided to take one of the IIF project (FECathode) and perform an **analysis of the Business Development case**, that was carried out by the DESY Business development office
- The report produced first defines in general term a business case content framework, consisting of all aspects that are relevant for the business development case
- Then it applies the framework to the specific IIF project, analyses the various aspects and finally draws **recommendations and conclusions**
  - In the specific case the show stopper identified was the difficulty in finding an OEM that could be interested in completing the business plan and collaborate to implement it
- It defines e methodology that could be used in similar cases also in the future.

iFAST

I.FAST

Innovation Fostering in Accelerator Science and Technology

Horizon 2020 Research Infrastructures GA n° 101004730

DELIVERABLE REPORT

Business Development Case Report

DELIVERABLE: D3.2

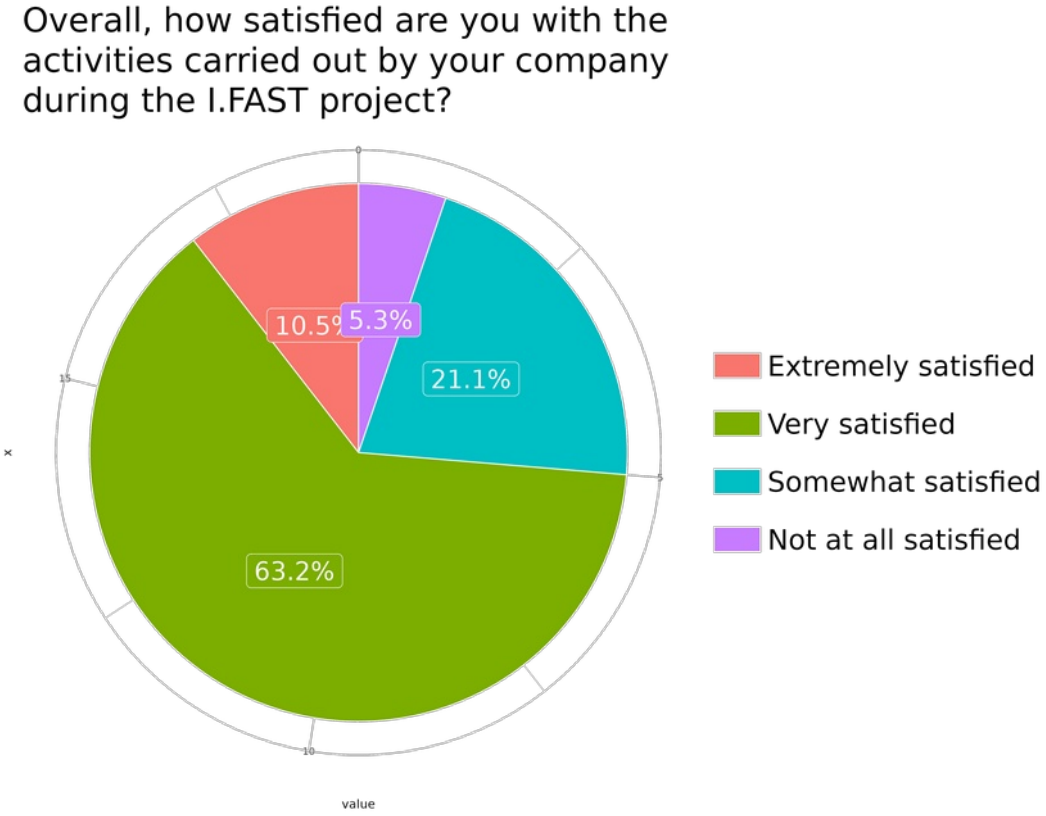
Document identifier:	IFAST-D3.2
Due date of deliverable:	End of Month 36 (30.04.2024)
Report release date:	21/05/2024
Work package:	WP3.2: Knowledge Transfer and Business Opportunities
Lead beneficiary:	DESY
Document status:	Final

ABSTRACT

The task 3.2 in Work Package 3, "Industry Engagement", aims to optimize the industrial innovation and knowledge transfer potential of I.FAST R&D activities. This report summarizes the approach and exemplary results from analysing the I.FAST Internal Innovation Fund (IIF) projects with respect to their business case potential. Together with a case framework suited to these projects, prior information was connected with results from surveys and interviews to form a starting point for an evolving business case, which can be refined through continuous engagement with the projects, industry partners and stakeholders.

Looking forward

The most promising and convincing premise for the success of **future collaborations with industry** in accelerator R&D.

It comes from the opinions gathered from the **companies** that have worked in **I.FAST.**

It is an excellent starting point for looking ahead to even **more ambitious goals**.