Basque Country cluster policy: the road of 25 years
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ABSTRACT
This paper addresses how cluster policy, particularly its management part, contributes to the processes of switching path dependency and escaping lock-ins in the old industrial regions. This is based on the case study of the Basque Country in a timeline of 25 years. Analysing the development of the Basque cluster policy on both a period and a stage-by-stage basis gives a practical understanding of the intervention framework for effective cluster policy management. Moreover, it redisCOVERS and stresses the importance of agile policy capacity to internal knowledge creation, constant learning and adaptation stimulating processes of path creation in old industrial regions by providing new ways of thinking about cluster policy interventions.

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INTRODUCTION
There is a widespread belief that clusters can strengthen regional competitiveness, innovativeness and growth. From an evolutionary economic geography perspective (Moodysson, Trippl, & Zukauskaite, 2015) clusters could support old industrial regions to transition to knowledge-intensive development trajectories. A key issue for such regions is their existing agglomerations may present path extinction and lock-in (Coenen, Moodysson, & Martin, 2014; Hassink, 2010, cited in Boschma & Martin, 2010, pp. 450–470). If clusters support path creation and address path extinction, that may assist old industrial regions to break lock-ins (Tödtling & Trippl, 2005). Perhaps unsurprisingly, cluster policies have been integrated into the European policy agenda and lie at the core of the European regional specialization strategies (RIS3). Although evolutionary perspectives emphasize actors, objectives and means within clusters, less attention is paid to the question of appropriate policies for stimulating path creation.

This paper studies the characteristics and processes of effective policy management that enable cluster policies to shift the path-dependency mechanism and avoid lock-ins in old industrial regions (Coenen et al., 2014). It first develops a conceptual framework of cluster policy stimulating clusters producing ‘path-creation processes’ in old industrial regions. This framework is
then applied to a case study of Spain’s Basque Country, where cluster policy has been used for more than 25 years to steer path development. The paper identifies how cluster policy can provide the necessary pressure to avoid lock-in and encourage creativity amongst cluster partners at a number of key moments in the cluster policy process. The paper concludes that this intervention framework gives useful insights to understand old industrial regions’ evolutionary trajectories, and has promise for developing path-switching cluster policies.

**LITERATURE REVIEW**

From an evolutionary economic geography perspective, industrial agglomerations have unique tacit knowledge and positive externalities, attracting new businesses, increasing companies’ productivity and driving regional economic growth. Old industrial regions may struggle with escaping path dependency with agglomerations of mature industries obstructing path creation and switching processes (Maskell & Malmberg, 1999) through functional, cognitive and political lock-in processes (Grabher, 1993; Hassink, 2006). Under such conditions, regional evolution towards diversification and overcoming path dependency can be provided by related variety (Frenken, Van Oort, & Verburg, 2007).

The failure of old industrial regions to escape lock-in is commonly explained in terms of systemic failure arguments. An example is where regional innovation systems do not function efficiently because of weakly developed institutions or insufficient incentives to participate in innovation processes (Coenen et al., 2014; Tödtling & Trippl, 2005). And although Tödtling and Trippl (2005) argue that cluster policy needs to be tailored to address this lock-in, policy’s role remains underexplored to date (Coenen et al., 2014).

This paper extends an evolutionary perspective to question whether cluster policy management can drive regional transformation in escaping path dependency. The starting point is built on the framework of Konstantynova and Wilson (2014), segmenting cluster policy management into seven core stages:

- Discussion initiation.
- Economy and cluster analysis.
- Policy review.
- Policy development.
- Policy implementation.
- Evaluation and monitoring.
- Policy improvement.

These stages recur and evolve over time as policies develop reflecting periods of policy evolution. Following Boschma and Martin’s (2010) evolutionary perspective, internal knowledge, both adaptive and transformative, is created during these stages. By interacting with path-creation processes, the economic development as a current territorial bundle of conditions/knowledge/routines branch out in new, but related, directions. This model, therefore, provides a conceptual framework for studying cluster policy management processes and how they may drive path-development mechanisms, thereby breaking lock-in in old industrial regions. The model’s flexible multistage structure provides a basis with which to explore and learn about effective cluster policy management’s characteristics by distinguishing critical moments of cluster policy evolution. This allows one to account for how cluster policy was adjusted to territorial processes, set conditions for learning on socio-economic and political–institutional factors, and stimulated public institutions to change and adapt (Figure 1).
METHODOLOGY AND CASE STUDY OVERVIEW

A case-study approach was used to explore how cluster policy management relates to regional transformation. A number of extant examples of evolutionary approaches are being applied to old industrial regions, most notably Mecklenburg-Vorpommern (Hassink, 2010, cited in Boschma & Martin, 2010, pp. 450–470), the Ruhr area (Grabher, 1993) or Wales (Morgan, 2007). This paper specifically focuses on another region: the Spanish Basque Country, and develops a case study following Yin’s (2003) methodology, gathering and presenting data following Figure 1’s structure. The specific focus is on the relationship between the seven stages of cluster policy management and the regional lock-in, because breaking that lock-in is an antecedent to wider economic development through the emergence of new sectors.

The case study presents qualitative data from both primary and secondary sources with a qualitative method: typology setting and pattern matching to data analysis. Fifteen semi-structured interviews were undertaken with representatives from regional government authorities, local developing/cluster supporting institutions, companies, and applied research and university/academic institutions. Secondary sources comprised government and quasi-government documents – programmes, reports – news and editorials. The period covers 25 years (1989–2014).

The Basque Country is a relatively small region within Spain (7235 km², 1.4% of Spain’s total area; 2 million inhabitants, less than 5% of the Spanish total) (INE, 2014) and enjoys extensive evolution, with tax independence. The region’s economy is rooted in manufacturing tradition, where manufacturing makes 24.7% of Basque gross domestic product (GDP) (the Spanish average is 16%). Basque GDP per capita (€29,952) is about one-third higher than the Spanish average (INE, 2014). The Basque Country’s traditionally strong manufacturing industry experienced a strong economic decline at the start of the 1990s.

Clusters were introduced to create new competitive strengths, with Michael Porter’s support in developing the core pillars of the first Basque cluster competitiveness programme (1991). Central to Basque cluster policy was creating cluster associations as facilitators for regional cluster development. With only two existing in 1992, by 2014 eleven cluster associations and eleven pre-cluster associations were established (Table 1).

The first associations formed in traditional Basque industrial sectors: household appliances, machinery tools, automotive, electronics and information technology, maritime, and energy. Pre-cluster associations appeared in 2009 aiming to support emerging and promising export sectors:
these were a new institutional form for facilitating clusters and with slightly different funding arrangements. Most clusters developed into mature and competitive sectors, and together with several new sectors form the basis of the Basque RIS3’s priority areas in energy, advanced manufacturing, biosciences and opportunity niches.

In the review of the Basque cluster policy, four evolution periods can be identified (Figure 2):

- 1989–99: ‘Grounds building’ import of the cluster concept: the Basque government initiated cluster mapping studies, support programmes, raising general awareness and establishing/co-financing working cluster groups/associations.
- 2000–05: ‘Improving and polishing’ review of the policy: cluster policy was maintained with significant changes in organizational structure of cluster associations to better justify the public funding, introducing sectors and strategic action plans.
- 2006–13: ‘Giving new opportunities’ support of cluster policy: cluster policy and associations focused activities around specific thematic areas; pre-clusters created to stimulate emerging/potential industries’ growth.
- Since 2013: ‘Re-management boost’ renewed the assessment of cluster policy: regional sector priorities were redefined, cluster coordination was passed to the regional business development agency whilst better aligning regional strategy with European Union thematic and funding priorities.

**INTRODUCING THE SPECIFICS: THE MAIN CHARACTERISTICS OF THE BASQUE CLUSTER POLICY**

The main feature of the cluster policy in the Basque Country was the constant process of knowledge generation, learning, adaptation and change (Table 1).

During these four periods there was a distinct evolution of Basque cluster policy, specifically in its ability to develop and re-enforce initial priority clusters (period I) to identify and support new embryonic ‘pre-clusters’ (period III). This was paralleled by shifting institutional accountability from the Basque government to SPRI-Basque Business Development Agency (as a regional business development agency, more entrepreneurial and market driven than the government). Also, there was clear learning in introducing and appropriating new routines around the number and spectrum of activities offered by a cluster association (from meetings on knowledge sharing, identification of a company’s needs and problems to assisting with internationalization). There was throughout this period a continual evolution in cluster members, from the leading regional firms, to small and medium-sized enterprises (SMEs) and other kinds of participants. Within this evolution there has been a retention of three core trajectories: a focus on several key industrial sectors; the promotion of diversification of traditional sectors; and an openness to new cluster sectors (Table 2).
A number of regional economic growth indicators suggest that the Basque Country managed to escape path dependency, with persistent leadership of the initial clusters and a rising importance of pre-clusters. The transformation was sustained by its own evolutionary process in which cluster management processes themselves evolved. There was an ongoing knowledge creation, with learning and adaptation of cluster policy management around the development and appropriation of new sector priorities.

### Table 1. Basque cluster policy evolution: four periods.

| Period/feature | I | II | III | IV |
|----------------|---|----|-----|----|
| **Policy development** | | | | |
| Action | Cluster (associations) establishment | Setting strategic programme planning for cluster associations | New cluster identification/pre-clusters and inter-clustering | Sharing organizational powers and building new sector priority |
| Core objectives | Identification, realization of competitive strengths and productivity | Internationalization and learning; innovativeness | Cross-cluster spillovers, new innovation opportunities and hidden industries | Innovativeness, internationalization and industry focus |
| Government involvement | High | High to medium | Medium | Lower medium |
| Selected programmes | Industrial Policy Framework (1991–95; 1995–99) | Industrial Plan for Economic Promotion (2000–03) | Competitiveness and Social Innovation Plan (2006–09), Business Competitiveness Plan (2010–13) | Business Internationalization Plan (2014–16) |
| **Cluster associations** | | | | |
| Cluster association | Cluster associations (11 established, one closed) | Cluster associations (two more established) | Cluster and pre-cluster associations (10 more established) | Cluster and pre-cluster associations (in total there exist 11 cluster and 11 pre-cluster associations) |
| Activities | Organization of meetings for knowledge sharing, identification of companies’ needs and problems, and education management | Strategic reflections, consensus-building, creation of formal committees on thematic areas and designing action plan | Assist companies in their technological development and process innovation, and support in regional, national and international expansion to new segments and markets | Assist in the internationalization activities, education in business management, training, workshop and fair trades |
| Projects | Thematic focus | Productivity and innovation; generic projects | Technology, quality and business management | Innovations, social impact and knowledge generation | Internationalization and marketing |

Note: Due to considerations of space, only the core results are presented from the conceptual framework.

Source: Author’s development.
Table 2. Main changes introduced in the Basque cluster policy since 1991.

| Feature                      | Description                                                                                                                                 |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| **Policy development**       |                                                                                                                                              |
| Character of cluster sectors | Along with priority clusters, also new pre-clusters have been identified and supported                                                      |
| Communication between the policy level and cluster associations | The matrix of the officials from the government was replaced by the matrix of the officials from the regional development organization that can provide cluster participants with better networking and project funding opportunities |
| **Cluster associations**     |                                                                                                                                              |
| Activities                   | The number and spectrum of cluster activities offered to its members are very broad and have evolved based on the member’s needs and interests |
| Members                      | The character of members has been changed from including only leading and large companies to multiple types of companies and other types of type of institutions |

Source: Author’s development.

of new routines in cluster associations. Basque Country cluster policy demonstrated a mix of persistence and agility: persistence provided the necessary pressure to avoid lock-ins and address the cluster life cycle-specific needs. Agility ensured staying embedded and tailored into the local context, such as by identifying and supporting the entry of ‘newcomers’, such as the pre-cluster associations.

Within the ‘discussion initiation’ stage the Basque government had permanent communications with the business sector, assuring a harnessing of the full range of regional potential, making programmes and policy planning evolutionary bound and territory embedded.

At the ‘Economy and cluster analysis’ stage, targeted studies led to exploration of market and business trends, facilitating the identification and evolution of existing and emerging/territorial clusters. The same also applies to the ‘policy review’ and ‘policy development’ stages, where policy-makers, with internal and external expert support, yielded a good mix of policy instruments.

The Basque Country adopted two main approaches for the ‘policy implementation’ stage: the establishment of cluster associations; and support for collaborative projects. The advantage of these policy instruments is their overall generality with parallel flexibly to be adjusted in time and, therefore, better respond to changing territorial needs.

Finally, during the ‘evaluation and monitoring’ and later ‘policy improvement’ stages, a range of actions were taken ensuring learning, and modification of routines and institutional settings. Where the Basque Country has been weakest is that there has been no systematization of this later-stage learning, thereby limiting the subsequent application of these learning processes.

The Basque cluster policy has three main characteristics: embeddedness in a territorial context; the openness of policy-makers to change their organizational structure in approaching the cluster policy; and risks-taking in picking initial clusters and in exploring the development of new ones. Above all, institutional context has been open to change by not sticking to established institutional structures, and it appears that the policy has had some success in steering the region from a declining pathway to a renewal pathway (Table 3).
Table 3. Intervention framework for cluster policies supporting the shifting of path-dependency mechanisms.

| Cluster policy phase | Description of phase activity | Description of path switching activity | Contribution of policy to path switching |
|----------------------|-------------------------------|----------------------------------------|-----------------------------------------|
| Discussion initiation| Building links with cluster partners | Identifying new combinations for path switching | Flexibility and consistency, playing the ‘honest broker’ role |
| Economy and cluster analysis | Identifying existing territorial opportunities | Rich exploration of territory-specific strengths in mature and emerging industries, promoting new technologies, value chains and products | Inclusive information potentially reducing information deficiencies for more optimal decision-making |
| Policy review | Becoming aware of applied policy instruments | Yielding the policy overview diminishing its duplication and targeting for a good policy mix tailored with local and global trends | Informational basis for policy-makers to rationally make their decisions, strengthening policy inclusiveness and outreach |
| Policy development | Defining strategic policy characteristics for re-enforcing diagnosed opportunities | Bridging the territory-specific opportunities into a forward-looking strategic vision, nursing sustainable competitive conditions | Bring together all territorial actors and optimize their forces along the defined momentum framework of actions |
| Policy implementation | Setting in action the developed policy via formulated programmes, tasks and timelines | Transform strategic generality into specific actions by redefining old formal/informal institutions into new ones achieving new path creation | Reduced space for government failure, effective communication and execution of applied policy instruments |
| Monitoring and evaluation | Analysing policy implementation with respect to its defined goals and objectives | Staying on the front line with constant changes for effectively in time path-switching response | Termination or continuation of the policy instruments eliminating the potential policy failures and incorporating new knowledge |
| Policy improvement | Being responsive to the results of the learning process | Extending the boundaries of development paths by turning new knowledge into agile policy actions | Policy rigidity via the adjusted scope and scale of new instruments |

Source: Author’s development.

CONCLUSIONS

This paper asked the question how cluster policy management can contribute to shifting path-dependency mechanisms to assist old industrial regions escape lock-in. It revealed in the case of the Basque Country the importance of agile policy capacity to internal knowledge creation, ongoing learning and modification, and therefore suggests a new way of considering cluster policy interventions.

This new approach seeks to facilitate transformation through policy knowledge generation and novelty creation at every stage of the cluster policy process to ensure that the policies remain tailored to assisting with diversification and escaping regional lock-in. The policy-makers were also able to ensure that their policies did not become a source of lock-in, perhaps highlighted by the introduction of a new class of cluster organization: the pre-cluster association. These lessons also appear to have a wider applicability to other regions that are seeking to use clusters to drive
diversification and create new economic development trajectories in old industrial regions, such as those mentioned above in central and western Germany, south-west France and/or north of Austria.

Of course, this is a single case study of one region, and one must be careful when transferring these claims from a specific research context to create more a general theory and policy lessons. There is a clear need to expand the geographical scope of the study of cluster policy management to verify and extend these initial promising findings to provide a new impulse for thinking about clusters and regional economic development.

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