

Rathenau Instituut

Impacts of infrastructures

in the eyes of the beholder

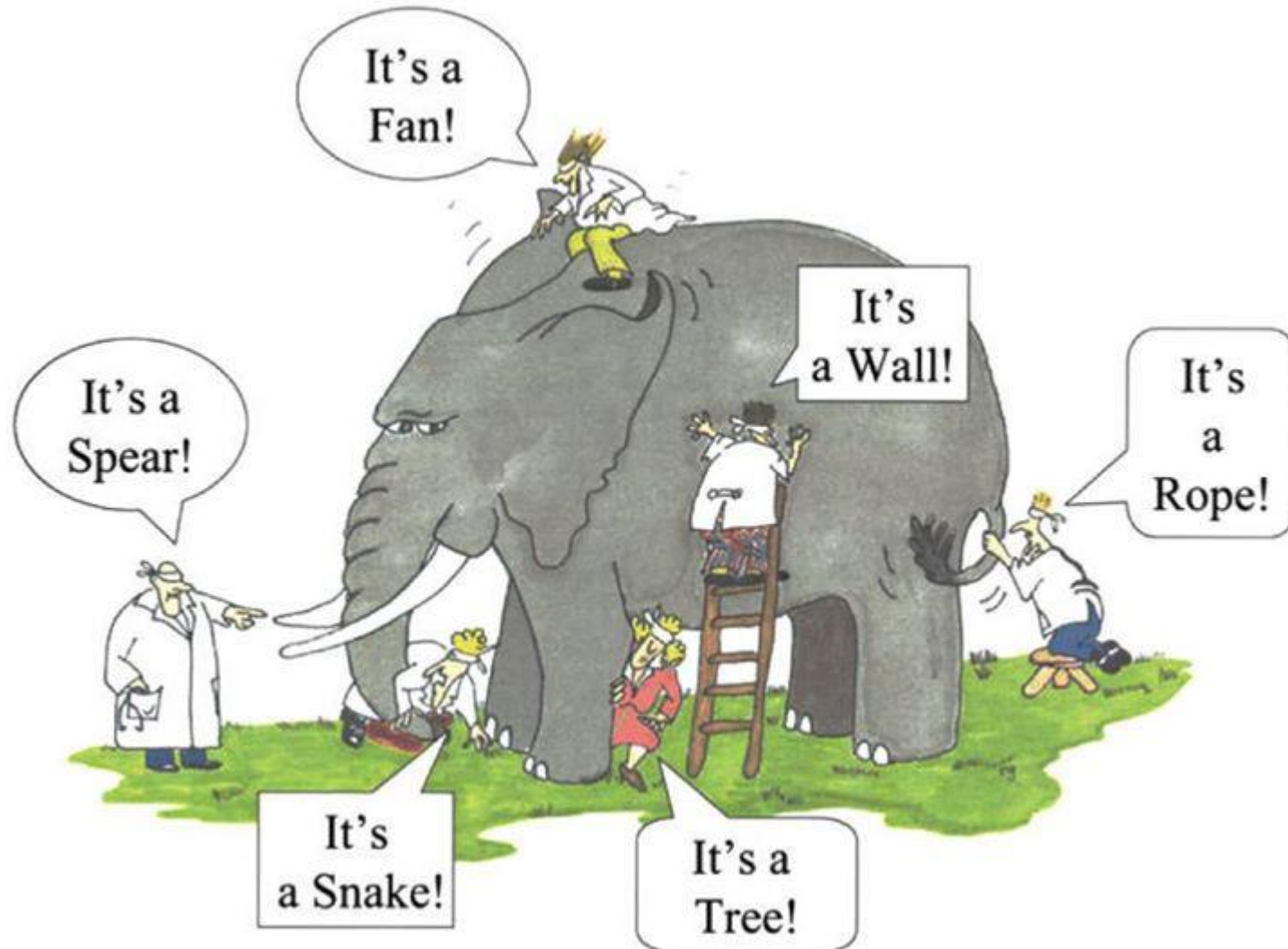
Content

- What is an infrastructure? – the elephant who are the beholders and what do they see?
- What is impact? – of sandbags and pH
what is understood as impact
what is understood as contributing to an impact and
what is accepted as valid information
- Impact is in the eye of the beholder
RIs can and do address impact proactively

Table 1: Comparison between traditional and developmental evaluation (Patton, 2006, p. 30)

Traditional evaluations ..	Complexity-aware, developmental evaluations ..
Render definitive judgements of success or failure	Provide feedback, generate learning, support direction or affirm changes in direction
Measure success against predetermined goals	Develop new measures and monitoring mechanisms as goals emerge and evolve
Position the evaluator outside to assure independence and objectivity	Position evaluation as an internal, team function integrated into action and ongoing interpretive processes
Design the evaluation based on linear cause-effect logic models	Design the evaluation to capture system dynamics, interdependencies and emerging interconnections
Aim to produce generalizable findings across time and space	Aim to produce context-specific understandings that inform ongoing innovation
Accountability focused on and directed to external authorities and funders	Accountability focused on learning and responding to what is unfolding
Evaluator controls the evaluation and determines the design based on their perspective of what is important	Evaluator collaborates in the change effort to design a process that matches philosophically and organizationally
Evaluation engenders fear of failure	Evaluation feeds hunger for learning

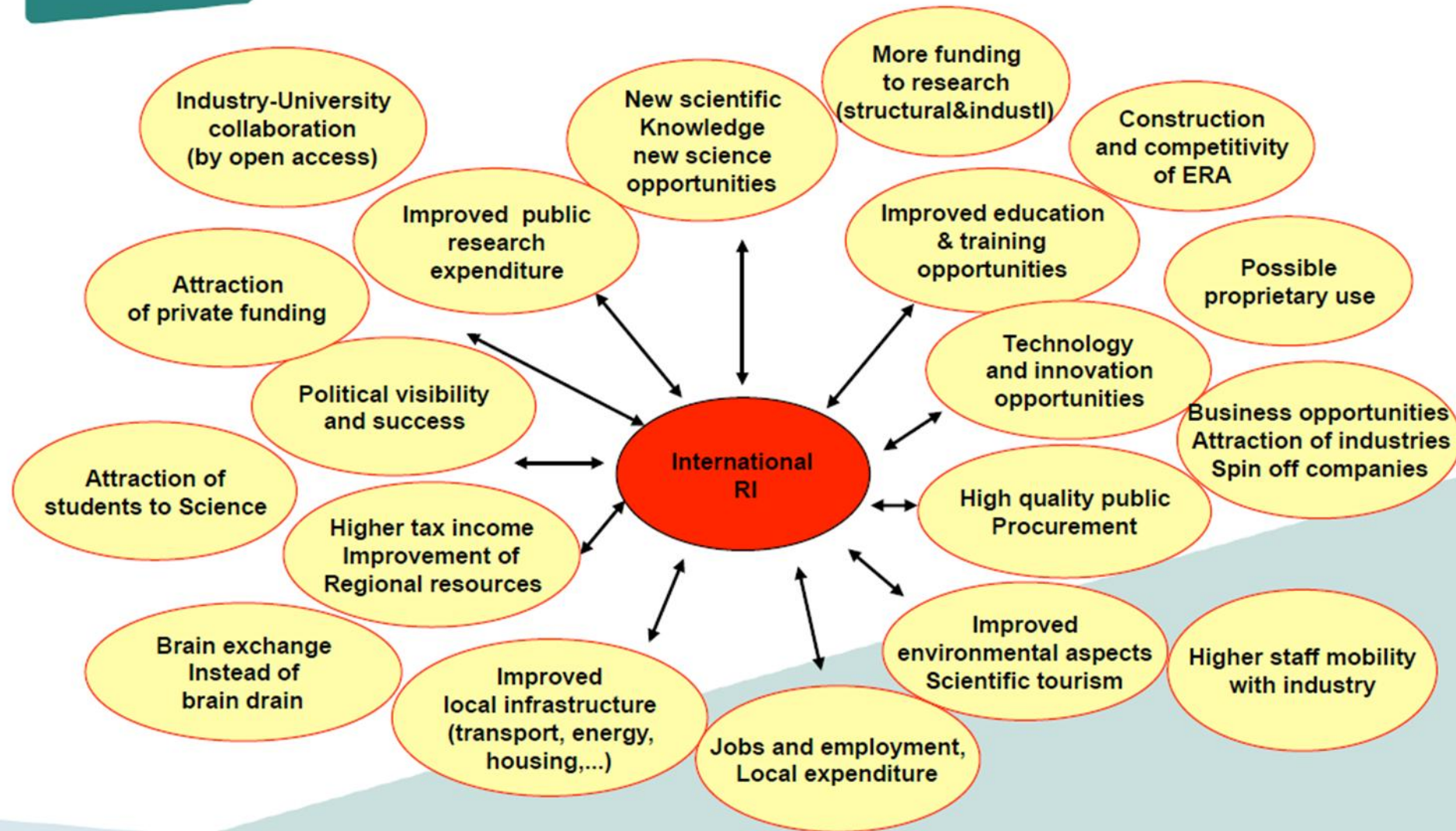
A research infrastructure – or an elephant



A research infrastructure – or an elephant

- Questions:
 - Who are relevant stakeholders?
 - What is the infrastructure according to the stakeholder?
 - What does the stakeholder expect?
- Plus: the mission / statutes / intentions
- Intentions and expectations

Returns and Stakeholders

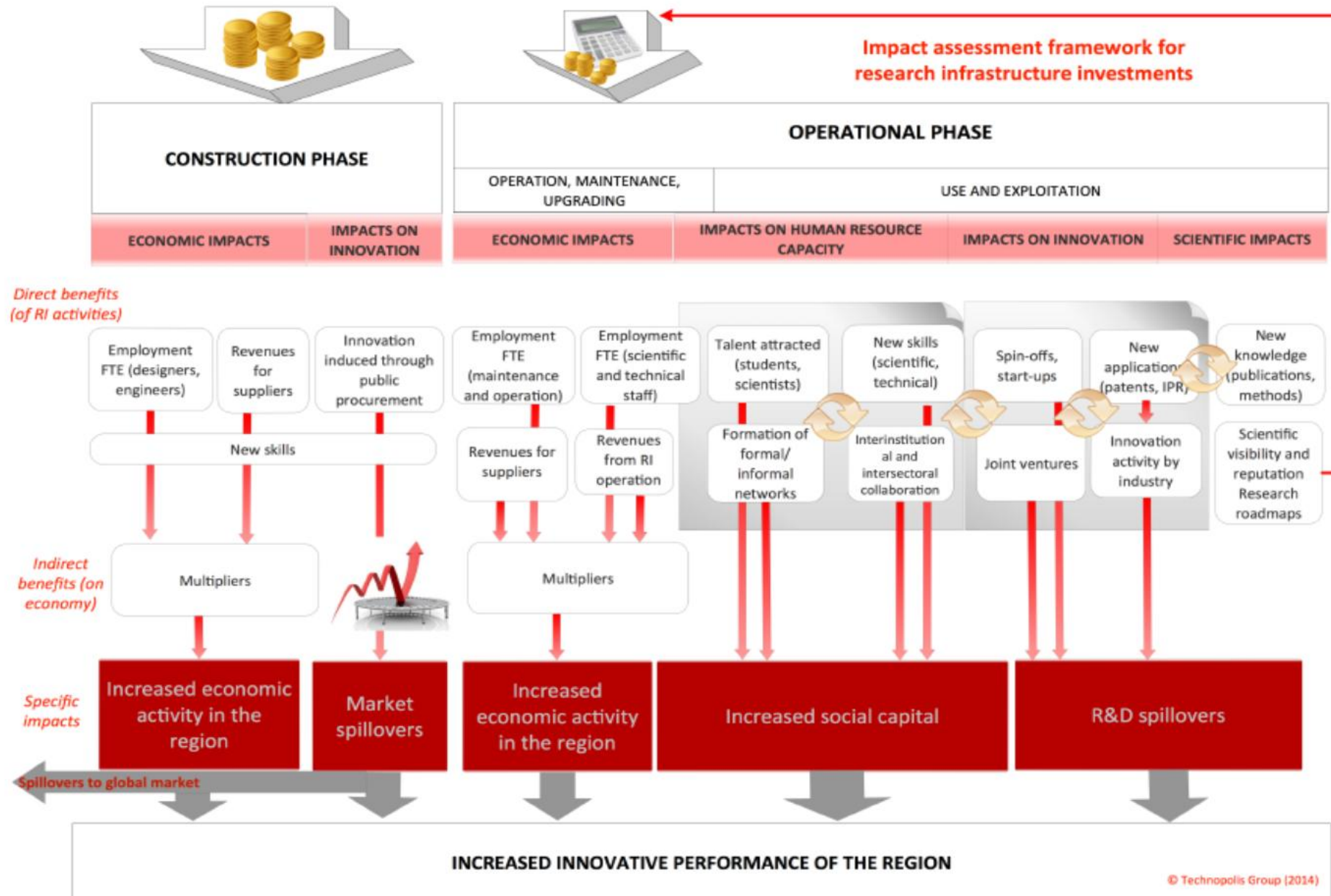


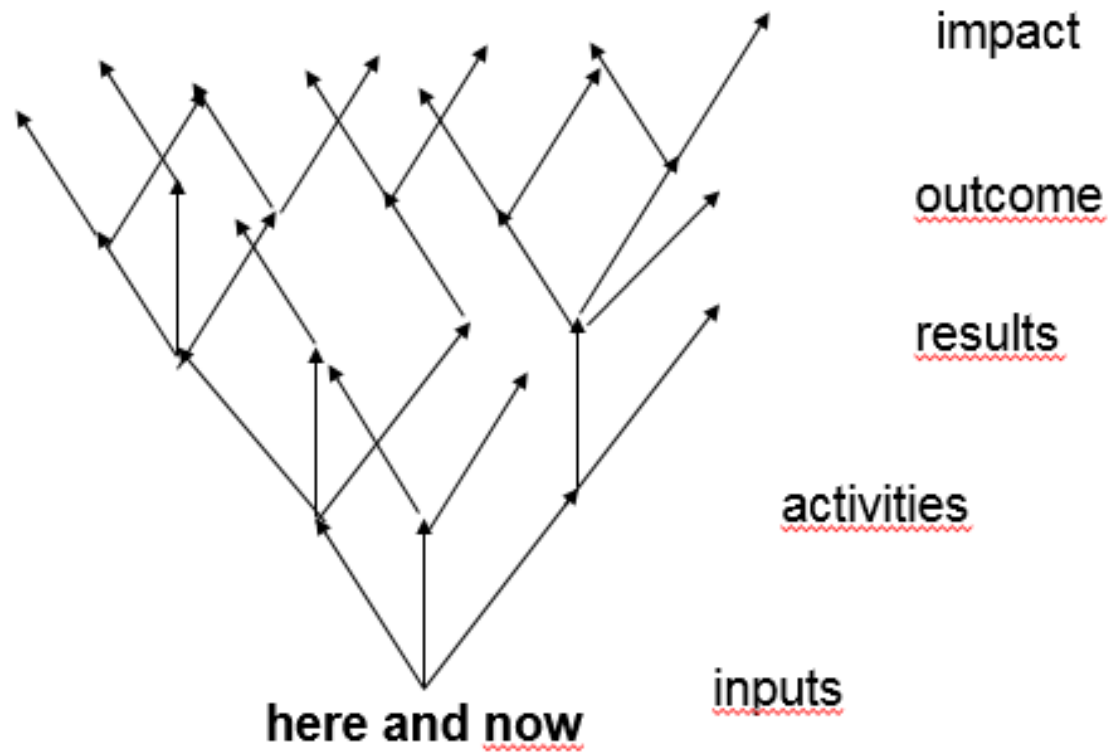
An impact of a research infrastructure – of sandbags (and pH)



R Impacts of infrastructures - in the eyes of the beholder

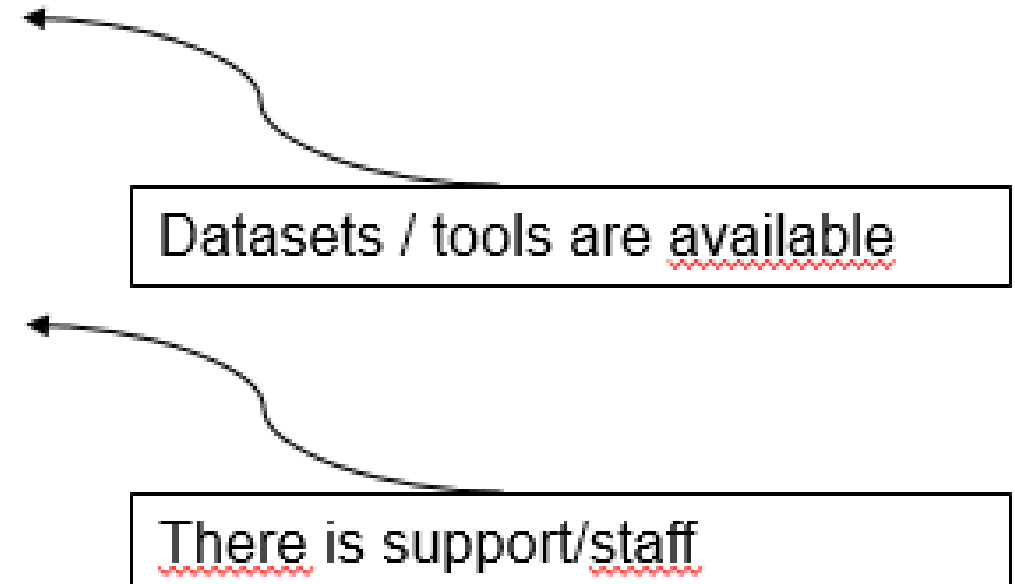
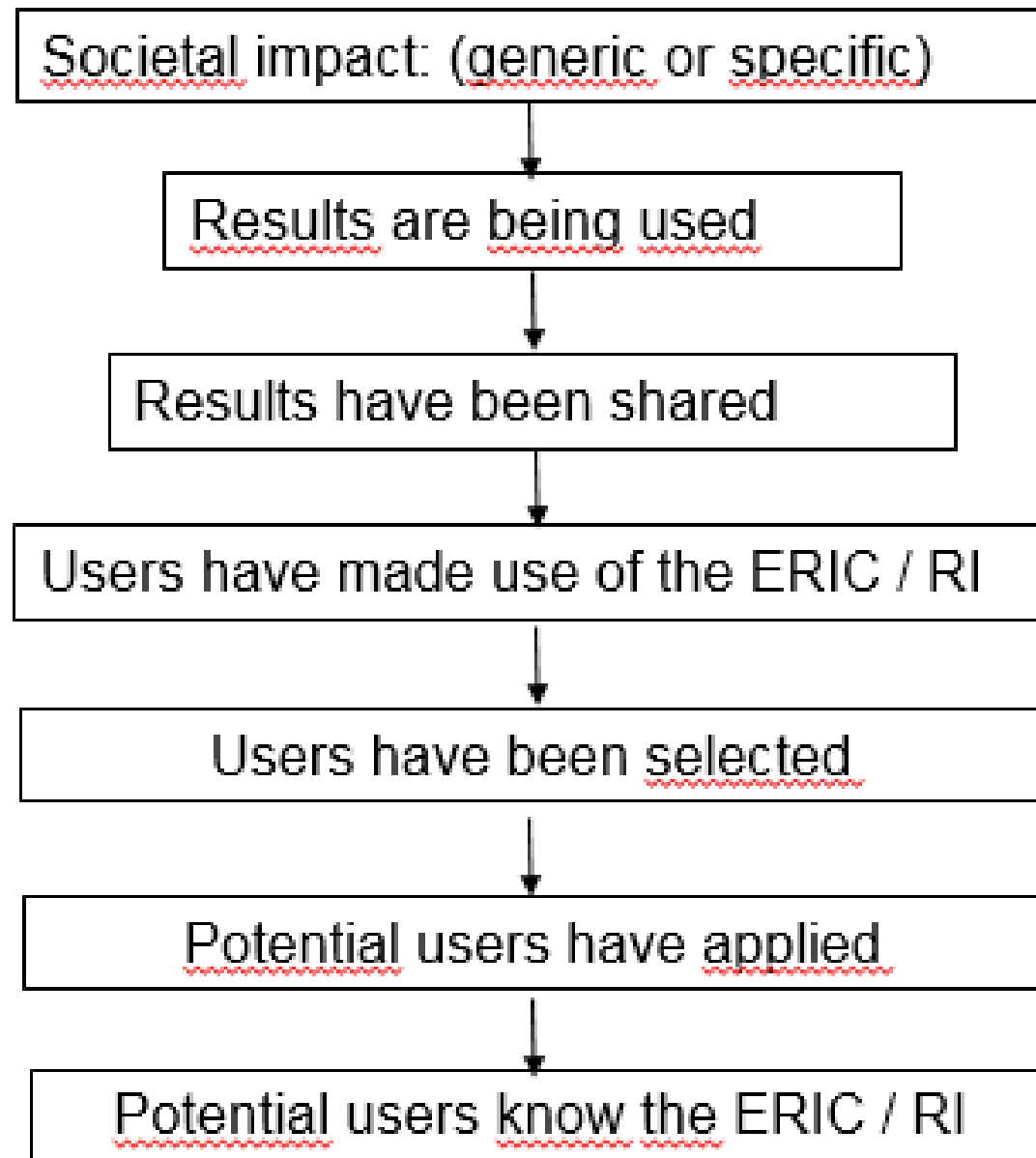
Figure 3: Logical framework for socio-economic impact assessment of investment in research infrastructure





R Impacts of infrastructures - in the eyes of the beholder



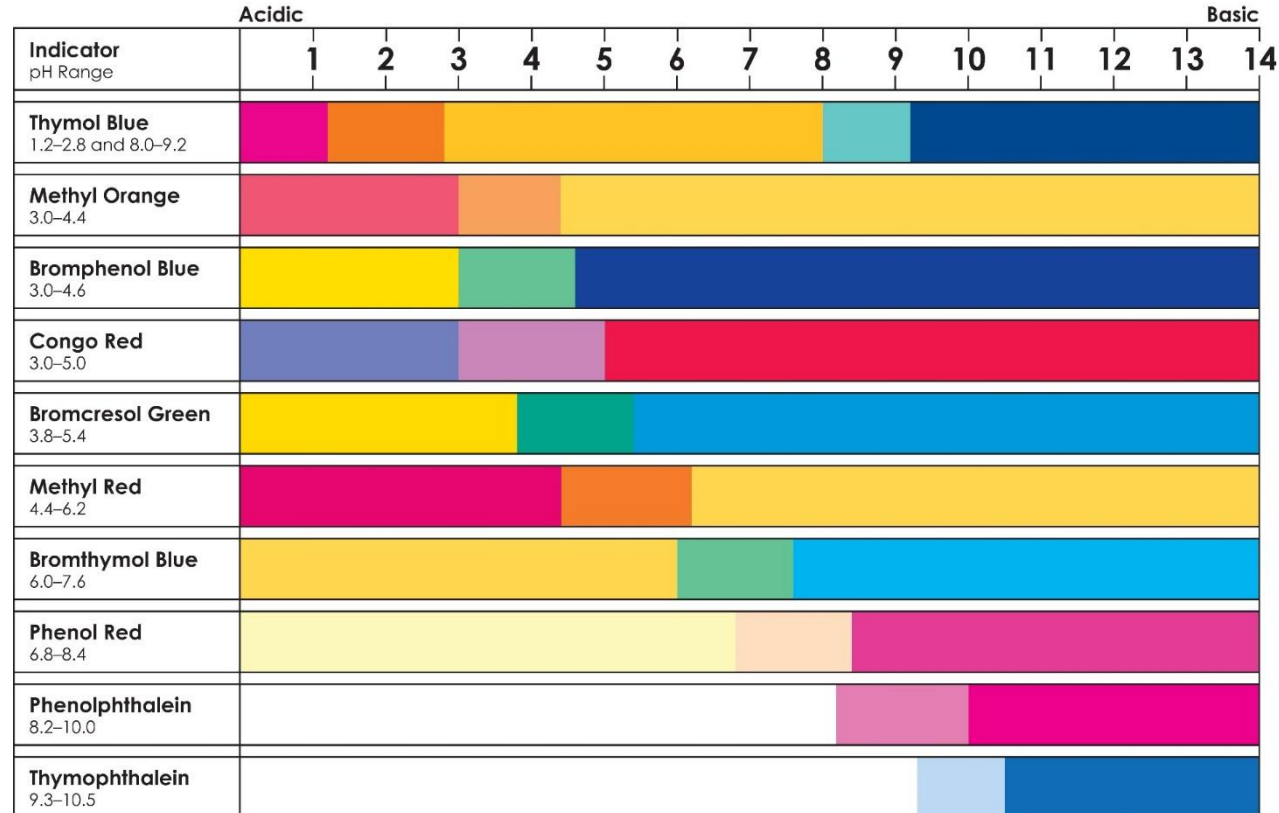


An impact of a research infrastructure – of sandbags (and pH)

- What type of impact does the stakeholder expect
- What type of impact does the infrastructure intent
- How is an impact understood to become manifest

An impact of a research infrastructure – of (sandbags and) pH

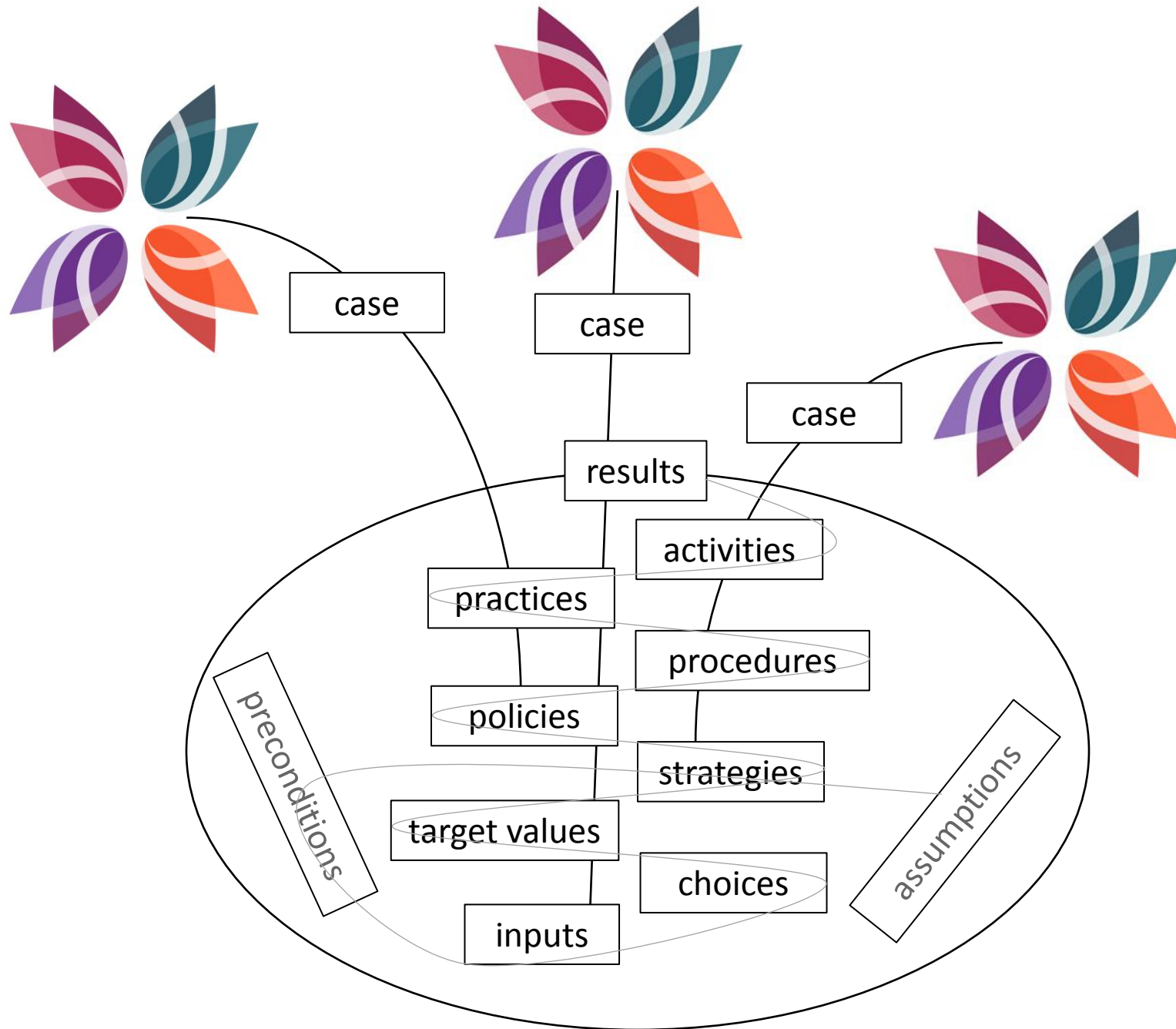
pH Indicator Chart



© 2009 Flinn Scientific, Inc. All Rights Reserved.
AP7291



ACCELERATE



An impact of a research infrastructure – of (sandbags and) pH

- What information does the stakeholder need / accept?
- What information helps to understand impact?
- What information is an indication of an impact?
- (an indicator does not equal impact)
- Indicators = indications = information

Impacts of research infrastructures – in the eyes of the beholder

- Direct the viewpoint of the beholder
- Adjust the focus
- Point out impacts

Thank you!

Leonie van Drooge

l.vandrooge@rathenau.nl

@LeonievanDrooge

rathenau.nl/en

accelerate2020.eu

Members of ACCELERATE

- All members represent largescale research infrastructures
- They enable materials research: characterisation of matter, from subatomair to supramoleculair scale
- The research is done with equipment (beamlines, instruments) that is connected to a powerful source (accelerator, spallation source, laser)
- Members are:
 - CERIC-ERIC Central European RI Consortium – IT
 - ESS European Spallation Source ERIC – SE
 - ELI-DC Extreme Light Infrastructure Delivery Consortium
 - HZG Helmholtz-Zentrum Geesthacht – DE
 - FRM II Research Neutron Source Heinz Maier-Leibnitz Munich Technical University – DE