Policy Transfer and Institutional Learning

An Evolutionary Perspective on Regional Cluster Policies in Germany

Points of Departure

- **Cluster euphoria in politics and practice** running far ahead of theoretical and empirical understanding
- Academic research **losing orientation and track of policy** (cf. Rehfeld 2005)
- Cluster policy insufficiently researched
- Diffusion of cluster policy across time and space
- Countervailing forces of
  - convergence: globalisation, locational competition, active policy transfer & interregional learning
  - diversity: structure, institutions, path dependency, learning by doing
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   • Consultants as transfer agents
5. Implications for Policy and Research

Cluster Policy

Cluster initiative = “an organised effort to increase the growth and competitiveness of a cluster within a region, involving cluster firms, government and/or the research community” (Sölvell/Lindqvist/Ketels 2003, p. 31)

Cluster policy

• “efforts of government to develop and support clusters in a particular region” (Hospers/Boeijens 2002, p. 382)
• Industrial, structural, technology or innovation policy for the promotion of specific regional strengths
• Development of industrial agglomerations or network elements into clusters, or promotion of existing clusters (Bruch-Krumbein/Hochmuth 2003, p. 69 f.)
Cluster Policy as an Emergent Field...

...contributing to the convergence of hitherto unrelated established policies.

Seven Dimensions of Cluster Policy (1/2)

**Governance**
- Public
- PPP
- Private

**Cluster reference**
- Implicit
- Specialised agglomeration
- "Cluster"

**Complexity**
- Single
- LED tool kit
- Holistic cluster
- Instrument
- Promotion
- e.g. Innovation centre, industry networks and directories, business plan competitions
- Location development, program
- Integrated location management

**Cluster content**
- Low
- High
- E.g. Share of projects targeting clusters

1) cf. Fromhold-Eisebith/Eisebith 2005, p. 1236
Seven Dimensions of Cluster Policy (2/2)

Coherence
- Coherent: comprehensive strategy, broad support from agents
- Incoherent: isolated efforts, single agent

Institutionalisation
- Weak: memoranda, informality, low commitment
- Strong: cluster management organisation (CMO)

Maturity
- Embryonic: e.g. age of CMO
- Completed

Policy in Neoclassical vs. Evolutionary Economics

<table>
<thead>
<tr>
<th>Neoclassic</th>
<th>Evolutionary Economics</th>
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<tbody>
<tr>
<td><strong>Justification for Intervention</strong></td>
<td></td>
</tr>
<tr>
<td>• Institutional framework</td>
<td>• Uncertainty on trajectories</td>
</tr>
<tr>
<td>• Correct von market failure</td>
<td>• Experimental behaviour ⇒ diversity ✓</td>
</tr>
<tr>
<td>• Monitor &amp; encourage innovation</td>
<td></td>
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<tr>
<td><strong>Context</strong></td>
<td></td>
</tr>
<tr>
<td>• Imperfect information (esp. knowledge asymmetries)</td>
<td>• Imperfect information (esp. knowledge asymmetries)</td>
</tr>
<tr>
<td>• Risk &amp; uncertainty</td>
<td>• Radical uncertainty</td>
</tr>
<tr>
<td>• Rationality</td>
<td>• Bounded rationality</td>
</tr>
<tr>
<td><strong>Advantages of state over market</strong></td>
<td></td>
</tr>
<tr>
<td>• Power to tax, prescribe &amp; punish</td>
<td>• Institutional co-ordination</td>
</tr>
<tr>
<td>• May reduce transaction costs &amp; facilitate networking</td>
<td>• Greater ability to influence economic system</td>
</tr>
<tr>
<td><strong>Pitfalls</strong></td>
<td></td>
</tr>
<tr>
<td>• Incentive problem (capture, Lobbying, rent seeking)</td>
<td>• Incentive problem (capture, Lobbying, rent seeking)</td>
</tr>
<tr>
<td>• Imperfect information (esp. knowledge asymmetries)</td>
<td>• Knowledge problem, irreversibility &amp; path dependency</td>
</tr>
<tr>
<td><strong>Decision criteria</strong></td>
<td></td>
</tr>
<tr>
<td>• Collective welfare maximisation</td>
<td>• Problem identification &amp; search for improvements</td>
</tr>
<tr>
<td>• Static efficiency (Pareto optimum)</td>
<td>• Adaptive &amp; satisficing behaviour</td>
</tr>
<tr>
<td></td>
<td>• Dynamic efficiency</td>
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</tbody>
</table>

Based on Moreau 2004: 854; cf. also Groenewegen/van der Steen 2007
Evolutionary Implications for Cluster Policy

- Identify & respect emergence rather than building clusters ex nihilo
- Focus on original strengths rather than following the latest fashion
- Increase connectivity & circulation of knowledge ⇒ variety of information sources
- Open contests for cluster identification
- Enhance learning capacity and adaptability of regional organisations and institutions
- Cluster life cycle (cf. Menzel/Fornahl 2005)
  - foster specialisation to reach critical mass early on
  - promote openness, diversity, flexibility, adaptability as cluster matures
⇒ Evolutionary policy maker = learning actor (Groenewegen/van der Steen 2007)

Policy Convergence Through Diffusion or Transfer?

- **Policy Diffusion** ⇒ degree & speed of spreading, general structural patterns
  - Geography: spatial diffusion of technological innovation (hierarchic – in waves – epidemic)
  - Early vs. late adopters (Tews 2002)
  - Determinants
    - Spatial proximity (Walker 1969)
    - Frequency of interaction (Gray 1973)
    - Embeddedness in networks

- **Policy Transfer** ⇒ individual processes (mechanisms, contents, results) and transfers
  - Copying
  - Adaptation (Emulation)
  - Combination (hybridisation, synthesis)
  - Inspiration


Policy Transfer: Channels and Determinants

- Channels
  - **Literature**
    - Academic
    - Best practice case studies
    - Manuals
  - **Mobility of personnel** (dispositive/operative)
  - Consultants as **transfer agents** (Stone 2004)

- **Knowledge communities**
  - Epistemic communities (Haas 1992)
  - Communities of practice (Brown/Duguid 1996)
  - Journeys of politicians and practitioners (**policy tourism**, Sheldon 2004)
  - Formal & informal communication (secondary)

- Determinants (cf. Lütz 2007: 139-141)
  - **Endogenous** = cultural, institutional, socio-economic proximity
  - **Exogenous**: frequency of interaction, networks, transfer agents
  - **Transfer object**: complexity, visibility, potential for conflict
Emerging Clusters: Theoretical, Empirical and Political Aspects of the First Stage of Cluster Evolution
Jena, 26-28 June 2008

Policy Transfer Through Best Practice Manuals

Creating Smart Systems
A guide to cluster strategies in less favoured regions
European Union-Regional Innovation Strategies

Cluster approach
- generic
- explicit

Regional cluster concept
- accumulated experience, learning by doing (laboratory)
- local-specific tacit

Development of Cluster Policies as Interregional Learning

Decontextualisation
Codification

(Re-)Contextualisation
Decoding
Adaption

Based on Hassink/Lagendijk (2001: 69), also cf. Nonaka/Takeuchi 1995

Matthias Kiese · Department of Geography · Ludwig-Maximilians-Universität München
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Case Study Regions

- Three federal states in West Germany
  - North Rhine-Westphalia ~ mature industries facing structural change
  - Bavaria ~ late industrialisation, high-tech
  - Lower Saxony ~ ‘grey mass’ region

- Regional typology ⇒ structural, institutional & political variance
- Seven sub-regional cases
- 110 semi-structured face-to-face interviews with 134 practitioners, observers & consultants
Overview of Case Studies

<table>
<thead>
<tr>
<th>State/Region/City</th>
<th>Programme/Organisation (year of launch/establishment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRW</td>
<td>Pilot network policies from 1993, Kompetenzfeldpolitik (2000-2005), cluster policy (publicised 03/2007)</td>
</tr>
<tr>
<td>Lower Saxony</td>
<td>Regional growth concepts (since 2004)</td>
</tr>
<tr>
<td>Dortmund</td>
<td>Incubator &amp; technology park since 1985, explicitly industry-specific local economic development since 1997, dortmund-project (est. 7/2000)</td>
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<tr>
<td>Wuppertal-Solingen-Remscheid</td>
<td>kompetenzhoeh (since 2001)</td>
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<td>Braunschweig</td>
<td>Projekt Region Braunschweig GmbH (est. 02/2005)</td>
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<tr>
<td>Central Franconia</td>
<td>Nuremberg Programme (1994) ⇒ consensual vision for regional development (1998/2005), five fields of competence, promoted by decentral initiatives</td>
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</tbody>
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Stylized Facts on Regional Cluster Policy in Germany

1. **Technocratic** understanding of clusters in policy & practice
2. For simplicity’s sake, clusters are understood as **networks**
3. **Spatial mismatch** between cluster and policy ⇒ over-/underbounding
4. Temporal mismatch (**short-termism** vs. cluster development)
5. **Herd behaviour** (ICT, bio, nano…)
6. From horizontal demonstration effects to **top-down diffusion**
7. **Inflationary use** of cluster term ⇒ meaning, credibility ↓
8. Lack of explicit **theoretical foundation/reference**
9. **Sloppy identification** of cluster potential
10. **Declining cluster focus** over time

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Cluster Policy as Institutional Learning: Bavaria

1970s Expanding research infrastructure, new high-tech industries
1980s Focus on microelectronics
1990s Institutionalised high-tech promotion, structural change, start-up support
2000s Start-up support, explicit **cluster policy**, relative focus on life sciences

Technology Policy during Stoiber era (1993-2007): **Cluster-Offensive** as new Phase

<table>
<thead>
<tr>
<th>Year</th>
<th>Overall thrust</th>
<th>Key organisation</th>
<th>Spatial orientation</th>
<th>Focus</th>
<th>Pilot programme</th>
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<tr>
<td>1995</td>
<td>Technology Policy</td>
<td>Bavaria</td>
<td>Spatially balanced</td>
<td>Industry</td>
<td>Initial phase</td>
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<td>1996</td>
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<td>2007</td>
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Cluster Policy as Institutional Learning: NRW

1958  Coal mining crisis
1961  First university established at Bochum
1968-73  Entwicklungsprogramm Ruhr (infrastructure development)
1970  Nordrhein-Westfalen-Programm (until 1975)
1974  Crisis of iron and steel industry
1980-84  Aktionsprogramm Ruhr (infrastructure, technology transfer)
1987-91  Establishment of regionalised structural policy
1993  Pilot network programme PROFIS combining structural policy for industries and regions ⇒ 35 projects until 2000
1996  Definition of target industries for the Ruhr Area
2000-02  Clement elected as Minister President: Ruhr Pact defining twelve fields of competence for Ruhr Area
2004  Transfer of fields of competence policy to strategic fields of action for NRW as a whole
2005  Change in government, evaluation and concentration on fewer clusters announced
2006  Interministerial innovation strategy
2007  Objective-2 contests for 15 pre-defined NRW Clusters + open RegioCluster contest
New institutions: metropoleruhr GmbH (municipalities), Initiative Zukunft Ruhr (business-led)


NRW & Bavaria: Upper Austria as Source of Inspiration

- European best practice example (early start, strong commitment)
- Inspired by older automotive cluster policy (AC Styria)
- Policy tourism by delegations (politicians & practitioners)
- Cultural, linguistic & institutional proximity
- Bavaria ⇒ spatial proximity & cross-border co-operation of cluster initiatives
- Perceived limits to transferability
  - Smaller size of Austria and its states
  - No match for commitment of financial resources
Mutual Policy Learning: NRW ↔ Bavaria

- Bavarian pilot automotive network BAIKA (*1995) inspired by similar initiatives of other German states incl. NRW
  - Cluster management, degressive funding = policy shopping?
  - Innovative combination: contests to allocate funding
    - Own experience = learning by doing
    - ERDF funding requirement = top-down hierarchical transfer

Mutual Policy Learning: NRW ↔ Bavaria

- Bilateral relations dating back to “alliance of movers and shakers” btw. Minister Presidents Clement (NRW) and Stoiber (Bavaria) ⇒ political entrepreneurs, change agents
  - close co-operation & frequent consultations of leading civil servants
  - joint cabinet meetings
  - informal exchange of ministerial bureaucrats in charge of cluster policy

http://www.spiegel.de/dossiers/politik0_1518,grossbild-333034-311786.00.html
http://www.wdr.de/themen/politik/personen/clement_wolfgang_imclement2_440.jpg
Emerging Clusters: Theoretical, Empirical and Political Aspects of the First Stage of Cluster Evolution
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Change Agents in Policy Transfer

- Mobility of a **key individual**
  - 1976-1992 Cologne
    - Urban development
    - Managing director of Media Park
  - 1992-1996 Nuremberg
    - Head of Economic Development
    - Nuremberg Programme (1994)
  - 1997-2004 Dortmund
    - Head of Economic Development
    - Focus on industries (1997)
    - Accompanied dortmund-project (*2000)
- Further cases of **personnel mobility** at operational level ⇒ transfer of **procedural knowledge**, e.g. on start-up contests

Consultants as Transfer Agents: Overview

<table>
<thead>
<tr>
<th>State/Region/City</th>
<th>Consultants</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Saxony</td>
<td>McKinsey &amp; Co. / Dr. Heuser AG¹</td>
<td>Method of regional growth concepts as business plans subject to controlling; phased process</td>
</tr>
<tr>
<td>Dortmund</td>
<td>McKinsey &amp; Co.</td>
<td>Concept and project development with business plans subject to controlling; metric governance by employment targets; start-up competitions; initially assisting implementation</td>
</tr>
<tr>
<td>Wuppertal-Solingen-Ramscheid</td>
<td>Dr. Vieregge GmbH</td>
<td>Areas-of-competence dossier: Analysis of pre-defined clusters, identification of potential activities</td>
</tr>
<tr>
<td>Wolfsburg</td>
<td>McKinsey &amp; Co.</td>
<td>Concept and project development with business plans subject to controlling; metric governance by employment targets; initially assisting implementation (Wolfsburg only)</td>
</tr>
<tr>
<td>Hannover</td>
<td>McKinsey &amp; Co. / Dr. Heuser AG¹</td>
<td>Assistance/Moderation in revision of vision for regional economic development, 2005</td>
</tr>
<tr>
<td>Brunswick</td>
<td>McKinsey &amp; Co. / Dr. Heuser AG¹</td>
<td>Assistance/Moderation of strategic partnership for sensor technology; project development</td>
</tr>
<tr>
<td>Nuremberg</td>
<td>Prognos AG</td>
<td></td>
</tr>
<tr>
<td>Regensburg</td>
<td>Ramboll Management</td>
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¹ McKinsey Spin-off

Consultants as Transfer Agents: The McKinsey Case

- International projects, esp. U.S./Silicon Valley ⇒ knowledge management
- ThyssenKrupp = key supplier to VW
- Lower Saxony ⇒ Hannover region as pilot project for new structural policy approach „regional growth concepts“
- State funding for concept development in Braunschweig region
- Further growth concepts in Weserbergland (2004), Süderelbe (2005)
- McK spin-off designing comparable projects in Wernigerode, Aachen
- 2005 prelim study for Bochum 2015

Transfer Channels: Summary of Evidence

<table>
<thead>
<tr>
<th>Channel</th>
<th>Occurrence / Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature</td>
<td>low (limited to Porter, manuals hardly known nor used)</td>
</tr>
<tr>
<td>Personnel mobility</td>
<td>Some cases in cluster management for transfer of procedural knowledge</td>
</tr>
<tr>
<td>Knowledge communities</td>
<td>Low, limited to regional/national scene</td>
</tr>
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<td></td>
<td>German practitioners hardly participate in international KCs</td>
</tr>
<tr>
<td>Journeys</td>
<td>Common, but doubts about transferability</td>
</tr>
<tr>
<td>Consultants</td>
<td>Widespread</td>
</tr>
<tr>
<td>Personal communication</td>
<td>Informal exchange btw state ministries, otherwise rare</td>
</tr>
</tbody>
</table>

⇒ Overall low degree (inspiration, sometimes combination), path-dependent learning by doing tends to dominate
⇒ McKinsey projects = notable exception (copying, adaptation), but influence fading over time
⇒ Unilateral policy shopping as dominant mechanism
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Implications

- Individual agency key in policy transfer
- Interregional policy learning limited
- Path-dependent learning tends to dominate
- Need to “evolutionise” model of interregional policy learning
  - Cumulative nature of institutional change (North 1990)
  - Preference of bureaucracy for “proven solutions” (Franke 2000: 104)
Interregional vs. Path-dependent Institutional Learning

- Accumulation of *implicit knowledge*
  - Cumulative learning by doing ("coagulated experience")
  - Path-dependent, incremental change
  - Daily duties ⇒ muddling through, lack of continuous concept development
- Inward-looking, *interregional learning neglected* due to
  - Budget constraints
  - Lack of awareness
- Limited transferability of cluster policies supported by transfer literature, but weak forms of inspiration and combination appear feasible ⇒ *untapped potential*
- Create *awareness* for benefits of interregional/international policy learning (without concealing the limits), esp. communities of practice
Research Needs

- Link interregional learning to **public choice perspective**
  - **Asymmetric knowledge** (principal-agent constellations)
  - Political and bureaucratic **rationalities**
- **Methodological variety**
  - Detailed **single case studies**
  - International **comparison**
- **Interdisciplinary** cluster policy research
- **Scholarly critique** of cluster euphoria in policy & practice
  ⇒ **social relevance**

References (1/3)

References (2/3)


References (3/3)


StMWIVT, 2008: Allianz Bayern Innovativ: Erofpunkte bayerischer Clusterpolitik. München: StMWIVT.