

Cultural Industries, Knowledge Transmission, and Regional Innovation Activity: Performing Arts in Salzburg

By Walter Scherrer

Department of Economics & Social Science, University of Salzburg, Austria

Prepared for the International Conference of the Regional Studies Association

Prague, May 2008

Abstract:

In this contribution innovation related aspects of the performing arts industries are developed. Links between these industries and other sectors of a region's economy are discussed, in particular the performing arts sector is addressed both as a *source* of innovation and as a *target field* of innovation.

Four types of innovation emerge from this perspective: Generic innovation within the performing arts sector, the transmission of existing knowledge from the performing arts sector to other sectors (in particular to "creative" industries), innovation in the performing arts sector which is driven by innovation originating from other sectors, and the performing arts sector as a catalyst for innovation in other sectors. The argument is supported by empirical illustrations which refer to the province of Salzburg which is a region with important "players" in the performing arts sector.

As these different types of innovation go hand in hand with different knowledge bases required for innovative activities different economic policies in order to foster the role of the performing arts sector in the regional innovation environment might be required.

Prof. Walter Scherrer
University of Salzburg
Kapitelgasse 5
5020 Salzburg, Austria
walter.scherrer@sbg.ac.at

1. Introduction

This paper discusses the nexus between innovation and various forms of knowledge spill-over in which the cultural industries generally – and the performing arts industry in particular – are potentially involved and the implications of this nexus for regional economic development. Knowledge creation and knowledge transmission are key sources of innovation, which in turn is a key factor for constructing regional economic advantage. Non knowledge-based models of regional economic development refer to the Ricardian concept of *comparative advantage* or to the Porter and Krugman-type concept of *competitive advantage*. Knowledge-based models of regional economic development allow capturing the dynamics of innovation and the capacity to exploit it for explaining economic growth (Cooke and Leydesdorff 2006). Such models refer to the concept of “New competitive advantage” (Best 2001) or *constructed advantage*, a competitive advantage that ideally can be “constructed” by conscious policy design.

In innovation based models of regional economic development (Moulaert and Sekia 2003) innovation and the knowledge base in the innovation industries play a crucial role in constructing such kind of an advantage (Asheim and Coenen 2006). The characteristics of knowledge bases vary across industries, and therefore the design of successful regional innovation strategies will also differ across industries: Economic policy strategies which aim at fostering regional innovation activity ought to be differentiated according to the industrial composition of a region’s economy and its respective knowledge bases.

For some regions cultural industries are particularly important drivers of regional economic development and a source of the region’s innovative capacities. In these regions knowledge creation in cultural industries and knowledge transmission within the cultural industries and between the cultural industries and other industries are important for economic growth, although the core workforce in cultural industries may comprise only a very small fraction of the whole workforce (and a bigger but still small fraction of the so called “creative class” (see Florida 2002)).

The cultural sector of an economy consists of several branches which in turn are subdivided in segments. The intensity of knowledge transmission within the individual cultural industries and segments of cultural industries is likely to vary, and the intensity of knowledge transmission between the various cultural industries and its segments on the one hand and non-cultural industries on the other hand is likely to vary, too. Therefore the analysis of types of knowledge transmission and innovation will focus on a specific subgroup of the cultural industries, the performing arts industry, in particular

on the “serious” segment of the performing arts industry (opera, classical concerts, and classical theatre plays). The biggest part of empirical observations in order to support the argument in this paper will refer to this segment of the performing arts industry in the region of Salzburg where it is a significant part of the regional economy (Scherrer 2006). The city of Salzburg's statistics on art and culture activities lists approximately 3.800 concerts, opera, and theatre performances per year which are attended by some 830.000 persons. The “serious” segment of the performing arts industry in particular is at the core of the Salzburg Festival which is the flagship of the region's cultural industries (at least in this segment). The Salzburg Festival alone counts for some 200.000 visitors, and in addition the two memorial places of Mozart (the houses where he was born and where he lived in Salzburg) count a combined 430.000 visitors per annum (sources see in Scherrer 2006).

The following section gives an outline of the framework of the analysis: Three types of knowledge bases are reviewed, four types of knowledge transmission and innovation will be identified, and a brief overview of the significance of the performing arts sector in the regional economy of Salzburg will be given. The main part of the paper refers to the four types of knowledge transmission and the associated knowledge bases which are discussed in sections 3 to 6 in more detail.

2. Concepts

2.1. Three types of knowledge bases

The existing knowledge base and mode of knowledge creation, and knowledge transmission between economic agents are at the core of the innovation process. A knowledge base refers to a mix of tacit and codified knowledge used in a particular industry, to codification possibilities and limits, to qualifications and skills, to the reliance on different organisations and institutions, and to contrasting innovation challenges and pressures (Asheim & Gertler 2005). As these characteristics of knowledge bases vary across industries the process of innovation is founded in different types of knowledge bases.

In the recent literature on regional innovation three types of knowledge bases are distinguished, namely analytical, synthetic, and symbolic knowledge; in addition hybrid knowledge bases (a mixture of analytical and synthetic knowledge) or artisan knowledge bases are mentioned occasionally (see Høgni Kalsø et al. 2005). The classification in Asheim et al. (2007) in which distinguishes three industrial knowledge bases provides the framework for our analysis and will be briefly reported here (see

also diagram 1). The types of industrial knowledge bases are distinguished according to the mode of innovation, to the type of knowledge used and produced, to the mode of creating new knowledge, to the significance of codified or tacit knowledge, and to the preferred skills and education.

Diagram 1: Different kinds of knowledge bases

	Analytical	Synthetic	Symbolic
Mode of innovation	Innovation by creation of new knowledge	Innovation by application or novel combination of existing knowledge	Innovation by recombination of existing knowledge in new ways.
Type of knowledge	Importance of scientific knowledge often based on deductive processes and formal models	Importance of applied, problem related knowledge (engineering) often through inductive processes	Importance of reusing or challenging existing conventions
Mode of creating new knowledge	Research collaboration between firms (R&D department) and research organisations	Interactive learning with clients and suppliers	Learning through interaction in the professional community, learning from youth/street culture or 'fine' culture and interaction with 'border' professional communities
Codified vs. tacit knowledge	Dominance of codified knowledge due to documentation in patents and publications	Dominance of tacit knowledge due to more concrete know-how	Reliance on tacit knowledge
Important skills and education	Analytical skills, abstraction; university training is important for many jobs	Craft and practical skills; professional and poly-technical schools are important	Craft and practical skills, search skills; specialized skills in symbol interpretation; practice and socialization is important

Source: Asheim et al. (2007); extended by the author

Analytical knowledge is dominant in industries in which innovation primarily means that *new* knowledge is created. Scientific knowledge and formal models are important ingredients to this process, and firms in these industries therefore both perform their own research and development activities and try to gain from collaborations with research organisations. The knowledge which is used in the innovation process and the knowledge which is the result of the innovation are – relative to other knowledge

bases – well codifiable and therefore in many cases it is codified. Analytical skills are required and for many jobs university training is important.

New combinations of existing and mostly tacit knowledge drive the innovation process in industries with a synthetic knowledge base. Applied and problem related knowledge is important as innovation frequently is the result of inductive processes to solve customer-specific problems in cooperation with customers. Codified knowledge and scientific research are less important, while innovation usually is more of an incremental nature and involves a good deal of tacit knowledge. Craft and practical skills – which are provided by professional and poly-technical schools – are important for this kind of innovation.

Within the cultural sector the symbolic knowledge base is most important. Symbolic knowledge shares some attributes with synthetic knowledge; e.g. it emphasizes the application of existing knowledge and the re-combination of existing knowledge as a driver of the innovation process. But the mode of creating new knowledge and the important skills and preferred education are distinct in particular. Symbolic knowledge is “related to the aesthetic attributes of products, to the creation of designs and images, and to the economic use of various cultural artefacts... These activities are innovation- and design-intensive since a crucial share of work is dedicated to the ‘creation’ of new ideas and images and less to the actual physical production process” (Asheim et al. 2007, 145).

As the innovation process relies strongly on reusing or challenging existing conventions and on tacit knowledge, imagination and specialized skills in symbol interpretation are more important than formal education like university training. In industries which draw on a symbolic knowledge base learning is supported by interaction in the professional community and picking up ideas from youth and street culture or – or our purpose probably most important – “fine” culture (Asheim et al. 2007). Practice, practical skills and search skills are important in these industries because innovation is mostly based on existing knowledge. Socialization is important because in cultural industries like in other industries which draw on a symbolic knowledge base the production process is typically organized in temporary projects (Grabher 2002) which makes it necessary to know the potential collaborators in future projects.

2.2. Four types of knowledge transmission in which cultural industries are involved: Overview

Innovation is increasingly based on the interactions and knowledge flows between economic entities such as firms, research organizations, and public agencies (Asheim and Gertler 2005, 293). Innovation is the result of an interactive process of learning which is based on knowledge transmission between economic agents. From an industry perspective this means that knowledge transmission will occur both *within* individual industries (intra-industrial) and *between* industries (inter-industrial: exports and imports of knowledge). In this process of knowledge transmission each industry basically can be affected in two ways: On the one hand an industry can be primarily a source of knowledge and innovation, and on the other hand each industry can be primarily a target field of knowledge transmission and therefore an industry in which the impact of innovation which has its roots in other sectors is felt.

Diagram 2: Knowledge transmission between cultural industries and other sectors within a region

		Impact of knowledge mostly felt:	
		In cultural industries	In other industries
Source of knowledge	Cultural industries	Generic innovation within the regional cultural industries → <i>intra-industrial knowledge transmission</i>	Innovation in creative industries and innovation in other sectors in the region → <i>“knowledge export”</i>
	Other industries	Innovation in the region’s cultural industries driven by knowledge originating from other sectors → <i>“knowledge import”</i>	Regional cultural industries act as a catalyst for innovation in the region → <i>knowledge transmission is not necessarily involved</i>

Combining these two innovation-related attributes of knowledge and sectors in a matrix and applying it to the cultural industries on the one hand and the other industries of an economy on the other hand (diagram 2) categorizes four different types of knowledge transmission which correlate with different types of innovation. The first type of innovation is based on intra-industrial knowledge transmission (mostly) among agents within the cultural industries (“generic innovation”). Two types of innovation are based on inter-industry knowledge transmission which results in knowledge export or

knowledge import from the cultural industries' perspective. Finally in another type of innovation knowledge which has been created in the cultural industries merely acts as a catalyst for innovation and economic activity outside the cultural industries; the cultural industries need not necessarily be involved in inter-industrial knowledge transmission.

An important attribute of knowledge with respect to the possibility of its transmission between agents is the degree of its accessibility. The opportunities of gaining knowledge which is external to a firm (which involves either intra-industrial or inter-industrial knowledge transmission) vary across industries. Greater intra-industrial accessibility of the innovation implies lower appropriability of the innovation's benefits by the innovator, while greater inter-industrial accessibility may be related to the levels and sources of scientific and technological opportunities (Malerba 2005, 388). Therefore the accessibility of knowledge is an important determinant of a policy to foster innovation in which a particular sector is involved either as a source or a target of innovation or in both roles.

The following sections use these four types of knowledge transmission, its corresponding modes of innovation, and the types of knowledge bases which are involved in the innovation process to analyze the "serious segment" of the performing arts industry.

3. Generic innovation

3.1. Generic innovation within the performing arts industries

A first type of knowledge transmission is of an intra-industry nature as it deals with innovation within the cultural industries or within a single cultural industry. It is labelled "generic" innovation because the agents in the performing arts industries create (new) cultural goods using inherently artistic knowledge. Generally, there exist various types of generic innovation in this segment of the performing arts.

The most creative mode of generic innovation in the performing arts industries is probably composing or writing a new piece ("invention") and performing it for the first time in the public ("innovation"). E.g. there have been 48 first nights of operas in Germany in 2006 (source: Deutscher Bühnenverein 2007). The probably most widespread mode of generic innovation in the performing arts industries is the re-interpretation of pieces and plays which have existed for some time. The association of German theatres and opera houses (Deutscher Bühnenverein 2007) found in its recent comprehensive survey of plays and operas performed in Germany that among those

20 operas which have been played most frequently in German opera houses in the season 2005/06 no opera was composed in the 20th century (let alone 21st century). In the play sector the speed of innovation in terms of performing new plays is a bit faster than in the opera sector, but even among the top twenty plays in the ranking of the most frequently performed plays in Germany there are still only very few plays which had their first release *after* the middle of the 20th century. Another mode of generic innovation in the performing arts sector is to combine existing pieces or plays in a new way.

What are the most important attributes of the knowledge base which enable these kinds generic of innovation? On the supply side of the performing arts market symbolic knowledge and social capital are important: Knowledge and techniques which are necessary for creating and performing pieces (mostly skills and work practices) are to a high degree personalized and therefore frequently (at least at the higher levels) taught by artists, again. The production process in the performing arts industries is largely dominated by transitory project oriented work (one-off work), and learning by doing seems to be crucial. The degree of accessibility is high as the innovations are exposed to a wide audience and therefore competitors may easily gain knowledge and might imitate new products it e.g. by hiring the same conductor, director or ensemble. On the demand side of the performing arts market due to the complexity of the industry's products experienced customers are needed to make performing arts goods become viable. This means that a specific kind of symbolic knowledge is necessary which enables consumers to capture the full utility of this cultural good. This is likely to make suppliers (at least those with a strong market orientation) prefer incremental innovation, because more radical forms of innovation may not be accepted by a wider audience.

Again the regional economy of Salzburg is a good example to underline this argument: On the supply side there has been built up a considerable amount of social capital in the cultural industries – particularly in the serious segments of the performing arts industries – around the Salzburg Festival for many decades. On the demand side there is a large group of regular customers: Most actual visitors have already attended the festival at least once before and there are many visitors who have attended performances of the festival ten or more times (Gaubinger 2003). So the customers are equipped with a rather high degree of symbolic knowledge, but at the same time they should not be overtaxed with off-mainstream ideas which might be considered too complex by the majority of customers. Not surprisingly the mix of productions of the festival is clearly dominated by generic innovation of the re-interpretation type; only few avant-garde performances are included in the festival program. A major generic

innovation of the “combine existing pieces”-type was the performing of all twenty-two operas composed by Wolfgang Amadeus Mozart within only five weeks’ time during the Salzburg Festival 2006 (“Mozart 22”).

3.2. Knowledge transmission with other agents of the performing arts sector

While the previous section deals with knowledge transfer between agents between “performing agents” (for short: artists in a wider sense) within the performing arts industries this section focuses on the knowledge transmission between the performing agents and other branches of the sector along the value chain of production of the performing arts sector. Educational and “memory institutions” in the performing arts sector are involved in this kind of (potential) knowledge transmission. “Memory institutions” are cultural repositories and include museums, galleries, libraries, and archives. They collect material in defined areas, store it, provide searching tools to identify and locate individual items within collections and provide varying forms of physical access to the items (De Laurentis 2006, 79). They can be considered both the collective memory of a community and a resource for learning. Educational institutions in the performing arts sector have plenty of interaction with the performing agents of the performing arts sector.

Knowledge transmission occurs in both directions: On the one hand innovation in memory and educational institutions is stimulated by generic innovation by artists, while on the other hand educational and memory institutions influence the scope of artists’ activities. As learning by doing and learning by experience is crucial to knowledge transmission in the performing arts sector the core competence of many educational institutions – especially of the high-ranking ones – is formed by distinguished practitioners in the field. So the knowledge base is dominated by “know how” and “know who” while analytical knowledge plays only a minor role.

The impact of cultural institutions both on a region’s performing arts sector and on a region’s economy can be strong (Dziembowska-Kowalska and Funck 2000). Salzburg is well endowed with such institutions. It is the location of a high-level educational institution (the University of Arts “Mozarteum”) which is internationally acknowledged as a leading institution in various fields of the performing arts. Like some departments of the University of Salzburg and several local museums it also acts as a memory institution in the performing arts sector. Additionally, even relatively small scale activities like the international summer academy of the University Mozarteum can have a significant impact. The academy attracts dozens of world class instructors and

several hundreds of students (most of them coming from Asia and North America) in various fields of the performing arts every summer to Salzburg. While the impact of some of some educational institutions on the region's economy in terms of value added and employment equivalents has already been studied (Scherrer 1999) its actual and potential impact on the region's performing arts industries has not been systematically researched yet.

4. Innovation in performing arts industries driven by knowledge originating from other industries

Innovation in the cultural industries might be driven by knowledge and innovation which have its origin in other sectors. On the one hand, there are situations in which innovation is more incremental than "disruptive" in its nature merely because innovation in the performing arts industry frequently is characterized by a new interpretation of existing pieces. On the other hand the adoption of technology from outside of the cultural industries might be the source of entirely new forms and styles in the performing arts industry thus allowing for more than a merely incremental innovation.

Innovation in the performing arts sector is possible even if technology used for innovation has already existed outside the cultural industries for quite a while before its adoption to the performing arts sector. The innovative act then consists of the application or use of existing knowledge in new environments and thus creating a new product or even a new type of performance in the performing arts sector. But clearly, there is a significant impact of *new* technologies which have been developed in industries outside the performing arts like information and communication technologies which have opened new ways of performing and also for copying and distributing the products of performing arts.

If innovation in the performing arts industry needs the development or at least adoption of technology outside the performing arts sector then innovation frequently is based on learning by interaction between producers and customers. Technology providers from outside the performing arts sector develop tailor-made solutions for specific problems of a "demanding" customer; the performing arts industries then act as demanding customers which push innovation in other industries. On the side of the performing arts industry search skills and "know who" are involved, on the side of the technology provider mostly synthetic knowledge is involved in the production process. Stage technology and stage design, multimedia and special effects technology are good examples for this kind of inflow of technology into the performing arts sector. Demand

from the performing arts sector therefore might trigger industries along the supply chain of the cultural sector or might even bring in new industries into its supply chain.

New distribution technologies which are developed in other industries may also have a significant impact on the performing arts industries. Such technologies primarily affect the industries' ability to enlarge the scale of its business (e.g. the digital revolution). In some cases new distribution technologies could even enlarge the scope of activity of the performing arts sector if the new distribution technology allows overcoming the minimum efficient size of production.

Again, there is some sketchy evidence of this kind of innovation taking place in the Salzburg area. A good example from the area is the Lawine Torrén performance company which uses trucks, cranes, planes and other machinery and technical equipment both for its art performances and more commercially oriented performances. Systematic empirical evidence on the scope of this kind of innovation and knowledge transfer is still lacking.

Summing up, in this type of inter-sectoral knowledge transmission the assimilative capacity of the performing arts industry for (new) technology which emerged in other than the cultural industries is important for this type of innovation. While symbolic knowledge is still important here, elements of synthetic knowledge are more significant than in the first type of knowledge spillover; some elements of analytical knowledge seem to be present, too.

5. Knowledge transmission from performing arts industries to other industries

Knowledge transmission from cultural industries to other industries is at the core of the debate on the creative class and its impact on innovation and regional economic development. The creative industries are defined as industries which use knowledge originating from the cultural sector. The acquisition of knowledge which originates in the cultural industries therefore is a major driver of innovation in the "creative industries". If this kind of knowledge transmission is successful it can be a source of competitiveness for firms located in high wage countries as it allows them to differentiate its products and thus to gain some monopolistic power which should help them to avoid price and cost competition from low wage countries. The role of the cultural industries and the performing arts industries in particular as potential sources of innovation for industries outside the cultural sector is analyzed with a model of customer satisfaction.

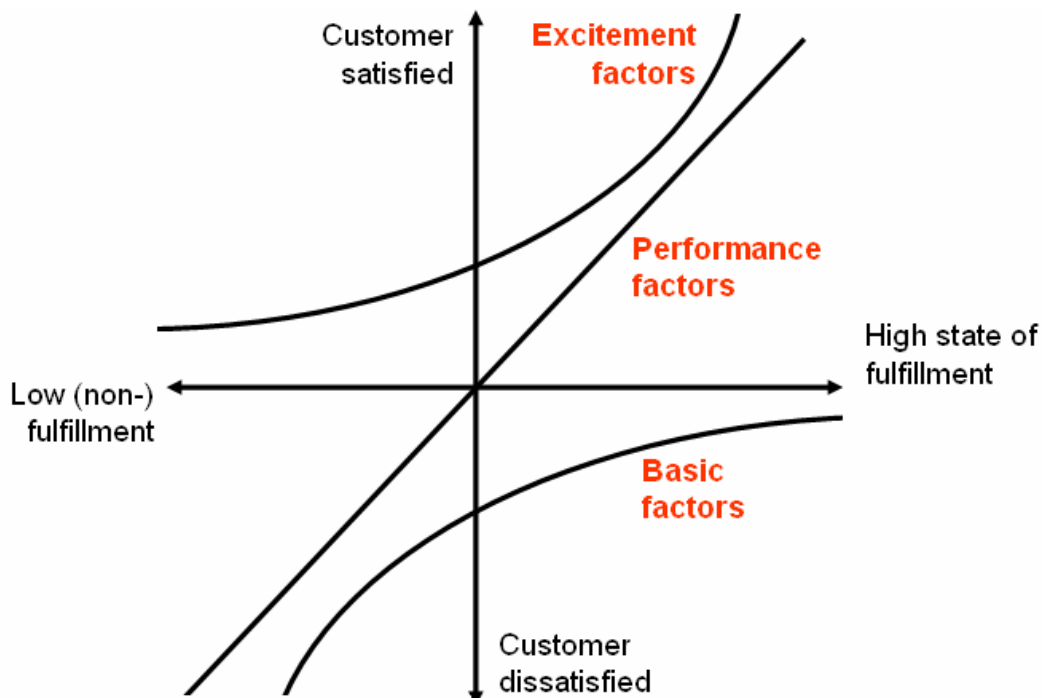
5.1. The role of customer satisfaction

The value creation in creative industries is strongly related to the symbolic value which is incorporated in or attached to goods and services. Functionality is not enough to attract consumers to spend money on consumer goods as the functional value is taken for granted – it is a “basic factor” according to the Kano model of customer satisfaction (Kano 1984) which is well known in management and marketing science. This model distinguishes three categories of product attributes: threshold or basic attributes, performance attributes and excitement attributes (see diagram 3).

Threshold attributes are the expected attributes of a product (the “musts”); if these are absent or only poorly performing, customers will be extremely dissatisfied.

In contrast to basic attributes performance attributes provide firms an opportunity for product differentiation: A good performance of these attributes (strongly positive state of fulfilment) increases customer satisfaction (and vice versa) and thus improves the competitiveness of the firm and its product. Customers usually are able to verbalise performance attributes.

Diagram 3: The Kano model of customer satisfaction



Source: Kano 1984

The third category of attributes, the excitement attributes, customers do not expect but when a good provides such attributes this results in a high level of customer satisfaction, while their absence does not imply dissatisfaction. In a well developed and competitive market products of different suppliers provide typically similar characteristics concerning the basic and performance attributes. Therefore excitement attributes which address unknown needs provide a competitive advantage in the market.

Symbolic value created by cultural and creative industries typically enhances product attributes: At least in a first phase of a product cycle of attaching symbolic value to certain goods (both manufactured goods and services may be involved), this adds an excitement attribute to the good if it is unexpected by the customers. Thus customer satisfaction will be increased. When in later stages of the product cycle such symbolic value is attached these products might become more commonplace. Then symbolic value changes from an excitement attribute to a performance attribute because symbolic value is expected, and the “more” symbolic value is attached to the good the higher will be the level of customer satisfaction. Finally it is possible that performance attributes become so commonplace product attributes that they end up as a basic or threshold attribute, which means that a product without symbolic value does not make it to the market any more. So based on the Kano model of customer satisfaction the creative industries which produce symbolic value will be increasingly important for developing and maintaining the competitiveness of firms and products particularly in countries in which firms have to bear high (labour) cost.

5.2. Knowledge transmission from performing arts to other industries

There exist a potential for knowledge transmission from the performing arts industry to creative industries which make intensive use of knowledge originating from the cultural sector. The “creative class” Florida (2002) consists of high-tech scientists, engineers, architects, educators, writers, artists, and entertainers, who create new ideas, new technology, and new creative content. Its members share common attributes, such as creativity, individuality, and diversity, and the creative class fosters an open and dynamic personal and professional environment which attracts businesses and capital (and additional creative people, in turn). Accordingly the diffusion of knowledge which originates from the cultural sector occurs via the creative industries. Particularly firms operating in the marketing, event marketing, event management, design, multimedia,

and tourism business might gain from knowledge transmission from the performing arts.

For this type of knowledge transmission again, a mix of *know how* and *know who* seems to be important. As not every kind of cultural industry is conducive to attract the specific kinds of creative people who are needed in the creative industries a core question therefore is if Salzburg's performing arts industry is attractive for the "right" people. The type of supply of Salzburg's cultural industry (including big parts of its performing arts industry) is primarily characterized by the production of high quality mainstream goods with strong elitist elements. Initiatives of performing arts of a more avant-garde type nature have been growing steadily, but the variety of cultural goods which can be offered in big cities cannot be achieved in a small city of 150.000 inhabitants. This has of course implications for attracting various types of creative talent and for the design of economic policy strategies.

Again, as far as *know who* is concerned, a considerable amount of social capital has been built up within the industry for many years. Salzburg's reputation of being an international place notwithstanding, there is a concern that this high level of social capital has made nepotism an important phenomenon in the local cultural industry (Pöschl 2004, 13). So for insiders Salzburg is at least for some parts of the cultural and creative industries and at least for some time of the year an attractive place to go and to do business, while outsiders might find it less attractive.

Finally, knowledge transmission occurs also from the performing arts industry directly to other industries than creative industries. The success of manufacturing industries particularly in the consumer goods sector depends to a growing extent on the proper design and marketing of products. Insofar as the goods are designed and marketing is made in-house (and not by independent design and marketing firms) there is also a potential for knowledge transmission from the cultural industries to manufacturing and service industries which are not part of the creative industries. This kind of knowledge transmission from cultural industries to manufacturing can be observed in the Salzburg area in some leading manufacturers (e.g. ski and motorbike industry); but usually other segments of the cultural industries than the "serious" performing arts are involved.

6. Performing arts industries acting as a catalyst for economic activity in industries outside the cultural sector

Fourth, the cultural industries (not necessarily *innovation* in cultural industries) can act as a catalyst for economic activity (this means also for innovation) in other sectors. This

kind of externalities from cultural industries (performing arts in particular) on other industries does not (at least: not necessarily) include *knowledge* transmission. There are two interrelated groups of externalities which have an impact on other industries and which originate from the cultural industries: Externalities with a direct impact on an industry (like tourism) and externalities with a general impact.

6.1. Direct impact of performing arts-based image and popularity on other industries

A most straightforward direct impact of a region's image which is determined by the innovative capacity of its cultural industry on some other industry refers to culture-motivated tourism as cultural events are an important motive for tourism. Most studies on the regional economic impact of tourism related to the art and cultural industries are rooted in the export base approach. Thus festivals and cultural institutions which are important not only in the region in which they are located are analysed in this type of studies. The important economic role of the performing arts industries by referring to big events and festivals which attract significant amounts of visitors from outside the region ("bring in money into the regional economy") is emphasized. The required knowledge base for that kind of activity is clearly symbolic. In this kind of tourism customers have to be familiar with the symbols and codes of the goods which are produced by the performing arts industry.

The Salzburg Festival which can be considered a flagship of that region's cultural industry base (Kyrer 1987 and 1993, Kainberger 1997, Gaubinger 1998 and 2003) is a good example that "constructing" regional advantage based on innovation in the performing arts industry is feasible. Initially it was generic innovation within the cultural industries when in the 1920s the founder-artists (most of them based in Vienna) discovered Salzburg as a nice and quiet place to stay during summer time and have a festival there. The political leaders soon realised the potential of such a festival for tourism, and from the very beginning one of the regional government's deliberate reasons of providing public support for the Festival was to stimulate tourism and the local economy during summer time. In the 1920s when the Festival was in financial troubles it was even bailed out by the provincial government because of the Festival's importance for tourism (Dopsch and Hoffmann 1996). In 1926 a law was established which regulated that the deficit of the Festival shall be covered by the regional and federal governments and by a specific fund aimed at supporting tourism. The public funding of the festival's financial deficit has been justified (and is still justified) with its

huge impact on the regional and national economy. The analysis of income and employment effects of other agents in the “serious” segment of the performing arts sector also show a significant impact on the region’s economy. Again, the stimulus is felt mostly in the tourism industry (see Grill 2002, Scherrer 1999).

Summing up, Salzburg has successfully transferred its image and popularity from the cultural sector to the tourism industry. This image-transfer from the performing arts industry to parts of the regional economy is based on symbolic value which is successfully attached to specific tourism and related services. In the case of Salzburg this symbolic value initially was only partly deliberately created, partly it was some kind of a windfall gain. But the impact should not be overestimated because the share of tourism which is directly motivated by culture-related interest in Salzburg’s total tourism is small; in terms of tourist nights spent in the area it is estimated that the share of culture-related tourism in total tourism is far below ten per cent. Most tourists who spend vacations in the area are motivated by the consumption of nature and landscape or by performing some kind of outdoor activity.

There is also potential for the transfer of a culture-based image which derives from the performing arts industry to products of other industries than tourism and to industries outside the value chain of the performing arts sector in the typical merchandising industries which sell catalogues and books, T-shirts and beer mugs, and the like. Beyond this an image transfer seems to be more difficult, but in many regions firms try to attach the region’s *popularity* (and not so much the inherently performance at-related symbolic value) which is derived from the local performing arts industries to their products. As it may be too complex to attach symbolic value to products which are “too far away” from the cultural good on which such symbolic value might be based the products are designed in way that there is not much symbolic knowledge necessary to “understand” these products.

Concerning Salzburg there is also only sparse evidence that has been able to transfer this image to other sectors of the economy than industries along the value chain of the performing arts industries, tourism and merchandising industries. Local industry does not make much *direct* use of Salzburg’s art and culture-based image and popularity, and insofar the catalyst function of the cultural industry seems to be not fully exploited, yet.

6.2. Impact of the performing arts-based image and popularity on the quality of a business location

Like other cultural industries the performing arts industries can have a function in the regional innovation process which reaches into all sectors of the regional economy without being directly involved in the innovation process. Again tourism is a channel where the impact of the performing arts industry on image and popularity of a region can be designed. There is an indirect impact of performing arts industries on *non-culture motivated* tourism as they can make a place at least well known which might be important even for tourists who do not intend to consume performing arts-related services in the region.

Performing arts industries can further act as a catalyst for innovation in the region because cultural goods are overproportionately consumed by entrepreneurs, managers, and core employees, by opinion leaders, by members of the creative class. “Hard” location factors like prices, cost, and the availability of infrastructure still determine the quality of a business location. Some hard factors (e.g. infrastructure) can be copied by new competitors, and in developed economies it is difficult and sometimes virtually impossible to compete at the cost dimension. Modern information, communication, and transport technologies allow firms nowadays to respond quickly and effectively to relative changes in the endowment with hard location factors across regions. Therefore non-transferable location factors become increasingly important for a region’s position in competition for business investment. These are generally “soft” location factors which usually are complex, qualitative by nature, and therefore difficult to quantify, to copy them, or to transfer into other regions. The regional cultural industry sector typically provides “soft factors” which determine the quality of the region as a business location and the region’s attractiveness for firms.

In this last quadrant of the matrix the knowledge bases in the industries *outside the cultural and creative industries* are relevant: How important are “soft factors” of location in those industries which predominate the region’s economy? How important are soft factors in industries in which regional economic policy wants to “create advantage”? A mixture of symbolic knowledge and popularity of the place due to cultural (performing arts) industry activities is required.

Indeed, the performing arts sector makes Salzburg an attractive destination even for those who are not interested to consume its services. Salzburg had been a destination for international tourism already long before a significant “culture industry” was established after the founding of the Festival in 1920. Therefore culture and the

performing arts industries in particular was not the initial driver of tourism but was only an “add-on” to an already existing tourism – a powerful one, of course. Very soon the festival developed into a major focal point of the arts community in (at least) the German speaking countries and into a meeting place of international society. Two out of five major factors which determine Salzburg’s image are directly and exclusively related to the performing arts sector (the commercialization of Salzburg as the birth place of the composer Wolfgang Amadeus Mozart and the Salzburg Festival); two other factors are at least partly related to a cultural activity (Scherrer 2007). So it is quite obvious that the performing arts sector is of crucial importance for Salzburg’s international recognition and reputation.

This is confirmed by a survey of firms which approached Salzburg from outside to invest in the city of Salzburg (Scherrer 2004). The survey revealed that in about half of the cases some ties with the region which had already existed for some time and that these ties were important for the investment decision. Nearly all of those persons who had such ties to the region and who are in charge of investment decisions say that these ties existed because of Salzburg being a place with a good image as an international centre of culture. In several other cases Salzburg’s image played a decisive role in the location decision process. For example the Austrian subsidiary of a German multinational firm was located in Salzburg because the German headquarter had to be offered “something special”. Of course, the hard factors have to be supportive for the investment, but Salzburg’s international recognition and reputation was an additional and powerful argument to prefer Salzburg to other places. Many respondents considered this image as the area’s most important asset in place marketing. A high degree of symbolic value is attached to “living in Salzburg” or at least to “staying in Salzburg (during festival time)”; therefore image is used as an asset in place marketing.

7. Conclusions

In a learning economy the transmission of knowledge between agents – both within and between sectors of the regional economy – is crucial for the innovation process. By distinguishing three types of knowledge bases and four types of knowledge transmission a framework was developed which allows analysing various kinds of innovation in which performing industries can be involved. The argument is supported by empirical illustrations which refer to the province of Salzburg which is a region with

important “players” in the performing arts sector. As a result of our analysis there arise two sets of questions:

First, questions arise from a regional policy perspective concerning the acceptance of the performing arts sector’s actual and potential role in the regional innovation process.

- It is questionable if regional policies pay attention to innovation along the value chain of the performing arts sector (e.g. music instruments, stage technology, training and education) from an *economic* point of view. Departmentalism could be an obstacle to such an integrated view – e.g. generic innovation in the performing arts sector is a traditional field of “cultural policy” and not targeted by economic policy.
- Innovation in creative industries has in many regions become a target of specific sectoral policies, in many cases aiming at design, advertisement, and multimedia industries. How much attention is given to performing arts industries as a possible source of knowledge which could be used in the creative industries?
- Concerning the potential for knowledge import from other sectors to foster innovation in the region’s performing arts industries the question seems to be an even more fundamental one: Has such a potential already been exploited, has it already been recognized at all and analysed?
- The role of the performing arts industries as a catalyst for innovation and activity in other branches seems to be widely recognized in tourism, place marketing and location policy. But could that potential be exploited more effectively in these sectors and could it be transferred to other sectors of the economy?

Second, in order to achieve efficiency of regional policies – innovation policies in particular – policy designers and policy makers are required to take into account the different kinds of knowledge bases which determine those innovation processes in which the performing arts industries are involved. Thus a second and interrelated set of questions emerges which refers to the role of the different types of knowledge bases which are involved in the innovation process:

- Are regional economic and cultural policy makers aware that knowledge bases vary systematically across sectors?
- If so, do they actually pay attention to the implications of the specific knowledge bases which are involved in the innovation process of the performing arts industries?

Bibliography

- Asheim, Björn, Lars Coenen, Jerker Moodysson and Jan Vang (2007), Constructing knowledge-based regional advantage: Implications for regional innovation policy. *International Journal of Entrepreneurship and Innovation Management* 7: 140-155.
- Asheim, Björn and Lars Coenen (2006), Contextualising Regional Innovation Systems in a Globalising Learning Economy: On Knowledge Bases and Institutional Frameworks. *Journal of Technology Transfer* 31: 163–173.
- Asheim, Björn, and Meric S. Gertler (2005), The Geography of Innovation: Regional Innovation Systems. In: Jan Fagerberg, David C. Mowery and Richard R. Nelson (eds.): *The Oxford Handbook of Innovation*. Oxford: Oxford University Press: 291-317.
- Best, Michael H. (2001), *The New Competitive Advantage. The Renewal of American Industry*, Oxford: Oxford University Press.
- Cooke Philip, Leydesdorff Loet (2006), Regional Development in the Knowledge-Based Economy: The Construction of Advantage. *Journal of Technology Transfer*, 31: 5-15,
- De Laurentis, Carla (2006), Digital Knowledge Exploitation: ICT, Memory Institutions and Innovation from Cultural Assets. *Journal of Technology Transfer*, 31: 77-89.
- Deutscher Bühnenverein (2007), *Werkstatistik 2005/06*.
- Dopsch, Heinz und Robert Hoffmann (1996), *Geschichte der Stadt Salzburg*. Salzburg-München.
- Dziembowska-Kowalska, Jolanta, Rolf H. Funck (2000), Cultural activities as a location factor in European competition between regions: Concepts and some evidence. *The Annals of Regional Science* 34:1-12.
- Florida, Richard (2002), *The Rise of the Creative Class*. New York: Basic Books.
- Gaubinger, Bernd (1998, 2003): *Die wirtschaftliche Bedeutung der Salzburger Festspiele*, Wirtschaftskammer Salzburg, Salzburg 1998 und 2003.
- Grabher, Gernot (2002), Cool Projects, Boring Institutions: Temporary Collaboration in Social Context. *Regional Studies* 36.3: 205–214.
- Grill, Manfred (2002), *Ökonomische Auswirkungen des Kulturtourismus am Beispiel des Salzburger Adventsingens*, Diss., Salzburg.
- Høgni Kalsø Hansen, Jan Vang, Bjørn Asheim (2005), *The Creative Class and Regional Growth: Towards a Knowledge Based Approach*. CIRCLE Paper no. 2005/15, Lund University, Sweden.
- Kainberger Hedwig (1997), *Erklärung und Rechtfertigung von Subventionen für die Salzburger Festspiele*. Dissertation, Innsbruck.
- Kano, Noriaki (1984), Attractive quality and must-be quality. *Journal of the Japanese Society for Quality Control*, April: 39-48.
- Kyrer, Alfred (1997), *Der wirtschaftliche Nutzen von Festspielen, Fachmessen und Flughäfen am Beispiel der Region Salzburg*. Regensburg: Transfer Verlag.
- Kyrer, Alfred (Leitung) (1993), *Die regionalwirtschaftliche Bedeutung von Kunst und Kultur im internationalen Vergleich – am Beispiel der Regionen Salzburg, München und Basel*, Salzburg mimeo.
- Malerba, Franco (2005), Sectoral Systems: How and Why Innovation Differs across Sectors. In: Jan Fagerberg, David C. Mowery and Richard R. Nelson (eds.): *The Oxford Handbook of Innovation*. Oxford:Oxford University Press: 380-406.

Moulaert, Frank and Farid Sekia (2003), Territorial Innovation Models: A Critical Survey. *Regional Studies* 37.3: 289-302.

Pöschl, Herwig (Projektleitung) (2004), *Kreativwirtschaft in Salzburg*. Salzburg, mimeo.

Scherrer, Walter (1999), *Wirtschaftliche Auswirkungen der Internationalen Sommerakademie Mozarteum*. Salzburg, mimeo.

Scherrer, Walter (2004), Strategic Information about a business location on the web: Investors' needs and a local authority's offer in Salzburg, in: Giuseppe Traversa und Maurizio Potente (ed.): *L'orchestra burocratica. Modelli, metodi e strumenti per la e-administration*. Roma: Aracne: 231-245.

Scherrer, Walter (2006), *Kunst und Kultur als Wirtschaftsfaktor in Salzburg*. In: *Salzburger Jahrbuch für Politik* 2005: 150-169

Scherrer, Walter (2007), *The Significance of the Art and Culture-Sector for a Region's Economy with Evidence from Salzburg, Austria*. Paper presented at the 1st International Seminar on Regional Innovation Policies, University of Porto.

1. Introduction	2
2. Concepts	3
2.1. Three types of knowledge bases	3
2.2. Four types of knowledge transmission in which cultural industries are involved: Overview	6
3. Generic innovation	7
3.1. Generic innovation within the performing arts industries	7
3.2. Knowledge transmission with other agents of the performing arts sector	9
4. Innovation in performing arts industries driven by knowledge originating from other industries	10
5. Knowledge transmission from performing arts industries to other industries	11
5.1. The role of customer satisfaction	12
5.2. Knowledge transmission from performing arts to other industries	13
6. Performing arts industries acting as a catalyst for economic activity in industries outside the cultural sector	14
6.1. Direct impact of performing arts-based image and popularity on other industries	15
6.2. Impact of the performing arts-based image and popularity on the quality of a business location	17
7. Conclusions	18
Bibliography	20