



# Research Infrastructures and Innovation

*Developments in the policy for innovation in Research Infrastructures  
for advanced communities*

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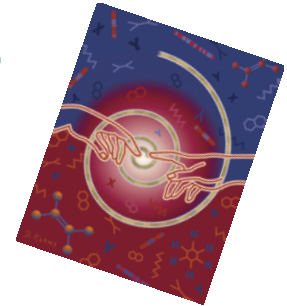
European Commission – DG Research & Innovation



## Before Horizon 2020 ...

- **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 (EIRIIS) - 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

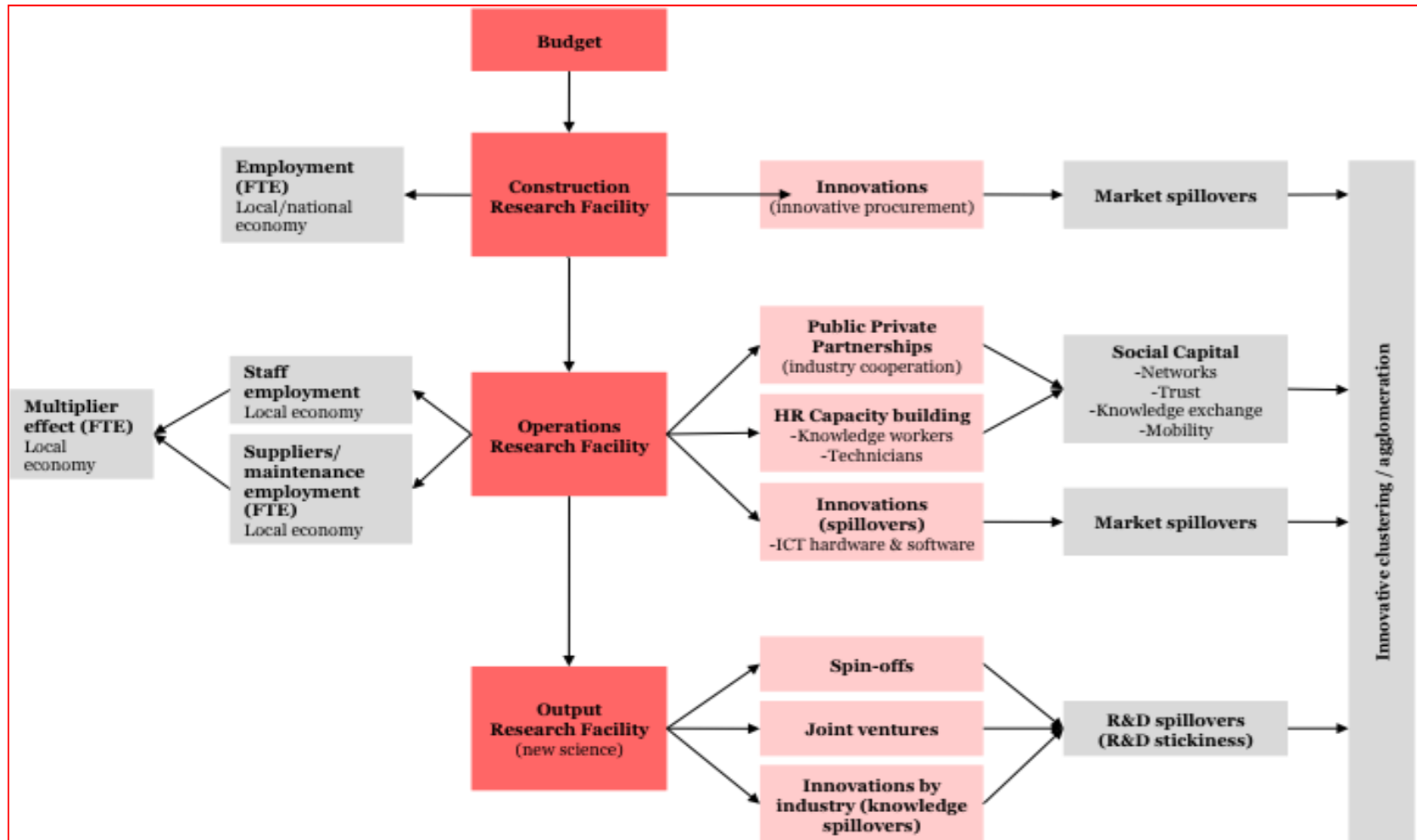




European  
Commission

# 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

# 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)*



# INFRAINNNOV-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
<b>CALL H2020-INFRAINNOV-2019-2020</b>		<b>9.5</b>	<b>60</b>	<b>69.5</b>		
<b>INFRAINNOV-01: stimulate the innovation potential of SME</b>		<b>8</b>		<b>8</b>	from 7 to 8 M€	<b>29 Jan 2019</b>
<b>INFRAINNOV-02: network of RI ILO/ICO</b>		<b>1.5</b>		<b>1.5</b>	up to 1.5 M€	<b>20 Mar 2019</b>
<b><i>INFRAINNOV-03: co-innovation platform for RI technologies</i></b>			<b>60</b>	<b>60</b>		<b><i>mid 2020</i></b>
<b><i>INFRAINNOV-04: innovation pilots</i></b>						<b><i>mid 2020</i></b>

# Next steps

## **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

HORIZON 2020

