The Impact of Research Infrastructures on Regional Creativity

Emmanuel Muller, Jean-Alain Héraud, Andrea Zenker

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Structure of the presentation

A. What are we talking about and what are we looking for ?
B. Two complementary approaches
C. Adapting the BETA method
D. Some ideas related to the first approach
E. Some more ideas to the second approach

A. What are we talking about ? A few concepts (extracted from the EvaRIO proposal)

"Creativity is the ability to produce work that is both novel (i.e., original, unexpected) and appropriate (i.e., useful, adaptive concerning task constraints) " (Sternberg & Lubart, 2008).

Regional innovation culture as the **ability of a region's people to be creative, and consequently innovative.**

Three core dimensions:

- the level of individual creativity characterizing a people's region,
- the existence and development of communities devoted – directly or indirectly – to creation and innovation, and
- a corresponding (multi-level and multi-actor) mode of governance.

A. What are we looking for? A few aims (extracted from the EvaRIO proposal)

(…) Thus, if a regional innovation culture is the result of complex influences resulting partly from historical and socio-economic trajectories, it may be assumed that **the existence of RI may have a real - but so far underestimated – impact on regional creativity** and more generally of the evolution of a given regional innovation culture.

Focus #4 : The aim of this part of the study is then to provide a limited but focused analysis of the **ways and mechanisms by which RI and the people working (on a permanent or a temporary base) in or for them are contributing to the creativity and innovation** at the local level.

Focus #4 : On the basis of the identification and understanding of these mechanisms, some proposals will be made about evaluation methods (…). Innovation and creativity both on the **"creative industries" and other industries** will be taken into account.

B. Two complementary approaches : the issue of operationalisation

First approach:

- ***"an analysis of the impact of RI as they are defined by the EU"* i.e. a generic approach based on the case studies performed on typical RIs** (*"international top-down science oriented and mostly physical RI"*)

Second approach:

- **"a comparison with a regional based infrastructure" i.e. a specific approach focussed on iconoval's virtual reality platform and the Upper Rhine image and entertainment cluster CLUe** (*"local bottom-up technology oriented and mostly virtual RI"*)

C. Adapting the BETA method (.ppt Laurent)

The "iceberg" model

(EUREKA 2006 Survey + Case studies - partly based on BETA approach)

Sales of innovative product
Reduced process cost
Licence income

Firm strategy, organisation and method learning
Use of technology in other parts of the business
New contracts/networks & prestige
Employment, competences and training

Spillovers to non participants
Use and social benefits

C. Adapting the BETA method (.ppt Laurent)

General rule for quantification

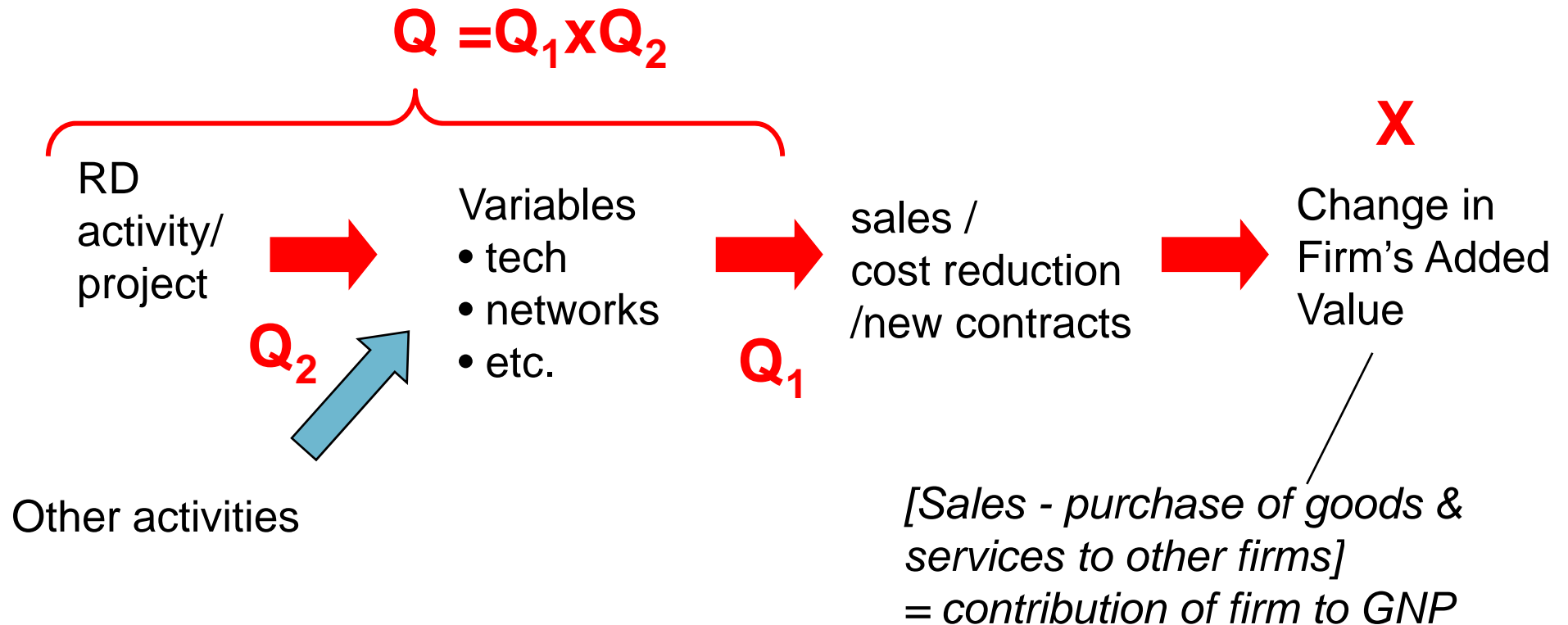**Benefit =** $$\sum_{t=0}^{T} X_t \times Q$$

Where :

X : impact on firm's added value of sales increase/cost reduction that derive from spin-off

t : index for time interval

Q : specific influence of targeted activities on the spin-off = " attribution coefficient "

C. Adapting the BETA method (.ppt Laurent)

$$Q = Q_1 \times Q_2$$

X

RD activity/ project → Variables
- tech
- networks
- etc.

Q_2

Other activities

Q_1

→ sales / cost reduction /new contracts →

Change in Firm's Added Value

[Sales - purchase of goods & services to other firms]
= contribution of firm to GNP

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D. Some ideas (related to the first approach 1/3)

The case of CERN (S. Lhuillery, EvaRIO WS June)

- Reputation effects (Illuminati, D. Brown)
- Positive effects (suppliers)
- Negative effects (neighbors and the fear of black holes)
- Mobility as a proxy of the creative impact?
- Open lab

D. Some ideas (related to the first approach 2/3)

Mc Cray (2000) : Large Telescopes and the Moral Economy of Recent Astronomy

- Distinction between " haves " and " have nots ".

- Moral economy : unwritten expectations and traditions that regulate and structure a community. " One feature of moral economies is that they are historically created, changed and destroyed " (Mc Cray, 2000, p. 689).

- Issues of access, equity and governance not only relevant in terms of fairness but also in terms of performance and efficiency.

D. Some ideas (related to the first approach 3/3)

Operationalisation (EvaRIO WS April 7 and June 9)

- To consider the effects passing from the "first" to the "second circle" of members and not only the distinction between direct and indirect effects (L. Bach)

- Disctinction between installation and utlization effects (S. Wolff)

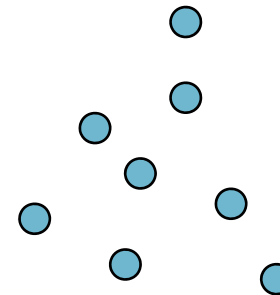- Places and spaces -oriented surveys (L. Bach)

E. Some more ideas (related to the second approach 1/3)

Fighting against natural amnesia of firms within clusters (A. Tubiana) : A comparative research protocol?
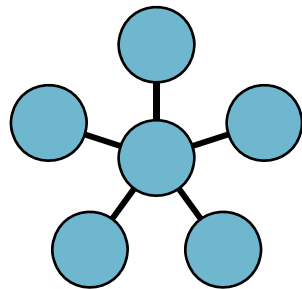
with ?   without ?

"You cannot have a soft network without a hard infrastructure"

(I. Meijer talking about the case of BBMRI during the June EvaRIO WS)

E. Some more ideas (related to the second approach 2/3)

Contextualisation of RIs (June EvaRIO WS, A. Bureth and R. Kahn)

- Why „that"and „here" (instead something else elsewhere, if any)?
- Decisions in terms of locations; investments, financing, users, etc.
- Issues of territorial absorptive capacities and of framework conditions favouring the impact of RIs activities on the regional innovation culture and on local creativity

Knowledge creation, (semi-) public goods and epistemic communities (J.-A. Héraud, BETA days 2011)

- Issue of cognitive platforms limiting sunk costs linked to knowledge creation thanks to the socialisation effect of communities.

- Communities as cognitive platforms : " TT institutions " that are at the same time free of costs and more efficient than official ones?

- Role and impact of boundary spanners (knowledge angels?), close to the idea of observing: i) the density; and ii) the diversity of "problem solvers" around RIs (C. Lerch).

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