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	Name	Partner	Date
Authored by	M. Morandin	INFN	30th October 2019
Reviewed by	S. Leray, O. Napoly	CEA	31st October 2019
Approved by	O. Napoly [Coordinator]	CEA	30st October 2019

Summary report of the II[nd] AMICI-Industry forum

The II[nd] AMICI-Industry forum was held in Bruxelles on Sep. 17-18, 2019 with the following theme '*The accelerators and SC magnets European Technology Infrastructure (TI): an Open Environment for Cooperation and Innovation with Industry*'.

The conference aimed at discussing the results of the AMICI project activities, and the short and medium term strategies proposed by the AMICI collaboration, with the contribution of a qualified sample of companies that in most cases have been collaborating with AMICI since the time of the first forum in Padua.

The initial part of the meeting was dedicated to report the outcomes of the WP4 and WP5 work packages, whose main goal was to address aspects of the TI-industry interaction deemed as seminal in accelerating the innovation and in exploiting the synergies that have been so important to develop and build cutting-edge scientific facilities in Europe.

The analysis presented during the forum showed how a stronger collaboration among the AMICI Technological Facilities (TFs) could help in dealing with several important issues like:

- challenges for the sustainability of highly specialized supply chains;
- industry interest in early knowledge of technology development roadmaps to optimize investments;
- difficulties and limits in the exploitation of the Technical Platforms (TPs): bureaucratic obstacles, communication failures, complexities in the follow up phase, lack of metrics to measure performance and impact, access barriers, etc.
- different IP management approaches and procedures adopted by the various TFs;
- lack of standardization in material and equipment specifications.

The results illustrated by AMICI were then corroborated by practical and successful experiences of collaboration between Technological Facilities (TFs) and industry, which were the subject of the following talks contributed by companies as well as by TFs representatives.

The second part of the forum was dedicated to the future, starting with an overview of the general directions that the European Commission will follow in shaping the approach to the European Technology Infrastructure in the Horizon Europe program. This first contribution by A. Tyson, Head of the Research and Industrial Infrastructure at DG Research and Innovation of the EC, was followed by several talks describing the opportunities of industrial involvement worldwide in new accelerator based scientific projects and the related programs of technological developments to be carried out in the coming years. The presence of leading experts in accelerator based facilities gave the audience a unique opportunity to obtain an updated global picture of the evolution of the field and to acquire further information through individual interactions during the forum.

The final set of presentations illustrated how the AMICI project is planning to formalize, extend and consolidate the current collaboration and to gradually implement the new organization and the actions identified as most important for a fruitful cooperation with industry.

From the talks, it emerged quite clearly that the AMICI project has developed, thanks to the activities performed together with industry, a view for the evolution of the European TI that is pretty much centered on the relationship with European SMEs at all levels and that,by collecting feedback from participating companies, the collaboration is now proposing innovative ways of cooperation that were not initially taken into consideration.

In the final round table, that included interventions by representatives of firms, RIs and the international ILO network PERIIA, participants were asked to express their views on the AMICI proposed evolution. Appreciation was expressed, especially from the companies, for the goals AMICI is committed to pursue in the future, recognizing the essential role played by the TFs, not only for providing the driving force of the R&D activities, but also for their investments in equipment and competences that, not being affordable by individual companies, represent a fundamental complementary contribution.

Some conditions believed to be important for a successful outcome were also mentioned. First of all, there was a rather general agreement on the realization that the collaboration between TFs and Industry could and should be extended in several ways, e.g.:

- by engaging companies earlier in the R&D phase, since this can have, among other positive outcomes, a significant impact in reducing the costs and the duration of the industrialization phase;
- by exploiting competences, specific to the way private companies operate, that may be effectively exploited in long-term activities usually managed directly by TFs and RIs, like technical infrastructures;
- by considering and promoting the knowledge transfer can flow from industry to the Technical Facilities and not only in the opposite direction.

It was then noted how important it is that TFs, for optimizing the return on investments, do not compete with industry, establish a coordinated planning to avoid excessive redundancies of technical platforms and identify key performance indicators to track the progress towards the established long term goals.

Finally, the example of ESS was put forward to stress how important it will be to have the TFs well equipped for being engaged in possible future upgrades and new European projects. ESS has indeed paved the way for a new model of cooperation in Europe, in which RIs are not only built with the invaluable technical contributions of various TFs but also rely on them for the subsequent accelerator R&D activities aimed at improving their scientific capabilities.