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Thanks to: Nicolas Delerue, Tord Ekelof, Luca Garolfi, Antoine LeGall

I.FAST Period 2 Review, 15.07.2024

WP2 mission and objectives

Mission:

- Create an innovation-based community for particle accelerators, and outreach to public

Objectives:

- Develop a communication strategy for particle accelerators
- Set up a Challenge-Based Innovation (CBI) scheme
- Launch an Industrial Training scheme associated with Knowledge Transfer (KT)

WP2 organisation

Task 2.1: Management

UOXF, CERN, CNRS, UU

Task 2.2: Communications & Outreach

CERN, GSI

Task 2.3: Challenge Based Innovation

CNRS, CERN, UOXF, ESI

Task 2.4: Industrial Training with Knowledge Transfer

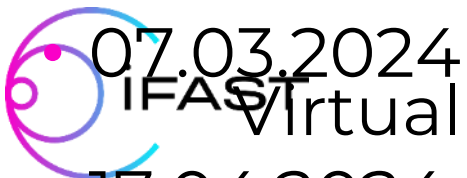
UU, CEA, CERN, CIEMAT, CNRS, DESY, INFN

Summary of activities in P2

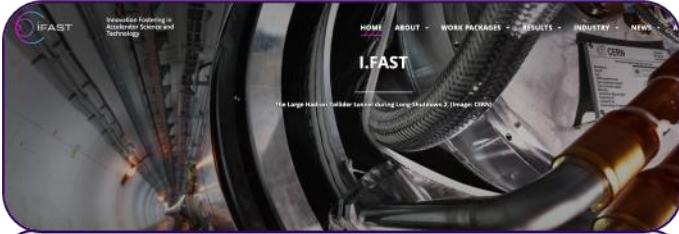
- 2.1: Performed the management of WP2 tasks, monitored the milestones and deliverables, ensured the production of the relevant documentation, and organised regular task leaders' meetings.
- 2.2: Delivered internal and external communications, including 15 articles on the “Accelerating News” newsletter, with particular emphasis on creating content for general audience via accelerator applications (wastewater treatment, textiles, etc.).
- 2.3: Prepared, launched and ran the second Challenge-Based Innovation scheme (July 2023) and started preparing and securing external funding for the third scheme (July 2024).
- 2.4: Continued to solicit and approve applications for the Industrial Training with Knowledge Transfer scheme.

Task 2.1: P2 meetings

- 05.12.2022
Virtual Steering Committee meeting
- 18.04.2023
Trieste Informal task leaders' meeting
- 21.04.2023
Virtual Steering Committee meeting
- 03.08.2023
CERN CBI presentations
- 29.09.2023
Virtual Steering Committee meeting
- 14.12.2023
Virtual Steering Committee meeting
- 07.03.2024
Virtual Steering Committee meeting
- 17.04.2024 Informal task leaders' meeting



Task 2.2: P2 examples



Website

>13 000 unique visitors in Y3
8 articles in Y3



Newsletter

1250 subscribers
4 issues so far in Y3

- Through **Accelerating News**, we are putting the focus on transverse topics:

- **Sustainability** (environment applications)
- **Impact** (societal applications, procurement).
- **Opinion pieces** (compact accelerators, rare earths).
- We are also including **new contributions** from members of the accelerator community: CERN, I.F.A.S.T., CLIC, FCC, EuPRAXIA, HiLumi, **HEARTS**, **CERN Accelerator School**,



Honey, I shrunk the particle accelerator: towards smaller, more efficient colliders



Task 2.3: Challenge Based Innovation

PROJECT CYAN



ACCELERATORS FOR THE ENVIRONMENT

10-DAY CHALLENGE @ ESI & CERN
25 JULY - 03 AUGUST 2023

Are you...

...a senior bachelor or master student
(all backgrounds)

...from a European university

...interested in making an impact

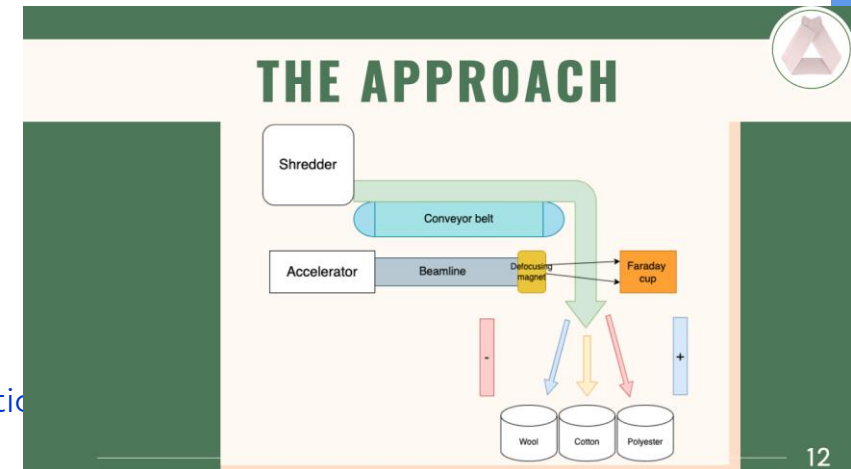
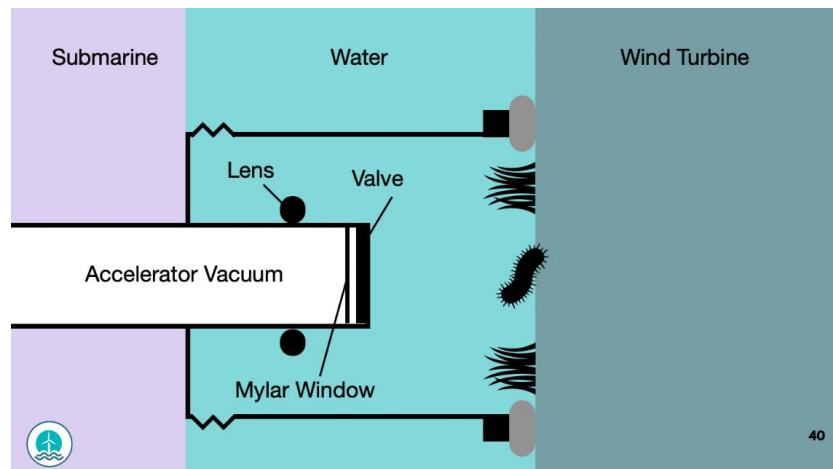
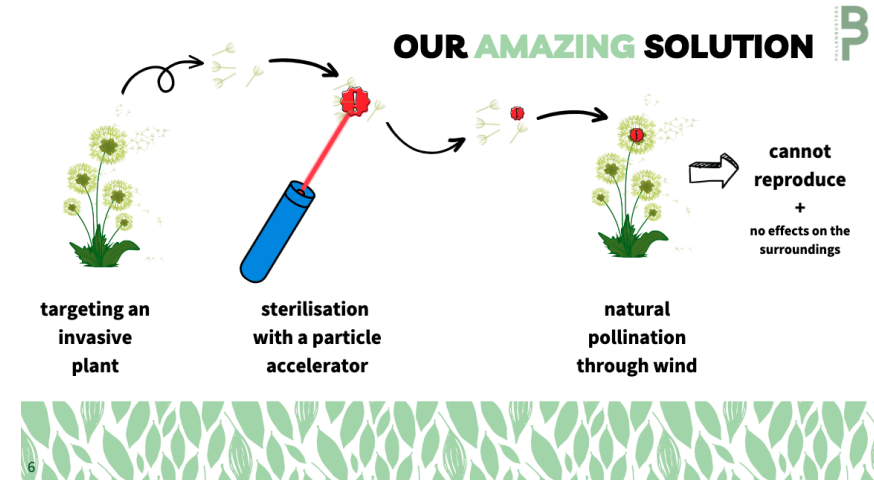
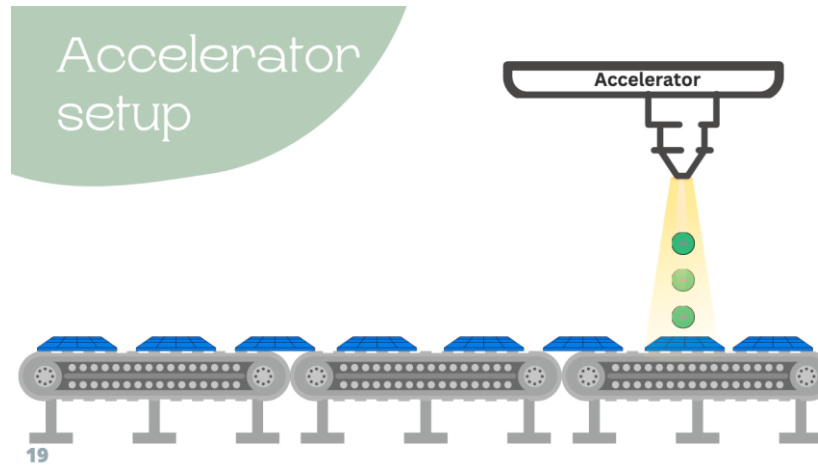
APPLY NOW ➔

ifast-cbi.particle-accelerators.eu



The I.FAST CBI 2023 projects

- Recycling solar panel by irradiating the glue that links the glass with the substrate.
- Sterilizing the pollens of invasive plant species.
- Using ion implantation to fight corrosion on off-shore windmills.
- Ionising cloth shreds from fast fashion to separate and recycle them.



In the news



Innovation Fostering in Accelerator Science and Technology



INCONTRI Meetings

Could particle accelerators help the environment? Students to propose innovative ideas

C. DARVE, N. DELERUE 29-09-2023 LEGGI IN PDF

CONDIVIDI SU

- I.FAST and CERN www articles led to other stories, including a textile fashion magazine

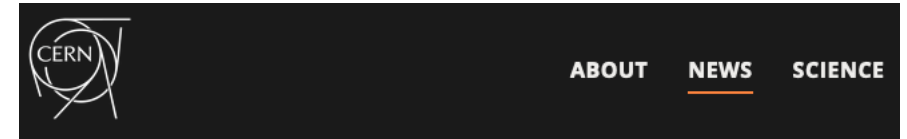


News › News › Topic: Opportunities

Particle accelerators to accelerate circular fashion

For the second time, the I.FAST yearly student challenge explored environmental and societal applications of accelerator technology.

10 AUGUST, 2023 | By Antoine Le Gall (CERN)



News › News › Topic: Knowledge sharing

Voir en [français](#)

Accelerating circular fashion

What role could particle accelerators play in recycling textile waste?

11 SEPTEMBER, 2023

IF IT AIN'T SUSTAINABLE

texfash

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[Home](#) › [Archives](#) › [Updates](#) › Particle Accelerators Can Accelerate Circular Fashion by Segregating Fabric Components

GOING CIRCULAR / ACCELERATORS

Particle Accelerators Can Accelerate Circular Fashion by Segregating Fabric Components

Fabric blends in clothing could soon be sorted easy if a proposal by a multi-disciplinary team of students to use an electron beam to segregate different fabric components through electrostatic separation finds takers.

Third CBI (2024) being partly supported from laboratories + industry

Accelerators for healthcare?



Come to take part in a challenge to imagine new multidisciplinary solutions to address health issues by using particle accelerators. This challenge will be tackled by multidisciplinary teams invited to stay, all expenses covered, for 10 days at the European Scientific Institute, near Geneva.

**10-day innovation challenge
open to all students**

**ACCELERATOR PHYSICS ENGINEERING
CHEMISTRY LIFE SCIENCE MEDICINE**

From 23 July to 1 August, near Geneva



iFAST has received funding from the European Union's Horizon 2020 Research and Innovation programme (GA No 101014730)
HITAL has received funding from the European Union's Horizon 2020 Research and Innovation programme (GA No 101014730)

Task 2.4: Industry Exchange

Better advertised and more actively promoted



Academia-Industry Exchange Programme

An opportunity for early-career industry professionals to come to laboratories and vice-versa

www.ifast-project.eu/ifast-traineeship-programme



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Task 2.4: P1 + P2 Knowledge Exchange secondments

- **1.FREIA-Leijenaar Electronics, Netherlands:** Trainee from Leijenaar participated in the development of high-power radiofrequency stations at Uppsala University.
- **2.CERN-THALES:** Experts from Laboratory and Company make visits to facilitate exchanges of simulation results for UHF klystrons and of simulation models and tools.
- **3. CERN-PercyRoc, Sweden:** Trainee from PercyRoc visited several times CERN to build up expertise in technologies and developments useful for Industrial Microwave Heating, working on new Low Level RF systems.
- **4. SEEIST-Cosylab, Switzerland:** Researcher from SEEIST spent two months with Cosylab, preparing a comprehensive product design specification documentation for an innovative gantry-less, compact, high-performance proton therapy facility.



→ Keep open for applications until end 2024

IFAST Period 2 Review, 15 July 2024

→ Base deliverable report (M48) on broader set of projects

Deliverables and Milestones P2

Task 2.2: Communications & Outreach

- MS5 (M18): Accelerator Communications and Outreach (ACO) Workshop

→ M45

Delayed due to:

Difficulties arising from Covid19 pandemic (2021/22)

End of contract for Communication Officer (CERN) + slow recruitment of successor

No impact on other tasks

Task 2.3: Challenge Based Innovation

- D2.2 (M24): Report on CBI scheme

ACHIEVED

Task 2.4: Industrial Training with Knowledge Transfer

- D2.3 (M24): Report on Industrial Training Scheme

→ M48

After a slow start the Scheme is now running

Impact

Already exceeding communication targets:

- 28 articles in newsletters etc. (target 10)
- 47 press articles
- 23,195 website visits: 40,000 pageviews
- Challenge Based Innovation reaching industry and society



Resources

Mainly personnel + consumables:

- P1+P2 60% spent (vs. 75% linear)

Note further spend on:

- Challenge Based Innovation 2024
- Industry Exchange scheme thru early 2025
- Communications workshop 2024

iFAST

Thank you for your attention!



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Deliverables and Milestones P1

Task 2.1: Management:

- MS4 (M2): WP2 Task Leaders' Kick-off meeting
ACHIEVED

Task 2.2: Communications & Outreach

- D2.1 (M6): Communication strategy **ACHIEVED**
- MS5 (M18): Accelerator Communications and Outreach (ACO) Workshop
postponed

Task 2.3: Challenge Based Innovation

- MS6 (M12): Definition of CBI scheme: proposed topic and organisation at ESI
ACHIEVED

Task 2.4: Industrial Training with Knowledge Transfer

- MS7 (M6): Expert Committee set up and industrial training scheme call
ACHIEVED



- 1) engage the network of communication officers from the major institutes of the European accelerator community;
- 2) understand possible communication synergies with industry;
- 3) have a focus on sustainability, and the societal & economic impact of our activities



The I.FAST consortium invites you to the

ACCELERATOR COMMUNICATION & OUTREACH WORKSHOP

XX-XX XXXX
CERN, SWITZERLAND



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