

DESIGNING A SOCIO-ECONOMIC IMPACT FRAMEWORK FOR RESEARCH INFRASTRUCTURES

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THE RI-PATHS PROJECT

A quick overview of the aims and process to develop an impact assessment methodology



THE RI-PATHS PROJECT

- Implementation period:
January 2018 - June 2020 (30 months)
- 8 project partners, including 4 RIs who co-design and pilot the impact assessment methods
- Effort: 122.5 person months
- Budget: € 1.49m



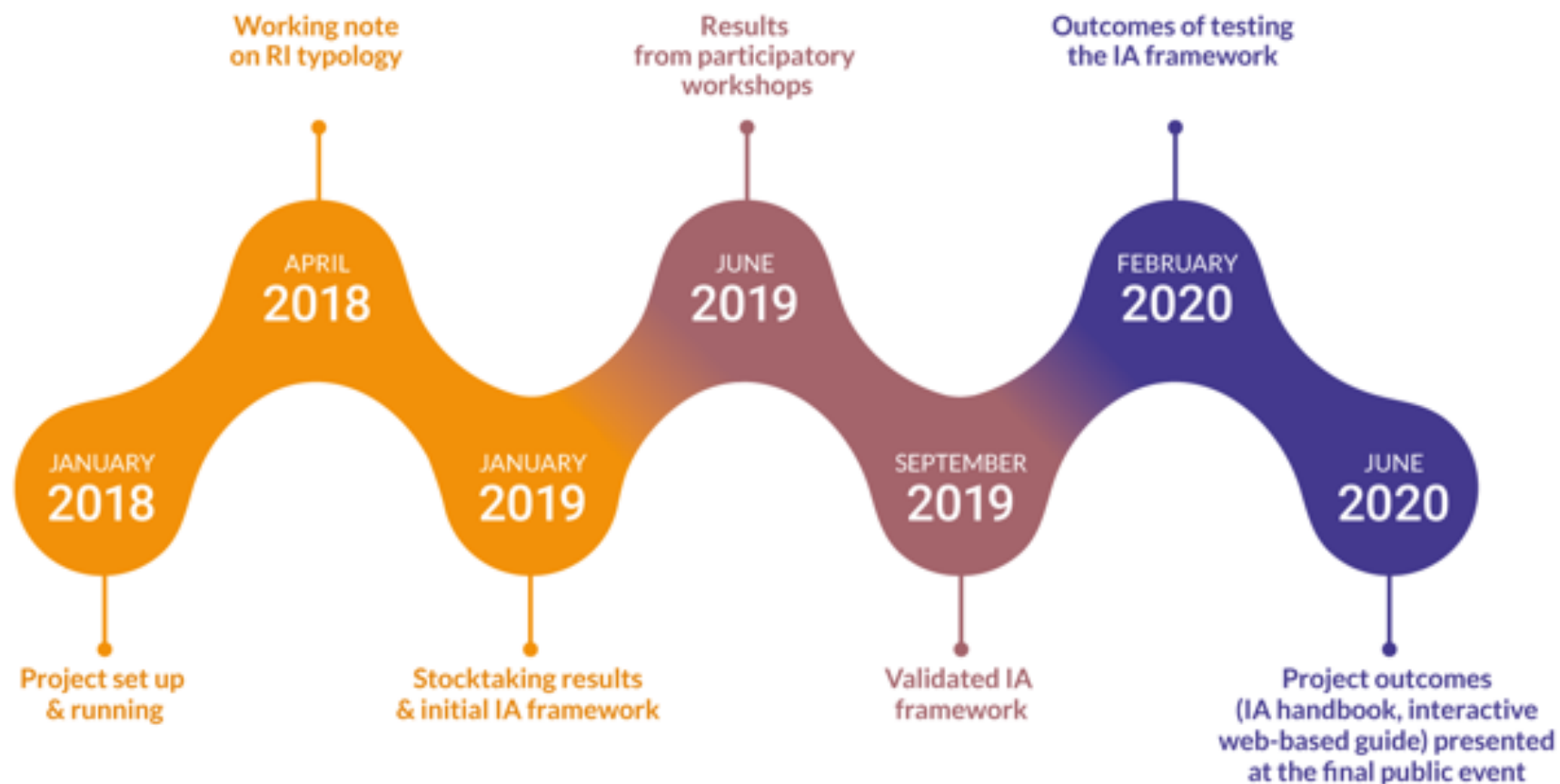
MISSION

Give policy makers, funders and RI managers the **tools to assess RI impact** on the economy and contribution to society.

The goal is to improve the understanding of long-term **impact pathways** of various types of RIs.



RI-PATHS timeline

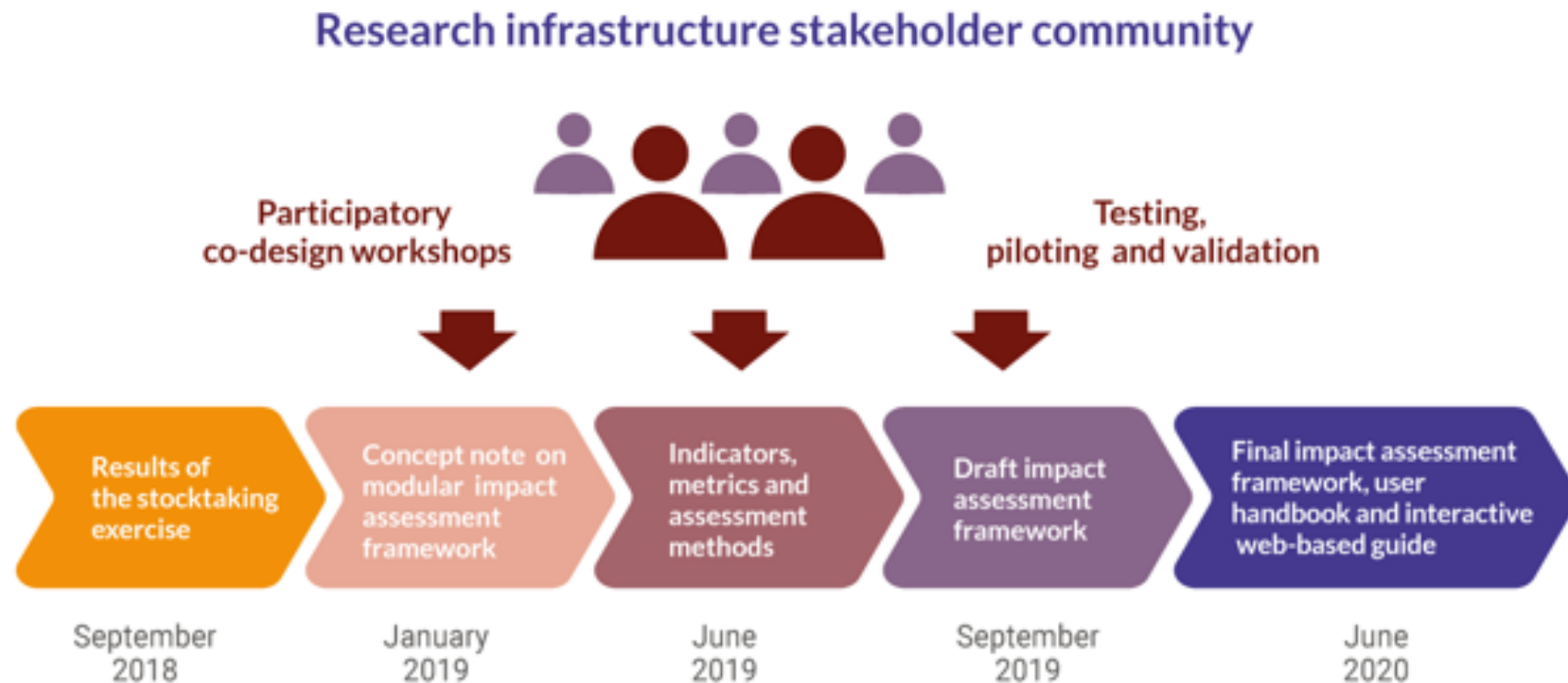


HIGHLIGHTS OF THE APPROACH

- ✓ IA model is developed using a **modular approach** - a generic core model and more detailed sub-models
- ✓ The model reflects the **whole lifecycle of RI development**
- ✓ **Systemic perspective** is applied; attention on the **interrelations and complementarities** between various impact pathways
- ✓ Developed in **consecutive stages** in a **participatory co-design manner**
 - Participatory workshops for charting, contesting and validating impact pathways and respective KPIs



Stakeholder engagement



Key milestones

Completed

- D3.1 Working note on RI typology
- April 2018
- D3.2 Report on stocktaking results and initial IA framework -
January 2019
- D4.1 Concept note on the modular IA framework -
February 2019

Upcoming

- D4.2 Consolidated report on the participatory workshop results - June 2019
- D5.1 Validated IA model -
October 2019
- D5.2 Updated MERIL database module - April 2020
- D5.3 Web-based IA guide and D5.4 Methodological handbook - May 2020

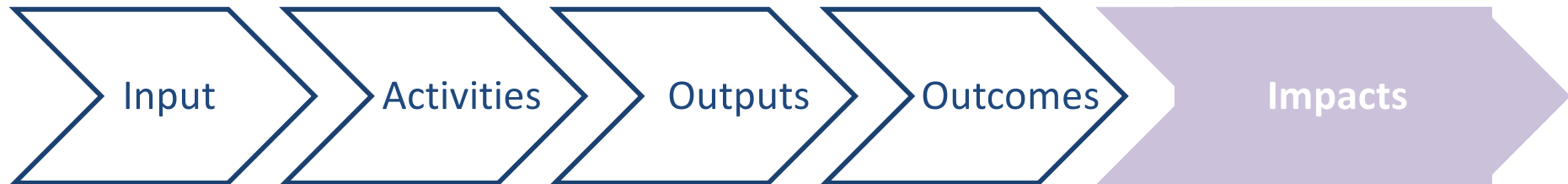


FINDINGS AND LESSONS TO DATE

A multi-faceted world of impacts and pathways to measure the impact of research infrastructures



WHAT IS IMPACT?



- Positive and negative, primary and secondary **long term effects** produced by an [intervention], directly or indirectly, intended or unintended (OECD)
 - not immediately attributable to actions
 - materialise in various, in part seemingly distant domains
 - ‘stretched out’ chains of causality
 - various pathways of causation and accomplishment
- Various activities cause various impacts



IMPACTS ARISING FROM THE CORE MISSION VS. THOSE ARISING FROM RI AS A SOCIO-ECONOMIC ACTOR

- Impacts caused by a Research Infrastructure pursuing its core mission **IN SCIENCE**
 - Contribution to long-term (or also short-term!) problem solution
 - Qualification of scientists
 - Impacts on innovation and productivity in the economy
 - Opening up of new perspectives in the policy discourse
 - Outreach and popularisation of knowledge in society,...
- Impacts caused by a Research Infrastructure as a **SOCIO-ECONOMIC ACTOR**
 - Employment effects
 - Wages paid and multipliers
 - Qualified procurement effects with impact on innovation
 - Procurement of standardised, off-the-shelf goods
 - Qualification effects for technical staff,...

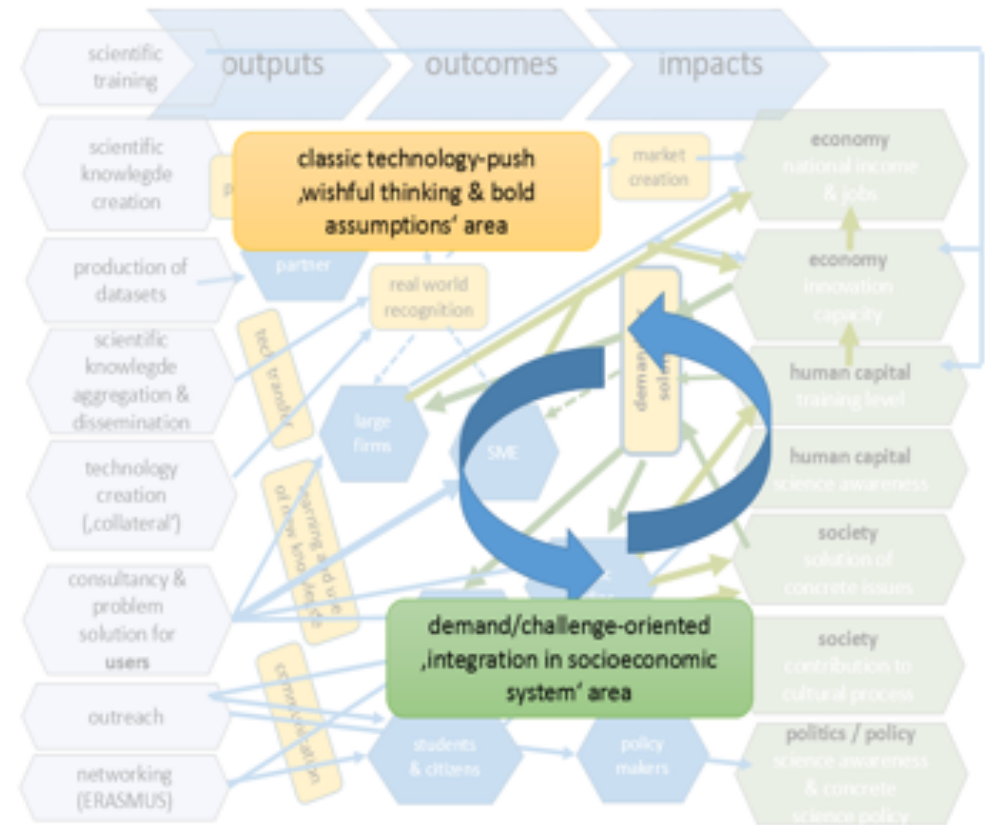
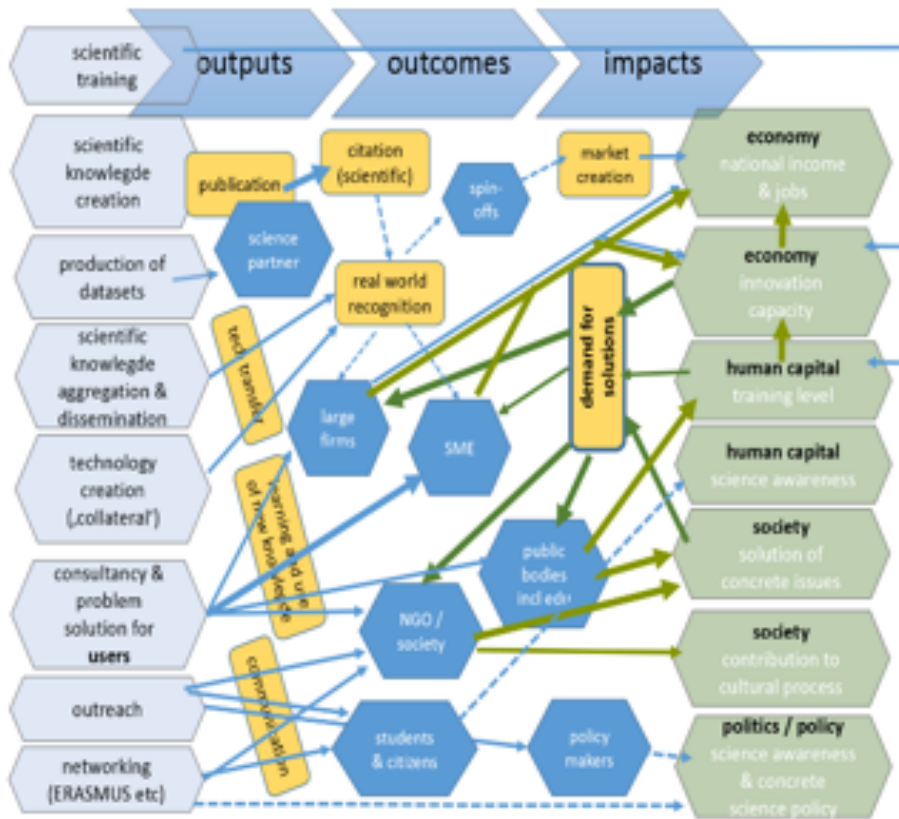


A variety of types of impact



- A core set of very concrete impacts in the monetary domain
 - Various impacts beyond the monetary and monetisable

A plethora of pathways



- RIs in broad interaction with society, not just churning out papers
 - Multiple and overlapping knock-on effects

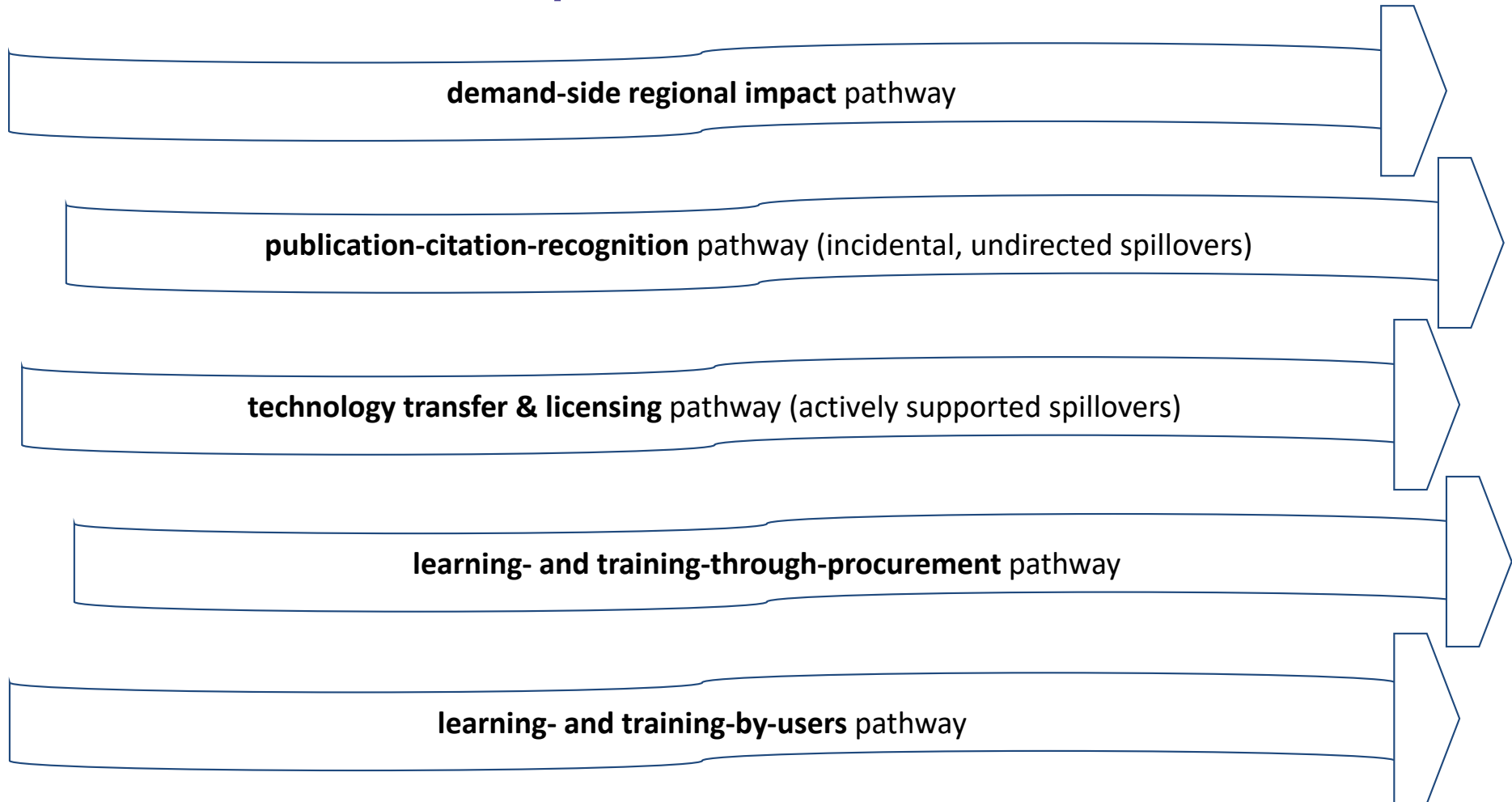


Findings on Pathways

- **Socioeconomic Impacts of Research**
 - triggered by all RIs following their **primary mission** – conducting research
- **Conscious Use of Research for a Purpose**
 - triggered by (some) RIs following a **further mission** – solving problems in and for industry & society
- **Shaping Research's Foundations & Environment**
 - triggered by RIs **engaging beyond** the research domain – changing S&T communities and their position in society

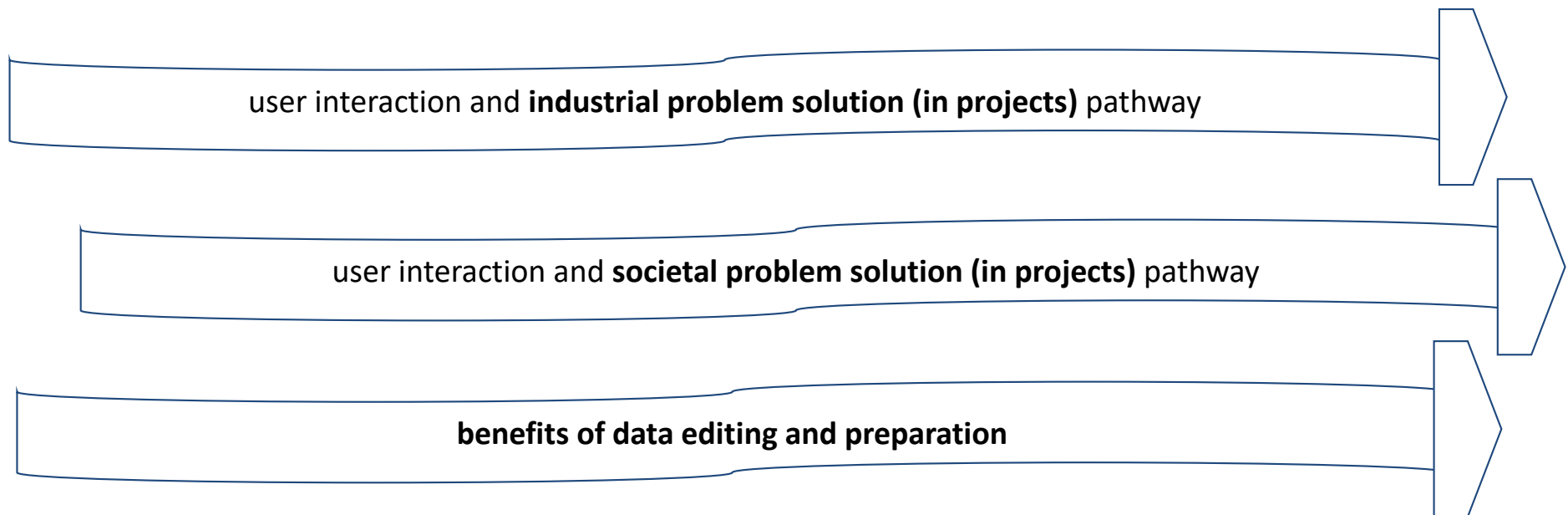


Pathways I: Socioeconomic Impacts of Research



Pathways II:

Conscious Use of Research for a Purpose



Pathways III:

Shaping Research's Foundations & Environment

changing fundamentals of research

contribution to standards

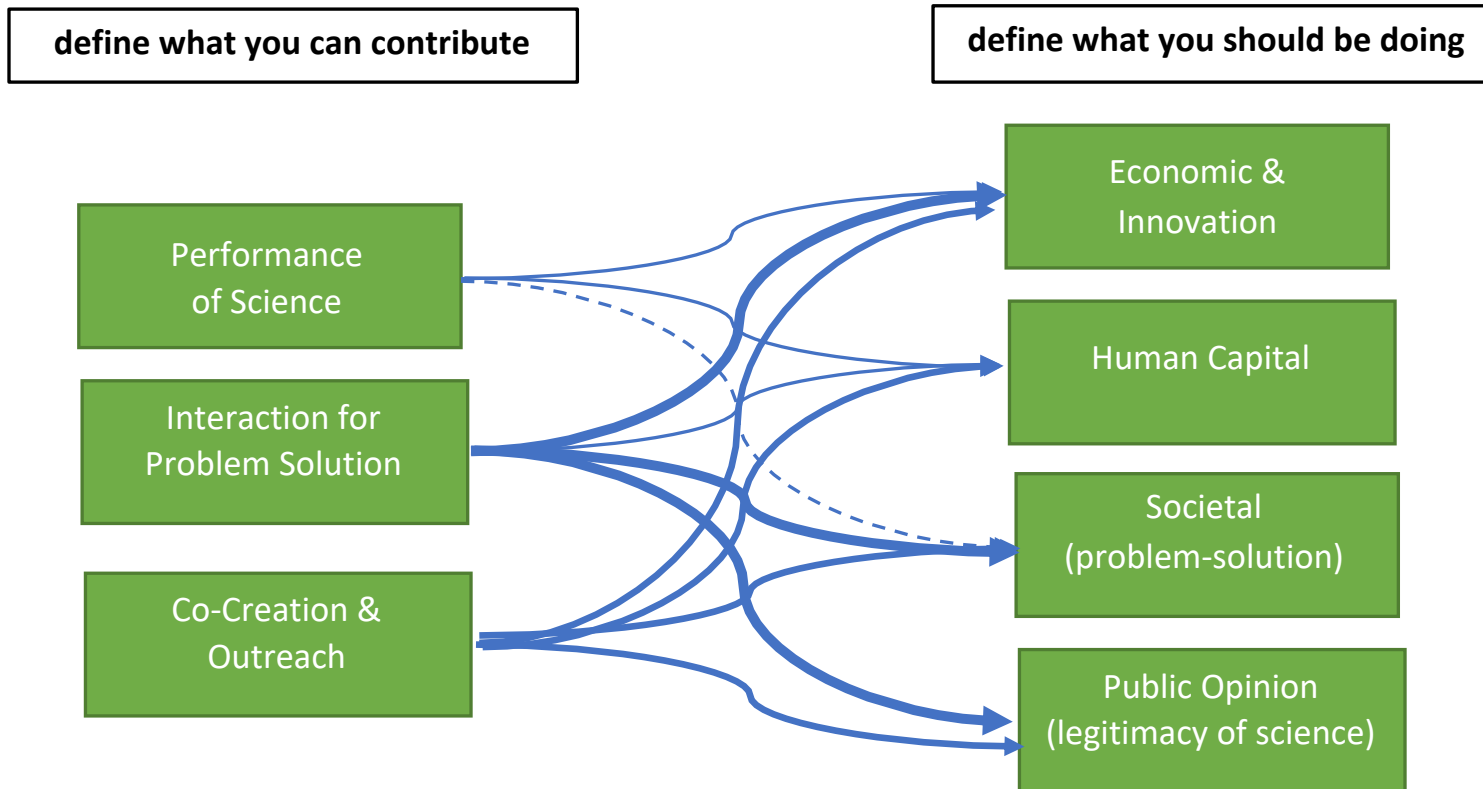
communication and outreach pathway

increased societal participation

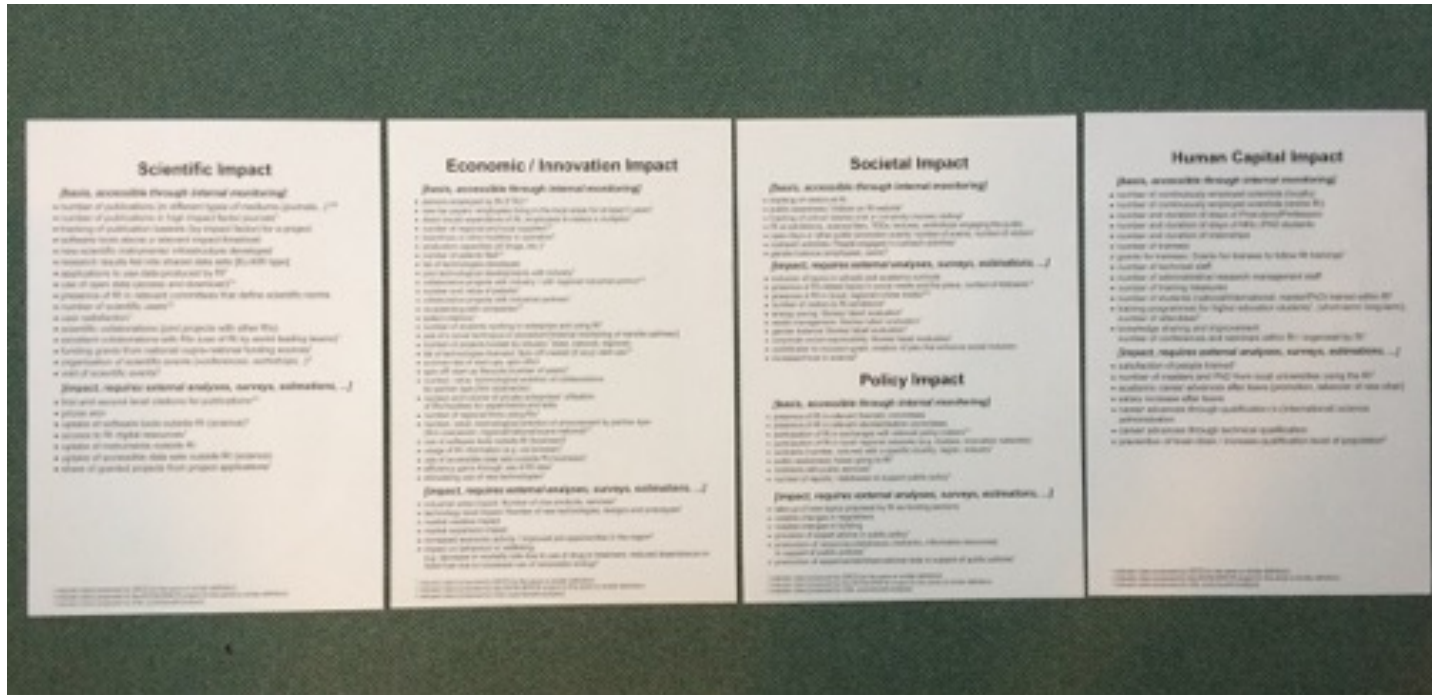
networking and community creation



PATHWAYS AND IMPACT DOMAINS



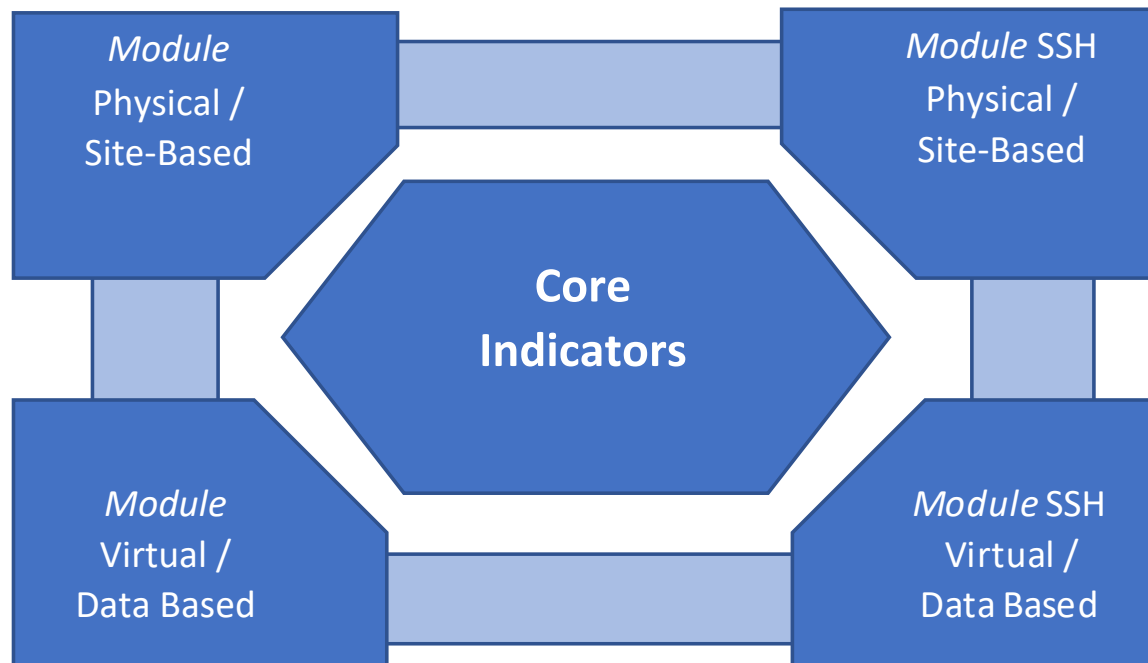
Assigning indicators - relevance and feasibility guiding the choice!



- Compiled all relevant indicators into a (preliminary) integrated long-list
 - Drawing on all relevant studies/past-work: OECD, ACCELERATE, CSIL CBA Methodology, ESFRI



Next steps: designing and testing a modular IA framework



Summing up

- RI managers want an easy-to-use framework that helps them identify the sort of questions an IA exercise can answer and what data needs to be collected.
- The workshops suggest most impact areas and many impact pathways are relevant across all types of RIs - even if the emphasis varies.
- IA may address three main types of impact:
 1. Quantifiable impacts that can be captured through quantitative metrics available e.g. in economic analysis
 2. Non-quantifiable impacts the assessment of which can, however, be supported by quantitative means (e.g. social network analysis, dedicated surveys)
 3. Complex network effects captured through exploratory approaches which require qualitative methods such as narrative case studies.



HOW TO ENGAGE?



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