Fostering the innovation potential of Research Infrastructures

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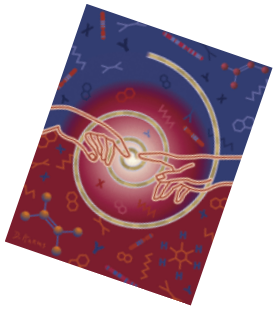
Background

- **European RI Development Watch (ERID Watch) – 2007-2008**

Highlight the potential of instrumentation to engage with industry



- **EIROforum position paper on scientific instrumentation for the EU FP – 2012**

- **European Industry & RI interaction Support Study (EIRIISS) - 2011–2012:**

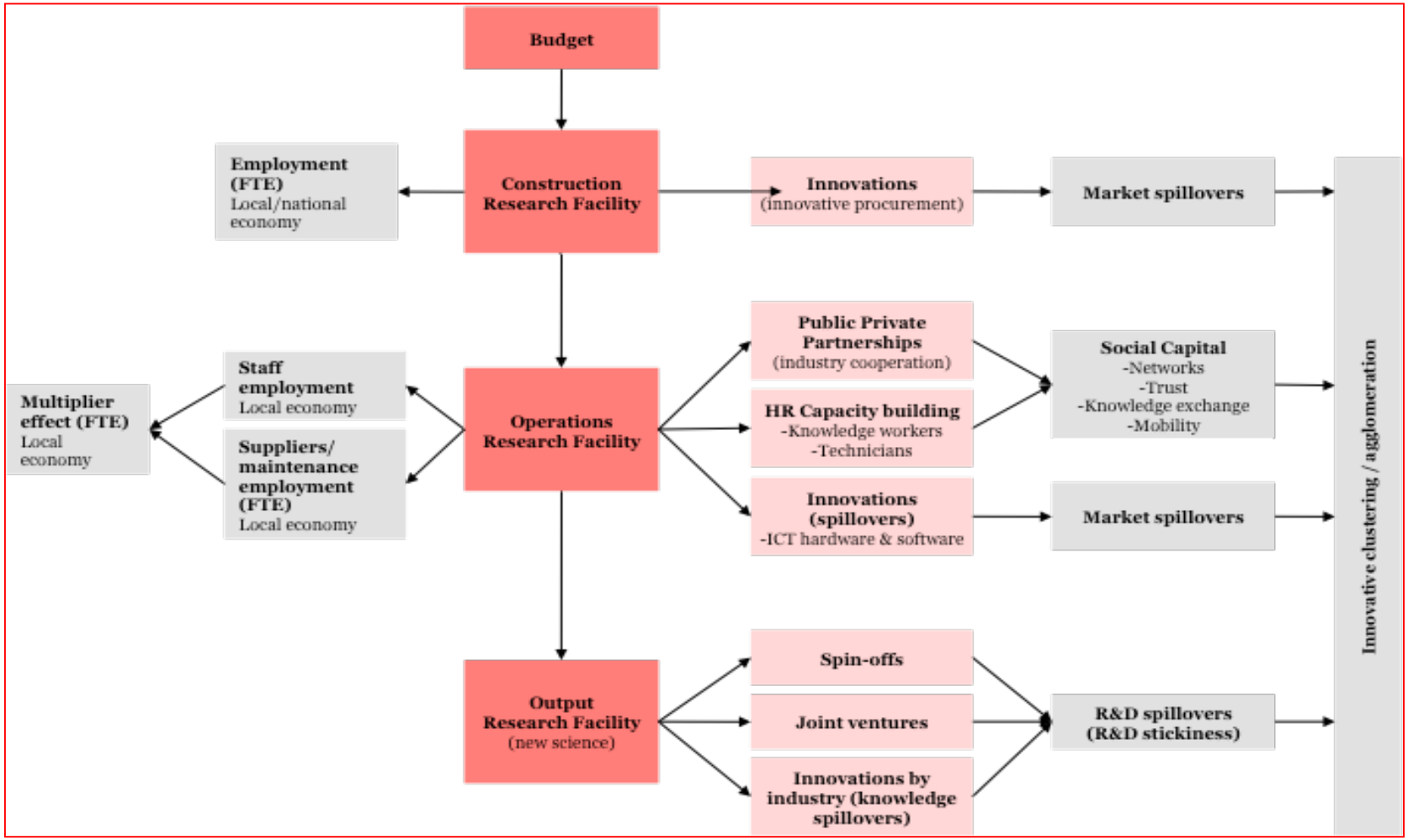
RI role in the innovation process and possible new activities to enhance cooperation with industry

- **FP7 evaluation report EPIRIA – 2012**

Barriers for industry engagement

Socio-economic impact of research infrastructures

FP7 Evaluation - EPIRIA report



Barriers between Research Infrastructures and Industry

FP7 Evaluation - EPIRIA report

- **Rules for access**:
  - Selection criteria centred around the "***science case***" (academic criteria, peer review by scientists)
  - Limits set to the use of RI by industry
- **Risk avoidance**: among industry players (especially SMEs) in particular if access needs to be paid for
- **Poor communication and limited awareness:** overall lack of understanding of the potential industrial user community
- **Lack of customized services:** uncertainty about industry access

Recommendations for HORIZON 2020

- Industry needs access to public RIs to carry out their research also as a reference, for example, for validation, to produce reliable and standardized results.
- Industry access should be encouraged through support for 'liaison offices' or 'technology transfer networks'
- Support the joint development of scientific instrumentation between RIs and industry should be provided
- Public procurement by RIs should be used to foster innovation in industry and RIs

Horizon 2020 Specific Programme

Research Infrastructures

Exploiting the innovation potential of research infrastructures

Objective: to stimulate innovation both in the infrastructures themselves and in industries, such as the supplier and user industry.

Stimulating innovation both in the RIs themselves and in their supplier by supporting:

(a) R&D partnerships with industry to *develop industrial supply in high-tech* areas such as scientific instrumentation or ICT;

(b) pre-commercial procurement by research infrastructure actors to drive forward innovation and act as early adopters of technologies;

(c) *stimulate the use of research infrastructures by industry*, e.g. as experimental test facilities or knowledge-based centres; and

(d) encourage the integration of research infrastructures into local, regional and global innovation ecosystems

Research Infrastructures in Horizon 2020

What has been done so far…

One of the objectives of the Integrating Activities (INFRAIA) Call is to *address* ***innovation capacity***

→ *technology transfer*

→ *participation of SMEs*

→ *instrumentation development*

Specific actions for innovation:

- INFRASUPP Call → innovation and R&D partnership between RIs and industry fostered through the **pre-commercial procurement scheme** (QUACO)
- INFRAINNOV Call
  - → Support to **Technological Infrastructures** (AMICI)
  - → **Fostering co-innovation** for future detection and imaging technologies (ATTRACT)

The ESFRI Innovation Working Group

Objective:

Improve the **relations between Research Infrastructures and Industry** and promote **the RI potential for innovation**

Main recommendations [1]

- Support the **Industrial Liaison Officers**
- Develop a transparent **data management policy**
- Anticipate the foresight **of large equipment** in European RIs.
- Support the **pre-development of highly innovative components**
- Develop the **co-innovation** between RIs and industrial companies
- Promote the development of **local or regional ecosystems**

[1] Working Group on Innovation, Report to ESFRI - March 2016

Consultation on the long-term sustainability of Research Infrastructures (2016-2017)

Long-term sustainability of Research Infrastructures (SWD Sept 2017)

Unlocking the innovation potential of RI and stimulating industry engagement

- Support the development of **innovation ecosystems** around RI
- Develop mechanisms to facilitate **knowledge and technology transfer** and to facilitate the use of RI services by Industry
- Increase **RI engagement with industry** (participation in advisory boards, dedicated training and exchange schemes)
- Stimulate **large scale initiatives** involving industry, RI and academia in a **co-creation process**;
- Develop **roadmaps in key technologies** for the construction and upgrades of the pan European RI in synergy with EIT, KICs, FETs and KETs

Call 5: Demonstrating the role of RIs in the translation of Open Science into Open Innovation

Large initiatives and support measures to foster the innovation potential of research infrastructures:

1. **Stimulate the innovation potential of SMEs**
2. **Network of research infrastructure Industrial Liaison and Contact Officers**
3. ***Co-Innovation platform for research infrastructure technologies (2020)***
4. ***Innovation pilots (2020)***

INFRAINNOV-02-2019: Network of RI Industrial Liaison & Contact Officers

Support the establishment of a network of Industrial Liaison and Contact Officers engaged with pan-European RI, including ESFRI and other relevant world class RI of European interest

- *Addressing training session & exchange of best practises across various research domains, enhanced cross-border and cross-thematic brokerage events, joint awareness campaigns towards industry (including SMEs), …*
- *covering a wide range of scientific domains*
- *portals of calls, tenders, future needs and technology transfer opportunities per technological domain could also be developed*
- *Indicative budget 1.5 M€ - Coordination & Support action (CSA)*

Call 5: Demonstrating the role of RIs in the translation of Open Science into Open Innovation

INFRAINNOV-03-2020: Co-Innovation platform for research infrastructure technologies

- innovation projects to integrate RIs with industry in a co-development/co-creation effort on the basis of their strategic potential to connect science, industrial leadership and societal challenges
- follow-up of the 2017 co-innovation platform for detection & imaging technologies

INFRAINNOV-04-2020: Innovation pilots

- Targeting larger communities of RIs in partnerships with industry and SMEs for the implementation of strategic roadmap and/or joint research activities in key technologies for the RI development and upgrade
- Complementary to the IA pilot action
- Targeted approach

Call INFRAINNOV Summary

Research Infrastructures	2018	2019	2020	Total	Single grant	Deadlines
CALL H2020-INFRAINNOV-2019-2020		***9.5***	***60***	***69.5***		
INFRAINNOV-01: stimulate the innovation potential of SME		*8*		*8*	from 7 to 8 M€	**29 Jan 2019**
INFRAINNOV-02: network of RI ILO/ICO		*1.5*		*1.5*	up to 1.5 M€	**20 Mar 2019**
INFRAINNOV-03: *co-innovation platform for RI technologies*			*60*	*60*		***mid 2020***
INFRAINNOV-04: *innovation pilots*						***mid 2020***

Future prespectives

Innovation pilot topics (INFRAINNOV-04-2020):

- March-May 2018 – consultation with Advisory Group
- June 2018 – first exchange with Programme Committee
- Jan –Feb 2019 –Programme Committee consultation and adoption

Beyond:

- Build on the experience gained with the pilots
- Mainstreaming and dedicated actions for innovation
  - Support RI networks developing and implementing a common strategy/roadmap including technological development required for improving their services through partnership with industry;
  - Support co-innovation initiatives with industry and academia in areas such as scientific instrumentation;
  - Facilitate the use of research infrastructures by industry, e.g. as experimental test facilities.

Thank you for your attention