
CLUSTER POLICY ADJUSTMENTS IN THE CONTEXT OF SMART SPECIALIZATION? FIRST IMPRESSIONS FROM GERMANY

Knut Koschatzky, Henning Kroll, Thomas Stahlecker,
Esther Schnabl



© iStockphoto.com/Alex Slobodkin

Background: Clusters and specialization

- **Economic concentration** (internal and localization economies) (Marshall 1890), and **sectoral specialization** (intraindustrial spillovers) (Glaeser et al. 1992) are two basic economic principles.
- **Clusters combine both principles**: local/regional concentration and sectoral/technological specialization (Porter 1990, 1998).
- Due to the 'success' of political cluster support, **many parallel structures and many wishful-thinking clusters** (Martin and Sunley 2003) **emerged** which made the implementation of the concept arbitrary and non-distinctive (despite some successful clusters).
- Despite the unsolved debate between specialization and diversification, the **idea of specialization** was successfully sold to the European Commission as guiding structural funding principle in H2020 (Foray et al. 2011).
- While clusters are an economic principle, **smart specialization is a political tool** (new approach to design regional innovation policy).

Background: Smart Specialization

- Smart specialization focuses on **specific regions' actual potentials**.
- Basis is a **broad-based consultation** of regional stakeholders for strategy development, including the development of implementation tools.
- A must is the **involvement of actors from the business sector** in order to identify promising specialization fields.
- Specialization should be **specific** (and not too broad), and **differentiations between regions** as producers and regions as users of (new) technology are possible.
- All European regions must develop smart specialization strategies in order to qualify for structural funding (**ex-ante conditionality**).
- Smart specialization strategies should not start from the scratch, but **include already existing structures, processes and experiences**.
- Therefore, a **coexistence between clusters, cluster policies and smart specialization strategies** will probably exist in future.

Background: Clusters and Smart Specialization

- Regarding the **main principle of smart specialization**, this has been **practiced by cluster agencies for years**.
- Most cluster organizations involve a **broad set of stakeholders** in strategic and practical matters.
- Clusters are a **platform for cross-innovation and key enabling technologies**, both elements of smart specialization as well.
- Therefore: **Clusters** are a **natural instrument for the implementation of smart specialization strategies** with a view to the consultation dimension.
- **But:** In cluster policies priority setting was more a process of political negotiation than expert consultation and selection.
- Cluster policies have in a strategic sense **not achieved much in the way of specialization**.
- This is the **key difference** between ambitious smart specialization strategies and cluster policies.

Objective and research questions

- Elaboration of the coexistence and interdependency of cluster and smart specialization policies in the German context

Research questions:

- What are the effects of smart specialization strategies on the cluster policies and vice versa?
- What are the implications of smart specialization on the operation of existing clusters, especially regarding instruments and implementation?
- Which changes can be expected in the structure of the cluster landscape through smart specialization, e.g. with respect to a reduction of existing clusters, a re-grouping of clusters or changes in the hierarchies between the clusters?

Selection criteria for the case studies

- Regions have different well-developed and clearly specified different innovation strategies.
- Regions have clusters and cluster policies of different organizational and development degree.
- In this context, different possibilities and challenges arise in the reorganization of regional cluster policy.

	RIS3-oriented regional innovation strategy	systemic regional cluster policy
Bavaria	-	+
Saxony	+	-
North Rhine-Westphalia	+	+
Baden-Württemberg	+	o

Baden-Württemberg: Cluster Policy

- Cluster policy was one element of the implementation of Baden-Württemberg's **ERDF Operational Programme** for the funding period 2007 to 2013.
- Cluster policy comprised **several elements**:
 - A cluster mapping allows identifying cluster initiatives and regional specializations either online or in a printed version
 - Within two rounds of competition, cluster initiatives could apply for funding for establishing a cluster management
 - To complement the regionally localised clusters, networks were established to link the various activities in one field (e.g. automotive, biotechnology).
- Within the new programming period, Baden-Württemberg will promote clusters by establishing a **support agency for cluster initiatives**, funding of project of/for cluster initiatives, promotion of networking activities and professionalization of cluster managements.
- In addition, dialogue process like the **cluster dialogue** will be continued aiming at facilitating the networking activities between the clusters.

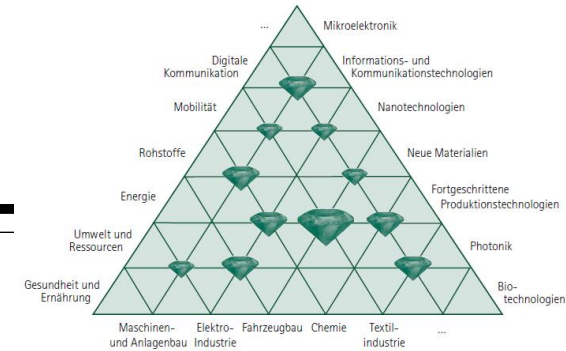
Baden-Württemberg: Smart Specialization

- For many years, Baden-Württemberg's activities to promote innovation and technological development have been based on **dialogues and stakeholder involvement**.
- Baden-Württemberg's Innovation Strategy may be regarded as a documentation of these various processes and their results.
- Baden-Württemberg aims to promote the implementation of the innovation strategy at regional level by the **RegioWIN** two-step contest which is a main aspect of the ERDF OP (11 out of 14 concepts were selected).
- The aim of RegioWIN is to set processes in motion, which in the sense of smart specialisation allows the regions to recognize their growth potentials. **Cluster initiatives are regarded as important actors within these processes.**

Baden-Württemberg: Conclusions

- Both cluster policy and RIS3 are based on **iterative processes** in which top-down initiatives like contests aim to facilitate bottom-up initiatives ("counter flow principle").
- The experiences Baden-Württemberg gathered with its **cluster policy approach enabled the implementation of RegioWIN**. As RegioWIN has not entered the implementation phase, it is too early to portray results or impacts. Nonetheless, in the end, the convergence of cluster policy as one important part of innovation policy with regional structural policy is envisioned
- In essence, Baden-Württemberg's **RIS3 strategy constitutes the umbrella under which regional innovation strategies may be developed**. Within these strategies, clusters shall play an important role – besides other relevant regional actors like higher education and scientific institutions, firms, regional organization etc.

Saxony



■ Innovation Strategy

- New, broadly-discussed document with clear priorities (pyramid model)

■ Cluster policy

- No organized regional cluster policy (regional network policy labeled cluster policy already terminated); Despite high ERDF budget no defined "cluster budget"
- Active participation in national initiatives such as Leading-Edge Cluster Initiative (Cool Silicon)
- Promotion of selected clusters

■ Opportunities for realignment

- Alignment of existing programs could be strengthened, particularly with regard to the strengthening of the strengths by existing lighthouse clusters
- But: Policy makers refrain from too strong specialization (Infineon insolvency)
- No cluster system exists about which the pyramid model could be implemented

■ Without clusters as an implementation vehicle even good RIS3 strategies might come to nothing

Bavaria

■ Innovation Strategy

- Existing document "Thematic priorities" of 2011, but oriented only in parts to S3 specifications; it is narrowly and generically defined

■ Cluster policy

- Organized regional cluster and network policies with comprehensive objective (from the top cluster to networks with balancing political nature)
- Despite rather low overall ERDF budget partly specific "cluster-budgets" from ERDF funding

■ Opportunities for realignment

- A re-orientation according to the thematic discussion at EU level is unlikely because this discussion was only partly adapted by Bavaria
- Without a strategic superstructure which does more than to document existing areas, cluster policy is only of limited use as a future-oriented funding instrument (RIS3)

■ A focus on new topics and the development of new collaborations between clusters remains to be a future task

North Rhine-Westphalia

■ **Innovation strategy**

- New, broadly-tuned document with clear priorities
- Three elements: Guiding themes (research), leading markets (innovation), technology transfer

■ **Cluster policy**

- Long-term established competition-based cluster policy with state and regional clusters
- ExzellenzNRW state cluster receive major project funding from specific competitions

■ **Opportunities for realignment**

- Already done: reorientation of hitherto more technology-specific state clusters and cluster-specific competitions towards lead market orientation of the RIS3 strategy
- By large-volume competitions considerable budget effectiveness
- Large-scale funding decisions 'beyond the innovation strategy' require decision at the level of Secretaries of State
- Strengthening of the cooperation between existing clusters in enabling technologies

■ **Cluster policy and RIS3 are well aligned federal state strategy tools**

Conclusions

- In Baden-Württemberg, the RIS3 strategy development profited from existing dialogue processes within the cluster policy framework, while the strategy provides a framework for further cluster development.
- In Saxony, the RIS3 strategy does not possess an anchor for further implementation because of the non-existence of a well developed cluster system.
- In Bavaria, the future focus will be on cluster development and selection. The RIS3 strategy will only play a secondary role. Little mutual enrichment between both policy instruments can be expected.
- In North-Rhine Westphalia adjustments of the cluster policy towards RIS3 specifications already took place.

Policy implications

- Cluster policies without a systemic framework are no profound basis for RIS3 implementation and success.
- RIS3 strategies without a serious stakeholder involvement process will attain no major effects.
- Structural chances for RIS3 strategies only result from serious strategy processes **and** a systemic well implemented cluster policy.

Thank you for your attention!

Contact:

Prof. Dr. Knut Koschatzky

Competence Center Policy and Regions
Fraunhofer Institute for Systems and Innovation Research ISI
Breslauer Straße 48 | 76139 Karlsruhe | Germany
Phone +49 721 6809-184 | Fax +49 721 6809-176
knut.koschatzky@isi.fraunhofer.de