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Role of research infrastructures for a competitive knowledge economy

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Session Best Practices

Large, Medium and Small Research infrastructures in ERA: which analysis to improve knowledge on (potential) impacts at all levels ?

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Introduction: issues, methodology, structure (1)

a) the issues addressed

- analysis and data to improve knowledge on impacts
- gaps, needs and possible specifications for future studies.

b) methodological point: two postulates

1. assessment of impacts :

- identify the criteria derived from objectives to define the impact categories
- assess the impact for each criterion, i.e. per impact category

2. dealing with research infrastructures in the ERA:

the overall objectives are those stated in the ERA 2020 vision document (Competitiveness Council 2nd Dec. 2008)

Introduction: issues, methodology, structure (2)

c) structure of the presentation

To improve knowledge on impacts of research infrastructures in the ERA and respond to the issues stated above, we will discuss :

- what is a better definition of the impact categories ?

- what is a better assessment of impacts ?

- how can this lead to specifications for future impact and foresight studies ?

1. A better definition of the impact categories (1)

1.1 Identification of the characteristics of the ERA

- clusterisation of the key ideas of the document ERA vision 2020
- dealing with research infrastructures:
- 11 ERA-relevant impacts categories

1. A better definition of the impact categories (2)

1.1 Identification of the characteristics of the ERA

- Attractiveness of Europe for carrying out RD
- Responding to the needs of citizens and businesses
- Trust and dialogue between society and S&T community
- Excellence in science
- A research system with strategic capabilities
- Healthy ERA-wide competition (for accessing facilities)
- Equitable access to a jointly funded infrastructure
- Placing the ERA at the core of global research networks
- Coherence of Europe’s voice in international for a
- The knowledge triangle in Europe
- The relationships between public and private RD

1. A better definition of the impact categories (3)

1.2 What can be a better definition of impact categories ?

- The above characteristics define the typology of impact categories
- The impact of a research infrastructure “in the ERA” is the impact resulting from an assessment in terms of each of those categories

2. A better assessment of impacts (1)

The assessment of impact has to be done per impact category:

2.1 the known methods are to be carefully and professionally applied :

- **surveys, in depth interview, bibliometric analysis, analysis of activity reports, expert assessment…..**

2.2 specific methods have to be put in place for some of the categories:

- **creativity needed here and room for methodological research**

2.3 What can be a “better” assessment ?

- **It is not only the assessment per category, but the overall view provided by the existence of the variety of the categories / criteria.**

3. Specifications for future impact and foresight studies (1)

3.1 Future impact studies

- **specifications should include explicitly an assessment along each category of impact**
- **the issue is not mainly to “compute” impacts, but to provide frameworks for structured debates**

3.2 Foresight studies - Proposal:

- **characterize each infrastructure foreseen for co-financing in the future with a score on each category of impact**
- **clusterise those infrastructures thus making types, each type having a ‘profile’ over the categories of impact**
- **each infrastructure can thus be described by (a) its cost, (b) its overall score on the criteria and (c) its type regarding the categories of impact**
- **design scenarios of portfolio of infrastructures selected according to different weighting of the types**