

The Contribution of Universities to Innovation and Economic Development: In What Sense a Regional Problem?

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Centre for Research on Innovation and Industrial Dynamics (CIND)

- An economic geography-led multi-disciplinary research initiative
- Cluster and innovations Systems approach to the analysis of knowledge- and innovation-driven industrial and regional change
- Focus on creative industries, notably biotech and cultural industries
- Support for the Swedish innovation policy system

Swedish research and innovation policy: some recent trends

- From general funding of research to an explosion of centres of excellence
- Research COEs \approx Innovation COEs
- 100+ initiatives 2004– in Sweden only
- These ideas get support from the idea of regional innovation systems/Triple Helix
- The argument forwarded in this paper mainly based on experiences from monitoring and analysing some of these initiatives and the broader milieus where they are situated (notably



Aim of presentation

- To question the RIS paradigm by way of discussing how excellent milieus in terms of scientific research, innovation, and value creation are defined, developed, interrelated and measured
- To propose an alternative conceptualisation of a regional innovation system
- (How) do universities contribute to (regional) innovation (systems)?

The three graces (obsessions)



Antonio Canova, The
Three Graces

The local/regional scale
+
Interactive systems
+
Intermediaries and background
institutions (esp. IPR regimes)
≈
Regional innovation systems

Regional + Innovation + Systems = ??



"The Three Grazers" from the Edinburgh
CowParade.

BUT what are we actually
interested in?

- New and growing firms
- New and better paid jobs
- Economic growth and prosperity



The prosperous region in a knowledge-based economy ...

- ... is thus not just based on excellence in science or excellence in innovation ...
- ... but also on the broader process of value creation!



The prosperous region = “Region of Excellence” (RoE?)

- Should excel in three different dimensions:
 - Research
 - Innovation
 - Value creation
- What do we mean by excellence in each of these dimensions?

Excellence in research

- Can only be defined in relation to global knowledge frontiers
- Global interaction and attraction/inflow of world class resources/inputs is a key prerequisite for the development of such milieus
- Indicators/evaluation criteria: international publication and global impact

Excellence in innovation

- Less easily defined but related to the quality of:
- IPR regimes (incl. patenting; copyrighting)
 - Intermediaries (university Tech-Trans offices, academic scouting, seed beds / incubators)
 - Venture capital, Business angels
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- IPR regimes are national and increasingly global, rather than regional
 - Intermediaries do indeed tend to be largely regional in scope
 - VC is partly very localized but increasingly global
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- Measures for assessing the excellence in innovation include variables such as international (European/US) patenting, global attraction of VC, global benchmarking of the quality of intermediaries



Excellence in value creation (exploitation, production)

- By definition related to world market position
- Arrived at by attraction of resources globally (FDI, market intelligence, key people)
- Measured by export performance, global market share, inflow of FDI, number of jobs, etc.



In What Sense a Regional Problem?

- The somewhat paradoxical implication is the a regional innovation system can be seen to be made up of three spheres or dimensions, each of which is to a large extent globally defined and developed by means of the successful nurturing of global links.
- Furthermore, excellence in one sphere need not be linked to other spheres within the region (research results in one region can be and are regularly being exploited elsewhere; globally competitive firms home-based in one region can, and do, tap into and exploit research centres elsewhere).
- If we want to see this as a regional system we should be aware that it is neither particularly regional nor particularly systemic.
- BUT, this does not mean that the co-existence of the three spheres will not contribute to the overall strength of a region.



What then is the role of universities in regional economic development?

- We should not under-estimate universities' local impacts and links
 - material interdependencies - academic entrepreneurship/ spin-offs, and labour market effects are all predominantly localized
 - immaterial interdependencies - regional branding, reputation effects... the excellent research university spills over to local firms even if they are not linked to that university



Conclusion: The three graces revisited

- The local/regional scale is important but so too is the extra-local (global or virtual...)
- Interactive systems are important but so too are isolated and rival systems/processes
- Intermediaries and background institutions are important but so too are sophisticated consumers, SME-TNC relations, and a range of other actors that are far from always defined by communitarianism linkages
- In short excellence need not be regional nor systemic and we must be careful not to follow the herd
- Policy should perhaps focus more on promoting global excellence in each of the three spheres than on fine-tuning their local interplay