

### The CURE Project

The process of globalisation, more than any other, has added importance to the cultural diversity of regions in Europe. Although the public at large might talk of 'footloose companies' – firms without loyalty to any particular location – globally competing companies nonetheless benefit from their regional embeddedness, and hence from the particular strengths of diverse regional cultures. But the strength of any regional culture may also depend on the regional engagement of companies and other regional actors. A regional culture can be seen as a potential strength, which needs to be activated and can only be realised in interaction with regional companies.

The discussion of globalisation focuses mainly on the homogenisation of cultures. The multitude of reciprocal influences between corporate and regional cultures is widely neglected in the mainstream of regional research. It is therefore the core objective of the European joint three-year research project 'Corporate Culture and Regional Embeddedness' (CURE), funded by the European Commission within the sixth framework programme, to explore the interaction between regional and corporate cultures. Through a multidisciplinary study involving seven European regions, CURE focuses on three major questions: (1) How is regional development influenced by corporate cultures? (2) How are companies influenced by regional cultures? And (3) how do corporate and regional cultures interact and influence each other? The research was conducted in the region of South-East Netherlands, the Basel area (Switzerland), East Westphalia-Lippe (Germany), South-West Brandenburg (Germany), the Gyor region (Hungary), Styria (Austria) and Wales, bringing together researchers from cultural science, regional science, social science and economics.

The empirical results of the seven regional studies indicate that, under certain conditions, the interaction between corporate and regional cultures becomes a 'virtuous circle', in which corporate and regional performances reinforce each other. The CURE project identified a number of key insights and interesting concepts for further development of both the vision of regionally embedded companies

and the concept of innovative regional cultures. The ongoing interaction between different cultural settings, the 'right' balance and combination of strategic corporate decisions, the socio-cultural base of networking activities, and the regional engagement of a variety of stakeholders are some of the key factors in explaining the ability of a particular region to generate a 'virtuous circle': a circle whereby regional distinctiveness, but also regional continuity and identity are achieved through permanent renewal and change.

#### **CURE's Methodical Approach**

The CURE study has been conducted by means of thirty company case studies and three in-depth studies in each of the seven regions. The dynamics of the interaction between corporate and regional cultures explain why the cultures themselves ought to be seen not as static and homogeneous, but rather as dynamic and differentiated, and why a qualitative empirical approach was selected as the most appropriate way of investigating the three major questions.

#### **Abstract**

The CURE project investigated 210 companies in seven regions with regard to the interaction between corporate and regional culture. A significant number of these companies are clearly embedded in the region, while others are more footloose. The region is in turn made up of a number of different social spaces with partly overlapping geographical spaces. In each individual case, the interaction between corporate and regional culture is a type of reciprocal phenomenon. The interaction between firms and region should be seen as a dynamic process that has to be balanced permanently. Paradoxically, to sustain regional continuity and identity, regions have to renew themselves permanently in order to remain competitive in the global competition for regional distinctiveness. In this process, engagement in the region is a strategic option for all types of companies. They are more likely to do this if the interacting corporate and regional actors develop a shared frame of reference as to where the region ought to be heading.

## South-East Netherlands

#### Square kilometres: 5,500; population: 2.9 million

The South-East Netherlands region includes the south-east of the province of Brabant and the Province of Limburg in the Netherlands. The region is a technology region and can be seen as 'the heartland of Dutch industry': it accounts for 29% of industrial employment in the Netherlands, 48% of private R&D investment and 55% of patent applications. The main cities in the region are Eindhoven and Maastricht.

Two major factors behind the region's distinctiveness and economic success are the presence of big, international companies, which are also rooted in the region, and the close co-operation in the form of a 'triple helix' between companies, regional and local governments, and universities and knowledge institutes, which is realised in formal and informal networking organisations. The culture of co-operation and networking is based on the region's history and cultural traditions, which can best be identified through the Dutch term 'gemoedelijkheid' – a term difficult to translate, but perhaps best rendered as 'easy going' and 'informal'.



## The Basel region

#### Square kilometres: 555; population: 457,000

The Basel region is located in the north-west of Switzerland, bordering both Germany and France. It is one of the world's leading life-science regions with a long tradition in the chemical and pharmaceutical industries, and can be characterised as knowledge-intensive. The headquarters and R&D facilities of many international life-sciences companies are located in the region.



The region's high social capital is an important part of the institutional core competence of both regional companies and authorities: there is intensive interaction not only between local firms within the life-science industry's value chain, but also between life-sciences firms, regional authorities, networks and interest groups. As a result, a sort of mutual understanding – i.e. basic assumptions, shared values and agreed ways of proceeding – has become established within the region. Corporate and regional actors use their social capital for successful performance – for example, a number of regional companies have become (increasingly) international by collaborating with international companies.

## East Westphalia-Lippe

#### Square kilometres: 6,500; population: 2.0 million

The German research region East Westphalia-Lippe is one of five administrative districts of the federal state of North Rhine-Westphalia. The settlement pattern is structured by a handful of medium-sized cities and the two larger cities Bielefeld and Paderborn. The region is dominated by a high number of non-listed, family-owned businesses. Most of these companies were founded in the region and are more than 20 years old.

Family companies in particular are regionally embedded to a very significant degree: their culture focuses on long-term strategic thinking, reliable and continuous labour-force relations, and social embeddedness. Networking activities take place, at first sight, in formal networks, but are socially based, among other things, by professional backgrounds, a strong regional identity and the specific family-company cultures in East Westphalia-Lippe.







## Styria

#### Square kilometres: 16,300; population: 1.2 million

The Styria region is situated in the south-east of Austria and is the second largest of Austria's nine federal states. Styria is an old industrialised area in which the iron, steel and metal industry promoted growth and prosperity over a long period of time, but which experienced crises and slow growth in and after the 1970s. Since the 1990s the Styrian economy has recovered in a process of restructuring from basic to more technology-intensive sectors.



The crisis and break-up of formerly state-owned companies in the metal sector has brought about a severe change of corporate culture and company engagement in the region. In the large firms there was a shift from assuming social responsibilities for employees – often caring 'from the cradle to the grave' - towards engaging more recently in collaborative innovation, education and skill enhancement. Since the 1980s the emergence of a new co-operation culture can be observed, involving major firms in the metal and automotive sectors, regional universities, and policy actors. This co-operation was facilitated by shared values and mutual understanding within the two sectors, as well as by similarities in the socialisation of the respective managers and engineers.

## The seven CURE regions Wales There is a cultural shift in progress in which a small number of companies - significant however in profile - are stepping away from the more 'conservative' images, symbolism and cultural Square kilometres: 20,800; population: 3.0 million references of the past. Through the success they are Wales is one of three territories in the UK with some achieving in this process, they enhance the scope form of devolved regional government. The Welsh for the use of more self-confident, humorous, and Assembly Government has operated since 1999 folself-deprecating symbols of regional identity. In lowing the 1998 Government of Wales Act. Wales particular, the modified way in which both Wales is located on the western side of the UK; the capital itself and Welsh culture and language are now becity of Cardiff is situated in the south-east of the reing promoted by the Welsh Assembly Government gion. At the lower spatial level, Wales is comprised as a type of regional brand is perhaps the greatof 22 unitary-authorities, each having elected counest reciprocal influence between the regional and cils with local statutory powers. corporate spheres.

Cardiff

## South-West Brandenburg

#### Square kilometres: 13,980; population: 1.3 million

With regard to the German research region of South-West Brandenburg, and in particular to the city of Potsdam, the focus of research, two aspects are essential: the city of Potsdam is very close to the metropolis Berlin, and the region is located within Germany's five new federal states (the former GDR), which went through significant political, structural and cultural change following the fall of the Berlin Wall in 1989 and German reunification in 1990.

The region's ambivalent cultural influences are shaped by the political and economic changes it has experienced in the recent past. South-West Brandenburg is the meeting point between East and West, between tradition and the start-up culture, between influences from the socialist era and the Prussian heritage. The balancing of continuity, on the one hand, and discontinuity on the other can be observed there. And due to the proximity to Berlin, the region is also shaped by a balancing of metropolis (centre) and province (periphery).



## The Gyor region

#### Square kilometres: 4,000; population: 450,000

The Gyor region is located in the north-west of Hungary with borders to Austria and Slovakia. The – by Hungarian standards – large town of Gyor is embedded in a rural landscape. The transition from the socialist model to the market-economy model, which took place in the first half of the 1990s, was smoother and fraught with fewer tensions than in the rest of Hungary. The regional economy of Gyor is shaped by mainly large companies producing more than 75% of regional GDP and accounting for nearly 90% of exports.

Despite strong economic, political and cultural shifts since the end of World War II, there is a considerable continuity in the region's culture due to such heterogeneous and, at first sight, conflicting cultural elements as resilience, flexibility, and adaptability. Having survived the socialist model in place in Hungary after 1945, these elements of regional culture enabled a relatively speedy and successful recovery from the transformation crisis in the first half of the 1990s following the collapse of the socialist model in 1990.

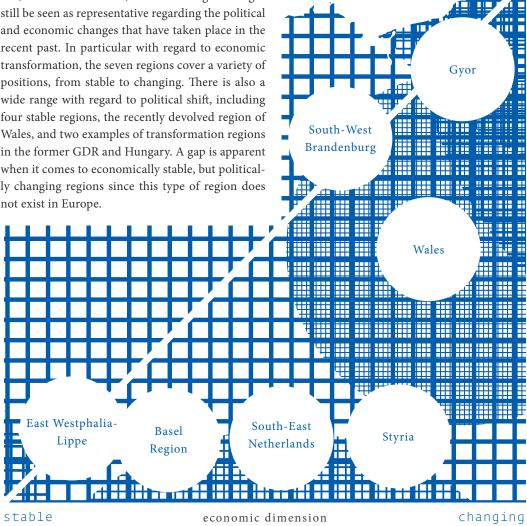


political dimension

stable

Thirty case studies per region may not be enough to come up with a completely representative picture of the region. For CURE, as a pathfinder project, the primary aim is not to produce studies of individual regions, but rather to generate hypotheses for further research. There is a deliberate empirical bias in all seven regional samples as CURE is primarily interested in patterns of regional engagement, and only to a lesser extent in the basic difference between those companies that are regionally engaged and those that are not. However, the selection of companies still reveals the main characteristics of each individual region and, in addition, significant interregional differences but also parallels with regard to the economic structure of the seven regions in terms of industry, size, age or ownership.

The seven regions certainly do not reflect all of the cultural diversity of European regions. But, as the chart shows, the CURE regions might still be seen as representative regarding the political and economic changes that have taken place in the recent past. In particular with regard to economic transformation, the seven regions cover a variety of positions, from stable to changing. There is also a wide range with regard to political shift, including four stable regions, the recently devolved region of Wales, and two examples of transformation regions in the former GDR and Hungary. A gap is apparent when it comes to economically stable, but politically changing regions since this type of region does The CURE project has focused on four research fields - innovation, quality of life, human resources, and environmental responsibility - which are the most appropriate for studying the interaction between regional and corporate cultures since there is evidence to suggest that the overlap between corporate and regional interests is most developed in these four fields. CURE assumes, moreover, that the interaction between region and firms is not limited solely to such material aspects as the regional infrastructure, but also extends to immaterial ones such as knowledge or symbolic goods (e.g. brands and images) since these are gaining in importance in a globalised world. O



## Key Messages

A significant number of companies are embedded in the region. The interaction between corporate and regional culture is a reciprocal phenomenon.

Instead of being 'footloose' in a globalised economy, the majority of companies interviewed in the CURE project are firmly embedded in their regional context. Companies' regional workforces, customers and networks are important 'channels' in which corporate and regional cultures interact continuously and on a daily basis. But embeddedness is also shaped through various forms of collaboration with local or regional governments, intermediate organisations and knowledge institutes, as well as through regional competition. In fact, in the majority of the 210 CURE cases the reality may be quite contrary to the public perception of footloose companies, with regional embeddedness actually helping to resolve corporate uncertainties generated by the process of globalisation. A large number of the firms interviewed are indeed acting in ways that suggest that longterm orientation, continuity and responsibility are important. The strategic option of relocation is therefore not taken up - not only for economic reasons (opportunity costs) but also for social and cultural reasons.

The percentage of regionally engaged companies in the CURE sample is on average quite high in all seven regions, and even over 50% in some of the regions. In terms of size, bigger companies score higher on regional engagement than medium-sized ones. With regard to the time dimension, the sample could confirm that companies are all the more engaged the longer they have been established in the region. There is also empirical evidence that foreign-owned companies (both listed and nonlisted) score significantly lower in terms of regional engagement. Moreover, in these firms regional engagement might depend more on the engagement of individuals and less on the firm's culture. But in the specific empirical case of the acquired regional company's management still being in place, and the acquiring foreign company having a culture that values diversity, acquired companies can contribute to positive interaction between external cultural influences and regional culture.

In any case, companies' regional embeddedness calls for a 'responsive' regional culture, which not only 'asks' for but also positively 'responds' to forms of corporate engagement - in such a way that these forms acquire a positive value, if companies and region engage in a meaningful dialogue. It is therefore crucial that there is a shared frame, which might best be seen as shared expectations. The phenomenon of regional embeddedness can thus be seen as a reciprocal one. A special form of reciprocity can be observed in the two regions of Wales and East Westphalia-Lippe, namely direct reciprocity between regional culture and regional products. In East Westphalia-Lippe, the particular regional culture gave rise to a number of long-established family companies offering high-quality products. These were probably created initially through local and regional customers demanding long-lasting, quality products, which in the course of time have come to sell well even in international markets. And in the case of Wales it is the region itself which has more recently come to be promoted as a brand, not only by regional firms offering Welsh-branded products, but also by the regional government.

On the other hand, the 'responsive' region works only as a potential, not as an automatic factor of economic success. Companies' regional engagement, in particular the engagement in any form of networking activities, is vital for the interaction be-

tween corporate and regional cultures to become a 'virtuous circle', in which corporate and regional performance reinforce each other. The results of CURE show that networking activities are basically more diversified than is assumed by many scholars who still focus on formal networks. At least three important network layers can be distinguished: (1) informal, local and job-related networks based upon a shared professional background; (2) peer networks of central regional actors based upon shared visions and common understandings of local and regional responsibility; and, not least, (3) formal networks based upon institutional membership. O

# Every region consists of a number of social spaces. Which social space regional embeddedness refers to might differ from case to case.

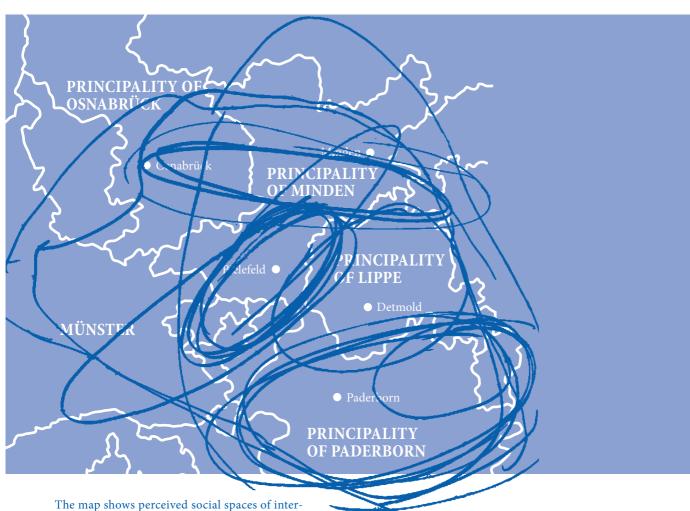
A region cannot be seen as one homogeneous space congruent with administrative boundaries, but as composed of multiple social or functional spaces. Every perception of space is structured by a set of expectations with regard to a regional actor's concrete concerns. Thus, a company embedded in the region is embedded in different, overlapping functional spaces. The CURE project analytically distinguished at least three types of social spaces within a region: the reference space, the vicinity and the regional space.

The reference space can be seen as the social space (generally the city) the company is located in, where the company's local identity comes from. It is the space in which problems and questions concerning the CURE research field of quality of life are predominantly treated. The vicinity space is larger than the reference space and was identified as the genuine functional space in which embedded companies primarily take part in human-

resources activities, for example in apprenticeship and staff-qualification activities. And, finally, the regional space can be seen as that social space in which innovation-oriented research and business networks are built, or in which concerted regional image activities take place. But this regional type of social space is more in the development phase than already well established.

Moreover, companies' social spaces of reference differ between different industrial sectors. In the Basel region, to give one example, different functional spaces can be observed between the pharmaceutical sector and the medical technologies sector. For the latter, the north-west of Switzerland is the main regional reference space because of its micromechanical tradition; the former is oriented to the 'narrow' Basel region, plus the Swiss Federal Institute of Technology located in Zurich. In addition, functional spaces are also influenced by traffic infrastructure of both the past and the present (in

particular motorways), by the region's or subregion's religious traditions (e.g. predominantly Protestant or Catholic), or by its political history, as illustrated by the map showing the princedoms of 1789 of what is now the East Westphalia-Lippe region with today's social spaces superimposed. Thus, it can be assumed that the social space of interest when regional and corporate cultures interact, and when, in particular, a company's regional embeddedness can be observed, differs from case to case.



viewed company representatives in comparison to the boundaries of principalities in the year 1789. Whereas the region around Bielefeld is a Protestant one, the principality of Paderborn, on the other hand, is Catholic. It is surprising to see that today's perceived social spaces match better with historical than with today's administrative boundaries.

Regional embeddedness is a dynamic process in which the right balance has to be found.

Paradoxically, regions have to renew themselves in an ongoing process in order to maintain continuity and regional identity.

Regional embeddedness works as a promising option for meeting a number of challenges facing every single company in a globalised world. The dilemma resulting from challenges imposed by the process of globalisation (e.g. a growing number of competitors and falling prices), on the one hand, and the dependency on its local base (e.g. with regard to a highly qualified workforce) on the other, can, for example, be balanced by the corporate strategy of being engaged in concerted research activities within regional networks.

However, there are no overall concepts for finding the best possible way of balancing corporate dilemmas. Quite the contrary: the process of regional embeddedness must permanently be re-arranged by both corporate and regional actors to become a 'virtuous circle', in which corporate and regional performance reinforce each other. A region's distinctiveness and economic success can therefore often be attributed to a combination of the best of different worlds. This is true, for example, of the South-East Netherlands region, where a traditional relationshiporiented culture, characterised by co-operative attitudes and flexibility, is combined with a more systematic and global 'engineering culture'; or in the Styria research region, where, in the metal industry, what traditionally have been vertically integrated corporate cultures are increasingly being complemented by co-operative and trust-based types of corporate culture.

The 'right' balance and combination of the best of different worlds depends, of course, on the initial situation of both the region itself and the companies located in it. With regard to firms' dilemma between competition and co-operation, there are, for example, regions with a high level of trust and

long-standing forms of co-operation (again as in the South-East Netherlands region), but there are also regions which are rather in the phase of building up trust and networks (like the two economically and politically shifting regions of Gyor and South-West Brandenburg). Thus, the interactions between both regional and corporate cultures might differ from region to region, from time to time, and also from firm to firm.

Regional embeddedness might best be seen as a dynamic process balancing both cultural change and continuity. As the empirical results of CURE indicate, those regions where the most productive interaction takes place are regions where corporate and regional actors most actively contribute to cultural change in joint initiatives, like networks, using a wide variety of mechanisms. Thus, those regions are most distinctive – and hence economically successful – in which the paradoxical insight has already existed for some time that regions have to renew themselves continuously in order to guarantee continuity and regional identity. O

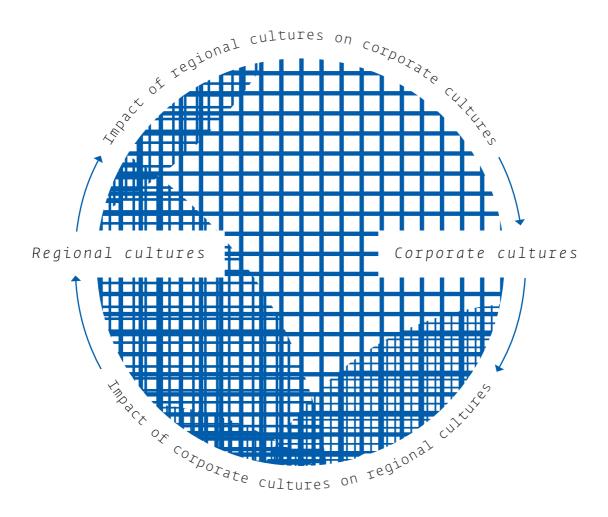
Regional engagement is a strategic option that can be realised by all types of companies. But a concrete cultural setting of interacting corporate and regional actors will be realised only if the actors develop a shared frame of reference as to where the region ought to be heading.

Regional engagement is not the one key that fits all locks, but a strategic choice that every single company has to make on its own. There may be challenges – like global markets, or problems getting ever more complex – which can be met promisingly by the corporate strategy of regional engagement. And there is indeed empirical evidence in the CURE sample to suggest that firms do so and that the majority of the firms investigated are indeed regionally embedded. But regional embeddedness is not a self-propelling trend, nor the one and only strategy.

Whether or not the option of regional engagement is useful for the region and its companies, whether or not the interaction between corporate and regional cultures becomes a 'virtuous circle' this depends on a complex set of - and interplay between - different structural factors. The CURE results suggest that a region's economic strength, its distinctiveness, is essentially based on its competence to combine continuity and change. This 'change competence' is characterised in detail by: a combination of regional identity and openness; a high level of trust and willingness to co-operate while not shying away from conflict; and long-term visions combined with flexibility to adapt quickly to a changing context. However, if this is accepted, the interaction between corporate and regional cultures can no longer be related to fixed scores on cultural dimensions, as traditionally static culture models suppose to be the case.

Although there are certain patterns in the types of companies that are more likely to be embedded and engaged in the region, a region's distinctiveness and change competence is not simply a matter of having a specific type of company in the

region. In all types of companies, corporate cultures can be developed which contribute to the dynamic process of regional embeddedness and the 'virtuous circle' of interaction between regional and corporate cultures. In fact, the 'virtuous circle' is more likely to occur when different types of regional companies interact with each other and with other regional actors, such as regional governments, intermediate organisations, knowledge institutes or the general public. In any event, the 'right' balance of a concrete regional cultural setting can only be arranged with regard to one specific task at one specific moment in time.



#### Tensions between corporate and regional cultures

Internationalisation — Regional identity

Competition — Co-operation

Corporate innovation — Fundamental research

Building large firms — Creating new firms

Technology push — Market pull

Focus on entrepreneurial skills — Focus on technical skills

Focus on quality of place — Focus on quality of life

Shareholder value — Stakeholder orientaton

Political decisiveness — Participative culture

## Policy Recommendations

CURE is about culture, cultural change and the interaction between corporate and regional culture. But no culture can be changed intentionally as it is something long-standing, deeply rooted in individual and collective minds, heterogeneous and dynamic. Thus, the potentials of a culturally diversified 'Europe of regions' need to be realised by combining bottom-up and top-down processes.

Every single region is part of a Europe-wide multilevel governance system in which competition policy, regional policy, and industrial policy set the agenda. Competition policy has to provide space for the rising network economy which is gradually replacing the classical mode of a primarily competitively oriented economy. Regional policy deals with the issue of spatial cohesion and has to focus - at first sight possibly paradoxically - more on the distinctiveness of regions than on standardisation. Industrial policy needs to take the regional embeddedness of complete value chains into account instead of limiting itself to traditional industrial sectors.

Successful regional development is primarily about 'change management' and the strengthening of regional distinctiveness. Instead of following the latest global trends that may lead to unintended consequences in the long run, it would be more appropriate to support the region's peculiarities and competences and to address its weaknesses. The tension framework developed in the CURE project can be used to provide insight into strong and weak points of a regional culture and into the extent to which it is necessary to restore the balance in potential fields of tension such as:

most likely to contribute to cultural change in the direction that will restore balance?

Policies to enhance a region's branding may contribute to a region's positive image and distinctiveness if the branding is characteristic of, and hence basically rooted in, the regional culture and, at the same time, makes clear how the region is connected globally. International publicly listed companies need to balance regional engagement and responsibility towards their international shareholders, but need to realise that they can be 'regionally embedded' in more than one region and can develop 'multiple citizenships'.

Regional success is not a matter of simply copying certain best practices. Actors in isolation or isolated initiatives cannot bring about and sustain regional competitiveness. This is also a matter of finding a dynamic balance: coherence between actions from corporate and regional actors is required in addressing the tensions, but although the efforts of corporate and regional actors need to be mutually attuned, they need not necessarily be mutually agreed.

In summary, with regard to the CURE question of how both corporate and regional actors and cultures interact, three key aspects of policy concern can be identified: (1) the need for a governance structure that allows space for distinctive forms of regional development based on regional cultures; (2) the communication of a regional culture's key aspects by using symbols, such as pictures, icons, stories, heroes, etc.; and (3) the strengthening of forms of regional interaction in such a way that these are not merely the aggregation of individual strategies, but the result of concerted action. O

Openness for external developments ——— Embeddedness in the region Developing own strengths, e.g. in R&D —

— Co-operation, e.g. in open innovation initiatives Improving quality of life — Improving infrastructure for business

Policymakers should be aware of these tensions and ask questions such as: What tensions need to be addressed? Which side of the tension needs particular attention? And which actors and mechanisms are

#### Outlook

The CURE sample suggests that a large number of companies are regionally embedded. The theory of the firm should therefore be revised and supplemented by genuine socio-scientific approaches that regard the reciprocity between firm and region as being crucial to reaching a better understanding of the regionally embedded firm, its functioning and culture. Furthermore, there is a need for empirical and theoretical research to consider the question as to why some firms are embedded in the region and others are not. And if it is true that companies' regional engagement is not the one key that fits all locks, but rather a strategic choice, then the question arises under what conditions a company's regional engagement can be deemed economically reasonable.

According to CURE, a region's distinctiveness is driven not least by the regional engagement of its companies. But those companies that engage do not always do so continuously, but also in the form of one-off engagement. What happens afterwards if regional companies engage only once, or withdraw from their continuous engagement? Is this not a problem of democracy when formerly corporate engagement has to be refinanced by the public budget in such a way that public funds will be lacking somewhere else?

The CURE project could show that network activities work as a key mechanism in regard to the interaction of corporate and regional actors. But informal, perhaps still unknown, forms of networks have yet to receive the same levels of attention from scholars as formal ones have. Thus, what is the role of non-formal, at first sight often invisible, networks for the process of regional development?

If the interaction between corporate and regional cultures is seen as a dynamic process, as the CURE results suggest, the question arises: How much change can a region and its companies cope with before regional and corporate continuity – and hence identity – runs the risk of being lost? Moreover, regional engagement, in particular in the form of networks, may lead to negative effects in such a way that global orientation is largely neglected by comparison with regional orientation. So, with regard to both the tensions of change/continuity and global/regional, which frame can reliably ensure the realisation of the best from the two different worlds?

As a key result of CURE, a region's 'change competence' to transform the interaction between regional and corporate cultures into a 'virtuous circle' depends on the mobilisation of regional potentials. But the assumption has to be made that economic potentials are not distributed equally among the array of European regions. The question therefore has to be asked as to how much interregional distinctiveness a socially coherent Europe can cope with. There might be a need for a new conception of regional development since interregional equality, in particular in terms of economic wealth, can no longer be realised by traditional company settlement policy.

Institutes involved Institute for Work and Technology (Coordinator), Gelsenkirchen, Germany o Széchenyi István University, Gyor, Hungary o Cardiff University, Cardiff, Wales o Institute for Advanced Study in the Humanities, Essen, Germany o Radboud University Nijmegen, Nijmegen, Netherlands o University of Applied Sciences Northwestern Switzerland, Olten, Switzerland o Vienna University of Economics and Business, Vienna, Austria

Publisher The CURE Project Consortium represented by the Institute for Advanced Study in the Humanities, Essen, and the Institute for Work and Technology, Gelsenkirchen Editors Patrick Linnebach, Stefan Gärtner Design Marek Eggemann Print Offset Company, Wuppertal, printed on Envirotop, 100% recycling Print run 1,500 copies Published December 2009

The CURE team Björn Ahaus, Dr. Nick Clifton, Prof. Dr. Philip Cooke, Prof. Dr. Ben Dankbaar, Alexandra David, Steffen Dörhöfer, Dr. Stefan Gärtner (Project Coordinator), Prof. Dr. Ludger Heidbrink, Dr. Lukas Lengauer, Patrick Linnebach, Prof. Dr. Miklós Losoncz, Prof. Dr. Christoph Minnig, Eva Nussmüller, Cordula Obergassel, Prof. Dr. Ulrich Pekruhl, Dr. Peter Prud'homme van Reine, Prof. Dr. János Rechnitzer, PD Dr. Dieter Rehfeld (Project Director), Prof. Dr. Dr. Peter Seele, Dr. Márta Szombathelyi-Konczos, Prof. Dr. Franz Tödtling, Prof. Dr. Heiner Treinen, Prof. Dr. Károly Varga



















