



AMICI - Industry partnership sessions

MAURO MORANDIN - INFN

CERN INDUSTRIAL LIAISON OFFICER FOR ITALY

Introducing the second day of the workshop

- the agenda tomorrow is focused on the central theme of the workshop: **the synergic interplay** between the European Technology Infrastructure (TI) and European Industry
- which is in fact one of the two main goals of the project, as outlined in the H2020 INFRAINNNOV-02-2016 call:
 - ... *The coordination of Technological Infrastructures ... will contribute to **harmonize their operation conditions** and **increase their operation efficiency**...*
 - ... *This will permit the creation of a more **efficient integrated ecosystem** between academic laboratories, large companies as well as SMEs, motivated by the **innovative environment** and the **market opportunities** created by the Research Infrastructures ...*
- besides, the message clearly spelt out by the EC is that, in pursuing these goals, activities have to be carried out **in collaboration with industrial partners**



The vision

- at end of the day, AMICI should have demonstrated not only that effective TI-Industry collaboration can be expanded and strengthened but also that
 - **added value**, in terms of improved business opportunities for Industry, can be created and can positively feed back in the TI operational sustainability
 - **investing in the TI's future** is in an investment for **European competitiveness**
- the outcomes of this collaboration complements the work performed in the R&D labs
- making it possible to transform a prototype into a system that is demonstrated to work in a realistic environment
 - from **TRL4** (technology validate in a lab)
 - to **TRL6** (technology demonstrated in a relevant environment)



Where are the industrial partners in AMICI ?

- first of all, **key industrial representatives** are the most important constituency of the AMICI advisory committee
 - 11 members out of 14 come from industry
- we could have also built the AMICI collaboration including **industrial beneficiaries** from the beginning
- however, we didn't want to take the risk of making a priori **rushed choices** that could have resulted in a limited, perhaps biased, most likely non representative and, non inclusive set of companies
 - rather, we decided to **allocating specific efforts and time** in the project to establish in a more effective way the contacts with Industry
 - aiming in fact at creating the widest network of European companies
- and we **did commit** ourselves to engage European companies from the very beginning
 - this workshop is the first important step in making that happen
- the presence of **more than 30 of the key European Industrial players** here in Padova is encouraging and important for AMICI.



Who ?

- a preliminary issue we addressed was to decide which **industrial sectors** would fall within the AMICI scope
- the current proposed list includes:
 - **RF technology**
 - **Vacuum technology**
 - **Cryogenic systems**
 - **Superconductor magnets and conductors**
 - **Other specialized mechanical components for accelerators**
 - **Electronics and instrumentation for accelerators**
 - **Power systems for magnets**
- the **CERN, ESRF, F4E, ESS ILO offices** will be asked to help us in reaching the companies that have experience in these sectors



How ?

There are several ways we envisage to collaborate with industry in AMICI:

- keep the **widest industrial audience informed** of AMICI activities and outcomes
- get **important feedback** from companies through a few surveys
 - aiming at a very comprehensive and representative involvement
- participation in **working groups** dedicated to key AMICI topics
 - the initial teams will be built tomorrow with **the companies** that will express interest in participating (in one or more WG)

Your participation in the discussions tomorrow are particularly important

- to **streamline and improve** the proposed program of activities with the European industry
- to suggest **additional approaches or actions** that have not been considered so far and may be effective for achieving the project goals



The first two round table discussion sessions

- We have two main activity tracks in AMICI:
 - **WP4: Innovation** lead be Anthony Gleeson (STFC - Warrington)
 - **WP5: Industrialization** lead by Pasquale Fabbricatore (INFN - Genova)
- we decided to organize two “round table” discussion parallel session, one for each WP
 - not enough time to organize them serially, the outcomes will be anyway reported in the plenary session
 - discussions may extend beyond schedule if needed, at the expense of delaying and shortening the coffee break
- the topics will be jointly presented by **an AMICI representative** and an **Industrial company representative** to try to embrace from the beginning the views from both worlds



WP4: Innovation

How can the TI work together with the European Industry to foster the product and process innovation potential ?

- **Assess the European Industry potential for innovation**, including technical capabilities, appetite for commercial innovation, current attitude to risk and possible societal applications and potential market sizes in:
 - accelerator related technology domains
 - SC magnets technology sector
- Identify **existing good practices, and barriers** to effective engagement, between Industry and the Technological Infrastructures



WP5: industrialization

How can we improve the competitiveness of European Industry as suppliers for the next generation of research facilities in Europe and elsewhere ?

- Define the required conditions and propose a model for **professional training and apprenticeship programs** in both TI and industry
- Establish the basis for a common knowledge, background and use among TIs and related laboratories and industries in relation to **material and components involved in accelerator and large SC magnets**.
- Create a new working group or CAN/TC 268 on **specific helium technology applications** and **develop a new European standard** on safety of liquid helium cryostats
- Identify the requirements and the conditions for **developing prototypes in industry**



The agenda for tomorrow (I)

Wednesday, 19 April 2017

08:30 - 10:40

Round Table Discussion 1 (WP5)

Convener: Pasquale Fabbriatore (GE)

08:30 **Introduction 10'**

Speaker: Pasquale Fabbriatore (GE)

08:40 **Professional training and apprenticeship 40'**

Speakers: Dr. Stéphane Berry (CEA), Eric Giguët (Alsyom)

09:20 **Harmonization - Material and component reference 40'**

Speakers: Dr. Mohammed Fouaidy (CNRS), Mr. Bernd Spaniol (Heraeus Deutschland GmbH & Co. KG)

10:00 **Prototyping with industry 40'**

Speakers: Paolo Michelato (MI), Mr. Giorgio Corniani (Ettore Zanon s.p.a)

08:30 - 10:40

Round Table Discussion 2 (WP4)

Convener: Anthony Gleeson

08:30 **Introduction 10'**

Speaker: Anthony Gleeson (STFC)

08:40 **Industry Survey - Accelerator Technologies 40'**

Speakers: Anthony Gleeson (STFC), Dr. Sophie Muller (Thales Communications and Security)

09:20 **Industry Survey - Magnets Technologies 40'**

Speakers: Dr. Pierre Védrine (CEA), Dr. Ziad Melhem (Oxford Instruments NanoScience)

10:00 **Good practices and barriers 40'**

Speakers: David Alesini (LNF), Dr. Andrea Ceracchi (CECOM)



The agenda for tomorrow (II)

10:40 - 11:25	Coffee break and Posters	
11:25 - 12:45	The collaboration with industry in the AMICI project 1/2 Convener: Mauro Morandin (INFN/PD)	
11:25	Strategy: goals/activities and discussion 40' Speaker: Dr. Walid Kaabi (CNRS)	Technology roadmaps, global landscape and sustainability
12:05	Cooperation: goals/activities and discussion 40' Speaker: Dr. Riko Wichmann (DESY)	Networking, cooperation and collaboration
12:45 - 14:15	Lunch	
14:15 - 15:30	The collaboration with industry in the AMICI project 2/2	
14:15	Summary of the Round Table 1 10' Speaker: Pasquale Fabbriatore (GE)	
14:25	Summary of the Round Table 2 10' Speaker: Anthony Gleeson (STFC)	
14:35	General Discussion 25'	Don't miss this !!!
15:00	Industry feedback 20'	
15:20	Close out 10'	

Organization of first round table sessions

Location

- The most popular parallel session will take place here
- The other one in room Venezia

We need to know approximately who will go to each session

- let's make a rough estimate by raising hands



**See you at the restaurant ...
and tomorrow at 8:30**

Bus will leave

- the Galileo Hotel at 19:20
- the Biri Hotel at 19:30

