

# Creative Economy in 17th Century Rotterdam

Creative City of the Past?

**Title:** Creative Economy in 17th Century Rotterdam. Creative City of the Past?

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## 1 Introduction

A hundred years ago at the dawn of the 20<sup>th</sup> century fewer than 10 percent of the people worked in the creative sectors of economy (Florida, 2002:XIII). Fewer than 15 percent of the workforce did in 1950 (Florida, 2002: XIV). Today creativity is in fashion. Books about the creative economy published; experts speak about the creative age. Partly this is logic. Companies like Apple, Warner Bros and Walt Disney have become large players in the world economy. The world's biggest companies in 1950 were all industrial manufacturers and raw materials suppliers: Ford, General Electric, Philips, and General Motors. To remain competitive in today's economy creativity, design and innovation count. Companies are therefore trying to distinguish themselves and their products by focusing on their creative skills and by building cultural value into their products.

Is this creativity a new force behind economy? Or can we speak about a factor that has always been present? To take a closer look this thesis is about the creative economy of 17<sup>th</sup> century Rotterdam. A period of great prosperity with an enormous growth of people and wealth. People from the south came to Rotterdam. Travelers from all over the world and new kinds of products came in the market. World outlook changed and the creative field, as if we define it today, came to life. Could we say that the 17<sup>th</sup> century was a creative age?

This first chapter is a short introduction to the subject and the research methods. What is this thesis about? How did I come up with this subject? Why is this particular question interesting? And maybe more important, how am I going to do research to answer the main question?

### *1.1 Subject and Period*

Today the creative city is a hype. In newspapers, of congresses, there is a lot of attention for creative economy. Quite a lot of books have been written about the creative economy, the creative city and the creative class. Examples of these are 'The Creative City' by Charles Landry, 'Creative Industries' by Caves and 'The Rise of the Creative

Class' by Richard Florida. Next to this literature explosion, national and local governments are investing resources to develop the creative city, trying to attract the creative class. The complete creative economy, creative city, creative industries and of course the creative class is quite fashionable at this moment.

Is this new form of economy that new? Alternatively, is there just a lot of interest in something that has always been there? If we look at the history of cities, we see that cities like Rome, Paris, and Athens, for example, were large and creative hundreds of years ago. So what do these cities have in common, what could we say about successful cities? Moreover, is today's creativity new or just fashionable? To find answers I researched the creative economy in 17<sup>th</sup> century Rotterdam.

At this very moment, the world is undergoing an economic transmission. In the 17<sup>th</sup> century, the world was changing greatly, one of the reasons why the 17<sup>th</sup> century is interesting to research. The 17<sup>th</sup> century or, the golden age, was a period in which art and creative products like clothing and porcelain became more important. It was also a period in which prosperity raise. Think of the development of the VOC and the WIC. This increase of prosperity was one of the core reasons creativity could develop. There came many immigrants to Rotterdam and the city changed in economics and architectural aspects. In this period, there was an enormous increase of inhabitants.

What was the role of the creative sector in Rotterdam? Amsterdam was, and still is, famous for its creative sector from the research period. What happened at the same time in Rotterdam? In the following research, we will see how the artificial landscape in Rotterdam looked at the 17<sup>th</sup> century. Secondly we will use the creative economy to declare the effects we see in the 17<sup>th</sup> century. What can we say concerning the information that is still available about the creative economy in Rotterdam? Could we conclude that creativity is just hype, not new phenomena?

## *1.2 Theoretical relevance and main question*

There are many books written about the creative economy, but actually, almost none is handling the creative history of cities. The only author who did is Peter Hall in his book;

Cities in Civilization. The fact that little has been written about the subject makes it interesting to research. In his book a combination is been made between theory about the creative economy and local development. In this thesis we are combining historical research about the city of Rotterdam with today's theory about creative economy. This idea leads to the following research question:

### **What was the role of creative economy in Rotterdam in the period 1600-1700?**

In order to answer this main question, every chapter is divided into sub questions, which will be answered in each individual chapter. The sub questions will start in chapter 2, with an introduction of the used definitions of creative economy in today's literature. The definitions are quite broad and vary widely. In chapter 3, the development of the city in general will be handled. It is important to understand how a city works and what the role of creativity in city development is, according to experts. In Chapter 4, there will be a description of cluster theory. How do creative clusters work? Is this a new phenomena or could we find comparable institutes in the 17<sup>th</sup> century? In chapter 5, Rotterdam and the 17<sup>th</sup> century will be handled. What was the role of creativity in local development and how did the creative field look? In the final chapter, there will be summaries of all the chapters and conclusions about the theory and history. The answer to the final research question and conclusions could also be found in this chapter. The epilogue will give an overview over Rotterdam and its creative economy in 2008.

#### *1.3 Qualitative versus Quantitative research*

What kind of research method will be used? There is a distinction between qualitative and quantitative research. These forms of research are different but it is possible to combine the two. Where quantitative research is positivist, artificial, deductive, objectivist, structured, theory testing and controlling, qualitative research is post-modernist, naturalistic, inductive, exploratory, theory generating and subjective (Seale, 2004: 295).

There are several arguments in favour of the use of a combination between quantitative and qualitative research. Critics argue that the assumptions behind the qualitative and

quantitative methods are fundamentally different because first of all, what we are able to know and how we can know it. Second, they argue about the nature of the social world. Others are in favour of a combination of techniques, because there is more overlap between the two than we think at first sight. Quantitative research is more in the testing of hypothesis, while qualitative research implies an inductive process in which theory is derived from data.

The data that will be used in the research are secondary. Most data will be found in books and interviews with experts, and in archives from the city of Rotterdam and the RKD.

Qualitative interviews could be an interesting form of information, but it is always a form of communication. The outcome of an interview could be affected in many ways. As well, the interaction between interviewer and informant could be of influence. To make the interviews more readable it could be interesting to give some extra information about time, place, location etc. The interviews would be in small numbers, because these are just for a better understanding of the local situation and background information. An interview always presents the views and opinions of that individual. Interviews will be taken by experts about the 17<sup>th</sup> century.

#### *1.4 Aims and Objectives*

A problem with this subject is the lack of available data for the period 1600-1700. The information needed to answer the research question has to be found in the database of the city of Rotterdam and the database of the RKD. The problem of secondary data is that it is never sure whether the information is correct. It is not possible to test this information, because little has been written on the subject. Besides, we do not know which information is documented in the archives and which information is not.



## 2 Creative Industries, Terms and Definitions

Creative economy, creative industries, creative class, creative city. What are we actually talking about? Today there are many terms used in academic research on these subjects, but what do these terms mean? The choice of definition influences the research, so it is important to know what the authors mean with their research. Of these different definitions, one will be chosen as a guideline for the research about the 17<sup>th</sup> century. Which professions of today's definition were active in the 17<sup>th</sup> century? In the following paragraph, we will find several definitions by several authors who make a difference in the field of creative economy.

### *2.1 Florida*

Richard Florida is quite a popular author. His book, *The Rise of the Creative Class* from 2002 has many fans in the field of municipalities and scholars. Because Florida's books are not written in the classical academic style, the books are quite readable for all. Florida's view is that we are living in the creative age. His definitions are quite broad.

Richard Florida does not give a clear definition of what he means with creative economy in the book, *The Rise of the Creative Class*. Florida starts chapter 3 of the book with the statement 'Today's economy is fundamentally a creative economy' (Florida, 2002:44). It is remarkable that he starts a paragraph on pages 56 with the statement; 'creativity was an economic force long before the twentieth century' (Florida, 2002:56). He argues, 'creativity underlies all economic advancement, then it seems to me that we can read economic history as a succession of new and better ways to harness creativity' (Florida, 2002: 56). These statements are in conflict. He sees creativity as the creation of new ideas, putting new ideas into action and rewarding new ideas. He believes that today's nations are shifting to information-based, knowledge driven economies. In his perception, knowledge and information are the materials and tools of creativity. 'Innovation whether in the form of a new technological artefact or a new business model or method, it is a product' (Florida, 2002: 44). The motor behind economy has become expansion of technological innovation and creative content. Florida defines a new social structure of creativity. This infrastructure is split up in three parts. 1. New systems for

technological creativity and entrepreneurship 2. New and more effecting models for producing goods and services 3. A broad social, cultural and geographical milieu conducive to creativity of all sorts (Florida, 2002: 48). This is linked up of the importance of the creative class.

In another research report written by Florida there is also no clear definition of the creative economy. Data of the ILO (International Labour Organization) are used. This definition classifies scientists, engineers, artists, musicians, architects, managers, professionals and others whose jobs deal with creative or conceptual tasks as a share of total employment. Most of Florida's work is based on the creative class principle instead of the creative economy.

## *2.2 Landry*

Charles Landry has written the book; the Creative City. The book is about the question, why some cities seem to have adjusted to the changes over the past decades and why other cities have not. Landry found that successful cities seem to have things in common: visionary individuals, creative organizations and a political culture. The ability to react on changes came forward by expressing values, expressing identity and organizational culture. The key actors in these successful cities share qualities; open-mindedness and a willingness to take risk, a clear focus on long-term aims with an understanding of strategy, a capacity to work with local distinctiveness and to find a strength in apparent weakness, a willingness to listen and learn. These are some characteristics that successfully influence the quality of projects, people and organizations and finally creative cities (Landry, 2000:4). In this book Landry defines the creative industries as following; 'the production, distribution and perception of private and community radio, publishing and bookselling, film, video and multimedia, music, design, crafts and theatre industries' (Landry, 2000: 6). Landry sees creativity as a method of exploiting natural resources and helping them to grow. Cultural resources are the raw materials of the city.

### *2.3 Caves*

Caves is the author of the book, “Creative Industries”. Caves defines the creative industries as following; 'the creative industries supplying goods and services that we broadly associate with cultural, artistic, or simply entertainment value. They include book and magazine publishing, the visual arts (painting, sculpture), the performing arts (theatre, opera, concerts, dance), sound recordings, cinema and TV films, even fashion and toys and games' (Caves, 2000: 1). What is interesting in the creative field is the fact that producers most of the time are not suppliers. For example, a painter goes to a gallery or art dealer to sell his work. Artists work together with other professionals to complete their production. All these cooperation's lead too many freelance contracts, which are a specification of the market. Caves argues that there are specific economic features of the market. The first specification Caves recalls is the fact that demand is uncertain. With creative products, it is very uncertain what consumers will value for the new product. In 'normal' industries producers will try to predict what the product will do in the market, in the cultural industries this is of less value, the product is central not demand. The risks of production are much higher than general. Another specification of the creative industries is the asymmetric information problem. The creative product is an experience good, which means that the buyer's satisfaction is purely subjective.

The second property Caves mentions is that creative workers value their product more than workers in general industries. Normally employees are hired for a job and are not personally connected with the product or service they produce, in the creative field 'the creator cares vitally about the originality displayed, the technical prowess demonstrated, the resolution and harmony achieved in the creative act'(Caves, 2000:4).

### *2.4 Throsby*

Throsby describes his book, Economics and Culture, quite broad his definition of the creative industries. Throsby's starting point is, the cultural goods and services involving creativity in their production, embodying some degree of intellectual property and conveying symbolic meaning' (Throsby, 2001:112). The generation of intellectual property might be seen as a sufficient criterion, enabling the terms the copyrights

industries and the cultural industries to be used more or less synonymously (Throsby, 2001: 112).

Throsby defines 3 layers in his definition. The first layer is the heart of the industry, the second layer is based on primary cultural goods and services and in the third layer, the boundaries are made wider.

The heart of the creative industries is consists of the traditional forms like dance, music, theatre, literature, visual arts, and crafts, but it also includes newer forms like video art, performance art, computer and multimedia art. Each of these art forms can be defined in an industry, like the music industry, and is formed by all kinds of professions that function in the industry like, songwriters, performers, promoters, publishers, record companies, distributors, retailers and so on.

The second group Throsby defines could be called 'primary cultural goods and services'. This includes book and magazine publishing, television and radio, newspapers and film.

The third and final layer defines the cultural industries quite broad. In this ring, sectors like advertising, tourism, architecture and design are included. Landry says about tourism the following, 'Tourism feeds off culture, although mostly is focusing on the narrow concept of culture, museums, galleries and theatres' (Landry, 2000:9).

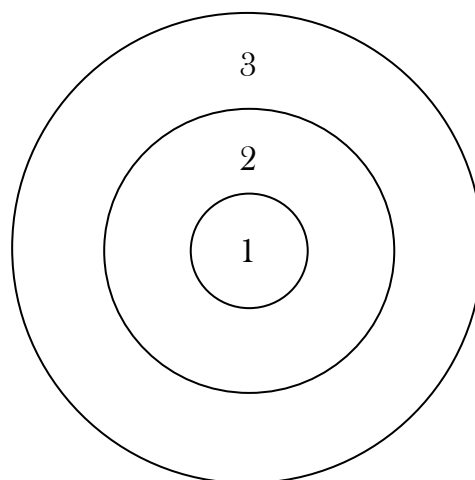


Figure 1 Circles

*1= traditional arts* (dance, music, theatre, literature, visual arts, crafts, etc.)

*2= primary cultural goods and services* (book and magazine publishing, television and radio, newspapers and film)

*3= Broad definition* (Tourism, architecture and design)

### *2.5 European Union*

The European Union has made quite a detailed definition and makes a distinction between the core arts field, the cultural industries and the creative industries. The cultural sector includes, non-industrial sectors producing non-reproducible goods and services aimed at being "consumed" on the spot (a concert, an art fair, an exhibition). These are the arts field (visual arts including paintings, sculpture, craft, and photography; the arts and antique markets; performing arts including opera, orchestra, theatre, dance, circus; and heritage including museums, heritage sites, archaeological sites, libraries and archives). Industrial sectors producing cultural products aimed at mass reproduction, mass-dissemination and exports (for example, a book, a film, a sound recording). These are "cultural industries" including film and video, video games, broadcasting, music, book and press publishing (EU, 2000:1).

In the "creative sector", culture becomes a "creative" input in the production of non-cultural goods. It includes activities such as design (fashion design, interior design, and product design), architecture, and advertising. Creativity is understood as the use of cultural resources as an intermediate consumption in the production process of non-cultural sectors, and thereby as a source of innovation (EU, 2000:1). See Appendix B.

## *2.6 Rotterdam*

The city council of Rotterdam is quite active with in creative economy. Rotterdam wrote a document called; 'Visie Creatieve Economie 2007-2010'. In this document, the municipality made a diagram in which distinguished between 3 forms of production - Creation, Material production and Distribution- and Rotterdam made a distinction between 3 categories of the creative industries, the Arts, Media & Entertainment and Creative Business Services. Further, more Rotterdam defined a limited definition and a broad definition of the creative industry. See Appendix C.

## *2.7 The start of a new discussion?*

In the journal of cultural economics at the end of 2008 there was an article written by Potts, Cunningham, Hartley and Ormerod about the fact that there must be a new definition of creative industries. According to the authors, the term creative industries is regularly defined in terms of industrial classification, in other words: in what they do, what they produce and how they produce it. Instead of the use of an industrial classification, like agriculture, biotech or service industries, the authors would like to come up with a market-based interpretation instead.

Two problems arise, first the creative industries 'share many characteristics of the service economy', second the creative industries 'are to a large extent an outgrowth of the previously non-market economy of cultural public goods and private imagination that seeks new ways of seeing and representing the world'(Potts, 2008:168). The authors suggest that it would be better to take the perspective of an emergent market economy rather than an industrial one. The central economic concern must be the nature of the markets that coordinate the industry instead of the inputs/outputs of production or consumption. The authors found that the creative industries function in terms of individual choice in the context of a complex social system of other individual choice instead of an individual or artistic creative novelty in a social context. In that case the creative industries should be defined in 'a class of economic choice theory in which the predominant fact is that, because of inherent novelty and uncertainty, decisions both to produce and to consume are determined by the choice of others in the social network'.

'This class of social networks choice is, we suggest, the proper definition of the creative industries' (Potts, 2008:169). As the authors say, this definition is not radically different from the industry definition, this one just gives a more analytic foundation that sharpens economic analysis by isolating the features that matter, namely: agent cognition and learning, social networks, market based enterprise, organizations and coordinating institutions'(Potts, 2008:170). These also lead to the triad of audience, content/distribution, and producer.

### *Conclusion*

In the preceding paragraphs, we have seen several different definitions that are used in today's literature. The question is what are the differences between these definitions because they all look alike, and which one is usable for this thesis? The first definition that is less interesting for the 17<sup>th</sup> century is the new discussion started by Potts, Cunningham, Hartley and Ormerod. A new discussion is always interesting but not practical to implement in this research. The use of an industrial based definition is preferable for this thesis. The use of a market-based definition makes it even more unclear.

The definition Florida comes up with is not what we are looking for. It is too broad. It includes all jobs that deal with creativity, managers, engineers etc. this group of people becomes too large to really call it the creative economy.

Landry's definition of the term is smaller. Landry recalls that the creative economy consists of 'production, distribution and perception of private and community radio, publishing, bookselling, film, television, video, multimedia, music, design, crafts, theatre industries". His definition is smaller, but it is still unclear whether the distribution of newspapers, for example, is in or excluded. Is the employee who delivers your paper every morning working in the cultural economy? I do not think so.

Throsby comes up with his three layer system, which is quite, complete. However, it also includes the publishing field. The first ring also includes the computer industry. That is not useful in the period of the research.

The city of Rotterdam has produced a nice scheme where we can find the included professions. This is very clear, but what distinguishes it from the other definitions is that this scheme includes the organization of events and recreation centres into the real arts field.

In Caves' definition of creative economy the supply of goods and services on the field of artistic, culture and entertainment are included. This is, for example book and magazine publishing, visual arts, performing arts, toys, games, sound recording, cinema and television and fashion. Although this is more suitable than the others are, I prefer to use the definition used by the EU.

The EU makes the distinction between the core arts field, the cultural industries and the creative industries. In the core arts field visual arts, performing arts and heritage are included. This leads to the subsectors; Crafts, Painting, Sculptures, Photography, Theatre, Dance, Circus, Festivals, Museums, Libraries, Archaeological sites and Archives. From this group we could use Painting, Sculptures and theatre for the 17<sup>th</sup> century. Photography, dance, festivals, museums etc. Were not present in this period.

In the second part the EU includes are the cultural industries which are based on Film and video, Television and Radio, Videogames, Music, Books and press. From the cultural industries we could use music and literature for the 17<sup>th</sup> century. Radio, videogames and television were not present.

According to the EU, design, architecture and advertising are included in the creative industries. For the 17<sup>th</sup> century there is little known about architects and advertisement. Design is researched for the 17<sup>th</sup> century in the form of majolica factories, glass factories and gold smiths. This leads to the following scheme;



<b>Circles</b>	<b>Sector</b>	<b>Today</b>	<b>17th century</b>
Core arts field	Visual arts	Paintings, Sculptures, photography	Paintings, Sculptures
	Performing Arts	Theatre, Dance, Circus, Festivals	Theatre
	Heritage	Museums, Libraries, Archives	Not present
Cultural Industries	Film and Video		Not present
	Television and Radio		Not present
	Video Games		Not present
	Music		Music
	Books and Press		Literature
Creative Industries	Design		Majolica, Glass, Gold
	Architecture		Not present
	Advertising		Not present

Figure 2 Creative Professions

## 3 Urban Developments

To understand the influence of creative economy on local development in the 17<sup>th</sup> century we first have to know more about local development and cities. How does city economy work? How is innovation stimulated? Why are inefficiency and innovation related? Why are strong cities large cities? Why are cities places where innovation takes place? Why is creativity important for urban development? What is meant with the creative class? Why is the creative class important for urban development? Do we have a creative class in the Netherlands? How can municipalities attract the creative class? Are we living in the creative age? This chapter will provide the answers to these questions.

### *3.1 Cities and Economy*

There have been different waves in our history. Waves of economy, which are combined with waves in our social life. People went from living in a cave to living in a house, people went from living at a farm to living in the city, cars came and the telephone. Mulder has defined five waves that still affect our living today (Mulder, 1999:63).

- A methodological phase, 17<sup>th</sup> century
- A scientific phase, 18<sup>th</sup> century
- A technical phase, 19<sup>th</sup> century
- A social phase, 20<sup>th</sup> century
- A cultural phase, 21<sup>th</sup> century

As we see, the 21<sup>st</sup> century is recalled as the cultural phase, which supports the R. Florida idea that we are living in the creative age! Although, we could argue about this phases. Why are we living in the cultural phase today? And why was this not the case in the 17<sup>th</sup> century?

Jane Jacobs asks herself in the book ‘the Economy of Cities’ why some cities grow and why others stagnate and decay. ‘Through history, cities have been the source of

innovation. They have been the place where human creativity flourished, from them the world's great art, the fundamental advances in human thought, the great technological breakthroughs that created new industries and even entire new modes of production' (Hall, 1999:36). Just as in the book of Sir Peter Hall it is interesting to see that some cities stay 'in fashion', so to speak, and others change through history in small local cities. A good example is Messina. In the time of the crusades, this was the centre of the earth, a gateway to the east. Today it is only known for its history. On the other hand, we see that cities, like Rome and Paris are great in all times and flourish continuously.

If we look back in history, we see that all famous cities from the past had something in common. 'All were at any rate the most advanced locations in their territories, which made them magnets for talented people to move to, and generates of wealth to use that talent. Wealth brought individual patronage as well as community patronage at city or state level' (Hall, 1999:37). Most of these cities were also highly cultural, especially, minority cultural. The minority brought creative's but also enough audience, the minority was functioning on the supply side as well as on the demand side. All these cities were in economic transmission, transmission of social relationships, values, world outlook. Most of the times this also brought tension between conservative and radical forces. What is remarkable is that the 'creative's' are mostly outsiders. 'The dissonance must be experienced and expressed by a creative group who feel themselves to some degree outside the system: Because young, provincial, foreign, or outside the established order' (Hall, 1999:39). A true creative city needs these outsiders. We could say that creative cities share some kind of milieu. This leads us to the question; 'Is the milieu purely a reflection of a broad social-economical force in a particular place at a particular time, or does it spring from cultural traits that develop almost independently of economic substructures?' (Hall, 1999:39).

Did Rotterdam have these characteristics in common? Yes, it did. Rotterdam became a magnet for travellers, people who wanted to develop. With the Southerners not only talented people came to Rotterdam, also wealth was brought. Many people from the south were richer salesman. They supported other southerners, and the city counsel supported the cultural field. These southerners did not only brought talent and

prosperity to the city, also new fashions and public. They were used to have a dynamic cultural life with luxuries products.

If we look at cities like Paris and Rome, it is remarkable that all of these strong cities are large cities. Why is that? One of the reasons is that 'A large city is a large market for many things' (Jacobs, 1969: 102). On the other, hand 'An increasing economy needs an increasing number of workers which leads to a growing population' (Jacobs, 1969:117). In 17<sup>th</sup> century Rotterdam we see this theory. Rotterdam had many contacts with the rest of the world. It became a market for different things. Wine from France, herbs from the east and fabrics from Spain. On the other hand we see the prosperity raise and the demand for luxuries products rose. The increase of demand leads to an increase in employment and a growing population.

There are a few things known about the economy of cities: Cities are settlements where new work is added to older work, new work multiplies and diversifies a cities division of labour, cities develop through this innovation process, cities invent and reinvent rural economic life, growing cities generate acute practical problems which are solved by new goods and services that increase economic abundance.

The past city developments, are no guarantee for future developments because cities can stop vigorously adding new work into the economy and thus stagnate. (Jacobs, 1969:122).

### *3.2 Innovation*

How is innovation stimulated? In the case of innovation, it is not always important who carries out the new work as long as somebody does. 'It is not always the creator of the new good or service who presides over its production' (Jacobs, 1964: 51). This is also one of the facts Caves comes up with in paragraph 2.3. The main point about the creation of new work, or as we call it nowadays innovation, is that it does not come out of thin air. It is always inspired by existing work or by questions from the market. 'One invention leads to multiplied effect into many divisions of labour; some of them had not

existed before, some had' (Jacobs, 1964:56). Therefore, we could say that innovation leads to more employment.

Why are cities the places where innovation takes place? According to Jacobs innovation takes place in cities because cities are inefficient and impractical, especially compared to towns. Among cities themselves, the ones that grow the fastest are the most impractical. I wonder, could we say that inefficiency leads to innovation? Maybe because people get inspired? Cities became large and complex enough to present problems of urban management, also laboratories, places that develop solutions: technologically, organizational, legal and social.

There is a distinction between cultural innovative cities and technological innovative cities. Cultural innovative cities and technological innovative cities share some key traits; they are dynamic, wealth-generating places. The big difference can be found in the fact that cultural cities are invariably older and more mature than technological cities.

### *Technological Innovative cities*

What are the key characteristics of a technological innovative city? They are generally established cities where innovation comes from bottom up. Innovators are mostly outsiders from the middle class, who are grounded in basic technical skills, which are more often self-taught than through education. The market relies on strong local networks, supplying specialized skilled labour and services, creating a climate of innovation among small firms sharing knowledge but also competing. Even if the small firms turn into large firms there are still many networks functioning. These cities are mostly open societies where talent gets chances for a career, there is an ethos of self-reliance and self-achievement, there is an open educational system and there is much scientific knowledge, in most cases firms started as local suppliers before they turn into exporters. What distinguishes successful cities from others is that the successful ones could 'continue ability to innovate, to ally technical knowledge to the changing demands of the market place' (Hall, 1999:42). Rotterdam was in the first place a technological innovative city. There were several inventions done in the period 1600-1650. In this period, 50 patents were received on inventions done in Rotterdam. Examples of these

inventions are; a canon foundry, mills, the making of stone by clay and waterpower mill (van der Schoor, 1999:251).

### *Creative Innovative city*

In the last century, many technological developments changed the market of culture. The creative innovative cities like Los Angeles created a new market for cultural goods. 'The development of a commercial mass popular culture through the injection of new technology allowing it to be simultaneously distributed and sold worldwide' (Hall, 1999:43). 'The cultural industries remain unique because they continue to combine mass production and distribution with the continuing importance of live performance' (Hall, 1999:43). Rotterdam was specialized in new majolica techniques and the creation of glass.

### *Urban Innovation Cities*

When cities are growing, there is a need for innovation. Things that have to change, especially if cities are growing fast, are public administration, private enterprises, there have to be problems solved that are caused by their own growth like water supply, waste disposal, traffic, transport, police etc. Growing cities have to be creative cities. 'Cities have to respond through organizational innovation, often through technological innovation as well (Hall, 1999:45). Places like Paris grown huge in a short time. Scale and complexity of urban organization changed. Some cities had the capacity to change because they were highly evolved economically and technical, they were networked nationally and internationally. Rotterdam was growing fast. Things like public administration, water supply and security had to change. The city had to build new parts, create a new form of daily organization and new taxes.

### *3.3 Efficiency*

There is always a conflict between efficiency and innovation. Why are those two related? 'Is it not possible for the economy of a city to be highly efficient, and for the city to excel at the development of new goods and services? No, it seems not. The conditions that promote development and the conditions that promote efficient production and

distribution of already existing goods and services are not only different, in most ways they are diametrically opposed' (Jacobs, 1964:96). Efficiency in companies means that the time and money is spent in the right way at the right time. To develop new products and services, or in other words, to be innovative, takes time that could not be directly linked with more profit. It is not sure whether the invention will generate more income; it is also not sure how long it takes before there is actually a new, useful invention. Rotterdam had several inefficient projects what meant a lot of risk. Especially projects from the VOC and the WIC were risky.

In many cases, employees from existing companies start up their own organizations after a couple of years. Small innovative companies are also inefficient if we look at it from the side of suppliers. 'Many relatively small suppliers, much of whose work duplicates and overlaps are indispensable to a high rate of development. But they are not efficient, neither in respect to their own work nor the operations of the producers who buy from them' (Jacobs, 1969: 97). Because production is not automatic, but only on customers order it takes more time to create each product. Take for example shoes. It is more expensive to design and produce one pair of shoes by one person than it is to create four hundred pairs of the same shoes by twenty people, which all make one part of the shoe.

Efficiency and innovation are influenced by the work of investing capital and supplying work capital. 'The most efficient way to invest capital (by governments, semi-public or private lenders/investors) is through a relatively few large investments and loans, not through many small ones' (Jacobs, 1969:99). This is logical if we have in mind that every transaction brings transaction costs, which are not dependable, on size of the transaction. In other words, whether the bank gives a loan of 1000 euro or 10000 euro, the transaction costs have a fixed price. Next to this, it is also more risky to invest in a small new company with a new product than to invest in a large firm that produces for a couple of years. In Rotterdam there were several investors. In the first place the city counsel supported projects in the beginning of the VOC. There were also some rich salesmen who supported projects from the VOC. Because of these investments Rotterdam was able to develop as a large harbour city.

### *3.4 Creativity and Urban Development*

Charles Landry started his book, *The Creative City*, with the lessons he had learned at the several cities he worked in. According to Landry, some cities were successful surviving the changes from the last decades and other cities were not. Rotterdam is one of the cities, which survived. 'All these cities seemed to have some things in common visionary individuals, creative organizations and a political culture sharing a clarity of purpose' (Landry, 2000: 3). On the other hand, Tong (2006) sees the role of creative intelligence as 'The role of creative intelligence is an information technology and network society, creative intelligence has become an economic driver' (Tong, 2006:310).

Why should we concentrate on creativity? Why is this important for urban development? Creativity is, according to different authors, the driving force of economy. The first argument Landry comes up with is the following; 'There is a link between culture and economy. 'The cultural industries, hotbeds of creativity, are significant economic sectors in their own right and employ between 3 till 5 percent in cities like New York and Milan' (Landry, 2000:9). As Hall argues, trading cities were working on new forms of economic organization, which lead to new forms of production (Hall: 1998, 283). 'A new kind of economy is coming into being, and a new kind of society, and a new kind of city. The driver, as so many times before in history, is technology: this time, information technology. New technology shapes new opportunities, to create new industries and transform old ones, to present new ways of organizing firms or entire societies, to transform the potential for living.' (Hall: 1998, 943). Next to this argument, culture also influences on the investment climate of a city. 'Also culture has a direct impact on the investment climate by attracting new international companies to a city (they seek a vibrant cultural life for their employees)' (Landry, 2000:9).

Although Throsby recalls this partly. He also points out the economic effects of culture. He points five economical effects.

- Direct revenue impacts of cultural activities on the local economy.
- Indirect or second-round spending effects on the income of related businesses and individuals such as restaurants and transportation services.



- Employment effects, direct and indirect.
- Culture may have wider economic implications for urban revitalization through the opportunities it affords for diversification of the local economical base.
- There may also be longer run externalities with real economic potential if the enhancement of the cultural environment of a city leads to greater social cohesion (Throsby, 2001:125).

These effects are quite similar to the effects mentioned in the research report of the SEO. It analyzed Individual effects (culture increases the individual pleasure, happiness and being well), Social effects (culture is a social binding agent) and Economic effects. 'Also, cities express themselves in courage's public initiatives and often risky business investments and in a tissue of interconnected projects whether for profit or the public good' (Landry, 2000, 3). 'An appreciation of cultural issues, expressing values and identity was the key to the ability to respond to change'(Landry, 2000, 3). 'The creative city highlights the value of a creative urban climate in transcending narrow thinking' (Landry, 2000, 5). The idea of the creative city argues a more integrated approach provides unexpectedly rich solutions (Landry, 2000: 5).

Culture has a wider importance and impact. Cultural heritage for example could help to inspire and give confidence for the future. Urban cultural resources are historical, industrial and artistic heritage representing assets including architecture, urban landscapes and landmarks but also local traditions of public life, festivals, rituals or stories' (Landry, 2000:8). According to Throsby, culture could have the following effects on a region:

- A specific cultural facility may comprise on its own a significant cultural symbol or attraction affecting the urban economy. Examples of these are the Erasmus Bridge in Rotterdam, the tower of Pisa and the Big Ben in London.
- A local cultural district may act as a node for development in the local area.
- The cultural industries, especially the performing arts, may constitute a vital component of a city's economy.

- Culture may have a more pervasive role in urban development through the fostering of urban community, identity, creativity, cohesion and vitality (Throsby, 2001, 124).

Art also has effects on the mix of people who live in an area. First, arrived the artists, then the yuppies and finally the rich. This process of gentrification has positive effects on bad neighbourhoods. Florida explains the rise of creativity as following. Florida believes that creativity is a basic element of human existence. Creative geniuses play an important role, but creativity is a social process and requires teamwork. Creativity is stimulated by human exchange and networks; it will take place in social communities and places (Florida&Tinagli, 2004:11) there are three stages of creativity, the creative idea, the creative product and the innovation. Something is only creative if it is called creative by society.

If we look at the role of creativity in urban development we can recognize several points from theory in Rotterdam. According to Landry, strong cities all had visionary individuals, creative organizations and a political culture sharing clarity of purpose. In Rotterdam, we see creative organizations like the Blauwe Acoleyen and guilds. There were also individuals who stimulated the creative economy like Johan van der Veecken. Today we see that culture has direct impacts on the investment climate of a city. In the past, this was different. It was inspiring to live in Rotterdam because of its liberal climate and the presence of certain people from the south. Nevertheless, the main reason for companies to start in Rotterdam was the geographical location. According to the literature the bourgeois clientele influenced the climate strongly. This group bought the paintings, read books and saw the theatre plays. In Rotterdam, most bourgeois clientele came from Antwerp. Their style and products became fashionable in the city. The creative class theories speak about a hard and soft infrastructure. Hard infrastructure is based on buildings and institutions. In the research period, we could see this in the form of the theatre (from the orphanage), the educational system through the guilds and a magazine about science. Soft infrastructures are the human relations within the creative class. We see this in back in the guilds and in groups around philosophers like Bayle.

### *3.5 Creative Class*

Some define the development of the creative class as a purely American development. International research done in 13 European countries shows that the development of the creative class is not purely American. While in America the creative class is roughly 30% that same definition covers 29, 5% in the Netherlands (Florida&Tinagli, 2004: 13).

‘To become a creative city we have to keep in mind that you cannot have a creative milieu without creative organizations and you cannot have creative organizations without creative people’ (Landry, 2000:14). Landry actually means that you cannot be or become a creative city without creative people, creative organizations and a creative milieu. Peter Hall sees the community as one of the most important factors to succeed as a creative city. ‘Culture was founded on the deep dung of cash. Individual patronage, community patronage or national state patronage plays an important role’ (Hall: 1998, 285). ‘It was a distinctly bourgeois clientele that viewed or bought the paintings, read books, listened to concerts and opera’s or saw the plays’ (Hall: 1998, 285). In that way, most creative cities were bourgeois cities. What is remarkable is that almost all creative cities are metropolitan. In history, most artists were immigrants. ‘A creative city will therefore be a place where outsiders can enter and feel that state of ambiguity: They must neither be excluded from opportunity, nor must they are so warmly embraced that the creative drive is lost’. Conservative stable societies will not prove creative, neither will societies in which all order, all points of reference, have disappeared’ (Hall: 1998, 286). In creative cities is a field between conservative forces and values -aristocratic, hierarchical, religious and conformist- and a set of radical values, which are the opposite -bourgeois, open, rational, sceptical).

Landry defines the creative milieu as following, 'A creative milieu is a place, either a cluster of buildings or a part of a city, a city as a whole or a region, that constrains the necessary preconditions in terms of hard and soft infrastructure to generate a flow of ideas and inventions'(Landry, 2000:133). Hard infrastructure is the nexus of buildings and institutions such as research institutes, educational establishments, and cultural facilities and other meeting places as well as support services such as transport, health and amenities. Soft infrastructure is the system odd associative structures and social

networks, connections and human interactions that underpins and encourages the flow of ideas between individuals and institutions (Landry, 2000:133). Florida defines a class as following; 'the way people organize themselves into social groups and common identities based on the principally on their economic function' (Florida: 2002, 68). He argues that their social and cultural preferences, consumption and buying habits all flow from this class. He also argues that the basic of the creative class is not creative or artistic but purely economic. The specific parts of the creative class are that the creativity is intangible, creativity is in their heads.

Just like the creative economy, also the creative class is an array of definitions. Where Florida gripes a large group of people, Landry is talking about hard and soft infrastructures. Florida makes a distinction between the creative core and the creative professionals. Florida defines the creative core as following; 'The Super Creative core of this new class includes scientists and engineers, university professors, poets and novelists, artists, entertainers, actors, designers and writers, editors, cultural figures, think-tank researchers, analysts and other opinion makers (Florida, 2002:69). The second group in the creative class Florida defines are the creative professionals. Florida defines these creative professionals as following; 'who work in a wide range of knowledge-intensive industries such as high-tech sectors, financial services, the legal and healthcare professions, and business management' (Florida, 2002:69). We could say that Florida uses quite a broad definition of the creative class. Florida also concludes that the creative class grows because creativity becomes more valued (Florida, 2002:71). Moreover, what is probably more important, he argues that creative people do not only earn more, they also value their work as more enjoyable.

The creative class is important for the city development. That is why many Dutch cities attracting this group. The fact is that 'where skilled people concentrate, human capital accumulates' (Marlet, 2007:2605). Highly educated people have the ability to absorb knowledge and because of that, they are more productive. 'Firms are therefore more competitive if they are located in cities or regions with high levels of human capital. These cities grow faster than cities without this capital' (Woerkens, 2007:2605). People who are creative and highly educated choose to live in places that are aesthetically

attractive, while companies are attracted to these places for the potential of employees. In the research period this was not the case, the geographical position of Rotterdam was of greater importance than the educational level of inhabitants. If we take a look at the creative class in the Netherlands, we see that with the use of Florida's definition 35% of the Dutch labour force is working in the creative industries (Marlet, 2007:2607). Because Marlet & Woerkens found this definition too broad, they used their own selection, which brought them to the number of 19% of the total workforce. Creative cities are mainly concentrated around the middle and west of the Netherlands. In the 50 largest cities of the country, 22.2% of the workforce is creative (Marlet, 2007:2607). In Utrecht, almost 33% of the labour force belongs to the creative class, while in Amsterdam this is 27, 2%. In The Hague, this number shows 23, 7% and Rotterdam 20, 8% (Marlet, 2007:2608). This is much more than the data that are shown by the OBR; they show that only 3, 3% of the total labour force is creative!

Why are some people living in certain cities? In other words, how could municipalities attract the creative class? In the traditional urban theory, people are attracted by jobs. A good example in Rotterdam is the fact that many people who are living in the city were once attracted to the harbours. At first, there were the immigrants from Brabant and Zeeland; later on it were the immigrants from Turkey, Italy and Morocco. Locations were chosen based on cheap houses and travel costs. Others believe that people choose their place to live on the hand of amenities. At first, amenities were location factors like climate or environment, later they were changing to café's and cultural activities. Because people were no longer following jobs, companies were starting to follow people. For example by creating a policy of cauldrons of creativity as has been done in Rotterdam as well as in other cities. According to Manshanden (2004), the creative class is attracted by an open climate where arts and media-entertainment industries play an important role.

The interesting question which arise is, why chose the immigrants Rotterdam instead of Delft or Haarlem? According to the theory, people are attracted by jobs. People picked their living area where there was work. Rotterdam was also attractive because of the liberal climate. The municipality also attracted several groups. Two Italian glassmakers

received a subsidy and permission to start a new glass factory in Rotterdam. Another example is the fabric makers, a large group of fabric makers received supported in the form of houses. The fabric makers could help the Rotterdam economy and that is why they were attracted by the city.

Trading cities like Rotterdam, were working on new forms of economic organization. We see this in Rotterdam with, for example, the WIC and the VOC. These innovations in economy lead to new kinds of trade and production. The fact that the cultural climate was liberal in this period created the possibility to several developments. An example of this is the press of the science journals ‘de boekenzaal’ and ‘Nouvelles de la republique des lettres’. Rotterdam turned in to a bibliopolism because of this development. Other authors from Europe moved to Rotterdam and the number of pressers, publishers and book sellers rose.

Do we see a creative class in Rotterdam? There were of course a group of artists and philosophers who had close contacts but according to Bayle the largest part of the high class was less interested in art and science (van der Schoor, 1999:291). The elites were manly concentrating on city economy.

### *3.6 Next innovative wave*

Some authors speak about the creative age. Are we living in the creative age today? Technology shapes new opportunities to create new industries and transform old ones, the present new ways of organizing firms or entire societies, to transform the potential for living. ‘At this moment there is a move from an industrial era to an information era’ (Hall, 1999:49). ‘As Gates argues; The fact that almost all information will be digital communication means that there soon be a critical mass of persuasive digital communication available for most offices and households around the world, couple with availability to store and manipulated many different forms of information in a common digital form, and with very small yet very powerful devices for processing, displaying and communicating’ (Hall, 1999:49). The question is if these new technologies will be as successful as is predicted and if people can communicate, do their work, order groceries and educate themselves from their homes. Will this mean the end of the traditional city?

The case is that technological change will bring about not a general dispersal but a restoring of the map. Multimedia will make all forms of entertainment and information instantly available, but it simply ignores two considerable complications. 1. The genesis and manufacture of the basic electronic product will involve agglomeration because of the importance of networking in the development of innovating products. New products may be born in more than one kind of innovative milieu, both in traditional city centres because they are centres of artistic creativity, and in specialized techno poles often, university based. (We will see more of that in the creative clusters part). 2. The increasing use of electronic media may paradoxically increase the need and the incentive for face-to-face contact.

In his book, Richard Florida speaks about the creative age. He sees the creative age as a shift in economic concentration. Florida argues that a hundred years ago fewer than 10 percent of the people worked in the creative sector. In the fifties, fewer than 15 percent of the people worked in the creative sector. Today between 25 and 30 percent of the people work in the creative sector of economy, engaged in science and engineering, research and development, technology based industries, in the arts, music, culture, aesthetic and design industries, or in the knowledge based industries as healthcare, finance and law (Florida&Tinagli, 2004).

These great economic shifts do not take place without massive disruptions and tensions. Think of the shift from the agriculture to the industrialization. Today we see other problems. Stress is rising since creativity and mental labour have become more important. Research showed that the level of stress is much higher in creative centres' like San Francisco, Austin and Seattle. People in creative areas are more mobile. They are postponing marriage and their family structure is morphing. Relationships are changing from strong-tie to weak-tie (Florida, 2002:2). In classical economic theory, economic growth comes from companies, jobs or technology. In the rise of the creative class, the argument has been made that economic growth and development is based on the 3Ts-technology, talent and tolerance. Tolerance could be explained as the critical affects the ability of nations and regions to mobilize their own creative capacities and

compete for creative talent. The more open the region is the more talent could be attested (Florida&Tinagli, 2004:12).

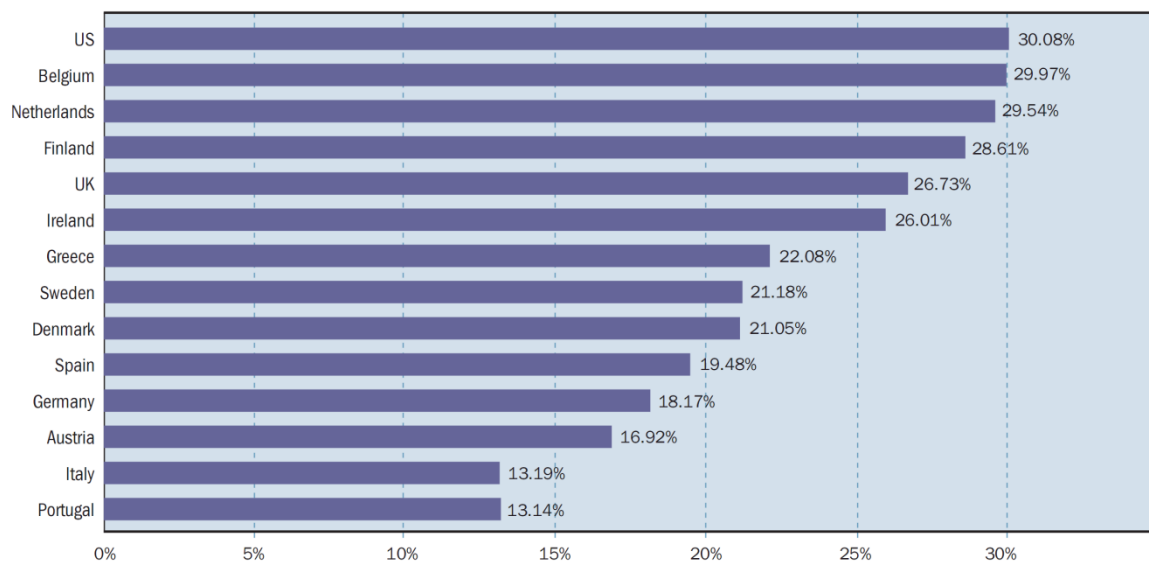


Figure 3 Europe Creative Class index (Florida, 2004:13)

If we use these three points to look at Rotterdam in the 17<sup>th</sup> century, we see the following. Technology is available. Not in the form of computers but Rotterdam received several patents in the period. Talent is represented because the guilds attracted new artisans from outside the city. Rotterdam was quite liberal for its period; the level of tolerance was high.

### *Conclusion*

In this chapter, there were several questions to be answered. The questions were; how does city economy work? How is innovation stimulated? Why are inefficiency and innovation related? Why are cities the places where innovation takes place? Why are strong cities large cities? Why is creativity important for urban development? What is meant by the creative class? Why is the Creative Class important for urban development? Do we have a creative class in the Netherlands? Are we living in the creative age?

How does city economy work? According to Jacobs, new work is added to older work, which will lead to employment. New work multiplies the cities division of labour. Cities



need this innovation process. Innovation takes place in cities because cities are inefficient and impractical. Next to this there are outsiders who become creative's.

How is innovation stimulated? The main point about the creation of new work, or as we call it nowadays innovation, is that it does not come out of thin air. It is always inspired by existing work or by questions from the market. 'One invention leads to multiplied effect into many divisions of labour; some of them had not existed before, some had' (Jacobs, 1964:56). Therefore, we could say that innovation leads to more employment.

Why are inefficiency and innovation related? Efficiency in companies means that the time and money is spending in the right way at the right time. To develop new products and services, or in other words, to be innovative, takes pressures time that could not be directly linked with more profit.

Why are cities the places where innovation takes place? Cities became large and complex enough to present problems of urban management, also laboratories, places that develop solutions: technologically, organizational, legal and social. Fast growing cities were confronted with unique problems that had to be solved. These solutions were innovations. That is why large cities the place where innovation is designed.

Why are strong cities large cities? A large city is a community with many different people, talents and capacities. That makes a large city a market for many things and a large city has the ability to react fast on changes in a market because a large city has the ability to change.

Why is creativity important for urban development? Creativity is necessary to improve development. Development and innovation come forward by creativity. There are several arguments for the role of creativity in local development. There are economic, social and individual effects from culture, which all influence this local development. Examples of economic effects are, the income generated by the creative sector, the jobs that are generated by the creative sector and the image a city gets by the creative landmarks. There are also social effects. The creative sector can improve the collective identity of a community. People can be proud of their city and appreciate their

neighbourhood better. Also the effects of first the artists, than the yups and finally the rich. This technique is used quite a lot. Creativity influences the urban development on a broad part of the city development.

What is meant by the creative class? The problem, which arises in answering this question, is that there are many definitions used. Some define the creative class as a group of people who are higher educated. Others define the class by the people working in the creative economy. Then the problem is which professions are defined in the creative economy?

Why is the Creative Class important for urban development? The creative class is important for urban development because of several reasons. The first is that the creative class makes the community more varied than without. The second reason is that this class makes use of several city functions like parks, theatres, libraries etc. The third reason is that firms want to locate at the same spot as this class. Therefore, it is good for economy. The last reason is also economical, most people from this class have a higher income so they spend well.

Do we have a creative class in the Netherlands? Yes at this moment, we do have a creative class, which is located around the Randstad. Most people of this group are living in Amsterdam.

Are we living in the creative age? According to several authors we are living in an age where fast development and creative products become more and more of importance. Even companies who are not producing culture are using design and style of their main selling point.

## 4 Creative Clusters

Today, sustainable economic growth is high on the agenda of European cities because ‘it is indispensable to further the well being and prosperity of citizens and firms and to generate employment’ (L. van der Berg, 2001:185). This is demonstrated by the fact that academics are more interested in new growth sectors like information technology, biotechnology, environmental technology, media and tourism. Unfortunately, at this moment little is known about success factors that increase the economic development of cities. There are indicators that urban economic growth is influenced by a co-operation between economic actors, who form innovative complexes of firms and organizations. In this chapter the following questions will be answered; what are clusters? What are success factors of economic urban development? Why clusters? Which spatial dimensions influence clusters?

Why is it important to know more about clusters to answer the main research question? It is important because clusters are not new, just fashionable. More about clusters in the 17<sup>th</sup> century see chapter 6.

### *4.1 What are clusters?*

To create a fruitful urban economy many cities work with clusters. Clusters are as Van der Berg calls them; geographically concentrated network configurations (van der Berg, 2001). A creative milieu is a place that constrains the necessary preconditions in terms of hard and soft infrastructure to generate a flow of ideas and innovations. A milieu is a physical setting in which a critical mass of entrepreneurs, intellectuals, social activists, artists, administrators or students function in an open-minded, cosmopolitan context where life interaction creates new ideas, artefacts, products and institutions. These products of the creative milieu contribute to the economic successes of the region. These networks can operate worldwide, but in many cases, they are confined to a certain area or region. These networks are called clusters. Today, firms and organizations are more active in networks, because they want to survive in an international market where technology is rapidly changing. Working in networks has its advantages. Flexibility; in order to benefit from changes, companies has to react fast. Innovation; ‘Strong

international competition and rapid technological development urge firms to produce new products or services, develop new processes and access new markets. Participation in a network enables a firm to concentrate on core capabilities and provides access to resources in other firms and organizations' (van der Berg, 2001: 187).

Lately, creativity has increasingly been used as a tool for urban development and to create an advantage to develop innovation. Many cities have developed creative or cultural clusters to stimulate creative activities and to act as leading edge for economic and physical development. The Witte de With street in Rotterdam was about ten years ago a mess with junkies and drugs dealers. Today it is one of the hottest places of Rotterdam, with galleries, shops and restaurants. The creative industries incorporate all branches of industry and trade that rely on imaginative creation and cultural innovation aimed at the production, distribution and consumption of symbolic goods (Hitters, 2002:235). Creative industries in particular show a strong proclivity to clustering. The nature of the creative industries themselves seems to stimulate working in a cluster.

According to Scott (2000), there are three primary advantages at working in a cluster. First, a reduction in transaction costs, secondly, an accelerated circulation of capital and information, and thirdly, reinforcement of transactional based modes of social solidarity.

A creative milieu is an environment that contains the necessary preconditions in terms of hard and soft infrastructure to generate a flow of ideas and innovations. A milieu is a physical setting where a critical mass of entrepreneurs, intellectuals, social activists, artists, administrators or students can function in an open-minded, cosmopolitan context where life interaction creates new ideas, artefacts, products and institutions. These products of the creative milieu contribute to the economic successes of the region.

The origins of interest in urban, creative and innovative milieu lies in the market success some cities and regions have had by using non-traditional, creative approaches to their urban and regional development, effectively embedding creativity into their cities genetic code (Landry, 2000: 132). Highly networked innovative regions like Silicon Valley and Emilia Romagna where firms often small, flourish in a milieu of constant technical

improvement and the presence of specialized support services are examples of cities nowadays. There is a need for cultural facilities, cultural entrepreneurs, social activities and other activities linked to the quality of life, like good housing, schools, health care and sport clubs.

#### *4.2 Spatial Dimensions*

These networks have several spatial dimensions. A network can take place in a worldwide area but in most cases, they are regional. ‘Clusters as localized networks of specialized organizations, whose production processes are closely linked through the exchange of goods, services and knowledge’ (van der Berg, 2001:187). The informal exchange of information, knowledge and creative ideas is considered to an important characteristic of such networks. A cluster unites companies from different levels in the industrial chain with service units and with governmental bodies, semi-public agencies, universities and research institutes’ (van der Berg, 2001:187). In clusters, there are many dynamics. Several factors play a role. The first factor is that face-to-face contact is still very important for the exchange of information. Secondly, cooperation between people requires trust. Especially when certain projects and subjects are discussed. Thirdly, cultural proximity (sharing values, norms) plays a role.

In the research of van der Berg (2001), the authors assumed that there are three interrelated elements of influence on the growth of a cluster.

- Spatial-economical conditions
- Cluster-specific conditions
- Organizing capacity regarding the cluster

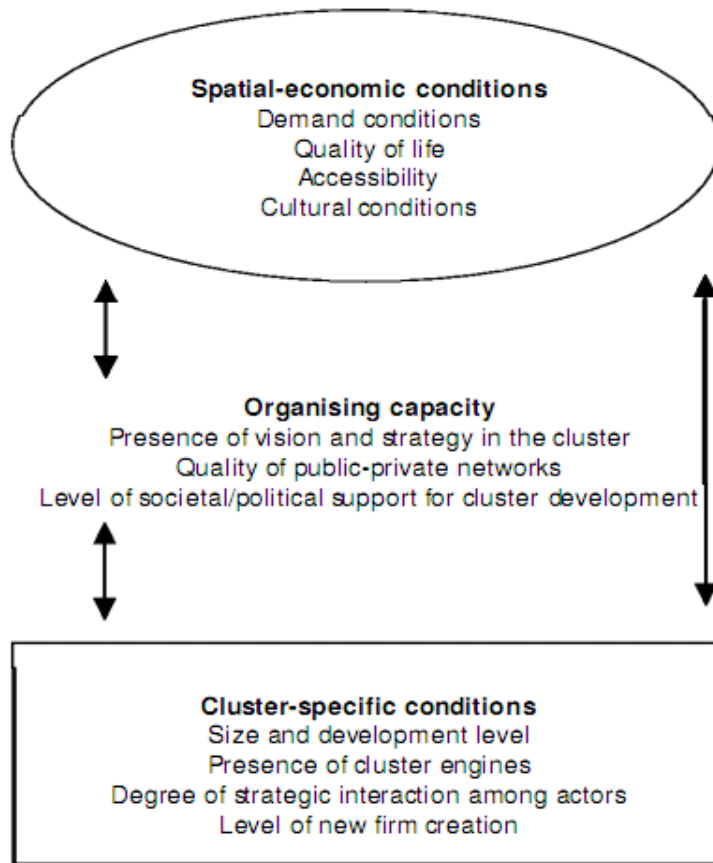


Figure 3 Framework of Reference (Berg, 2001:5)

### *Spatial-Economical conditions*

Not every city can develop the same cluster, because a cluster is embedded in the spatial economy. Demand conditions are fundamental to the functioning of a cluster. Demand can come from large companies in the region as well as governments. The influence level of demand conditions depend on the kind of cluster. Media clusters, which are created in Rotterdam, are more depended on local demand than other clusters like health care. The presence of headquarters of large corporations has a positive influence on the media sector. (van der Berg, 2001:189)

Besides this, the accessibility of the region plays a role. If the companies in the cluster are isolated from each other without transportation options, it is hard to function as a cluster. On the other hand, good transportation enables the cluster to participate in international projects. This increases demand potential. Research (van der Berg,

2001:192) shows us that 'good internal accessibility enhances strategic co-operation in the cluster'. Unfortunately, in many cases the psychological distance is much more difficult to overcome than the physical distance. Even the fact that companies share the same building does not mean that they can have a fruitful co-operation. External accessibility influences the clusters growth possibilities. Nowadays most large cities are connected by a railway network or even by an airport. The size of influence depends on the cluster character. Good external connections make it easier to export products from the cluster and to promote the cluster outside the city. Unfortunately, good connections can have a negative influence on the cluster growth. Rotterdam for instance has quite a few problems because media capital Amsterdam is nearby.

Thirdly, the living area of the cluster influences the growth. People prefer to live in an area with a large quality of life. This is one of the most important reasons. Firms seem to move to areas where highly educated/skilled people want to live. The attractiveness of a city in terms of housing, cultural and leisure facilities proves a fundamental factor in cluster development, as a means to attract and retain highly skilled people to the region. The concentration of this quality of life depends partly on the cluster. Research (van der Berg, 2001) shows that technical clusters like those of Eindhoven and Helsinki, the quality of housing and the distance from the country play an important role, while in media orientated clusters like Amsterdam and Rotterdam, the cultural climate and metropolitan ambiance have more meaning. The ambiance that many European cities have can be seen as an important weapon in the battle of global competition to attract the top-level of employees. Heritage cities like Rome have great economic value because of their attractiveness.

Cultural variables can be split up in three parts: the willingness of people to adopt new products, the valuation of entrepreneurship in the cluster and willingness to engage strategic co-operation. Culture is sometimes called as an important factor. Culture relates to attitudes of people and firms. Especially towards innovation because innovation is most of the time the force behind the succeeding of the cluster. Also, willingness to cooperate influences the cluster.

### *Cluster-specific conditions*

Two of the aspects of a cluster are size and development level. A well-developed cluster constitutes a market large enough to support the clusters activities. The possibility of fast penetration and adoption of all types of innovation increases if the cluster is larger. Cooperation is easily found in a large cluster than in a small cluster. Size is also of influence on the sharing of resources, the benefit of a pool of specialized labour. Job-hopping of specialized staff is important for the region because knowledge is shared. The bigger the cluster, the higher the level of specialization within the cluster, the greater the clusters market reach. A large cluster could also stimulate activities like educational options within the cluster. (van der Berg, 2001:190)

Secondly, the presence of one or several clusters engines is important for the functioning of the cluster. Because of these engines are spiders in the cluster or flagships for the outside. An example of a cluster engine is Nokia in Helsinki. Cluster engines have connections with universities and provide knowledge exchange within the cluster. Although some companies are looking very inside, these companies still have large effects on the region because they provide highly skilled staff. Many entrepreneurial businesses in the region Eindhoven for example have some connection with Philips. The fact that there could not be seen any cluster engines in Rotterdam makes the cluster less visible.

Thirdly, the degree of strategic interaction is largely decisive for the cluster. Strategic interaction implies long-term relationships between the actors. Strategic interaction can serve several purposes; to create scale, to share knowledge, to share networks, to solve common problems or to create flexibility. Strategic interaction between business communities and educational institutes are of great importance. Universities provide staff and trainees. In some cases, there is a lot of corporation between the companies and the universities. Cluster firms can participate in educational programs, use the university for vocational training of PhD projects, educate their staff, finance chairs or sponsor educational programs. Unfortunately in many clusters these strategic corporations are weakly developed. In Rotterdam, several studies on master and bachelor level are media linked but none of them is cooperating with the cluster.



Universities and research institutes also count as an important location factor. Interaction between institutes and companies generally provides financial resources, helps to focus on research subjects, and a more efficient spending of research money. A problem with this cooperation is the cultural difference between research institutes and companies. Especially in terms of objective research and time-span of activities. (van der Berg, 2001: 190)

Finally, the level of new firm creation influences the cluster. New firms are often dynamic, innovative and generate new jobs. They influence large companies as partners in innovation or as suppliers. They tie young talent in the region. A good cooperation between public-private structures could improve the level of new companies. But in this development, also cultural elements like entrepreneurial spirit play a role.

History and tradition play an important role in the development of a cluster. In some cases, there is a history of ages. Think of the Amsterdam Canals, these were attracting tourist since a very long period. Clusters with a long tradition seem to be very developed and complete. "Tradition gives a lead because history has created a valuable and well established cluster infrastructure that took years to build: a knowledge-base, education institutes, research units, branch unions and so on" (van der Berg, 2001:196). The absence of history makes it very difficult to develop a cluster. In the case of Rotterdam, it is very difficult to develop a media cluster because neither buyers of media products as well as media production firms regards Rotterdam as a media location. The commitment of a large company is of great need for a cluster. Think of the Philips Company for Eindhoven or the Rem Koolhaas office in Rotterdam.

### *Organizing capacity*

'Organising capacity can be defined as, the ability of the urban region to enlist all actors involved in the growth cluster and, with their help, to generate new ideas and develop and implement policy designed to respond to developments and create conditions for sustainable development of the cluster'(van der Berg, 2001:190). With organising capacity is meant the creation of cluster specific policy, the attraction of cluster-supporting elements, investment in specific infrastructure etc. Elements that influence

the organising capacity are vision/strategy, political/societal support, and public/private partnerships. To create a cluster strategy there is a role for public leadership. The government could support the cluster by establishing missing links, promote new technology or create an incentive for co-operation. At this moment, a growing number of local authorities are being more active in developing a cultural infrastructure especially in declining industrial cities like Manchester and Rotterdam. In most of these cases, clusters were developed to stimulate economy and creativity. According to Brooks and Kushner cluster can be managed in different ways. They argue that successful cultural districts are required effective leadership and intervention by multiple levels of government and private sectors. In the case of the Withe de With in Rotterdam, the management is diffuse and informal of nature. The local authority plays an important role. The With de With is a connection between the maritime museum and the museum park. It is also the connection between the shopping centre and the museums.

### *Conclusion*

In this chapter, we looked at clusters. Many municipalities are creating clusters. This could be in the form of creative clusters but also in the form of medical, technical or ICT clusters. What are clusters? To create a fruit full urban economic many cities work with clusters. Clusters are as van der Berg calls them; geographically concentrated network configurations (van der Berg, 2001). A creative milieu is a place that constrains the necessary preconditions in terms of hard and soft infrastructure to generate a flow of ideas and innovations. A milieu is a physical setting were a critical mass of entrepreneurs, intellectuals, social activists, artists, administrators or students can function in an open-minded, cosmopolitan context were life interaction creates new ideas, artefacts, products and institutions.

Why clusters? It is fruitful to work in clusters because of three main reasons. In the first place, working in a cluster can reduce the transaction costs. Secondly, capital and information can circulate freely within the cluster. Finally, social solidarity can lead to reinforcement of the cluster.

Which spatial dimensions influence clusters? There are quite many spatial dimensions that influence the cluster. In this chapter, the distinction is made between organizing capacity, cluster specific conditions and economic spatial dimensions. These include the accessibility of the cluster, demand, living area, and size, development level of the cluster, strategic interaction, history and tradition, organizing capacity from the cluster and from the politics. Are clusters a new creation? Or do we see clusters in the 17<sup>th</sup> century?

Are these dimensions present in the 17<sup>th</sup> century? How do we see this back in the research? To make a clear overview the following scheme is created.

Dimensions	Elements	Examples
Spatial Economic Dimensions	Demand Conditions	By the church, the VOC, the new rich in the city
	Quality of Life	Liberal climate
	Accessibility	By water and by land
	Cultural conditions	Of less importance
Cluster Specific Conditions	Size and Development Level	Rising during the 17 <sup>th</sup> century
	Presence of cluster engines	Book pressers, philosophers, artists and Venetian glass blowers.
	Degree of interaction between actors	Little known
	Level of new firm creation	Protected by the guild
Organizing Capacity	Presence of vision and strategy	Unknown

	Quality of public-private networks	Probably good
	Level of government support	Little

Figure 4 Spatial Dimensions in 17th century Rotterdam

Not every city can develop the same sort of cluster because a cluster is embedded in a spatial economy. Demand conditions are fundamental to the success of a cluster. Demand rose during the century. The refugees were used to buy creative products. The VOC needed stuff to decorate their ships; the church needed decoration for their buildings, although the Catholic Church needed much more decoration than the Protestants church.

Quality of life played a different role than it plays today. Nowadays companies are settled where highly skilled workers wanted to live. They need higher educated employees who want to live in a nice region with space and leisure activities. According to the theory in the past, the system was the other way around. People moved to places where there was work. Although we see some other issues in Rotterdam. Many people moved to Rotterdam because of the liberal climate. The presence of some known merchants like Johan van der Veeken. The fact that Rotterdam was a gateway to the rest of the world and the fact that there was a lot of work was of influence. Rotterdam also tried to attract some labour force with special skills like the fabric makers and the glass makers from Murano to the city.

The accessibility of a region is of great importance. It is important for the import of raw material and to export the created products. Good transportation enables a cluster to participate in international projects. In 17<sup>th</sup> century Rotterdam, there were excellent transport options. This was very helpful for the development of the creative economy. Products like sand, clay and wood were easily imported into Rotterdam. On the other hand, we see that final products like books, majolica and paintings were exported all over the world. Visitors from all over the world could enter the city to buy things, to inspire artisans and to transport products all over the world.

Today cultural conditions play an important role. In the 17<sup>th</sup> century, this was less visible. Traditions played a roll but this was of much smaller influence than it is today. Venice for example was all ready known for its glass making, Amsterdam was known for its stable market and Rotterdam was a book city and had a very liberal climate.

About the size and development level in the 17<sup>th</sup> century of the Guild of Saint Luke we could not say much. Because there were several kinds of professions collected into the guild, we could say that the guild was large and became larger during the century. Probably cooperation was easily found. According to the theory, a large cluster could stimulate subjects like education. Within the guild, there was a completely educational system. How many students and artisans could educate, what their salary was, how they could become a master. It was all organized and controlled by the guild. The protection of the market was done by the guild in cooperation with the city and all kind of insurances for guild members.

The presence of cluster engines is important for the functioning of the cluster today. Do we see cluster engines in 17<sup>th</sup> century Rotterdam? These engines are flagships for the cluster outside the city. An example of today is Rem Koolhaas for Rotterdam. Cluster engines were the presence of the book journal 'de Boekenzaal' and the presence of Pierre Bayle and English philosophers Locke and Shaftesbury. The scientific journal 'Nouveau Journal des Savans' was also pressed in Rotterdam. This made Rotterdam interesting for booksellers, writers and pressers from all over the world. Rotterdam was a centre of science and literature in that period.

About the interaction between actors within the guild is unknown. They worked together to protect their products and on educational programs but that is all we know.

The level of new firm creation was protected by the guild. Not everyone could start a new glass factory or a majolica bakery for example. The guild also organized the process from student till master.

About the organizing capacity of the guild is little known. There is nothing known about a public leader. The local government did support the guild but did not intervene in the

guild. About the level of public support is also little known. There were rich people in the city that privately supported the sector with hobbies like painting collecting but there is not much known about this individuals.

## 5 Rotterdam in the 17<sup>th</sup> century

This research is about the creative economy of Rotterdam in the 17<sup>th</sup> century. To answer the main research question the following chapter gives an overview of the development of Rotterdam in the 17<sup>th</sup> century. This leads us to the following questions; how did Rotterdam developed in the 17<sup>th</sup> century? How was population structured? How was the municipality organized? How was economy functioning? How did the artificial landscape look? What was the Guild of Saint Luke? Which professions of creative economy were active in the 17<sup>th</sup> century?

### *5.1 Historical development of Rotterdam*

How did Rotterdam developed? Today, Rotterdam is one of the largest harbour cities in the world. Just as every other city, the city has grown for ages. Rotterdam is founded around the thirteenth century at the banks of the river de Rotte near the church of Rotta. From the eighth century, Karel Martel owned the maas-merwe area, which became a part of the Frankish empire. Around 1200, the earl decided to build dykes, dams, locks and drainage sluices (van der Schoor, 2005:11). Some of these dikes can still be found on the maps of Rotterdam today. To make sure these developments were coordinated in the right way the earl decided to choose a person who was responsible for the maintenance of embankments. Around 1270 the Rotte was dammed. In 1299, Rotterdam received the municipal law, which created several privileges. Around 1550 the city became more acceptable as a city because of the good economic situation supported by the haring fleet. This was the cities engine of economy. There were many fishers but also related economic activities like shipbuilders, sail makers and rope makers influenced local economy. Because there was an international trade of herring, many international ships came to Rotterdam and many Rotterdam ships went to other cities and countries. This made Rotterdam soon an international trade place where you could not only buy a lot of herring; there was also a market in foreign luxurious articles. Around 1560 Rotterdam had between eight and ten thousand inhabitants (van der Laar, 2006:18). Between 1575 and 1595 several new harbours were build like the Haringvliet, the nieuwe haven, the Blaak and the oude haven (van der Laar, 2006:20). At the end of

the 16<sup>th</sup> century, Rotterdam created the wijnhaven, for wine ships and the scheepsmakers haven for the creation and reparation of new ships.

### *5.2 Rotterdam in the 17<sup>th</sup> century*

What kind of city was Rotterdam in the 17<sup>th</sup> century? In less than fifty years, Rotterdam grows from a small city to one of the four largest cities of the area (Delft, Dordrecht and Gouda). Around 1650 there were around thirty thousand inhabitants (van der Laar, 2004:23). The enormous grow of the city and the economical activities had effects on the architecture of the city. In 1659, the decision was made to create three new city gates. In 1662 the building of het Schielandshuis started. Today this building can still be found in the city centre. The VOC played an important role in this development. From 1632, the company has its own area at the “scheepsmakershaven”. Here ships were built until 1694. After that period the VOC moved to the “oostzeedijk and buizengat”. Totally, there were more than 200 ships build in Rotterdam.

Rotterdam was in this period more than a rich harbour city. On the fields of art and education, Rotterdam was making its way into history. In 1681 Bayle, which was a professor in philosophy in France, became a head teacher at the “illustere school”. He was quite famous and made several publications in academic magazines (van der Schoor, 2005:77). In 1693 the city council fires him because he debated in public with his colleague Jurieu about religion (van der Schoor, 2005:77). In this period, Rotterdam had an international character. Not only because of the transit function but also because of the refugees from for example France. Around 1700, 20 percent of the Rotterdam citizens were French. In the period from 1694 until 1716 there was even a France newspaper called 'Gazette de Rotterdam' (van der Schoor, 2005:84).





Figure 5 Map of Rotterdam 1652

### 5.2.1 Population

Rotterdam was more than a fishing town around 1583, it was also a city where trade was developing. Because of the political situation around Antwerp and the southern Netherlands, many Southerners came to the northern Netherlands and Rotterdam. There were three groups of immigrants. The first groups were formed by the people who were working in the textile industry, selling fabrics, making clothes. The second group was based on employees who worked with wine from the south (France), spices, and sugar. The final group were people who were artisans working with wood, metals, paper and leather. We could say that the people from the south were specialized in the creation and import of luxuries products. Especially sales clerks and manual workers came to Rotterdam (van der Schoor, 1999:172). In addition, a few large foreign sales clerks chose Rotterdam as a hometown. Because their human capital was large, these

salesmen had an important influence on the development of the Rotterdam economy. Because of these new inhabitants the market changed from a market where the sales clerk was also a merchant to a market with large merchants who were persons in between. A famous foreigner from that period was Johan van der Veeken, his capital in 1616 laid on 600.000 guilders! (van der Schoor, 1999:173) There were several successful refugees in the city of Rotterdam but although they were economically successful they stayed on a refugee status. These people were not allowed to enter the city council while refugees from the north could. The number of textile workers was much larger than the number of merchants. In total the number of immigrants was in the period 1576-1579 around 782. Then the growth started with a record in the period 1590-1594 when there were 2726 immigrants from the south known (van der Schoor, 1999:175).

The immigrants did not only influence the economy, they also had great impact on the demographics of the city. Between 1550 and 1600, the number of inhabitants doubled! From 7.000 inhabitants in 1550 until 13.000 inhabitants in 1600 (van der Schoor, 1999:229). In 1650, the city had around 30.000 inhabitants and at the end of the century in 1700, there were around 50.000 inhabitants (van der Schoor, 1999:229).

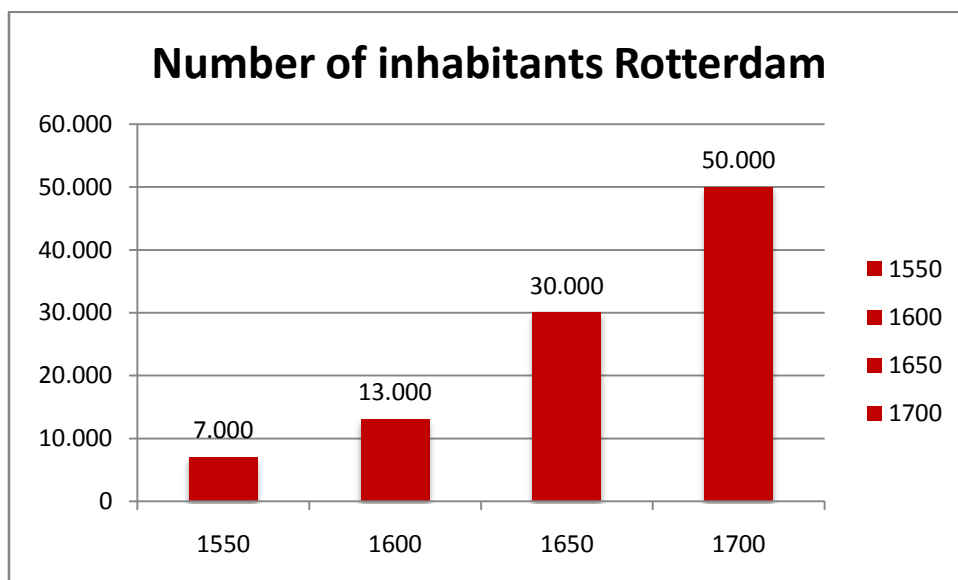


Figure 6 Number of Inhabitants (van der Schoor, 1999:229)

The enormous growth can be explained by the international trade. In the northern Netherlands, the largest urbanization took place in that period of whole Europe! (van der Schoor, 1999:229). Unfortunately, the information concerning the large growth around 1650 is not complete (van der Schoor, 1999:232). Because of that it is unclear how the large growth was caused. The role of the immigrants was at least one of the reasons. The immigration is influenced by the contacts between Rotterdam and England, France and Germany. In the period around 1621, there were around 8.000 inhabitants from the south, which is around 30% (van der Schoor, 1999:232). Of all the people who got married in Rotterdam in the 17<sup>th</sup> century, 40% of them were born outside Rotterdam. 30% of them were born inside the republic and 14% in foreign countries (van der Schoor, 1999:232). At the end of the century, there were many rich in Rotterdam. In 1583 there were 300 rich in the city, in 1665 there were 130 fortunes above 40.000 guilders do which 40 of them above 80.000 guilders! (van der Schoor, 1999:277).

### *5.2.3 Municipality*

The 17<sup>th</sup> century was a period of enormous growth. Trade, activities and population were growing, so did the city. The expansion of the local government continued in 1650 (van der Schoor, 1999:266).

The most influential group of Rotterdam was 'het vroedschap'. The members of this group were the regents. Regents were those who were working in the organisation of public politics. This could be in the form of daily business or by an organisation like the orphanage. Regents came from the higher parts of community. At the beginning of the 17<sup>th</sup> century, regents were merchant or craftsmen, at the other half of the century we see a development where regents were only regent. The city became larger and the organisation more professional (van der Schoor, 1999:276).

### *5.2.4 The Economy*

Economy was strongly influenced by the immigrants from the south. They made the local economy change. Before the people from the south came, Rotterdam was an fishers town. During the 17<sup>th</sup> century, Rotterdam changed into an international trade

centre. In the first part of the century, the herring fishery brought great wealth. Many inhabitants were connected to this part of economy if they were not fishing than they were creating all sorts of products and many of them were owners of ships. Sometimes one ship had around 16 owners! After the start of the 17<sup>th</sup> century, there became a decrease in the herring fishery because of the 'Hoekse and Kabbeljauwse twisten'. On the labour market, we see the effects of growing other industries. Employees for the herring fishery were found in other villages. Most inhabitants started to work in the industries. The shipping industry became more important for the city. In the year 1623, there were around 200 ships from the Rotterdam harbours (van der Schoor, 1999:200). The shipping industry exported and imported products on two sides. In the first place there was the export into the large area of the Rhine, Maas and Schelde, secondly the import and export of merchandise from Middelburg, Amsterdam and Dordrecht. Rotterdam had in the period around 1600, connections with cities like Danzig, Riga, Stettin and Koningsbergen. On their journey ships exported herring, salt, French wine and subtropical fruits. On there journey back to the city, ships imported all kinds of corn. During the 16<sup>th</sup> century the shipping industry to Norway developed. From this area, Rotterdam took wood to build ships. Of greater importance were the cooperation's with Portugal and Spain. The Rotterdam ships exported corn, cheese, fish, wool fabrics, tar, mitten and flax to cities like San Sebastian, Bilbao, Coruna, Bayonne, Vienna, Oporto, Lissabon and Setubal. Cities in the south like Seville were popular destinations. Ships imported salt, Spanish wine, oil, exotic fruit, wool, sugar and pepper. After the first half of the 17<sup>th</sup> century, Rotterdam became more interested in the Mediterranean area with harbours like Genova, Livorno, Marseille, Napoli, Venice and Constantinople.

Rotterdam also had a shipping industry concentrated on the east and west. This was strongly influenced by the merchants from Antwerp who already had connections in those regions. Merchant navy contracts with Africa and America were made with the help and influence of several Antwerp's. In the first place, the import and export was quite small. Rotterdam ships were sailing to Madeira and the Canary Islands for wine, sugar, syrup, ginger and orseille. These were a couple of ships a year. Also, Guinea had one ship a year from Rotterdam to export Ivory. After 1621, the WIC started and had a monopoly on trade with Africa and America (van der Schoor, 1999:211). The



Rotterdam chamber was specialized in the sailing on Brazil where the chamber took salt. After 1645, when the chamber lost their monopoly on Braille, the trade moved to the Caribbean area where Curacao became the most important harbour for slaves (van der Schoor, 1999:212). Rotterdam owned a chamber of the VOC, which was started in 1602. In the period 1630-1650 there were enormous profits earned by the trade with the east (van der Schoor, 1999:215). The shipping industry had strongly influenced the Rotterdam urban economy. All kinds of industries were related with the harbour and had positive effects from the successful missions. Unfortunately, there is little known about the demographics of the city in that period. The enormous expansion of inhabitants and economic development had consequences for the development of the way the city was organized and the cultural field.

### *5.3 Guild of Saint Luke*

Guilds were societies of private individuals united by a common trade which they exercise in a particular region or town under a government licence (Prak, 2006:224). The guilds were of great importance for city economy. According to Prak (2006) guilds produced a rich cultural life and participated in politics. Crafts guilds like the guild of Saint Luke, build and sustain social identities. Guilds had to deal with high rates of mobility and massive changes. We could say that guilds were perfectly compatible with economic modernization and were strongly linked with political structures.

Guilds had strict regulations, what gave them the exclusive rights to independent exercise of trade and forced others to become guild member. This guild privileges helped to establish industrial dominance of towns. Sometimes guilds had contacts with other cities for the export of products. The fact that guilds were involved in local policies caused local economy of the agenda of city counsels. Guilds were strongly connected with overall institutions in society. In the first place the 'poorterschap' was needed to enter a guild. In most cases guilds were socially active with security, fire-fighting and the church. The bounds with the religions institutions were not only important for society, the guilds selves liked the social control it brought under its members. The social cohesion leads to internal control.

Not only production capacity rose, output increased as well. Not only the rich and institutions had paintings, almost every household had some paintings. In the period 1600 and 1700 between 2,5 and 5 million paintings were produced (Prak, 2003:238). To create such enormous numbers of paintings production methods had to be efficient. Not all paintings had great value so the time that it cost to create such works cannot be very large. New working methods were created. Some painters only used a few colors others made vague sketches. Painters specialized themselves in specific subjects like landscapes. Dutch artists also invented new types of paintings like sea battles and flower pieces. Consumers could choose from a broad range of qualities varying from 1 guilder a piece till 500 guilders an piece (Prak, 2003:239). To declare these developments in the art market there are two other developments; on the demand side, traditional consumers disappeared, whilst a new clientele was emerging in the later decades of the 16<sup>th</sup> century (Prak, 2003:239). Were in the first situations painters created a work on order for a client, painters started to paint and find buyers later. They had to work for an open market. This development was caused by the fact that the rich moved to the south and church patronage disappeared. Because the prosperity in Holland new rich and middle class became available. The change on the supply side was caused by the influence from southern painters. Many came for religious and political reasons to the North.

The guilds came to life again in the beginning of the 17<sup>th</sup> century. They wanted to protect their members for the import products from the south. These products came to Holland because of the agreement the Dutch state made with the Habsburgers. The guilds were trying to protect the local market. ‘The establishment of the painters guilds, the expansion of the market and the development of specific niche products thus all coincided in the 17<sup>th</sup> century Dutch art industry (Prak, 2003:242).

The guilds controlled the number of producers and the numbers and skills. Some guilds had restrictions on the number of their members. The entry fees were modest. In all cities members of the guild had to be citizen of the city.

Protection of the market was done by monitoring of the painters. This monitoring had to focus on the quality by training and the masterpiece (Prak, 2003:242). The guilds had a very important task concerning training.

The main task of the guilds was to protect the market, this was quite difficult. In the first place because they could not prevent consumers to go to other towns to buy works. In the second place there were many art dealers who dealt through the country and did not only sell local works. And thirdly, leaks in the monopoly were caused by members themselves. They organized lotteries and public auctions.

Guilds tried to make the market more transparent for consumers by showrooms (Prak, 2003: 248). They offered consumers the possibility to compare quality, subjects and price. Unfortunately these showrooms were not very popular among painters. They could have positive effects from the ignorant buyers. To compromise the guilds started to organize certain courses for buyers. Buyers were taught in art.

In Rotterdam there were several guilds known. In the period around 1500, there were 18 guilds (van der Schoor, 1999:220). In the first half of the 17<sup>th</sup> century, there is an increase in the number of guilds. Some guilds were new, others were just separated from existing guilds, and examples of this are the gold and silver smith's guild, cornice makers guild (van der Schoor, 1999:220).

Most of the creative professionals in 17<sup>th</sup> century Rotterdam were members of the Guild of Saint Luke. The oldest information known about this guild comes from 1609. The guild became official on 22 January in 1609 (van der Schoor, 1999: 242). This craft guild was not only meant for painters, as the following text in old Dutch says; 'alle die palet, verwe ofte pincelen besigen, tsij in olie ofte waterverve' vertegenwoordigd samen met 'glaeschrijvers, glaesmaeckers, glaesvercoopers. Borduerwerckers, plaetsnijders, beeltsnijders van hout, steen, metael, of andere substantien, compasmaeckers, constdruckers, bouckdruckers, bouckvercoopers, constvercoopers ende schilderievercoopers' (Schandee, 1994:17). In summary, the Guild of Saint Luke was meant for painters, glassmakers and glass painters, sculptors, compass makers, book

publishers and book pressers etc. In 1640 the porcelain bakers became members of the guild too. Within the guild, the painters and glassmakers were most important (van der Schoor, 1999:242). They had more rights and created the board of the guild.

The guild protected its members by for example limit the sell of paintings from outside the city, although this was quite difficult in combination with the international trade. What was successful was the stimulation of educated professionals from outside the city. The guild stimulated this by decreasing the income fee to half of that paid by a student. Also organised the guild a complete elderly, invalidity and unemployment insurance (van der Schoor, 1999:242).

#### *5.4 Climate*

The cultural climate was strongly influenced by the people from the south, especially from Antwerp. Immigrants could earn their porter ship quite easy if they had a specialty like painters, teachers who spoke French, and fortunated ones. People who came were not only merchants but also teachers, philosophers, painters, smiths, cartographers, book publishers and sellers, glass makers and majolica makers. Their presence started the market for science, luxurious products and art. The immigrants brought their own culture which influenced the local taste. Expensive products like glass and majolica became fashionable. Also the fact that there became more rich people to the city who could afford this luxurious products made the cultural landscape more active (Schandee, 2009:2).

The cultural and intellectual climate in Rotterdam was especially in the last part of the century of a high level. The cultural life took place in groups with writers, poets, philosophers, painters, book pressers and publishers of diverse nationalities and religions (van der Schoor, 1999:275). A prove of this are the important book pressers, Francois van Hoogstraeten and Pieter van der Slaart. Bayle wrote the French written magazine 'Nouvelles de la republique des lettres' (van der Schoor, 1999:285). Next to this journal also the journal called 'boekenzaal' was published in Rotterdam. This was a science magazine written in Dutch. It was the first science magazine in this language! (van der Schoor, 1999:287). Also the city knew important collectors of art, and



international art dealers as Meijer and van Besom. The municipality found the intellectual field important, they provided the order to create a statue of Erasmus in 1677 (Schandee, 1994:28). In 1681 the 'Illustere School' became reality. In this school children were taught in Latin. Also the first Dutch scientific journal was published and written in Rotterdam in 1693 (Schandee, 1994:26).

There has been a theatre in this period. In 1630 the staff of the orphanage gave the order to build a theatre. Unfortunately after a year the church was protesting and the theatre closed. After this affair people could only go to theatre when there was Kermis (Schandee, 1987:290).

The biggest part of the cultural life was not public but was located behind expensive doors. There were several groups of friends who debated, played music, wrote poems. Rotterdam was quiet liberal but still people were not allowed to promote their opinion in public. This liberal climate made the city interesting for a certain group of people.

### *5.5 Creative professionals*

Which professions of creative economy were active in the 17<sup>th</sup> century? Several professions could be defined as creative. If we look at the definition chosen in chapter 2 we see in the first place the visual arts, which are based on crafts, paintings, sculptures and photography. About painters is enough information. Unfortunately, there is not much known about sculptures. In the period of the 17<sup>th</sup> century, we see that there were sculptures on ships from wood for example but this is not defined as a separate profession. Also, there is made a statue of Erasmus but a tin maker created this. Photography did not exist in this period. The second group mentioned are the performing arts. About theatre there is some information known. Dance did not exist, as performing art in that period and about circus and festivals there is little known. What is known is that there was kermis once a year. The next step is heritage. Some people had collections of majolica for example at their homes; museums as we know them today did not exist. Just as libraries, archaeological sites and archives. The categories film, video, television, radio and video games are not useful for the 17<sup>th</sup> century. About music there

are some things known although this is only life music and none recorded music. About books, and pressing there is information available.

If we make a step to the second circle, we see design and architecture. Although design was not mentioned as design in this period, I think that majolica, gold and silver smiths could be seen as design also glass. About the design of furniture there is little known. This leads us to the following professions to describe, painters, art dealers, sculptors, theatre, music, book publishing/literature, majolica, gold and silver, glass writing.

### *5.5.1 Painters*

According to Schandee there were quite many painters in the city. There are 250 names known from the 17th century and of 100 painters work is acquainted (Schandee, 1994:15) (van der Schoor, 1999:240). In the period at the end of the 16<sup>th</sup> century until 1630 there were 90 painters known (Schandee, 1994:17) (van der Schoor, 1999:240). Today we are familiar with 24 of these painters. 30 of these men came from outside Rotterdam (van der Schoor, 1999:240) (Schandee, 1994:17). Of these foreign painters most of them came from the Southern Netherlands but they also came originally from Haarlem, Amsterdam, Delft, England and Germany. Most of these immigrants stayed permanent in the city, apparently there was enough income to earn. Most of them were member of the Guild of Saint Luke.

This enormous success was not unique in Rotterdam. Also in the rest of the Netherlands the market for paintings grew and the number of painters and paintings rose. In the Dutch republic as a whole, the number of painters may have increased as much as fourfold between 1600 and 1619, and doubled again between 1619 and 1639, to further increase by another 50 percent in the next two decades (Prak, 2003:238).

In the first period of the century most painters lived in the old parts of the city. We could actually speak about a Flemish painter's colony because the painters lived in an old neighbourhood close to each other. The painters had many business contacts and also on the social area they integrated with each other. There were many marriages in the colony. Because of the information that is available according to their living area, we

know something about their social position. The painters were general earning craftsmen. They were not rich, but absolutely not poor. The growth of the number of painters in this period could be explained by the large number of southern immigrants that came to the city. Some of the painters in the 17<sup>th</sup> century tried to earn their living by doing other work than just painting. Some were merchants, others were broker or what was more general, they supplied the city with art and materials to make art like paint etc. Multiple job holding was normal in that period. Although there must be said that the price of paintings was quite low. The price of an original painting was around 10 guilders while a copy was much cheaper (van der Schoor, 1999:241). The production level of paintings was enormous. In Holland in this period around 50.000 paintings each year were created! (van der Schoor, 1999:241). Whether they produced freely or in order is not known. Probably painters also produced for the art market to supply for the great demand (van der Schoor, 1999:241). To buy a painting there were several possibilities. In the first place a consumer could buy a painting direct from the painter. Secondly, many paintings especially cheaper ones were sold on the fun fair. Finally paintings could be sold by other painters who were dealers in art. The professional art dealer was quite a new development in the market but became popular in high speed. In the first half of the century Rotterdam had at least two art dealers, Maerten Adriaensz Balckeneynde and Crijn Hendricksz Volmarijn. Both were also painters but their main resource was dealing in art (van der Schoor, 1999:242). Volmarijn is also the first known dealer in painting equipment. How did they get the paintings? Most of the time people bought paintings from the painters self (van der Schoor, 1999:242).

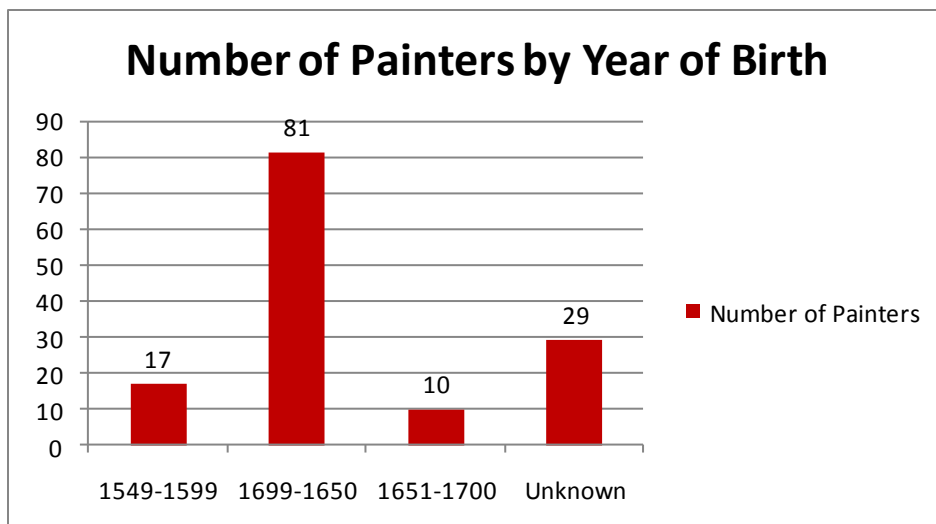


Figure 7 Number of Painters by Birth Year (www.RKD.nl)

In the period 1630-1670 there were about 120 painters of which from 65 painters work is known and from 7 of them is known that they came from the south (Schandee, 1994:22)(van der Schoor, 1999:241). According to the data from the RKD there were 81 painters born in the period 1599-1650 and 10 in the period 1651-1700. We could say that the first part of the century was most popular. According to Schandee, around 20 painters came from outside the city (Schandee, 1994:23). If we take a look at the diagram presented here, we see that only 45 painters were born in Rotterdam. Others came from outside the city and even outside Holland. Why did painters choose Rotterdam as working spot? There is no literature about this question but it will probably be influenced by the liberal climate in Rotterdam. Next to this a large city is a market for many things. Rotterdam had many influences from outside the city what made it interesting to work in and of course there was a lot of work for painters.

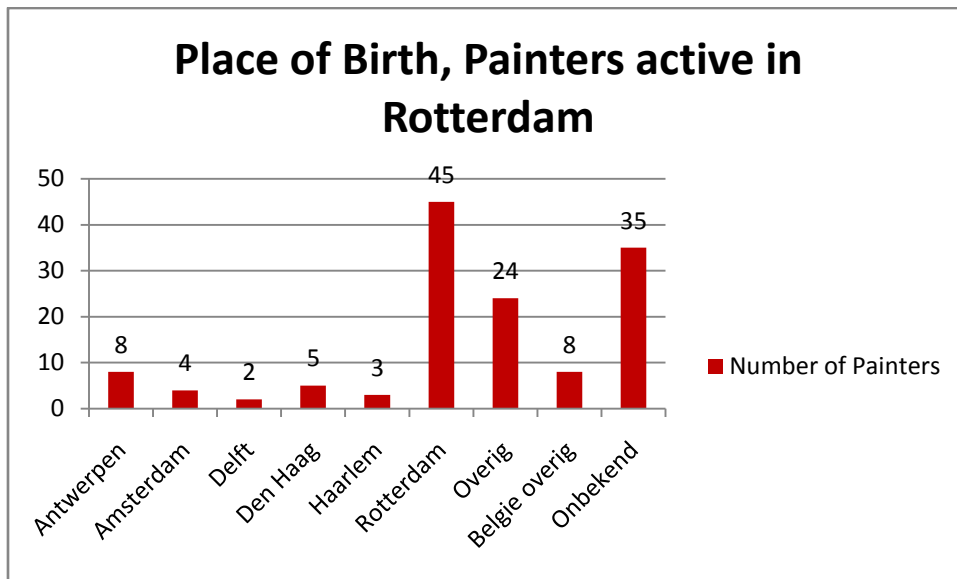


Figure 8 Birthplace of Painters active in Rotterdam

In the last period of the century, between 1670 and 1700 there were around 60 painters working in the city. From less than half of them work is known (Schandee, 1994:27) (van der Schoor, 1999:289). Less than 16 of them came from outside Rotterdam, and most of them from the cities in the north (figure 10). The painters weren't living at one side of the city any more but were spread all over the city. Still there were painters who had second jobs to provide their income. Some of them were sailors on the ferryboat to Delft, others were poet.

What is interesting is that many painters worked in separate places. They were highly mobile. The number of different working places varies widely. Some worked in 1 other city, others worked in several places in the world (figure 11).

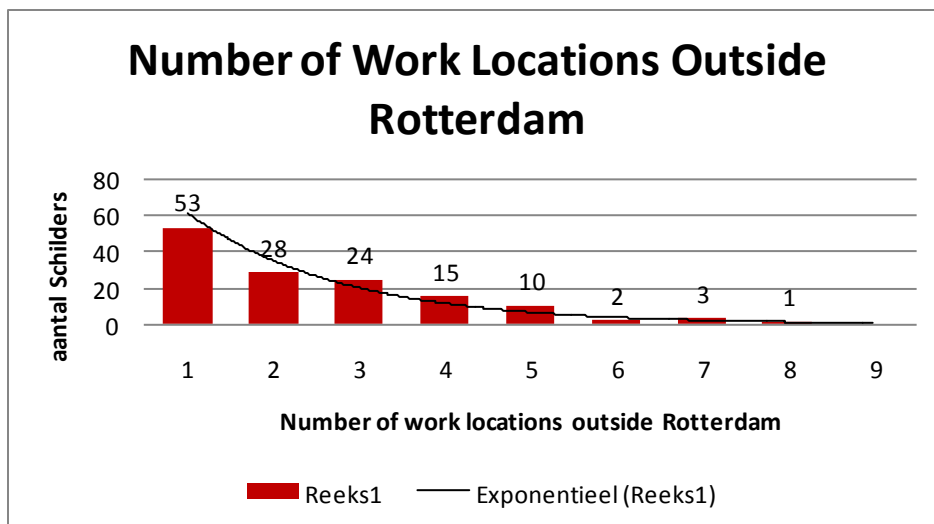


Figure 9 Number of work locations (www.RKD.nl)

### *Art dealing and Art collection*

The Dutch art market came till life between 1600 and 1630. The number of painters who started was enormous (Sluijter, 1999:113). Not only the quantity, also quality rose.

How came this market to life? In the first part of the 17<sup>th</sup> century the demand from the elite for paintings increased. This was a new market which was supplied by the local painters. One of the reasons for this increase of demand was probably the rise of income. Prosperity raised, people had money to buy paintings (Bok, 2001:188). Interesting is that not only paintings were bought, other luxuries goods like silver and porcelain became popular to (Bok, 2001:190). Why paintings instead of silver or books? The arrival of people from the south is one of the most important reasons for the success of paintings. These people had a tradition of collecting paintings and this tradition was copied by the northern Dutch inhabitants. Next to there traditions these immigrants had also the resources to buy these paintings. In the first years of their presences the immigrants did not bought paintings. In the first place, the immigrants did not have money to buy paintings. In the second place, immigrants were investing in valuable products like silver and majolica because those were transportable back to the south. At the end of the 12 year convent, there comes an increase in the number of paintings imported from the south. This was the reason for the activation of the guilds of Saint Luke. These guilds were inactive in the periods before but the market had to be

protected against imports from outside the cities. This protection led till the agreement that people from outside the cities were not allowed selling paintings. The art market became very active. There were more painters, who produced more. Paintings from the south were much cheaper than the paintings produced in the north. Probably, because the production methods used in the south were cheaper. The income of cheap southern paintings was a start engine for the market (Sluijter, 1999:121). The market changed fast by process and product innovations. To keep in the market, painters tried to deliver a high quality for a low price. Methods of painting changed, subjects changed. To succeed as a painter it was important to keep an own style with products of high quality.

Because the increase of the market more young people chose the profession of painter. In the first place artists taught their own children. In the second place, painters taught students in drawing for their education to other professions like goldsmith and carpentry. Thirdly, children of the fortunated received drawing lessons for their education. And finally, there were many children who were more active at school with drawing lessons than with maths (Bok, 2001:193). The whole society had a positive attitude towards the sector. People were proud at their painters.

Collectors of art were richer salesman, elite, regents and higher parts of craftsmen who collected their wealth and lived in the city. This group became art collectors because they wanted to develop their personality in a more humanistic ideal; on the other hand collecting was an instrument to reach a higher social status. The paintings they bought varied from small to large, from very expensive till very cheap, different subjects and different techniques. The numbers of paintings people bought were huge. In the middle of the 17<sup>th</sup> century there were houses where in every room between 30 and 50 paintings were collected. In total there were between 150 and 250 paintings in one house! (Sluijter, 1999:116).

In the 17<sup>th</sup> century the population who could afford paintings grown rapidly (Bok, 2001:186). Not only because prosperity rose, also because the price of paintings was low. There were an extreme number of paintings on the market in that period, probably more than one million. After the reformation not only the demand for paintings

changed, also the supply changed drastically. The subjects changed from religious subjects to daily life and from large paintings to much smaller ones.

How were paintings bought? There became more 'dozijnwerkers', ateliers that created paintings in production were some painters creating several paintings a week. Paintings could be bought at a year market if they were not too expensive sometimes even on the street. For the more expensive paintings there were art dealers, in many cases painters who were looking for a second job. From the beginning of the 17<sup>th</sup> century there were also events where paintings were given as a prize. Auctions, lotteries, dice events and even shoot events were organised and prizes were in the form of paintings. Art dealers created a hype around paintings and they became fashionable. The guilds of Saint Luke were not pleased with these lotteries. They were afraid that for illegal import of paintings (Bok, 2008:16).

If we look general to the 17<sup>th</sup> century we see that the deal of paintings in the first part of the century was mainly concentrating on cheap northern Dutch works. The share of local painters is quite large. Art dealers as well as other salesman sold these works to a public what was not particularly rich and who were not planning to have a collection. Collectors in this period were depending on other suppliers, who also bought in other countries like Italy. After 1670 (Schandee, 1994:38) the Rotterdam art collections got a different character. The orientation becomes more international and with a more classified taste. For the collection of special paintings Rotterdammers could go to art dealers inside the city. Next to these international paintings, the Rotterdam painters were still popular.

### *5.5.2 Theatre*

In the first half of the century, theatre was performed by the 'Blauwe Acoleyen'. The 'Blauwe Acoleyen' was organized in quite the same form as guilds (Zijlmans, 1999: 36). There were three leaders inside the organization called, the emperor, the prince and the factor. The emperor and the prince had to be chosen yearly, the factor was there for a much longer period. All members paid a fee, which was used to rent a space, food,



drinks, costumes etc. About the identity of the members is little known. The number of members is unknown (Zijlmans, 1999:28). Women were not allowed.

The Blauwe Acoleyen was the only group who had the right to perform theatre in public (Zijlmans, 1999:20). Because of this status, they received several times subsidies from the local government. In the beginning of the 17<sup>th</sup> century, the Blauwe Acoleyen lost their official status and was no longer allowed to perform in public (Zijlmans, 1999:29). Around 1650 the theatre group had become unpopular. Only for special occasions like the visit of the English queen in 1642, they organized a ceremony (van der Schoor, 1999:246). The commercialization of theatre did not really worked in Rotterdam. This had several reasons. The first was that the style the Blauwe Acoleyen was old fashioned. Secondly, there was a lot of amateur theatre for example by the orphanage house because they needed to earn money (van der Schoor, 1999:246). In this period, the 'Blauwe Acoleyen' only had activities outside the public space. If they wanted to perform something, they had to receive permission by the city counsel and let the plays check before.

The building of a theatre was finished on ninth of March 1631 (van der Schoor, 1999:246). The 'Blauwe Acoleyen' decide themselves what they wanted to play but did not share in the profits. At the end of June, Rotterdam's first theatre was closed because of complaints from the church. This was the end of modernization of the Rotterdam theatre. In 1638, 3 painters, P. Vroloo, W.Tybout and J. de Croninck tried to create the first commercial theatre (van der Schoor, 1999:247). They hired actors, and organized performances but after argues in 1640 and 1641 they stopped the project (van der Schoor, 1999:247).

### *5.5.3 Music*

There is not much known about music in 17<sup>th</sup> century Rotterdam. In the first half of the century, most music was performed in church. There were individual musicians who played on private parties, public inns and fairs but little is known about this group. Music could mainly be found in the church by singers and organ plays. The influence of the city council was quite large at this point because they decided the direction of the

church. The employment of singers, organists, clock players and trumpet players was organized by the city council some times in combination with the church. Trumpet players had to play every our and were employed in 1634 (van der Schoor, 1999:243). The clock players were employed by the guild itself. The clock players were also watchmaker in the first half of the century. Later on, this changed.

Maier and church master together chose the organist. In the first place, these were volunteers with other jobs, since 1644 there became a professional musician (van der Schoor, 1999:243). In 1642 the city decided to build a large organ, larger than in Alkmaar which was the largest until then, with 43 registers. The organ was used to celebrate things like Christmas in public.

#### *5.5.4 Literature*

In the first half of the century, the literature field in Rotterdam was not imposing. There was a group of poets but little is known. Literature was less public and was done in the ‘de Blauwe Acoleyen’, which was a group of literature and theatre players. In the second half of the 17<sup>th</sup> century, people who were interested in literature organized themselves in friends groups to create literature (Zijlmans, 1999:20).

At the second half of the century, Rotterdam became more popular for writers. Some important magazines like ‘de boekenzaal’ and ‘Nouvelles de la republique des lettres’ were published in Rotterdam. The fact that there came more and more authors and scientists meant also a successful period for publishers and pressers. The number of book sellers grows from 6 at the beginning of the century till 30 at the end (van der Schoor, 1999:288).

Year	Number of booksellers, Book pressers and publishers	Average years active	Number of publishers	Number of years
1600	9	20.22	4	25.00
1610	14	17.71	10	16.80
1620	14	22.00	11	21.82
1630	13	21.46	10	22.90
1640	12	22.92	8	29.00

1650	25	18.64	18	21.89
1660	25	22.52	18	28.17
1670	29	25.03	26	27.04
1680	32	24.81	25	28.04
1690	33	26.33	29	26.83
1700	30	28.87	24	32.21

Figure 10 Number of Book Sellers, Publishers and Pressers (Bots, 1997:485)

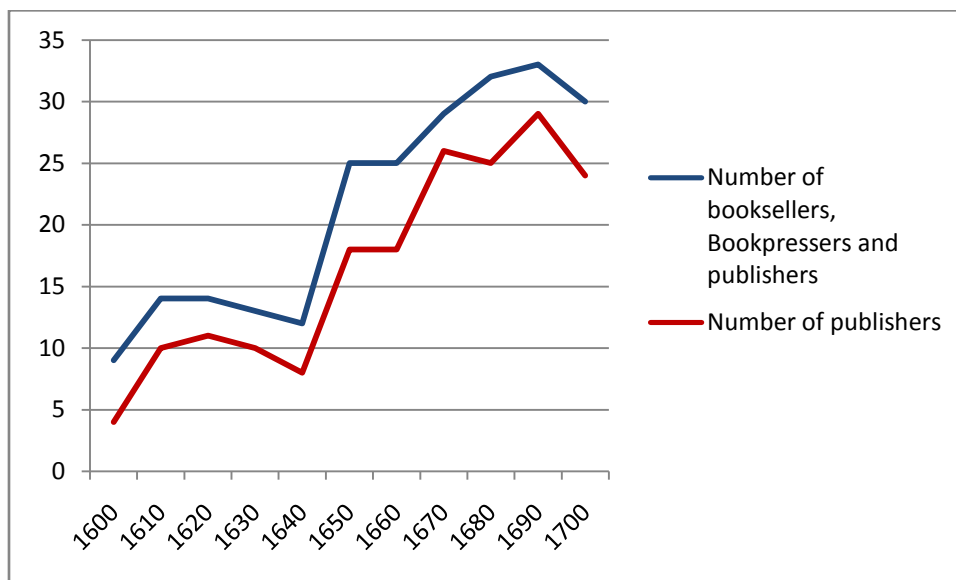


Figure 11 Literature Market (Bots, 1997:485)

In the period 1680-1750 was Rotterdam the fourth book city of Holland after Amsterdam, Leiden and Den Haag (van der Schoor, 1999:288). Especially in the last period before 1700 Rotterdam was an important intellectual and cosmopolitan centre (Bots, 1997:7).

A different shine is that the book sellers, pressers and binders started their own guild on 2 April 1699 (Bots, 1997:466). They separated themselves from the Guild of Saint Luke because of economic motivation. The interests of the literature industry were not defended enough by the Guild of Saint Luke. Members of the new guild were book pressers, bookbinders, booksellers, sellers of paper, pens and ink, and plate pressers. The separation cost a lot of money. In the guild paid 131 guilders and 2 nickels to the guild of Saint Luke (Bots, 1997:466). The new guild had the protection of Johannes the Evangelist. The guild arranged that everyone who would become a professional in the literature industry had to become a guild member. To become a member of the guild

you had to be a citizen of Rotterdam and a master in the profession. To become a master you needed to be taught for at least 4 years. After this 4 years a student could do a master exam and pay the entrance fee. The exam was from 1699 till 1720 unchanged. There were 3 assignments. *'1.het binden en opmaken van een grote foliant bijbel in juchtleer met houten borden 2. Het opmaken en binden van een boek in folio met hoornen band 3. Het binden en opmaken van een boek in quarto met prenten in een gewone hoornen band'* (Bots, 1997:468). The entrance fee for citizens was 18 guilders, for sons of guild members 9 guilders and for non-civilians it was 36 guilders (bots, 1997:468).

The success of the book sector could be declared by the geographical position of Rotterdam (van der Schoor, 1999:188). It transport of books to England and France went fluently and there were good connections with these countries. Because of the many connections into the rest of the world, the Rotterdam books were sold everywhere. Publishers and book sellers found easily clientele who bought non Dutch works. The arrival of France intellectuals like Pierre Bayle and Pierre Jurieu was important for the sector. Also the large English colony in the city with intellectuals like Benjamin Furly, John Locke and Lord Shaftsbury was positive for the sector.

The Dutch market got served very well from Rotterdam to. The two most important magazines of that time were publicised in Rotterdam what made it interesting for other intellectuals to locate in Rotterdam. In the period between 1575 and 1700 there were 276 people active in the field of publishers, booksellers, book pressers and book binders (Bots, 1997).

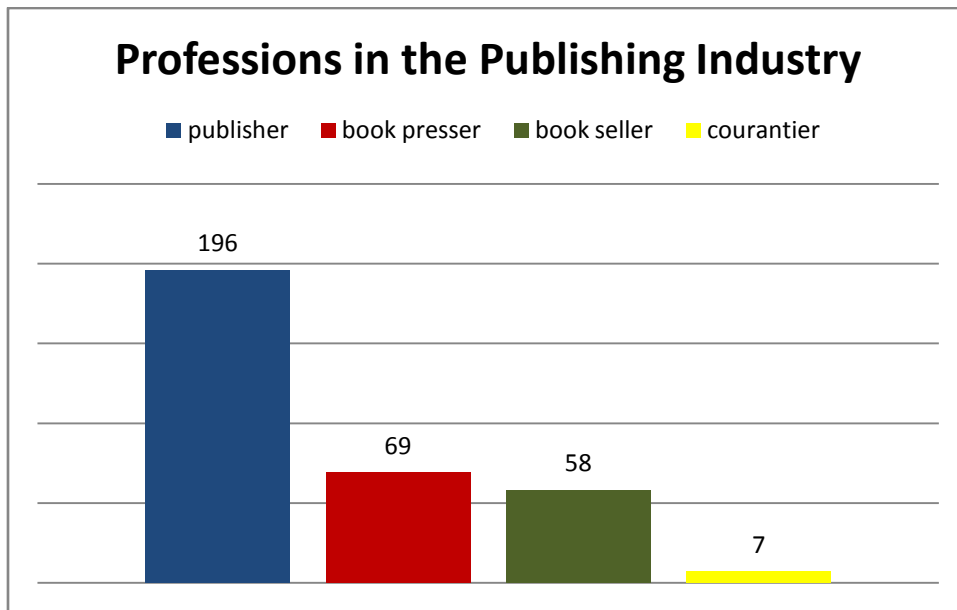


Figure 12 Professions in the Literature Market (Bots, 1997:485)

### *5.5.5 Majolica*

Majolica is a pottery which looks quite a lot like Chinese porcelain. Majolica is porcelain, baked on high temperatures and with kaolin lay. It was produced only in the Far East. First this porcelain reached Rotterdam by Portuguese craftsman, at the half of the 16th century there was a direct import to the city (Schandee, 2009:3). This eastern porcelain was in the first place a status product and was not really used. Majolica is much cheaper than silver and gold and became more and more popular during the 17<sup>th</sup> century. Around 1600 Rotterdam already had become an important producer of this pottery (Schandee, 1987:282). This technique which originally came from Italy was brought by the Flemish. Majolica was quite a successful business in Rotterdam during the 17<sup>th</sup> century. The influence of the immigrants from the south is large in this sector. After Flemish example the old workshop started to create majolica dishes and tiles. One specialty was the blanquettes with pictures from sea monsters or Turkish. The earliest northern Dutch majolica was mainly dinner service. At the first quarter of the 17th century this became more tiles and dishes. During the century the Rotterdam majolica bakers specialized themselves in tiles. There was a large market for luxurious tiles. This could be declared by the large grow in the number of luxuries houses. The explosion of inhabitants meant a lot of work for the building industry and also for the workshop. The

workshop delivered to other companies and to individuals. The plateel bakers were members of the Guild of Saint Luke. In 1 workshop around 15 people were employed. So at the top of the market there were around 210 people working at the majolica workshops. Each workshop could have 5 students maximum (Schandee, 2009:5).

Because of the successful market in the beginning of the 17<sup>th</sup> century there became more workshops. Another important factor was the location of Rotterdam. To produce majolica tin, clay, wood were needed and could be delivered very easily across the water. The final products could be transported out of the city. Also the willingness of the city council to deliver permission to start new workshop supported the grow of the sector. Between 1609 and 1650 thirteen new workshop were started in Rotterdam and one in Delfshaven (Schandee, 2009:13). This is logical if we take a look at the population growth in this period. Between 1622 and 1650 the population grow from 19.000 till 50.000! (Schandee, 2009:13). Of these workshops only one of them did not make it till 1650. Around 1650 there were 10 or 11 workshops in Rotterdam (van der Schoor, 1999:224). The products were not only soled in Rotterdam but also in the rest of the region. Majolica was a very popular product.

After the 17<sup>th</sup> century Rotterdam became the national largest producer of the product. The remarkable thing is that majolica was very successful but glass was not. A product like glass was not very successfully in Rotterdam. There is only one atelier known in the period 1600-1700. This was closed down in 1643 and became an atelier for Majolica.

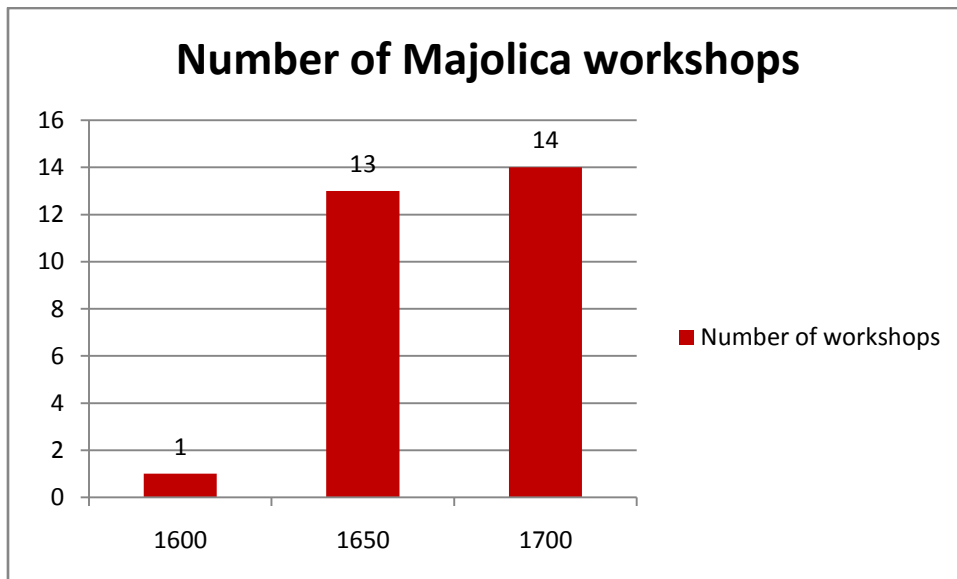


Figure 13 Majolica Workshops (Schandee, 2009:13)

### *5.5.6 Glass Factories*

The making of glass was not as successful in Rotterdam as in other cities. The city was not very happy with many glass companies inside the city walls because it always took a risk of fire (Schandee, 1989:13). On the 2th of February 1614, the city of Rotterdam gave the permission to build two glass ovens to start a glass company. The glass company had to employ 11 people. This company lasts until 1643 when it turned into a majolica workshop (van der Schoor, 1999:224). The glass factory produced mirrors and windows maybe also drinking glass. In 1615, the next glass company received permission to start (van der Schoor, 1999:224). This company produced Kristal glass. In 1641, some Venetians asked the city for a starting grant. They started a Venetian glass company at the Leuvehaven (van der Schoor, 1999:224). In 1642, the company stopped because of an argue (Schandee, 1989:19). In 1644, the same Venetian owners received a new permission for three years to start a glass company (Schandee, 1989:19). Also in the second half of the century, there were glassblowers in Rotterdam. In 1669, received the “gemeene compagnie van geotroyeerde glasblaserie’ a permission for the period of 12 years. They produced Venetian glass, Kristal glass, fine and rough wine and beer glasses (Schandee, 1989:19). What we do know is that there were glassblowers and writers in Rotterdam during the whole 17<sup>th</sup> century. We do not know how their products looked. There is not much left from this period.

Start	End	Name Owner
1614	1643	Claes Wijtmans
1615	1642	Hendrick van der Heuvel-Cretentius Thomer
1641	1642	Giovanni Zon/Augustino Perugino/Vincent Castagna
1644	1647	Augustino Perugino/Vincent Castagna
1996	1681	Reinier van den Bergh/Baptista da Costa

Figure 14 Glass factories (Schandee, 1989:19)

### *5.5.7 Silversmiths*

The gold and silver sector in 17<sup>th</sup> century Rotterdam has made a large grow just like the market for paintings. In 1560 there were no more than 2 silversmiths (Schandee, 1991:17) (Mees, 1916:204). The reformation brought a positive effect on the creative field. Although the protestant church was never ordering as much silver as the Catholic Church, there became many foreigners from the south to the region. The refugees had money and status to protect. And next to this, they had knowledge of new techniques and were familiar with the latest developments in the international market (Schandee, 1987: 282). In the period 1588-1609 the city became economically more developed and also the silver smiths became of bigger importance (Mees, 1916:205). In the first period of the age there were around 20 gold and silver smiths. 2/3 of them came originally from Antwerp (Mees, 1916:205). From Antwerp not only the gold and silver smiths came, also the art of diamond grinding moved to Rotterdam. It is not clear wither the silver and gold smiths were united in a separate guild called Saint Aloy or wither they were members of the Guild of Saint Luke (Du Ry, 1966:8). There has been made a list of all the silversmiths in the year 1675 who were working in Rotterdam. There has been made a separation between those who owned their own atelier, and those who worked in an atelier. There were 23 gold/silver smiths with their own atelier and 10 gold smiths who were working for others (Mees, 1916:209). This points out a growth, from 2 till 33 in 115 years!



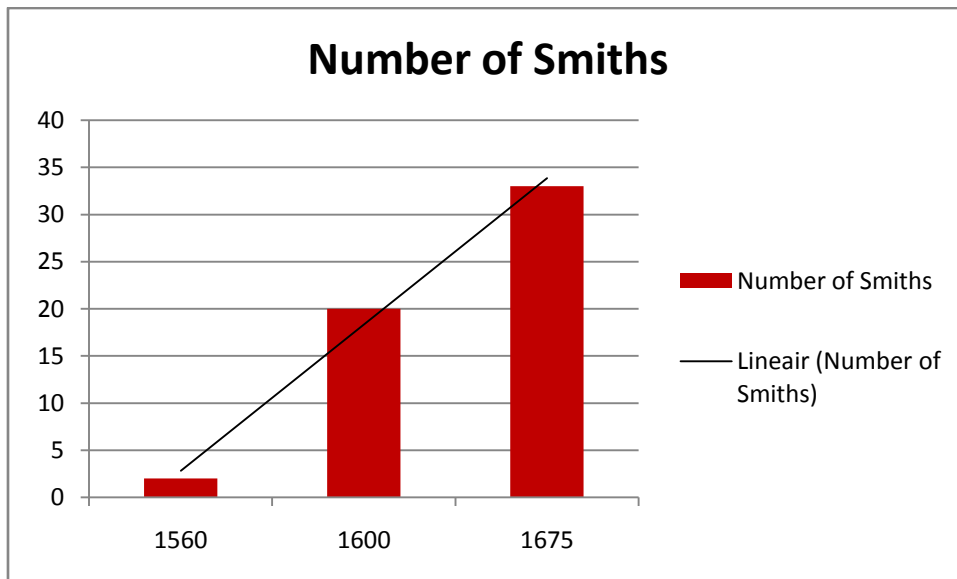


Figure 15 Number of Smiths (Mees, 1916:209)

### *5.6.8 Sculptures*

About sculptors there is not written a lot. According to Schandee, they were not united in the Guild of Saint Luke but they were working in the city. Especially for the ‘Admiraliteit’. They were making sculptures out of wood for the ships and for example for the ‘Schielandshuis’.

### *Conclusion*

17<sup>th</sup> century Rotterdam, was in enormous transmission from a small fisherman’s town till an international metropolis where economy and culture flourished. Rotterdam developed because of several factors. One of the most important factors is the arrival of many people from the southern Netherlands. These people influenced size, economy and cultural development of Rotterdam. In this chapter we took a special look at the creative professionals in the 17<sup>th</sup> century. They were defined in the following professions; painters, art dealers, musicians, theatre players, writers, book pressers, gold smiths, majolica bakers, and glass makers.

## 6. Interpretation

In the following chapter a short summarize of the chapters will be given. The connection between the 17<sup>th</sup> century and the used literature is made for each chapter. There after, the main question will be answered. Suggestions for further research will be done.

The purpose of chapter 2 was to give an overview of all kind of different definitions and finally choose the one most useful definition for the 17<sup>th</sup> century. I made the choice to use the definition of the European Union. In practical, this leads us to the use of the following professions. Painters, sculptures, photographs, theatre, dance, circus, festivals, museums, libraries, archaeological sites, archives, film, video, television, books, pressing, videogames, music, design. These professions are not freely useful for the 17<sup>th</sup> century. In chapter 5, I made the choice to research the following professions; painters, art dealers, theatre, literature pressing, music, majolica, and glass making, gold smiths and sculptures.

Chapter 3 describes urban development. In the first paragraph, we see that cities are the places where innovation takes place. All successful cities have something in common, 'All were at any rate the most advanced locations in their territories, which made them magnets for talented people to move to, and generates of wealth to use that talent. Wealth brought individual patronage as well as community patronage at city or state level' (Hall, 1999:37). Rotterdam became more successful with the herring market. The VOC had its office in the city, ships were built and merchandise was transported to all over the world. It went economically very well with the city. Next to this economical success, Rotterdam was also a liberal city. Refugees from the south were able to keep their own values. Many Catholics and Jews came to Rotterdam what influenced the sociology of the city. These new inhabitants had other values, other clothes; other believes. There have even been theatres in the 17<sup>th</sup> century. All these factors influenced the attractiveness of the city for refugees. Many people from the south were rich and had the resources and knowledge to buy luxurious products.

The minority brought creative's but also enough audience, minorities were actually functioning on the supply side as well as on the demand side. Rotterdam was in

economic transmission, transmission of social relationships, values, world outlook. Style, fashion, religion and beliefs, all were influenced by the group of immigrants and the travellers who went to sea. In Rotterdam, we see that the creative economy in the 17<sup>th</sup> century was strongly influenced by the immigrants from the south. Many of the painters and majolica bakers were from Antwerp. So were writers, books pressers and philosophers. Refugees were not allowed to become a member of the city council. They created their own group in certain areas of the city. The integration with the Rotterdammers went not fluently.

According to Jacobs, a large city is a market for many things. Because of the refugees the demand in the city changed. They had a different taste, a different income and created a demand for luxurious products. In the 17<sup>th</sup> century innovations already played a role in economic development.

Innovation takes place in cities because they are inefficient and impractical. A good example of an innovation demanded by the market is the large demand for majolica. This leads to new production methods. Also, the demand for paintings leads to the presence of art dealers.

Rotterdam was developing fast. Rotterdam was in the first place a technological innovative city. There were several inventions done in the period 1600-1650. In this period, 50 patents were received. Examples of these inventions are; a cannon foundry, mills, the making of stone by clay and waterpower mill (van der Schoor, 1999:251). Rotterdam was specialized in new majolica techniques and the creation of glass. Because of the enormous expansion in a short period, Rotterdam was also an urban innovative city. The city had to build new parts, create a new form of daily organization and new taxes.

According to Jacobs, we see that it is impossible for cities to be efficient and innovative at the same time because innovation takes resources before it is successful. Rotterdam invested in innovation. They had a bank of loan, the WIC and the VOC, which were

organization that loan money for the expeditions, the municipality also invested in these activities.

According to Landry, strong cities all had visionary individuals, creative organizations and a political culture sharing clarity of purpose. In Rotterdam, we see creative organizations like the Blauwe Acoleyen and guilds. There were also individuals who stimulated the creative economy like Johan van der Veecken. Today we see that culture has direct impacts on the investment climate of a city. In the past, this was different. It was inspiring to live in Rotterdam because of its liberal climate and the presence of certain people like painters, philosophers and writers. Nevertheless, the main reason for companies to start in Rotterdam was the geographical location. According to the literature the bourgeois clientele influenced the climate strongly. This group bought the paintings, read books and saw the theatre plays. In Rotterdam, most bourgeois clientele came from Antwerp. Their style and products became fashionable in the city. The creative class theories speak about a hard and soft infrastructure. Hard infrastructure is based on buildings and institutions. In the research period, we could see this in the form of the theatre (from the orphanage), the educational system through the guilds and a magazine about science. Soft infrastructures are the human relations within the creative class. We see this in back in the guilds and in groups around philosophers like Bayle. According to Woerkens, firms like to located themselves were the creative class is located. Because the people in this class are higher educated. In the research period this was not the case, the geographical position of Rotterdam was of greater importance than the educational level of inhabitants.

The interesting question which arise is, why chose the immigrants Rotterdam instead of Delft or Haarlem? According to the theory, people are attracted by jobs. People picked their living area where there was work. Rotterdam was also attractive because of the liberal climate. The municipality attracted several groups. Two Italian glassmakers received a subsidy and permission to start a new glass factory in Rotterdam. Another example is the fabric makers, a large group of fabric makers received supported in the form of houses. The fabric makers could help the Rotterdam economy and that is why they were attracted by the city.

Trading cities like Rotterdam, were working on new forms of economic organization. We see this in Rotterdam with, for example, the WIC and the VOC. These innovations in economy lead to new kinds of trade and production. The fact that the cultural climate was liberal in this period created the possibility to several developments. An example of this is the press of the science journals 'de boekenzaal' and 'Nouvelles de la republique des lettres'. Rotterdam turned in to a bibliopolism because of this development. Other authors from Europe moved to Rotterdam and the number of pressers, publishers and book sellers rose.

According to Florida, economic rise comes from the 3T's. Technology, Talent and Tolerance. Technology was available. Not in the form of computers but Rotterdam received several patents in the period. Talent is represented because the guilds attracted new artisans from outside the city. Rotterdam was quite liberal for its period; the level of tolerance was high.

Today more and more cities are trying to create clusters because they are good for local economy. Clusters could be in the form of creative or healthcare places but also less visible like an ICT cluster. Do we see some comparison between the cluster theory today and the 17<sup>th</sup> century?

There were some clear cooperation's in 17<sup>th</sup> century Rotterdam. We see this in the form of guilds. As we have seen before the Guild of Saint Luke was important for our research group. In the guild professionals worked together on the protection of their market and the educational systems for new professionals. Most likely, they also shared the knowledge on new techniques. Guilds tried to protect their market by on one side making everyone who wanted to sell a member of the guild. On the other hand they controlled the quality of the works. According to Prak (2003) the guilds also functioned on the demand side by informing consumers about the works and reasonable prices. The educational system of young professionals was also organised by the guilds. The guilds will have played an important role in stimulating the market.

Creative industries in particular seem to have the nature to cluster. A prove of this is that the painters in the 17<sup>th</sup> century were all living in the same part of the city. They clustered naturally. They had close and personal contacts with each other, needed the same sort of facilities. Today this face-to-face contact has to be created because of the digital ways of communication. In the 17<sup>th</sup> century, this face-to-face contact is less problematic because that was the only way to communicate. According to van der Berg, there are several spatial dimensions that influence a cluster.

The role of creative economy in 17<sup>th</sup> century Rotterdam is quite difficult to answer. Because of uncompleted data we cannot statistically provide information about the role of creative economy. About employee numbers or company's numbers we could not say anything because these data were too incomplete.

But we can say something about this part of economy. Rotterdam was liberal. Because of this liberal climate the city attracted many people from outside the city, especially people from the southern Netherlands. They were developed on a different way than the Rotterdammers were at that period. Creative products like majolica, books and glass were sold more and became fashionable. This was not only stimulated by a change in taste, also by a rise in prosperity. People earned a larger income, they became richer in the city and there were more houses build because of the city expansion. Also the change in of the market was very important. Because painters started to create for an open market instead of on order, products varied in quality and price. People from all origins were able to buy the products. This development was stimulated by the monopolies of the guilds.

If we grape back to the Peter Hall theory versus the Florida theory I have to agree with Peter Hall that all successful cities from the past were creative cities. This would mean that the Florida idea of the creative age is reject able. In that case creativity is not a new phenomena, just fashionable. Today creativity is high on agenda's of city developers in a certain way creativity could be stimulated. Maybe we could say that the guilds did in the past.

There are several points that could be concluded from this research. In the first place it is interesting to see that the development of Rotterdam is strongly depended and influenced by the immigrants from the south and the influence of the guilds. This started with the reformation. In the first place this was not a positive development for the creative field. Because the Catholic Church was a much better demander for creative products than the Protestant Church. But when the immigrants came the creative economy lived up. The field was positively influenced by the immigrants from the south because they were culturally developed. Antwerp was a central place in Europe. Many of the immigrants had the money to buy creative products, creative products were important to protect their status.

Secondly, Artists came to the work instead as that work came to the artist. What I mean is that the creative class theory and many other books around creative economy are writing that nowadays large corporations and firms are moving their headquarters to places where higher educated people live, or want to live. And that is one of the main reasons why municipalities are trying to attract this class. In the period 1600-1700 people were moving to the city because there was employment. It is the other way around! For example, many great painters moved to Amsterdam or Italy, instead staying in Rotterdam.

Thirdly, it is interesting to see that the income of painters was general, just like the creative class income is at this moment. They lived in good but not best neighbourhoods and were living within certain creative networks. I think that we could say that there was actually a creative class in that period. Maybe we could actually speak of a creative cluster. There was a strong network and most members of the Guild of Saint Luke were living in the same area. Of course it was not as organised as we see today.

Fourth, we can make the comparison between the creative clusters nowadays and the guilds in the golden age. The guilds were trade unions and networks in one. Today the field is less organised and the clusters are a new solution to create networks and cooperation. As we have seen in chapter 4, artists were working in the same region of the city. In Antwerp we still see that for example with the diamond and goldsmiths. In

Rotterdam this is less convenient today. Maybe the Witte de With street is an example. Clusters or creative buildings like creative factory and the Maassilo are a solution to the disappearance of the old system. Where professionals and students worked at the same place. This is one of the important factors according to van der Berg.

The role of creativity is not statistically provable in a short time, on the other hand we see that there were not enormous amounts of creative's in the city. It was not the driving force behind local economy. Rotterdam developed not really a school so to speak. Not in painting like the Amsterdam school or the Leidense school, not with porcelain like Delft did.

Although we could say that Rotterdam was creative in the form of finding solutions to local problems, as Jacobs called it, city innovation. Rotterdam has always been able to react on developments from outside and has survived by that. In a certain way Rotterdam always has been a creative city.



## Epilogue

In the following paragraphs there is attention for Rotterdam today. The epilogue is written to create the link between Rotterdam's history and Rotterdam's present. The numbers represented in this chapter are based on data published by the city of Rotterdam.

### *Population*

Rotterdam has at the first of January 2008 582.949 inhabitants (Rotterdam, 2008:11-18). Rotterdam has always been a city commuter. The largest age group is the group between 20-29, followed by the 30-39 age group. We could say that Rotterdam is a city with many young professionals. Over the age of 60 the city is less popular. The number of single households is large, 136.629, followed by the group of married couples without children. It is logic in combination with the ages represented in the city. Most young professionals are living alone or without children.

Rotterdam is also a multicultural city. Of the 582.949 inhabitants on the first of January 2008, there were 313.765 natives living in the city. This means that there were 269.184 non native people living in the area, this is almost half of the entire population.

If we take a look at all the people who study in the Rotterdam we see that there are 50.600 students at primary education in 2006. The numbers of practical education are not produced. The numbers of higher education students and university students are available. There were 11.430 students on the university and 14.730 students on higher education in 2006. If we look at the whole Rotterdam population we see that 39% of the citizens are lower educated, 36% are general educated and 24% is higher educated in 2006. We see this educational level back in the general income rates. In 2003, Rotterdam had the lowest general income per inhabitant of the 4 large cities. This was 11,7 thousand euro's. Unfortunately Rotterdam has still the lowest income in comparison with other large cities. The numbers of poverty are quite high. In 2007 the general number of social support was 771 euro's per household. There were 12.924 households with one social payment and 19.999 households with 2 or more payments.

### *Spatial situation*

In 2008, Rotterdam was split up in 13 part municipalities. Rotterdam has 304.22 square meters of land. This is much more than the other large cities in the Netherlands. At this moment, the city is very busy with building new higher buildings. In 2008, the Baltimore tower of 171 meters high and the Rotterdam tower of 145 meters high were finished. Rotterdam is also working on the highest tower of the Netherlands, namely 220 meters high. In 2007, Rotterdam finished to build 506 new rental houses and 1950 houses for sale. If we look at the value of the houses, we see that there is a big difference. In Hillegersberg-Schiebroek, which is from the past a rich village and lies at the north side of the city between the water, the houses are most expensive, 214,200 euro's.

### *Economy*

The Rotterdam economy is mainly concentrated on the harbours. This is one of the largest in the world, and the biggest sea harbour of Europe. The area serves as an important international logistic node and centre of trade. The Dutch government sees the harbours as a cornerstone of national economy. In the harbours, the largest petrochemical complex of Europe is situated. Since 2005 we see that there is increase in the number of jobs in the harbours. (Rotterdam, 2008:71).

During the nineties Rotterdam was trying to attract large companies to choose the city as headquarter. Today we see that the attraction was quite successful. The city centre is dominated by large skyscrapers where international headquarters are located.

Today Rotterdam measures a large economic growth. Rotterdam is working on a more diverse economic system to improve its strengths. The local governments choose three pillars of economy to concentrate on. The medical cluster, the harbour and industrial complex, which is the largest cluster, and the creative economic cluster. The clusters are quite different from each other. Where the harbour and industrial cluster is large with many fulltime contracts, the medical cluster is known for its small and creative contracts.

The creative sector is the smallest one but with a large growth. The creative sector is innovative, which is very important. Nevertheless, it is also a conjuncture sensitive sector.

In the appendix, we see that the creative sector is actually growing fast in the period 2006-2007 (figure 16). Because the sector is conjuncture sensitive this development will probably stagnate in the period 2010-2011. In the period 2007-2008 there was an increase in the number of jobs of 6.6%.

### *The cultural field and events*

Since 2001, all sorts of cultural activities became more popular. There is a large increase in the number of visitors to jazz and blues concert but I declare that increase because of the North Sea Jazz festival. What is interesting to see is that 73% of all cultural activities took place in Rotterdam. This means that the cultural sector is quite interesting for the inhabitants of the municipality.

If we look at the visitor numbers of large events, we see that there is a decrease. However, if we take a look of the top 10 events we see that the events are still large. The Summer Carnival has 900.000 visitors. Rotterdam has many different categories of the cultural field. There are around 43 museums, 4 cinemas, one large library with several dependences and 32 theatres and podia. In addition, Rotterdam is famous for its events. There is the summer carnival (Rotterdam has the largest population of Antillean people in the Netherlands), the North Sea Jazz festival, the CHIO which is a large horse event, the Dunya Festival which is a multicultural event, de parade, the Bavaria city race etc. These are all large regional events but there are also many smaller events with fewer visitors, which makes the city just more attractive.

### *OBR and the EDBR: the role of creative economy, vision and policy*

As we have seen, cities constantly develop so does Rotterdam. Not only in history, it was a working city, it still is today. Because the focus lay in history on the harbours, today the cities has a wider focus. The harbours are still very important, after all, Rotterdam is one of the largest harbours in the world, but history has shown that it is very wise to spread the changes. To develop new sectors of economy the EDBR (Economic Development Board Rotterdam) and the OBR (Development Desk Rotterdam) are becoming very active to find new possibilities.

## *Policy*

The local government made three pillars for the coming period namely, the creative cluster, the medical cluster and the harbour-industrial cluster. For all these clusters is the development of special economic area of Rotterdam their main goal. The planes are starting to work. In the period 1999-2003, the creative industries grown more in comparison with the grown in the rest of the country, including Amsterdam (TNO, 2005:83). The city developed cultural accommodations and production places from cultural as well as from economic perspective. The city especially concentrated on architecture. The creative industries in Rotterdam are good for 10.000 full time jobs which is 3,3 % of total employment in the city (TNO, 2005:83). Employment in the sector has had a grown of 8% each year in the period 1996-2003 while the rest of the employment in the city rose only 2,7% (TNO, 2005:84). In 2003 the sector was good for 400 million euro's total add to local economy, this is 2,2% of the total economy (TNO, 2005:84). Almost half of the sector works in the creative business like architects and designers. The media and entertainment industry, which is mainly build up by publishers, had an annual grow of 13% in the period 1996-2003. The creative sector is many concentrated in the city centre, the rest is concentrated around 'Prins Alexander', which is a neighbourhood in the northeast. The percentage of full employment in the creative industries is in Rotterdam 3,3% higher than in the rest of the Netherlands. However, this is quite logic if we keep in mind that innovation takes place in cities. In Amsterdam the creative service is grown by 7,4% in the period 1999-2003 while in Rotterdam there was a grow of 5,2%. On the other hand, the media and entertainment industry in Rotterdam has grown by 13,3%! In the same period while Amsterdam was stagnating with a grow of 1,1%. The total grows of the creative industries in Rotterdam grown by 8% while this was 5,1% in Amsterdam and 4,3% in the whole country. What is special in the creative industries is that they almost only serve the region. In Rotterdam, this is also the case. Industries, business services, wholesalers and non-profit are the most important markets for the sector. The most important supplier of work is the business service.

In the last years, Rotterdam has become more and more cultural. The city attracted several international festivals like The International Film Festival or the Gergiev Festival. Also temporarily, projects like Cultural Capital of 2001 and Architecture Year 2007. The attraction of the NAI and the Berlage Institute were important for the cultural field in the city.

As research shows us Rotterdam had already some creative industries. The share of creative industries in 2003 was 3,3% of all jobs in Rotterdam, with a monetary value of 2, and 2% of the total value.

The policy 'Vision Creative Economy' the board has several goals, which they want to reach within a few years.

- An increase of the number of jobs from 10.000 till 12.000
- The creation and promotion of cross-over's
- Increase of the visibility of the creative economy and the potential of this sector for the city of Rotterdam.

With these goals, the city wants to create the following effects:

- **Stimulating product innovation:** Through the cross-over's that will be created between creative entrepreneurs but also between creative entrepreneurs and more traditional companies there will be given an impulse to innovation and creativity in the Rotterdam economy in general. The grow of creative economy will be leading for innovation and creation which will increase the strength of the total local economy.
- **Economic Multiplier:** The grown of the creative economy will give a strong impulse to the grow of other sectors. The creative industry has an enormous effect on other sectors. One Euro extra production in the creative sector means 55 until 90 euro cents extra production in other sectors. The general number lies on 15 until 20-euro cents extra.

- Image: Rotterdam has an image problem. Grow of the number of cultural entrepreneurs and making the cultural sector more visible will improve the city's image. It makes the city more attractive as living and working area for creative and higher educated people. The creative class!

Because the creative economy is very broad, Rotterdam has made a choice between four focus points. They will concentrate their policy in the first place on Architecture, Media, Music and Design. But because Rotterdam has many changes in other fields of the creative sector the board will try to stimulate the creative sector by the facilitating the field and stimulating of cross-overs and entrepreneurship.

In the last years Rotterdam has invested in new and exploding the cultural infrastructure. In the period 2005-2008 they are planning to keep investing in the field. Next to the conservation of the cultural field the city wants to attract other visitors and hopefully other inhabitants to the city (creative class!). The festival and events agenda stays in action because it improves the image of Rotterdam on a positive way. In recent years the spaces for young artist become less available because there are many buildings build new. Rotterdam wants to stay active in the support of young artists in will great facilities for this. (TNO, 2005:84).

Rotterdam is a varied city, a working city, a city with many people from different countries, with many cultural activities and a growing creative economy. If we look to the numbers of creative economy of the last years we see an enormous grow. Unfortunately the creative economy is a very conjecture sensitive sector and the grow will probably stagnate in the future. Rotterdam is working quiet hard to support this specific sector of economy, and invests resources to do so.

## Appendix A Data Development Creative economy Rotterdam

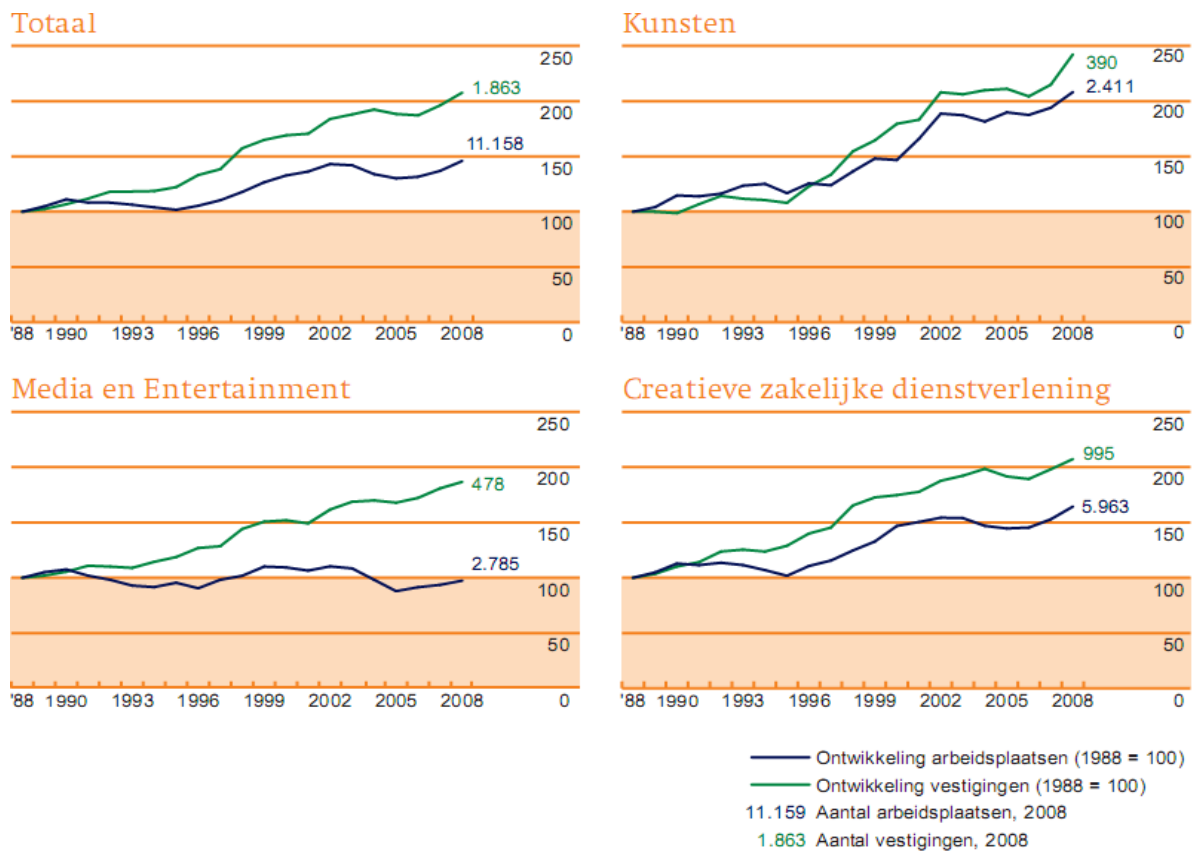


Figure 16 Industries of Creative Economy (OBR, 2008:96)

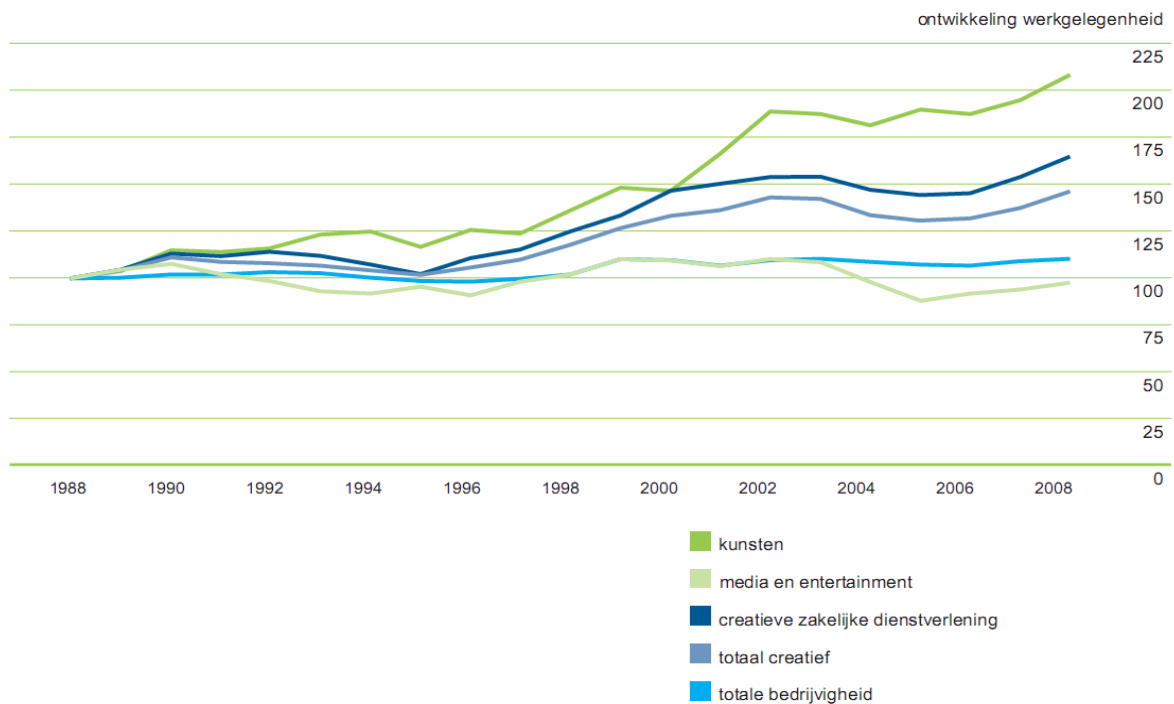


Figure 17 Development employment Creative Sector (OBR, 2008:24)

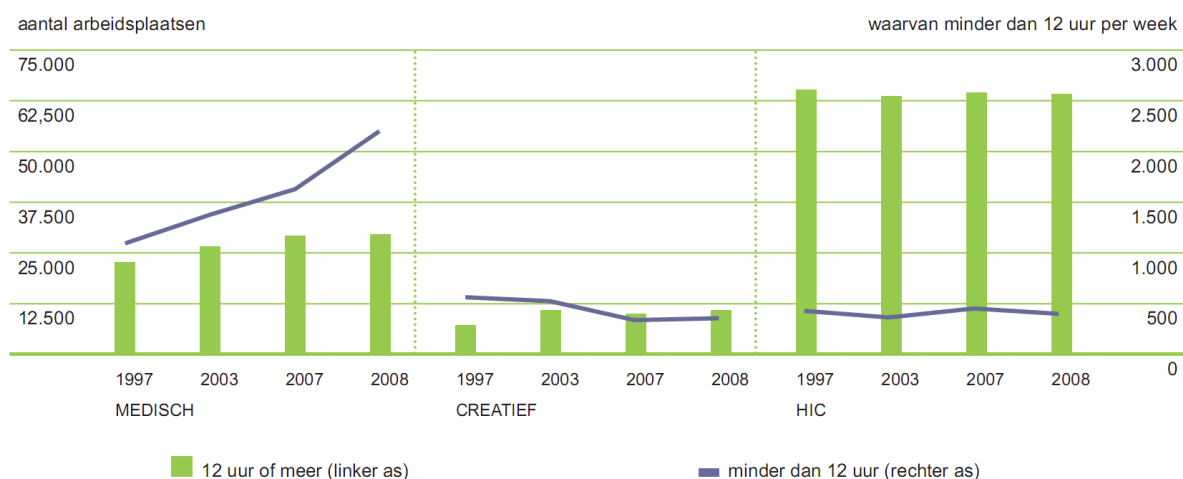


Figure 18 Development employment in clusters (OBR, 2008:24)

Sector	Banen	Toegevoegde waarde	Vestigingen	Bedrijfs grootte
	<i>aantal</i>	<i>miljoen Euro</i>	<i>Aantal</i>	<i>gemiddeld aantal banen per vestiging</i>
Kunsten	2000	70	329	6,0
Media en entertainment	3400	134	431	7,9
Creatieve zakelijke dienstverlening	5000	213	919	5,4
Totaal creatieve economie	10300	416	1679	6,1
Totale economie	317000	19149	23397	13,5
<b>Aandeel creatieve economie in totale Rotterdamse economie</b>	<b>3,3</b>	<b>2,2</b>	<b>7,2</b>	

Figure 19 Number of Jobs and applied value (OBR, 2007:7)



*Appendix B Definitions EU on Creative Economy*

Circles	Sectors	Sub-Sectors	Characteristics
Core Arts Field	Visuals Arts	Crafts, Paintings, Sculpture, Photography	<ul style="list-style-type: none"> <li>• Non Industrial activities</li> <li>• Output are prototypes and “potentially copyrighted works”</li> </ul>
	Performing Arts	Theatre, Dance, Circus, Festivals	
	Heritage	Museums, Libraries, Archaeological sites, Archives	
Circle 1 Cultural Industries	Film and Video		<ul style="list-style-type: none"> <li>• Industrial activities aimed at massive reproduction</li> <li>• Outputs are based on copyright</li> </ul>
	Television and Radio		
	Video games		
	Music	Recorded music market-Live music performance-revenues of collecting societies in the music sector	
	Books and Press	Book Publishing-Magazine and press publishing	
Circle 2: Creative Industries and Activities	Design	Graphic design, interior design, product design	<ul style="list-style-type: none"> <li>• Activities are not necessarily industrial, and may be prototypes.</li> <li>• Although outputs are based on copyright they may include other intellectual property inputs (trademarks for instance)</li> <li>• The use of creativity is essential to the performances of these non-cultural sectors.</li> </ul>
	Architecture		
	Advertising		
Circle 3: Related Industries	PC manufactures, MP3 player manufactures, mobile industry, etc...		<ul style="list-style-type: none"> <li>• This category is loose and impossible to circumscribe on the basis of clear criteria. It involves many other economic sectors that are dependent on the previous circles such as the ICT sector.</li> </ul>

Figure 20 Definitions EU on creative economy (EU, 2001:1)

*Appendix C Branches within the Creative Industries*

Creation	Material production	Distribution and shops
<b>Arts</b> <ul style="list-style-type: none"> <li>• Art and photography</li> <li>• Performing arts; music, dance, theatre</li> <li>• Recreation centre, organization of cultural events</li> </ul>	<b>Arts</b> <ul style="list-style-type: none"> <li>• Performing arts and photography</li> <li>• Production of dance, Music and theatre</li> <li>• Reproduction and publishers of cd's, books and DVD's</li> <li>• Recreation centres, event locations.</li> </ul>	<b>Arts</b> <ul style="list-style-type: none"> <li>• Museums, exhibition spaces, auctions, art rental, galleries.</li> <li>• Theatres and concert halls.</li> <li>• CD-DVD shops</li> <li>• Recreation centre, event halls</li> </ul>
<b>Media and Entertainment</b> <ul style="list-style-type: none"> <li>• Film: Scenario, Scriptwriting and other pre-production</li> <li>• Writing: romance, poetry, non-fiction</li> <li>• Journalism</li> </ul>	<b>Media and Entertainment</b> <ul style="list-style-type: none"> <li>• Film production incl. supporting activities</li> <li>• Production of radio and television</li> <li>• Publishing and printing of books.</li> </ul>	<b>Media and Entertainment</b> <ul style="list-style-type: none"> <li>• Film distribution, film theatres.</li> <li>• Television companies</li> <li>• Public libraries, bookshops</li> </ul>
	<ul style="list-style-type: none"> <li>• Publishers and printers of magazines</li> </ul>	<ul style="list-style-type: none"> <li>• Public libraries</li> </ul>
<b>Creative business service</b> <ul style="list-style-type: none"> <li>• Industrial design, fashion, graphic design</li> <li>• Creative ICT, games, new media</li> <li>• Architecture, City design,</li> <li>• Advertisement</li> </ul>	<b>Creative business service</b> <ul style="list-style-type: none"> <li>• Creation of furniture</li> <li>• Creative ICT</li> <li>• Project development</li> <li>• Printers</li> </ul>	<b>Creative business service</b> <ul style="list-style-type: none"> <li>• Distribution of Furniture, clothes etc.</li> <li>• Distribution of software and hardware</li> <li>• Distribution of buildings project development</li> <li>• Other advertisement services</li> </ul>
<b>Small definition of Creation</b>		
<b>Does not count as Creative industries</b>		

Figure 21 Branches within the Creative Industries (OBR, 2007:5)

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