Societal impact assessment
Graz – 16. November 2017

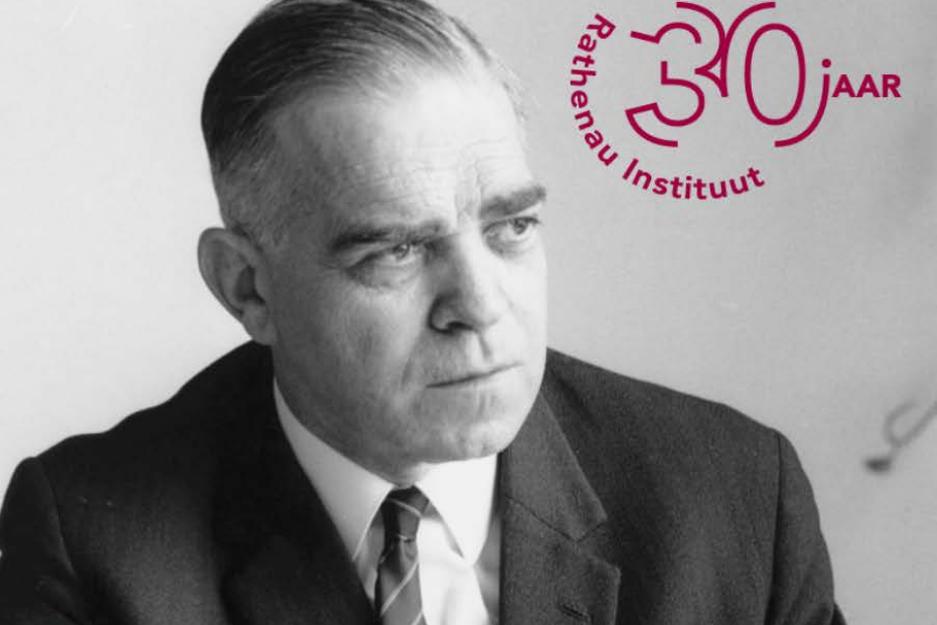**Rathenau Instituut**

ACCELERATE

Societal impact assessment

- Rathenau Institute – ACCELERATE – Leonie van Drooge
- Why societal impact assessment is on the agenda
  (on agendas in general)
- What is societal impact of ERICs and how to assess?
- Some building blocks regarding societal impact assessment
  (projects on societal impact)

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30 jaar Rathenau Instituut

Maatschappelijke impact van wetenschap vraagt om systematische aanpak

Recalibrating Excellence: #AcademicVarieties

Public Knowledge Organisations in the Netherlands

Shaping socio-technical innovation through policy
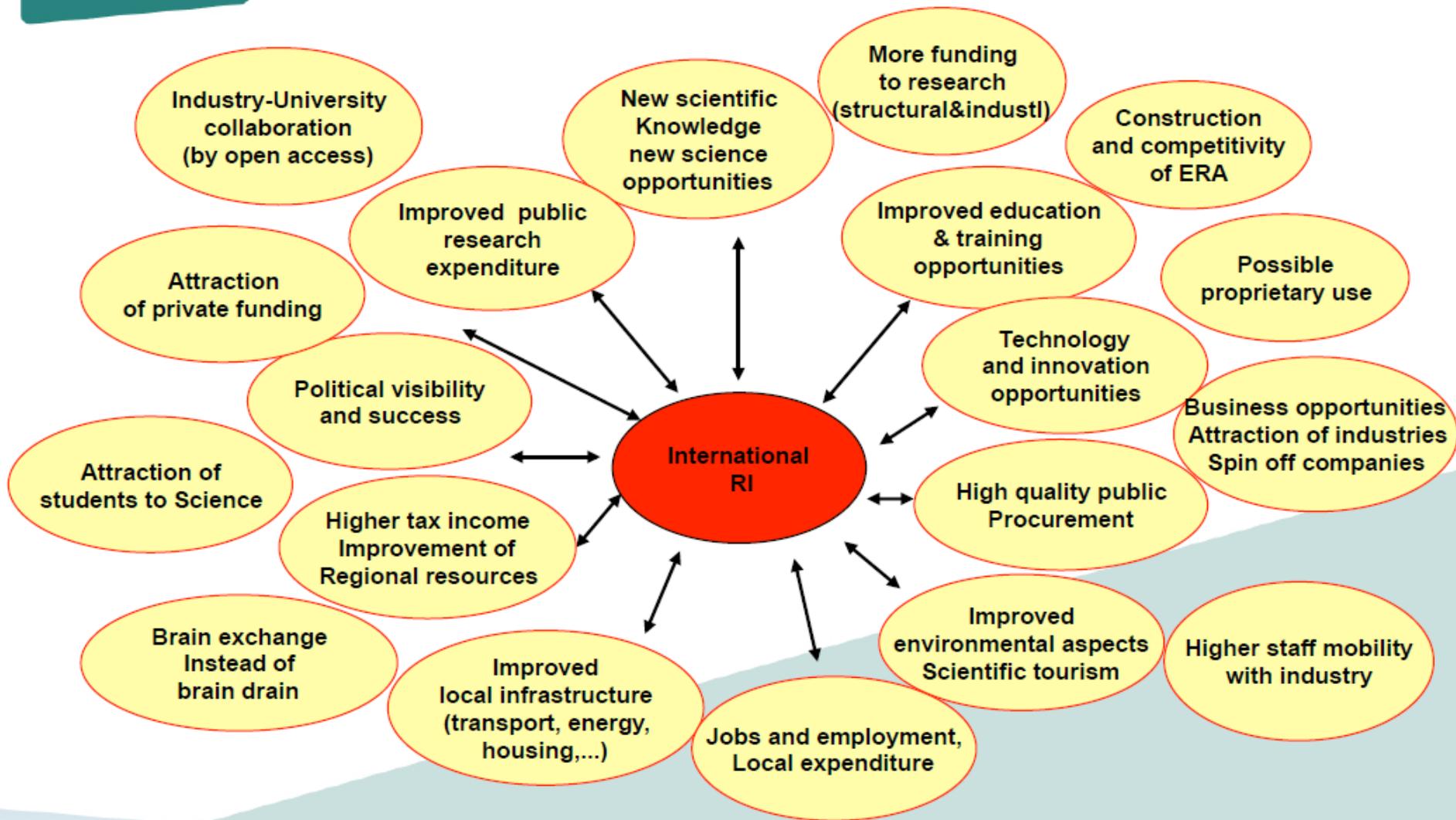
Science, Journalism and Media Logic

Societal impact evaluation: why?

- ESFRI report "Long-Term Sustainability of RIs":
  - Political and social pressure to demonstrate positive contribution to society in general, including impact on regional and national economies, benefits for citizens
  - For instance better healthcare, a cleaner environment, development to communication and transport.
  - Important factor for funding decisions
- ERIC
  - Significant improvement in techological fields
  - ERA priorities

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Societal impact evaluation: the issue?

- ESFRI report "Long-Term Sustainability of RIs":
  - The definition of socio-economic impact presents difficulties: impact may be manifested in many diverse ways
  - There are many different ways to measure impacts (measure?)
  - Causality is an issue
  - The heterogeneity of RIs (and ERICs) defies a "one size fits all" approach
  - Yet it is important to establish a set of standardized measures

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Returns and Stakeholders

What is societal?

- Societal ≈ everything but scientific
- Technical, innovation, economic, social, socio-economic, societal challenges (health, environment), ERA priorities, HRM, reputation,….

- RIs and ERICs can potentially contribute to a variety of societal impacts
- For each RI / ERIC: some societal impacts are more relevant than others
- Statutes, contracts, expectations; type of RI / ERIC are important

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What is impact?

- Impact =   a change
              a process

| input | activities | output | outcome | impact | impact |

- Impact =   what RIs statutionary need to achieve
              what is agreed upon with funders
              what other stakeholders expect

- Impact =   more than unintended consequences

- Impact is a result of governance:
  a result of vision + choices + organisational aspects +
  activities

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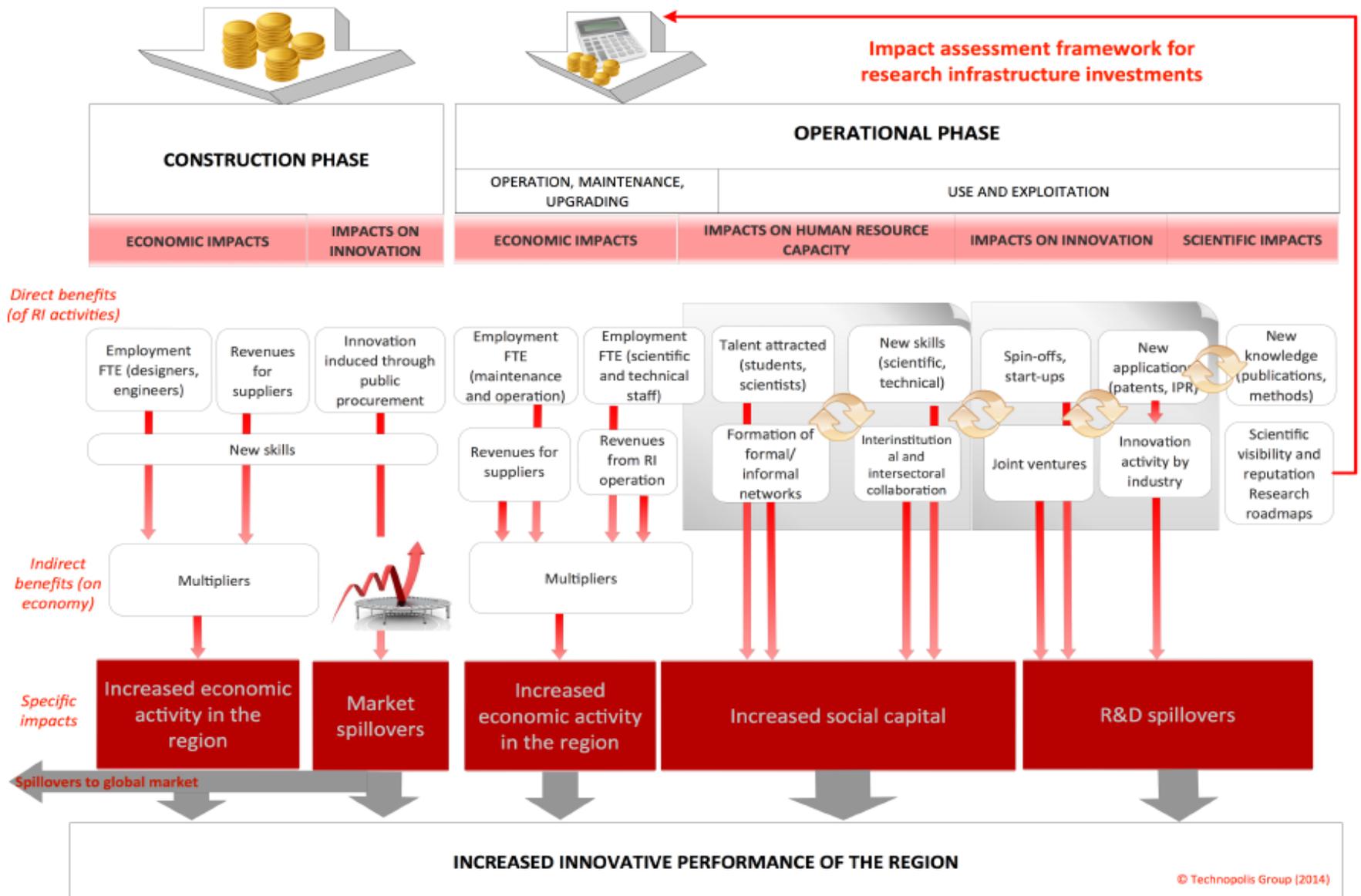
How to evaluate societal impact?

There is agreement

- There is not one best or obvious practice or method
- Especially not for (very complex) RIs and ERICs

However, it is clear that

- Meaningful evaluation takes into account objectives of RIs
- For evaluation, a mix of methods and indicators is required
- There is a limited number of different impacts / impact pathways, that relate the objectives with activities

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

ERiC: Evaluating Research in Context

- Developed with stakeholders (association of uni's VSNU, research council NWO, royal academy KNAW)
- Used in ex post evaluation of academic groups (SEP)
- Relation between mission / goal and impact are central
  - Start from the vision / mission / goal
  - Evaluation questions are related to the mission
    - What results?
    - How has the knowledge / results been shared?
    - What evidence of interest and appreciation?
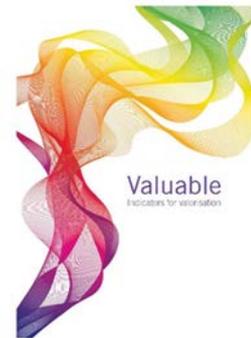   - What effects (impact) have the research (results) had?

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SIAMPI: Productive Interactions

siampi

- FP7 funded project, with partners from UK, FR, NL and ES
- Social Impact Assessment Methods...Productive Interactions
  - Focus on contribution (in stead of attribution)
  - Enables and stimulates to focus on research process (in stead of sole focus on outputs, outcome or impact)
  - Introduction of concept of "productive Interactions": Exchanges between researchers and stakeholders in which knowledge is produced and valued that is both scientifically robust and socially relevant.

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Valuable: indicators for valorisation

- Commissioned by Dutch National Valorisation Committee
- There are 4 dimensions to valorisation:
    - Various actors are responsible: knowledge provider, knowledge user, intermediary
    - The responsibility is held at different levels within an organisation
    - There are appropriate forms of valorisation for each discipline
    - Valorisation is a process where awareness and interaction at all stages and levels of research are important

Valuable
Indicators for valorisation

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Evaluation: how and what form?

- Evaluation = a responsible authority + criteria + a specific evaluation question
- Evaluation = evidence (indicators + descriptions + case studies + narratives) + judgement
- Ex ante / Ex post / Ex durante or ad itinere
- Evaluation to account for / to decide (summative) / to learn (formative)

- From evaluation to monitoring and enabling evaluation
- From external assessors to joined responsibility (?)

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Evaluation of complex research initiatives

…. and organisation of these initiatives:

- Conventional evaluation criteria and methods do not suffice
- Academic peers are one of many stakeholder groups
- Scientific quality is not an end in itself (or is it for some RIs?)
- Societal quality or impact is not an isolated aspect
- Other notions of quality and impact are needed

And:

- Dominance of indicators: "what you measure is what you get"
- Think of indicators as indications
- Evaluation can be used to learn, not only to account for
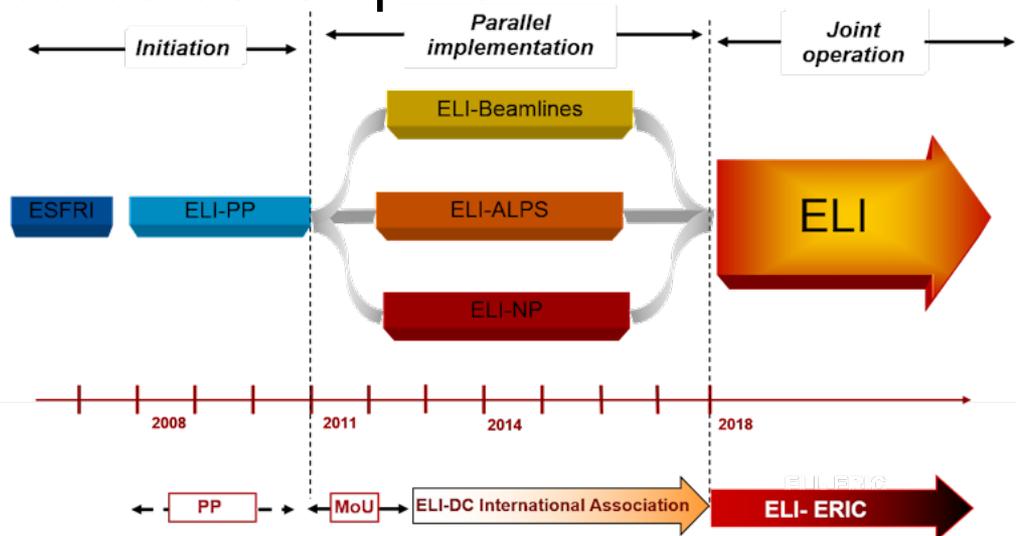
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What "indicators" or evidence?

- Quantitative indicators: #users % applications #articles #jobs
- Qualitative indicators: satisfaction of users / stakeholders
- Descriptions of processes, of policies: ILO, selection criteria
- Case studies (of what?): an example
- Narratives (Not a chronicle. Use a plot: causality): the broader picture, so it become clear what a case actually illustrates

- Process indicators, intermediairy endpoints, proxies

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Aspects I - Phase

- Initiation/preparation
- Construction
  - Local development
  - Internationally distributed development
- Operation
  - Maintenance
  - Use
- Decomissioning

Aspects II - Scope

- Scope A:
  - Source
  - Research instruments/Beamlines
  - Time

- Scope B:
  - Single site vs. distributed

- Scope C:
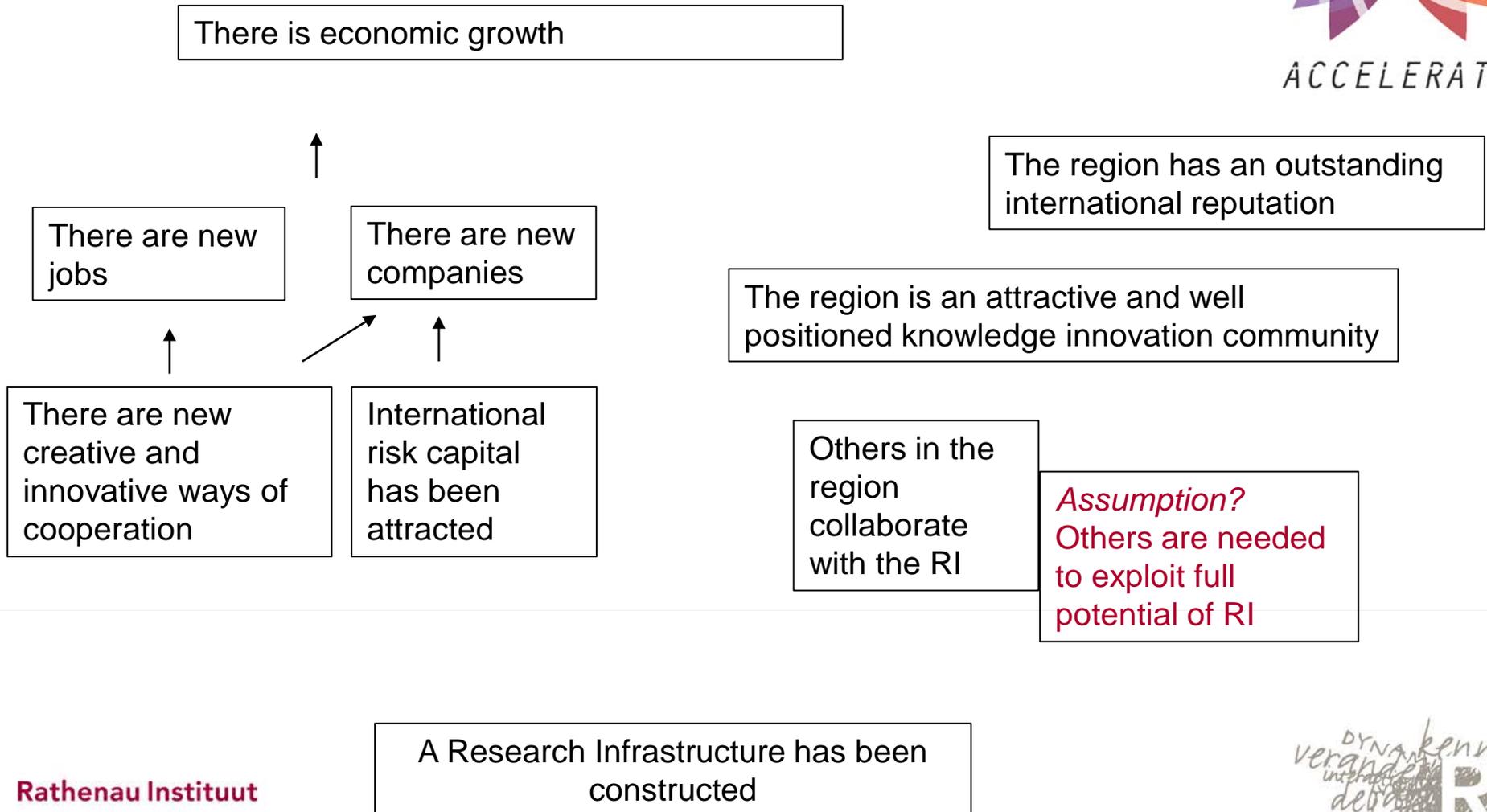 - Locally governed vs. ERIC

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Aspects III - Funding

- Sources (geographic):
  - European (H2020, structural funds) and other supranational funds
  - National (scientific, other)
  - Regional
  - Multinational → ERIC Members
- Sources:
  - Public
  - Private
- Contribution:
  - In cash
  - In kind

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RIs and regional development

There is economic growth

There are new jobs

There are new companies

There are new creative and innovative ways of cooperation

International risk capital has been attracted

The region has an outstanding international reputation

The region is an attractive and well positioned knowledge innovation community

Others in the region collaborate with the RI

Assumption? Others are needed to exploit full potential of RI

A Research Infrastructure has been constructed

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Our approach: theories of change

- Develop theories of change with the RIs and some of their stakeholders concerning each of the impacts

- Identify the promise / goal / mission / impact ("innovations", "more employment in the region" or "improved scientific capacity")

- Understand and unpack the impact journey that leads towards these promises (what are preconditions? What assumptions?

- Identify who and what contributes to the realisation of the goal, and decide on whether this is within the influence of the RI

- Shed light on how impact can be (or is!) organised and embedded in the RI

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Our approach: indicators are indications

Identify relevant indicatons of progress

- Understand what serves as an indication of progress toward the goal or promise or of understanding

- Select a number of indicators, quantitative as well as qualitative for monitoring purposes

- And collect other evidence as well: decisions, cases

- Organize the indicators and understand their order: whether they refer to structural properties of the RI, or to anecdotal evidence.

- Indicators of progress – can be used to monitor, as well as to evaluate

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Wrap up

- Societal impact is on the agenda (of most ERICs)
- Both the responsibility and governance, as well as monitoring and evaluation
- A variety of impacts is theoretically possible
- For each ERIC, specific impacts are more relevant than others

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Wrap up

- Regarding monitoring or evaluation:
  - no one size fits all approach
  - yet it is clear that one should use a variety of methods
  - that relate the goal or vision or mission to activities and responsibilities
  - Logic frameworks / theory of change help to draw the bigger picture

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Thank you!

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