

Plenary Session 3: Innovation potential of RIs

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- ESFRI WG on Innovation created in 2013

Context: - the EU Council invited ESFRI to contribute to the progress of the Innovation Union initiative;
- Horizon 2020 integrates in its specific program on RIs a range of actions to support innovation

Aims:

- to identify and promote the innovation and industrial capabilities of the RIs on the ESFRI roadmap;
- to strengthen the cooperation of pan-European RIs with industry;
- to stimulate, where appropriate, the industrial involvement in the conceptual design phase of RIs;
- to promote the access of industrial users to the RIs

Developing ecosystems of innovation around RIs

- RIs are unique places for cooperation with industry, especially in the phases of design, engineering and commissioning
- Possibility to remove technological barriers leading to further innovation
- An environment characterized by a high flux of proposals and experiments, a critical mass of instrumentation available or the capability to develop new one
- RIs are able to mobilize rapidly (with very short delays) their capacities in order to find solutions to the industrial demand
- RIs can offer industrial companies to be immersed in an active ecosystem of innovation (“business at walking distance”) based on a complementary range of competences and skills: mixing on the same place experimental researchers, theoreticians, engineers, technologists, managers

Technology Transfer (TT) vs Knowledge Transfer (KT)

- Developing a renewed concept where impact toward industry is more effective in a “working in the same place on shared objectives” condition
- TT happens more likely in the construction/upgrade stage
- Different with respect to the more conventional mode of TT between scientific institutions and companies: where companies have problems to solve and ask RI for solutions; or where patents made by RIs are brokered to industries. There, a real co-operation, sharing of objectives and solutions which are useful to both partners (the RI to build an instrument, the company to sell its new product) is missing
- KT in the RI running stage (transferring RI results). Compared to TT, it is something acting in the medium to long term and aiming to create (more than transferring) new technology → needs new research

Innovation potential of RIs - Message 1

- The role of intermediaries and of specifically dedicated mechanisms and tools is absolutely essential to strengthen cooperation between RIs and industry
- One of the first needs is to raise awareness on RI opportunities and offerings for industry. The lack of a central portal to promote RI services and opportunities (including calls, CfTs, future needs and technology transfer opportunities) is often mentioned. The H2020 Call on Innovation support measures is welcomed in this regard
- Intermediaries may be very diverse: industrial liaison officers, knowledge and technology transfer offices, RTOs and academic institutions (research teams, interfaces with industry), in particular within projects jointly supported or driven by industry

Innovation potential of RIs - Message 2

- The creation of local ecosystems "RIs-Technology/Service Providers-Industrial Users" should be promoted, namely an environment opening new room and opportunities around RIs for hosting projects with industry and where the added value offered by RIs and their complementarity with industry can be optimized
- One should move from a paradigm of "Technology Transfer" to one of "Knowledge Transfer". The science knowledge of industry needs indeed to be increased, especially in a context of fast technological progress and of "co-creation" of solutions by scientists and industry