

# The various dimensions of impacts and of related stakeholders

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# What types of RIs

### Two main types of RIs:

- Resource-limited access (selection of access):
   libraries, observatories, collections,
   environmental platforms (ships, airplanes,
   satellites, etc.), analytical (neutron-photon-electron probe-based, NMR, etc.),
   traslational/high safety clinical-labs, synthesis
   (high pressure, MBE, PCR, .....), High Power
   Computing, etc.......
- Resource-unlimited access (selection of upload): data infrastructures, e.g. socioeconomic, biological, environmental, literary, etc...

# Impacts driven by excellence, and excellence driven by "unbiased access"

- "Open-free access" to resource limited RIs produces:
  - benchmarking of local researchers to best at global level
  - increasing scientific returns of national resources
  - structuring of research communities
  - Increasing effectiveness of local/national education, and technical and managerial training
  - Increasing quality and quantity of socioeconomic returns (impact on visitors, on methodologies and technologies, transfer to industries, territorial returns,....)
- E.g. the DOE "contract":

http://techtransfer.energy.gov/docs/NonProprietaryUserAgreementClassWaiver.pdf

Come for free, publish the "R", but leave behind any "D"

Open-free access (if well managed) is a good investment

#### A linear model



Pan-EU RIs cover the area between knowledge creation and proof of relevance ... and time is needed



### RIs as Innovation Motors

Research: blue sky, applied......

New Discoveries increased frontier competition

fuel:
Curiosity
+Excellence

Increased quality of Research, advanced results, attraction of: competition, junior talents, funding, new ideas, etc

**Public** funding area

Development & Innovation Invention of new instruments, methods, training, advanced procurements...

Public/Private funding +investment area

Industrial Innovation

fuel: Market +Relevance

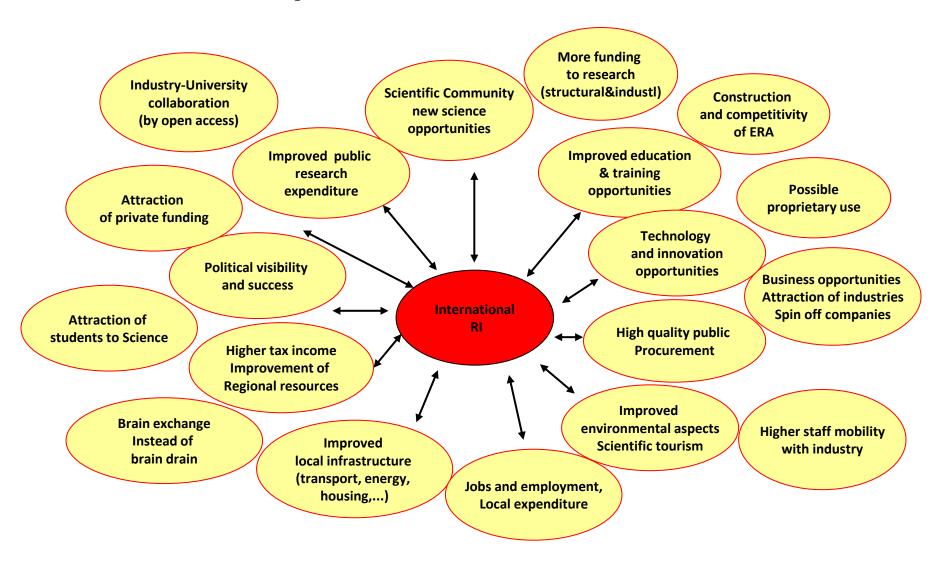
New, expanded Markets

Increased competitivity, attraction of new investments

**Private** investment area



# Impacts and Stakeholders



## ....with different motivations

(anthropology of the stakeholders)

Science community

New science opportunities

education&training opportunities

Construction of ERA

More funding to research & industry support

Political environment

Construction of ERA

Improved public research expenditure

Political visibility and success

Higher tax income & attraction of Private funding Regional environment

Attraction of industries& private funding

Improved local infrastructure (transport, energy, housing,...)

Jobs&employment +local expenditure

Improved environmental aspects

Industrial environment

Technology and innovation opportunities

Business procurement opportunities

Possible Proprietary use

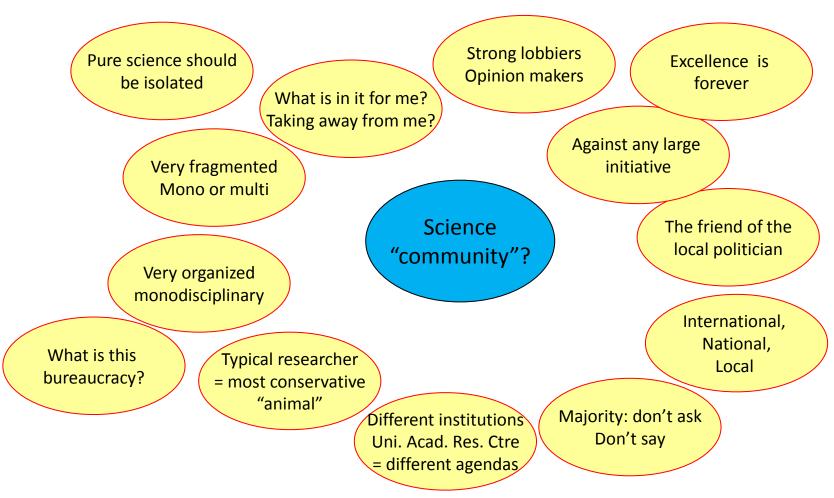
Industry-research collaboration (through open access)

Increasing economic motivation

RAMIRI2 Amsterdam 2011

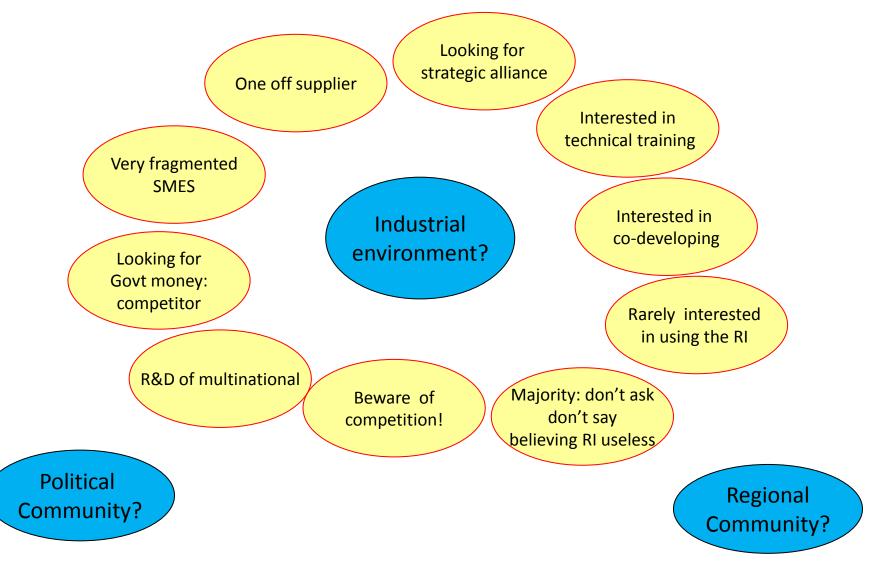
# Picture a bit more complex

Science......"community"?



# Picture a bit more complex

Industrial......"community"?



#### **RESOURCES**

#### **Financial resources**

- What are the current and potential sources of revenue for our activities?
- What is the agenda of the funders?
- What do they expect from our activities?
- How to reach and convince them?

Non-financial resources

- Do we have sustainable access to technology / scientific know-how do we need?
- What is our training strategy? Is it adapted to the phases of our activity?

Do we have sustainable access to the non-financial resources we need?

#### **ACTIVITY**

#### **Partners**

- Do we need partners? What for?
- Do they share our strategy?
- Are the partners sustainable?
- How strong is our partnership?
- How much do we depend on them?

#### Research infrastructure

- What is the RI's 'mission'?
- What is the timeframe for that mission?
- What is the institutional and legal framework?

#### **Competitors**

- Who are they?
- How are they positioned in the field?
- How can we compete against them? How can we differentiate ourselves from them?

# USERS & BENEFITS

Our offer - What content? What process of definition, monitoring and promotion?

How can we evidence the

outputs and the relevance of our

activities?

## Direct beneficiarie

- Who are they? How large is our user community?
- What do they expect from a research infrastructure like ours?
- What is needed to ensure their

Can we disseminate our results and generate extra revenues?

#### Other benefits of our activities

- What other benefits could our activities potentially generate?
- What channels would be necessary to disseminate these benefits?
- Do we have a strategy to put
  these channels in place?

# **Blue sky.....and Returns**

Research Infrastructures: sometimes self sustaining by socioeconomic returns







- Abbey-libraries: Centres of Excellence in Research, attracting world level scholars and researchers
- But also Technology development and transfer centres, developing technologies and economy: construction and agriculture, food and drinks (beer-almond sweets), protochemistry-biology-medicine

# How to evolve from "unintended returns" to better understanding and planning them?

- Abbeys producing techniques and industries
- CERN producing the Web
- Astronomy producing the CCD
- But we need to disentangle and understand many other returns and "communities of stakeholders", and, if possible, quantify and improve, based on clear examples
- .....and this, possibly, will come in the sessions

