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Abstract

This paper presents a review on theories and empirical studies relevant for the concept of diversity of people in the creative cities literature. The upcoming question enquires which role diversity plays in creative cities. The paper aims to summarize and compare key diversity components considered in research. Based on the review, conclusions are drawn to the attention of policy makers that soft location factors, such as the diversity of people, matter for urban development.

Keywords: creative cities, diversity of people, urban growth

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A. Introduction

Several studies relating to urban development point out that diversity has a positive impact on economic growth. Jacobs (1969) suggests that cities bring together both diverse people and a variety of regionally proximate businesses and firms. It is especially the diversity of the economic structure which fosters the combination and transmission of ideas, known as Jacobs-externalities (cf. also Glaeser et al., 1992). Moreover, Jacobs (1969) recognized that industrial variety stimulates economic growth rather than it does industrial specialization of cities and regions. This is due to the fact of the high potential for the interchange of knowledge, ideas and random collisions of businesses within diverse economies (cf. also Glaeser et al., 1992; Quigley, 1998; Duranton and Puga, 1999; Marlet and van Woerkens, 2004; Boix and Trullén, 2007).

Empirical findings indicate that cities which are characterized by a distinctly diverse labor pool foster innovations, that is inventions brought to the market.[1] Diversity of people - i.e. the diverse composition of the economic agents and population regarding aspects of ethnicity, nationality, gender, religion, age and education, for example - might contribute to the overall development of knowledge-based economies (Ottaviano and Peri, 2004; Niebuhr, 2006; Damelang et al., 2007; Bellini et al., 2008; Damelang et al., 2008). Diversity (of ideas) is important in the knowledge creation process, since more differentiated knowledge means a greater number of possible combinations of knowledge and knowledge networks (as "strategic" co-ordination mechanisms). Diversity also raises the variety of knowledge spillovers, i.e.

knowledge as a (positive) external effect. Knowledge which is not commercialized by a firm generates new opportunities for entrepreneurship which in turn effects economic growth in terms of production and income (Acs et al., 2004; Audretsch et al., 2008). Diversity of people also creates possible benefits by increasing the variety of goods, services, production and consumption (Ottaviano and Peri, 2004; Berliant and Fujita, 2007; Bellini et al., 2008).

Some authors recognize that the diversity of people might hinder the exchange between different ethnic and cultural groups and cause adverse productivity effects, since a multitude of languages raises communication and network costs due to cultural distance (Alesina and Ferrara, 2005) and debilitation of trust (Maskell et al., 1998). Forms of trust give stable expectations for future actions among economic agents (Elsner, 2004), and may facilitate innovation processes, i.e. the interdependency of invention, innovation, imitation and diffusion, whereupon innovation processes appear as interdependent learning and experimental processes between agents. Furthermore, trust enhances the effectiveness of coordination and reduces transaction costs and complexity, that is, the overall social interaction of production and innovation, between economic agents (Elsner, 2004; Maskell and Lorenzen, 2004a). However, Ottaviano and Peri (2006) stress that a core of shared norms might be necessary to realize the potential benefits of the diversity of people.

Moreover, besides the diversity of people and firms, namely sectoral diversity, there are other diversity approaches in economic studies in terms of knowledge bases (Asheim et al., 2005; Hansen et al., 2005), technology (Audretsch et al., 2008) and capitalism (Hall and Soskice, 2004; Elsner and

Hanappi, 2008). Another diversity dimension is that of occupational diversity. The dimension of the diversity of sectors is probably the most dominant concept in economic research (Audretsch et al., 2008).

Jacob's concept of diversity of urban neighborhoods and people was recently recognized and disseminated by Florida (2002). He operationalized it for the concept of "creative cities", i.e. cities economically driven by the so called "creative class", an emerging cohort of economic agents working in the fields of education, health, science and others. According to Florida (2002; 2003; 2004; 2005) diversity of entrepreneurs and population contributes to creative cities' economic growth and competitiveness due to positively impacting knowledge and human capital. Albeit the creative city concept is hard to operationalize and a fuzzy (or missing) theoretical model (Glaeser, 2005; Grimm, 2005; Peck, 2005), creativity will be increasingly crucial for innovation, economic success and development in the future (Falck et al., 2008). Creativity is understood as a process of destroying and creating since it is the process of "creative destruction", which is seen as the quintessence of market mechanisms (Schumpeter, 1950; Florida, 2002). Furthermore, creativity is acknowledged as an ability of cognition and synthesis (Florida, 2002).

The article at hand reviews the concept of the diversity of people in European creative cities literature. Section B. undertakes a short introduction to the theory relevant for the concept of diversity in creative cities. The analyzed question enquires which role diversity of people plays in creative cities and if it explains economic growth. Section C. summarizes and compares diversity of people concepts considered in creative city studies and research.

Based on the analysis in Section D., conclusions are drawn, such as contributions to the creative cities literature by the attention of policy makers, especially regarding perspectives of urban development policy.

B. Stylized facts on Creative Cities

Florida (2002) argues that specific professions - the so called "creative class" - could help to explain urban economic development and growth. A fundamental characteristic of the "creative class" is that they are supposed to be the main driver in cities' knowledge-based economy; they are marked by capabilities, skills and quality characteristics which foster the structural transformation towards a knowledge-based economy.

Florida (2002) emphasizes that the economic success and competitive advantage of cities is based on talent, technology and tolerance, the so-called "3Ts". His hypothesis is that the "3Ts" attract the "creative class" which promotes regional growth and prosperity. This process especially takes place in cosmopolitan, global cities due to the fact that they have an advantage in educating and keeping those economic agents who play a major role in the creative economy since cities have the advantage of a system of universities and knowledge networks. Furthermore, cities have the ability to attract human capital. The clustering of human capital effects productivity which is a crucial factor for urban economic growth (Lucas, 1988).

Therefore, cities are not only places for production, consumption, labor market pooling and living space, but they also facilitate the diffusion of

knowledge through "face-to-face" contacts which are relevant for inventions and innovations (Marshall, 1920; Jacobs, 1969; Lucas, 1988; Fujita et al., 1999; Sassen, 2001; Storper and Venables, 2003; Weber, 2005). Since Florida (2002; 2003; 2004; 2005) is the main driver behind the concept and idea of creative cities, a short introduction below highlights his theory's insights.

Understanding the urban geography of creativity and its effects on economic outcome lies in what Florida calls the "creativity index" which captures the extent of technology, talent and tolerance within a region. The "3Ts" are independent and each "T" alone is insufficient for stimulating economic growth of cities. In the following, the "3Ts" will briefly be explained. Table 1 gives a summary of Florida's creativity index.

Table 1: Florida's creativity index

Measure	**Index**	**Definition**
Technology	High-Tech Index	Metropolitan regions high-tech industrial output as a percentage of total US high-tech industrial output; percentage of region's own total economic output that comes from high-tech industries in relation to nationwide percentage
	Innovation Index	Region's share of patented innovations per capita
Talent	Creative Class Index	Region's share of super-creative core and creative professionals
Tolerance	Gay Index	Measure of the over- or under-representation of coupled gay people

Source: Florida (2002: 334).

The dimension of talent is captured by the "creative class index". It signi-

fies the share of the economic agents working in "creative occupations" within a region whereas the "creative class" is not classified by their educational but by their occupational status. The "creative class" is divided into the two sub groups "super creative core" (1) and "creative professionals" (2) and distinguishes itself from the "working class" and the "service class". (1) The "super creative core" agents work in the fields of computing, mathematics, architecture, education, training, arts, design, sports and others. In these occupations agents are paid to be visionary, to develop new ideas and invent new approaches. (2) "Creative professionals" are occupied or self-employed in business and financial operations, management, legal, health care, high-end sales, sales management and others. These professionals access their large pool of skills, experience and knowledge in order to solve particular problems. Their work is comprised of many routinely performed tasks.

Florida (2002) chooses the "creative class" measure instead of an educational concentration measure for human capital. As the author states it is not educational but occupational endowment of human capital which explains the potential for economic growth in regions. This distinction can be made since human capital refers to the accumulation of productive capabilities, skills, experiences and knowledge embodied in agents (Lucas, 1988; Romer, 1990). Economic agents increase their knowledge base through education, further training, learning and experiences (Gabler, 1997). The "creative class" is therefore not necessarily a highly educated group of agents (Marlet and van Woerkens, 2004).[2]

As an indicator for tolerance Florida (2002) uses the "gay-index". It ac-

counts for the concentration of homosexual couples within the region relative to the national average. It is not that homosexuals themselves are a determining factor here, but their presence in a city - as a high concentration of homosexual couples within a region - indicates that the population of this region is tolerant towards other "modus vivendi" or "ways of life". Florida's (2002) basic assumption for explaining urban economic growth is that talented economic agents which decide to migrate across borders (external) or within countries (internal) will be strongly attracted to open and tolerant cities. Economic agents can act liberally there and possibly apply their full creative potential to the production processes of "creative" goods and services.

In economic research, low barriers of entry (assuming a perfect market) for firms are emphasized as factors for promoting competition. Florida (2002) supports this concept and goes a step further. He highlights having "[...] low entry barriers for people [...]" (Florida, 2002: 250) since economic agents can integrate themselves faster in markets if barriers are low, i.e. forms of social barriers and arrangements. When all agents were homogeneous, a consensus would rule with respect to new knowledge and ideas; there would also be less reason for new start-ups (of firms). Empirical findings indicate that diversity, in general, makes market entries much easier than in a homogeneous world (Audretsch et al., 2008). Having low entry barriers for economic agents accelerates firm foundations of university (and industry) spin-offs. Tolerance plays a decisive role as it makes diversity of people itself possible; diversity forms possibilities for interaction.

For further analysis in the field of tolerance Florida (2002) uses a "melting-pot index" accounting for the percentage of foreign-born people in a city. The weak point in this analysis is that it does not include Afro-Americans and other non-white Americans. In statistical correlation, however, findings in the interaction between non-whites and the "high-tech index" are negative. Besides the "melting-pot-index" he also introduces a "bohemian index" which measures the share of bohemians in a city. This index - but also other tolerance indices - shall represent the supply side for the "creative class". These last two measures are not part of his "3Ts" but he employs it to further deepen his analysis. He also introduces the "composite-diversity index" which adds together the three diversity measures "gay index", "melting-pot index" and "bohemian index". The statistical findings are that the "composite-diversity index" is positively correlated with the "high-tech index".

Nonetheless, the technological state of a region is still a key determinant for economic performance and a location factor for firms that might decide to open branches in a certain region. As an indicator for technology, Florida (2002) uses the Milken Institute's "tech-pole index" which consists of two partial indices measuring a region's relative high-tech industrial output and the region's own economic output from high-tech industries in relation to the national proportion. It is interpretable as a relative measure for high-tech clusters, i.e. "[...] (regionally concentrated) groups of firms which are functionally interconnected [...]" (Elsner, 2000: 413). At the same time, clusters establish more stable interactions between economic agents and in this way more stable expectations, i.e. a form of trust (Elsner, 2004). Further,

an index of technology is the "innovation index" measuring patents per capita.

C. Diversity in the Creative Cities Literature

In the literature, urban creativity is defined as a factor explaining economic growth in terms of production and income. It is considered a critical factor for (urban) productivity. Creativity here, however, is not a concept of urban planning or creativity planning where it is understood as a novel method and "toolkit" for strategic, projected urban planning (Liebmann and Robischon, 2003; Landry, 2006). In creativity planning the message is to give "[...] confidence that creative and innovative solutions to urban problems are feasible [...]" (Landry, 2006: preface) without an old intellectual apparatus or bureaucratic mindset.

The concept of creativity here is more understood - as stated in the introduction - in the sense of Schumpeterian's "creative destruction" which describes the transformation of one economy into another (Schumpeter, 1950). This necessarily implies that creative cities are also not exclusive forms of cultural (or artistic) concepts, albeit the term of creative cities is mainly linked to the concept of "culture industries" (von Osten, 2008). In the reviewed literature culture is defined as a location factor relevant for the attractiveness and productivity of cities; it is simultaneously an economic product.

Even though the concept of creative cities and the "creative class" has been adopted and put into practice by urban planners worldwide, especially in the United States (US) and Canada (Gertler et al., 2002; Lee et al., 2004;

Wu, 2005; Wojan et al., 2007), the focus of this review lies with European studies. This focal point has been chosen because of a high level of interest in recent years and in order to encourage conclusions for the development of Europe's cities which deal with different conditions than in the US or Canada. In Europe several studies have been published particularly by the study group "Technology, Talent, and Tolerance in European Cities: A comparative Analysis".[3] Besides the above mentioned study group, numerous authors have adopted the concept of creative cities such as Maskell and Lorenzen (2004b) for European furniture and music producers,[4] Florida and Tinagli (2004) for European countries, Mellander and Florida (2007) for Swedish labor market regions, Lorenzen and Andersen (2007) for European cities, Hank et al. (2008) for German cities and Könönen et al. (2008) for nine Baltic Sea cities.

However, the studies for Andersen and Lorenzen (2005) for Danish cities, Fritsch and Stützer (2006) for German administrative districts, Hansen (2007) for Swedish labor market regions and Kröhnert et al. (2007) for the Federal States of Germany, are selected as examples in order to show how the diversity of people in the academic creative cities literature is measured.

A "creativity index" - as Florida (2002) used it - is not created as such by Andersen and Lorenzen (2005). Rather they map the geography of the "creative class" in 38 Danish city regions and 273 Danish municipalities. Their results indicate that the "creative class" - which consists of the "(super) creative core", "creative professionals" and "bohemians" - tends to concentrate in major cities and city regions. Copenhagen and Aarhus, the two biggest

cities, have the highest ratio - measured by a location coefficient - of "creative class" in general and of the three sub groups "creative core", "creative professionals" and "bohemians" of all Danish city regions.

The Andersen and Lorenzen (2005) findings indicate that diversity of people - in the corresponding study measured by the ratio of foreign citizens - is statistically significant as an explanatory variable for the location of the "creative class" in Denmark and the economic performance in these locations. But the openness indicator - which is operationalized as the employment rate among non-western citizens - does not correlate. When tested in a model controlling for interactions between independent variables as well as the variable for openness, there is a significant correlation with the localization of the "creative class". This also means that the "creative class" tends to locate where the overall indicator of tolerance "quality of place" tends to be high. Further, places where the "creative class" is concentrated have a tendency for more economic growth, prosperity and technological development.

Fritsch and Stützer (2006) analyzed the "creative class" - which also consists of the "(super) creative core", "creative professionals" and "bohemians" - in 438 German districts ("Kreise") which includes agglomerated, urbanized and rural districts. They investigate where the "creative class" tends to locate and outline the characteristics of these regions in order to derive conclusions on the location decision of creative people. However, the factor "tolerance" is captured by the share of foreign-born people analogous to Florida's (2002) "melting-pot-index". Empirical analyses on German IAB data for the year 2004 show that creative people cluster in tolerant and open places comprising

cultural diversity. The results do, however, raise questions regarding whether the presence of foreign-born people really represent economic integration or just settlement in the same economic location.

Fritsch and Stützer's (2006) results, however, suggest that the "creative class" especially concentrates in cities such as Stuttgart, Munich and Frankfurt am Main. Their results follow other empirical findings on the interaction of innovation and diversity of people (Niebuhr, 2006; Damelang et al., 2008). Surprisingly, the results from Fritsch and Stützer (2006) show that some smaller cities such as Erlangen and Coburg are listed on the overall "creative class index" in the top three of all 438 districts.

The Swedish contribution aims at the research questions about where the "creative class" is located and what determines the location? What is the interaction between "creative class" and economic growth? Research was done for 81 Swedish labor market regions. Hansen (2007) includes, besides indicators for technology and talent, indicators for tolerance which affect the "quality of place" and are said to attract the "creative class". These indicators are the "bohemian index" which measure the concentration of artists and cultural amenities in a city. Another indicator accounts for the integration of people from non-western countries in the local labor markets ("integration index"), and two further indices convey the openness which quantify the percentage of foreign-born people from non-western countries ("openness 1") and the percentage of all foreign-born in the population ("openness 2"). Whereas the indices "integration index", "openness 1" and "openness 2" are standing as proxies for the diversity measure, we can see that the last two indica-

tors differentiate between western-countries and non-western countries. This might be important in respect to cultural differences and possibly exclusions.

Further, since Hansen (2007) states that it does not say anything about how ethnic groups are integrated and accepted he tries to measure integration through the proxy "integration index". This approach attracts attention since a high disparity between native-born employed and foreign-born employed people can be assumed. The results are as expected since it shows an enormous gap between the Swedish born and foreign-born employment groups. However, applying several econometric analyses Hansen (2007) discovers that the variables "openness 1" and "openness 2" have a significant impact on the "creative class". The "integration index", however, does not correlate with the "creative class" index and is not statistically significant which might reflect in general the less favourable situation of foreign-born people employed in Sweden. Overall, he concludes that the labor market regions of Stockholm, Gothenburg and Malmö appear as the most competitive regions in terms of the location of the "creative class" (talent), technology and tolerance.

Kröhnert et al. (2007) contribute to the technology, talent and tolerance debate of the 16 Federal States of Germany (German Laender). Their research question is simply a ranking of Federal States on the "creativity index". Moreover, they also measure the future potential of the German Laender regarding technology, talent and tolerance. In the first step they developed indices for technology and talent analogous to Florida (2002). The tolerance index is diverging in design. Besides measuring ratios of foreigners in the

population and labor market they integrated two more qualitative indices to measure the tolerance and acceptance of diverse people in the home population. The first indicator is the share of local votes for right wing parties for the Bundestag election in year 2005. The second is the ratio of acceptance for xenophobic statements. Both indicate the acceptance of foreign-born residents and also of naturalized immigrants.[5] The last two variables might be important since they are not captured by the foreign-born variable. In the case of voting for right wing parties it also indicates the acceptance by people of different ages, religion and sexual orientation, since right wing parties have political programs showing such acceptance or non-acceptance.

Kröhnert et al. (2007) results suggest that "intolerant" German Laender have a relatively lower share of people in the "creative class". Even further, they show that the city states of Berlin and Hamburg score high especially in the case of the location of the "creative class". The above mentioned trend index scores high for the city state of Bremen. Since the study is concentrating (more so) on the Federal States of Germany, the paper does not question whether the city states identified are highly ranked since administrative and functional tasks are concentrated in cities and not elsewhere.

What remains an open question, which is not discussed here in detail, are the causalities. Are economically successful creative cities successful because foreigners are settling in that region or are foreigners settling in a specific city because of the economic success of that city? This seems to be a general question and dilemma that cannot be resolved by an analysis of the available data alone.

Table 2 and 3 summarize the above mentioned aspects of measuring diversity of people and its relation to city development as highlighted in the creative cities literature. To sum up, within the literature of creative cities and the role of diversity of people it is argued that diversity of people plays a crucial role for the economic advantage of cities. The overall arguments in the reviewed literature are that diversity of people bring varieties of knowledge bases, experiences and (knowledge) networks. What's more, it raises the varieties of entrepreneurial activities, i.e. also the transformation of ideas and inventions into novel businesses. Yet another argument follows that diversity of people raises the image of a city.

The reduction on measuring diversity of people in the discussion of European literature leaves open which economic development the respective city (or region) is in. As Grimm (2005) states the concept of "creative class" depends heavily on the economic development status and on the market mechanisms. Following that argument, the economic potential through the diversity of people has to be contextualized to the particular situation of a city. Urban (and regional) development depends on an evolutionary process that is path dependant.

If negative effects of the diversity of people exists, however, is not discussed in the reviewed papers, nor is the importance of clusters, networks or trust as forms of collective (informal) institutions and co-ordination mechanisms (cf. for concepts also Elsner, 2000; Maskell and Lorenzen, 2004a). The more diverse (and individualistic) economic agents are, " [...] the stronger the dilemma-structure in terms of relations of (a), (b), (c) and [(d)] [...]",

Table 2: Summary of creative cities literature

Author	**Region**	**Analyzed Question**	**Methodology**			**Result**
			Tolerance	**Talent**	**Technology**	
Andersen and Lorenzen (2005)	38 Danish city regions and 273 municipalities	Where is the Creative Class located? What determines the location? Connection to economic growth?	Quality of Place: - Unemployed non-western citizens (openness) - Share of foreign western and non-western citizens (diversity) - Cultural opportunities - Bohemians - Unemployment rate - Public provision	Creative class index: - Creative core - Creative professional - Bohemians	- Share of employed in high-tech industries - Business life growth	Quality of place affects the localization of the creative class. Strongest effects: Cultural opportunities and openness not as strong. But in general there is a relation between creative class and the indicators of tolerance. Causalities are open.
Fritsch and Stützer (2006)	438 German districts	Where is the Creative Class located? What determines the location? Connection to economic growth?	Quality of Place: - Public provision index - Share of foreigners in the total population - Population density - Bohemian index - Employment growth (previous 3 and 7 years)	Creative class index: - Creative core - Creative professionals	- Share of employees in R&D intensive manufacturing and knowledge intensive services - Start-up rate - Innovation index	Creative people live in places with a high share of foreigners. Results leave open causalities.

Table 3: Summary of creative cities literature (continued)

Author	**Region**	**Analyzed Question**	**Methodology**			**Result**
			Tolerance	**Talent**	**Technology**	
Hansen (2007)	81 Swedish labor market regions	Where is the Creative Class located? What determines the location? Connection to economic growth?	Quality of place: - Bohemian index - Openness 1 - Openness 2 - Integration index - Public provision index - Cultural opportunity index	Creative class index: - Creative core - Creative professionals For dynamic analysis: - Share of population with bachelors degree	- Tech-Pole production - Formation of new firms	Openness 1 and Openness 2 have significant influence on the location of the creative class. Integration index has a weak influence on location of creative class. Dynamic models only bring about moderate values.
Kröhnert et al. (2007)	16 German Federal States Ranking of Federal States on "creativity index".	Measuring a trend index for future potential of technology, talent and tolerance.	- Bohemian index - Share of vote for right wing parties - Share of foreigners in the population - Share of acceptance for xenophobic statements in the population	- Creative class index - Creative core - Share of people with tertiary education in a age of 20-59	- Gross expenditure on research and development - Patent applications - High-tech patent applications	The three tolerance indicators are positively correlated with the "creative class".

i.e. the complexity problem of interactions (Elsner, 2004: 1040).[6] However, since the "creative class" is clustered (or pooled) in specific cities, the question arises whether collective institutions emerge to reduce complexity and increase efficiency. It appears that cities, i.e. the principle of size, facilitate the emergence of collective institutions; against the background of trust mechanism the question of the debilitation of trust through increasing varieties of economic agents appears. Ultimately, "[...] the enduring competitive advantage in a global economy lie[s] increasingly in local things - knowledge, relationship, motivation [and reciprocity] - that distant rivals cannot match."(Porter, 1998: 78).

Although if a diverse labor pool - in terms of diversity of people - in cities exists it might facilitate the diffusion of knowledge as a positive external effect interdependent with creativity, innovation and growth.[7]

D. Conclusion

The review of studies operationalizing diversity in the analysis of urban development illustrates that corresponding concepts and their interpretation are limited in their context since most studies apply the share of foreign-born people as a key diversity indicator within a urban (or regional) context. Some studies do, however, differentiate between the share of western and non-western foreign people. Exceptions are made with the "integration index" measuring employment integration of foreign-born people (Andersen and Lorenzen, 2005; Hansen, 2007). Another exception is made by Kröh-

nert et al. (2007). Their approach for measuring diversity of people might fit best from the other studies under consideration since measuring shares of foreigners is not an unproblematic issue in many aspects.

If, for e.g., city i has a share of foreigners k of 100%, and all of them have the nationality k it does not catch people's diversity. Diversity of people is broadly meant to include - though not to limit itself to - aspects of difference such as ethnicity, education, age, sex, sexual orientation and physical abilities. Measuring shares of nationalities might lead to misinterpretation, but also because the economic research common to the (Hirschman-)Herfindahl index,[8] which is a simply concentration index, might be empirically more correct (Niebuhr, 2006; Ottaviano and Peri, 2006; Damelang et al., 2007; Bellini et al., 2008; Damelang et al., 2008). It is designed for measuring relative varieties of groups within a region. However, this measure is not uncomplicated since the largest group will dominate the relative weight of the measure; furthermore, it says less to the economic participation of foreigners in urban economies. The nationality (proxy) variable, however, seems to be an objective variable since the measurement of diversity also depends on data availability, quality and quantity. Other methods of approximation to measure diversity of people are by varieties of linguistic groups (Alesina and Ferrara, 2005; Ottaviano and Peri, 2006).

The results of the studies imply that policy agents should pay attention to the concept of the diversity of people since an atmosphere of openness increases the competitiveness in the context of attracting skilled economic agents and increasing knowledge bases. Consequently, urban policies should

be aware of the development of soft location factors and urban space for (diverse) communities. Since soft location factors are affected by various fields of policy an intersectoral approach is needed. Parallel actions in major fields of urban policy do not address problems of modernity. Economic, financial, migration, family, educational, innovation, and environmental policy within cities must be merged into interdependent action. An integrated approach pools expertise and financial resources. This raises the competitive advantage of cities through potentially leveraging effects.

The assumption that diversity of people contributes to knowledge bases through pooling of economic agents (labor pooling, Marshall, 1920) is obvious, but local knowledge has to be connected by external linkages. It helps in innovation processes to avoid urban (technological) lock-ins, i.e. innovation failure, such as inferior economic paths. The best way to break through crusted institutional, social and cultural structures is to spill over new sources of knowledge through external embodied knowledge (Maskell et al., 1998) and via various networks. For this, networks among economic agents in cities are necessary. The concept of face-to-face and know-who, i.e. who knows what to do and who knows how (Lundvall, 1996), accelerates the diffusion of knowledge. Networks among cities play a crucial role for smaller cities since it bundles expertise and financial activities as well. Policy and economic agents should facilitate cooperative actions. A further approach to avoid crusted structures is to create a reform oriented climate within cities.

The accumulation of the "creative class" is also linked to a higher turnover and circulation of economic agents. In some respects this goes along with

(negative) externalities, for instance, in terms of family structures, gentrification and housing prices. The urban dimension of the location of the "creative class" emerges in this context because diverse economic agents often reside in different neighborhoods. This aspect must be taken into consideration when it comes to urban planning of "gay villages" and "diverse neighborhoods".

However, cities are places where economic and successful "elites" - the "creative class" a part of it - are concentrated (Sassen, 2001). Following that, cities are "pull" cities where internal and external migrants, if diversity of people is associated with migrants, move in for economic participation and rent seeking. This driving force is simply rational, but high levels of diversity are associated with economically growing cities since the pool of economic agents is more often productive and "exploitable" (Sassen, 2001).

This economically rational choice has less to do with how tolerant a city is, and more to do with how attractive a city is from an economic perspective. From this it follows that tolerance and diversity of people are not interdependent concepts. To have a diverse society does not necessarily imply to tolerate each other and to interact with other economic agents.[9] Urban policy agents, however, should be aware that the concept of the "creative class" and its role in the diversity of people depends deeply on the economic stage of urban development and that Florida's (2002) indices are not simple, visible "ingredients" of an "one-size-fits-all" urban approach.

Notes

[1]Although, it is possible to differentiate between product, process and organisational innovation.

[2] Hansen (2007) and Glaeser (2005) found out, however, that a correlation between the two variables "creative class" and "people with a tertiary education" is highly statistically significant.

[3]Members of the study group are et al. Björn T. Asheim (University of Lund), Arne Isaksen (STEP Group), Phil Cooke (University of Cardiff) and Michael Fritsch (Max-Planck-Institut and University of Jena).

[4]The e.g. of Maskell and Lorenzen (2004b) might be of special interest, because furniture producers are not considered as "members" of the "creative class" since furniture is a low-tech product. This case becomes more interesting since the inventor and founder of "Leg Godt" (LEGO), Ole Kirk Christensen, was a cabinetmaker. The e.g., however, shows that the discussion about what creativity could be is one of the most controversially.

[5]Naturalized immigrants are immigrants who receive a citizenship or nationality by some national state and who were not a citizen of that national state by birth.

[6]This dilemma can be illustrated by a simple prisoner's dilemma:

$$\begin{array}{cc} & C \quad NC \\ C & a,a \quad d,b \\ NC & b,d \quad c,c \end{array}$$

where:

$$R_i = [R_1(C,C), R_2(NC,NC), R_3(NC,C), R_4(C,NC)]$$

whereas R is the number of relations between economic agents (cf. for methodology Elsner, 2004).

[7]Knowledge sharing might also depend on the constituion of labor market.

[8](Hirschman-)Herfindahl index is designed as follows:

$$DIV_{i,t} = 1 - \sum_{k=1}^{K} {s^2}_{i,k,t}$$

whereas $s_{i,k,t}$ is the share of people with nationality k in year t in region i (cf. for methodology Damelang et al., 2007). The Herfindahl index, however, ranges from 1 to 0, whereby 1 indicates full diversity in terms of national citizenship and 0 indicates a total homogeneous group in terms of national citizenship.

[9]Tolerance is associated with the expression of to give leeway to something. It is the toleration of something, but moreover it is also the respect of other individuals, culture, religion, Weltanschauung (=view of life) and peoples.

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