

# **How to Unlock Regional Economies from Path Dependency?**

## **From Learning Region to Learning Cluster**

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### **Abstract**

Since the Industrial Revolution the cyclical processes of rise and fall of regional economies have been accelerating. Many of the specific problems of the falling part of clustering, that is old industrial areas, are related to path dependency and lock-ins. Particularly political lock-ins hinder the necessary restructuring processes in old industrial areas. They can be considered as thick institutional tissues aiming at preserving existing industrial structures and therefore unnecessarily slowing down industrial restructuring and indirectly hampering the development of indigenous potential and creativity. Of the recently born offspring of the family of territorial innovation models, the learning region concept seems to be most focused on overcoming and avoiding political lock-ins in old industrial areas. Most scholars consider learning regions as regional development concepts in which the main actors are strongly, but flexibly connected with each other and are open both to intra-regional and inter-regional learning processes. Policy-makers in learning regions are involved in learning from institutional errors made in the past and by doing that in avoiding path-dependent development. Empirical evidence shows that the learning region is of limited importance to unlock regional economies from path dependency, due to three weaknesses: its fuzziness, its normative character in its squeezed position between national innovation systems and global production networks. A less normative and more process-oriented concept is proposed in this paper, namely that of the learning cluster.

key words: learning region, regional innovation policy, industrial restructuring, path dependency, lock-ins, learning cluster

## **1. Introduction**

Since the Industrial Revolution the cyclical processes of rise and fall of regional economies have been accelerating. Modern theoretical concepts in economic geography, however, mainly try to explain the rising part of geographical clustering of industries. Since these concepts are heavily based on observations in a small number of exceptional regional economies, such as Silicon Valley, the Third Italy and Baden-Württemberg, they have relatively little to offer to regional policies focused on the specific problems of the falling part of clustering, that is old industrial areas. These policies, therefore, have been mainly deriving from lessons learned from success regions and thus have been consisting of measures such as science parks and technology transfer agencies to boost small and medium-sized enterprises.

Of the few theoretical concepts that try to explain the decline of industrial areas, evolutionary regional economics, in general, and path dependency and lock-ins, in particular, are powerful ones, because they stress the importance of history and institutional context for regional development. Grabher (1993) developed political lock-ins furthest in his studies on the Ruhr Area in Germany. They can be considered as thick institutional tissues aiming at preserving existing industrial structures and therefore unnecessarily slowing down industrial restructuring and indirectly hampering the development of indigenous potential and creativity.

Of the recently born offspring of the family of territorial innovation models (Lagendijk, 2003; Moulaert & Sekia, 2003), the learning region concept seems to be most focused on overcoming and avoiding political lock-ins in old industrial areas (Schamp, 2000; OECD, 2001; Boschma & Lambooy, 1999). Although there are several definitions and perspectives, most scholars consider learning regions as regional development concepts in which the main actors (politicians, policy-makers, chambers of commerce, trade unions, higher education institutes, public research

establishments and companies) are strongly, but flexibly connected with each other and are open both to intra-regional and inter-regional learning processes (Morgan, 1997; Boekema et al., 2000; Butzin, 2000; Hassink, 2001; Wink, 2003). Policy-makers in learning regions are involved in learning from institutional errors made in the past and by doing that in avoiding path-dependent development. Illustrated by recent research on highly specialised declining regional economies in Germany and South Korea, the paper will reveal the learning region concept's limitations to unlock regional economic path dependency in old industrial areas. It will show its main weaknesses and will propose an alternative concept, namely that of the learning cluster. In the following, the concept of lock-ins and path dependency in relation to the restructuring of old industrial areas is discussed in section 2. Section 3 will portrait the learning region from a conceptual point of view, whereas section 4 will verify the application of the concept in two old industrial areas. Section 5 will reveal the learning region concept's limitations to unlock regional economic path dependency in old industrial areas and will come up with the alternative concept of learning clusters.

## **2. Lock-ins, path dependency and the delayed restructuring of old industrial areas**

The line between successful and open regions and old industrialised, insular, inward-looking industrial districts can be very thin (Grabher, 1993; Hamm & Wienert, 1989; Fromhold-Eisebith, 1995; Hassink, 1997; Maskell & Malmberg, 1999). As milieus tend to change more slowly than industries, a sclerotic milieu can remain in a region even after the industrial structure to which it belonged already has disappeared. Maskell & Malmberg (1999) distinguish 'good' from 'bad' agglomerations by pointing at their ability to 'un-learn', which involves the removal of formerly significant institutions which now act as a hindrance to further development. There appears a great

variation in the ability of regions to 'un-learn', "which makes it possible in some regions but not in others to inaugurate new institutions and simultaneously dissolve ones" (Maskell & Malmberg, 1999, p. 179).

In some old industrial areas, insular, inward-looking production clusters suffer from a combination of three negative lock-ins: functional lock-ins (inter-firm relationships), cognitive lock-ins (a common world view that might confuse secular trends with cyclical downturns) and political lock-ins that might come up in a production cluster (Hamm & Wienert, 1989; Grabher, 1993; Hassink & Shin, 2005; Morgan & Nauwelaers, 1999; Boschma, 2003). In other old industrial areas, however, political initiatives and institutional renewal have led to the successful promotion of new industrial activities and thus restructuring (Cooke, 1995). In the unsuccessful ones, political lock-ins hinder renewal and restructuring. They can be regarded as thick institutional tissues aiming at preserving existing traditional industrial structures and therefore unnecessarily slowing down industrial restructuring and indirectly hampering the development of indigenous potential and creativity. Institutional tissues consist both of organisations ("formal structures with an explicit purpose"), such as political administrations at all spatial levels, trade unions, large enterprises and business support agencies, and "things that pattern behaviour" such as norms, rules and laws (Edquist, 1997, p. 26). With regard to the latter part there seems to be, therefore, a strong relationship between cognitive lock-ins and political lock-ins. Such a particular and thick institutional tissue together with the firms and workers can form a so-called self-sustaining coalition (Grabher, 1993; Hassink & Shin, 2005). In such a situation, large companies are unwilling to sell unused sites to local authorities for the attraction of inward investment, as they are afraid to lose qualified employees to competitors. Local authorities do not see the point to attract inward investment or to promote restructuring in another way, as large tax incomes are paid by large local enterprises. In

some regional production clusters the spirit of the Schumpeterian entrepreneur might dwindle due to an increasing industrial concentration and the domination of large companies. The self-sustaining coalition also lobbies for sectoral interventions often at a national or supranational level, which hamper the restructuring process more than they support it, as they remove the incentives to take initiatives for entrepreneurs and thus paralyse competition and tranquillise large industries (Hamm & Wienert, 1989). Morgan & Nauwelaers (1999) stress that in these kind of networks status is privileged over knowledge, power over learning and past over present. Related to the issue of political lock-ins are discussions about network failures and anti-developmental networks (Von Tunzelmann, 2004; Iammarino, 2004). Indicators to measure political lock-ins might be the amount of subsidies spent to support the industry, the number of lobbying organisations and, more importantly, their impact, long-term stability of institutions involved in supporting the industry and the weak support of new industries.

Grabher's lock-in concept has very often been cited (see for instance Cooke & Morgan, 1998, p. 111; Schamp, 2000, p. 139), showing its importance as an explanatory concept not only for classical old industrial areas, such as the Ruhr Area, but for the decline of a large variety of differently structured industrial areas (see Shapira & Fuchs, 2005). There have been much fewer thoughts and papers about regional development concepts that can unlock old industrial economies from negative path dependency. The learning region is potentially such a concept.

### **3. The learning region**

In the framework of the contemporary transformation from an industrial to a knowledge-based economy, the learning economy (Lundvall, 1996) and recently also learning regions have been

propagated as future concepts for successful economic development in many countries of Europe (Morgan, 1997; Hassink, 2001; Van Geenhuizen, 1999; Butzin, 2000; Scheff, 1999; Boekema et al., 2000; OECD, 2001; Landabaso et al., 2001; Fürst, 2001; Kunzmann & Tata, 2003). The capacity of both individuals and organisations to engage successfully in learning processes is regarded as a crucial component of economic performance in the knowledge-based economy. Oinas & Virkkala (1997) even speak about the 1990s as being the era of the learning economy and the learning region and Malmberg (1997, p. 576) refers to the 'learning turn' in economic geography.

Reading the recently rapidly expanding amount of literature on the learning region, two angles can be distinguished from which this concept has been launched. First, some authors have written about the relationship between entrepreneurial learning, innovation and spatial proximity at the micro level (theoretical, actor-related perspective) (Oinas & Virkkala, 1997; Lorenzen, 2001; Boekema et al., 2000). Secondly, most authors have launched the concept as a theory-led regional development concept from an action-related perspective at the meso level. This distinction bears resemblance to a distinction Boekema et al. (2000) made in a book on the theory and practice of learning regions, where they distinguish between regional learning (mainly company-initiated co-operation between actors in a region through which they learn) and the learning region (institutional networks that develop and implement a regional innovation strategy). Since this paper aims at analysing the potential of the learning region strategy to break through negative path dependency, it will focus on the second, action-related perspective. In this second perspective, the learning region is seen as a new theory-led regional development concept which aims at achieving and/or supporting collective learning processes (Morgan, 1997; Fürst, 2001; Butzin, 2000; OECD, 2001).

In many countries a general shift of innovation and labour market policies can be observed from the national to regional levels of decision-making, partly supported by supra-national organisations such as the EU and the World Bank (OECD, 2001). The regional level is more and more seen as the level that offers the greatest prospect for devising governance structures to foster learning in the knowledge-based economy (Cooke & Morgan, 1998; Lorenzen, 2001; Boekema et al., 2000; Fritsch, 2003; Koschatzky, 2001, 2005).

The definitions of learning regions are quite vague and diverse, since seldom concrete examples can be shown and since policy-makers, who have been eager to use the concept as a label for their development plans, have not made efforts to define what they mean by learning regions. The concept seems to travel easily from academic circles to policy-makers and back without deep thoughts about its meaning (Hassink & Lagendijk, 2001). Small wonder, therefore, that Martin (2001, p. 198) considers learning regions, together with institutional thickness and un-traded interdependencies, as fuzzy concepts, as he calls these concepts "vague and impressionistic neologisms". In a recent edited book on learning regions, Boekema et al. (2000, p. 12) even make this situation worse, as they want "to avoid an unproductive discussion on what is or is not a 'learning region'" and launch the learning region as a paradigm that does not need to be defined.

According to the OECD (2001, p. 23,24) the learning region "constitutes a *model* towards which actual regions need to progress in order to respond most effectively to the challenges posed by the ongoing transition to a 'learning economy'". It is "characterised by regional institutions, which facilitate individual and organisational learning through the co-ordination of flexible networks of economic and political agents" (OECD, 2001, p. 24). Regional policies are crucial for stimulating individual and organisational learning, because policy-makers can address path dependency that

goes beyond the interest of single agencies and firms (OECD, 2001). Both changing the industrial structure and institutional unlearning are issues that can fruitfully be addressed by regional policy-makers. As the learning region is a model, it is not possible to identify examples of actually existing learning regions (OECD, 2001). There are various trajectories towards the goal to become a learning region. To affect social capital in regions is an important element of the learning region strategy.

Morgan (1997) calls learning regions the new generation of regional policy, which, compared to traditional regional policy, focuses on infostructure instead of infrastructure, on opening minds instead of opening roads and branch plants and which devises policies with SMEs instead of just policies for SMEs. Other characteristics of this concept are: bottom-up concept, transparent, face-to-face relations, integrated solving of problems (crossing of policy fields) and permanent organisational learning with feedback effects. This network is open to learning, both to intra-regionally and inter-regionally, and willing to unlearn. These characteristics of a learning region, however, only describe the method of working and the attitude of regional economic policy-makers. The concrete contents of the innovation policy need to vary according to the economic profile and demand in individual regions.

The learning region can thus be defined as a regional innovation strategy in which a broad set of innovation-related regional actors (politicians, policy-makers, chambers of commerce, trade unions, higher education institutes, public research establishments and companies) are strongly, but flexibly connected with each other, and who stick to a certain set of "policy principles" (OECD, 2001). The following "policy principles", which are general in scope, leaving regional policy-makers to adapt

them to specific contexts and demand for innovation policies in the various regions, are a crucial part of a learning region strategy (OECD, 2001; Fürst, 2001):

- carefully co-ordinating supply of and demand for skilled individuals
- developing a framework for improving organisational learning, which is not only focused on high-tech sectors, but on all sectors that have the potential to develop high levels of innovative capacity
- carefully identifying resources in the region that could impede economic development (lock-ins)
- positively responding to changes from outside, particularly where this involves unlearning
- developing mechanisms for co-ordinating both across departmental and governance (regional, national, supranational) responsibilities
- developing strategies to foster appropriate forms of social capital and tacit knowledge that are positive to learning and innovation
- continuously evaluating relationships between participation in individual learning, innovation and labour market changes
- developing an educational and research infrastructure for knowledge society
- encouraging openness to impulses from outside
- fostering redundancy and variety
- ensuring the participation of large groups of society in devising and implementing strategies.

As the learning region can be considered as an eclectic concept (Fürst, 2001), it is strongly linked to several existing theory-led development models and policy-oriented innovation stimulation concepts, which have been coined as new regionalism (Lovering, 1999) or the family of territorial

innovation models (TIM) (Moulaert & Sekia, 2003). Examples of these concepts are regional innovation systems, industrial districts, innovative milieus and regional clusters. It would go beyond the scope of this paper to discuss and explain the concept's exact location within this plethora of concepts, but what is important to know is that of all these concepts the learning region concept has been most clearly connected to the solving of problems of old industrial areas. By focusing on the learning ability of regional actors, the learning region concept might, in contrast to the other concepts, be able to explain why in some regions learning by interacting and collective tacit knowledge can turn from a strength into a weakness (negative path dependence). Here the learning region clearly adds something to existing concepts. Compared with other concepts, learning regions are more involved in learning from institutional errors made in the past and by doing that in avoiding path-dependent development (OECD, 2001). The latter point is illustrated by the research question Gertler & Wolfe (2004, p. 93) are putting in their study on a regional innovation system in Ontario, Canada: "how reflexive is the [regional innovation] system as a whole in terms of monitoring its successes or failures and adopting the features associated with a learning regions elsewhere?" Learning regions, therefore, seem to be reflective and monitoring or "virtuous" (OECD, 2001, p. 11) regional innovation systems. Furthermore, in contrast to the above described theory-led development models, which are mainly based on experiences in growth regions such as Silicon Valley, Baden-Württemberg and the Third Italy, the learning region concept is not derived from experiences in any particular kind of region (although in a recent article Benner (2003) describes Silicon Valley as a learning region). Therefore, it can be applied to a broader range of regions than the other models, which turned out to be difficult to transfer to structurally weak regions.

Although many observers of the learning region have criticised the lack of empirical evidence (Fürst, 2001; Blotevogel, 1999, p. 56), recently both semi-academic empirical work on the learning region by the OECD (2001) and numerous policy initiatives launched under the label of learning regions (Legendijk & Cornford, 2000) provide us with a considerable amount of empirical information on the learning region phenomenon. The OECD (2001) recently published the first in-depth empirical study on the concept of learning regions. With the help of an interesting mix of a quantitative correlation analysis and a qualitative analysis on the basis of case-studies several conceptual relationships of the learning region are investigated. Other recent empirical studies on the learning region include work on the central part of the Ruhr Area in Germany by Pommeranz (2000) and on the Graz Region in Austria by Scheff (1999). Moreover, the learning region concept has arrived in one form or another on the desks of regional policy-makers in Europe for quite some time now. A short internet and press survey carried out by Legendijk & Cornford (2000) in August 1998 revealed that nine regions labelled themselves as learning regions, and this number has dramatically increased since then. In May 2004 an internet survey by the author of this paper revealed a total of 5,000 hints on learning region in the world wide web and no less than 11,000 for the German equivalent lernende Region (the Dutch and French equivalents (lerende regio and région apprenante) had only 218 and 185 hints respectively). The popularity of the German term can be explained through the federal programme called Lernende Region, which is partly funded by the European Social Fund ([www.lernende-regionen.info](http://www.lernende-regionen.info)), and which supports 72 learning regions in Germany. A strong appeal to regional policy-makers has been that, with the help of the buzzword learning region, they could broaden out narrow technology policies to areas of business development, labour market policies, skill improvement and particularly lifelong learning (Legendijk & Cornford, 2000, p. 216). Furthermore, partly based on the learning region concept, the EU has started a new generation of regional policies (Landabaso et al., 2001), which aim at

improving the institutional capacity for innovation of less-favoured regions, which, in turn, should lead to higher absorption capacity for innovation funds from the EU and national governments.

In sum, the learning region concept could serve to solve the question what distinguishes 'good' from 'bad' industrial agglomerations. Traditional theoretical concepts as well as recent studies on regional networking and collective learning in Europe not only focus too much on success regions, they also lack the equipment to distinguish 'good' industrial agglomerations. The limited learning ability of regional actors could be the explanatory factor why the co-ordination of collective activities in some regions turns from a strength into a weakness (path dependence). Since, conceptually, the learning region is regarded as most focused on overcoming and avoiding political lock-ins in old industrial areas, the following section will analyse whether learning region strategies are applied in declining regional economies in order to unlock them from negative path dependency.

#### **4. Learning region strategies in old industrial areas?**

This section will verify whether learning region strategies are applied to unlock regional economic path dependency in two highly specialised, declining old industrial areas, Mecklenburg-Vorpommern in Germany, which has an economy dominated by the shipbuilding industry, and Daegu in South Korea, which is specialised in textile industry. It will focus on the following selection of the above-mentioned policy principles that can be regarded as important in the context of negative path dependency:

- carefully identifying resources in the region that could impede economic development (lock-ins)
- positively responding to changes from outside, particularly where this involves unlearning

- developing mechanisms for co-ordinating both across departmental and governance (regional, national, supranational) responsibilities
- encouraging openness to impulses from outside
- fostering redundancy and variety

*Shipbuilding* dominates the regional production structure of *Mecklenburg-Vorpommern, Germany* (Eich-Born & Hassink, 2005), one of the new Länder in reunited Germany situated in the North East (see Figure 1). Due to the transformation from central planning to market economy de-industrialisation (employment in shipbuilding dropped from 55,000 in 1989 to around 5,000 in 2003) led to dramatically high unemployment rates of around 20%. In order to save the industry from total collapse, a political consensus was built between various interest groups on different geographical levels: yard managers, workers councils, regional trade unions, mayors of yard cities, regional policy-makers as well as the representatives of the German Shipbuilding and Ocean Industries Association and the Co-ordinator for the Maritime Economy in the Federal Ministry of Economics and Technology. Dissolution of the state-owned enterprise and privatisation were the strategies applied by the German national and regional government. Nowadays the yards are in the hands of mainly Scandinavian of shipbuilding concerns. The modernisation of the production capacities was mainly financed by subsidies provided by the German government, the state of Mecklenburg-Vorpommern and the European Union. Over a period of five years, the German government invested more than DM 6 billion (€ 3 billion) in the construction of new docks, which means state support of about DM 1 million (€ 500,000 per job) (Röller & Von Hirschhausen, 1996, p. 17). For each DM of state aid only about 0.09 DM of private investment was attracted. In order to avoid a strong increase in over-capacity, the federal government and the European Commission agreed that the shipyards in Mecklenburg-

Vorpommern were not allowed to build more ships than a certain annual capacity limit until 2005.

- insert Figure 1 here -

Thus, regional industrial policy in Mecklenburg-Vorpommern is very much focused on preserving the existing modern shipbuilding complex, rather than focused on developing new products and industries. That is not only shown by the large amount of subsidies made available for the shipbuilding industry, it is also shown by the successful lobby of the consensus group of actors to release the EU capacity limitation and to sue the South Korean government at the WTO for supposedly illegally supporting Korean yards. It would be unfair, however, to make the impression that the regional industrial policy is only active in lobbying activities in order to preserve existing structures. It does also a lot to support innovative small companies and innovation projects. However, these projects, such as the Maritime Alliance in the framework of the federal support programme InnoRegio, also mainly support the innovativeness of the existing cluster.

In a recent paper, Cho (2004) discusses the restructuring process of the *textile industry cluster of Daegu*, the third largest city in *South Korea* (Figure 2), a process I analysed myself, as well, during field-work last year in South Korea. The cluster, which started to grow in the 1960s and which geographically consists of Daegu, Gumi and Gyeongsan, is characterised by a specialisation in the production and weaving of chemical fibres and has been strongly focusing on export. Textile business constitutes the largest segment of manufacturing in Daegu: 31.3% of total establishment, 34.7% of total employment; which means a location quotient of 4.1, 34.6% of

total production, 54.2% of total export and 30.9% of total value added in 2002 (Cho, 2004). The high rate of automation in the 1980s brought about problems of overcapacity and overproduction, which in turn led to financial difficulties in textile business. Moreover, textile companies were faced with increasing competition from low-cost neighbouring countries, China in particular, and a shift of Korean producers to China in the 1990s. Forty years of path dependent evolution led to a specialisation in the narrow low-value added and low-tech middle stream of the textile value chain, whereas high-value added and high-tech downstream activities were nearly totally absent. Consequently, the employment in Daegu's textile industry decreased from 91,000 in 1981 to 82,000 in 1986 to 47,000 in 2000 (Cho, 2004).

- insert Figure 2 here -

In response to this situation, the central government launched an ambitious project called the Milano Project (1998-2003) aiming at restructuring the present middle-stream textile of Daegu into a high value added down-stream textile which comprises apparel, design and fashion as a competitive edge. Milano is a symbolic target for the high-road restructuring of textile in Daegu. In April 1998, President Kim Dae-Jung, who came to power with regionalist full support from his home province in the south west, visited Daegu to mollify the south easterner's regionalist antagonism against him and officially promised (*kongyak*) a full policy support for revitalisation of Daegu's decaying textile industry, which materialised into the Milano Project. It consists of 19 projects in 4 sectors, which require a total of € 650 mill. for 5 years. As of April 30 2003, the overall rate of project implementation was 75%. The main promoters of the project, the central government and the City of Daegu, aim at promoting both new activities (fashion and design) and projects with new actors (research institutes, universities, design schools, banks etc.), whereas the

actors with a vested interest, local textile producers and their lobby organisations, oppose these plans. The latter argued that Daegu's textile cluster should maintain its competitive edge in the branch of weaving and dyeing, whose technology, know-how and market accessibility were believed to be at the top of the world. Therefore resistance to and conflict around the restructuring are widely witnessed in the process of project implementation. It shows that lock-ins oppose learning initiatives to restructure the regional economy.

### **5. The Learning Region: A Policy Concept to Unlock Regional Economies from Path Dependency?**

The above presented cases share with each other the problems of regional economic decline and path dependency and to some extent also political lock-ins. Although in most cases we can find the broad set of innovation-related regional actors (politicians, policy-makers, chambers of commerce, trade unions, higher education institutes, public research establishments and companies) that are strongly, but flexibly connected with each other, we can call none of them a learning region. The main reasons for that is are that they did not stick to the "policy principles" that characterise a learning region. In neither of the regions we can observe a carefully identifying of resources in the region that could impede economic development (lock-ins), nor did the regional actors positively respond to changes from outside, particularly where this involves unlearning. On the contrary, in many ways the regions are characterised by negative responses to changes from outside. Furthermore, what is lacking in the regions is an encouraging openness to impulses from outside and a fostering of redundancy and variety. These cases have shown how difficult it is to set up a learning region strategy in declining, mono-structural economies due to political lock-ins. They have also shown that in both regions the national and supranational institutional level

increasingly affects the leeway of regional actors. A learning region strategy, therefore, will not be successful if it ignores the impact of national and even international innovation systems on inter-firm co-operation and innovative behaviour.

Despite these problems, the learning region concept potentially certainly bears potentials to become a theoretical basis for modern regional innovation policies. Learning regions and regional innovation systems can be seen as an "intellectual basis for the development of particular forms of sub-national intervention" (OECD, 2001, p. 25). Therefore geographers and planners dealing with the learning region seem to belong to the "significant numbers of economic geographers [who] have been working on policy-relevant topics and problems, including ... local industrial clusters, local high-technology milieux" (Martin, 2001, p. 193). This clearly can be judged positively seen against the background of the observed decrease in public policy relevance of geography research, in general (Martin, 2001). In comparison with other concepts in economic geography, the theory-led learning region concept is even more focused on a direct transfer of academic insights to local and regional innovation policies. Despite this merit, three weaknesses prevent the learning region from becoming a fully-fledged theoretical concept in regional studies (for another critical voice see Hudson, 1999).

First, one group of authors hardly define the concept (see for instance Boekema et al. 2000), leaving it to be a fuzzy concept, that is a concept characterised by both lacking conceptual clarity, rigour in the presentation of evidence and clear methodology and difficulties to operationalise (Markusen, 2003). In this group of literature seldom concrete examples are shown. To make thing worst, most policy-makers, who have been eager to use the concept as a label for their development plans, do not make efforts to define what they mean by learning regions.

Secondly, and to some extent contradictory to the first point, the learning region can be considered a normative concept from the perspective of the OECD study on learning regions (OECD, 2001). Concepts differ to what extent they are normative in character, such as the learning region, or based on real situations in regions (industrial districts) (Hassink & Lagendijk, 2001). The learning region is also in many ways a normative concept. As shown in section 2.2 it is regarded as a model and it sticks to certain “policy principles”. In contrast to other concepts with an empirical base, such as industrial districts, it clearly has a normative outlook. Moreover, since learning is a process which takes place in any economy at any time, treating the learning region or learning economy as a model is questionable. There is much written about what the ideal learning region is, but little is understood about how we get there. As long as we do not know enough about the learning processes that lead to a learning region strategy, we cannot speak about a learning region yet.

Thirdly, although in theory open to impulses from outside, learning regions are in practice squeezed between national innovation systems and global production networks. Speaking about learning regions, one should namely not forget the role of nations and industries. In order to stay competitive, companies must integrate locally specific competence with codified, generally available knowledge, or, in other words, they must link their own innovation systems with national innovation systems and international knowledge flows (Bathelt et al., 2004). According to Gertler (1996) the increasing impact of national regulatory and innovation systems on the behaviour and strategy of individual firms narrows the leeway for regional innovation policy. Furthermore, depending on national political-administrative systems, the leeway for developing learning regions strategies differs considerably. A learning region strategy, therefore, will not be successful if it ignores the impact of national and even international innovation systems on inter-firm co-operation

and innovative behaviour. Moreover, the learning region concept does not pay much attention to industry differences and the position of firms in global production networks. By stressing the supply architecture for learning and innovation, it tends to neglect that "different kinds of products will 'demand' different kinds of innovation systems" (Storper, 1997, p. 107,108). Firms in different industries need different partners for technological learning (chemical industry – public research establishments; building industry - customers) at different distances . Regional learning processes, therefore, vary to a large extent, depending on the industry and the position of firms in global production networks. Most regional policy-makers, however, have little knowledge about the global production networks regional firms are embedded in (Herrigel, 2004). Since the economic well-being of firms is increasingly affected by their position in global production networks, policy-makers have more and more difficulties to update their firm and industry knowledge which is necessary for a tailor-made regional innovation policy. Regional learning is therefore less and less confined to the local, whereas learning region strategy mainly focus on supporting intra-regional learning processes.

Due to these weaknesses, I have difficulties in using the term learning region. There are seldom regions that are characterised by only one dominant industry and a strong regional government (Bathelt & Depner, 2003). In reality, we find different clusters within one region, with differing learning processes, different global production networks and different national administrative systems and therefore a different leeway for learning region strategies (for empirical evidence on this point, see Tödting & Trippel, 2004; Steiner & Hartmann, 1998). In order to develop a learning region strategy, we first need to understand the different learning processes that take place in the different clusters we can find in regions.

Therefore I want to propose a related, but slightly different concept, that of the learning cluster. I think the learning cluster concept is able to bridge the gap between regional learning, which increasingly crosses the borders of regions and nations due to the globalisation of production networks, and the learning region strategy, which focuses on the regional SMEs active in a variety of different clusters with different characteristics. It is a concept that combines the strengths of both the learning region and clusters concept in tackling the problem of lock-ins in regional economies.

On the basis of theoretical thoughts on geographic clustering by Porter (2000) and Enright (2003), a rapidly increasing number of policy initiatives to support clustering of industries have been emerging in many countries of the world (see for instance Porter, 2000; Gordon & McCann, 2000; Cumbers & MacKinnon, 2004). Like learning regions, clusters, therefore, seem to be an empirical and theoretical basis for newly oriented regional innovation policies (Koschatzky, 2005). According to Lagendijk & Cornford (2000, p. 217) policy actors applying the cluster concept are more concerned about defining the concept than their counterparts using the learning region concept. The latter seems to be much more an undefined buzzword in the regional development industry.

Although clusters clearly can be criticised as being vague, ambiguous and even supportive to specialisation and lock-ins (Martin & Sunley, 2003), they have some strengths that compensate for the weaknesses learning regions have concerning the unlocking of regional economies from path dependency. First, they are less normative and more process-oriented in character. Secondly, they are geographically less confined to political-administrative borders. The supporting institutions of a cluster strategy follow their companies along the lines of the global production

network. At the same time, however, clusters have a significant weakness that could be compensated for by the learning region strategy. The cluster approach lacks namely strategies on how to prevent the emergence of negative lock-ins and path dependency in regional economies. The learning region strategy, in contrast, does pay attention to these dangers, as it applies lock-in avoiding principles. The main actors in such a strategy share a reflective attitude and are prepared to change a winning team. I believe that by developing learning cluster strategies in future research, most of the learning region's weaknesses discussed in this paper can be alleviated, without losing its main strengths, that is its relevance for regional innovation policy-makers and its institutional capabilities to avoid the emergence of negative lock-ins.

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Figure 1: Map of Mecklenburg-Vorpommern, Germany, with location of shipyards.

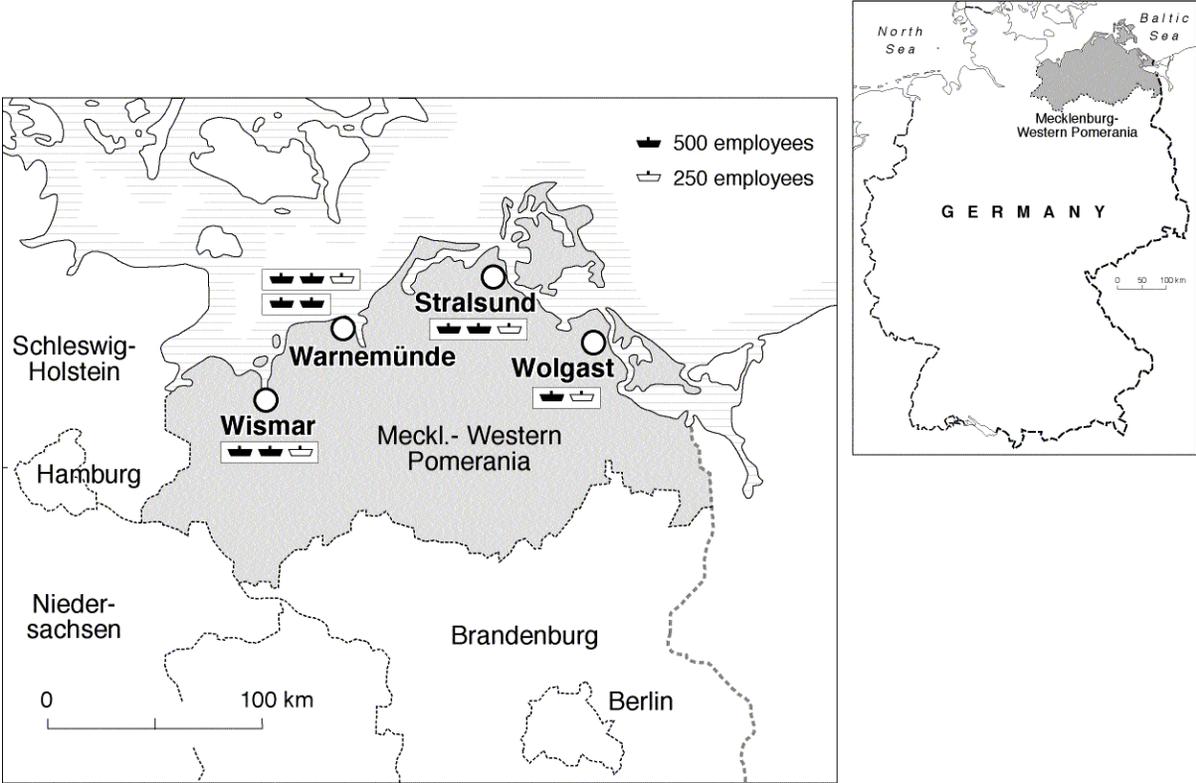


Figure 2: Map of Daegu in South Korea.

