Innovation performance and regional success: Insights from the capability approach

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Background and motivations

Innovation Union Scoreboard (2013, p. 64.)

- „On average, more innovative regions enjoy higher levels of development (as measured by GDP per capita), higher levels of labour productivity, and higher employment rates"

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- „These findings reinforce existing knowledge on the benefits of formulating policies encouraging innovation"

The focus of research attempts:

- Why are certain regions more innovative than others? (territorial innovation models)
- How can regional innovation performance be enhanced? (regional innovation policy)

Objective and Structure

Focus of present paper:

- Does increased innovation performance really result in more advantageous regional position
  - More advantageous position: increased well-being of residents
  - Well-being: capabilities (instead of utility or SWB/QOL)

Structure:

1. Innovation performance and regional success
   (what do empirical findings suggest?)
1. The capability approach (CA)
2. What can we learn from the capability approach?
3. Conclusions (looking ahead)

Innovation performance and regional success

- Relative innovation performance changes slowly (RIS 2006, 2009, 2012 results highly correlate)

Correlation between RIS 2012 Summary Index and …

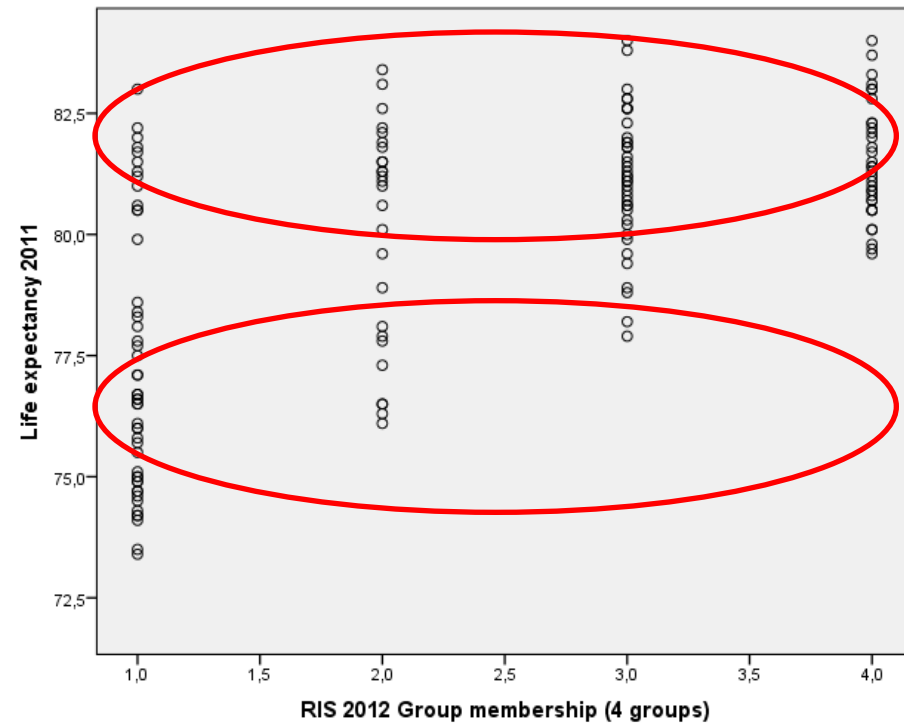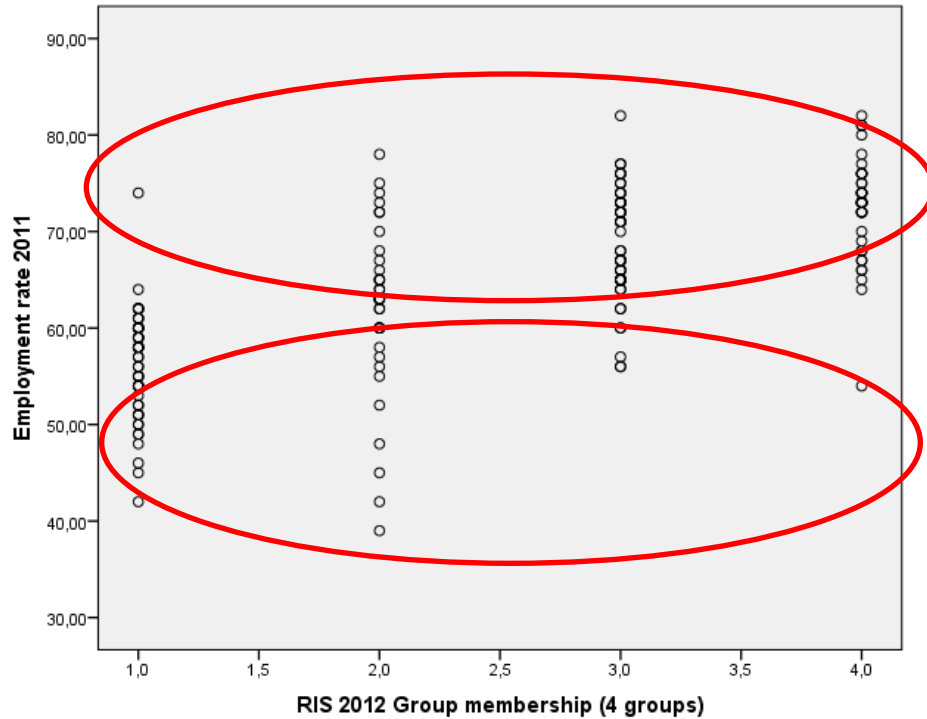|	Emp. rate	Long-term unempl. rate	At-risk-of poverty rate	Sev. Mat. Dep. rate	Life exp.
Absolute position	,701[**]	-,464[**]	-,422[**]	-,340[*]	,633[**]
Change (2001-2011)	,104	,059	,223	,137	,053
Change (2008-2011)	,207[**]	-,386[**]	-,018	-,238	-,329[**]

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

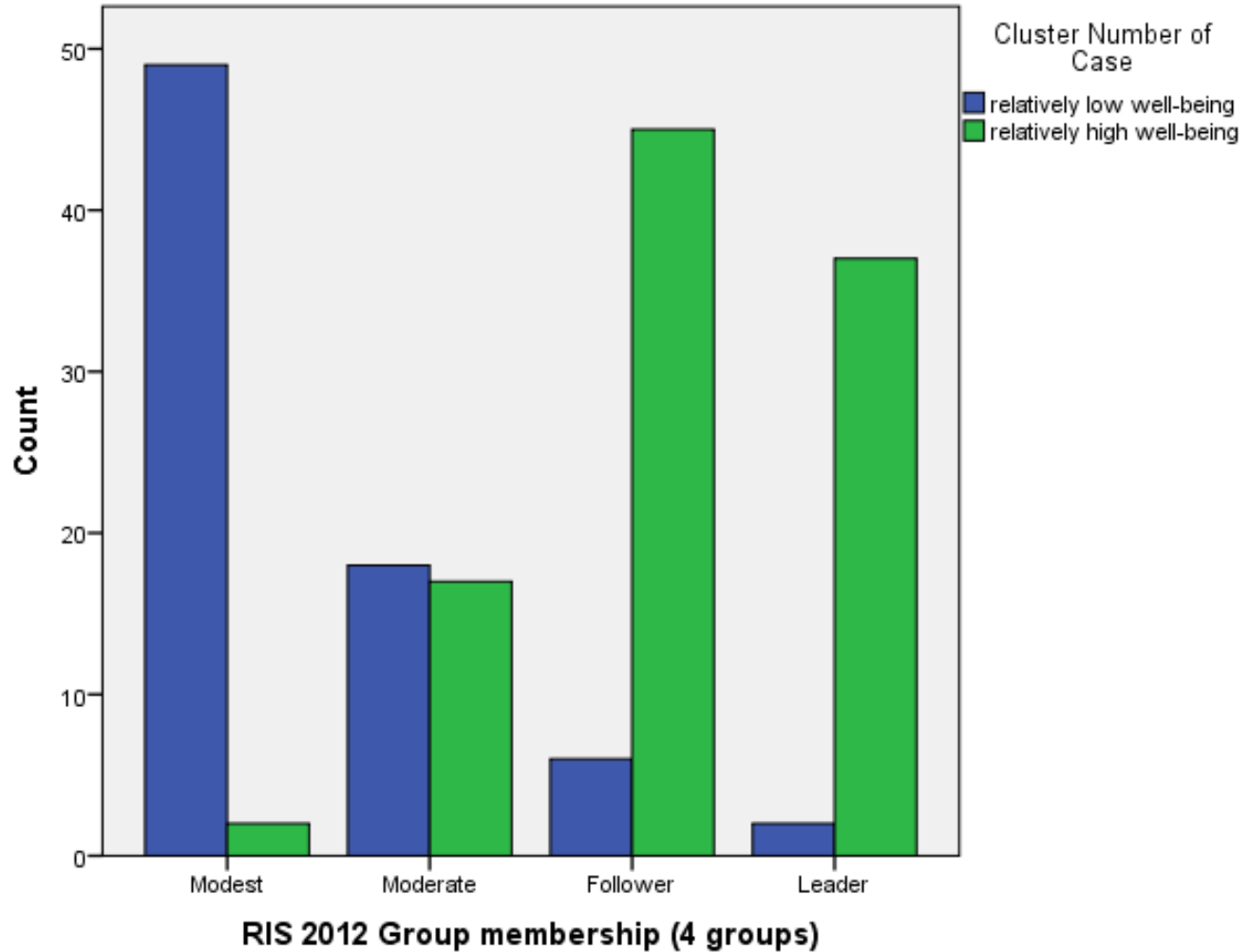# Innovation performance and regional success

4 Groups of regions in RIS:
leader (4), follower (3), moderate (2), modest (1)

Bar Chart

Cluster Number of Case
- relatively low well-being
- relatively high well-being

RIS 2012 Group membership (4 groups)

		r 2 y high ng) 1
Zscore: E		,69218
Zscore: L		-,59849
Zscore: A		-,71366
Zscore: Li		,42957

Symmetric λ-value: 0,455 (sig. 0,000)

Computations are based on Regional Innovation Scoreboard and Eurostat data

The capability approach

(1) Means: what we can use to achieve our goals

e.g. income, wealth, rights …

(2) Conversion factors: influence what we can actually achieve by our means

e.g. personal heterogeneities, physical condition, social services, state of the reference groups etc.

(3) Agency: the ability to further our own ends

Capabilities ≠ the value of the chosen functioning

The value of a functioning depends of the set of capabilities, which it is part of

Valuable doings and beings:

→

- **Functionings**: achieved „doings and beings"

- Capabilities: the set of actually achievable options

Technological change and well-being

Means	Converting means into valuable "doings and beings"	Agency
Technological change alters the volume of available means. Technological change alters the allocation of available means. Technological change alters the composition of available means.	Technological change may contribute to the expansion of the capabilities of certain individuals or groups, while leaving the capabilities of others unchanged, or may even result in the degradation of certain capabilities. A proportion of the available resources must be devoted for defending against the "side effects" of technological change.	Technological systems may increase and also diminish the possibilities of agency. Individuals' or groups' ability to adapt to the new reality induced by technological change may differ. The moral judgement of the emerging new capabilities is necessary.

Source: Bajmocy – Gebert (2012) and Bajmocy et al (2013)

What do we know exactly?

- **Our common understanding:** increased innovation performance results is a more advantageous position

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- The focus is on the means

- More innovative regions tend to be more successful in generating *means* that can be used to achieve well-being
  - And not in the ability to convert them or in the ability to act as agents

- **BUT**: they tend to be more successful in generating well-being as well (however the link is weak)
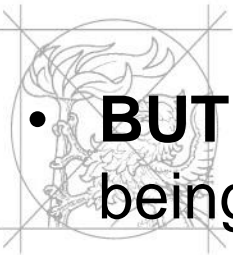
What can we learn from the capability approach?

(1) **Our common understanding is misleading**: Regions that are perceived to be successful are in fact not successful (in terms of the well-being of residents)

(2) **Our common understanding is incomplete:** If both the innovation performance and the well-being situation of a region is above the average, than it is not only good in generating and diffusing innovation, but also in

- Converting new means into well-being
- Leaving room for agency, etc.

- We hardly know anything about such performances of regions and the reason of the (presumably existing) regional differences with this respect
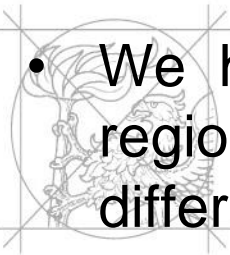
Conclusions and looking ahead

- A deeper understanding of the success of certain regions and the lagging behind of others

- Empirical works should (attempt to):
  - Make difference between the effect of innovation performence on means, converstion and agency (and between regions' such abilities);
  - Capture regions' ability to generate change and to adapt to changes

- A really differentiated innovation policy: beside the uniqueness of innovation systems, the differences with regard:
  - the capabilities deemed to be valuable,
  - the factors of conversion,
  - the ability to adapt to changes,
  - the possibilities of agency,
  - and the moral judgement on new technologies should also be considered.
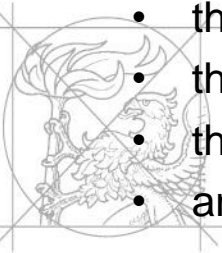
Thank you for your attention!

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