Abschlussarbeit zur Erlangung des Bachelorgrades

“Bachelor of Arts“

an der

Hochschule Aalen

Fakultät Wirtschaftswissenschaften

Studiengang Internationale Betriebswirtschaft

zum Thema

CULTURAL HERITAGE MARKETING IN HEIDENHEIM

How targeted digitization can help promoting an old industrial town as an attractive place for people and innovation

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Ausgabe: 1. April 2019

Abgabe: 26. Juli 2019

Abstract

The present study deals with the topic how a town can use its cultural heritage or, more precisely, its industrial culture as a means to market itself as an innovative business location and to foster a more pronounced sense of civic cohesion among residents. Economic theory suggests that, nowadays, traditional location factors such as access to resources and a performant infrastructure are less important than in the industrial age. Recently, factors like a city's potential to generate and retain human and creative capital have emerged. Accordingly, the economic and social role of cities has shifted – from a place where workers lived and manufactured goods towards a deeply interwoven ecosystem of knowledge-intense value creation. The question at the root of the present study is how Heidenheim's rich industrial cultural heritage can be used as a future-pointing source of power for rebranding the town. This rebranding concept has to be developed according to the town's role in past, present and future, thus creating actual economic and societal value. Industrial culture bears branding potential and is closely related to various aspects of modern life and work. The study examines possibilities to create awareness for these relations connecting past, present and future. Their relevance shall be emphasized in order to establish both points of orientation and authenticity of place in times when macroeconomic and societal trends are difficult to predict. Ideally, residents shall be given a sort of local identification to hold on to, and potential investors and entrepreneurs shall be encouraged to sustainably experience the innovation-based DNA of Heidenheim. Therefore, the study searches for a value proposition that takes into account the points mentioned above on terms of an innovative theoretic framework. As a result of this thesis, precise suggestions for the implementation of a new branding strategy based on the conceptual guidelines developed in this study will be proposed to the municipality of Heidenheim and, in addition, an interface using principles of virtual and augmented reality will be introduced.

Keywords: Digitization, City Development, Cultural Heritage Marketing, Industrial Heritage, Industrial Culture, Creative Capital Theory

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List of Abbreviations

5G	fifth generation broadband cellular network
AR	Augmented Reality
CHM	Cultural Heritage Marketing
DHBW	*Duale Hochschule Baden-Württemberg* (Baden-Württemberg University of Cooperative Education)
DNA	deoxyribonucleic acid (figurative: carrier of inherited identity)
e.g.	Latin "*exempli gratia"*, "for example"
ERIH	European Route of Industrial Heritage
GAFA	Google, Amazon, Facebook Apple
IBA	German "*Internationale Bauausstellung*", international building exhibition
i.e.	Latin "*id est"*, "that is to say"
km	kilometre(s)
QR (code)	Quick Response
R&D	Research and development
SHW	*Schwäbische Hüttenwerke* (Swabian Smelting Works, Germany's oldest industrial company based in Königsbronn near Heidenheim)
SME	Small and medium-sized enterprises
STEM	Science, Technology, Engineering and Mathematics
SWOT	Strengths, Weaknesses, Opportunities and Threats
UNESCO	United Nations Educational, Scientific and Cultural Organization
VR	Virtual Reality
vs.	versus
WCM	*Württembergische Cattunmanufaktur* (Württemberg Calico Manufactory)

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“OLD IDEAS CAN SOMETIMES USE NEW BUILDINGS. NEW IDEAS MUST USE OLD BUILDINGS.”

Jane Jacobs (1961:245)

1 Introduction

1.1 Relevance of the topic

Heidenheim is a town of 50.000 inhabitants in southwestern Germany’s Baden-Württemberg region. In the past, industrialization has had radical impact on the town and still today Heidenheim is often referred to as an industrial town that offers numerous jobs. It is home to prosperous companies, some of them with international or even global reputation but also many SMEs and “hidden champions” which are market leaders in small niches. These companies and the town in general have an amazing hidden history of innovation and progress.

Besides industry, Heidenheim has a university, a renowned soccer team and an internationally acclaimed opera festival. At first look, things seem to work well in Heidenheim, economically speaking. But still, below the balance sheets, the town’s image is going through a serious struggle, internally and externally. Despite the economic welfare of the place, the city centre is dead in the evenings, restaurants and small shops close in series. There are considerable vacancies and local creatives seem to increasingly feel discouraged. Except for the soccer team, civic pride of being from Heidenheim is rather uncommon. The general image of the town is often described as “rural, ugly and boring”. In other words, there is a difference between a town that somehow “works”, and an attractive place (Kotler *et al.* 1994).

Having followed the economic and cultural situation in his hometown for several years, the author found that there was a gap between the potential the place offered and what was made out of it, so he came to ask himself: could there be new ways to generate benefit for the local community? Could the industrial past, which was an important element of local culture, be more than “old, rusty and dusty” but serve as a relevant source of inspirational power for present and future? How could people be made aware of the culture of innovation which had driven Heidenheim’s economy and society for more than two centuries but had apparently been almost forgotten by most of its current population?

After some preliminary thought experiments, rebranding the town from its own roots indeed seemed possible and plausible: innovation is a core element of Heidenheim's DNA, as numerous historic and current examples show. Based on this assumption, the basic research question was developed:

How could the image of Heidenheim as a place of innovation and entrepreneurship be effectively transmitted to locals as well as foreigners, based on the local industrial culture and with the goal to generate actual economic and societal impact?

Thus, the aim of this study is to assemble heritage-related elements of a desirable local brand image and marketing framework into a concept that will be able to create economic value, by fostering civic pride at the one hand and making the place's attractivity experienceable for newcomers based on an authentic valorisation of innovation and creativity. As a result, there will be a vision of how to use industrial culture to rebrand the city for the purpose of modern economic promotion.

The scope of the study will not include all of Heidenheim's vast industrial past, but focus on the case of WCM, a former textile company that was founded and based in Heidenheim from the beginning of industrialization into the 20th century. Even though this company is no longer in business, it is a perfect example of an industrial company which innovated throughout its existence, bringing economic benefit to a formerly unknown and poor town. Also, one of the former WCM buildings is currently being re-disposed to become a regional digital innovation centre. This coexistence of old and new economy at the very same location seemed to bear potential of telling the story of innovation in Heidenheim in an interesting manner.

In the following chapters, basic operational definitions of the topic's different aspects will be given and the existing theoretic framework on cultural heritage marketing will be tested for its applicability. Thereafter, the basic conceptual idea will be put in a larger context of literature on economic theory of cities and place branding before identifying important factors for branding and positioning based on a situational analysis. In the analysis section, the most relevant approach to brand goal related value proposition will be identified using qualitative market research. Finally, the results of the study will be summarized and suggestions for translating the concept into practical measures will be given.

1.2 Operationalization

1.2.1 Industrial Culture and Heritage

As a first step, industrial cultural heritage and cultural heritage marketing need to be operationalized for the case of Heidenheim so that, later on, possibilities for interesting value proposition can be identified.

As can be seen in Jokilehto (2005), there is a wide range of definitions of (cultural) heritage and Hakala, Lätti & Sandberg (2011) state that cultural heritage lacks operationalization. For the present case, there are some features of culture heritage which are particularly important:

> "The cultural heritage may be defined as the entire corpus of material signs - either artistic or symbolic - handed on by the past to each culture and, therefore, to the whole of humankind. […] The cultural heritage gives each particular place its recognizable features and is the storehouse of human experience. The preservation and the presentation of the cultural heritage are therefore a corner-stone of any cultural policy." (UNESCO 1989:57)

The Council of Europe (2001:218) delivers an approach to cultural heritage emphasizing the relevance of buildings and other remnants of the industrial age and encouraging their valorisation:

> "Since the end of the nineteenth century, architecture and urban planning have undergone profound changes due to industrialisation, the introduction of new materials, the transformation of construction techniques and new uses. This trend has gathered pace, at the same time as technological progress, in order to meet the needs of contemporary society. Buildings of the twentieth century are many in number and of varying character: they reflect both traditional and modernist values. […] It is therefore necessary to encourage better knowledge and understanding of this part of the heritage by drawing attention to its qualities and the wealth and diversity of its different forms."

Based on these definitions, it can be said that "culture" expresses individuality in the sense that each place has its individual cultural past which will differ from any other place (see also: Kotler *et al.* (1994:36)). "Heritage" relates to the possibility to experience a place's past, thus fostering a sense of authenticity. Together, these

two elements create the basic identity of a place, comparable to a human being's DNA, which is also inherited and individual. The thus established focus on identity, authenticity and uniqueness of particular places is of great importance for the present study as these aspects allow to form a distinguishable place image, which will be necessary in the process of branding.

In the case of Heidenheim, cultural heritage is to be understood mainly in the sense of "industrial culture" or industrial heritage. As explained in the introduction, Heidenheim still is an industrial town, and even though there are important non-industrial elements of cultural heritage as well, it makes sense for an economic study to limit scope to the industrial aspects. The term "industrial culture" is not common in English but, still, it will be used by the author for the following reason: what shall be expressed by "industrial culture" is the equivalent of the German term "*Industriekultur*" which, from most of the consulted definitions has a larger meaning than the English expression "industrial heritage" that is commonly suggested as a translation.

A typical case of the expression "industrial heritage" being used implicitly to designate industrial buildings without any socio-cultural framework can be found in Historic England (2019).

In a different context, the term "industrial culture" equals artistic expressions of changes or states which result from the industrial age. RE/Search (1983) and Salgado, Nepomuceno & Salgado (1993) are only two examples of this vast field. This merely artistic sense is still not applicable to the present case because, despite being an important stream of modern, industrially influenced arts, it lacks reasoning for economic impact.

It is the broader, "German" definition of industrial culture that is needed for the present study, as the idea is to make experienceable the cultural impact of industrialization which still affects us today.[1] Thus, looking at the built form or artistic aspects alone would be insufficient. In some more general definitions of

[1] Additionally, since the present concept aims at finding meaningful connections between past, present and future, the strongly backward-looking connotation of "heritage" could transmit a wrong message, whereas "culture" is temporally unlimited (Longman dictionary of contemporary English 2009).

heritage, it is made clear that heritage includes intangible features such as societal value systems (Nuryanti 1996).

Müller-Jentsch (1989:226, translation by the author) puts this definitional issue in a nutshell and offers a precise definition that is worth to be reproduced here:

> "Industrial culture is […] the way of working and living, of travelling and consuming, in short the life forms and systems of values which characterize industrial-capitalist methods of production […]. In other words, industrial culture consists not only of factories, offices and their organizational forms of labour, but also of urban agglomerations with transportation systems adapted to individual traffic, accommodations and satellite towns, mass private transport and garbage dumps, empoisoned rivers and lakes, industrial and vocational diseases, mass media, functional illiteracy, but also the omnipresent pedestrian areas with their postmodern consumption heavens."

Albrecht & Walther (2017:2–3, translation by the author) offer a very similar definition of industrial culture while categorizing its different aspects more systematically and going even further beyond the "materialistic" approach:

> "Industrial culture is the preoccupation with the entire cultural history and reality of life of the industrial age's people, comprising technical, social and cultural history. Basically, this covers four cognitive perspectives:
>
> 1. Physical perspective focussed on tangible legacy of industrialization in space and time.
>
> 2. Social-societal perspective focussed on the living and working conditions of industrial society.
>
> 3. Artistic-scientific perspective with intellectual focus on the phenomenon of industrialization.
>
> 4. Ecological perspective focussed on the interdependencies between industrialization and natural environment as well as on the transition from natural to industrial landscape."

This definition is of great relevance as it includes the physical and artistic aspects that were discussed earlier, while adding the social-societal and ecological perspectives which are needed to complete the picture: most of the big issues

society faces today, such as environmental destruction and societal splits can be tracked back to the times of industrialization. Including these aspects is important in a case where the relevance of the past for present and future shall be emphasized.

The term "industrial culture" as it will be used on the following pages thus refers to the entire cultural legacy of the industrial age, with special regards to physical objects resulting from this era but also its social aspects and related values. (Glaser 1981; Pirke 2010).[2]

1.2.2 Cultural Heritage Marketing

Having established a solid notion of what cultural heritage means, it shall now be examined how its use as a marketing argument has been covered by previous research.

According to Misiura (2006), heritage bears marketing potential as it is distinguished from history by the fact that its aim is to "[…]celebrate the past rather than re-tell it[…]" (2006:37) and "[t]here is no doubt that the economic value of heritage cannot be underestimated […]" (2006:50). Heritage marketing could be seen as a merely touristic function, but it also serves to create both quantitative and qualitative value for the local population. In the present case, marketing is to be seen as "[…] the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large." (Meffert, Burmann & Kirchgeorg 2014:13).

The strength and relevance of place-related heritage marketing was perfectly expressed by Lowenthal (1985:49), who wrote: "There is a growing interest in the embeddedness of life-histories within the boundaries of place and with the continuities of identity and community through local memory and heritage. Postmodernity will be about a sense of identity rooted in the particularity of place."

Cultural heritage as the historic identity of a city is able to add value and engage consumers through comparative experiences between past and present (Jurėnienė & Radzevičius 2014). Preserving and making accessible elements of cultural

[2] The term "industrial heritage" will still be employed when the topic calls for addressing of physical remnants of the industrial age in specific.

heritage is important for both rural and urban places in order to be vital and attractive. Basing marketing efforts on cultural heritage makes sense because, in times of fast changing economic conditions, concentrating on historical aspects of a brand can convey stability, authenticity and confidence (Brown, Kozinets & Sherry 2003; Loveland, Smeesters & Mandel 2010; Hakala *et al.* 2011). Thus, history is capable of making a place brand relevant to the present and future. Ballantyne, Warren & Nobbs (2006) and Hakala *et al.* (2011) point out that heritage marketing is not about being old-fashioned, but that successful modern brands often emphasize their strong roots in the past to distinguish themselves from others through trust and authenticity. Also, internally, local identity and civic pride are significantly reinforced by heritage marketing (Misiura 2006).

Despite insights like these, which almost directly hint at heritage-based marketing of cities, it seems like a lot of local economic development strategies are still very much based on an industrial era approach to value creation, economy and society, whereas in reality things are shifting towards a different form of economy based on knowledge and creativity (Abankina 2013). In this new form of economy, culture in several forms replaces industry as the main driver of growth. The topic of forces behind regional economic growth will be addressed in detail later.

Nevertheless, public sensibility regarding heritage has increased in recent decades, and places all around the world began exploiting their heritage to emphasize the authenticity and rootedness of their offerings (Misiura 2006). This is closely linked to the quality-of-life and investment attractivity aspects which play a central role in the present concept, as will be shown in the theoretic framework chapter.

The economic multiplier effect of heritage is detailed by Misiura (2006:67). During her research on investment in heritage, she found a multiplier factor of 4,6,[3] leading to an average of 41m^2 of improved commercial floorspace, 103m^2 of environmental improvements, one new job, one safeguard job and one improved home as results of one single heritage investment project worth 10.000£. Even though this calculation is based on cases which are not always perfectly applicable to the present one, it delivers evidence of the economic attractivity of heritage marketing in general. In addition, Misiura empirically confirms the indirect economic

[3] In the quoted study, Misiura cites 10.000£ invested in a heritage-related project resulting in 46.000£ of private and public match-funding.

potential of heritage by arguing that "The intangible value of using well-loved buildings that add character to an area is difficult to measure but is recognized by individuals and businesses." (2006:44). English Heritage (2002) sees historic buildings as the key to giving cities a unique and distinctive brand in times of globalization.

Digitization offers possibilities to preserve and share cultural heritage, as digital representations are an important carrier to make accessible heritage to a broader audience, thereby unleashing further economic potential (Mudge, Ashley & Schroer 2007; Rialti *et al.* 2016).

Thus, it is evident that heritage marketing contributes in a qualitative way through increased quality of life but that quantitative economic value emerges from people's readiness to pay more for these exact qualities.

From a city's perspective, heritage marketing is closely connected to a variety of activities commonly subsumed under the term city marketing: location marketing, tourism marketing, event marketing, and administration marketing (See Block & Icks 2010:4)

The following table gives a short summary of the marketing value that cultural heritage is able to deliver:

Aspect	**Marketing Value**
Uniqueness, individuality, authenticity	Ideal preconditions for branding: inherent distinction from other places and brand authentication ("legit" vs. "generic" brand)
Stability	Past-present link conveys stability of the brand: longevity despite change
Emotional engagement	Past-present link ignites emotional reactions
Experiential character	Heritage is more than history: stronger brand impression
Relevance	The past is closely related to the present, connections highlight relevance
Increased quality of life and place	Heritage fosters sense of community and rootedness, creates attraction
Economic impact	Revitalization and promotion of cultural heritage creates quantitative value

Table 1: Marketing value of cultural heritage.

1.2.3 City Marketing and Economic Promotion

City marketing comprises all measures that aim at designing and marketing a city or urban area in a consumer-oriented way. This means that the quality of life of residents and visitors is assured and improved continuously as compared to competing places (Block & Icks 2010).[4]

Illustration 1: Touchpoints of city marketing with different stakeholders.

Thus, city marketing or place marketing is a strategic function of regional development (Kotler *et al.* 1994), which aims at the planning and coordination of all related measures. In doing so, city marketing exceeds the monetary aspect and extends towards people, their culture, history and values.

As already suggested, heritage-based city marketing has several layers of influence: namely attractivity for (business-) visitors, attractivity for investment and entrepreneurial development, attractivity for new residents and positive internal effects among residents, mainly through reinforcement of awareness for roots, local values and sense of community (Karmowska 2003).

One important element of city marketing is economic promotion (Kotler *et al.* 1994; Anholt 2010). In a formal theoretic sense, economic promotion, for example in form

[4] Anholt (2010) observes that city marketing as a distinct function, especially in Europe, is a younger phenomenon and tends to be slower in terms of innovation as compared to marketing in the private economic sector.

of exceptional tax reductions, is necessary to ensure an economy's function in case the market alone would not lead to the desired economic or societal results (Klodt 2019). On an operational level, economic promotion from a city's perspective covers all measures that aim at enhancing the city's attractivity for investors, founders or other economic stakeholders to settle or to maintain and develop their activities. Referring to the present case, Heidenheim municipality practises economic promotion in form of different services which are being offered to relevant economic stakeholders by a dedicated department. This includes information gathering, consulting for companies looking for suitable business locations, support and consulting for existing companies, location-based training, infrastructure consulting and regulatory signposting to guide businesses through administrational processes. Also, the department serves as a co-operative agency coordinating financing possibilities and R&D activities between universities, businesses and other co-operation partners (Stadt Heidenheim 2019f).

The multitude of players in city marketing shows that precisely defining one single target group for a marketing concept is difficult and maybe even undesirable at this early stage. As a holistic approach, city marketing is more of a means to increase place attractivity in general. Nevertheless, two large target groups can be defined by the respective branding goals: local population on the one hand, and external investors, entrepreneurs and visitors on the other hand. For the former, a city marketing concept will have to be able to reinforce the local sense of community and civic pride, whereas for the latter, the local history of innovation shall be made experienceable as a location factor. The issue of target groups will be discussed in detail in the investigation section.

1.3 Outlook

Having proved that it is indeed possible to use cultural heritage and industrial culture in particular as the content of a city marketing strategy, the questions which need to be addressed in the following chapters are how cultural heritage marketing and its economic impact fit into broader existing theoretic frameworks on regional economic development and place branding.

2 Literature and Conceptual Framework

2.1 The Economy of Cities - Knowledge, Clusters, Importance of Place and Ecosystems

2.1.1 The Development of Regional Economic Theory

Research on regional growth and development has a long history and was shaped by severe changes in economic landscapes. Adam Smith (1776) stated in his famous "Wealth of Nations" that specialization, efficiency and labour division were the keys to economic development of places. David Ricardo (1817) developed this approach into what became known as his theory of "comparative advantages": places and societies have differing endowments in goods and production factors and can therefore produce certain goods more economically than others. If each player specializes in the sector in which it is most efficient, the entire economy will profit. In the 20th century, new theories such as Peter Drucker's human capital theory took account of the growing importance of "knowledge workers" in what he entitled the "knowledge economy" (Drucker 1993). In this new form of economy, traditional, tangible goods have been replaced by knowledge as the most important source of value. Accordingly, Kujath (2005) defines the base of knowledge economy as a spectrum of value creating activities that break rules of traditional, physically-oriented economy through commercialisation of non-physical innovation. According to Glaeser (2012), human capital, measured by the amount of certain qualifications in a city, region or country, is the main driving force behind economic growth. As with financial capital, once a region has accumulated a solid amount of human capital, it will become more and more attractive for additional human capital to settle in the same place. Putnam (1995, 2000) and his theory of social capital emphasizes the importance of strong community bounds for prosperity. Florida (2005), whom will be referred to at length later, states that the value-driving effect of social capital in the sense of Putnam belongs to the past as strong community ties in a conservative sense could only bring benefits to a more traditional society in an economy based on manufacturing. Nowadays, looser ties are more sought after by people and the traditional societal model is being replaced by more flexible and inclusive structures which suit modern economy and lifestyle instead of restricting them. This restriction Florida refers to stems from the fact that a traditional, strong community will be stable within itself but perceived as closed

and impenetrable from the outside, thus disabling possibilities for integration and innovative off-the-track development.

2.1.2 Place: Dead or Alive?

In a strictly theoretic sense, cities are clusters of economic activity (Ricardo 1817). Generations of scholars have searched for the reasons of this clustering effect (Moretti 2012). In Ricardo's times, it could be explained by differing endowments of production factors and resources, as described above. The reason for economic clustering in modern knowledge economies is defined by Laaser & Soltwedel (2005) as the need for exchanging monetizable information and knowledge, which have replaced manufacturing as the main driver of economic growth. Similarly, Krätke (2005) argues that clustering happens because of regional economies of scale. These economies of scale are socially influenced, as they are based on knowledge exchange rather than industrial resource and production capacities. But, in the internet age, researchers ask themselves how these economic clusters will develop as information and knowledge can be shared all around the world within seconds without major physical barriers.

Predicting the end of cities' economic importance, the "death of distance" vision was coined by Gilder (1996) and Cairncross (2001). They stated that cities had lost their role as economic centres because information nowadays is easily transferable through the internet and can be used commercially regardless of a company's location. Thus, being almost independent from physical distances a modern knowledge-based business could locate everywhere as long as it has an internet connection.

Against the "death of distance" theory, one could argue that, historically, there have always been disruptive technologies that allowed to cut transaction costs and which, empirically, did not "kill" cities: steam engines created a multitude of new possibilities for locating industrial companies as they ended their dependence on water power (Kotler *et al.* 1994; Laaser & Soltwedel 2005). Railways, then, connected cities, regions and manufacturing plants, further reducing transaction costs or even allowing for transactions which were impossible before – just as the "internet of things" nowadays connects computers, machines and other devices of all kinds in an unprecedented manner. Another parallel is the initial overestimation

of the respective technology's potential, paired with a certain level of fear on the other hand. Each of these components can be found for the steam engine, railways, the automobile, telephone, airplanes and, finally, the internet which is the latest key to knowledge-based economy.[5]

This analogy suggests that each of these progressive steps has led to clustering and de-clustering at the same time: the steam engine put an end to the industrial monopoly of towns located on rivers, but it led to the uprise of new industrial centres around those places which had combustible resources.[6] Thus, the internet certainly will change the economic role of cities, but the death of cities and distance cannot be confirmed scientifically. Referring to the same discussion, Krätke (2005) shows empirically that software development is more strongly clustered in Germany than furniture manufacturing, while the theory of de-clustering would have suggested the exact opposite.

Another social phenomenon which hints at an increasing importance of cities in the digital age is a more pronounced aim for authenticity that has been sharpened as a side-effect of globalization: as global physical barriers got torn down, people's quest for identification has only become stronger, leading to social clustering that even exceeds the materially caused clustering of the industrial age (Moretti 2012).

Altogether, this allows for the conclusion that place is not at all dead in the digital age. There are strong indicators that clustering will increase instead of decrease in the future. Only, the advantages a certain location has today are not forever, so change needs to be managed actively (Kotler *et al.* 1994:15). Having established this, the role of cities in the digital knowledge economy will now be investigated.

2.1.3 The New Role of Cities

According to Kotler *et al.* (1994) and Kujath (2005), modern cities serve as clustered ecosystems of R&D potential, human capital, knowledge networks and infrastructure. R&D facilities are crystallization spots within these clusters which concentrate knowledge spill over (Laaser & Soltwedel 2005). Moretti, creating a

[5] Along the way, these examples underline the power of heritage marketing: parallels between past and present become apparent and current trends are put in a larger context, such as the "internet of things" and railways in this case.

[6] Schumpeter (1911) referred to this effect as "creative destruction": technological progress leading to a constant renewal of economy by rendering activities obsolete while creating need for new ones.

link to the heritage aspect, argues that "[…] the future depends heavily on the past." (2012:5) and that cities need to understand how important it is to attract talent in times when the innovation sector has replaced manufacturing as the main engine of regional growth. The degree of human capital is identified as a strong predictor for wealth within a community. The increasing value of talent can be visualized through various examples of entire start-ups being bought by larger companies just to be shut down: the real acquisition target had not been the company, but the talent behind it (Moretti 2012).

Place-bound innovation ecosystems though fulfil a double-role as nodal points for knowledge exchange and incubators for creativity (Helbrecht 2005). If the "social climate" within a region is well developed, the flow of information between different stakeholders ignites an interactive learning process within the region's ecosystem, in turn enabling innovation as a result of exchange between these stakeholders (Krätke 2002). Currently, in Baden-Württemberg and Germany in general, economy is driven by coexisting modern knowledge-based clusters and conventional "headquarter cities", as there is still a strong dependence on traditional manufacturing activities (Krätke 2005).

The role of a university is important in the general fabric of such an ecosystem, but it cannot deploy its effect if the rest of the community is not ready to absorb the talent and innovative output of the university and support it with a broad base of human capital and innovative mindset (Florida 2012; Moretti 2012). Conversely, the presence of an innovative ecosystem that ensures this kind of support is the most important location factor in modern economy. Within this type of ecosystem, R&D, knowledge spill over, spin-off companies, a tangible sense of competition - and yet of cohesion within a community - increase the productivity and quality of the product, leading to economic growth. Moretti refers to this as "local economies of scale" (2012:144).

The problem most cities face when dealing with innovation and creativity is that there are complex interdependences and cross-fertilization effects involved which are hard to predict. Nevertheless, they are essential when talking about place attractivity. Moretti (2012) suggests that modern innovative economy is more about creating an ecosystem which allows for these processes than planning them in detail. The understanding of these changes, from concise measures to attract one

company or another to more generalist innovation-friendly policies are, basically, nothing else than a natural step on the ladder of economic development.

In conclusion, it can be stated that cities are the focal points of knowledge-based economic clustering (Helbrecht 2005) and the current activity profile of Heidenheim's economic promotion department matches this role of the city as an ecosystem for knowledge exchange (Stadt Heidenheim 2019f).

2.1.4 The Experience Factor

Getting back towards a more marketing-oriented aspect, the importance of consumer experience shall now be discussed. Heidenheim as a city surrounded by attractive natural environment is an adapted place for multidimensional consumer experience. Helbrecht (2005:132) quotes this multidimensionality which expands the product experience beyond its basic tangible or visual qualities, as an effect of the "culturalization of economy" and concludes that "economic success is mainly based on the social and cultural competence of economic players". Fan (2014:280) states that "[…] culture is believed to be the engine of economic development". This matches other authors' findings on what they refer to as "experience economy" (Pine & Gilmore 2011; Florida 2012).

Experience is a value proposition that is clearly detached from commodities, products and services. Providing experiences is crucial for sustainable engagement of consumers. The increase of experience-based value delivery is driven by technological progress on the one hand and by the need for more distinction towards competitors on the other (Pine & Gilmore 2011). While, historically, the degree of individuality in consumer engagement increased from commodities over products to services, experiences are truly individual in the sense that no two people will have the exact same experience. A rich, strong and personal experience carries a high degree of authenticity. Therefore, going beyond service and towards experience is key to promoting a place in the future.

As knowledge and innovation, which were identified as key economic drivers earlier, are no goods or services in the traditional sense, the respective value chains differ as well and new ways of promoting these value chains are needed. In fact, the traditional model of location factors such as industrial transportation infrastructure and production resources which could be precisely located have been replaced in

knowledge economy by more fluid innovative human capital. Where this flow will settle and create wealth is much less predictable (Moretti 2012). This is where "look and feel" of a city become relevant (Helbrecht 2005; Misiura 2006). Geographic capital (Helbrecht 2005)[7] or territorial assets (Florida 2012) are important in times of missing physical links between value creation and location, their role has changed from resource to surrounding (Moretti 2012). In fact, look and feel of place have been identified as highly important location factors among creative workers in Munich (Helbrecht 2005:137).

This shows that, in a modern economy, look and feel of place are not just lifestyle gimmicks or soft location factors, but the most effective drivers of productivity in value-creating innovative jobs. Thus, the common view on these seemingly less important location factors needs to be reconsidered in the following.

2.2 Creative Capital Theory

2.2.1 Introduction to Creative Capital Theory

So far, economic theory from industrial age up to more modern service- and knowledge-based views has been analysed. From the theory of human capital, another more recent theory of economic development has emerged which, despite being closely related to human capital theory, is to be seen as a separate entity: creative capital theory. In the following chapter, the relevance of the latter will be discussed.

Early signs of what later was named creative capital theory are rooted in the work of Jane Jacobs. Jacobs (1961) was first to claim that creativity in its different forms is the main force behind growth in societies which change from industrial to post-industrial forms of economy.[8] Whyte (1956) , in his book "The Organization Man", identified the problem of people being caught in the organizational boundaries of

[7] "Geographic capital is based on societal usability and exploitation of geographic substance." (Helbrecht 2005:146).

[8] The distinction between creative and non-creative work took surprisingly long to find its way into economic theory, whereas it had been present as a theme in the arts much earlier: societal results of the very same pattern, "machine men" and "creative men", form the basic plot of Fritz Lang's epochal movie *Metropolis* (1927) which, though, was the first movie ever to become part of UNESCO's Memory of the World Register because of its pitiless social portrayal of the industrial age. *Metropolis* thus is a look-out on later economic theory as well as a showcase of the artistic sense of industrial culture that was discussed earlier in this study.

their jobs and companies to a degree which hinders all forms of innovation and creativity because conforming to the company and its structures is perceived as an ideal. Him or her who deviates is seen as "bad" for the organization, whereas innovation begins at this very point of leaving the beaten path. Olson (1982) precisely labelled this effect as "institutional sclerosis": institutions and cities being unable to implement innovation, sometimes even in spite of realizing its benefits. The scholar who really brought forward the concept of creativity and diversity as important indicators of economic growth and who coined the terminology of creative capital is Richard Florida. At the core of Florida's creative capital theory is the question how creativity translates into tangible economic benefits for cities (Florida 2005, 2012). As compared to Drucker's human capital theory, Florida went one important step further and considered not only the academic level of society, but a much broader underlying flow of creativity, which he identified as a reliable indicator of economic development. In other words, Florida inverted the implicit question of traditional location theory, which aimed at finding out where companies like to settle, by shifting the focus towards people: where do people want to live?

According to creative capital theory, a town should ideally be attractive for everybody, not just for people who conform to traditional or "ideal" role models. The talent which cities try to attract and absorb is not distributed according to role models. Research has shown that the effects of role diversity compound over time, deploying increasingly positive effects on attractivity for talent and, thus, modern economy: "The companies follow the people – or, in many cases, are started by them. Creative Centers provide the integrated ecosystem or habitat where all forms of creativity – artistic and cultural, technological and economic – can take root and flourish." (Florida 2005:35)

Through his research, Florida found evidence that attractive job offerings are not the main reason for well-educated people moving to a certain region. Instead, it is a mixture of economic attractivity and creative diversity which is most often considered. In line with the statements of other authors that have been referred to earlier on, Florida points out that the role of physical place has become more important over the last decades whereas the economy's move into cyberspace could suggest the exact opposite. He claims that the main factor leading to economic

clustering is the presence of creative and talented people in certain areas, which makes it possible for companies to reach their competitive goals.

"Creativity" is a term which often falls on scepticism in the world of economics and business. It implies a focus on qualitative factors which do not fit into most economic theory. Nevertheless, as the core element of Florida's theory, it has to be addressed in detail in the present study.

According to Florida, creativity exists in technology, where it is called innovation, in economy under the name of entrepreneurship as well as in arts and culture. These forms of creativity are strongly linked to each other as they share basic patterns of thinking and acting. At the root of modern economy, Florida defines a distinct subset of human capital, the creative class:

> "The distinguishing characteristic of the Creative Class is that its members engage in work whose function is to 'create meaningful new forms.' I define the Creative Class by the occupations that people have, and I divide it into two components. What I call the *Super-Creative Core* of the Creative Class includes scientists and engineers, university professors, poets and novelists, artists, entertainers, actors, designers, and architects, as well as the thought leadership of modern society: nonfiction writers, editors, cultural figures, think-tank researchers, analysts, and other opinion makers. I define the highest order of creative work as producing new forms or designs that are readily transferable and broadly useful […]. Beyond this core group, the creative class also includes 'creative professionals' who work in a wide range of knowledge-intensive industries, such as high-tech, financial services, the legal and healthcare professions, and business management. These people engage in creative problem-solving, drawing on complex bodies of knowledge to solve specific problems. […] What they *are* required to do regularly is think on their own, apply or combine standard approaches in unique ways to fit different situations, exercise a great deal of judgement, and perhaps even try something radically new from time to time." (Florida 2012:38–39)

Humans, in creative capital theory, are not seen as a given endowment of knowledge in the sense of Drucker but as a flow of talent which needs to be attracted and absorbed. The promotion of a "creative economy" in the sense of Florida is

important because of the proven crisis resilience of places that results from the presence of a strong creative class (Florida 2012). Thus, a city should not just be attractive for firms to settle but, most importantly, for people.

This approach, which is based on recognizing creative class attractivity as a development goal for cities, grants for more sustainable economic strengthening of the city, as the mere reliance of local economy on some business's presence may come to a halt if these businesses are in trouble (Kotler *et al.* 1994:20). If a place is not just "where the job is" but "where my way of life is cherished", people are more likely to stay and contribute to the place's prosperity beyond their jobs.[9]

Moreover, creative capital theory broadens the definition of economic growth and development beyond the traditional, industrial sense towards a more modern and social understanding. Lifestyle, interactivity and authenticity are identified as main location factors for people in modern times.

Accommodation to "creative economy" requires a new way of thinking in many fields. For example, the traditional organizational distinction between artistic, entrepreneurial and technological creativity is to be questioned if the economic potential of modern city populations shall be unleashed.

Still according to Florida, investment in creativity-related location factors is much more efficient than investment in traditional factors such as infrastructure: "When talented and creative people come together, the multiplying effect is exponential; the end result is much more than the sum of the parts. Clustering makes each of us more productive – and our collective creativity and economic wealth grow accordingly." (2012:193). Thus, increases in productivity and improvements in living and working conditions are possible in a more efficient and sustainable way than by using classic approaches: "Places that attract people attract companies and

[9] Referring back to economic promotion, in past decades, activities in this field had often been centred around costly incentive strategies, which aimed at attracting certain companies that had been identified as attractive. The problem with this strategy was that it did not work very well with modern businesses that do not rely on cost-intensive, place-bound equipment like classic manufacturing companies. Thus, companies changed locations frequently, taking as much incentives as they could and leaving town as soon as a competing place offered more attractive conditions. It is evident that this effect prevents any sustainable economic development from a city's perspective (Kotler, Haider & Rein 1994:296–301). The criticism regarding company incentives clearly hints at what was to be addressed in creative capital theory: the strategic need to shift focus towards attracting people and improving the overall economic and, especially, entrepreneurial climate in a place (Kotler *et al.* (1994:395–396).

generate new innovations, and this leads to a virtuous circle of economic growth." (Florida 2005:138). Accordingly, Abankina (2013) emphasizes that the presence of creative economy in a place can make the latter more competitive and attractive for investment, innovation and further creativity. In addition, she observes that cities tend to establish large networks in which commercial structures are gathered under a common creative organization to fuel the development of creative economy. This model is interesting for places where, despite all economic changes, industry is still very much present. Measures should thus aim at enabling cross-fertilization between industrial and post-industrial economy. The "old", industrial economy may have lost importance, but it is still there, and development concepts need to take into account that the transition to new economic forms is a fluent process.

Based on what has been established so far on economic development of cities, the following table summarizes basic differences between traditional and modern economic systems on an abstract level:

Aspect	**Traditional**	**Modern**
Drivers	manufacturing, physical transformation	Innovation, creativity, non-physical ("disruptive") value chains
Resources	power, raw materials, workforce	Knowledge, information, data, human creativity
Employment structures	big companies, long-time employment, static	smaller companies, more frequent changes, dynamic
Organization	centralized, hierarchical	decentralized, dynamic
Information flow	vertical, downward	horizontal, multidirectional
Workforce	unskilled, uneducated, executing	highly skilled, educated, adaptive
Job design/tasks	simple, manual/physical, repetitive	complex, intellectual, participatory
Technology	mechanical	electronic
Focus	Predictability, standard-ization, economies of scale	innovation, creativity, individuality, experience

Potential	limited, defined	open towards innovation (organizational and technological)
Public-private relationship	large, state-owned groups of companies OR absence of public intervention in private economy (dichotomous)	flexible public-private partnerships and other constructs according to regional or local economic setting (polytomous)
Symbols	factory chimney, steam engine, machinery	Computers, networks, humans

Table 2: Summary of basic differences between traditional and modern economic systems. Based on Kotler, Haider & Rein (1994:26).

2.2.2 How to Measure Creative Capital?

To measure the economic impact of creative capital, Florida developed the Creativity Index which he describes as a "[…] baseline indicator of a region's economic development and longer-run economic potential […]." (Florida 2012:253). It consists of three variables which are the creative class' share of workforce according to Florida's definition, the level of innovation and high-tech industry settlement with a proxy consisting of the Milken Tech Pole Index,[10] number of patents per capita and annual patent growth and, finally, the Gay and Lesbian Index, Bohemian Index, Integration Index and share of immigrants and foreign-born residents[11] as a proxy for diversity and tolerance. The use of the Gay and Lesbian Index in economics might be surprising, but Florida's reasoning is valid: gays and lesbians, globally, still face the most severe discrimination of all minorities (Inglehart & Baker 2000). Thus, a place where this group feels at ease will also be open to other minorities. Also, Florida proved the existence of a strong correlation between gay population and presence of high-tech industry. This

[10] The Tech Pole Index is a high-tech industry concentration measure developed by the Milken Institute in California. See DeVol (1999).

[11] The Gay and Lesbian index is based on the Gay Index developed by Black *et al.* (2000). The Bohemian Index was developed by Florida to map settlement of the "creative core" in relation to high-tech industry and economic growth. The Integration Index, developed by Florida's assistant Kevin Stolarick, measures the degree of integration versus segregation in an area by comparing ethnic origins of inhabitants to their location within the area. For a more detailed description of these indicators, see Florida (2012:402–403).

correlation, though, is not to be mistaken for a causality: gays do not necessarily attract high-tech companies, but a strong gay community is "[…] a solid *leading indicator* of a place that is open to many different kinds of people. If gays feel comfortable in a place, then immigrants and ethnic minorities probably will, too, not to mention eggheads, eccentrics, and all the other non-white-bread types who are the sources of new ideas." (Florida 2012:238)

From the findings that resulted from the application of the Creativity Index, Florida identified three criteria (the "three T" model) which were highly developed in every analysed city that showed above average economic development:

1. Technology: presence of innovation and high-tech industry
2. Talent: high percentage of creative class among the population
3. Tolerance: openness, inclusiveness, diversity

Later, a fourth "T" was added which takes account of the benefit that is generated through territorial assets, considering how these assets contribute to the quality of a place.[12]

Moretti (2012) delivers more arguments for making a place attractive for innovative economy: for each job in an innovative sector, five additional jobs in many different sectors are created in the community: "In essence, from the point of view of a city, a high-tech job is more than a job." (2012:13) and "[…] attracting a high-tech job today will result in many more jobs in the future." (2012:146). This impressive multiplier effect of innovation is three times higher than in manufacturing. Also, value creation in the innovation sector works differently than in traditional manufacturing: salaries of innovation workers grow more substantially over time as they capture between 20 and 30 percent of the economic rent created through innovation. A similarly strong multiplier effect can be found in the opposite direction, namely in times of automation and deindustrialization when the number of traditional manufacturing jobs decreases, resulting in less lively communities around these former jobs. But, as the leverage of innovation is much stronger than that of manufacturing, it takes less new innovation jobs to replace former manufacturing jobs as the "long tail" of secondary job creation that matters to the

[12] This matches the findings on geographic capital and the look and feel of places by Helbrecht (2005) that were mentioned earlier.

local economy is longer in innovation. The example of Seattle which Moretti analyses in detail shows an extreme case of how an "old-economy provincial town" (2012:74) can be transformed into an exciting and creative place of innovation and wealth: namely through boosting and let be boosted the innovation sector that, in turn, leveraged the reshaping of the entire community.

2.2.3 Critique and Applicability of Creative Capital Theory

Since its first publication, Florida's creative capital theory has not only served as a point of departure for the work of others (Pine & Gilmore (2011), "The Experience Economy" and Currid (2007), "The Warhol Economy"), it has also caused a lot of debate. Critique focused mainly on Florida's aforementioned definition of creativity which, in the eyes of some researchers was just an embellished paraphrase of human capital (Fritsch & Stützer 2009; Florida 2012). In addition, the role of gayness and music as indicators of economic development was said to be nothing else than the rediscovery and encouragement of gentrification (Wainwright 2017).[13]

This criticism neglects a basic difference between human capital and creative capital that is of great importance, especially on the level of operational applicability: the creative capital approach considers the actual activity of people rather than their theoretic capabilities or qualifications which are measured by human capital. Put differently, human capital neglects the economic impact of the many people who have no formal degrees, but who have nevertheless created economic value through their innovative force. Bill Gates might serve as an example of how important these people are. Therefore, the point of creative capital is that looking at formal qualification and degrees of people does not necessarily show what they actually do and how they bring forward society and economy.

As arguments against the applicability of Florida's work to the present case, one could mention that it is mainly focused on Northern American metropolitan areas, whereas the present study is dealing with a small town in Germany. It turned out, though, that creative capital theory offers insight and advice which are particularly

[13] Other criticism aims for the word "creativity", which, as already mentioned, is eyeballed by certain economists. Moretti (2012), for example, severely criticizes Florida's approach even though his own theory is based on very similar assumptions. Only he prefers "innovative" over "creative", when he defines complex, nonroutine and value-creating jobs as being innovative. Except for the wording, his definition is perfectly compatible with Florida's definition of the creative class.

applicable to small towns and Europe – as will be precisely explained later. Also, Florida's basic explanations concerning his theory contain suggestions on creative-economic reconsideration of industrial past, regardless of a town's size. Other core aspects such as the need for multidimensional concepts for multidimensional people (2012:84–89) and the advantages of setting free networking synergies by bringing the right people together (2012:224) do not necessarily rely on metropolitan surroundings either. In other words, city attractivity is more about a cosmopolitan *feel* rather than actual town size, as long as the network of people is attractive (2012:294). One specific indicator of vivid urban atmosphere Florida identifies is walkability, and it is clear that a small town offers advantages in that sense.

Despite all scepticism, creative capital proved to be a strongly reliable indicator of long-term economic development across countries and applications.

Rossi & Vanolo (2012) as well as Fritsch & Stützer (2009, 2012) and Mellander (2014) have studied the applicability of Florida's theory to Europe and other parts of the world. Martlet & van Woerkens (2004:24), who conducted a large-scale study of creative class presence and its economic consequences in Dutch cities, state: "With our Dutch data set we do find evidence that Florida's creative class is a better predictor of city growth than traditional education standards."

Probably one of the most stunning examples of how the attraction of creative capital can forebode economic development is to be found in Berlin, Germany: almost totally dead and deserted ten years ago, the Sonnenallee street has developed into one of the city's most lively and diverse neighbourhoods. German sociologist Malte Bergmann calls Sonnenallee a "sticky place" – a street that managed to collect creative capital through its low barriers of entry, sense of authenticity and openness towards various lifestyles (Wahba 2019). Nowadays, Sonnenallee resembles a beehive with thriving economic activity from street vendors to more formal shops and designer ateliers. The shabby, rundown street has become the new "place to be" which now sends out its rays into the surrounding Neukölln district. Where retail space could be rented some years ago for almost nothing, people are now willing to pay 500.000€ for the same shop. Certainly, not all of the described effects are entirely positive, but they deliver an impression of the power of creative capital.

Especially relevant to the present case is the finding of Fritsch & Stützer (2009) that Heidenheim is surrounded by several urban creative class "hot spots", namely Ulm,

Stuttgart and Munich. Also, the common structural pattern they identify for medium-sized cities with highly creative population, that is to say a strong production sector and company headquarters, matches the status quo in Heidenheim. As can be seen in their studies, the overall creative class share in the Heidenheim district is rather high: between 11,73 and 18%, which is the second most concentrated category (Fritsch & Stützer 2012:12). A study published in April 2019 (Seils & Baumann 2019) analysing income levels in Germany shows a map very similar to the one representing the distribution of creative class, which is a further indicator of the theory being pertinent and applicable. As Fritsch and Stützer point out, the actual measuring of creative class in Germany is possible, but difficult.[14] Thus, an in-depth analysis of creative class presence and distribution in Heidenheim would exceed the scope of the present study. The evidence provided by the aforementioned findings is strong enough, though, to assume that there is a relevant creative class in the Heidenheim district and especially in its surroundings.

2.3 Place Branding

Having clarified the theoretic background of city economics at length, attention must now be paid to the aspect of how to get the desired content to the consumer by creating a distinguishable brand image. Branding is a term which is mostly associated with marketing of goods (Meffert *et al.* 2014), but with few exceptions, the same principles are valid for places as well: "Places can also be branded, through creating and communicating a place identity, which increases a place's attraction." (Kotler *et al.* 2004:14)[15]

On top of that, there is clear evidence of the possibility to use heritage in order to regenerate and rebrand a place, sustainably changing the consumers perception of it (Misiura 2006). A clear distinction has to be made between place branding and

[14] Fritsch and Stützer identify some applicability issues because of differences between US and German demographic statistics. They did find alternative ways to generate the necessary data, but the reproduction of this method would be too excessive for the purpose of present study. The complete explanations on how creative capital can be measured in Germany is to be found in Fritsch & Stützer (2009).

[15] "As the cases of tourism and export marketing indicate, there is no question that the concept of brand is relevant and useful to places, both at the sectoral level and in their roles as 'umbrella brands' providing reassurance, glamour or status to the products and services that are marketed under their aegis." (Anholt 2010:4)

destination branding, because the latter expression is generally used to refer to an entirely touristic goal (Fan 2014). A notable fact is that there is more literature on destination branding in the touristic sense (Cai 2002; Kotler *et al.* 2004; Morgan, Pritchard & Pride 2004) than on place branding in a more general economic sense. This distinction is of importance to the present study, and it should be remembered that the two terminologies are often seen as being identical, as Anholt (2010) and Fan (2014) point out.

In addition, Anholt specifies the limitations of place branding: "There are no short cuts. Only a consistent, coordinated and unbroken stream of useful, noticeable, world-class and above all *relevant* ideas, products and policies can, gradually, enhance the reputation of the country that produces them." (Anholt 2010:10). It should be clear, though, that a brand needs to be built on an authentic base of content.

As can be seen from the last citation, the term "place" lacks definitional precision. Hanna & Rowley (2008) state that the same word is being used to describe countries, regions and cities (see also: The Place Brand Observer (2015)). In fact, a lot of literature treats place branding on national level, thus creating applicability limitations to the level of cities (Askegaard & Güliz 1997; Olins 1999; O'Shaughnessy & O'Shaughnessy 2000; Gilmore 2002; Kotler & Gertner 2002; Papadopoulos & Heslop 2002; Bond, McCrone & Brown 2003; Papadopoulos 2004; Jaffe & Nebenzahl 2006; Gupta 2010; Dinnie 2016).

Nevertheless, place (re-)branding allows for correcting an undesirable place image, which is defined by the sum of all conceptions, ideas and perceptions people have about a certain place (Kotler *et al.* 1994:179; 198).

The importance of cultural aspects for place branding, both among residents and external consumers, is emphasized by Fan (2014:280–281): "Local culture sharpens the city's image and plays a constitutional role in the perception of the city by its own residents since, unlike product branding […], place branding is oriented both toward the potential consumers and the residents." Put differently, a place can get economic profit through non-economic factors by enhancing cultural heritage as a brand driver (Abankina 2013).

On the other hand, the inevitable presence of place-related cultural heritage makes place branding more difficult than branding of goods:

> "Yet we must recognise that places are more difficult to brand than products. Every place has a history and heritage that will affect its image. The citizens of a place themselves will have conflicting views of what their place is or should be. Even if a broad citizen consensus is built, the people and the businesses must be willing to reach into their pocketbooks to pay for the place's development. Such development will not take place overnight but over many years of struggling to out-compete other places in attracting desirable new residents, businesses and tourists." (Kotler *et al.* 2004:12)

Unlike consumer goods, a place cannot change its image that easily as its history and cultural heritage are strongly, if not inseparably connected to its name (Fan 2014).

Place branding, if addressed correctly, plays a central role in the city as an ecosystem: "[…] place managers need to become involved in the formation of a brand identity that accords the multidimensional construct 'place' purpose and direction, while the brand's delivery on attributes, benefits, values and personality secures consumer satisfaction, and economic and political attention." (Hanna & Rowley 2008:63). Thus, place branding is a product of post-industrial, globalized economy which has touchpoints with disciplines such as politics, business, culture and information and communication technologies (Kotler *et al.* 2004).

For branding a place according to a certain desired brand image, the "4D" place branding model can be used (Fan 2014). It consists of four steps – DISCOVER – DEFINE – DESIGN – DELIVER – and aims at revealing a place's identity from several perspectives, including cultural and economic aspects. Thus, it is applicable to the present case.

In the "discovery" phase, the image of the place is analysed, by judging how residents, visitors and investors respond to the brand (see also: Gertner & Kotler (2004); Gupta (2010)). This is the external component of the analysis, the internal one investigates the ideal brand image that could theoretically exist. As a result of this gap-type analysis, the desired brand image is defined ("define" phase).

In the "design" phase, the focus lies on the way how the desired image could be achieved: based on the defined brand identity, how shall the brand image be built, and which resources are required to build it?

Finally, the "delivery" phase defines which communication efforts will be needed to reach the target audience with the newly defined image.

2.4 Branding and Experience

Branding is a means to create an emotional link between consumer and product. It includes expanding the product beyond its actual physical and tangible features to embed it in an experience. As already suggested, an emotional and multidimensional experience leaves a much stronger impression with the consumer than a simple reproduction of product features (Pine & Gilmore 2011). In marketing, it is common to "tell a story" which fulfils this very purpose of emotional engagement, based on the motivational quality of emotions (Meffert *et al.* 2014). Linking the past and the present, which is what cultural heritage marketing does, is a suitable medium for unleashing emotions since the past, by nature, is no longer. This leads to a subconscious feeling of nostalgia, which is a strong trigger for emotional reactions (Newman *et al.* 2019). Nostalgia as well as heritage in general transmit a message of stability and optimism that people long for in dynamic times of economic change.

3 Investigation

3.1 Methodologic Justification: Reinforcing and Changing Brand Aspects

One of the main questions the author faced while developing the present concept was whether it is justified looking at heritage in order to rebrand a city for the future. Industrial culture is not a conception of looking backward on history as such but is focussing on the consequences of industrial history and its impact on present and future of society.[16] It offers potentials of development for economy and tourism,

[16] In a different context, Hakala, Lätti & Sandberg (2011:449) identify the same need for reconsideration of common museum-like heritage visions: "Respecting and highlighting the history of a company or a product should not be associated with being old-fashioned: it is possible to develop a modern brand without throwing away the history that made it what it is, in other words something that customers can trust."

hinting at the leverage effect embedded in the valorisation of industrial heritage (Albrecht & Walther 2017). Also, industrial culture bears potential to foster the sense of rooting and community values, especially in rural areas which might suffer from demographic change. One reason why research needs to be done on this conceptual approach is that, currently, the presentation of industrial heritage sites often lacks creativity, resulting in suboptimal value proposition and only few measurable economic results. Thus, the full potential of industrial culture as a possible engine of economic reorientation in rural areas has not yet been unleashed.

As an example of existing concepts in the field of industrial culture, the "IBA" (*Internationale Bauausstellung*, international building exhibition) which is common in Germany "[…] combines economic and creative innovation with science, arts and culture." (Albrecht & Walther 2017:39). Thus, it bears potential for the development of industrial culture, but it also requires continuous political, organizational and financial support to flourish. Also, it lacks flexibility and the physical equipment needed to keep it up is subject to aging. Therefore, it might be a useful tool to promote industrial heritage as such, but for the use of industrial culture in the context of city marketing, it is not an option. One question that needs to be addressed is whether the relevant elements of the IBA, namely its capability to link industrial culture to other forms of innovation, can be extended and embedded in a smart, updated conceptual form to generate marketing value beyond the built and artistic forms of industrial culture.

Another example of a current concept is the European Route of Industrial Heritage (ERIH). It consists of a network of thematic routes in over 40 countries with more than 1.000 monuments. Eight thematic regional routes are to be found in Germany, but, surprisingly, none of these include the Baden-Württemberg region – Germany's current economic "engine room" (ERIH 2019). Instead, regional routes are to be found in those regions that suffer the most from deindustrialization and resulting structural problems, such as the Ruhr region or former industrial landscapes in eastern Germany. One could conclude that industrial culture is almost exclusively promoted in places which have lost their main industrial activities, serving merely as a "contingency plan". This shows that, even in a more modern concept like the ERIH, the link to current economic activity is not drawn and, thus, the marketing potential of industrial culture remains mostly unexploited.

This is partly due to the absence of connections to current industrial and, generally, economic activity, and to presentation forms being merely centred around history. As a reason for the relatively weak degree of conceptual development in the field of industrial culture, Albrecht & Walther (2017) refer to a lack of societal awareness for industrial culture altogether. In contrast to "beautiful" historic castles, parks and frame houses - the traditional, pre-industrial notion of cultural heritage -, people often tend to see industrial monuments as dirty remnants of a past age that could be demolished and forgotten without regrets. It is an open question, though, whether this lack of awareness for the cultural meaning of industrial heritage is due to the relative recency of most of the monuments in question or if stakeholders failed to market industrial heritage as something culturally relevant right from the start. Beyond this basic deficit in terms of appreciation for the built form, public awareness of non-material aspects of industrial culture is even more deficient if not totally absent. One could say that the respective aspects are quite simply hiding in plain sight. People know about them and use them on a daily basis, but do not realize their cultural background: when asked by the same authors to define what elements of industrial culture were, most participants proved unable to rely to such diverse and relevant assets as trains, worker colonies, unions and labour parties. As these issues of the industrial age are still of great importance in modern everyday life, the necessity to frame industrial culture in a more holistic way becomes evident: new concepts of embedding industrial culture in a relevant context are needed.

To make a place attractive, consumers need to be addressed in innovative ways. Places with innovation tradition are privileged in this sense, as they can rely on their inherent DNA: "Innovation is the engine that has enabled Western economies to grow at unprecedented speed ever since the onset of the industrial revolution. In essence, our material well-being hinges on the continuous creation of new ideas, new technologies, and new products." (Moretti 2012:40). In other words, the story of innovation is best told through innovation.

As opposed to metropolitan areas, it is more difficult for rural regions and small cities to attract residents and, thus, economic activity. Here, a rich industrial cultural background is a possibility to make a difference. Also, strong partnership between local and regional structures and economic stakeholders is necessary to establish the framework, or cluster, which is needed to exploit the full inherent potential. So

far, as depicted earlier, industrial culture has either been used to market a company brand or to inform consumers about a place's history. The use of industrial culture as a tool of place marketing and economic promotion which the present concept proposes is thus to be seen as a novelty.

Industrial culture, despite being powerful, cannot build a prospering creative ecosystem from scratch. Fortunately, this is not necessary in Heidenheim as the town has a functioning economy, only the author sees the need to modernize it *before* severe economic problems emerge. Modernizing a working system is still a better situation than having to deal with a case of total economic disruption: the city of Detroit, for example, had a perfectly working industrial ecosystem in the manufacturing era but failed to toughen it up for the future of innovative economy (Moretti 2012). Accordingly, waiting for disruption to strike is not an option. Proactive development strategies can prevent Heidenheim, once known as the "Swabian Manchester" because of its important textile industry, from becoming a "Swabian Detroit".

Summing up, marketing based on industrial culture is able to deliver a multitude of value propositions to a city like Heidenheim: economy, tourism, cultural offerings, leisure, environment and the local community can profit from the multidimensional experienceability of industrial culture between past, present and future (Karmowska 2003; Albrecht & Walther 2017). Currently, the industrial character of Heidenheim is commonly seen as the origin of structural and aesthetical problems, reducing place attractivity instead of improving it. The task therefore will be to turn these elements up to now seen as weaknesses into a source of positive power, just as it is done in a different context in psychology (Loboda 2014).[17]

Any strategic planning process basically consists of three phases, namely situation analysis, definition of goals and actual strategy development (Jurėnienė & Radzevičius 2014). Therefore, in the following, the current situation in Heidenheim will be analysed in the given framework, and the issues of how to brand and position the town will be addressed more precisely.

[17] Loboda exemplarily explains the psychological concept of resilience as being the capacity to draw strength out of weaknesses and traumata by reinterpreting and reassembling their components from a different perspective. The same principles can be used to source positive power from currently unloved brand elements.

3.2 Situation Analysis

For the analysis of status quo in Heidenheim, some basic principles of location assessment as described by Kotler *et al.* (1994) will be applied, as well as some more aspects suggested by Sudbury Regional Business Centre. It is evident that this analysis could be carried out in a much more detailed way, but for the present study, a certain degree of abstraction has been adopted in some areas which were judged to be of secondary importance based on the theoretic and conceptual framework.

3.2.1 Demographics and Economy

Heidenheim is a district town and one of four middle level centres in the eastern Württemberg region, together with Aalen, Schwäbisch Gmünd and Ellwangen (Landesarchiv Baden-Württemberg 2019a; Stadt Heidenheim 2019g). The municipal area had 49.297 inhabitants in 2017, with slightly increasing tendency and a mean age of 43,6 years. 20,9% of population were non-Germans. Population density currently is about 460 inhabitants per square kilometre (Statistisches Landesamt Baden-Württemberg 2019c, 2019b), the male-female ratio is roughly equalized with 49,8% men in 2017. The graduate rate among inhabitants was at 16,1% and 20,1% among all employees. 33,3% of all 25.755 employees in the municipal area worked in manufacturing industries in 2018 (Statistisches Landesamt Baden-Württemberg 2019a). For April 2019, the overall unemployment rate was 3,6% (Bundesagentur für Arbeit 2019). In 2017, 1,1 flats were newly built per 1.000 inhabitants. The average stay duration of visitors was 1,8 days, for a number of 2.146 guest-nights per 1.000 residents. Police crime statistics are very low in regional comparison with 3.875 punishable acts per 100.000 inhabitants in 2018 (Südwest Presse Online-Dienste GmbH 2019a, data for the entire district).

Heidenheim has a network of urban and intercity bus lines and is located on the Aalen-Ulm railway line which operates passenger and freight service. Nearest international airports are to be found in Memmingen, Stuttgart (distant 90 km each) and Munich (distant 170 km), the closest airfield open to general aviation is Aalen-Heidenheim-Elchingen (distant 25 km). Heidenheim has direct access to the north-south A7 highway, which intersects the important east-west A8 highway south of Heidenheim, near Ulm. Heidenheim is home to a campus of *Duale Hochschule Baden Württemberg* (Baden-Württemberg University of Cooperative Education)

with 2.400 students in four departments and 21 degree courses (DHBW Heidenheim 2019). Over the next years, Heidenheim university shall be considerably extended with a second main building on a former WCM production site.[18] There are ten elementary schools, a total of nine secondary schools of all types and eight professional schools (Stadt Heidenheim 2019c).

Besides the attractive nature directly surrounding the town with vast mixed forests, rocky valleys and heathlands which are perfect for hiking or bike tours, there are sports and leisure offerings for every age and gusto, ranging from skiing to tennis and from an open-air swimming pool to a skatepark (Stadt Heidenheim 2019e). Heidenheim's skyline is dominated by Castle Hellenstein which dates back to the 11th century. The city provides a variety of cultural offerings, including the renown *Opernfestspiele Heidenheim* opera festival that, every year, attracts up to 19.700 visitors (Südwest Presse Online-Dienste GmbH 2018; Stadt Heidenheim 2019b). The 100-year-old open air theatre *Naturtheater Heidenheim* counts around 42.000 annual visitors (Naturtheater Heidenheim 2019). In addition, there are premium concerts of all musical genres, cabaret events, a remarkable arts museum and two cinemas. *Museum in Römerbad* valorises the remnants of the city's Roman origins whereas the museum on Castle Hellenstein showcases a conglomeration of local history, from glacial finds up to 19th century horse carriages.[19] The local tradition of cooperage, i.e. production of wooden barrels, is honoured with an annual wine festival. In terms of professional sports, Heidenheim is known for its second federal division soccer team, its baseball team playing in first national and European divisions and the annual fencing tournament "*Coupe d'Europe*", traditionally taking place in Heidenheim.

The quoted statistics show that, in many fields, Heidenheim is in a promising economic and social state. Nevertheless, some indicators like the fact that one third of all employees work in the manufacturing sector need to be kept in mind when thinking about future development. Also, the graduate rate which is higher among the workforce than among residents could indicate that Heidenheim is currently not

[18] This extension initiative is supported by Voith, a globally active industrial company based in heidenheim, with a donation of twelve million Euros (DHBW Heidenheim 2017).
[19] Interestingly, parts of this collection were donated by Alfred Meebold, descendant of WCM's founder who will be discussed in the respective chapter.

retaining a maximum of human capital.[20] The general quality of place is to be judged as attractive, with low crime rates, a multitude of high-class cultural offerings and good infrastructure. All in all, the factual potential for the city to take on the role of a modern ecosystem as described in the framework is certainly there. As a next step, the image of Heidenheim will be considered.

3.2.2 Image

According to the authors experiential knowledge of Heidenheim's general image as a place to live, the latter is certainly not very flattering:[21] "ugly", "dead", "disconnected" and "boring" are some of the expressions which surface regularly when locals talk about their town. The current image of Heidenheim can thus be described as contradictory (Kotler *et al.* 1994:56): there is potential but a low level of consciousness for the latter. Economy is objectively strong, but still there are fears that the town might suffer from disruptive economic trends in the future. The perception of Heidenheim in the surrounding cities, which of course are potential competitors, is similar with the exception of high-quality cultural offerings, namely Heidenheim's opera festival. Competing towns like Aalen or Schwäbisch Gmünd sharpened their images around their historic town centres, which they promoted as being cute, romantic and cosy. The result is that, even though the historic centre of Heidenheim is objectively smaller than those of Aalen and Schwäbisch Gmünd, the respective areas in the competing towns got nicer and nicer over the past years. In Heidenheim's city centre, in contrast, the situation stagnated and, in some cases, even worsened during the same period. Improvements in this sense are rare in Heidenheim and competition by the other towns is just too strong.

In the author's opinion, one explanation for this gap between image and potential might be that the town is caught in an identity crisis: the heydays of the industrial age are definitely over, but, still, Heidenheim is an industrial town. Seeking for a

[20] The graduate rate can only be used to draw conclusions on human capital, not creative capital as has been explained in the framework section.

[21] The implicit consideration of experiential knowledge regarding the image of Heidenheim is based on the findings of Maxwell (2009:224–226). Accordingly, the strongly qualitative background knowledge the author sources from being born and living in Heidenheim shall not only be seen as a potential source of bias that is to be kept entirely out of the study, but also as a valuable possibility to gain additional insight. Of course, these assumptions are not overrated but treated critically as a point of departure for further research, as will be seen in the analysis section. Sticking with Maxwell's scientific principles for operationalizing experiential knowledge, a "researcher identity memo" on the image of Heidenheim can be found in the appendix (i.).

new role under changing economic circumstances is difficult if a town's society is unaware of its heritage and, thus, identity. Conversely, making experienceable the town's heritage could serve to strengthen a sense of origins and identity among residents, helping in the process of redefining Heidenheim as a city brand.

The discrepancy between mostly powerful economic indicators seen before and the somewhat dilapidated image of the town as a place to live shows the importance of branding Heidenheim differently from its direct competitors to convince locals as well as non-residents of the towns strengths: namely through industrial and high culture - a combination which is not present in the competing towns to a comparable extent.

The assumptions made in this chapter will be investigated empirically in chapter 4.3.

3.2.3 Target Groups

Kotler *et al.* (1994) define four target groups for city marketing:

1. visitors (business as well as leisure)
2. local residents and employees
3. local industry and economy
4. export markets (external investors and entrepreneurs)

For each of these target groups, there is interest in leveraging local innovation heritage as a foundation for brand image. As mentioned before, the two main targets of the present marketing concept are to foster local sense of identity among current population and to attract economic activity through promoting Heidenheim as a place of innovation.

Therefore, in a first phase, focus needs to be put on local residents. In fact, the scope of the present study will be limited to local population. As a second step, the extension towards visitors will be feasible using the same resources but creating a solid base of research for this second step would take too long for the study. Of course, visitors include not only leisure visitors or tourists but especially business visitors, potential investors and entrepreneurs. This second target group is relevant because places with unusual attractions such as Heidenheim have more touristic potential than commonly assumed (Kotler *et al.* 1994:266–267): if positioning is carried out authentically and in a smart way, this potential leads to growth not only

in tourism, but more general in local economy. Thus, even if tourism is not the main goal, its principles are valid to increase place attractivity for the locals.[22] As a third phase of deployment among target groups, integrating local economic players in the marketing concept will be a promising option for the future, creating a dense and efficient network between public and private marketing. The current entrepreneurial climate in Heidenheim is definitively below the place's potential, according to the criteria of Kotler *et al.* (1994): public attention for interesting start-ups is less developed than for the old companies, the venture capital scene is not very visible and the general public's interest for R&D projects at Heidenheim university is limited. Possibilities for improving this situation will be further explained in the suggestions section.

Illustration 2: Three steps for expanding target groups.

[22] In Heidenheim, most visitors are day tourists or business travellers. In this regard, the importance of congress hotels is not to be underestimated, as Kotler *et al.* (1994) point out. Heidenheim has a high-quality congress centre and hotel, and close cooperation between municipal marketing activities and the hotel and congress sector will be a valid strategy to reach target groups two and three.

3.2.4 Inventory: WCM – Relevant Cultural Elements

As suggested earlier, Heidenheim has much more industrial-culturally relevant substance as can be treated in this study. Some currently active companies could one day serve as examples of survival strategies in changing economic contexts. WCM, which will be analysed in the following, is an example of economic disruption. Options for expanding the concept beyond WCM towards a broader network of private-public economic promotion and city marketing partnerships will be explained in the recommendations section.

Industrial monuments can be categorized according to the definitions established by Föhl (1994):

1. Manufacturing buildings and facilities
2. Transportation buildings and facilities
3. Supply buildings and facilities
4. Moveable technical monuments

Categories one and four are relevant to the present case of WCM.

The company was founded in 1856, but textile and cloth has been produced in Heidenheim long before (Feyer 1973; Landesarchiv Baden-Württemberg 2019b): even before the days of industrialization, small businesses were founded in and around Heidenheim which bought linen from farmers in order to produce and sell cloth. As early as 1766, Johann Heinrich Schüle of Augsburg opened a cotton printing factory in Heidenheim, next to the future WCM plant.[23] The young start-up was taken over by Johann Christian Meebold two years later and named "Meebold, Hartenstein & Companie". After the Continental System was abolished in 1814, the company faced severe outlet setbacks and split up in 1817: part of its assets were sold to Ludwig Hartmann, who was about to incorporate his dressing material manufactory,[24] the remaining parts were taken over by Johann Gottlieb and Christian Friedrich Meebold in 1823 who established a manufactory of then very modern printed calico: upon inception of the German Tariff Union in 1834, calico production reached new heights and Heidenheim became known as „Swabian

[23] The change from locally produced linen towards imported cotton is an early example of disruption caused by globalization.
[24] Nowadays, Paul Hartmann AG is a global player in healthcare products. Headquarters are still to be found in Heidenheim (Paul Hartmann AG 2019).

Manchester“, fuelled by consequent modernization of production facilities. In 1838, the first steam engine in the entire Württemberg region was installed at Meebold’s factory. In 1856, the company became Württemberg’s first public limited company and its name was changed to WCM, for *Württembergische Cattunmanufaktur* (Württemberg Calico Manufactory).

Around 1900, WCM had become one of the most important companies in Württemberg and also the biggest employer in Heidenheim with over 1.200 workers (Rupp & Preussger 2006). Due to its economic importance – 40% of the city’s tax income were generated by WCM alone at some point –, the company had privileges such as veto power on municipal budgets. In the late 19th and early 20th century, WCM was a pioneer in terms of improving social standards for its workforce: still today, the historic working-class village built by WCM is home to many families in the author’s neighbourhood, and the company’s former day nursery and bath facilities – truly revolutionary back then – are being reused for different purposes. Accordingly, the raise of WCM radically impacted the physical development of Heidenheim: potential locations for worker colonies and other facilities were not judged by criteria of city-planning, but by their proximity to the factory complex.[25] Many streets in Heidenheim are named after industrial pioneers like Meebold and Schüle – but most modern-day residents do not even know who these people were.

Decline of WCM began in the 1960s, when almost the entire German textile industry was disrupted by far-eastern imports. Production ceased in 1966 and the remaining retail activities came to an end in 1981. Along the way, Heidenheim’s textile companies with WCM as the most relevant example had also laid the cornerstone for local metal working industries which today drive the city’s economy. Heidenheim’s modern day global players like Hartmann and Voith[26]

[25] Referring back to the image analysis, this element of historical context explains why Heidenheim’s city centre experienced a certain loss in importance due to industrial developments: the city was built according to industrial needs, not ideals of urban planning. This fact definitely needs to be kept in mind when judging industrialization’s impact on Heidenheim’s current appearance.

[26] Voith is a Heidenheim-based company founded in 1825 as a small locksmith’s shop which, among others, repaired and produced equipment for local textile companies such as WCM. Nowadays, Voith has over 19.000 employees in over 60 countries with a turnover of € 4,2 billion in 2017/18 (Voith GmbH & Co. KGaA 2019).

started out as textile companies or textile production equipment suppliers in WCM's orbit.[27]

Nowadays, a vast collection of WCM cloth patterns, historic tools, documents and other equipment related to the company is owned by the local history society and classified as a monument (Südwest Presse Online-Dienste GmbH 2016; Heimat- und Altertumsverein Heidenheim 2019). The collection had been rarely accessible to the public until recently, but from May 2017 until October 2019 parts of it are being presented in Heidenheim's Castle Hellenstein Museum in an exhibition concept that focusses on the cultural relevance of local textile industry. The innovative spirit of WCM's founders is put forward and rise and decline of their business are embedded in historical context.

In parallel, the ancient WCM factory complex is being reused in various ways: beyond having been partially transformed in a vast park which serves for local recreation, it is home to parts of Heidenheim university, a day-care centre, an elementary school and the "*Zukunftsakademie*" ("future's academy") which incentivizes children to wake their interest in STEM disciplines (Zukunftsakademie Heidenheim 2019). Currently, another two historic former WCM buildings are being transformed into the so-called "Dock 33", which includes an incubator, coworking space and digital innovation centre for start-ups, students and entrepreneurs. This initiative is the result of close cooperation between local economic promotion and a regional start-up promotion initiative called "start-up region Ostwürttemberg" (DOCK 33 Heidenheim GmbH 2019; IHK Ostwürttemberg 2019a; Südwest Presse Online-Dienste GmbH 2019b).

3.2.5 Competition

Competing towns in the closer surroundings, namely the eastern Württemberg (Ostwürttemberg) region, are:

- Aalen, about 30 km north, roughly 67.000 inhabitants.
- Schwäbisch Gmünd, about 40 km northwest, roughly 61.000 inhabitants
- Ellwangen, 40 km northwest, roughly 24.000 inhabitants

[27] The WCM name is nowadays owned and used by a Berlin-based real estate company that has no other relation to the original WCM except for having taken over its shareholdings, real estate and name at the end of textile retail activities in the 1980s (WCM AG 2019).

- Ulm, about 40 km south, roughly 124.000 inhabitants. Ulm is usually not seen as a part of the Ostwürttemberg area but included here due to its great importance in regional economy.

A map showing Heidenheim and its position relative to these towns can be found in the appendix (ii.).

3.2.6 SWOT Analysis

In order to establish a more stable foundation for the conceptual vision, a condensed SWOT analysis of Heidenheim shall be conducted based on the principles of Sudbury Regional Business Centre (23–24) and Kotler *et al.* (1994:111–121).

Strengths: Heidenheim has a powerful local economy offering numerous jobs of different qualification levels in different sectors. It has rich industrial cultural heritage and looks back on a long history of innovation. Surrounded by beautiful natural assets and accessible via performant infrastructure, it is also known for its offerings in terms of sports events and high culture.

Weaknesses: The town is relatively small, reducing its possibilities of development as compared to bigger cities such as Ulm, Stuttgart or Munich.[28] The town's image bears contradiction and is certainly not entirely positive. An inconsistent city brand leads to unclear value perception and low self-esteem compared to surrounding cities. Locals are often unaware of the city's past, leading to a limited sense of rootedness.

Opportunities: Heidenheim could reuse its industrial culture as an inherent source of power. Competitive advantage can be achieved by showing the relevance of historical parallels and contrasts, with the goal to convey stability and confidence in times of unclear economic development. Reinterpreting local culture in an innovative way could not only help establishing a modern ecosystem but also lead to effects of positive surprise among locals and foreigners.

Threats: the city's wealth is highly dependent on a few industrial companies. In case these industries lose their relevance due to disruptive effects in global

[28] Reduced town size, listed here as a weakness, is a perfect example of positive reinterpretation or "internal renewal": instead of the negative aspects of a smaller city, focus will be put on its advantages during rebranding, such as walkability.

economy, the city could in turn lose its economic grip. Heidenheim could miss the right moment to reinvigorate its economic fabric, which is *before* severe problems arrive, if the current level of public-private partnerships is not maintained or increased and if certain image- and brand-related aspects are not sharpened in time.

Strengths: • strong economy, sports and high culture • rich industrial culture • attractive natural surroundings and infrastructure	Weaknesses: • town size • contradictory brand image • inconsistent value proposition
Opportunities: • "internal renewal", using heritage as a source of power • surprise effects • competitive advantage through modern ecosystem	Threats: • disruption of relevant industries • loss of public-private synergies • loss of focus in branding

Table 3: Main aspects of SWOT analysis for Heidenheim.

The SWOT-Analysis basically confirms the orientation of conceptual framework: as compared to other places, Heidenheim does not have to decide whether it is more advantageous maintaining its current brand identity or abandoning it to create a new one from scratch. Instead, the situation calls for reinvention of the town's image from its own roots. Thereupon, branding and positioning aspects need to be investigated more precisely to further define this process of internal renewal. Also, the author's view on strengths and weaknesses will be verified empirically in chapter 4.3.

3.3 Brand Goals and Brand Identity

3.3.1 Brand Goals

As explained earlier, the principles of creative capital theory are an effective means to match a brand and its inherent but unexploited potential. The applicability of creative capital theory to the case of Heidenheim has been confirmed at least in its most relevant parts in the theoretic framework.

Cultural heritage marketing, especially if it is implemented by using digital technologies, fulfils all criteria that Florida identifies as crucial for the attraction and absorption of creative capital: the concept shall result in an innovative and

technology-based interface, which will be presented in chapter six. The multidimensional approach and use of industrial culture for city marketing is highly creative, thereby stimulating further creativity among consumers. Ideally, instead of merely seeing "old buildings", people can truly experience "contemporary witnesses" and their relevance to their personal present and future. Attention has to be paid regarding the desired absence of usage barriers, thus allowing for plug-and-play participation by literally every interested consumer. This aspect will be discussed in detail in chapter 3.4. Connection with additional territorial assets is ensured by the ecological aspect of industrial culture and by the extension possibilities of the concept into Heidenheims natural surroundings whose attractivity can be promoted and which can be reconsidered in a larger context, improving the quality of place. Thus, all of Florida`s factors are fulfilled by the present concept as all the mentioned factors can contribute to the creative appeal of the city. How this can be turned into actual value proposition will be discussed and examined in chapter four.

According to Kotler *et al.* (1994), a place image has to be valid, credible, simple, appealing and distinguishable. Validity and credibility are a result of authenticity, distinguishability is ensured by the absence of similar concepts in competing towns and the nature of cultural heritage itself: the unexpected discovery of relevance that the present concept is able to unearth is stunningly simple and for sure appealing to a great number of people who are concerned by the towns industrial culture in any way. This hypothesis will be verified in chapter four as well.

Lastly, all these measures shall allow for meaningful experiences of Heidenheim's identity as a city, helping its society to better understand its role in times of economic change and increasing the place's attractivity for potential external investors and entrepreneurs.

3.3.2 Brand Identity

As explained earlier, principles of the "4D" place branding model according to Fan (2014) will be used in the present study. Its four steps – DISCOVER – DEFINE – DESIGN – DELIVER – will be outlined for the case of Heidenheim in the following.

In the "discovery" phase, the image of place is analysed, by judging how residents, visitors and investors respond to the brand (see also: Gertner & Kotler (2004); Gupta (2010)). A first step in this direction is the focus group research conducted by the author which will be presented in chapter 4.3. The current brand identity will be investigated in the analysis chapter, but the desired brand identity content shall be discovered and defined in the following.

Making experienceable the relevance of heritage by connecting past, present and future in meaningful ways is at the core of the present rebranding strategy. Accordingly, authenticity and innovation are vital elements of the desired brand identity which need to be defined in detail.

Authenticity, according to Longman dictionary of contemporary English (2009), is "the quality of being real or true". The Concise Oxford dictionary of current English (ed. Sykes 1983) suggests defining authenticity as the quality of being reliable, trustworthy, of undisputed origin and genuine. Accordingly, in the context of branding, heritage, is able to tell the true story of a place. A branding attempt disregarding heritage, in contrast, might be considered as an imitation or generic reproduction, which is less reliable and trustworthy. According to Kotler *et al.* (1994), authenticity is crucial in the context of a city's economic sustainability: a development strategy needs to respect a place's cultural, political and economic particularities to be successful. Heritage-based branding, overall, provides a high degree of authenticity and facilitates differentiation from competitors.[29]

Creativity is defined by Longman dictionary of contemporary English (2009) as the ability to use imagination to produce new ideas or things. Concise Oxford (ed. Sykes 1983) describes the quality of being creative as the ability to create, invent, imagine and showing imagination as well as routine skill. Referring back to Florida's definition of the creative class that has been discussed earlier,[30] creativity

[29] Hakala *et al.* (2011:447): "It has become trendy for consumers to seek consolation in the past, and brands with an image including elements such as authenticity, heritage and stability are gaining in popularity. […] It has also been argued that symbolic and emotional attachment between a brand and a consumer is more probable with brands that connect heritage and authenticity to their image." (see also: Brown, Kozinets & Sherry (2003); Ballantyne, Warren & Nobbs (2006); Loveland, Smeesters & Mandel (2010)).

[30] "The distinguishing characteristic of the creative class is that its members engage in work whose function is to 'create meaningful new forms.' […] They apply or combine standard approaches in unique ways to fit the situation, exercise a great deal of judgement, perhaps try something radically new from time to time." (Florida 2012:38–39).

has to be seen holistically across different economic disciplines. Accordingly, innovation is a form of creativity as it consists of the introduction of changes, novelties, new ideas, methods and inventions (Longman dictionary of contemporary English (2009), The Concise Oxford dictionary of current English (ed. Sykes 1983)). Also, beyond mere change, there is a sense of improvement attached to innovation: "An innovative idea or way of doing something is new, different and better than those that existed before." (Longman dictionary of contemporary English 2009:908). Moretti (2012) adds that innovation exists in multiple forms from goods and services to amenities and ways to reach consumers. According to Moretti, the best way to convey an image of innovation is to do so by using innovative ways of communication, which leads right into the design phase of the branding process. Therefore, the use of modern digital tools and methods in order to build the desired brand image is almost inevitable in order for the latter to be convincing. In parallel, the fact that heritage-related elements are contained in the branding strategy ensures the emerging brand image is considered authentic.

The final step towards a branding strategy, which is how to deliver the brand image to the target group, will be discussed more precisely in chapter six. Basically, principles of effective brand image communication will follow the criteria of creative class attractivity as defined by Florida (2012).

Once the brand identity and desired brand goals are established, focus can be shifted to positioning of the brand.[31]

3.4 Positioning Factors and Scheme

3.4.1 Positioning Factors

For the case of Heidenheim and the WCM site, the following positioning factors have been identified by the author based on explanations given in the framework:

- Authenticity
- Interactivity

[31] "Brand positioning consists of the planning, implementation, monitoring and further development of a brand identity conform brand position within the relevant target group's sensory space that is different from competitors and realizable with the internal endowment of resources and competence and which is driven by the consumer's ideal conceptions." (Meffert, Burmann & Kirchgeorg 2014:336, translation by the author).

- Multidimensionality
- Experience-based approach
- Presence of high-tech
- Promotion of innovative and creative lifestyles
- Walkability[32]
- Plug-and-play concept with low barriers of entry[33]

3.4.2 Positioning Scheme

According to Blandford's (2000) and Jurėnienė & Radzevičius' (2014) schemes for positioning heritage brands, the following steps need to be respected:

1. Understanding the site
2. Assessing significance of the site (potential in social, economic and educational sense, value to the community)
3. Identifying site's vulnerabilities
4. Defining product and user value
5. Formulating management proposals

Jurėnienė & Radzevičius define heritage brand positioning as building and managing the market position of a product in an orderly manner. In the present case, by the nature of product, positioning will be possible through interaction between user and product. Steps one to three from the given scheme have been covered so far: the DNA of place and its significance have been analysed as well as its strengths and weaknesses. The product and user value will be further explained in the following chapter and value proposition will be examined in detail. Finally, precise management proposals will be formulated in chapter six, partly as extensions of existing plans and concepts in the sense of Jurėnienė & Radzevičius (2014).

[32] i.e. turning small town size into an advantage, as suggested by Florida (2005).
[33] The question of broad accessibility (physically and intellectually) is of importance in Misiura's (2006) description of heritage-based value delivery as well as Florida's (2012) criteria for creative class attractivity. Also, one of Misiura's studies identified cost as one of the main barriers to the experience of heritage in general.

4 Analysis

4.1 Closing the Gap Between Potential and Image Based on Creative Capital Theory and Cultural Heritage Marketing

Having established the potentials of cultural heritage marketing, the applicability of creative capital theory and the main branding and positioning elements, these elements shall now be applied to the case of Heidenheim. In the introduction chapter to creative capital theory, it has been stated that "people first" was the right way to go in terms of city development. Precisely, this means that trying to become the next Silicon Valley by just attracting companies is not enough. As it has been outlined earlier in this study, each place is individual because of its heritage, which implies that a "copy-and-paste" or "one size fits all" strategy for economic revitalization does not exist. Such an interchangeable development plan would clearly lack the authenticity which is of great importance in building civic cohesion which, in turn, leads to the desired long-term value.[34]

One of the core statements of creative capital theory is that companies follow creative people or are founded by the latter. For the present and following chapters, focus will thus be put on the question how municipal marketing activities can fuel the image of Heidenheim as being creative and innovative, based on its individual heritage. As has been suggested earlier, the good news for Heidenheim is that small towns, despite having certain disadvantages in comparison to major cities, are able to significantly increase their creative class attractivity if value proposition respects Florida's "four T" criteria (see chapter 2.2.2).

The establishment of an authentic and creative brand image is a key element in Heidenheim's search for ways to unleash the full potential of creative capital. Everything should be done to avoid discouraging of "outsiders" as these are valuable contributors to innovative local economy (Florida 2012). Lifestyle, interactivity and authenticity are main location factors for creative people, which means that marketing concepts for place development should promote low barriers and a generally supportive environment comprising various innovation stimuli : "Such a broadly creative environment is critical for generating technological

[34] In addition, Kotler *et al.* (1994) point out that the efficiency and long-run effectiveness of such "generic" revitalization programs are to be judged critically.

creativity and the commercial innovations and wealth that flow from it" (Florida 2012:16). An example showing the necessity of low barriers is the importance creative capital theory accords to street level culture, in addition to high culture. Florida calls such approaches plug-and-play communities, where integration is possible easily and quickly. This very character of effortless integration in the city's ecosystem needs to be reflected in branding and consumer engagement.

It has been stated that the ideal mix which enables the development of a prosperous modern city consists of high-tech industry, diverse possibilities for outdoor activities and an older but lively town centre which is being animated and rediscovered through modern technology. Heidenheim bears potential for all of these. If possibilities are found to make experienceable the place's rich heritage in an easy-to-use and multidimensional way, certain core elements of creative capital theory are fulfilled: "On many fronts, the Creative Class lifestyle comes down to a passionate quest for experience. The ideal is to live a more creative life, packed with more intense, high-quality, multidimensional experiences." (Florida 2012:134). This also implies that, nowadays, quality of place is at least as important as traditional location factors such as industrial transport infrastructure, thus emphasizing the importance of promoting, attracting and retaining talent within the city's ecosystem. Accordingly, the role of R&D labs and universities as crystallization spots of knowledge and technology within a city is more than that of simple research facilities: together with high-tech manufacturing companies, they function as "talent magnets" (Florida 2005:18) which mobilize local talent and attract external talent. Within the modern ecosystem of place, university areas with R&D labs, start-up incubators and attractive amenities are very important. Put differently, a university alone is not enough: "The real key is that communities surrounding universities must have the capability to absorb and exploit the science, innovation, and technologies that the university generates. In short, the university is a necessary, but not sufficient, condition for regional economic development." (Florida 2005:150). This clearly shows the potential of the current Dock 33 digitization centre and start-up incubator project on the ancient WCM site, which also is home to parts of Heidenheim university. Close partnerships between Dock 33 and the university as well as other R&D actors are thus strongly recommended to get closer to the ideal of a modern knowledge ecosystem. If, additionally, heritage aspects are included in the marketing of this ecosystem to create an authentic and

strong brand image, the city will be one important step closer to becoming a rural, reasonably sized creative class hotspot. According proposals for measures to be taken in this specific case can be found in chapter six.

Walkability, i.e. the possibility to get from one point to another within a city by foot, is currently being rediscovered as a serious location factor and, therefore, should be promoted correspondingly: from being a fallback strategy in case the car breaks down to something cool, healthy and sustainable that makes a small place worth living in as compared to overcrowded megacities (Florida 2005).

In modern city economics, environmental influences are of great importance,[35] but in a different sense than in the industrial age: nowadays, healthy and beautiful natural surroundings contribute to the quality of a place instead of serving primarily as resources for industry. "As it turns out, amenities and the environment have proven to be powerful attractors of creative workers. In turn, they have aided the development of high-technology industries and regions." (Florida 2005:50). This means that the traditional economic trade-off between environmental protection and industrial exploitation is to be reconsidered. Preserving natural assets was traditionally seen as contradictory to economic development. Nowadays, in times of knowledge based, creative economy, sustainable environmental protection is to be seen as a necessary ingredient of any economic development strategy, as attracting and retaining talented, environmentally sensible people becomes more and more important. As a perfect example of this changing role of natural surroundings in relation to economic activity, the beautiful pond in front of the Dock 33 complex, now clearly to be classified as a territorial asset, once was a strongly contaminated wastewater pool in the middle of the WCM factory compound.

Compared to big cities with thicker ecosystems and pools of talent, a small place like Heidenheim will only have a chance to undergo sustainable development if it takes full advantage of all of its potential. "A key dimension of regional advantage turns on the ability of a place to capture the imagination, dreams, and desires of young creative workers who are making location decisions." (Florida 2005:68).

[35] see the fourth "T", "territorial assets", in Florida's model as presented in chapter 2.2.2.

4.2 How to Brand and Engage According to the Suggested Value Proposition

In the chapter on heritage marketing, it has been outlined already how heritage and culture help differentiating a city brand from its competitors. Jurėnienė & Radzevičius (2014) classify this as differentiation by nature of product.

According to Misiura (2006), innovation in finding out about the customer's motivations and desires regarding value delivery is the core of heritage marketing. The relationship consumers shall establish with the heritage brand is symbolic and symbiotic, meaning that there must be a meaningful value proposition and emotional response. Value generated by this symbiosis does not necessarily have to be quantitative in nature, as Misiura states – quantitative or monetary value being an indirect result as has been described earlier. The traditional museum image and its problematic value delivery process are described by the same author as a prison-like situation in which the visitor or consumer was forced to feel privileged to be able to see ancient collections behind thick glass, without any natural way of experiencing their relevance to his or her present and future situation. Such a museum approach delivers very limited value, as it fails to communicate the relevance of the entity it is related to. It is clear, though, that a museum bears the potential to make the past experienceable and relevant, as the tangible and multidimensional experience of the "real thing" creates a more sustainable learning effect than simply reading about it. The ideal role of any museum or heritage-based marketing tool is nicely summed up in the mission statement of Stroud District Museum Service as cited in Misiura (2006:21): "Inspiring people to explore the past, understand the present and imagine the future."

This is where principles of creative capital together with digitization become important. First aims to modernize traditional museum concepts could be observed in the 1980s, when basic audio guides or other audio-visual technologies appeared in museums in order to strengthen the consumer experience. An example of early multidimensional experience from the field of industrial culture is the Ford Rouge Factory Tour in Detroit, where the screening of a film ("The Art of Manufacturing") is surrounded by numerous effects such as lighting, heat, fog and fans (Misiura 2006). Nevertheless, the development, acquisition and maintenance of expensive equipment necessary for such a setup make its implementation unattractive for less

touristic locations. Newer developments such as augmented reality are therefore a much more viable "low-profile" approach to making industrial culture accessible to the public without having to invest in expensive installations such as multidimensional cinemas which need to be maintained and modernized frequently.

Based on the previous explanations on operationalization of positioning and branding cultural heritage in the context of city marketing and economic promotion, actual value proposition for the case of Heidenheim and the case of WCM needs to be identified as a next step.

4.3 Market Research

4.3.1 Introduction

With the rebranding and positioning destinations set, primary market research is needed to effectively implement the present concept based on more accurate information about potential consumers: "The heritage marketer must *understand* the people who are connected with the entity […]." (Misiura 2006:15) More precisely, it must be investigated what consumers know, how they think, what their attitudes and preferences regarding the topic are and which rebranding arguments they are most responsive to.

Based on the assumptions explained earlier and the insight provided by the conceptual framework, the status quo among a subset of Heidenheim's population shall be studied in the following.

At the starting point of study design, it was clear that, because of the qualitative and exploratory character,[36] a restrictive and static approach to market research was not an option. Accordingly, the study design presented in the following is the result of a dynamic process which was subject to frequent changes as required by the steady development of framework.

Of the three basic qualitative methods of primary market research, namely participant observation, individual interviews and focus groups, the latter seemed to fit the study's purpose best as will be explained in the following according to the

[36] This remark should not be misunderstood as to the descriptive character of qualitative market research. The "exploratory" quality merely stems from the relative novelty of the conceptual approach.

principles of Sudbury Regional Business Centre and Morgan (1997). First of all, there are simple logistical reasons for focus group research, their realization being efficient in terms of time and money. Also, the possibilities to get access to the desired population in a natural observation setting are strictly limited and not predictable. Thus, the eventual lack of naturality inherent in focus group research must be put in relation to the overall possibility to capture perceptions, opinions, beliefs and attitudes which would not be accessible outside a focus group setting. Individual interviews were not an applicable option, as interaction between people is at the core of economic city development and, thus, of the study design. In addition, the collective brainstorming character of focus groups suits the emphasis the concept puts on group creativity. Focus groups allow to study concentrated interaction between people around the research topic. Instant comparison of response patterns is possible and there are considerable synergetic aspects: participants get motivation out of group discussion. They defend or change their positions due to input from the group, which gives insight that would be impossible to obtain in individual interviews. In addition, the presence of a moderator conducting the session allows for a great degree of control over the direction of discussion. Therefore, no valuable research time is wasted discussing questions that are irrelevant to the topic.

On the other hand, the presence of a moderator could lead to problems: he or she could influence participants and conduct the discussion in a certain desired direction. Morgan (1997) notes, though, that the bias potential caused by the presence of a moderator is not greater than in other methods of qualitative research. Only the high visibility of the moderator in a focus group setting leads to the latter's reputation of higher bias affinity. As already mentioned, a focus group is less natural than a participant observation setting. Thus, at least to a certain degree, behavioural patterns which are not foreseen by the research design cannot be taken into account. As compared to individual interviews, the group's presence might cause effects of conformity or polarization, which leaves the moderator with a high degree of responsibility on data quality: the level of moderation determines how much insight can be gained out of the data. The degree of interpretation left to the researcher is higher in qualitative research than in quantitative research.

As a conclusion, focus groups, while having certain disadvantages, combine strengths of individual interviews and participant observation: for certain research contexts, they allow to obtain data that would be impossible to get out of individual interviews or observation. Also, they give access to subconscious levels which is important in a concept that, even though able to generate quantitative output on the long run, is qualitative in nature. A topic with wide-reaching touchpoints like the present needs some amount of control and structuring by a moderator in order to stay focussed. Due to the novel character of the topic, the depth and detail offered by individual interviews are secondary to the "big picture" that focus groups are able to establish. The issues of naturality and group influence mentioned before can be judged as uncritical in the present case, as the population is to be addressed as a group beyond the individual level. The topic calls for a certain level of interaction, which individual interviews cannot deliver. Participant observation is not a viable option either, as the target group's opinions and statements that are of interest are not realistically accessible to the researcher in this type of setting. Summing up, it can be stated that the use of focus groups is appropriate for the present study.[37]

Goal of the focus group research campaign was to find out how the branding and consumer engagement process could be carried out most effectively based on the elements which have been identified as relevant. Therefore, the status quo among a subset of the target group was to be probed and described. As consulting a representative group of potential external consumers would not have been possible in sufficient quality within the timespan dedicated to this study, focus group research was limited to the local population. The concept, though, explicitly includes details for calling in external consumers as well as a next step, beyond the present study.

Research questions need to relate to all other parts of the study, especially the study goal and the study's conceptual framework (Stewart 2007; Maxwell 2009). They have to be responsive to match the inductive character of qualitative research.

[37] One individual interview was held in addition to the two focus group sessions, as one of the designated focus group participants was spontaneously unable to attend on date. As this participant was judged to be a particularly competent source of information and also highly motivated to participate, the author decided to have this additional interview to get hold of the information the participant could provide.

Accordingly, research questions were formulated after most of the framework and research goals had been established.[38]

To develop more precise ideas on how to implement the concept, the focus group research program had to explore participants' levels of consciousness regarding industrial culture and the relevance of the past for present and future. A set of four "background questions" was framed that should later be answered by assembling participants responses to closely related "foreground questions". These highly operationalized questions for the focus groups have been developed by the author following the principles of Krueger & Casey (2015). Questions that are presented to participants have to remain rather open due to the character of the study, which is strongly influenced by the novelty of the topic. Whereas "background questions" operationalize the authors research goals based on the framework and its substructures, "foreground questions" are directly visible to participants and aim at obtaining the data which is needed to answer the "background questions". Participants do not have the same level of background knowledge, so questions have to be adapted accordingly. Thus, "foreground questions" will contain certain simplified triggers based on topic-related aspects that are connected to and representative of the underlying conceptual criteria: every part of these questions which are presented to interlocutors is strongly related to various aspects of the framework. How participants respond to these precise triggers has direct consequences on evaluation. The appropriate transition from background questions to foreground questions is crucial, as a balance needs to be found between too much instrumentalization of questions, leading to risk of losing the initial focus of the research question, and insufficient instrumentalization resulting in lack of data generation (Maxwell 2009).[39]

[38] Research questions in the present study can be broken down into three categories: the large, introductory question leading into the study was established early on in the research process. The second category, referred to as "background questions", was developed after the theoretic framework and with regard to the refined study goals. Finally, the actual focus group questions ("foreground questions") are representative subsets of the "background questions" which can be presented to participants that are not necessarily aware of the entire framework. Thus, the degree of precision and connectedness with various aspects of the topic increases from level one to three as does the level of operationalization.

[39] Commenting on the same question of balance, Maxwell (2009) states that the risk of biasing a study by relying on wrong questions that can be answered with high precision is higher than by finding less precise answers to the right questions.

4.3.2 Conceptional Background Questions

From the initial research question presented in the introduction (see chapter 1.1), the following set of four background questions has been developed based on the principles of Maxwell (2009):

1. Can the image and character of Heidenheim that have been suggested be confirmed empirically?
2. Can the supposed low level of awareness for the various aspects of industrial culture be confirmed empirically?
3. How do participants perceive the relevance of industrial culture for their lives in Heidenheim?
4. Which aspects of industrial culture and heritage are participants most responsive to? (i.e. which aspects bear the most branding potential)

The aspects of industrial culture that were used to translate conceptual elements from the framework into participant triggers are listed in the following. They are also related to the positioning factors which have been identified to further investigate the relevance of the latter. How participants respond to these triggers will allow for answering the matching "background questions" in the aftermath.[40]

These different aspects related to industrial culture unfold their marketing potentials in different ways:

1. Politics: the most controversial and relevant topics in today's political discourse can be tracked down to aspects of industrial culture. Extreme right- and left-wing movements have their origins in times of industrialization, as they kicked in the newly institutionalized field of tension between workers and executives. These movements are gaining power again today, so industrial culture can contribute valuable context to political education and understanding.
2. Disruptive technologies: in 2019, "disruption" caused by digitization is one of the most strongly covered topics in the news, traditional business models disappear, new ones emerge. This seems to cause a certain lack of orientation among people. Very similar patterns of disruption can be found

[40] Maxwell (2009) refers to these "background questions" and "foreground questions" as "research questions" and "interview questions".

in industrial history, for example when steam engines first enabled companies to relocate independently of natural power sources, and when railways were built to connect cities and production sites, exactly as, nowadays, the "internet of things" connects urban knowledge clusters. The awareness of these parallels could be used to convey stability and confidence: there will be changes, but it is neither the first nor the last time in history.

3. Fears and hopes: economic cataclysm and technical progress cause irrational reactions. Some might totally reject the respective technologies and developments as they fear incalculable consequences. Others, promoting quick implementation of these novelties, might overestimate their potentials and abilities to dupe laws of economy. Again, looking at history puts it all in context: some fears people had in the past were justified, others not. Some promises were far too full-bodied, others missed to predict the real potentials of some innovation.
4. Innovation spirit: innovation implicitly means uncertainty, as, by definition, it leaves the beaten path which is predictable due to experience. Discovering how past innovators dealt with uncertainty, how they succeeded or failed can be a source of inspiration and empowering feeling of rootedness.
5. Parallels: as suggested earlier, looking at historic developments reminds people that "others have been there before". Current changes in economy and society are often seen as totally new, whereas history suggests that some patterns of causality and correlation are repetitive.
6. Contrasts: whereas pessimists keep stating that literally everything was better in ancient times, many social aspects have actually improved over past centuries, such as social security standards, public health and work safety. Certain social aspects of industrial culture thus can be used as a source of empowering optimism: there is progress being made.
7. Omnipresence of industrially influenced organization in everyday life: most structures people live in in 2019 are still based on industrial principles of organization. As an example, most present day education systems or administrative services are still very much departmentalized according to

the basic principles of Taylor (1917) or Weber (1947).[41] Even though these principles of how to organize society are rather young as compared to mankind, societies have internalized them to a degree where they become invisible. A hypothesis might be that modern, post-industrial societies will have to look for different ways of structuring and organizing themselves as the classical approaches do not match future economic and societal developments. A first step in this direction is to discover the presence and the origins of the organizational status quo, which, in most cases, is industrially influenced.

Summing up, the role of industrial culture in the present concept of city marketing has to be understood as the rising of awareness for greater societal patterns between past, present and future which, supposedly, many people are unaware of. Discovery of these aforementioned patterns offers the consumer a more detailed picture of his or her own conditions of life and work, thus creating opportunities for societal orientation and adding actual social value to the local community (Jurėnienė & Radzevičius 2014).

4.3.3 Operationalized Foreground Questions[42]

In the following, the highly operationalized "foreground" questions that were presented to focus group participants are listed together with short explanations on the way in which they are connected to aforementioned aspects of framework and research goals (see also: Krueger & Casey 2015).

1. For a start, can you try and roughly characterize Heidenheim in a few words? (Introductory question, large possibilities for answers. Gives first access to the "big picture" and general image before the interview gets more precise and additional information on the topic is given. Usually, the first answers to such an open question reveal the most important aspects.)

[41] In fact, even neoclassical approaches to organization theory such as Mayo (1933, "The Human Problems of Industrial Civilization") or Simon (1947) still take the validity of basic principles of industrial organization for granted.

[42] These questions were of course asked in a German translation. This translation as well as the complete focus group setup descriptions, participant recruitment criteria, logistics plan and comments on moderation principles can be found in the appendix (iii.).

2. Is there anything exceptional about the town you can think of? (Moving into a more precise, brand-related characterization. Which are the key values that might be used for branding?)
3. If Heidenheim was an animal, which animal would it be and why? (The surprisingly abstract "animal" theme creates a need to reflect, project and describe. Thus, more insight can be generated than by asking for the actual facts.)
4. Do you consider Heidenheim to be an authentic place, and why? (Relates directly to positioning factor "authenticity".)
5. Can you draw a simple chart showing three strengths and weaknesses of Heidenheim as a place to live? (The need to reflect strengths and weaknesses creates a more detailed picture of the participants' attitudes. Individuals` thoughts are charted to identify quasi-statistic patterns and get a deeper understanding of opinions.)
6. Can you describe what kind of cultural background you do associate with Heidenheim? (Moving from general image towards cultural aspects. The term "cultural background" is deliberately kept vague as the interest is to identify what participants see as culturally relevant to their town.)
7. What comes to your mind when you hear the term "industrial culture"? (Probing for the level of consciousness regarding the different aspects of industrial culture that have been identified in the framework.)
8. Can you name three relations (parallels, contrasts, others) between the "industrial age" and today, no matter what aspect of life they may concern? (How diverse are the aspects of industrial culture that participants are aware of?)
9. Which cultural elements that are related to industry can you think of in the context of Heidenheim? (Test for transferability and awareness of relevance to Heidenheim in specific.)
10. In which ways, if at all, are these elements relevant to us in the present? (Further probing for awareness of relevance of industrial culture.)
11. How powerful do you think is the relevance of these elements on a scale from 1 (irrelevant) to 10 (highly relevant)? (Quasi-statistic ranking of perceived strength of industrial cultural relevance.)

12. Can you think of anything in specific that heritage can offer to a place for the present and future? (Asking specifically for the power of heritage now. Does the participant's feedback match the framework or not?)
13. Can you name some factors that allow for a strong experience? (Directly relates to positioning factor "experience".)
14. Coming back to the beginning, how could a distinctive image of Heidenheim look like as compared to surrounding towns? (Asking for creative input from participants. What do they see as especially relevant?)
15. Have we missed any important aspect? (Opportunity to give additional input, free of boundaries.)
16. In your opinion, what was the most important aspect that we discussed today? (Allows to identify the aspects which are most relevant to the participants after the interview and having made them aware of certain aspects of the framework. Do the mentioned elements match the conceptual approach? Have participants attitudes changed as compared to the beginning?)

4.3.4 Data Analysis

The data generated by the focus group interviews was analysed by the author. Qualitative data analysis, as Maxwell (2009) points out, is not to be seen as a separate process but needs to be carried out according to the study's framework, goal and research questions. As a first step, raw data from interview records was coded to categorize it according to basic themes of the topic. In addition, these elements were analysed contextually to gain insight in participants' perceptions of relationships within the topic, reducing the risk of losing contextual data bearing qualitative value. This was especially important as some of the research questions focused on participants' opinions within the particular context of Heidenheim, and the concept in general pays great attention to the connections between elements like heritage and authenticity, for example. During data analysis, short memos were written according to the principles of Maxwell to reflect on the data and make sure it was used correctly. These memos also served to reflect on potential contradictions within the data, which were commented and put in relation to the framework. Depending on the question, focus was put on category or context. Also, by trend, the first focus group was analysed focussing slightly more on metaphorical

projections whereas the second group's analysis was rather centred on specific content. Because of the small sample size and marketing-related study goal, data analysis can be described as pragmatic and purpose-oriented rather than strictly following a certain theoretic approach (Stewart 2007).

4.3.5 Findings

To begin, all participants without any exception approached the focus group interviews with a high degree of interest and emotion. People saw potential in the basic conceptual ideas that were introduced to them by the author during the course of the interviews. They also perceived the focus groups as an important forum of interdisciplinary exchange, capable of bringing forward city development. As one participant said, "city development needs more creative ideas from more diverse fields and backgrounds." In the following, results of the focus groups will be summarized. Therefore, answers, summaries and interpretations have been classified according to the four background questions. After the respective summaries results will be interpreted with the study's theoretic framework in mind (Stewart 2007).

The first background question, connected to foreground questions one to six, served to test the author's assumptions regarding characteristics and image of Heidenheim, also implying strengths and weaknesses.

When asked for a characterization of Heidenheim, industrial aspects were indeed first to come to participants' minds: important companies like Voith and Hartmann were mentioned, together with a townscape modelled after industrial needs. In particular, special architecture and urban design following industrial developments were listed as visible signs of these characteristics: "Heidenheim has been and still is a city of workers." More characteristics which were brought up frequently were culture and sports, especially the opera festival and soccer team, but also the new town library inaugurated in 2017: these offerings in terms of sports and culture guarantee for a convenient way of life, according to participants. Heidenheim was often pictured as a town with an incredibly diverse cultural scene for its size.

One topic that was seen in different ways among participants was the rural aspect and the role of natural surroundings. Most participants saw a clearly positive rural character ("small but nice") with lots of green and beautiful nature offering high

quality of life. Others interpreted the rural or provincial characteristics in a negative sense, the city being remote, somehow disconnected and less trendy than bigger cities. The short ways and walkability within the city were judged positively by all participants. One person emphasized that these short ways need to be seen not only in a physical sense, but also more abstractly in the form of social connections: “the locals know each other, everybody and everything is connected. This is a nice contrast to the anonymity of big cities and clearly an advantage in many everyday situations.” An interesting symbol which has been used by several participants is the castle which, despite being described as very nice, could be more valued in the eyes of some. This leads to another level of characterization that has been entered by many, talking about Heidenheim as being conservative, modest, and not standing by its strengths and qualities. This, in turn, leads to an image problem which is basically internal: several participants who moved to Heidenheim at some point of their life remember being asked by locals why they had come there and if this decision had been deliberate. A “grumpy character” of locals and their city was mentioned by Heidenheim natives and those who moved in later alike.

It can be said that ambiguity or even contradiction are other characteristics which have been confirmed by research. Some of the town’s qualities were said to be clearly above average (e.g. culture, education) and some below (e.g. nightlife). So, even though being conservative or “semi-conservative”, as one participant called it, the town was portrayed as versatile, peculiar and adorable: “Here, genius and insanity are particularly close to each other!”, one participant said. Regarding creative capital and a city’s ability to retain the latter, an additional comment by one of the participants shall be reproduced literally here as, even though not an answer to a question, it is worth retaining: “When I first drove into town ten years ago, I thought: ‘oh gosh, what shall I do here as a homosexual theatre person?’ Now, I am building a house here in Heidenheim. The city managed to absorb me. It has enormous creative potential underneath the rough surface.” Sticking with the theme of inherent contradictions, other participants noted that the city often fails to attract and retain families of those who work in Heidenheim, probably because the city lacks individuality. Remarkably, the role of Heidenheim university remained almost unmentioned when talking about the town’s character.

Talking about authenticity, there was a broad range of opinions among participants, who approached this topic in interestingly different ways. As these approaches were highly individual, some of them shall be reproduced here precisely:

“Heidenheim is absolutely authentic. It has a knobby character that one needs to get accustomed to. But once this process accomplished, the town is a truly authentic place.”

“Everything is grown and connected. It’s a rough and rural place and thereby authentic.”

“Yes [Heidenheim is authentic]. The city grew from contrasts: nature and industry, rural and urban…there is nothing ‘artificial’.”

“Heidenheim is totally authentic. Industry is such an important element of the city’s identity. I also think of the soccer team: their success grew authentically over the years, with smart financial strategy, modesty and stability.”

“The soccer team is authentic, as all the people except me seem to run after it and support it. But over all of this craze, we have lost connection with other parts of our identity, so it’s 25% authenticity and 75% not. If only the ‘Heidenheimers’ could use their grumbling energy to do more constructive things…”

“Yes and no. I perceive my personal surroundings to be authentic as me and my friends like Heidenheim and the quality of life it offers in some areas. But I think many people don’t think like this.” [note: answer by young participant]

“Not really. The city is overlain by big industrial companies, so nobody really sees the city as such.”

“No. Heidenheim is unconscious of its origins and qualities, it does not stand by itself.”

“No. Population is grumpy and unaware of the place’s qualities. On the other hand, there is a grown cultural life. So, the town is somehow authentic and unauthentic at the same time. That’s a contradiction…”

Some saw local cultural offerings to lack “bottom-up” character, thus limiting authenticity. In their eyes, cultural offerings could be broader and there could be more estimation for private cultural initiatives. History, according to others, is not

really perceivable in town, mainly because public awareness of history is not being fostered enough: people have no access to history, they don't feel concerned and the city loses authenticity. "We should work more on this.", said one person asked. Going more precisely into the direction of industrial culture, two participants criticized that ancient worker colonies are nowadays marketed completely free of their heritage context, giving away a chance of making the town more authentic.

Most interesting and insightful is the range of animal motifs that emerged from question three. To convey authentically what people expressed, answers will be reproduced verbatim:

"Heidenheim totally corresponds an elephant: sedate and unhurried, intelligent and creative, grey. If the mass once started moving, it REALLY moves!"

"An elephant. The city seems big and strong, good-natured but dangerous if irritated. It is resilient and responsible."

"An elephant. Heidenheim steamrolled most of its historic buildings…"

"Possibly an elephant, but an elephant has a better memory than the people of Heidenheim. Certainly not a peacock, Heidenheim is much more modest. A small mouse probably fits best, it is grey, modest and inconspicuous."

"A cat. Sometimes very sleepy, but still a predator if necessary. The cat thus embodies contrasts, just as Heidenheim."

"A cow. It is relaxed and surrounded by green."

"A tortoise. It is almost dead in winter, and unhurried but solid in summer." One more participant chose the tortoise theme for very similar reasons.

"A snake. Creeping, perfidious and envious."

"A marten. It bites at night and can be really mean at times."

"A sort of forester…maybe an old deer: it is clearly provincial but increasingly longs for a more urban lifestyle, like all these animals of the forest which are now seen in cities more frequently. Its intelligence is existent but almost invisible as it is hidden in the forest most of the time."

These answers generally confirm what has been said more explicitly, but the qualitative insight generated by abstraction into animal themes was considerable.

Strengths of Heidenheim as a place to live, according to focus group participants, can be classified in several categories which correspond to some of the basic characteristics mentioned above: short ways within the town and convenient town size were top of mind with seven mentions, followed by cultural diversity and quality of cultural offerings as well as great education opportunities with five mentions each. Afterwards, more diverse views on natural surroundings became apparent. To some, “beautiful nature” as such is a strength, others appreciate the authentic setting between countryside and city with lots of green, an idyllic world with local recreation possibilities, e.g. jogging in the forest five minutes away from the city centre. Several participants commented on Heidenheim’s topography, which they like for being “not too flat”, with nice hills to get different perspectives when looking up or down. Also, Heidenheim’s location in Europe is seen as important: the town is close to other cities such as Stuttgart, Munich, Ulm and Nuremberg, infrastructure such as airports and important highways are just as close as other attractive natural settings like for example the alps. Also, infrastructure within the city was judged convenient and well-thought in terms of roads and bike paths by most people asked. Public services such as transportation were said to work well, and participants with living experience from bigger cities particularly appreciate the absence of serious traffic jams as well as the availability of parking lots. The fact that Heidenheim is rather strongly divided by two main roads and a railway line, initially listed as a weakness (see below), bears some social potential as well in the opinion of one participant: clear structures allow for small but functioning neighbourhood communities within each separate quarter. Additional strengths mentioned include diverse leisure offerings, general liveliness of the city, rich offerings for children - particularly a multitude of playgrounds -, Heidenheim’s strong economy and the nice castle. Some younger participants commented on attractive prices of local building sites, if the latter are available, and more generally on convenient living and housing possibilities.

Coming to weaknesses, the first positive finding is that their list is shorter than the one containing strengths. The most important weakness identified through research concerns urban development, especially in Heidenheim’s city centre. One

participant described the situation as lacking the vision of a big picture in city development, with only small, incoherent actions. This, in his words, is like painting over a mouldy wall, or like mushrooms popping up here and there. These mushrooms are possibly nice and tasty, but there are no meaningful connections between them. A large share of participants commented on the "inexistent" sense of aesthetics among residents which, according to them, is particularly apparent in the city centre where every building looks different. As one person said, "the public sense of aesthetics is totally underdeveloped in Heidenheim." Too many old buildings have been demolished, participants said, leading to a lack of authentic atmosphere.

Closely related to city centre development, most participants see room for improvement in terms of nightlife and gastronomy. "Students of the local university are invisible!", someone exclaimed, to precise: "there is no pub and café culture, the city centre needs improvement. Young people leave town, most of the time, when they want to go out." Others identified underlying structural issues as part of the same problem: thus, the castle is located on a hill which is difficult to access from the city centre, physically and mentally separating activities which take place in these two locations. Also, the town is intersected by important roads with intense traffic, which leads to problems in the city centre: pedestrian areas are cut in half by main roads, which limits walkability, creates bad atmosphere and air pollution. These roads and the railroad line cause a strong and mostly undesirable division of the city into separate quarters, as has been mentioned before.

Some participants saw problems in terms of new building sites for individual housing, which they judged to be too rare. Also, some mentioned mismatched offerings in terms of industrial real estate: in their eyes, offer does not correspond modern demand for diverse and flexible business models. Infrastructure, even though being generally judged as good, also was listed as a weakness: train service is inconvenient in the opinion of some, connections towards Ulm, Aalen and Stuttgart bear room for improvement in the sense of a modern, sustainable mobility concept. One participant summed up the collection of weaknesses by commenting that some of these issues might be related to the difficult change from an industrial, manufacturing-oriented town towards a modern, digital city.

From this basic characterization, about two thirds of participants could relate to a larger cultural background, half of all persons asked seeing a strong industrial component to Heidenheim's socio-cultural fabric. Thus, the "persistent mindset" inherent in the town's identity is regarded as a result of industrial developments. The presence of big players like Voith as well as many small family-owned businesses was identified as a highly relevant cultural influence. People spoke of worker colonies and other social results of this industrial background, such as schools or day care facilities sponsored by industry. In their eyes, there have been important exchange effects between the community of citizens and industrial players such as Voith. Beyond offering jobs and creating a culture valuing hard work, they have had social impact with institutions like *Talhof*, an organic and anthroposophical sort of community farm that was founded by Mr. Hanns Voith a long time before such trends became more largely popular. One participant underlined the relation between strong working-class population and cultural offerings. According to him, Heidenheim offers an authentic and "non-feuilletonistic" approach to culture: "Works of art and artistic performances are put amidst people and discussed by them, there is a lot of music with Jazz and the opera festival, the art gallery and its educational programs. This immensely broad cultural background and array of activities could emerge because of industrial patronage on the on hand and the workers' pragmatic relationship to arts on the other hand, which represents a valuable and connecting element of society as opposed to the somewhat artificial and exclusive relation to high culture to be found in some big cities."

In addition, several participants accorded importance to Protestantism, which they said has impacted local character even before industrial times: elements mentioned earlier, such as modesty, guilty conscience, not being "*gemütlich*" and luxurious but thrifty, concealed and uptight are seen as protestant heritage in contrast to a more relaxed and enjoyable lifestyle in catholic Bavaria some kilometres away. Still arguing from a historically informed perspective, one participant noted that the region had been very rural and penurious in pre-industrial times, with rough climatic conditions. Therefore, people had to innovate and find new ways of making a living, which the participant in question sees as the root of what she called the "local culture of invention". Together with good infrastructure which has been there since Roman times, simply because of the place's topography, she argued, the

transition from a rural culture to industrialization was an authentic, grown development that culturally marked Heidenheim.

The first interpretation this section allows for is that industrial themes were first to come to people's minds when asked for Heidenheims character. This confirms the basic suggestion that Heidenheim is an industrial town. Nevertheless, the roles of territorial assets in the sense of Florida (2005) and Moretti (2012) or "geographic capital", as Helbrecht (2005) calls them, cultural offerings and sports were discussed as well, proving the contrasts Heidenheim embodies. The question of authenticity turned out to be somewhat ambiguous, which the broad range of answers reflects. Still, the reasoning behind each participant's answer delivered valuable insight into the town's character and how the latter is perceived by its inhabitants. The same can be said of the strongly diverging but most interesting animal themes which participants came up with, delivering a detailed characterization of Heidenheim from a multitude of individual perspectives. This can be connected to Florida's statement that a city should ideally be attractive for everybody instead of some predefined role models. Interestingly, Heidenheim university seems to play no major role in participant's perception of Heidenheim's character, which confirms the hypothesis of the university's insufficient visibility that has been given in chapter 3.2.3, based on Laaser & Soltwedels' (2005), Florida's (2012) and Moretti's (2012) analyses of a university's importance to strong modern ecosystems. Basic strengths and weaknesses listed in chapter 3.2 have been confirmed, but a lot of additional information has been gathered. Regarding weaknesses, some of the issues mentioned such as a difficult urban layout and lacking "big picture" in city marketing were indeed identified as results of industrial developments described earlier in this study. This confirms the capability of industrial cultural heritage marketing to put things in a larger context, so that people can understand more easily what problems are and what could be done to solve them. In addition, potential positioning factors such as walkability, based on Florida (2005), were empirically confirmed very clearly. The city's potential in terms of retaining creative capital have become most obvious. Meanwhile, some of the mentioned weaknesses should be tackled as they contradict criteria of creative class attractivity as described by Helbrecht (2005), Misiura (2006) and Florida (2012): for example, the look and feel of the city centre bears much room for improvement, according to focus group participants.

With the second background question, the author probed participants' levels of awareness for diverse aspects of industrial culture, in order to confirm or reject the hypothesis of low awareness developed from theoretic framework and experiential assumptions, which concerns foreground questions six to nine.

As mentioned before, industrial influences on Heidenheim's character and cultural background were obvious to most participants. As to the different aspects of industrial culture presented in the framework of the present study, there was indeed a certain lack of awareness for some of them to be noted. Already during participant recruitment, it became evident that the broad relevance of industrial culture is not tangible for many people. Most people could relate to the direct economic impact of industry, bringing wealth and jobs to their city, and to the physical perspective including buildings with a certain architecture and other tangible remnants of the industrial age, such as worker colonies. Big players like Voith, Hartmann and the former WCM were often mentioned, demonstrating the importance these have to local population. As one person said, "Voith is everywhere, you cannot get past Voith when you come to Heidenheim!". Participants could easily refer to the effects industrial structures have had on city development, in a positive and negative sense: "The town would never have developed like this without its industry, but, of course, industry also had negative impact in terms of environment and urban development." Interestingly, it seems like many participants were in fact subconsciously aware of social-societal and ecological perspectives on industrial culture,[43] whilst being unable to refer to them as such.[44] Nevertheless, some relevant social-societal aspects could be listed by participants, namely the modest but persistent local mindset, the "culture of innovation" and presence of industrially founded social institutions and structures. On a more abstract level, one person reasoned that, since the industrial age, peoples' relation to machines had certainly changed through modern technology and interfaces, but some basic fears were very similar: "Nowadays, people call for better data protection, mistrusting digitization, whereas they feared the steam engine when it first appeared. There is always some level of hesitation involved when new technology is introduced, and people fear loss of control." The same participant also referred to general societal changes in value

[43] See definitions in chapter one.

[44] This has to be seen in the context of Albrecht & Walther's (2017) statement that industrial culture tends to hide in plain sight as people are still very close to many of its aspects in their everyday lives.

creation: “The focus in times of industrialization was probably more on physical creation than today. Nowadays, it’s more knowledge intense.”

The hypothesis that the broad relevance of industrial culture, as defined in chapter 1.2 based on Albrecht & Walther (2017), is unclear to many people could be confirmed. Still, it became apparent during the focus groups that, dependent on the backgrounds of participants, almost everybody could relate to at least one of the perspectives of industrial culture. The physical perspective was most obvious, but it must be said that, in sum, lots of aspects from artistic, social-societal and ecological perspectives were mentioned as well, even though participants’ definitions of these aspects showed by far less precision than when they addressed the most apparent physical perspective. This shows that industrial cultural heritage indeed has potential to bring together inhabitants of an industrial town which have different backgrounds. An interesting pattern observed was that participants with artistic or strongly creative background were aware of more diverse aspects of industrial culture than those working in larger, possibly slightly less creative organizations. Also, the former tended to see a higher relevance of these aspects to modern day life. Some of the statements above show that participants saw parallels between the industrial age and today or could refer to some sort of development leading from manufacturing towards knowledge-based economy, confirming a basic assumption of the present concept.

In the third background question, applicability and perceived relevance of industrial culture to the specific case of Heidenheim and its population were evaluated from answers to foreground questions seven and nine to eleven.

It was obvious throughout the focus groups that people see Heidenheim as a place of industrial culture, even if some of the broader aspects of this topic were new to them. Effects like industrially influenced city structures, architecture and presence of big manufacturing companies are relevant to people in the present, and they are aware of this. People already gave local examples of industrial culture earlier, but when question nine explicitly asked for industrial culture in Heidenheim, an impressive array of aspects could be collected. Again, the physical aspect of industrial culture seemed to be most relevant to participants. Performant infrastructure such as the main roads within the town or highways to reach surrounding towns are seen as results of industrial activity and needs for

transportation. The fact that manufacturing plants reach right into town centre still has high relevance for everyday life in Heidenheim. Interesting in the context of this study, several participants expressed they saw potential to reuse more former industrial buildings for modern purposes and economic activity. One participant once again emphasized the cultural relevance of worker colonies, which often are like small enclaves. In his opinion, these colonies are strongly connected to modern day housing issues, with effects like gentrification.

On social-societal level, referring back to the high level of education with many schools listed as a strength, one participant stated that such education was only possible with solid financial background provided by local industry. Many participants saw an "innovation spirit" as part of Heidenheim's heritage: "The innovation spirit of industrial companies is deeply rooted in Heidenheim's population, also beyond industrial applications. Looking for innovation and change is part of Heidenheim's identity." Another participant saw societal relations in politics: "There have been and still are left wing and even communist representatives in Heidenheim's municipal council, because of the large share of workers and power of the unions." Somebody else drew a line between industrial history and Heidenheim's important share of citizens with foreign origins, which was seen as a cultural enrichment, but also a challenge as it was said that the respective communities tend to cluster in certain quarters instead of merging.

The aspect of social engagement of industrial companies is still perceived to be very relevant, as in the eyes of participants it leads to a strong sense of social cohesion and other tangible consequences for everyday life in Heidenheim: "The connectedness of town and industry is something we have inherited from the industrial age. Both could not exist without each other, and there have been various reciprocal influences. Industry has always been active to improve social and urban conditions. As a result, still today the character of the entire community is marked by industry." On the other hand, the same participant commented: "The industrial mindset is sometimes strongly limited to the town itself. Accordingly, there are no integrated approaches in most areas where regional thinking would be more appropriate. *Lonetal* [an important archeologic site some kilometres away that will be commented in chapter 6.2] for example is marketed in an almost completely separate way from other regional assets." As another downside of this relationship

between town and industry, still the same participant said that big companies like Voith were both a blessing and a curse: “They create wealth and are important for social development, but they are also very directive. In other words, where the Voith money goes things will develop and for the rest they will not.” Other participants added that reliance on “inherited” big players like Voith was not enough. In order to be resilient, more modern and diverse economic structures should be developed. “Big manufacturing companies like Hartmann or Voith are important to the town, but they are also problematic: they still rely on rather stiff and outdated industrial forms of organization which are not really compatible with more modern forms of economy. This leads to a somewhat narrow-minded, prissy or outmoded image which is not the best soil for innovation.” Additionally, Voith is not a consumer brand so one participant saw only very limited marketing value of this company for the town, because the larger public does not know the Voith brand. Hartmann, in contrast, was characterized as a good example of modern economic development, with awareness for their roots as a Heidenheim-based textile company but having transformed themselves into a modern medical supplier. “They are innovative, active in digitization and an important cultural sponsor.” The case of SHW Königsbronn, an iron casting plant dating back to the 12th century that had been partly liquidated recently, was brought in by one participant. SHW is Germany’s oldest industrial company (SHW Casting Technologies GmbH & Co. KG 2018). He emphasized that, during the debate over closure of the plant, the employees had not only tried to save their jobs but always expressed that they perceived SHW as culturally relevant for its role in metal working development.

Finally, the ecological perspective was mentioned in this context, precisely in form of the river Brenz flowing through Heidenheim, which once was strongly polluted by industrial sites and was seen as an element of infrastructure. “Nowadays, its role has changed, there have been successful efforts to improve water quality and it has become a beautiful natural asset within the city.” One person explicitly mentioned a “contradictory or at least contrast-loaded character of Heidenheim”, which she identified as a result of industrial structures: “Hanns Voith was an industrial but also a philosopher who was conscious of tensions between industry and nature very early, long before ecological awareness became mainstream. We mentioned *Talhof* earlier, which was the second or third ‘Demeter’ farm in Germany. So, there is a social and ecological component as well, which implies a special zeitgeist, and

which was ahead of its time." Another participant noted that the spirit of innovation which has marked Heidenheim is now being transferred to other sectors: "Heidenheim officially is an 'organic model region', which is a great thing."

Relevance perception was quasi-statistically measured in question eleven, and the result is to be interpreted as a confirmation of high industrial cultural relevance, with some more details that need to be commented. In average, on a scale from "1" (not relevant) to "10" (most relevant), participants' votes result in an average of "7,8", which would be "clearly relevant"[45]. Among the participants who voted "most relevant", two gave additional information which is worth a brief comment. In one case, there were three exclamation marks behind the vote, expressing a particularly strong perception of relevance. Another participant voted "10" but commented that, probably, the score would not be much more than "3" in the general public's perception: "They are not aware of the historically grown component, only of what they see today." To sum things up, another statement by a participant shall be quoted: "Industry is everywhere in Heidenheim and I am getting aware that almost all aspects of life are deeply interwoven with industrial culture."

This third background question showed how many aspects of industrial culture are to be found if people look at their everyday lives in Heidenheim: they know lots of examples without having been aware of them before being explicitly asked. Many connected themes such as politics, integration, housing, urban design and social cohesion were mentioned. Also, the high perception of these aspect's relevance is an interesting result. There is a clear difference between the perception of industrial culture as such and industrial culture in Heidenheim: for the specific case of Heidenheim, participants could refer to much more aspects and examples and, also, expressed a stronger sense of relevance. This proves that relevance in the sense of a feeling of connectedness to the issue is crucial for successful heritage-based branding. Additional themes that resulted from this section are the omnipresent contrasts and contradictions which the author had suggested as being characteristic of Heidenheim, as well as the spirit of innovation that participants confirmed to be a part of the city's identity.

[45] 10+10+10+9+8+7+7+7+5+5=78, 78x0,1=7,8. One participant did not answer this question, resulting in ten instead of eleven votes.

The fourth and last background question dealt with the issue which aspects participants are most responsive to, implying that these aspects would be best suited for branding purposes in the sense of the present study. This section concerns foreground questions twelve to sixteen.

When asked what value heritage can give to a place, most participants agreed on a basic theme: identity and identification. Strength, togetherness, authenticity, cohesion, roots and orientation were other words used in this context. Once again, one participant will be quoted literally in order not to lose valuable contextual information: "Heritage can offer a sense of identity to a place like Heidenheim which is somehow caught in an identity crisis: the industrial age is over, but Heidenheim is still an industrial town. So, what is the city's identity? We have to understand that industry is a result of creativity. There has to be room to freak out and innovate. Therefore, it is absolute necessary to present heritage in a way that people can relate to. Understanding the relevance and context are crucial! We have to reinterpret heritage in a way beyond the merely museal approach, to find an approach that makes sense."[46] Another person underlined how preservation and valuation of historic architecture can bring value to a modern city, by improving its attractivity: "Heidenheim has diverse architecture from different eras, which makes the place very authentic, you can read heritage like a multidimensional book." Thus, ancient buildings or places with important history should be valued to give a stronger sense of identity to the town, which is possible if people feel connected to this heritage. Furthermore, participants paid attention to the individuality inherent in heritage: "Heritage will give each place an individual coinage. A city and its character can only be understood if one looks at historic influences, the town's heritage: which religion was prevalent, what was the town's status at certain points in time, etc. It can also serve as a source of inspiration for what the place is to become in the future. Heritage is able to give orientation to citizens."

As to factors of strong experience, all participants without any exception agreed on one aspect: emotions. "Emotional connectedness is super important! One has to feel concerned by what is going on. Culturally speaking, there should be possibilities to

[46] The author used an almost exactly identical wording (i.e. post-industrial identity crisis of an industrial town) earlier in this study when making basic assumptions on Heidenheim's image. Therefore, it shall be made explicitly clear that the present quote is a deliberate and uninfluenced statement of a participant which was translated literally.

open up experiential spaces and fill them in creative ways. The danger is that this process might seem too pedagogic. I think there should be some degree of guidance towards experience, but not in the sense of a teacher. It should rather be a setting which allows for proper, individual experiences." This quote shows the importance participants accord to relevance and individuality. Another participant explained: "Talking about history, if there are elements one can refer to personally, he or she will automatically feel more connected to history and the sense of relevance will increase accordingly. Everybody is part of history, there is not 'one' history." Going further, still another person said that, in contrast to emotions, rationality tends to weaken experience.

When asked explicitly for rebranding potentials, one participant stated that, first of all, Heidenheim should establish any kind of image: "There is no coherent image and a stunning lack of self-esteem. The actual assets such as the incredible opera festival are not marketed aggressively enough. I think Heidenheim does not know what it is and where it comes from. Heritage-based communication has enormous potential here!" The branding potential of Heidenheim's offerings in terms of culture and sports was confirmed by most participants, as was the need to build a stronger sense of self-confidence and self-conception. "Heidenheim has to reflect more what or who it actually is in order to move forward." Another person added that Heidenheim was an attractive place, so the negative aspects form a stronger contrast and are highly visible, to conclude that fostering self-confidence was crucial. It is in this context, and, remarkably, only in this context that Heidenheim university was explicitly mentioned as being of importance for city development. Precisely, a participant suggested to create a stronger profile by extending the university's portfolio with local focus: courses like sports management could be offered to reinforce partnerships between university and other local players.

Most people agreed that Heidenheim has many interesting fragments in very different sectors, but these are sometimes contradictory and oppositional, leading to a town identity which is difficult to pin down. The difficulty, thus, is to find a strong and authentic overall brand. "The brand is definitely versatile and bears contrasts: we are a sports town, but also a cultural festival town. The big challenge is to assemble these elements to a coherent overall brand. Towns with only one clearly defined strength have an advantage here, in terms of branding and

communication. Heidenheim has several identities which lack connection." As solutions for this problem of unconnected brand elements, two basic approaches were suggested: two participants saw potential in surrounding nature and referred to the 2006 Baden-Württemberg garden festival, hosted in Heidenheim, which in their eyes had created an exceptional feeling of cohesion among citizens. Others regarded the town's individual history as even more suitable to build a brand upon, because of its uniqueness. More precisely, seven participants stated that industrial history might serve as a foundation for a stronger image, simply because of its importance for Heidenheim that had been assessed earlier. Things got even more elaborate with one participant referring to the town having been marked by its double role between nature and industry for a long time: "This is highly relevant today, as aspects of environmental protection and questions about how to adapt our economy become more popular. Therefore, Heidenheim should put forward its industrial heritage and become greener at the same time: why not hide some of the ugliest buildings in the city centre behind modern vegetated fronts? It improves air quality, looks nice and is pretty unique…" In the same sense, participants regretted that many relevant historic industrial buildings have been demolished already. Concluding on question 14, one participant made the following statement: "There is need to be creative and innovative in terms of branding, the situation is far too difficult to use 'conventional' branding methods. That's utterly boring, as well… And if these methods have not worked so far, there might be a reason for that!"

This last statement leads over into the question where people were asked for free, creative input. A recurrent theme in this section was that city development needs to be opened up into more diverse disciplines: literally everybody and everything is concerned, so participants saw a need to be more courageous and more creative to build a stronger profile as a city. The same idea of courage is reflected in the following comment: "There should be no fears about communication, but a pro-active approach, fostering sense of identity and self-consciousness. Again, there is a certain crisis of identity in Heidenheim, and, therefore, public relations are rather defensive. If the people of Heidenheim understood more about their industrial roots and who they actually are, this could change for the better." Several participants were convinced that change has to result from conviction among inhabitants to be sustainable, as opposed to an artificial top-down approach: "People will only feel the need to act if they feel engaged and if the topics are relevant to them. If

Heidenheim is ‘cool’ again, more people will act and buy locally which is very important in times of ‘Amazonisation’ of economy. We have to develop more of an emotional culture of experience.” Others stated that Heidenheim needed more gastronomy and pubs to make the city centre more attractive. They were sure that sufficient demand would be there, if matching offerings existed, which they underlined by giving some examples of existing events and restaurants. Finally, two participants brought up the constructive cooperation between industry, municipality and citizens once again, which they thought was remarkable.

When asked for the most important aspect discussed during the focus group, one participant suggested that finding meaningful ways of connecting industry and culture had enormous potential for Heidenheim. “These ways need to be examined in detail to build a stronger identity.” Others commented that the city had potential to be a sustainable place. “There is development and things are moving, which is positive.” One person was convinced that there was an identity and a goal, so the gap which needed to be filled was a communication gap. Further, he said that “The aspect of cultural and historic background is very important: Heidenheim still breathes the basic spirit of working class which consists of ‘doing’ and innovation.” One participant pointed out that she was surprised by the fact that, despite different perspectives and backgrounds, the group’s vision of the towns strengths and weaknesses had been rather homogenous.

All in all, the identification of emotional engagement, relevance, authenticity and individual experienceability as important factors for branding in the sense of Misiura (2006), Pine & Gilmore (2011), Florida (2012), Meffert *et al.* (2014) and Newman *et al.* (2019) can be confirmed. These directly relate to even more positioning factors from chapter 3.4, such as interactivity and multidimensionality. From participant’s statements, a clear vision of the potentials inherent in industrial cultural heritage marketing and the promotion of creativity can be deduced, especially that more creative approaches to city development and city marketing could lead to a highly desirable new perception of Heidenheim’s identity, as suggested earlier based on the work of Jacobs (1961) and Florida (2012). The strengths of cultural heritage marketing which were presented in chapter 1.2, brought together with principles of place branding from chapter 2.3, have thus been empirically confirmed. Authenticity, presented as an important positioning factor

earlier on, was strongly emphasized throughout participants' comments on different aspects of heritage and branding, which is reinforced by frequent mentions of heritage as a driver of identification. This relation had been suggested earlier based on assumptions of Karmowska (2003) and Misiura (2006). The lack of an overall Heidenheim brand image and participant's judgement that heritage could indeed serve as a foundation of such a brand are interesting findings as well, if the importance of such "umbrella brands" that have been referred to (Anholt 2010) is recalled. Some of the statements which have been summarized contain ideas on how to exploit potentials inherent in Heidenheim's contradictory character, such as coexistence of nature and industry or "old" and "new" economic structures, which matches findings of Krätke (2005), Fritsch & Stützer (2009) and Abankina (2013) that were mentioned in earlier chapters.

5 Conclusions

5.1 What Can Be Said?

One result of the focus group interviews is that there is indeed a structural problem underneath Heidenheim's economic wealth, as the author had suggested in the introduction: the town seems to be caught in an identity crisis as a post-industrial town still heavily dependent on industrial structures. This, together with an apparent local tendency to underestimate Heidenheim's qualities and value is problematic in terms of societal and economic development. At this point of the study, it can be said with certainty that the concept of rebranding Heidenheim by its industrial cultural heritage in order to promote it as a future-oriented location for people and economic activity bears potential. The most important key elements as there are creative capital theory and industrial culture have been studied in depth and the author concludes that both of them are applicable to the case of Heidenheim, at least to a certain extent. In the findings chapter, some clues on the town's creative class attractivity have been given. The manner participants responded to different conceptual components was encouraging, as, across all professions, ages and individual backgrounds there was a sense of togetherness and common roots.

The present concept is a novelty as it makes use of industrial culture not only for museal purposes or artistic expression. Thus, beyond the inherent branding potential which has been described, a "wow"-effect might be caused by the unusual

combination of different disciplines, amplifying the economic and societal impact of the concept.

A strategic vision has now been established, which is an important element of place sustainability, according to Kotler *et al.* (1994). Additionally, a clear short-term objective will be outlined in the recommendations chapter. Beyond branding, it can clearly be stated that Heidenheim bears the potential to become a modern economic cluster with a prosperous future, if the importance of certain factors is recognized and taken into account.

5.2 Uncertainties

An element of uncertainty is whether a critical share of inhabitants will actually see the need to change Heidenheim's image and, on the long run, develop its economic structure to pave the way for future challenges. If people are unhappy with their town's quality, the assumption that they are consequently willing to change things might be rather optimistic. Nevertheless, if the implementation of the present concept allows locals to rediscover their cultural roots and better understand the circumstances of Heidenheim's development, calling them to action might well become easier. But the concept has to be framed and promoted both logically and holistically in order to communicate its potential and values in a successful way.

5.3 Critique of the Study

Due to the relative complexity and novelty of the topic, focus group participants needed to receive a short introduction from the author's perspective to see the context of research. This might have led to a certain bias. This eventual bias, though, is inevitable in this type of qualitative study as the absolute indifference of the researcher is neither possible nor desirable: the implication of the researcher's experiential knowledge can not only be a threat to the study's validity but also an enrichment leading to otherwise inaccessible insight. As Maxwell (2009) states, if the influence of the researcher is inevitable in qualitative research, the goal is to understand it and make use of it. The risk of excessive researcher bias was reduced by giving a summary of the focus group in the presence of all participants, providing them with an opportunity to correct eventual misinterpretations. In addition, the researcher identity memo provided in the appendix (i.) served to reflect on the

author's role within research context. During data analysis, all potential contradictions within the data set were explicitly reflected by the author in relation to the framework. While lacking great statistical precision due to its qualitative nature, the present study does provide "quasi-statistical" evidence for some of its key statements (Maxwell 2009): the analysis of recurrent patterns, frequencies and scale-based judgements in participant data bears an implicit quantitative component.

Even though the focus groups basically confirmed the assumed image-related problems Heidenheim faces, it could be argued that the town is currently doing "all right", economically speaking. This could be used as a base to question the necessity of searching for novel and holistic marketing approaches such as the present. The author argues, though, that efforts to modernize a brand and become aware of underlying cultural phenomena need to be taken *before* actual problems arise. In other words, if the town waits for its current economic players to get into crises, it will be much more difficult if not totally impossible to catch up branding.

The scope of the present study is definitely undersized as compared to the suggested extent of rebranding efforts (see also recommendations section). Also, the issue of holistic reconsideration of industrial culture which has been risen based on the study's framework is to be seen in a much larger scale than only city marketing. Thus, this study can only be the starting point for future extensions that will take much more time and effort. On the other hand, as opposed to a more general approach, the high degree of case-specific operationalization which can be found in this study is an indicator of actual applicability under the given circumstances. If the suggestions for implementation are possibly not generally applicable, the framework is still based on a broad array of theoretic evidence which grants for transferability.

6 Recommendations

6.1 How to Embed the Concept in Existing Strategies?

On a general level, it can be said that investment in the field of industrial culture and heritage-based marketing will definitely pay off in the case of Heidenheim.

Such approaches are efficient and have greater leverage potential than many other possible measures of city marketing and economic promotion.

To fully exploit these effects, the municipality will have to embed its heritage-based branding strategy into existing structures. To name some examples, Heidenheim's general digitization strategy "Smart City" (Stadt Heidenheim 2019d) will have to consider these rebranding efforts and the digital tools that might result from them. As it has been explained, heritage can profit from digitization because of its potential to increase experienceability, but, on the other hand, heritage can give a digitization program the rooting it needs to be accepted. The town's major cultural institution, the opera festival, is part of a Europe-wide network of modern cultural projects called "TRAFO", which aims at finding new forms of cultural mediation (Kulturstiftung des Bundes 2019). An integration of heritage-based elements of local industrial culture into this program seems possible and desirable. The chamber of commerce for the Ostwürttemberg region is based in Heidenheim (IHK Ostwürttemberg 2019b), and there is a clear relation between their activities and industrial culture, especially as they are a stakeholder in the digital incubator of which Dock 33 is part (see chapter 3.2.4). Without going into details too much, there are obviously various ways of connecting the present rebranding concept to existing structures.

Besides all digitization efforts, a small and easy step into the direction of valuing industrial culture as an element of local identity according to the principles elaborated earlier is the use of historically related names. For example, the different buildings within the WCM area which are now being reused could still be named according to their historic function instead of tagging them in a completely unrelated manner as is the current tendency. Thus, the buildings in which Dock 33 is located could still be called "*Sengehalle*" and "*Ballenlager*"[47] according to their former roles in the textile printing process to convey their authentic DNA of place. Accordingly, the building next door nowadays called "*Rote Halle"* ("red hall") is in fact the ancient WCM gravure building ("*Gravüre*"). It is a true pity the newly created street leading to Dock 33 and the surrounding buildings was named after Gottfried Wilhelm Leibniz. Even though Leibniz surely was an important and

[47] "*Ballenlager*" is the ancient bale storage building, and in the "*Sengehalle*" heat was applied to raw cloth to eliminate loose fibres before printing.

influential scientist, he has no relation at all to the site and its historic meaning. This decision is particularly incomprehensible as there would have been plenty of names related to the history of WCM and Heidenheim's former textile industry that could have been given to this street. In short, if rebranding efforts based on local cultural heritage are to be taken seriously, a sense of authenticity will have to be implemented in all departments dealing with aspects of city development.

6.2 Translating the Concept into an Interface

Based on the theoretic concept presented so far, a look shall now be taken at how this possibly translates in an interface that will effectively engage consumers.

The author proposes the development of an app which allows to experience elements of local industrial culture using AR technology and multidimensional content: images, videos, texts and audio elements will deliver valuable context to sites like the Dock 33 complex. Thereby, the app would be able to deliver background information and relevant facts to consumers.

While working on this concept, the author gave the app project the working title "Zeitbrücke", which is a German neologism meaning "time bridge". This name tag already transmits a lot of the concept's character: what it does is building a bridge between different points in time which the individual can use to establish meaningful links to better understand his or her own role. A bridge in its physical sense will connect two banks of a broad stream, between which communication and idea exchange have been much more difficult before the bridge was built. Thus, residents of shore "A" might have had preconceptions about shore "B", but no direct experience. Also, a bridge can be used in different ways: one can walk across the bridge at a steady pace, but another individual might prefer to go more slowly or to stroll back and forth several times to compare aspects of each shore. The bridge breaks down barriers and facilitates exchange, it puts both shores in relation and makes their inhabitants see themselves in a larger context. "Zeitbrücke" does the same thing, replacing shores "A" and "B" by past and present. For the time being, the interface has been conceived for the case of Dock 33 and its historic buildings formerly used by WCM.

In practical use, visitors of Dock 33 will download the app onto their smartphones and start discovering the vivid past of the place: by scanning objects that are marked accordingly, augmented content will unfold and make the asset come alive. Thus, instead of merely "standing in front of an old building", the visitor can experience what this building actually meant to those who built and used it before. Images of how the building was used in ancient times will pop up, together with explanations so the individual can understand the relevance of this whole former activity. For example, a young start-up entrepreneur using the infrastructure of Dock 33 will be able to see his or her own work in the context of Heidenheim's historically grown economic fabric. Where thousands of workers once printed calico which was sold globally, now, innovations for future post-industrial forms of economy will emerge. In a nutshell, one message might be that Mr. Meebold and his engineers were the code writing geeks of the 19th century. Visitors and users of Dock 33 will see that Heidenheim has always been welcoming innovators and that their decision to come there was a good one. This precise case exemplifies how creative class attractivity can be increased and the experience factor obtained through implementation of this concept is emphasized.

The modular conception of the interface allows for truly customized consumer experience. Each "walk across the bridge", to use this picture once again, will be different, dependent on the individual's preferences and interests. In addition, the interface will be able to seamlessly integrate more elements of local cultural heritage in case of future extensions. The author's long-term vision includes current local industrial companies as well as cultural institutions that could unlock their respective legacy on the present concept's basis, creating a tightly knit network between companies, economic promotion and cultural background in which the individual can get immerged.[48] Organizationally speaking, the result could be a strong form of public-private partnership, connecting university, R&D, businesses, culture and administration to create a digital communication tool for that type of ecosystem which has been identified as desirable in the framework. For the

[48] For private companies, such an app network could one day serve as a new, local channel of digital publicity that will earn a positive connotation in times when people fear the intransparent power of GAFA platforms and try to retrieve a sense of local community. Besides the public, there is added value for a business to be unleashed: a business delegation from China, for example, instead of being bored by just another classic company presentation using PowerPoint, will be positively surprised by the innovative spirit inherent in such an interface and take away a much stronger, multidimensional impression.

consumer, the identity of Heidenheim as a place to work and live becomes tangible in a sustainable and authentic way. Further outlining of this long-term objective, though, exceeds the scope of the present study.

In the present case, an AR application is especially appropriate because of the theoretic work of Richard Florida regarding the attractivity of place for the creative class which has been identified as important for economic and social development of cities. Part of the whole concept is the de facto absence of usage barriers, the only criteria being a smartphone on which the app can be installed. The approach thus allows for true "plug-and-play integration", it adds value to existing assets and will stimulate consumer's creativity by its innovative character. Summing up, an app like the one presented here fulfils all of Florida's criteria for making a place attractive for the creative class and therefore represents a valuable contribution to city development.

As shown in the framework, multidimensional experience is not only a trend fuelled by technological development but most of all a driver for sustainable learning and understanding. Thus, the development of a multidimensional AR-based application for branding the place through its cultural heritage was identified as an effective step in the direction of creative economic promotion and strategic moves in order to modernize Heidenheim's economy and to strengthen its brand image among the target groups that have been shown relevant.

A prototype of such an interface has already been developed by a Heidenheim-based communication agency (Agentur Graustich 2019) following the conceptual approach of the present study. Currently, the prototype is modelled around the site of Dock 33, located in two historic WCM buildings. As the interface is not yet accessible to the public but only being used for presentations, the choice has been made to deploy it in form of a virtual reality map as a first step. This approach is to be seen as a technology demonstrator that is able to leave a strong impression with visitors due to its focus on the use of modern technology: the virtual map of the area can be experienced using virtual reality glasses or a desktop interface, "clickable" reproductions of historic buildings unfold augmented content on their history and changing relevance across times. This VR application can be used by every person who owns a matching VR device, regardless of physical position. Screenshots of the prototype are provided in the appendix (v.), together with photos of Baden-

Württemberg's Minister for Economic Affairs, Mrs. Nicole Hoffmeister-Kraut, testing the VR application in presence of the author on July 11th, 2019 at Dock 33.

For broad public use, as described earlier, an AR-based interface will follow. The author is convinced that the use of augmented reality comes as close as possible to the theoretic concept explained so far, mainly because of the lower barriers of use. AR is at the same time modern enough as a technology to be exciting and established enough to be actually used.[49] An application like the one presented here can be considered as a "low-profile" approach, meaning that it does not rely on costly and inflexible physical equipment. This grants for easy embedment of the app and its possible extensions into both existing and future concepts from different sectors.

In addition to all the digitally based measures discussed so far, the author strongly recommends the installation of a museum retracing the industrial cultural heritage of Heidenheim. Already during the relatively short amount of research time dedicated to the historical content used in the present study, the author was confronted with an incredible amount of historical records and collections which are totally unknown to most of the current population of the town. The entire archive of WCM, including such elements as interesting imagery, historic pattern-books, catalogues, tools, machinery and documents of all kinds is preserved by the local historic society and just seems to wait for being made accessible to the public in an attractive and relevance-centred form. This very collection is able to tell the story of what has been and still is probably the most important cultural development in Heidenheim during the last three centuries, from pre-industrial to post-industrial times. Also, in WCM's former administrative building, the complete director's office is preserved, including its authentic 1960s equipment. Currently, this room is leased to a medical service provider, confirming the lack of awareness for local industrial heritage that was referred to earlier. This room could serve as an anchor point for a future industrial museum. Within the AR app, a link could lead to an info page of the museum for those who are interested in more detailed information

[49] In recent years, many places have installed AR-based concepts in their city centres. An example of a simple but effective way to tell the history of a place is visualized in the appendix (iv.): the city of Schweinfurt has digitized its historic centre through installation of small indicators supporting QR codes that can be scanned with any smartphone. The content provided in Schweinfurt, though, is entirely historic in nature and shows no apparent connections to current economic activity in the city, as the author experienced.

on the industrial past, beyond the heritage-related aspects presented within the app itself.

A technical issue concerning augmented reality is the fact that, in order to successfully use an AR app in the way that has been presented so far, mobile network coverage by 5G technology is needed. Currently, Heidenheim and Germany in general do not yet have area-wide 5G networks (Metzger 2019). These networks are about to be deployed over the next years.

On the long run, the concept of "Zeitbrücke" could be extended beyond industrial culture, once this most relevant topic is covered. Having established how industrial culture shaped modern ways of living, a bridge can be built towards traces of pre-industrial society which are present in Heidenheim and its surroundings as well. One day, one could even experience human culture from the nearby exceptional archeologic sites where some of the oldest known artefacts of stone age craftsmanship were found (Archäopark Vogelherd 2019; Stadt Heidenheim 2019a) up to post-industrialism using trendsetting technology. The exceptional power of Heidenheim as a sustainable brand lies in the fact that it reunites remnants of all of these periods within a small area. If the relevance of this cultural treasure is brought to larger awareness, the city will come much closer to a forward-looking identity as a place to live and work.

6.3 Bottom Line Suggestion

The author's main take-away from research on the present conceptual ideas is that people should start seeing elements of economy, society, culture and heritage as being more deeply interwoven: one cannot look at sustainable city marketing without considering heritage, and it will be very difficult to strengthen local economies if one fails to understand the relationship between city economics, creativity and social diversity. As a result, the strong organizational focus on departmentalization, which, by the way, is a product of the industrial age, is to be reconsidered. If cities want to be prepared for the future, they will have to promote thinking across border lines and bringing together elements that might seem contradictory at first sight. Such was the case in this study with industrial culture and creative capital theory. Having the courage to turn upside-down patterns which are seen as "given" can, in the worst case, result in some sort of operational failure.

But, on the long run, it will inevitably generate new perspectives and unleash creative potential, challenging common definitions of "success" and "failure".

WCM has played a key role in the development of Heidenheim as a city and the whole Württemberg region as one of Europe's economic powerhouses. The story of WCM and Heidenheim's textile industry in general is a rare and remarkable phenomenon as it allows to track economic and social developments from pre-industrial times through the entire process of industrialization and the heydays of the industrial age, right into deindustrialization and, finally, modern times of digitization and new forms of economy. Thus, it bears the potential to show how largely the different and often underestimated aspects of industrial culture have impacted and still impact modern-day lifestyle. Societies will have to reconsider what they see as relevant elements of everyday culture, and, hopefully, it has become evident over the last pages that innovative city marketing can play a key role in this context. The relevance of industrial culture is still widely underestimated. As it has turned out, exploiting the treasures of industrial culture for city marketing is a means of explaining why modern-day society is like it is.

If people hear "industry", they will think "factory", but only rarely they realize how deep industrial principles of organization are embedded in modern-day life, even in fields that seem far away from industrial production processes, as has been shown earlier in this study. In 2019, society still follows patterns which go back to industrialization, and these patterns have become so natural people often lack to see their presence as well as the fact that there are alternatives to them. The transition from industrial to post-industrial society, however the latter may be called one day, requires awareness, questioning and possibly even changing of these societal patterns. It is the awareness and questioning part that the present concept of innovative heritage marketing based on industrial culture can attempt to provide. Change, then, has to result from people's convictions, based on orientation, self-esteem and broad appreciation of creativity in all its various forms.

Hopefully, the present study is able to show that making experienceable WCM's and Heidenheim's outstanding potential of linking industrial cultural heritage to economic and societal challenges can open out into a variety of constructive ways for tackling the future of city development. It is up to the town's current inhabitants to build new forms of value on the foundations of their common industrial past.

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8. Appendix

i. Author's Researcher Identity Memo on the Image and Identity of Heidenheim (according to Maxwell (2009:225))

As a young inhabitant of Heidenheim, it is difficult to tell when I really started to follow economic, cultural and societal developments in my hometown. When growing up in a place, there are things which have "always been there": like many other people in Heidenheim, I was impressed by the strength of our local industry, as well as by the city's high-class cultural offerings. We felt and still feel a lot of trust in these institutions as they have been there for a long time and, of course, their situation and perspectives were generally presented to us as being great. The lack of sustainable structures in the town centre, for example, was inapparent to me for a long time. Through my implication in cultural activities, working in cultural and touristic departments, and of course my general interest in economics, I began to question a situation that, under a lot of aspects, I had been taking for granted.

Reading books written by other "Heidenheimers" (Rogowski 2004; Lazzer 2010) made me develop an understanding of the large impact local industry had had not only on economy in a strict sense but on people's lifestyles, education and assumptions in general. It was through my studies of business that I became aware of some underlying structural issues that started to intrigue me: why is it that, despite the aforementioned assets, so few people were proud of their town? Why had Heidenheim such a weak image in surrounding cities? And why was there such a lack of awareness for some of the towns potentials I was convinced of, especially in areas like industrial culture? Could it be that, in the shadow of relying on "big players" such as multinational manufacturing companies, the cherished football team and cultural events, some more discreet streams of economic and – even more apparently – social development had failed to be recognized?

There is this feeling of a place so familiar and natural that, often, we are totally unaware it is even there. This feeling sort of turns us blindfold, but it also makes us understand the fabric of a place in a way that a stranger probably will never experience. Equipped with the deep insight of a native and a sharpened view on social-economic theory, I developed own opinions on what was going on in Heidenheim. Thus, I became convinced that Heidenheim's society was still looking for its new, post-industrial role within a town that was still strongly relying on

industrial economy. Industrial processes, developments, organization and ways of thinking had become omnipresent components of Heidenheim's fabric over time and had now reached the status of invisibility because they were just too obvious.

I then realized that some of my highly individual cultural assumptions and interests could eventually become parts of a possible strategy to tackle the problems I had become aware of: taking elements that are contradictory and troublesome, isolating them from their initial context, and reconnecting them in an unexpected but purposeful way. Looking back, I became aware that "contradictory" was probably the adjective that described my personal image of Heidenheim best. Contradictions of some sort had always been there: thriving manufacturing and high culture on the one hand, unexploited cultural and social potential on the other hand. Industry and nature. A place of amazing innovation that failed to reinvigorate its town centre.

This awareness of contradiction and its inherent potentials is one reason why the present concept of investigating the possible use of industrial culture as a source of power for social and economic development came to life – in a way, it represents the sudden discovery of the "big picture" that was hiding in plain sight. Once aware of these underlying assumptions, assembling the existing elements into the present concept felt more like allowing for something most natural to happen than forcing something new to become reality.

ii. Map Showing Heidenheim and Competing Cities

iii. Focus Group Organization and Logistics

a) Participant Registration Form

Johannes Röder
Schülestraße 82
89522 Heidenheim

Sehr geehrte Teilnehmer*innen,

vielen Dank, dass Sie sich an diesem Fokusgruppengespräch im Rahmen meiner Bachelorarbeit beteiligen. Ihre Teilnahme leistet einen wertvollen Beitrag zur Erforschung neuartiger Ansätze der Stadtentwicklung und Wirtschaftsförderung in Heidenheim. Ich bitte Sie, die folgenden demografischen Angaben zu ergänzen sowie der untenstehenden Datenschutzerklärung durch Unterschrift zuzustimmen. Bei eventuellen Fragen stehen wir Ihnen gerne zur Verfügung.

Vor- und Nachname:_____

Geschlecht: O weiblich O männlich O sonstige

Alter:_____

Datenschutzerklärung:

Ich stimme der Tonaufzeichnung des Gesprächs innerhalb der Fokusgruppe sowie der Auswertung und Verarbeitung der aufgezeichneten Gesprächsdaten zu Forschungszwecken im Rahmen der Bachelorarbeit von Herrn Johannes Röder an der HTW Aalen unter Mitarbeit der Stadt Heidenheim zu. Mir ist bewusst, dass der Mitschnitt des Gesprächs zu diesem Zweck in anonymisierter Form transkribiert und gespeichert wird. Die Auswertung schließt unter Umständen eine Interpretation der anonymisierten Daten gemäß wissenschaftlichen Standards ein. Eine über diesen klar abgegrenzten Forschungszweck hinausgehende Verarbeitung der Daten findet nicht statt.

Datum und Unterschrift:_____

b) German Translation of Research Questions

Internal overall study question "level one", as presented in the "relevance" section at the beginning of the study:

Wie könnte der lokalen Bevölkerung und Auswärtigen das Image Heidenheims als Ort der Innovation und des Unternehmertums ausgehend von lokaler Industriekultur zwecks Generierung sozio-ökomischen Wertes vermittelt werden?

Level two, „background questions":

Können die angenommenen Image- und Charaktermerkmale Heidenheims empirisch bestätigt werden?

Kann das niedrige Bewusstseinsniveau bezüglich verschiedener Aspekte der Industriekultur empirisch bestätigt werden?

Wie nehmen Teilnehmer die Relevanz der Industriekultur für ihr Leben in Heidenheim wahr?

Welche Aspekte der Industriekultur stoßen bei den Teilnehmern auf die größte Resonanz?

Level three, operationalized "foreground" questions:

Können Sie zu Beginn versuchen, Heidenheim ganz grob und in wenigen Worten zu charakterisieren? (Einstiegsfrage, breite Antwortmöglichkeiten. Zugang zu generellem Image und den wichtigsten Aspekten vor dem Gespräch)

Fällt Ihnen irgendetwas zur Stadt ein, was Sie für wirklich außergewöhnlich halten? (mehr Präzision, in Richtung markenorientierte Charakterisierung)

Wenn Heidenheim ein Tier wäre, welches Tier wäre es? Und warum? (Schafft Reflexionsbedarf, Projektion und Deskription)

Ist Heidenheim ein authentischer Ort? Warum/warum nicht? (Positionierungsfaktor Authentizität)

Können Sie auf diesem zweigeteilten Blatt kurz die für Sie persönlich wichtigsten Stärken und Schwächen der Stadt als Wohnort skizzieren? Maximal 3. (durch individuelle Stärken- und Schwächenreflexion entsteht ein präziseres Bild von den Einstellungen der Teilnehmer. Die jeweiligen Gedanken werden in einem Ranking

dargestellt, um eine quasi-statistische Mustererkennung durchzuführen und Prioritäten zu bestimmen.)

Können Sie beschreiben, welchen kulturellen Hintergrund Sie mit Heidenheim verbinden? (nicht hochkulturell! Vom allgemeinen Image zu kulturellen Aspekten.)

Was fällt Ihnen spontan ein, wenn Sie den Begriff "Industriekultur" hören? (Erkundung des Bewusstseinsniveaus in Sachen Industriekultur, bezogen auf den Theorierahmen.)

Können Sie drei Beziehungen, ob Parallelen oder Kontraste, zwischen dem Industriezeitalter und heute nennen? Ganz egal, welcher Lebensbereich davon betroffen ist. (Wie vielfältig ist das Bewusstsein der Teilnehmer für die unterschiedlichen Aspekte der Industriekultur? Welche Teilaspekte sind geläufig, welche nicht?)

Welche kulturellen Elemente mit irgendwie geartetem Industriebezug fallen Ihnen am Beispiel Heidenheim ein? (Transfertest: wird die Relevanz industriekultureller Aspekte für den Standort Heidenheim jetzt wahrgenommen?)

Auf welche Weise, wenn überhaupt, sind diese kulturellen Elemente für uns in der Gegenwart relevant? (Erkundung der Arten von industriekultureller Relevanzwahrnehmung.)

Wie stark schätzen Sie diese Relevanz auf einer Skala von 1 (nicht relevant) bis 10 (höchst relevant) ein? (Quasi-statistische Darstellung der Intensität industriekultureller Relevanzwahrnehmung.)

Fällt Ihnen irgendetwas konkretes ein, was kulturelles Erbe einem Ort in Gegenwart und Zukunft geben kann? (Jetzt explizite Frage nach der Kraft von kulturellem Erbe. Wie schätzen Teilnehmer diese ein? Entspricht dies dem Theorierahmen? Sind sie uneins mit der Theorie oder ist sie ihnen nicht bewusst?)

Können Sie Faktoren nennen, die eine starke Erfahrung ausmachen? (Bezug zu Positionierungsfaktor Erfahrung.)

Zurück zum Anfang: Worauf könnte ein differenzierteres Image aufbauen, dass Heidenheim stärker von den umliegenden Städten abhebt? (Aufforderung zum kreativen Input. Was wird als besonders relevant angesehen?)

Haben wir Ihrer Meinung nach über irgendetwas wichtiges nicht oder nicht genug gesprochen? (Möglichkeit, zusätzlichen Input frei von Vorgaben zu geben.)

Welcher war für Sie der wichtigste Aspekt, den wir heute besprochen haben? (Identifizierung der wichtigsten Aspekte aus Teilnehmersicht nach dem Gespräch. Entspricht dies dem Konzept? Warum/warum nicht? Wie verhalten sich die nachher-Antworten im Vergleich zu den vorher-Antworten?)

c) Logistics, Preparation and Moderation

Following Krueger & Caseys' (2015) instructions, relevant participants were identified and recruited as a first step. In parallel, the author arranged for the focus group logistics, organizing a suitable room in Heidenheim's town hall as well as moderation equipment such as a flipchart, name tags, drinks and a recording device.

Focus groups took place on the 24th of June and 1st of July 2019 in the late afternoon.

Further, the actual focus group sessions were prepared in detail by the author together with the assistant recruited to help with recording and taking notes. In this phase, a moderation guide and a seating plan were developed. In this seating plan, for example, presumably dominating characters were placed close to the moderator to keep better control over the discussion. For each focus group with five to six participants, about 90 minutes of discussion time were envisaged. This proved to be a realistic assumption. Nevertheless, the author was prepared to omit certain questions in case of lack of time. Questions had been designed prior to the recruitment process, as has been described in detail in chapter 4.3.

Before participants arrived in the room, basic preparations were made such as setting up name tags, handing out blank pieces of paper and pens and checking the recording device and flipchart. Usually, these preparations began one hour before participants were scheduled to arrive.

Upon arrival, participants were welcomed by the author and his assistant. As a first step, everybody was asked to complete the registration form shown in appendix iii. a). A short introduction by the author followed, which was carefully designed in order not to direct the discussion in one specific direction while giving enough conceptual orientation to participants. To encourage participants to really express their personal opinions, the author also emphasized that there were no "wrong

answers", the goal of the focus group being to gain insight and not to obtain consensus. Participants were informed that, after most questions, they should not answer immediately but jot down their thoughts on a piece of paper before presenting them to the group. The intention was to limit effects of group dynamic bias in the form of pressure to conformity or exaggerated polarization. For some questions, though, the spontaneous reactions and associations of participants were of major interest, so they were asked to just say what came to their mind.

Before switching to the actual questions, participants were asked to present themselves to the group in few sentences.

At the end of the focus group discussion, a brief summary was given by the assistant moderator to avoid misunderstandings.

As has been mentioned in chapter 4.3, one individual interview was held in addition to the focus group, as the participant in question was spontaneously unable to attend the focus group meeting. The strong motivation the participant showed, together with a high degree of competence, made the author go for this solution.

d) Recruitment Plan

The general recruitment principles applied to this study match the guidelines of Maxwell (2009) and Krueger & Casey (2015). Participants were recruited in a process of purposeful sampling, according to framework and study goal. They have been selected because of their relation to the city concerned, i.e. they are inhabitants of Heidenheim. Additionally, they meet criteria that are derived from the study's framework:

1. They are part of the creative class according to Florida's definition (see chapter 2.2).
2. They have interest in Heidenheim's economic and social development (as, for example, their personal quality of life depends on it).
3. They have a justified opinion on Heidenheim as a place to live and work, including strengths and weaknesses (i.e. they live and work in Heidenheim).

In order to recruit participants, the author created a pool of 43 candidates. A random subset of participants was then selected out of this pool, with one round of re-selection that became necessary for logistical reasons and time constraints among

participants. Participants were contacted by e-mail, phone, electronic messenger services or, in some cases, addressed directly by the author upon occasion. In the end, there have been eleven participants with an average age of 44,4 years, spread between 19 and 65, and the male-female ratio was six to five, as can be seen in the following table.

e) List of Focus Group Participants

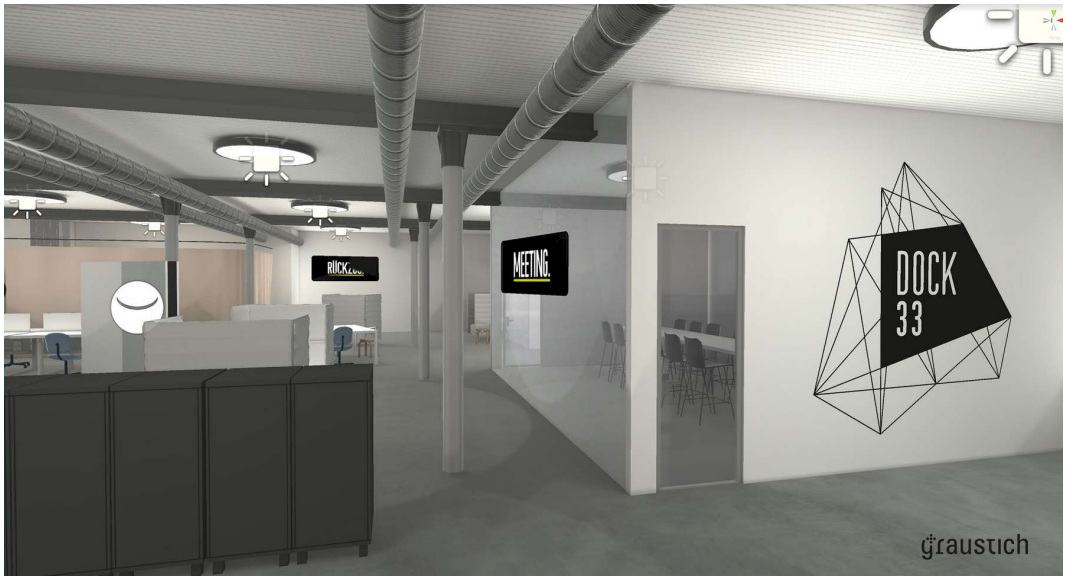
ID	Gender	Age	Professional and/or semi-professional activity
3A	female	58	Interior designer, engineer
2A	male	35	Head of family, sports and education department at City of Heidenheim
1A	male	19	Musician, student of psychology
5A	male	36	Senior teacher, theatre education practitioner
2B	female	65	Former head of tourism department at City of Heidenheim
1B	male	42	Designer, photographer, start-up entrepreneur (innovative housing)
3B	female	65	City guide specializing in industrial heritage, former accountant at chamber of commerce
4B	male	37	Manager at cultural department and opera festival, City of Heidenheim
5B	female	49	Head of tourism department at City of Heidenheim
6B	male	23	Musician, student of media economics
4A	female	60	Mayor of Heidenheim

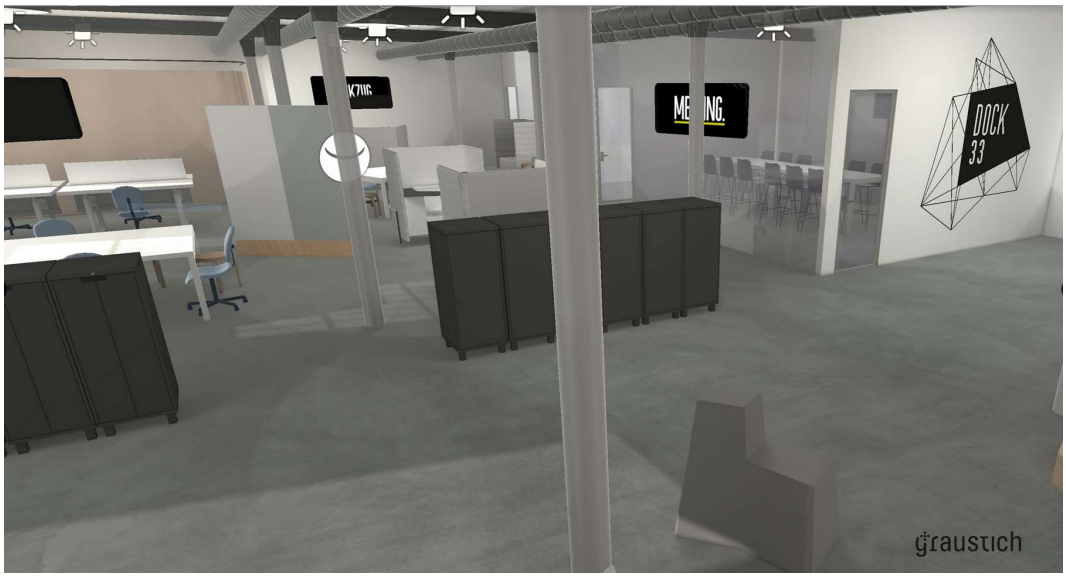
iv. Example of a QR-Code Giving Access to Historic Information, Attached to a Building in the City of Schweinfurt's "Zürch" Quarter

Photo by the author.

v. Interface Prototype

a) Prototype Screenshots and Heritage Content



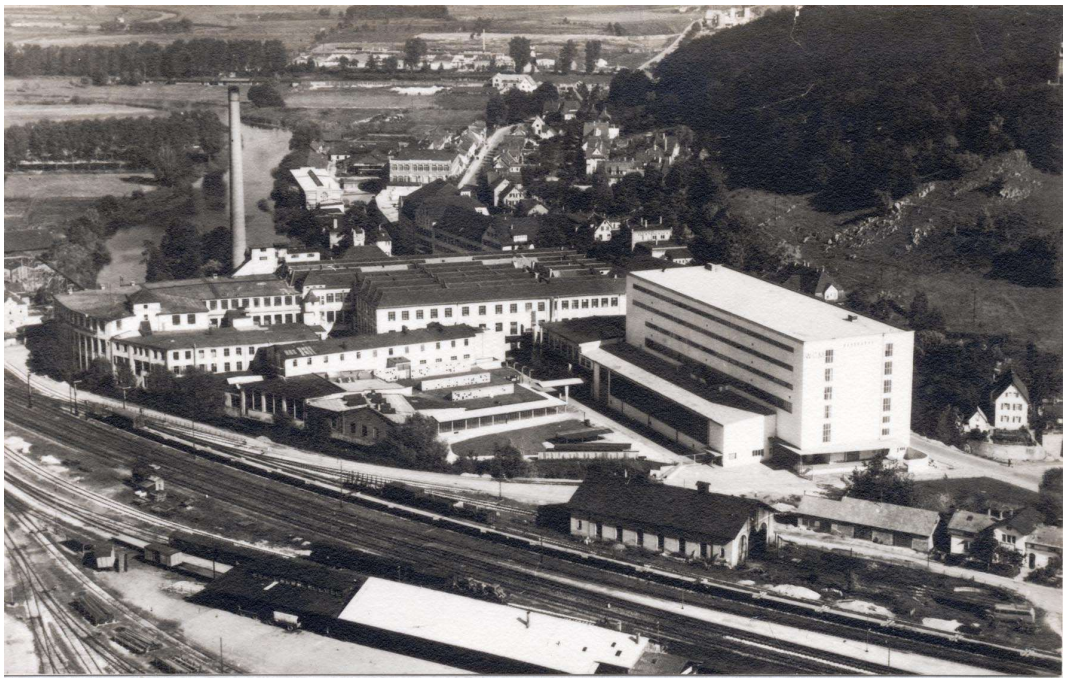


For technical reasons due to the nature of the interface, the heritage-related content integrated in the actual VR interface cannot be shown as part of the latter here. The

following historic photos are examples of the stock of documents which have been selected from Heidenheim historical society's WCM archives by the author to be embedded in the first VR-based presentation of Dock 33, following the principles of the present study:

The WCM compound in the early 20th century, with today's Dock 33 on the left.

Early electric mobility in WCM's storage buildings during the 1950s.



Late 1950s aerial view of the WCM compound with today's Dock 33 in the background. Up front, the ancient freight terminal from where WCM's products were shipped globally, nowadays the location of Heidenheim university (DHBW).

Open-plan office on the first floor of WCM's bale storage building in the 1920s. The resemblance with coworking spaces now located in the same building is striking.

b) Baden-Württemberg's Minister for Economic Affairs, Mrs. Nicole Hoffmeister-Kraut, Testing the VR Application in Presence of the Author on July 11th, 2019 at Dock 33:

Photos: Stadt Heidenheim / Agentur Graustich

9. Statutory Declaration

I herewith declare that I have composed the present thesis myself and without use of any other than the cited sources and aids. Sentences or parts of sentences quoted literally are marked as such; other references with regard to the statement and scope are indicated by full details of the publications concerned.

The thesis in the same or similar form has not been submitted to any examination body and has not been published.

Ehrenwörtliche Erklärung

Ich erkläre hiermit an Eides statt, dass ich die vorliegende Arbeit selbstständig und ohne Benutzung anderer als der angegebenen Hilfsmittel angefertigt habe. Die aus fremden Quellen direkt oder indirekt übernommenen Gedanken sind als solche kenntlich gemacht.

Die Arbeit wurde bisher in gleicher oder ähnlicher Form keiner anderen Prüfungsbehörde vorgelegt und auch noch nicht veröffentlicht.

Aalen, on the 20th July 2019

Aalen, den 20. Juli 2019

(Johannes Röder)