Constructing Regional Advantage

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CIRCLE

• New multidisciplinary centre of excellence in innovation system research at Lund University
• CIRCLE is financed by the Swedish Agency for Innovation Systems (VINNOVA), Lund University and Blekinge Technical University
• Largest of four centres in Sweden
• The others: Uppsala, Chalmers (Gothenburg) and KTH (Stockholm)
• http://www.circle.lu.se/
Why Regions?

• ‘Geography still matters. Globalisation has not diminished the economic importance of location’  
  (Prof. John Kay, London Business School, in Financial Times, 10th January 2001)

• Porter (1998) Clusters and the new economics of competition:
  ’Paradoxically, the enduring competitive advantage in a global economy lie increasingly in local things – knowledge, relationships, and motivation that distant rivals cannot match’
Why regions?

- Geography as:
  - **Distance** (‘death of distance’/’end of geography’): new communication and information technologies render location and space irrelevant – e.g. transfer of money between global financial markets)
  - **Context** (the continued dominance of London as a financial and banking centre)
  - Spatial *proximity* in relation to *context* (relational proximity)
What kind of regional context?

- **Knowledge** – *human capital* (*talents*)
- **Relationships** – *social capital*
- **Motivation** – *culture*

*: Untraded interdependencies*

(specific *regional context* conditions underpinning innovativeness and competitiveness)
Regional contexts in a globalizing economy

- *Historical* technological trajectories
- *Lock-in* (positive and negative)
- *Competitiveness* depends on continuous *innovation* based on *local* as well as *non-local* capabilities and resources
- *Changing* technological trajectories requires *radical* innovation implying increased *knowledge intensity* (>R&D)
Creating vs Constructing RA

• *Business interactions vs knowledge flows* – Co-occuring and co-located phenomena or not?
• *Local ’buzz’* (collective learning and innovation) takes care of itself/will automatically result by just ’being there’ co-located in agglomerations; *while*
• *Global ’pipelines’* requires institutional and infrastructure support
• Thus, **creating** regional competitive advantage by (organically) developing the endogenous capacity of regions to learn and innovate
Creating vs Constructing RA

• The structure of knowledge networks is not symmetrical within a region – heterogeneous distribution of firms’ competence bases generates an uneven distribution of knowledge and a selective inter-firm learning (extra-local absorptive capacity as well as intra-regional diffusion capacity)

• This requires more systemic approaches both with respect to local ’buzz’ and global ’pipelines’

• Regional advantages must be proactively constructed by a stronger focus on actors, agencies and governance forms in a triple-helix as well as a multi-level perspective
Content of policies for CRA

- *Proactive and system/platform oriented policies transcending traditional sector policies:*
  - Related variety (spillover effects) vs unrelated variety (portfolio effect)
  - *Differentiated knowledge bases* (synthetic, analytical and symbolic) vs high-tech/low-tech
  - *Distributed knowledge networks* vs knowledge internal to the industry
’Carriers’ of policies for CRA

- Regional innovation systems as Creative Knowledge Environments
- Territorial competence bases
  - People and business climate
  - Regional knowledge infrastructure
- SME and entrepreneurship policies
Related variety (spillover effects)

- *Related variety* highly relevant:
- One of the driving *forces* behind urban and regional *growth*
- Acknowledge that *generic* technologies have a huge impact on economic development
- *Related variety* combines the strength of the *specialisation* of *localisation* economies and the *diversity* of *urbanisation* economies
Differentiated knowledge bases

- *Knowledge creation* and *innovation* processes of firms are strongly shaped by their specific *knowledge base*

- Distinguish between *different types* of knowledge base:
  a) *analytical* (science based)
  b) *synthetic* (engineering based)
  c) *symbolic* (creativity based)
## Analytical, synthetic and symbolic knowledge bases

<table>
<thead>
<tr>
<th>Analytical</th>
<th>Synthetic</th>
<th>Symbolic</th>
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<tbody>
<tr>
<td>Innovation by creation of new knowledge</td>
<td>Innovation by application or novel combination of existing knowledge</td>
<td>Innovation by recombination of existing knowledge in new ways.</td>
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<td>Importance of scientific knowledge often based on deductive processes and formal models</td>
<td>Importance of applied, problem related knowledge (engineering) often through inductive processes</td>
<td>Importance of reusing or challenging existing conventions</td>
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<td>Research collaboration between firms (R&amp;D department) and research organisations</td>
<td>Interactive learning with clients and suppliers</td>
<td>Learning through interaction in the professional community, learning from youth/street culture or 'fine' culture and interaction with 'border' professional communities.</td>
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<td>Dominance of codified knowledge due to documentation in patents and publications</td>
<td>Dominance of tacit knowledge due to more concrete know-how, craft and practical skill</td>
<td>Reliance on tacit knowledge, craft and practical skills and search skills</td>
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Knowledge bases and industries: illustrating empirical examples
Distributed knowledge networks

- Transition from an internal knowledge base of firms to distributed knowledge networks of firms
- More and more highly complicated combinations of different knowledge types, e.g. codified (embodied and disembodied), artisan and experience based, tacit knowledge, as well as synthetic/analytical/symbolic knowledge bases
- This demonstrates that the relevant knowledge base for many industries is distributed across a range of technologies, actors and industries in global commodity chains, making the OECD ranking of R&D intensive industries less relevant
Platform policies – Ex. Japan:

Strengthening policies for advanced component/materials industries
<table>
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<tr>
<th>Type of RIS</th>
<th>Type of knowledge</th>
<th>Analytical/scientific</th>
<th>Synthetic/engineering</th>
<th>Symbolic/creative</th>
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<tr>
<td>Embedded (grassroots RIS)</td>
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<td>IDs in Emilia-Romagna (machinery)</td>
<td>’Advertising village’ – Soho (London)</td>
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<td>Networked (network RIS)</td>
<td>Regional clusters – regional university (wireless in Aalborg)</td>
<td>Regional clusters – regional technical university (mechanical in Baden-Württemberg)</td>
<td>Barcelona as the design city</td>
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<td>Regionalised national (dirigiste RIS)</td>
<td>Science parks/technopolis (biotech, IT)</td>
<td>Industrial (national) clusters (Norwegian maritime industry)</td>
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Regional Innovation Systems as Creative Knowledge Environments

*Creative* knowledge Environments (CKE) are

- Environments where new knowledge is produced by *people*, especially in their work settings
- CKE can be found on *macro*- (RIS), *meso*- (universities) and *micro*-levels (research groups)
- CKE contains *physical, social* and *cognitive* characteristics
Creative Knowledge Environments

• CKE covers a void in innovation studies (traditionally focusing on how knowledge is exploited) by

• Analyzing how creation of new knowledge occurs, as well as

• Focusing on what characterise the environments in which people carry out creative knowledge-producing activities
Business Climate vs. People Climate

• **Business climate:**
  - Clusters and Regional Innovation Systems emphasizing *localisation* economies
  - Not discriminating along an urban-rural dimension
• **People climate:**
  - Focusing on *diversity, creativity* and *tolerence* emphasizing *urbanization* economies
  - Such an environment attracts *talents* which in turn attracts and generates *innovative, knowledge-based* economic activity
The Urban Turn: What about the ’ordinary region’?

- The Creative class (30-40 % of people in the labour market) belongs to different knowledge bases (analytical, synthetic and symbolic)
- Different preferences and trade-offs between firms, occupations and places
- Synthetic/engineering knowledge base: people follows jobs (business climate still most important)
- Analytical/science and symbolic knowledge bases: jobs follow people (people climate more important, especially for people working in creative, symbolic based industries)
- Thus, focus on people climate should complement (not substitute) the traditional focus on business climate
Business Climate, Peoples Climate and Knowledge Bases