



CANADA FOUNDATION FOR INNOVATION

**Demonstrating
MSI achievements
and impacts:
Sharing new international
developments and practices**

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1. Two international efforts currently underway:
 - a. Reference framework for assessing the socio-economic impact of research infrastructures
 - b. RI-Paths project
 2. Where do we go from here
 3. Next steps
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“Framework for assessing the socio-economic impact of research infrastructures” aims to provide funders, decision-makers and RI managers with a tool to evaluate the achievement of relevant socio-economic objectives and facilitate the communication and reporting to different stakeholders”

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- International Expert Group
 - Literature review
 - Survey (RI Managers, RI stakeholders)
 - International ‘feedback’ workshop
 - 4 test-case studies
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- 25 Core Impact Indicators
 - provide a general picture of the socio-economic impact at a given time
 - can be used by most RIs whatever their type and discipline
 - 58 standard Impact Indicators
 - all indicators identified as being in use, or as of interest, by more than one RI
 - to help taking into account the specificities of each RI
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“While high quality scientific output remains the most important strategic goal of all RIs, their socio-economic impact is broader. It includes cultural, educational, economic and social impact as well as structuring effects of the RI. The Reference Framework addresses this broader scope”



Core Impact Indicators by RI objective:

Support science

- Citations
- Publications in High Impact journals
- Scientific users
- Collaboration excellence (scientific)
- Projects granted
- Structuring effects of the RI

Support innovation

- Projects with industrial partners
- Patent with a commercial use
- Innovations co-developed with industry

Facilitate regional collaborations

- Full time equivalent
- Papers co-authored with national universities
- Regional firms using the RI
- Suppliers

Education outreach and knowledge transfer

- Students trained
- Public visibility
- Knowledge sharing and improvement
- Educational and outreach activities



Core Impact Indicators by RI objective (cont'd):

Support to public policies

- Production of expert advices
- Production of resources

Data policy, production and use

- Production of experimental, observational data
- Commercial data use and service
- Data sharing

Social Responsibility

- Gender balance
- Corporate social responsibility
- Environmental impacts



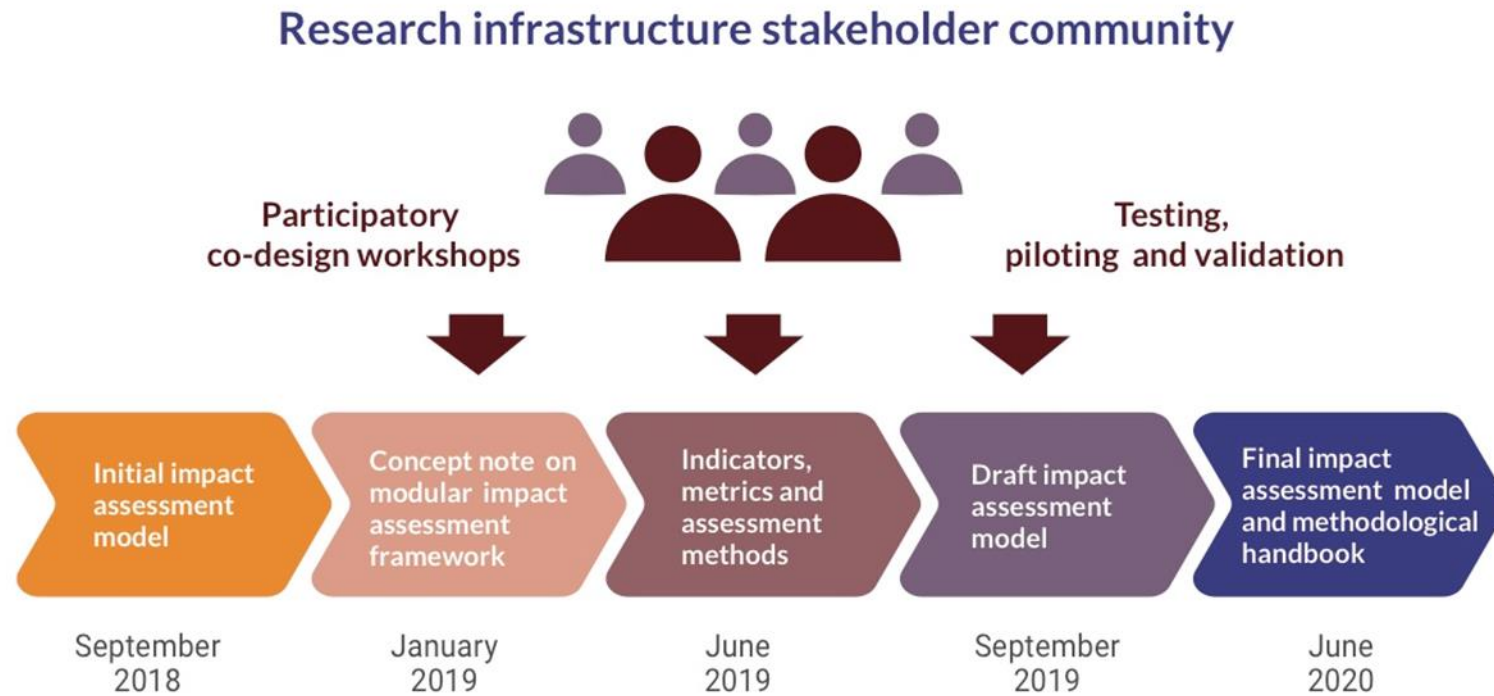
RI-PATHS project
aims to develop a
model describing the
socio-economic
impact of research
infrastructures (RIs)

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- **Take stock** of existing approaches and map the current and future data gathering needs
 - **Develop a modular impact assessment (IA) model** that represents all major impact pathways of RIs
 - **Operationalize the IA model** by defining a set of reference indicators, providing guidance on monitoring and evaluation approaches and testing feasibility with pilot RIs.
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RI-PATHS approach

Participatory process



Impacts should be considered from a process perspective, i.e., insistence on indicators and counting 'numbers' should be avoided.

Things to keep in mind:

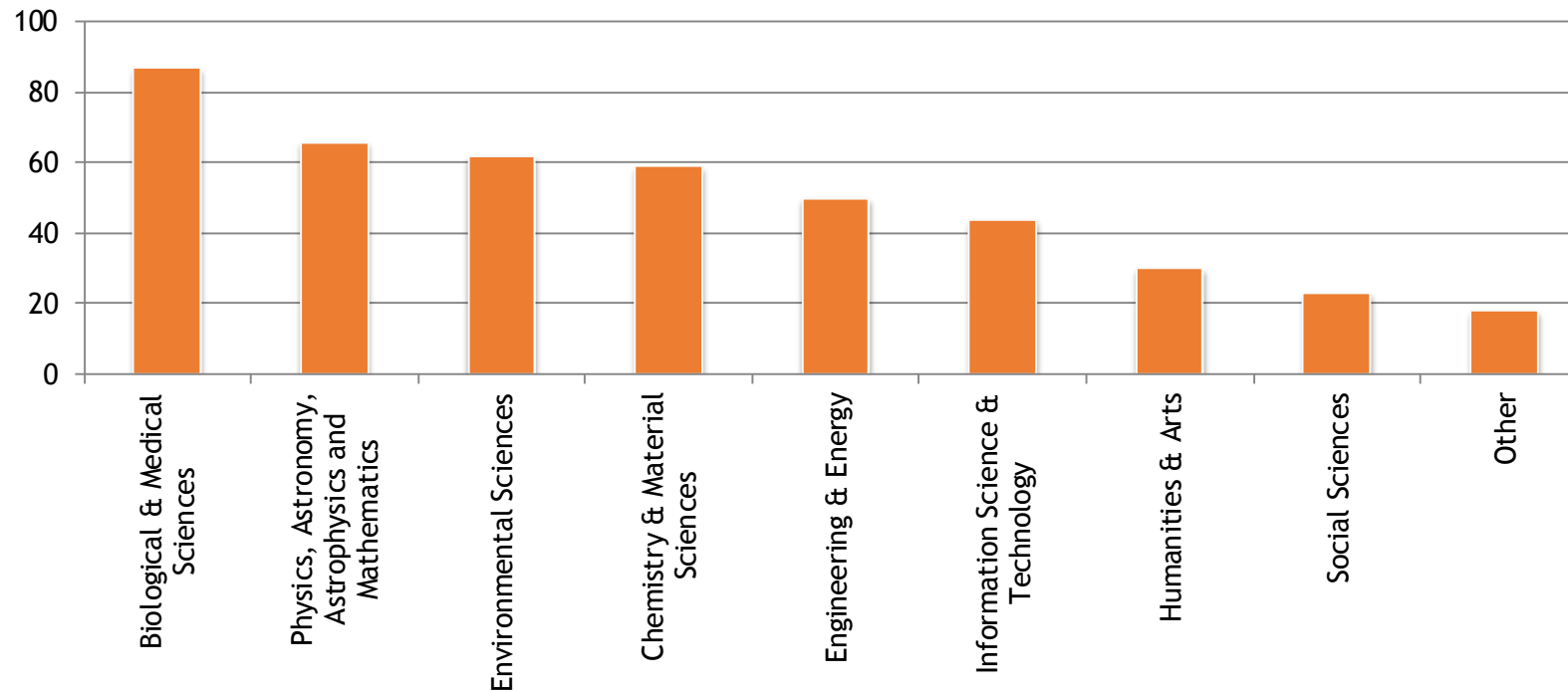
- Impacts result from interactions and depend on 'enabling conditions'
 - Impacts may only materialize over a medium to long term
 - Many of the impacts are intangible
 - Impact must be assessed based on RI type and objective
 - While some impacts are primarily economic and capable of being evaluated in monetary terms, many others – and especially those relating to environmental or social effects – may have to be evaluated qualitatively
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Survey of RI

Scientific fields and geographic distribution

Scientific fields of activities



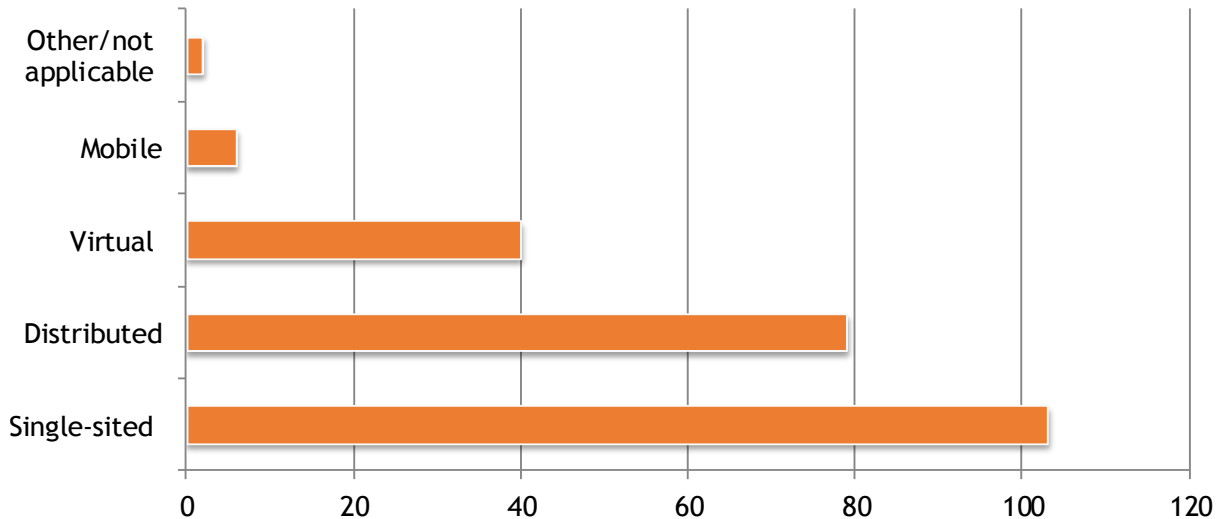
28 EU countries, 6 non-EU countries including Canada (5 RI), Pan European RI (10 RI)



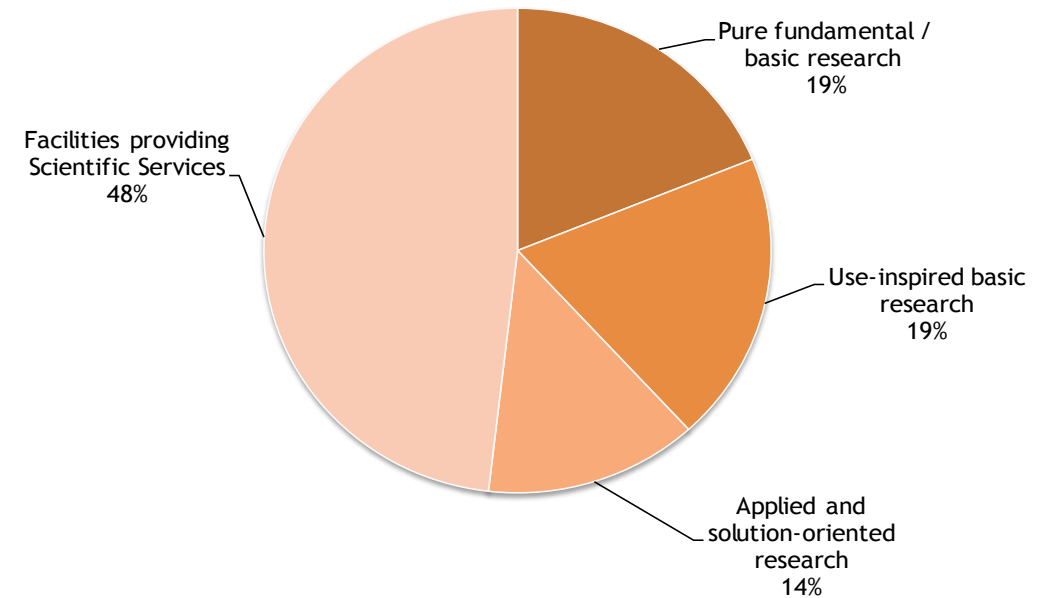
Survey of RI

Types of RI

Respondents distribution according to international classification



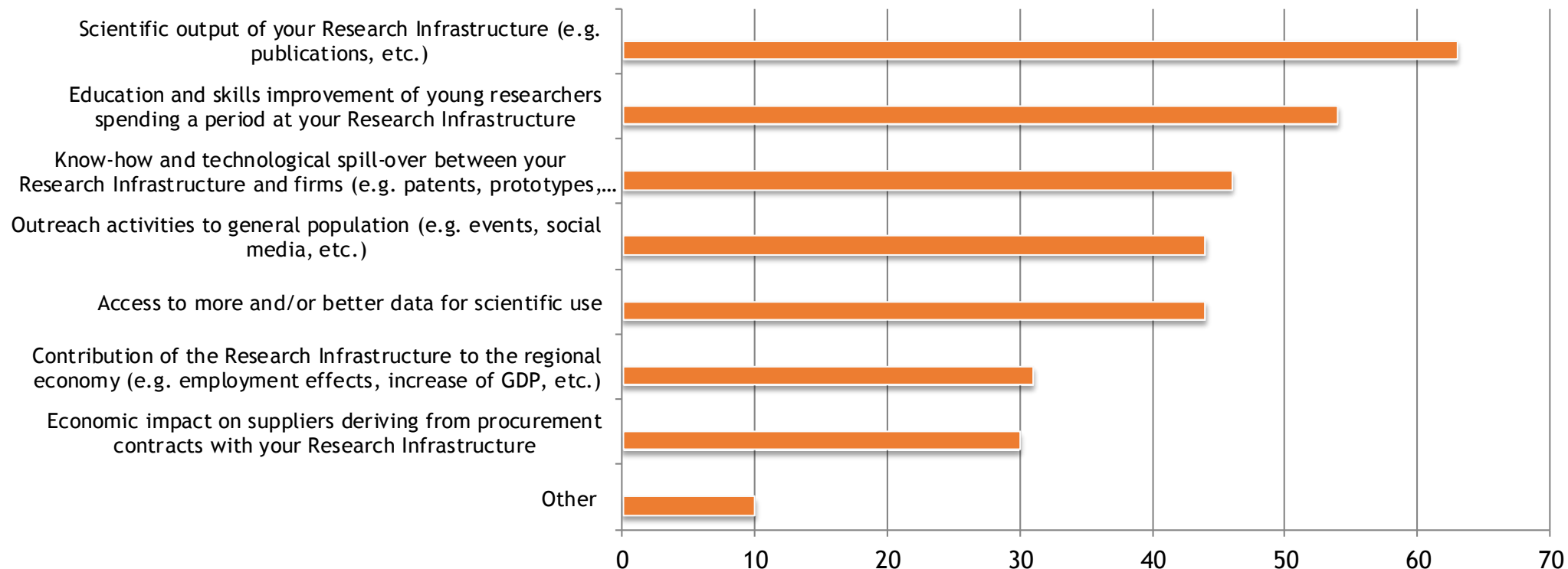
Respondents distribution from RI-PATHS classification



Survey of RI

Current and past experience with impact assessment (IA)

Aspects assessed in the frame of socio-economic impact assessment, from respondents' experience



Mostly internally with RIs resources. In few cases, externally contracted.



Key ingredients of the IA framework

- Broad validity, fitting with a wide range of evaluation questions and typologies of RIs. Balance between common rules and flexibility - modularity
 - Useful references and a 'menu of options' for different assessment needs
 - Support the lifecycle of a RI from construction through to operation phases
 - Credible and usable tools and guidance to RI managers for their application
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**Any questions related to
these European initiatives,
or their link to our efforts?**

Where to from here & how does this help us?

- We seem to be on the right track: the core MSI KPI are included in the OECD framework
 - Continued participation in global initiatives and sharing of challenges and best practices
 - Look for opportunities to improve effectiveness and efficiency
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Discussion questions:

1. How does your facility interpret: ‘demonstrating’, ‘achievements’, ‘impacts’ (ranging from scientific to societal)?
 2. What are the key challenges for your facility to demonstrate achievements and impacts to various stakeholders?
 3. What are some good practices and available tools your facility uses to identify, collect & track, format, and communicate/distribute achievements and impacts?
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