Accommodating Creative Knowledge

A literature review from a European perspective

ACRE report 1

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ACRE
Accommodating Creative Knowledge – Competitiveness of European Metropolitan Regions within the Enlarged Union

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ACRE

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1 TRANSFORMING ECONOMIES AND URBAN CHANGE

Economies and cities or urban regions are highly unstable entities. Change and transformation are normal for them. Economies change in terms of their structure. They either grow or shrink; and urban units do the same. The dynamics are tightly linked to each other and simultaneous, as well as lagged changes, are apparent when we compare developments over time. Different phases of economic development are linked in this way with particular forms or sorts of urban development. This holds for different eras. In the nineteenth-century it was the Industrial Revolution that gave birth to the typical factory town. These had their origins in Britain, France, and Germany, but have subsequently emerged (and are still emerging) in many countries across the world. In the twentieth century, the rise of Fordist mass production was associated with the growth of the large industrial metropolis. Cities like Detroit and Pittsburgh in the United States and Manchester, Birmingham and Sheffield in the UK, as well as larger and smaller cities and urban regions elsewhere, developed similar profiles. Yet this was not the final stage. Urban economic structures have been undergoing another marked shift, away from Fordist mass production regimes. The shift initially implied either a transformation towards more capital-intensive ways of production or a move to places with a less expensive labour force. At the same time, or subsequently, the type of production also changed. More flexible forms of production were adopted as well as new principles of 'just-in-time' and 'production-on-demand' delivery of products (Harvey, 1987). More flexible post-Fordist markets were replacing the rigid labour markets of the Fordist period. This too had its implications for the development of cities and urban regions. These shifting economic structures, the demise of some economic activities and the rise of others, all taking place in a context of changing routines of production, have widely impacted upon life in urban areas (Scott, 2006).

However, Europe presents a rather complex and controversial picture in this respect. While the demise of Fordism was evident in the 1970s in Western Europe, it did not happen in the East until the early 1990s. Ironically, the state-socialist system forcibly imposed after World War II also meant the conservation of the rigid Fordist-type economic system, with strong state-socialist impediments, throughout the whole of East Central Europe. This situation changed abruptly after 1989-90 when the centrally planned economies of state socialism disintegrated. Most of the former state complexes and large industrial monoliths went bankrupt and were either closed or divided into smaller, more flexible units. Simultaneously there was a boom in the service sector, especially in the fields of trade, tourism, financial and business services: East Central European economies followed the global trend of post-Fordist restructuring with some two decades of delay. This had serious implications for the path of urban development within Europe and it is relevant at this stage to note that

some authors have questioned the relevance of developing the creative industries in Eastern Europe (e.g. O'Connor, 2005; Primorac, 2006).

With each new wave of urban transformation the relationship between economic change and urban change also became more mutual. It was not simply a matter of urban change arising because of economic transformation; increasingly the urban economic structure and the transformation that took place was also affected by the characteristics of the city and region that had been developed previously. The longer and stronger the path an urban region had followed over time, the greater was the influence of that path on new developments.

Although the association between economic transformation and urban change holds true at all times, in this text we mainly focus on the most recent transformations and urban challenges. In this most recent period there is a growing belief that in order to understand why some places are able to attract new economic activities that represent growth sectors in the wider economy (and why some places are not) the urban region, and the cities in that region, and more particularly certain specific urban 'milieus' are gaining in importance.

This paper reviews a relevant selection of the literature – call it a state-of-the art review – of the creative knowledge economy. This is done by linking urban and economic transformations with several theoretical debates about what is important for understanding such transformations. A wide variety of new ideas, concepts and theories that are relevant for the understanding of changing urban economies are discussed. This is followed – in section 2 – by a discussion of globalisation, new agglomeration economies, creativity and the rediscovery of the value of geography, connecting the global and the local. In section 3, the clustering concept is introduced and its value and limitations are critically discussed. Following these comments we focus attention on two additional and highly relevant debates. The first debate concerns the relevance of path dependence in association with cluster formation and urban and regional development (section 4); the second debate refers to the relevance of so-called 'soft location factors' often associated with the emergence of creative industries and the creative class. More and more (managers of) cities believe in a future in which culture, creativity and innovation are the key concepts (cf. Hall, 1998; Lambooy, 1998). Apart from considering the bases for these beliefs, the relevance of soft factors for attracting creative and knowledge intensive activities is considered. These issues will be dealt with in section 5.

In section 6 we consider the view that 'soft factors', (including urban atmospheres, housing markets, social structure and social conditions) are of increasing importance in attracting new economic activities, particularly creative and knowledge intensive industries ('A' as a 'cause' for 'B'). It is equally important, however, to focus attention on that relationship the other way around: creative knowledge cities or even strategies designed to encourage such development may also have specific impacts on the 'soft factors', such as social conditions ('B' as a 'cause' for 'A'). In addition to theories and concepts and discussions on the mutuality of relations between economic

and urban change, we also briefly refer to some literature which focuses on spatial scale.

In section 7 we discuss whether the city or region or perhaps another unit is the most appropriate focus of attention. Finally, in section 8, we relate the debate to the European research project ACRE and formulate questions we feel remain unanswered by the existing literature.

2 GLOBALISATION, CHANGING AGGLOMERATION ECONOMIES AND THE REVIVAL OF GEOGRAPHY

Scale, structure, specialisation, mode of production

Since the 1990s, the importance of geographic location and context has enjoyed a revival in economic and economic-geographic theories. The traditional agglomeration concept as introduced by Marshall in the late 19th century and used to explain the rise of new urban-economic clusters and centres no longer applies in its original sense. Instead, we should speak of new types of agglomeration economies in the current 'post-industrial' or 'post-Fordist' era. Phelps and Ozawa (2003) have highlighted the main shifts in agglomeration factors from the late industrial to the post-industrial or post-Fordist era. They refer amongst others to shifts in geographic scale (from town-with-suburbs to the global city-region), shifts in the intra-regional structure (from hierarchically organised monocentric structures to polycentric structures that have a more complementary organisation), shifts in economic specialisation (from manufacturing to services), and shifts in the mode of production and the division of labour (applying new principles and increasingly complex labour inputs with major impacts for labour composition within firms and for relations between firms, within and between sectors and within and between cities and regions).

Creativity

However, it is not just economic structure, specialisation, mode of production and scale which are important. Creativity as such seems to have also gained status and be required to attain success in the economy and in urban development. Two Swedish scholars, geographer Gunnar Törnqvist and regional economist Åke Andersson, discussed the context of knowledge, creativity and regional development, and drew attention to the role of creative environment. In his paper Törnqvist (1983) developed the notion of 'creative milieu'. According to him such a creative milieu has four key features: information transmitted among people; knowledge (based partly on the storage of the information); competence in certain relevant activities; and creativity (the creation of something new as an outcome of the former three activities). Similarly to Törnqvist, Andersson (1985) pointed out six prerequisites for such creative milieu:

1) a sound financial basis;
2) original knowledge and high levels of competence;
3) an imbalance between experienced need and actual opportunities;
4) a diverse milieu;

5) good possibilities for personal transport and communication; and
6) structural instability (uncertainty about the future) facilitating synergetic development.

Malecki (1987) combined Andersson's conditions for regional creativity into three policy variables:

1) the presence of professional labour, representing competence;
2) urban agglomeration, or a threshold size of place, where cultural activity and communication is heightened, and
3) conditions that 'promote synergy or instability'.

He also commented that the first two of these factors were relatively easy to analyse, as did Florida and Tinagli (2004), at the national level in Europe using various indices. However, the third element was more difficult to identify, even when it was present. Nevertheless it seems to be closely related to the local environment or entrepreneurial climate of a place.

Many authors have come to the same conclusion - that creativity plays an outstanding role in urban and regional development. Among others Peter Hall (1998, 2000) has suggested that cities will be successful if they know how to profit from the historical lessons coming from Athens and London (if they want to enrich culture), Manchester, Berlin and Silicon Valley (if it concerns technology), and Rome, New York and Paris (if it concerns the organization of urban life). Hall also recognised the increasing coming together and co-mingling of technological innovation, cultural creativity and governance as the driving force of urban development in the 21st century. Only metropolitan regions that are creative all round will survive global competition.

Geography; the global and the local

The shift in geographic scale has been mentioned before, but has more than one dimension. Globalisation processes have an important impact but at the same time the unique and distinctive character of local spaces seems to have gained importance.
Globalisation has allowed many firms and cities to extend their reach well beyond immediate and national boundaries. According to Allen Scott (2006, p.12-14) cities with strong creative sectors – especially new-economy industries, such as high technology production, business and financial services, media and cultural-products industries, and neo-artisanal manufacturing – are in the vanguard of this trend. He relates the fortunes of these cities to four interrelated processes; all of them also related to globalisation processes:

- First, he argues that markets are expanding due to globalisation. The increase of output opportunities allows for deeper and wider divisions of labour at the point of production; this stimulates trends toward further and more intensified urban agglomeration, because of the external economies of scale and scope that are connected with these processes. Therefore, globalisation goes hand in hand with the growing importance of metropolitan regions.

- Secondly, the type of new economic activities, especially in creative industries, increasingly seems to be characterised by distinctiveness or even uniqueness and this offers them a strong comparative advantage. Scott argues that this will result in varieties of monopolistic or imperfect competition.
- Thirdly, he identifies the fact that many of the most dynamic firms in creative cities participate in international creative partnerships (joint ventures, strategic alliances, co-productions). By bringing diverse talent together – using the opportunities globalisation is offering – these firms may be able to produce new competitive products.
- Fourthly, he explicitly indicates a process that operates in the opposite direction. Because of better connections across the globe, it has become easier to use outsourcing as a way of achieving reductions in production costs; certain standardised activities can easily be produced in sub-centres, wherever they are located (Henderson and Scott 1987).

Krätke (2003) studied the above processes and their interrelations in the production and distribution of cultural goods, in particular the media industry. Increasingly, media has become a global business, in which multinational media conglomerates have their branches all over the world, but show a strong tendency to cluster their headquarters and main production facilities in a highly selective group of 'global media cities'. Through the worldwide networks of these global media cities, a globalised lifestyle is promoted which is largely determined by the dominant lifestyles of these cities. Krätke shows that the top of the global media cities hierarchy is, at this stage, exclusively North American and European; global, continental, national, regional and local scales demonstrate a complex interplay in producing this global media landscape. In a similar 'glocalised' vein, Malecki (2000) also concluded that knowledge, rooted in regional and local cultures is fundamental to understanding both the agglomeration and clustering of economic activity and the ability of cities and regions to increase their competitiveness. Due to, or in some cases in spite of, globalisation and the transportation and telecommunication revolutions, the importance of the geographic location, the character of the metropolis and districts within and proximity to other firms has not declined. Rather, it seems to have become more important. In a recent study Stolarick and Florida (2006) also stressed the importance of urban density, arguing that non-market interactions depend heavily on spatial proximity. Drawing on the example of Montréal they argue that high levels of density and creative-class employment create conditions in which innovations generated by interactions between individuals are more likely to occur.

Many concepts and explanatory frameworks have recently been introduced and discussed to analyse and explain the new meanings of the local and regional systems. Examples include 'learning regions' (Morgan 1997; Fürst 2001), 'industrial districts' (Asheim, 2000), 'regional innovation systems' (Cooke et al. 2004) and 'neo-Marshallian nodes' (Amin & Thrift 1992). These new realities should, however, not be regarded as separated from global processes. Within the new explanatory frameworks, many economists and economic geographers tend to stress the ability of

localities to link globally available and explicit 'codified knowledge' to specific local 'tacit knowledge' (Lambooy 2002; Helbrecht 2004). Local environments that manage to connect the local 'buzz' to the global 'pipelines' might be the most innovative and economically successful in the long run (Bathelt et al. 2004; Storper & Venables 2004; Simmie et al. 2002; Simmie 2005).

3 CLUSTERING

Few of the concepts referred to above have been as influential in the academic and political debate as the cluster concept. As early as the end of the 1970s Italian economists (Beccatini, 1979) and French sociologists (Ganne, 1983; Raveyre et Saglio, 1984) showed that small and medium-sized enterprises specializing in the same industry were forming a system in which both competition and cooperation relationships were taking place. These were based on social relations and shared conventions. While the Italian school designated these systems as 'districts', based on the reactivation of an old Marshallian notion, the French used the expression 'local industrial systems'. Over the past 25 years, a growing number of studies have shown that there was a great variety of this phenomenon occurring in different contexts ranging from Silicon Valley, described as 'technological district' by Saxenian (1981), to 'cultural industries' (Scott, 2000).

The cluster concept as defined by business economist Michael Porter might be seen as an overarching analytical framework encompassing the above. In his earlier work, Porter focused mainly on the external conditions for firm competitiveness at the national scale (Porter, 1990). In more recent studies, he has shifted his interest to the sub-national scale and increasingly emphasised the role of geographic location and context. Porter points at the emergence of clusters at this sub-national scale. He defines clusters as "critical masses – in one place – of unusual competitive success in particular fields" (Porter 1998, p. 77). More specifically he states: "Clusters are geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition" (Porter 1998, p. 78). Among these 'other entities', Porter mentions suppliers of specialized inputs and infrastructure, customers, manufacturers of complementary products, companies related by skills, technology or common inputs, governmental and knowledge institutions, and trade associations.

Porter's cluster concept rapidly became dominant in academic and policy discussions about urban, regional and national competitiveness. Encouraged by success stories like the knowledge intensive ICT cluster in Silicon Valley (Saxenian, 1994), the Cambridge region (Keeble et al., 1999) or the Third Italy (Bathelt, 1998), many cities, regions and countries enthusiastically started to develop cluster policies.

We believe that the cluster concept is of considerable value and should be taken into account in discussion of the relationship between urban change and economic change. The cluster concept has, however, been repeatedly criticised. Recent studies suggest

that the significance of localized business networks or clusters might be exaggerated and that a broader perspective of city-region competitiveness is required. As Turok (2004) notes city-regions need to be understood as part of wider economic systems, and external business connections. The efficiency of communications and transport links should be taken into account, as well as wider national and international (e.g. EU) policies.

Among the many questions and doubts concerning clusters, the following are particularly relevant:

- Can the cluster concept be generalized beyond success stories like Silicon Valley and Third Italy or successful branches like biotechnology?
- What is the added value to existing agglomeration theories?
- How exactly is knowledge and learning exchanged within clusters?
- As clusters have been identified at virtually all geographic scales, to what extent can we really speak of 'geographic concentrations'?
- Can clusters be created or strengthened through policy? After all, clusters like Silicon Valley generally did not emerge because of deliberate policies, but rather because of innovative firms or individuals, fortunate events, or even sheer coincidence.

(Cumbers & McKinnon, 2004; Martin & Sunley, 2003; Boschma & Kloosterman, 2005)

Some additional caution may be appropriate in relation to the issue of scale. In urban geography textbooks smaller areas are very often designated as having a specific functional structure. In many urban regions highly complex bundles of economic and social activities can be found at a small scale. Examples in the creative industries include media-clusters, jewellery quarters, arts conglomerates and entertainment clusters. Many of these can be found in rather small areas, in specific parts of cities or urban regions where special features can be found; and their economic relations may be restricted to a small part of town. However, these new economic activities are often rather labour intensive (Scott, 2006; p. 6) and this implies that a large labour market may be required. Consequently, they have to be embedded in larger cities or urban regions in which a wide variety of professions and skills can be found.

Notwithstanding academic critiques of the cluster concept, clusters have become a prominent element of many national, regional and urban development strategies and will probably remain so in the coming decades. Currently, clusters related to creative and knowledge-intensive activities are among the 'most wanted' targets of cities, regions and countries in the advanced capitalist world. Cities and regions trying to develop, facilitate or promote concentrations of creative, innovative and/or knowledge-intensive industries in order to become more competitive have attracted considerable interest. 'Cluster policy' has become one of the most common instruments to transform an urban or regional economy into a creative and knowledge-intensive economy. Different concepts of 'cluster' are evident in the literature. These are the creative cluster or quarter as a local and well defined physical entity and space where industries locate in one building or neighbourhood (for

example the Custard Factory in Birmingham, the Westergasfabriek in Amsterdam, or Manchester's Northern Quarter – see Mommaas, 2004); and the cluster as expressed by Porter, which is an industrial sector definition usually wider in space (Wu, 2005).

So far, however, the main interest of both researchers and policy communities has been in creating and facilitating networks between companies and institutions relevant for the clusters being promoted. The spatial and socio-cultural context of these clusters in the making is most often a city or metropolitan region but this dimension has so far been largely neglected in cluster research and cluster strategies. Before focusing on the specific location preferences of creative and knowledge-intensive industries and the possible role of the metropolitan built environment and socio-cultural climate in determining these preferences, this discussion turns to a second important concept in the theoretical framework: the notion of path dependency of clusters as well as of cities and regions.

4 PATH DEPENDENCY, CLUSTER FORMATION AND URBAN AND REGIONAL DEVELOPMENT

The growth of interconnections across the world, the revolutions that have occurred in the information, communication and technology spheres, and the internationalisation of activities, initially led many people to think that firms, people and processes would become footloose as part of the 'global village'. According to Manuel Castells (1989) the world would change to spaces of flows instead of places. However, the transformations associated with globalisation and increasing interaction did neither mean the end of places, nor the end of geography. On the contrary, it soon became clear that places still mattered and perhaps increasingly matter. Concepts like 'path dependency' and 'embeddedness' of firms and people suggested that spaces of places are highly relevant indeed (Storper, 1992; Kloosterman and Lambregts, 2001; Musterd, 2004).

'Path dependency' is an increasingly frequently used term in the social sciences, but its definition and application often remains rather vague. In the broadest sense, the concept refers to a notion that 'history matters'. While the importance of history can hardly be overstated when explaining the present and exploring the future, path dependency should have a more concrete meaning if it is to be useful in analysis of urban and regional dynamics. Pierson (2000) and Mahoney (2000) offer narrower and more precise definitions that could form a starting point for research. Pierson proposes the idea of increasing returns: "…. the probability of further steps along the same path increases with each move down that path" (2000; p. 252). Mahoney states that "path dependence characterizes specifically those historical sequences in which contingent events set into motion institutional patterns or event chains that have deterministic properties" (2000; p. 507). Next to history, path dependency also has cultural and institutional dimensions. In this regard we should first refer to the role of regionally rooted institutionalized cultural knowledge vs. global forms of knowledge with all its various forms of knowledge/practices and actions. The role of formal and informal institutions is considered as extremely important in order to understand relevant forms of entrepreneurial and corporate practices in the field of production, communication, and learning. A second institutional dimension of path dependency relates to institutional and organizational change of local, regional and national political-economic systems. Social and political scientists studying institutional and organisational change in East Central Europe frequently use the concept of 'path dependency'. As Harloe (1996) argued we cannot accept that 'state socialism' was a cross-nationally identical phenomenon, or that a similarly uniform method could have been applied for the transition. Privatisation and institutional change in these countries

also did not necessarily result in the establishment of a West European type market economy or social and cultural milieu.

Two applications of the path dependency concept have significant relevance for research related to the creative economy. First, economists and economic geographers have studied path dependency in the creation and reproduction of economic branches and networks of interrelations at certain locations, often in the shape of clusters (Boschma and Kloosterman, 2005; Kloosterman and Stegmeijer, 2005; Scott, 2004; Storper, 2004). This approach is still relatively new and in process of development. It is also closely related to another recent development in economics and economic geography: the revival of evolutionary economics (Lambooy, 2002; Simmie, 2005).

The first findings of economic-geographic path dependency studies point towards the significance of (unintended or intended) events, 'institutional thickness' and 'windows of opportunity', but also of talented and charismatic persons for path creation and reproduction of clusters. A networking process in which various types of relationships between actors are established is a key element of cluster formation. A prominent term in the cluster debate in this respect is 'embeddedness'. The notion of 'embeddedness' was initially used by Polanyi (1944) to designate the fact that in traditional societies, commercial trade depended upon social relations. It was later popularised by Granovetter in a well-known article on social networks and economic activities (1985) and further developed by White (2002) in his analysis of the market. The notion of embeddedness allows conceptualisation of both the links between individual stakeholders' logics and relationships and exchanges and relationships of organisations and other collective bodies. This also touches upon work done by Grabher (2002, 2004) where he stresses the importance of interdependencies between projects, personal ties, local relations and organisational affiliations. This introduces a criterion for differentiation, according to the principal origin of the relationships that are being used: including family (traditional districts), professional groups and university milieu (technological systems), or professional groups only (systems based on tertiary or cultural activities). In a recent study Taylor (2005, p. 70) referred to embeddedness as: "the incorporation of firms into place-based networks involving trust, reciprocity, loyalty, collaboration, co-operation and a whole raft of untraded interdependencies".

The architecture cluster of Rotterdam might serve as an illustrative example of path creation and embeddedness. In this context, Kloosterman and Stegmeijer (2005) stress the importance of the Dutch Architecture Institute, Delft Technical University and the long tradition of experimental and innovative architecture and urban design in Rotterdam but they also identify the 'Koolhaas effect'. Not only did Rem Koolhaas become a leading architect himself, but he also created a productive and inspiring working environment for many new architects in his Rotterdam firm since the 1980s. Many of his former employees have subsequently started their own firms, most often in Rotterdam.

A second path dependency approach is found in urban and regional geography and urban sociology. The attention given to the historic development paths of cities and regions and to the consequences of these paths for recent and future development has a long tradition and seems to have reclaimed a more prominent position in recent years. This revival of path dependency approaches is linked to the dramatic effects on cities and regions of global economic restructuring. Many cities and regions have recently been, and still are, searching for a new economic profile to stay or become internationally competitive. Especially for cities and regions that until recently specialised in manufacturing and were cut off from global restructuring, this means having to 're-invent' themselves to a considerable extent.

This especially holds for former state-socialist countries, where spectacular transition was launched by the political changes of 1989-90. Analysing urban and regional development during state socialism, Enyedi (1996, 1998) argued that state socialist urbanisation was only a short distance away from a universal and broadly similar process of industrially based urbanisation. 'Socialist urbanisation' was merely a special variant of a more general model of global urban development. Recognising the relevance of path-dependency in East Central European transitions we can also say that former state-socialist cities have retained their distinctive physical, social and economic structure: they do not just change overnight into capitalist cities.

Analyses of recent strategies for urban and regional redevelopment (amongst others Shaw, 2002; Savitch and Kantor, 2003; Bontje, 2004; Robson, 2004; Glaeser, 2005) make clear that some former manufacturing centres have done remarkably well, while others are still struggling for recovery from the demise of manufacturing. Cities and regions with a long tradition in trade, finance and/or creativity will often have more favourable points of departure for the delivery of effective creative knowledge city strategies. This does not necessarily mean that they will eventually be the winners of the competition for creative and innovative companies and talent. Their path dependent profile may not be the right one and existing profiles are hard to change. With sufficient investments a city may be able to create the appropriate links to the electronic superhighway, but the right urban atmosphere and particular cultural settings that may be required for the attraction of specific activities, are much harder to create.

Sometimes, cities have to be helped to recognise their own historically grown qualities. In cases like Amsterdam and Munich, for example, the creative knowledge potential was only recently recognized and clear strategies are still only developing hesitantly (Musterd and Deurloo, 2006; Musterd and Ostendorf, 2004; Bontje and Crok, 2005). The situation is even less encouraging in the cities of East Central Europe where the role of 'soft' location factors in urban and regional development policy was completely neglected before 1990, and is still not fully recognised.

Path dependency often largely explains the different potential of cities or urban regions; however, most existing analyses hardly go beyond the description of historical processes. To become more analytical, the notion of path dependency in

urban studies should be translated into more concrete dimensions that are studied separately as well as in terms of how they interrelate:

- The economic dimension: to what extent does economic structure at a certain time allow a city/region to adapt to changing national/international demands and trends?
- The socio-demographic dimension: the composition of the urban/regional population (age/educational/ethnic groups), how this composition came about and what chances and drawbacks this composition offers for urban/regional development.
- The institutional dimension: not only should the role of organizations (governments, trade associations, large companies, universities, citizen movements etc.) and the mode of governance be taken into account, but also norms and values and historical roots. Does a city or region, for example, have an innovative, progressive and/or entrepreneurial spirit, or is conservatism more dominant in policy and business?
- The built environment: the historically developed city structure and layout, accessibility, transport infrastructure, housing market structure, cultural heritage, and public space. A possible path dependency approach for this dimension is to study the layers of spatial organization forms from the past and their effects on the current and future development prospects of regions, cities and neighbourhoods (Kesteloot, 2003).
- Critical events, decisions and/or individuals with a significant impact on urban and/or regional development.

5 'SOFT' LOCATION FACTORS, THE EMERGENCE OF 'CREATIVE INDUSTRIES', 'KNOWLEDGE INTENSIVE INDUSTRIES' AND THE 'CREATIVE CLASS'

In addition to the cluster concept and closely related concepts of 'embeddedness' and path dependency, there is also a debate in which so-called 'hard' and 'soft' location factors are key elements. In principle path dependency may refer to both of these factors. If, for the moment, we shift our focus to the hard and soft location factors, it becomes clear that in the past, companies and investors strongly relied upon the 'hard' factors. Such factors include availability of certain resources including the labour force, rent levels, availability of office space, accessibility, local and national tax regimes, and other regulations and laws affecting the functioning of companies. Subsidies and/or tax abatements in less developed regions (for example the EU Regional Funds and the German regeneration programme for the former GDR) can also be included in these 'hard' location factors and they have frequently been shown to make a difference in company relocation decisions. Added to this, large trans-national corporations in particular are always in search for an 'address' for their global, European and national headquarters. They want (or even need) to be in global cities such as London or Paris, or at least in leading European cities in the world city network. Nearness to global financial centres, a major international airport, telecommunication services and other service suppliers and clients are important considerations, but the availability of an international labour pool is at least as important (Sassen, 1991; Sassen, 2002; Scott, 2003; Derudder et al., 2003; Taylor, 2004).

However, there is increasing recognition of the limitations of relying too much on these so-called 'hard' location factors. This recognition is apparent both in academic attempts to explain company location behaviour and in political strategies to attract companies. While the 'hard' and more classic location factors are still very important in explaining the location patterns of companies, the academic debate has shifted towards a growing emphasis on 'soft' location factors. Such 'soft' factors include, for example, an attractive residential environment, tolerance of alternative lifestyles and/or ethnic diversity, a lively (sub) cultural scene, the 'look and feel' (Helbrecht 2004) and the creation of (preferably public) meeting places for business and leisure purposes. Many associate this potential shift in location preferences of companies from 'hard' to 'soft' with the global transformation from a Fordist, production-based economy to a post-Fordist, knowledge-based economy. The concepts mentioned in particular in this context (which were also referred to above), 'creative industries' 'knowledge intensive industries' and 'creative class' deserve some elaboration:

'Creative industries'

The first concept is the rise of the 'creative industries' as an important element of urban and regional economic growth in the developed world. The rise of creative industries has been attributed to the demise of the Fordist mode of production, which was based on cost imperatives and secured through a national, Keynesian regulatory regime. With integrated global markets and the advent of new technologies there has been a search for new sources of competitive advantage (Rantisi et al., 2006). Empirical studies have highlighted the character of creative industries, being generally small, agile firms that operate within a networked chain of interrelated activities. In addition to creation and production, marketing and distribution are also key aspects of this chain, critical to commodities that rely on capturing (and manipulating) consumer sensibilities (Hirsch, 1972).

Researchers including Sharon Zukin (1995) have also stressed that the symbolic value of products has become at least as important as their practical uses (also Lash and Urry, 1994). Products have to express the image of companies and match increasingly individualistic lifestyles. This development contributes to a rapid growth of economic branches that specialise in creating this symbolic value: designers, architects, artists, printed and digital media, and segments of the ICT sector ('ICT content'). These branches have recently shown strong concentration tendencies in a highly selective group of metropolitan regions and within these regions in specific urban sub-districts. They are increasingly analysed using the concepts of clusters and path dependency discussed in the preceding sections (Scott, 1997; Scott, 2004; Kloosterman, 2004; Musterd, 2006). The 'hard core' of these creative industries, consisting of the economic branches mentioned above, is most often labelled 'cultural industries'. However, these cultural industries have intensive links with several other creative economic branches, as well as with creative departments of various production activities. The wide array of creative activities developed around the cultural industries is most often called 'creative industries'.

In recent years there has been a shift towards preferring the term creative industries rather than cultural industries (Cunningham, 2002; Garnham, 2005). Here we focus our attention on creative industries as a whole rather than only the cultural industries, even though a precise definition of what is and what is not included in the creative industries remains a difficult task. Hartley (2005) and CCPR (2003) provide an interesting summary of the debate so far in terms of definitions and operationalisation of these concepts (see classification presented by Hartley (2005) in Table 1).

Table 1 Creative industries - Different definitions

Creative industries	Copyright industries	Content industries	Cultural industries	Digital content
Largely characterized by nature of labour inputs: 'creative individual'	Defined by nature of asset and industry output	Defined by focus of industry production	Defined by public policy function and funding	Defined by combination of technology and focus of industry production
Advertising Architecture Design Interactive Software Film and TV Music Publishing Performing Arts	Commercial art Creative arts Film and Video Music Publishing Recorded media Data-processing Software	Pre-recorded music Recorder music Music retailing Broadcasting and film Software Multimedia services	Museums and galleries Visual arts and crafts Arts education Broadcasting and film Music Performing Arts Literature Libraries	Commercial arts Film and video Photography Electronic games Recorded media Sound recording Information storage and retrieval

Source: Hartley (2005, p. 30)

'Creative industries' appears to be the broadest category that largely captures the other four categories he distinguishes. For our project, we decided to apply the creative industries definition of the UK Department of Culture, Media and Sport (DCMS). This definition only differs slightly from Hartley's; DCMS added the art and antiques market and crafts to Hartley's list of creative industries.

'Knowledge intensive industries'

A large share of these creative industries is highly interrelated with knowledge intensive activities. For example production in the spheres of media, entertainment, design or architecture, requires many high-skilled and specialised employees. In that sense creativity and knowledge are strongly interwoven. However, when we discuss the relevance of hard and soft conditions or the cluster theories for the attraction of new economic activities in the creative and knowledge intensive industries it makes sense to expand the focus of attention to sectors such as ICT in general (other software companies), the financial sector, law and other knowledge intensive business services, as well as the research and development and higher education sectors. This is not just because parts of these economic activities will overlap with creative industries, but also because there will be essential relations between these knowledge intensive sectors and creative industries. It is interesting to investigate the conditions for these sectors as well and to consider to what extent the specific milieux for (smaller) firms in the creative industries are also relevant for other knowledge intensive industries of similar size. It may be true that conditions differ between knowledge intensive industries on the basis of the level of creativity that is involved in the production processes. It may also be true that the level of 'rooted-ness' of activities plays a role in the determination of what relevant conditions are. Newly developed ('un-rooted') economic activities might also have more preference for newly developed locations compared to long established activities.

The 'creative class'

A third concept rapidly gaining popularity is the 'creative class' of Richard Florida (Florida 2002). Analysing the role of creativity in economic development and urban and regional success Florida came to the conclusion that Talent, Technology and Tolerance (3Ts) are important conditions. In his 3T model he argued that growth is powered by creative people (Talent), who prefer places that are culturally diverse and open to new ideas (Tolerant), and the concentration of 'cultural capital' wedded to new products (Technology). All these together result in 'business formation, job generation and economic growth'. Florida claims that we are entering the 'creative age', in which people with original ideas of all sorts will play a central role. He is not just thinking of technical geniuses inventing products, but also of people developing concepts and images. According to Florida (2002, p.8) "The creative class is comprised of a 'super creative core', which consists of a new class of scientists and engineers, university professors, poets, actors, novelists, entertainers, artists, architects and designers, cultural worthies, think-tank researchers, analysts and opinion formers, whose economic function is to create new ideas, new technology, and/or new creative content". Beyond this core group, the creative class also includes a wider circle of talent working in knowledge-intensive industries. The latter industries include high-technology sectors, financial sector and juridical services. Those who are employed in these sectors are often engaged in complex problem solving that involves a great deal of independent judgement and creativity and requires high levels of education or human capital. Florida was not the first to come with these ideas. Scott (2006), for example, refers to Gouldner (1979) who wrote about 'the rise of the new class' almost thirty years ago. He referred to the upper employment strata and a combination of highly educated and technology driven 'class'.

While Scott and others researching the 'creative industries' focus on the clustering mechanisms of creative companies, Florida tries to grasp why creative and talented people settle in a certain city or region. In his view, what cities and regions should attract is not the creative companies, but the people that work for these companies or might start such companies themselves. Referring to Jane Jacobs (1961; 1970) as one of his main inspiration sources, Florida claims that creative and talented people prefer to live in cities with a diverse populations and a tolerant atmosphere. In more recent work Florida (2006) added that "talent is not a stock, it is flow". Talent can move from one place to another. Cities might try to attract talented and creative people but they could also try to invest in 'growing' them. The latter requires a tolerant climate. "To create a growth region, you need the kind of place that people want to come to and can easily get to, where they can lead the lives they want and express themselves freely" (p. 26). Saris and Brouwer (2005) summarize the change as follows: "Formerly labour was tied to the company by the corporate culture, whereas now talent detaches itself and looks for the environment that is most suitable for its further development. The adage 'labour follows company' has been turned around and has become 'company follows talent' " (p.113).

As in the global cities and world city network of Sassen and Taylor, the attraction of a 'talent pool' through (inter) national migration plays a prominent role in Florida's creative class concept. The most important target groups for 'creative knowledge city' strategies are, according to Florida: higher educated graduates and workers in knowledge intensive and creative industries, managers of creative and knowledge intensive companies, and trans-national migrants. These are also the groups we will study in the ACRE project.

This brings us back to the importance of soft location factors. Both the emergence of the creative industries and the supposed rise of the creative class suggest a new type of creativity and knowledge-based economy, in which 'soft' location factors play an increasingly prominent role. However, what exactly these soft factors are or can be is less clear. In a recent study Roberts (2006) discusses the concept of 'cultural milieu' as used by Florida (2002) and Landry (2000). Landry stresses the institutional and economic context, while Florida focuses on the physical structures and public spaces where people can meet, including bars, cafes and restaurants. Both, however, seem to stress that public and semi-public spaces are relevant for a city to attract talented people. In an increasingly internationally connected economy, place-specific soft factors may also result in more fine-grained spatial selection processes. Very difficult to measure concepts, such as 'urban atmospheres' or 'social climates', but also slightly less vague concepts, such as the quality of the housing stock and neighbourhood and the functioning of the housing market are essential dimensions in this discussion. It may be true that potential talent will opt for another city; perhaps even in another country, if an initially preferred city does not offer the right combination of conditions. For example, if the housing market does not offer what the creative class wants, talent may move to another place. There is little work that has directly addressed what housing factors are important here. Reference could be made to price and affordability, dwelling size and mix or to innovation in style and design or to neighbourhood character. In the city of Amsterdam issues related to the housing market have been revealed in several studies (see Musterd, 2004; Bontje and Musterd, 2005). Due to a combination of long waiting lists and rapidly rising housing prices, the inner city in particular has become virtually inaccessible for young starters in the housing market, resulting in an ageing inner city population, but also, which is worse, in a lack of suitable places where creative talent would like to settle.

If residential decision making processes by creative talent are becoming much more important and if, consequently, the location preferences of managers of companies and of their employees become key factors, this demands a radical change in local and regional economic development strategies. Such a shift would also have major implications for the ambition to increase the EU's competitiveness as a knowledge-based economy. However, Florida's ideas have meanwhile met with increasing criticism. As argued by several geographers and economists (Musterd & Ostendorf 2004; Hall 2004; Montgomery 2005; Bourdin 2005; Glaeser 2004; Sawicky 2003; Storper 2004), the existing research evidence is far from convincing. Although there are impressive examples of growth of the share of creative industries in cities such as Milan (Salvemini et al. 2005; Amadasi and Salvemini 2005), we still do not know

whether the rise of the 'creative class' and the 'creative industries' is a long-term trend or rather the next 'hype' in the footsteps of the 'new economy' of the late 1990s. On the other hand, from a historical point of view, one might wonder to what extent the current focus on clusters of creativity is new, as the world's great cities throughout history have always been centres of creativity and innovation (Hall 1998; Simmie 2005). This, however, also suggests that creative cities or regions can hardly be created 'out of thin air', as Hall (2004) stressed in an attack on Florida's creative class concept. That would also imply that the conditions for new economic and urban growth will not be changing as rapidly as is sometimes suggested. Peter Hall's criticism especially relates to is Florida's suggestion that urban transformation can be realised almost 'overnight', for instance by scattering the notions of tolerance, openness and diversity over a city: Hall argues "…building innovative or creative cities was a long and slow, sometimes agonizingly slow, and … the outcome could by no means be guaranteed or ordained in advance" (Hall 2004, p. 257). Hall notes that creating the necessary preconditions can be very time-consuming. Although things will not change overnight, the logic of path dependence is that the chances of a city or region specialising in creative and innovative activities and attracting the talent needed are considerably larger where there is a long tradition of creativity and innovation. Moreover, even though changes are slow, cities have to adapt to new circumstances and new opportunities.

Despite the highly critical reception of Florida's creative class concept, several authors could not resist the temptation to provide a similar type of 'recipe' for building a creative city. Montgomery (2005) for example concludes that if cities want to be successful in the future, they will need to promote artistic, design and technological skills, back local talent, grow the creative industries, offer a good cultural and artistic life and organise services such as education to support all of this. He also stresses that "the key figures in all of this are the visionary political leaders and the artists, investors and entrepreneurs, the former creating the conditions for the latter to invest and prosper" (p.343).

Creative cities, quarters, and clusters: the debate so far

At this point we can usefully summarise the main attributes that are suggested, in the 'prescriptive literature', as associated with successful creative cities, quarters, and clusters. To avoid confusion, the following does not express our view on this, but the impression that the literature discussed above has left on us. First, those who advocate turning cities into more creative places stress attributes like:

- *Distinctiveness and authenticity:* these are seen to emerge from a city's own history, cultures, experiences and will be apparent in the physical fabric/urban design, cultural amenities, commercial offerings (from bars to shops etc);
- *Small scale/fine grain development:* the importance of small shops, independent operators as opposed to the big box/mega mall format; these characteristics are essential to interesting, sustainable urban districts;

- *Vibrant and distinctive neighbourhoods:* specific areas within cities that embody many of the qualities highlighted above; places that mobile, young people especially will want to live in and visit; whether these are very central or more suburban they have character and a 'real' atmosphere;
- *Appeal to younger people and their interests/lifestyles:* the interests of mobile young 'talented people' are more prominent but the urban qualities sought by them are also of appeal to older people even if they do not use the facilities as much – it creates an attractive, lively environment in which to work and live.
- *Diversity of population and lifestyles:* this refers to ethnicity, cultural preferences etc; people would be drawn to places that exhibit diversity and create tolerant conditions for newcomers/outsiders to fit in (ranging from visible minority migrants to artists to gay communities etc…); also, people like Florida consider it important that such diversity and tolerance is highly visible, particularly manifested in distinctive neighbourhoods and urban places of the sort mentioned above.

If these attributes would indeed contribute to more successful and competitive cities, they would also have significant implications for urban planning and development-related initiatives. These implications have already been partly effective in influencing the content of actual plans and policies. Even though the evidence about the relevance of creative city attributes discussed above is still unconvincing a widespread ambition to encourage cultural or creative quarters has emerged. The approach to these tends to reflect the dimensions referred to above and 'creative quarter planning' is often based on the following assumptions regarding location preferences of the creative industries:

- Usually but not always they are located in central or inner city districts with some historical built environment and aesthetic qualities in the physical fabric and overall urban realm;
- Proximity to city centres and transport links/meeting places are important;
- They are seen as fertile breeding grounds for new creative industries firms, products, innovations, consumption activities which value the general appeal as a place to live and work;
- They play a direct role in generating new business activity and an indirect one supporting a city's broader quality of life/distinctiveness attributes;
- They are highly recognisable areas that form key parts of a city's 'brand';
- Where successful, such quarters are underpinned by the interaction of different elements and activities in close spatial proximity; having a critical mass of residential population in the area is also seen as an important element to support this mix and diversity.

On the other hand, there are also suggestions or even recommendations concerning how to foster creative clusters as an industry. The geographic scale of these clusters need not be a quarter; it could also be a city, city-region, or even larger area. According to Wu (2005), these creative clusters should be associated with:

- Outstanding university research and commercial linkages;
- Availability of venture capital;
- Anchor firms and mediating organizations;
- Appropriate base of knowledge and skills;
- Targeted public policies;
- Quality of services and infrastructures;
- And (again) diversity and quality of place.

At the same time there are a series of reservations and cautions associated with strategies related to the above. These relate to:

- The extent to which these quarters can be created from scratch against organic growth.
- Creative quarters that are primarily business-centred tend to have a mono-functional feel and fail to achieve the much wider potential seen in other cases – and longer-term sustainability is less certain. Managing an often chaotic mix of – preferably authentic – activities, and users day and night is tricky.
- Even those areas that begin with organic, locally rooted activity and development inevitably generate land/property appreciation and speculation that changes the initial distinctiveness; gentrification and related development pressures can displace or exclude indigenous firms, community amenities and certain residents.
- Not all creativity requires highly urbanised and mixed centres – numerous examples can be given of innovative developments in more homogeneous, less urban environments (also see section 6).
- The attraction and fostering of creative talent and creative business does not automatically benefit the city-regional population and economy as a whole. Awareness of the possible social consequences of a creative city strategy is often insufficient or even lacking. This is an aspect we want to explore further in the following section.

6 SOCIAL CONDITIONS AND CONSEQUENCES OF CREATIVE KNOWLEDGE CITY STRATEGIES

The possible consequences of the emergence of a 'creative class' and the 'creative industries' for the economic, social and spatial development of city-regions remain uncertain. The connection between 'being creative' and 'being successful' is not as straightforward as Florida suggests. Markusen (2004), for example, concluded from a comparison of artistic occupations in US cities that the successful artistic cities were neither the largest nor the fastest growing cities. Nevertheless, many European metropolitan regions have enthusiastically embraced both the creative industries and the creative class as focal points for their long-term economic development strategies. Some regions try to profile themselves as 'cultural' or 'creative'; others prefer to call themselves 'knowledge regions'; again others choose a combination of both.

Linked to the path dependency process, there is a strong requirement for the inclusion of a social dimension in the discussion of economic and urban change. This is especially relevant for cities that are undergoing major urban and economic reorganisation. As these cities seek to switch from traditional activities that are in decline to new 'knowledge intense' economic growth, elements of their population are in danger of being excluded from securing many (if any) of the direct and indirect benefits of this new growth potential. Cities in the former state-socialist countries of East Central Europe with their rapidly transforming economies and societies belong to this group. Transformation is also an important attribute of creative cities. Hall (2000) indicates that creative cities in history (Florence in the 14th century or Berlin in the 1920s) were cosmopolitan places that drew talent from the far corners of their hinterland. They were also cities undergoing spectacular transformation that also shaped the local society, its social relations, values and views about the outside world. Hall comes to the conclusion that highly conservative, very stable societies will never generate creative places.

There is an ongoing debate about how creative industries contribute to sustainable and evenly distributed economic and urban development. At first sight, the emerging 'creative class' seems to be synonymous with a new bourgeois-bohemian component of the population with individual and protective values (Brooks, 2000). This would have repercussions both at the production and consumption levels in cities.
At the production level, this 'creative class' might exist, for example, in the upper ranks of companies whereas the great majority of workers, whose knowledge can more easily be codified and whose work can be automated, would form a new underclass, thus leading to new and perhaps more problematic forms of 'unintended'

social exclusion (Reich, 1992; Castells, 1996; Jaillet and Siino, 1998; Schienstock, 1999). Many people (and even particular urban communities) lacking the basic entry skills, experience and social networks might then be excluded from the whole process. In addition where the promotional strategies of cities include cultural activities and international events there are questions about who participates in these activities and events and whether this includes the local population in general (Jouve and Lefebvre, 2003). Finally, Levine (2004) shows that, in the United States, 'the creative class' as defined by Florida (2002) is more likely to live in the suburbs than in the centre of metropolitan regions. This has 'hard' and 'soft' implications in terms of urban development. The distribution of jobs and income, as well as the spatial output, are thus important components of the evaluation of new and emerging economic growth models (Felsenstein, 2001).

While such concerns about creative knowledge strategies for social cohesion should be taken seriously, it is important to stress that a creative knowledge economy offers chances to people of all socio-economic and educational strata to profit from their talents. Of course, not all people are equally creative or talented, but in principle, everyone has a certain talent that could contribute to urban or regional innovation and economic development. An economy focusing on creativity does not need to be an elitist economy. It can also offer new chances to marginal groups that have been unable to participate in urban and regional economic progress. The implication of this is that cities might seek to identify desirable social conditions to promote a creative knowledge economy that is not only economically, but also socially sustainable. To stimulate such desirable social conditions, one could think of policy measures like removing bureaucratic and financial thresholds to education and the labour market, encouragement of 'bottom-up' individual and group initiatives, acceptance of cultural diversity, and leaving space for spontaneous creativity.

Such a double-sided attention to both the creative class and more marginal groups may actually even become a necessary condition for success. There is at least some awareness that socially unattractive cities may also deter talent and new firms from settling in these environments. Whether that view can be supported on the basis of empirical research remains to be demonstrated, however. In a special issue of *Urban Studies* on the 'Resurgent City' Musterd (2006) explored the relationship between the level of segregation and economic performance of a number of European cities. At the level of the city no clear relation could be found. Cheshire and Sheppard (2004) investigated the potential negative impact of social segregation on individual socio-economic opportunities and they argue that it is more likely that poor neighbourhoods are spatial reflections of income inequality, instead of being causes of greater poverty.

That being said, unease remains about the potential impact of developing and promoting neighbourhoods as 'creative quarters' on the residents of these neighbourhoods. The current trend of policy initiatives to create or enhance creative quarters reminds strongly of the heated debate on gentrification in social science and society. The gentrification process is usually associated with positive as well as negative effects. Reviewing the extensive literature, Atkinson (2004) tends to stress

the negative side of gentrification more than the positive side. He acknowledges that gentrification might result in neighbourhood revitalisation, increased property values, increased fiscal revenues, and a reduction of suburban sprawl. This is in his view more than counterbalanced, however, by negative effects like community resentment and conflict, loss of affordable housing, displacement of lower income households, and loss of social diversity. Butler (2003) provides evidence for the North London neighbourhood of Barnsbury for this loss of social diversity. He found that gentrifiers largely living in their own world (or 'bubble' as he phrases it) and almost exclusively mingling with 'people like them' in all aspects of social life. If the 'creative class' partly overlaps with the urban-oriented middle-class category of 'gentrifiers' (which seems to be the case if we compare their general characteristics), this immediately raises doubts about the extent to which the creative class is indeed as 'cosmopolitan' as Florida suggests. In any case, the tendency of gentrifiers - if they comprise parts of the creative class - to develop neighbourhoods into their own 'enclaves' is a potential threat to social cohesion in these neighbourhoods, as well as on the city scale. This worry, although additional evidence is still wanted, seems to fit into a wider trend highlighted by Graham and Marvin (2001) amongst others: the gradual disintegration of cities and city-regions into an archipelago, with many parts developing stronger inter-regional and international links than intra-regional ones.

7 CREATIVE KNOWLEDGE CITIES OR CREATIVE KNOWLEDGE REGIONS?

A final element of our theoretical framework concerns the spatial scale of clusters and networks of creative and innovative industries, and of the creative and innovative talent working in and initiating such industries. It has been argued above that creative and innovative people do not necessarily flock to city centres or older urban neighbourhoods close to these centres. The same is true for creative and innovative companies. Although most of these companies can still be found in large cities and, within them, tend to cluster in inner city areas, concentrations of creative and innovative companies can also be found at city edges or in (former) suburbs. Musterd and Deurloo (2006) show evidence of this in the city and region of Amsterdam. They show that different types of creative professionals have different distribution patterns across the city and the region. Cultural creatives (like artists, media and entertainment workers, scientists, teachers, designers and advertisers) tend to show a strong inner-city orientation. In contrast professional creatives (like managers in commercial, financial and juridical services) are much more spread across the city and region. Musterd (2004) found comparable differences for the Amsterdam region between creatives on the one hand and ICT workers on the other. Florida (2002) also identified differences between sub-groups of his creative class, especially between what he calls the 'bohemians' and the 'nerds'.

Urban policy and planning can also effectively influence the location of creative industries. A good example is provided by Budapest, where a new centre of knowledge and cultural industries has been developed south to the city centre on either side of the Danube. This is on former derelict land, where the Budapest-Vienna Expo was planned in 1987, but cancelled later on in 1994 (Keresztély 2002). Soon after the cancellation of the Expo the government decided to convert the area into a new university campus and a science park on the western side of the river and a new cultural centre on the eastern side. The science park houses the university campus of the Faculty of Science of Budapest University and a combined IT Centre with the University of Technology (which is nearby). In addition to this an Information and Technology Innovation Park (InfoPark) was developed which can be considered the first Technopolis east of the former Iron Curtain. On the opposite side of the Danube the new National Theatre of the country together with the Palace of Art and other cultural institutions were developed.

Most existing analyses of clusters of creative knowledge have been carried out at the city level, and fewer at the city-regional level. Considering the almost universal

tendency of deconcentration and increasing polycentrism in city-regions of the advanced capitalist world (Kloosterman and Musterd, 2001; Phelps and Ozawa, 2003; Burdack et al., 2005; Musterd et al., 2006), it would be much more logical to focus on the scale level of city-regions. Parallel to this, politicians and civil servants are much more enthusiastically working on 'creative knowledge city' strategies than on 'creative knowledge region' strategies. Especially in relatively small cities which form an integral part of networked regions of smaller cities and fast-growing (former) suburbs, a regional development strategy would make more sense than intra-regional rivalry. In his paper analysing the opportunities for knowledge-based development in medium-sized Hungarian cities Nagy (2001) pointed out the great potential in the cluster of county towns as key elements in transmitting innovations to the lower levels of the settlement hierarchy. Therefore, it makes sense to take into account the city, the city-region and the wider regional scale, both in geographic and in political-administrative terms. Moreover, within that larger unit, it also makes sense to refer to smaller areas (sometimes neighbourhoods with specific characteristics) which either do or do not fit the requirements of residents and firms and thus demonstrate dynamic economic transformation or fail to do so.

8 ADDED VALUE AND MAIN RESEARCH QUESTIONS

This review suggests that the theoretical framework for research in this field should reflect the increased interest of academic researchers in cluster formation and creative and innovative industries, the enormous popularity of cluster and/or creative city strategies among urban, regional and national politicians in advanced capitalist countries, and the serious criticisms about the possible positive and negative effects of such strategies. In addition to providing individual case studies and international comparisons of strategies for regional competitiveness and the role of creativity and knowledge-intensity in this, research should focus on seven dimensions that have hitherto been neglected or underestimated:

- The (potential) effectiveness of regional competitiveness policies that focus on a creativity - and knowledge-based metropolitan economy;
- The role of path dependency: do traditions in certain economic branches and certain local and regional historic spatial structures contribute to a more favourable point of departure when trying to develop a 'creative knowledge region'?
- The extent to which policies for competitive 'creative knowledge regions' not only aim at attracting certain types of economic activities, but also at providing 'soft location factors' like an attractive residential environment, public space, and 'meeting places' for the 'talent pool' needed for these economic activities;
- Related to this, the extent to which cluster formation, especially in creative and knowledge-intensive clusters, is related to these 'soft' location factors;
- The question of which regional geographic and administrative scale is most relevant for regional competitiveness when aiming for 'creative knowledge regions';
- Differences and similarities between metropolitan regions in West, Central and Eastern Europe in their potentials to become competitive centres of creativity, knowledge and innovation. Are East Central European cities in a more favourable position to host creative activities and to become creative cities due to their rapid socio-economic transformation? Are they able to utilise properly their rich cultural heritage and historically grown qualities for the advancement of the creative sector?
- The role of trans-national migration of a skilled labour force towards centres of creativity and knowledge, and the extent to which these trans-national migrants are attracted by 'soft' location factors like an attractive residential environment, a diverse population and a tolerant atmosphere in the metropolitan regions they migrate to. How important are such factors when weighted against job or career opportunities and costs of living? To what extent are migrants to 'creative

knowledge cities' different from migrants to 'global' or 'world cities' in their reasons to migrate?

These questions find themselves under the umbrella of two central research questions:

- **What are the conditions for creating or stimulating 'creative knowledge regions'?**
- **More particularly, what is the role of so-called 'soft' factors in creating and stimulating 'creative knowledge regions'?**

This literature review provides a first answer to these questions. The objective was to see what existing literature and theory tells us about the conditions for the creative knowledge region and which concepts and definitions can be derived from that literature. We have reviewed three essential theoretical approaches of the debate on 'conditions for creative knowledge': an approach where the focus is on 'classic' location theory; a second approach in which cluster theories are central, and an approach in which so-called 'soft' conditions take centre stage. Several answers to the questions could be found referring to this literature. However, this review has not allowed us to answer the questions in a wholly satisfactory way. Therefore we have identified another six questions and it is the answers to these that will enable us to fully evaluate the basic issues. The six interrelated groups of tasks should be performed to be able to answer the following questions.

1. *Analysis of paths of creative knowledge regions*. To what extent does existing statistical and written material in selected regions in Europe suggest that there are certain regions that are more predisposed to become regions with a 'creative knowledge' profile? What are the different paths these regions have followed and what are the other types of conditions that impacted upon the development of the 'creative knowledge region', such as the policies applied and the role of 'soft' factors, like the functioning of the housing market, diversity, tolerance, and the availability of services and amenities?
2. *Target group importance*. To what extent are the target groups referred to in the discussions potentially relevant for the development of 'creative knowledge regions'? Is a special focus on higher educated graduates and workers in knowledge intensive and creative industries; managers of knowledge intensive companies; and trans-national migrants important? What does statistical information about their development tell us about their relative weight?
3. *Target group opinions*. We also need to know more about the opinions held within these target groups. What are these opinions? To what extent do they believe that 'soft' location factors have become more important in business location strategies, especially among creativity - and knowledge-based entrepreneurs, compared with other location factors? What do they think about the role of the historic development path of the urban economy, urban social and cultural structure and the urban physical structure? Do they think that certain development paths lead to better opportunities to develop a 'creative'

and/or 'knowledge' region, compared with others? Are there significant differences of opinion between higher educated graduates and workers in creative industries; managers of knowledge intensive companies; and trans-national migrants?

4. *Policies and strategies*. What are the lessons for regional and sub-regional economic development policies and strategies from these statistical and survey based investigations of the conditions for the 'creative knowledge city'? What is the most suitable regional scale for intervention? Should there be a focus on core city development or on the metropolitan regional level?
5. *Divergence or convergence*. To what extent can we identify a divergence or a convergence in the recent development processes, policies and strategies of West-, Central- and East-European metropolitan regions and in the extent to which they stress the role of creativity, innovation and knowledge?
6. *Is it good for the EU?* What could be the contribution of developing 'creative knowledge regions' in Europe to the wider EU ambition to become a more competitive knowledge-based economy?

This literature review refers to what has already been said on the questions raised. As part of the extensive international comparative study we are involved in we will conduct a series of surveys which will enable us to compare recent socio-economic development trends and recent economic development strategies in thirteen metropolitan regions across Europe. This will provide more insight into the extent to which the creative and knowledge intensive sectors are indeed the keys to successful long-term economic development. The research will also enable us to discuss the different types of policy approach being adopted in different cities (e.g. promoting cultural quarters/infrastructures in the physical sense; or promoting creative industries in their industrial sector sense) and to discuss aspects of their effectiveness. The metropolitan regions included in the research are: Amsterdam, Barcelona, Birmingham, Budapest, Dublin, Helsinki, Leipzig, Milan, Munich, Poznan, Riga, Sofia, and Toulouse.

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