I.FAST WP3

Mauro Morandin - INFN
INFN-PD

WP3 participants

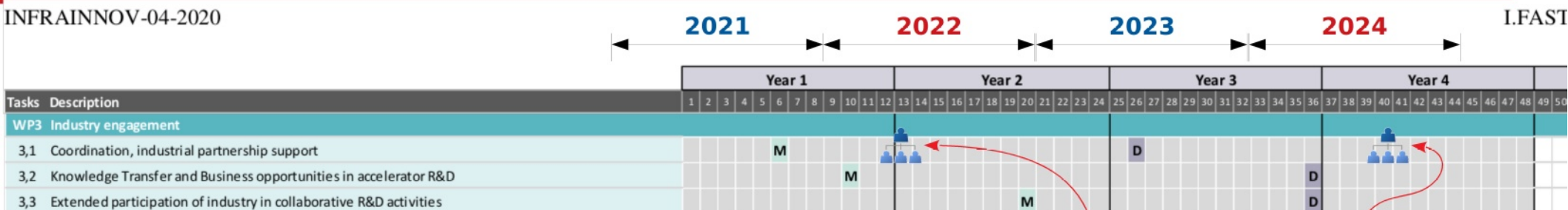| Institution/people		WP 3.1	WP 3.2	WP 3.3	Budget
INFN					*20 PM*
Mauro Morandin	mauro.morandin@pd.infn.it	TL			
Enrico M. Franchin	enricomaria.franchin@pd.infn.it	X			
DESY					*17 PM*
Djamschid Saf	djamschid.safi@desy.de	X	TL		
CIEMAT					*10 PM*
Jose Manuel Perez	jm.perez@ciemat.es	X		TL	
CEA					*3 PM*
Sylvie Leray	sylvie.leray@cea.fr	X			
Pierre Vedrine	pierre.vedrine@cea.fr			X	
CERN					*2 PM*
Marcello Losasso	marcello.losasso@cern.ch	X	X	X	
UKRI					*2 PM*
Anthony Gleeson	anthony.gleeson@stfc.ac.uk		X		
INEUSTAR					*5 PM*
Erik Fernanddez				X	
CDTI					*4 PM*
Manuel Moreno	manuel.moreno@cdti.es			X	
Roberto Trigo	roberto.trigo@cdti.es			X	

- WP3 secretarial support
  - Elena Pavan
- temporary lists:
  will be moved to I.FAST
  environment
  - **ifast-wp3-all@lists.infn.it**
    - all participants
      please let us know who
      should be added
  - **ifast-wp3-tl@lists.infn.it**
    - task leaders
  - **ifast-wp3@lists.linfn.it**
    - WP3 coordination support
      (INFN-PD group)

WP3

- **Task 3.1**: Coordination, industrial partnership support M1 – M48
  - **Setup and organize the work of the I.FAST Industry Advisory Board (IAB);**
  - **Support the companies participating in I.FAST;**
  - Organize the I.FAST industrial workshop(s).
- **Task 3.2**: Knowledge Transfer and Business opportunities in accelerator R&D M1 – M48
  - **Foster the Knowledge Transfer (KT) to industry** and stimulate the build-up of added industrial value in terms of creating new IP, establishing new activities for existing companies, and facilitating the creation of spin-offs;
  - Support the beneficiaries in achieving **an optimal exploitation of the KT** originated by I.FAST.
- **Task 3.3**: Extended participation of industry in collaborative R&D activities M1 – M48
  - **Address the requests by industry for an extended participation in R&D activities** through early engagement in low TRL developments and more effective exploitation of specific capabilities owned by private companies;
  - Define the **conditions and the obstacles to be overcome** for achieving such goals.

WP3 deliverables and milestones

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Tasks	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
WP3	Industry engagement																																																		
3,1	Coordination, industrial partnership support						M																														D														
3,2	Knowledge Transfer and Business opportunities in accelerator R&D										M																													D											
3,3	Extended participation of industry in collaborative R&D activities																				M																			D											

Open industry workshops

Deliverables related to WP3

D3.1: Industry Workshop Report *Report to document the outcome of the workshop*	M26
D3.2: Business development case report *Description of the activities carried out and of the results obtained*	M36
D3.3: Report on extended industrial contributions in R&D activities *Guidelines to improve the participation of private companies in R&D activities*	M36

Table 3.3: List of milestones

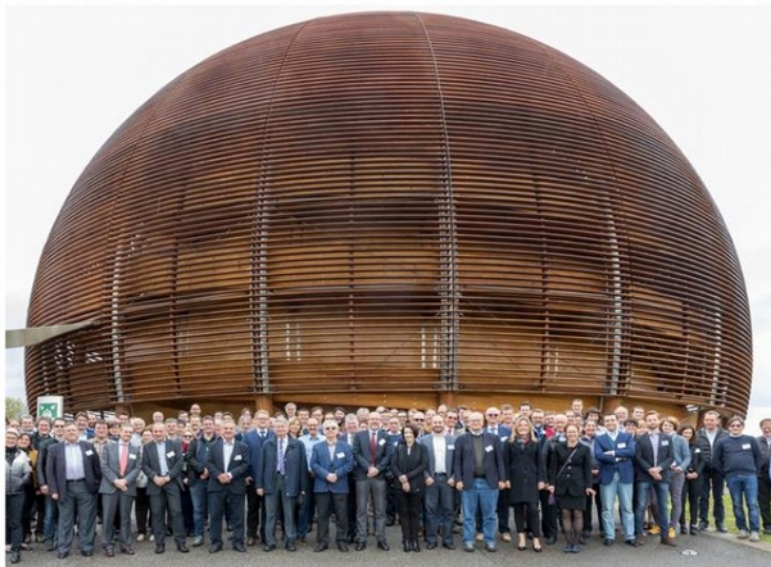| Milestone n°	Milestone name	Related work package(s)	Due date (M)	Means of verification
MS8	Industry Advisory Board launch	3.1	6	Kick-off meeting report
MS9	I.FAST KT Report ready	3.2	10	Report
MS10	Collection of feedback from industrial partners and RIs participating in IFAST	3.3	20	Report

I.FAST in a nutshell

- Innovation Fostering in Accelerator Science and Technology

- 4 years duration, 01 May 2021 – 30 April 2025

- 48 beneficiaries (SigmaPhi left the project), 14 partner organisations, >20 collaborating institutes. 15

- 13 Work Packages, 55 Tasks.

- Full cost budget 18.7 M€, EC contribution 10 M€.

- One goal: identify and develop in collaboration with industry the technologies for tomorrow's particle accelerators.

M. Vretenar - SC, 3/3/21

M. Morandin - CERN ILO

Options for kick-off meeting

➢ It is usually very important that project teams **meet in person**, to know each other and to create the team spirit that is essential for our work (we don't want to work in closed compartments!), at least **at the beginning** and **at the end** of a project.

➢ The **kick-off meeting** should be in person, my idea was to invite you all at CERN, and we have optimistically booked the **CERN Globe** on two alternative dates, May 4-6 and June 8-11.

➢ But now the pandemic is still active, and on top of that the CERN DG has just asked us to cancel our reservations because she needs the Globe…

➢ My proposal at this point is:
- Organise a virtual kick-off meeting on one day on **Tuesday 4 May**, with presentations by WP Coordinators only, and **parallel Work Package meetings**.
- Find a date in **October-November** for a plenary IFAST Meeting in presence at CERN, with presentations by all Task Leaders, on the programme and on first results.

M. Vretenar - SC, 3/3/21

The communication setup...

Task 2.2. Communication and Outreach

EU Communication Officer *Currently:* Daniela Antonio, CERN

Task 1.3. Internal Communication and Dissemination

Yiota Foka, GSI

Task 1.2. Information Flow Management and Cross-coordination

Toms Torims, RTU

D. Antonio - SC, 3/3/21

Audiences

- ✓ Project participants
- ✓ Accelerator community
- ✓ Scientific community
- ✓ Students
- ✓ European industry
- ✓ Funding agencies & decision-makers
- ✓ Public

	Information needs	Drivers	Channels	Outcome
Project participants	Project information; updates on work plan implementation (e.g. events, results), outreach materials	Community spirit; career development	Website, mailing lists, project meetings	Engagement with project results; sense of pride
Accelerator & wider scientific community	Main advancements in accelerator science; opportunities to collaborate	Scientific excellence; peer recognition; funding	Newsletter Accelerating News; beneficiaries' and projects' channels (e.g. ENLIGHT network); community events	Identifying common challenges, knowledge sharing, closer collaborations
Undergraduate students	Main advancements in accelerator science; career opportunities	Peer recognition; career development	Innovation programme	Attracting talent; supporting the next generation of researchers
European Industry	Academic publications, potential knowledge-transfer opportunities,	Innovation; job creation; collaboration	Academia Meets Industry events organised by IFAST; beneficiaries' channels	Knowledge and technology transfer, joint R&D
Funding agencies & decision-makers	Summary of results; project impact; policy recommendations	Scientific excellence; economic and societal impact	Website, newsletter Accelerating News, marketing material (e.g. brochure)	Support to project community; demonstration of return of investment in accelerator S&T
Public	Societal impact of accelerator tech	Curiosity, societal impact	Social media, including the beneficiaries' channels; public talks	Support for fundamental research

D. Antonio - SC, 3/3/21

What we need from WP coordinators?

❑ Review the **goals for each task** in the website, knowing they must be short and concise

❑ Help us complete a **communication calendar** with key points in each work package

❑ Help us review **key messages** and ensure they represent the entire group of partners

❑ Identify **communication channels** and contacts in your institutions for dissemination

❑ Contribute to the **image gallery** with images representing your institutions and WP

❑ Create an **introduction video** for each task (we will provide guidelines)

D. Antonio - SC, 3/3/21

WP3 budget

I-FAST — Task 3.1 — Coordination and industrial partnership support

Beneficiary short name	Person-months	Monthly personnel cost	Personnel costs	Travel	Other direct costs	Material direct costs	Total direct costs	EC requested funding (without overheads)	EC requested funding (including overheads)
INFN	20,0	6.500,00	130.000,00	6.000,00	8.000,00	14.000,00	144.000,00	82.400,00	103.000,00
DESY	1,0	6.500,00	6.500,00			0,00	6.500,00	3.600,00	4.500,00
CIEMAT	1,0	6.500,00	6.500,00			0,00	6.500,00	3.600,00	4.500,00
CERN	1,0	20.100,00	20.100,00			0,00	20.100,00	0,00	0,00
CEA	1,0	7.800,00	7.800,00			0,00	7.800,00	3.600,00	4.500,00
Total	**22,0**		**143.000,00**	**6.000,00**	**8.000,00**	**14.000,00**	**157.000,00**	**89.600,00**	**112.000,00**

ARIES2 — Task 3.2 — KT and Business opportunities in accelerator R&D
Full costs budget

Beneficiary short name	Person-months	Monthly personnel cost	Personnel costs	Travel	Other direct costs	Material direct costs	Total direct costs	EC requested funding (without overheads)	EC requested funding (including overheads)
DESY	16,0	6.500,00	104.000,00	5.600,00		5.600,00	109.600,00	58.400,00	73.000,00
UKRI	2,0	7.900,00	15.800,00	3.000,00		3.000,00	18.800,00	11.200,00	14.000,00
CERN	1,0	20.100,00	20.100,00	2.000,00		2.000,00	22.100,00	0,00	
Total	**19,0**		**139.900,00**	**10.600,00**	**0,00**	**10.600,00**	**150.500,00**	**69.600,00**	**87.000,00**

ARIES2 — Task 3.3 — Extended participation of industry in collaborative R&D activities
Full costs budget

Beneficiary short name	Person-months	Monthly personnel cost	Personnel costs	Travel	Other direct costs	Material direct costs	Total direct costs	EC requested funding (without overheads)	EC requested funding (including overheads)
CIEMAT	9,0	6.500,00	58.500,00	5.600,00		5.600,00	64.100,00	43.200,00	54.000,00
CERN	2,0	20.100,00	40.200,00	2.000,00		2.000,00	42.200,00	24.000,00	30.000,00
CEA	2,0	7.800,00	15.600,00	2.000,00		2.000,00	17.600,00	10.000,00	12.500,00
Total	**13,0**		**114.300,00**	**9.600,00**	**0,00**	**9.600,00**	**123.900,00**	**77.200,00**	**96.500,00**

12.8 CDTI, 17.2 INEUSTAR

CERN ILO

I.FAST IAB

- The IAB will advise the project management on how to
  - **optimize the impact of the industrial participation** in improving the competitiveness of European SMEs
  - **stimulate the applications of R&D results** for addressing the most crucial societal challenges
  - **to remove the obstacles**, including communication bottlenecks, which limit the effectiveness of collaboration with Research and Technology Infrastructures.
- The IAB could also contribute in the **selection of proposals for training secondments in task WP2.4** and in the **organisation of the I.FAST Innovation Fund program**.
- composed by representatives from:
  - **companies** working in the most relevant accelerator industrial sectors
  - Big Science national **industry associations**,
  - European **ILO (PERIIA)** and **TT organizations**
- will have to be set up **within three months** from the start of the project (i.e.: by Aug 1st)
  - work will start soon to put together the board, aiming at having it in place by July

AMICI IAG

- 14 people, 3 from RI, 11 from industry

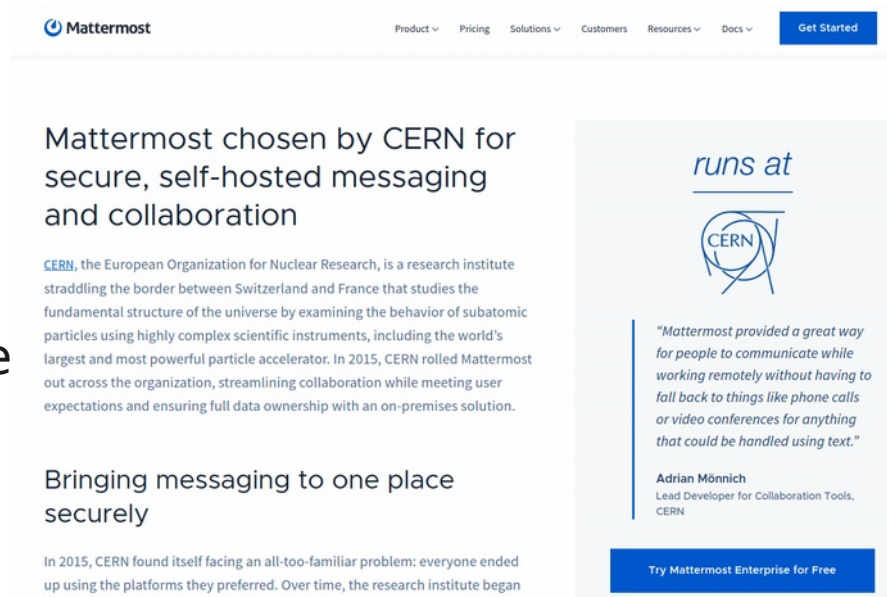| Name	First name	email	
Bethuys	Stéphane	stephane.bethuys@thalesgroup.com	Thales
Corniani	Giorgio	corniani@zanon.com	Zanon
Dziwoki	Adam	a.dziwoki@prevac.pl	Prevac
Gehring	Michael	michael.gehring@bilfinger.com	Babcock Noell GmbH
Howland	Patricia	Pat.Howland@e2v.com	e2v
Hutton	Andrew	andrew@jlab.org	Jefferson National Laboratory
Elmquist	Klas	klas.elmquist@scandinovasystem.com	ScandiNova Systems AB
Lancelot	Jean-Luc	jllancelot@sigmaphi.fr	Sigmaphi
McGinnis	David	david.mcginnis@esss.se	ESS
Melhem	Ziad	Ziad.MELHEM@oxinst.com	Oxford Instruments
Peiniger	Michael	Michael.Peiniger@research-instruments.de	RI Research Instruments GmbH
Pellecchia	Antonio	pellecchia.antonio@as-g.it	ASG
Troxler	Josef	Josef.TROXLER@ampegon.com	Ampegon
Yamamoto	Akira	akira.yamamoto@cern.ch	KEK-CERN

I.FAST IAB

- composition (8-10 people) :
  - chair with experience in both Research Institutions and industry
    - ideally a person that have been active in both environment
  - ~ 5-7 representative from industry, geographic and thematic representation
    - fields: SC magnets, vacuum equipment, beam line components, RF equipment, power supplies, ...
  - one representative from Industry associations ?
  - one representative from ILOs association ?

WP3.1 actions

- a **compendium,** illustrating the structure of the project, the GA and CA most relevant provisions and how the interaction with industry is organized, will be distributed to companies engaged in I.FAST.

  - it will in particular emphasize the general principles adopted for the management of the IP originated in the I.FAST activities
  - Grant Agreement:
    - SECTION 3 - RIGHTS AND OBLIGATIONS RELATED TO BACKGROUND AND RESULTS................. 45
  - Collaboration agreement:
    - 8. Section: Results
    - 9. Section: Access Rights
    - 10 Section: Non-disclosure of information

- help from everybody, (especially INEUSTAR) in identifying the most useful topic to be inserted

WP3.1 actions

- a **dedicated contact channel** will be established to collect suggestions from the collaborating companies on possible ways of **improving the effectiveness and the impact of their participation** in I.FAST

  - email

  - messaging/collaboration tool ?

    - creating a community of companies participating in I.FAST

- interactions with companies will be managed within WP3.1

  - with the help of Inst. Repr.

WP3.1 actions

Organization of open industry meetings

- starting point:
  - ARIES/AMICI Accelerator-Industry Co-Innovation Workshop
    Brussels - 6-7 feb. 2018
    - 92 participants
  - AMICI Partner and industry day for S.T.I.
    Padova - 18-19 apr. 2017
    - 83 participants
- two meetings, one in 2022 and the second in 2024/2025
- opportunities to talk about new projects related to accelerators that can offer opportunity of engagement for industry
  - could it be an opportunity to engage also companies that produce accelerators for societal applications, not involved with I.FAST activities ?
- main organizing resp. will be taken by INFN, but contributions from all WP3 participants in the definition of the goals and the agenda of the meetings will be essential

Coordination with other WPs about other topical meetings to be organized in I.FAST

WP3.1 actions

- a survey plan will be setup for periodically assessing the **industrial innovation outcome of I.FAST R&D activities** in I.FAST, both in terms of **initial expectations** and of actual achievements.

- by innovation we mean **Industrial product or process innovation**

- plan:
  - a survey at the beginning to evaluate the innovation potential, the possible obstacles and facilitating factors
  - results fed back to WPs
  - possible supporting/enabling actions
  - a final survey to verify how much progress has been done

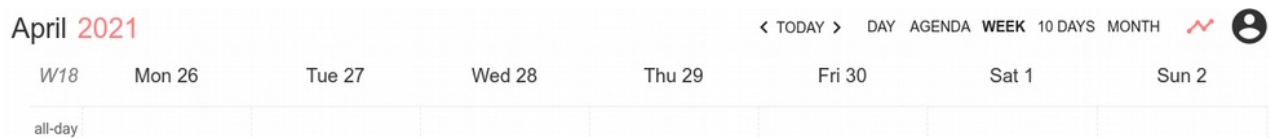- overlapping with WP3.2 survey, see below

WP3.2 actions

- **I.FAST activities at low TRL without an explicit involvement of private companies will be invited to discuss with us actions to attract industrial partners.**

- **KT survey: each R&D activity in I.FAST will be asked to characterize**
  - the Knowledge Transfer (KT) between RI and industry expected to take place
  - what actions are planned for extracting from it the best added value for the European industry competitiveness

- Contacts with the TT offices of the I.FAST participating Research Institutions will then be established **to facilitate the access to services** provided by them and by other local KT facilitators, like innovation centres and incubators, as well as to inform the I.FAST partners about best practices and programs that might be available, in particular at regional level, dedicated to support possible high TRL follow up activities.

- **The business case for at least one I.FAST promising R&D sector will be developed** in collaboration with industry and the outcome of the study made available. General measures and instruments will be summed up in a check list to be used at research institutes involved in accelerator R&D. The information collected will be made available in a dedicated section of the I.FAST web site and presented and discussed in a session of the I.FAST Industry Workshop.

WP3.3 actions

- **Can companies be engaged earlier and more widely in R&D activities to contribute in a more organic way with their specific technical and managerial competences** ?

- A detailed working plan will be agreed upon and then executed to address this question, in collaboration with the industry associations CDTI and INEUSTAR

  - The initial action in the plan will consist of performing **a survey among the companies to indicate and characterize possible ways of extending the industrial contributions to the R&D activities**.

  - Then, **feedback will be collected from RIs and Tis** on the conditions that should be fulfilled to make the extended contributions possible.

  - Finally, the material received will be analyzed and discussed, and a **final report will be prepared with a set of guidelines for the RIs.**

- Some ideas could be borrowed by the work carried out in AMICI WP5

Next steps

- define by the and of April the overall program for the activities to be carried out within each task

  - preliminary schedule, main contribution of partners, resources available/needed
  - some options may still be left open

- review the program before the I.FAST kick-off meeting

  - open task leader meeting on Apr. 28-30

  - program presented at the kick-off meeting
  - discussion on detailed planning of first activities in the parallel session at the KO meeting on May 4th