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## **Managing urban dynamics in old industrial cities: Lessons learned on revitalising inner-city industrial sites in six European case studies**

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Tanja Tötzer and Ute Gigler

ARC systems research GmbH, A-2444 Seibersdorf, Austria

E-mail: [tanja.toetzer@arcs.ac.at](mailto:tanja.toetzer@arcs.ac.at)

### **Abstract**

In many European cities structural economic changes have a tremendous impact on a city's image, labour force and the spatial and (socio-) economic framework. City administrations are struggling with industries becoming obsolete or moving elsewhere and leaving derelict and often contaminated sites in the core of the city. The cities have to cope with consequences such as social decay, joblessness and environmental contamination. Revitalising derelict inner city sites is essential for a sustainable urban development, because it improves the image of the site and its neighbourhoods, it helps reduce sprawl on the urban fringe and it enhances environmental quality.

Although cities could derive multiple benefits from reusing those sites, a revitalisation is afflicted with many risks and uncertainties and therefore represents a major challenge for a city.

This paper presents experiences gained and lessons learned in six different revitalisation case studies in Gothenburg (S), Liverpool (GB), Lisbon (P), Berlin (D), Steyr (A) and Barcelona (ES). The research was conducted within the EU project MASURIN (Management of Sustainable Revitalisation of Urban Industrial Sites, EVK4-CT-2001-00054). The cases researched demonstrate that certain key factors and approaches need to be in place that allow cities to redevelop old industrial sites in a sustainable manner. In complex systems such as cities local circumstances, stakeholders' views and the types of organisations involved play a major role. The cases illustrate that open communication, trust and cooperation between public and private stakeholders accelerate the revitalisation process and lead to a balanced and mutually accepted outcome. Following a holistic concept and a vision, but staying flexible throughout the process helps create resilient structures, which strengthen the urban fabric and essentially contribute to a sustainable development of the entire city.

### **Key words**

Revitalisation, case studies, management, sustainable urban development

**JEL-code:** R11

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## Introduction

Many old industrial European cities, which once prospered because of producing industry, gradually faded out during the last decades. Today, those cities are facing challenges from globalisation and severe competition within their own region or with other metropolitan areas. Industries often move to suburban areas or countries with much cheaper labour costs and cities have to cope with the decline of industrial production within city borders. In order to stay competitive, cities have to adapt to changed circumstances. Before globalisation, centrality, geographic location and transportation advantages were indispensable for prosperous industrial cities, whereas today cities have to fulfil the requirements of a global market and a new technology-based and service-oriented economy. The international significance of cities no longer solely depends on their success in the production sector. On the contrary, many global cities of today are centres of finance and trade (Sassen, 1996). This necessitates an economic and physical transformation of old industrial cities, which represents a tremendous challenge and effort for cities. Castells describes this transition as a shift as momentous as the shift from an agrarian to an industrial economy in the 18th and 19th centuries (Castells, 2000).

These urban dynamics cannot be managed easily. Many cities struggle with numerous derelict, partially or fully abandoned, and often contaminated old industrial sites in their midst. Because many former industrial sites are located in the centre of cities, they not only represent an eyesore and often negatively affect neighbouring uses, but they are also negative assets for a city and blemish a city's image (Tomerius, 2000). It is commonly recognised and documented (e.g. OECD, 1998) that the presence of derelict land has adverse effects not only on the environment but also on the economic and social health of a city (Grimski and Ferber, 2001). City administrations thus have to find ways to tackle joblessness, social decay and environmental contamination that resulted from industry abandoning industrial sites. One essential step to cope with these urban dynamics is to revitalise such derelict sites in a sustainable manner. Once major barriers such as high remediation costs, liability issues, and a complex 'sea' of regulations are overcome, cities can derive multiple benefits from reusing those sites (Collaton and Bartsch, 1996). Developing and thereby recycling inner-city sites plays a crucial role in sustainable urban development because it contributes to reducing sprawl on the urban fringe, reduces infrastructure costs incurred in greenfield developments, enhances environmental quality, and attracts jobs to inner city sites (Koll-Schretzenmayr, 1999; Tomerius, 2000).

Even though universal recipes for revitalising industrial sites do not exist, practitioners in other cities can certainly be motivated by other best practice examples and benefit from success factors and impediments that became apparent in other cities (Tomerius, 2000). In-depth analyses of revitalisation case studies conducted in six Western European cities (in Gothenburg (S), Liverpool (GB), Lisbon (P), Berlin (D), Steyr (A) and Barcelona (ES)) demonstrate that the above cities employed certain promising approaches and devised specific instruments in order to enable successful and sustainable redevelopment. Examining the different sites showed that several parallels and important lessons can be drawn from the redevelopment approaches, even though each city has a different background, is embedded in different regulatory, local, and regional frameworks and faces specific challenges. This paper describes the case study ‘Parc Logistic/Zona franca’ in Barcelona in detail. It also highlights lessons learned regarding successful management approaches in six Western European case studies that facilitate urban transition processes.

### **Methodology and Approach**

In the course of the EU-project MASURIN (Management of Sustainable Revitalisation of Urban Industrial Sites), our research team conducted in-depth case studies on six former industrial sites, collected environmental, social and economic data and analysed the management process in each case. The research team chose the case study analysis, because it enabled the team to conduct an in-depth comparative analysis of six different sites. Complex, contemporary phenomena such as a revitalisation process in an urban setting can best be described through case studies. The investigators have the opportunity to rely on multiple sources of evidence such as interviews and observations on-site as well as literature, documents, and archival records (Yin, 1994).

In order to find suitable case studies, a list of criteria was generated, which allowed the research team to separate relevant cases from those that were not suitable. After pre-selection, appropriate contact persons who also had time and resources to share information with the research team had to be found. The research team then developed a standardised ‘data needs’ sheet that served as a guiding document for the interview process and was sent to interview partners prior to the interviews.

The team conducted interviews with 3-7 individuals per case study and interviewed a total of 30 people in person. Interviewees included project managers at developer firms, a director and planners and engineers at city administrations, managers of regional and local agencies and organisations, a public relations manager and researchers.

The research project was finished in 2004. The cases researched and analysed are described and analysed in a “Sourcebook”, which is part of the final report of the MASURIN project. The knowledge gained by studying different cases including best practices and lessons learned can thus be passed on to practitioners in other cities involved in revitalisation projects.

### **Case study Barcelona, ‘Parc Logistic/Zona franca’**

#### *Setting and history of the site*

Barcelona has been an industrial city since the beginning of the 18th century (Checa Artasu 1999). Industry has shaped the city’s form and its industrial history still is important for the city’s identity. Originally, industry was situated in the centre of town, but with growth and enlargement of factories, companies moved out to the outskirts or neighbouring municipalities of Barcelona. The case study site is also located at the periphery of the city, but still within its borders. The site lies in the South-Western part of Barcelona between the river Llobregat and the ring highway Ronda del Litoral (see fig.1). Zona Franca encompasses 600ha, the revitalised site Parc Logistic has an actual size of 40ha.



Figure 1: Parc Logistic under construction  
Source: El Consorci de la Zona Franca, 2002

The origins of La Zona Franca – the tariff free zone – can be traced back to the beginning of the early 20th century. Since then it has been transformed into the main industrial location of Barcelona. In 1916, El Consorci de la Zona Franca was founded by the City Council and the Chamber of Commerce to develop the site. In 1950, the Sociedad Española de Automóviles de Turismo, S.A. (SEAT) was founded and built its first factory in Zona Franca. In 1971, SEAT was Spain's largest industrial company and dominated the Spanish car industry in the following decades, with 32,000 employees in 1980 and a production peak of 430,000 cars in 1988. In 1993, SEAT closed its old factories in Zona Franca and concentrated on production

in Martorell, which lies in the Northwest of Barcelona. This marked the beginning of the site conversion process. Nearly at the same time, renewal of the city commenced with the Olympic Games in 1992, which served as a catalyst for the city's transformation. In 1995, agreements were signed with El Consorci on use of the land that was still occupied by SEAT up to that point but unused and the site was sold to El Consorci.

Parc Logistic de la Zona Franca, S.A., became responsible for recovering the site. The aim of Parc Logistic was to transform the site and to replace traditional industrial use with other, more innovative commercial and industrial activities (particularly in the field of logistics).

### *Revitalisation process*

Redevelopment of the SEAT-site has to be seen in the context of a transformation of the entire city. The renewal of the city was accelerated through the Olympic Games in 1992. The enormous collective effort of central, regional, and local government in creating a vital and successful city prior to and during the Olympic Games served as a catalyst for the cities transformation. Several initiatives were started and many areas have been revitalised, mainly for business or residential use. The city of Barcelona established a political framework aiming at revitalising Barcelona and started four major redevelopment projects: FORUM 2004, 22@bcn, Delta Plan, and Sagrera-Sant Andreu (see fig. 2). One of those four projects, the Plan Delta, also includes the Zona Franca and the expansion of the port. In order to implement the strategy – or “vision” – of Barcelona to expand the port into an intermodal freight distribution hub of southern Europe, improvements in the logistics sector are necessary and the abandoned site of SEAT offered ideal preconditions for logistical use. Thus, transformation of the former industrial site of SEAT to a logistic parc fits well into the “vision” of the city.



Figure 2: The four major projects of Barcelona currently

Source: Barcelona Activa, 2003

In 1997, Parc Logistic de la Zona Franca, S.A. was founded and became responsible for redeveloping the site. Parc Logistic is a joint-venture between ACESA, the leading company in Spain in managing toll motorways, and El Consorci de la Zona Franca de Barcelona, which is a public company, but managed like a private company with a public board and the mandate to make decisions that take into account the social impacts of its actions.

For transforming the site and attracting more innovative industries in the field of logistics, the site was equipped with modern infrastructure and technologies such as fibre-optic networks. A metro line connecting Parc Logistic with the airport and the city centre is planned. A certain mix of cafés, restaurants, shops, banking, travel agencies etc. shall create an optimum working environment for employees. Parc Logistic coordinates basic services such as surveillance and security, maintenance and cleaning of common facilities, selective waste collection and garden maintenance.

The first phase of the revitalisation is fully completed now. The first two office-buildings have already been finished and are already occupied. 150.3 Mio Euro were invested (in total) for transforming the area into a logistic park. Parc Logistic now offers 105,000 m<sup>2</sup> warehouse space and 22,000 m<sup>2</sup> office space. Architect Ricardo Bofill designed the spectacular looking buildings shown below, whose roofs are reminiscent of waves (Fig. 3).



Figure 3: Model of the office buildings

Source: <http://www.elconsorci.net/>

### *Future plans*

Further construction activities depend on market needs. Enlargement of the logistic area depends on whether SEAT wants to stay on the site or move to another location. However, plans already exist to expand the logistic park to 120 ha. In the near future, more buildings with another 35,000 m<sup>2</sup> of office space are planned and at the end of the process, the site will offer 90,000 m<sup>2</sup>. For lack of demand, office space is not reserved for logistical use only, but will be open for a variety of uses instead. The strategy of Parc Logistic is to construct buildings in anticipation of demand and then wait for companies to move in.

## **Lessons learned**

The case study of the Barcelona-site already reveals some basic characteristics of revitalisation processes. Based on the case 'Parc Logistic', the following section gives an overview over several key issues that contributed to the success of six different revitalisation case studies in Western European cities.

### *Flexibility and diversity*

In a globalised world, cities are facing fierce competition and fast-paced technological change. Thus, cities have to deal with changes and urban dynamics continuously. Regenerating old industrial sites in the middle of urban areas is a highly complex issue and confronts those responsible with major challenges such as land use conflicts, many uncertainties and a changing global economic framework (Tomerius, 2000; Koll-Schretzenmayr, 1999; Stahl et al., 2001). The transformation processes in the city of Barcelona illustrate that the city has tried to adapt to changing conditions and market needs. However, that does not necessarily mean a complete shift from manufacturing to new industries. A city's transformation is a long-term process and it makes sense that changes take place step by step, because it is impossible to accurately predict market developments such as the success of particular industries, or housing needs for the long term. Integrating traditional industry and new industry and fostering a diversified and integrated economy increases the flexibility of a city and thus the ability to adapt to current and future needs.

The case studies of Barcelona, Steyr, Berlin, Gothenburg, Lisbon, and Liverpool demonstrate that creating mono-functional sites entails a high level of risk. It makes a city more vulnerable to internal and external changes and too dependent on one or just a few sectors.

Diversification of uses and functions increases an area's resilience making it more adaptable to change. Creating a balanced mix of functions on a microcosm such as the site level that is well integrated with the rest of the city is an important aspect of sustainability (Swiss Federal Office for Spatial Planning, 1999). The studies demonstrate that creating a more adaptable mix of uses and managing regeneration flexibly enables stakeholders to deal with inherent uncertainty more successfully.

### *Visions and strategies*

Although flexibility and adaptability is a crucial precondition for long-term sustainable development, it is also necessary to have a clear goal for the future to strive for. In many cases, revitalisation is a long term process with many ups and downs. Thus for the realisation,

a vision and a visionary are needed, people who believe in a project's future success and are willing to move through the cycles of the process (Swiss Federal Office for Spatial Planning, 1999). Following a vision does not mean that the process will not be adapted to new circumstances and market conditions, but it helps giving it continuity and orientation. Holding on to a vision makes it easier to communicate a concept and a strategy to different stakeholders and to make them believe in the project.

The example of Barcelona demonstrates that a vision for the entire city helps fit single projects into a holistic concept. The establishment of a logistic park is in line with the city's strategy to improve logistical capacity of the port and uses the given potential of the location next to the port, airport, and the city centre. Thus, Parc Logistic substantially contributes to the renewal process of Barcelona. The case of Barcelona, but also the other case studies researched, illustrate that visions are essential in implementing long-term strategies of city administrations for particular sites, because they help bring continuity, buy-in of all stakeholders, and increase chances for a successful revitalisation process.

### *Image and marketing*

The competitiveness of a city on the global market highly depends on its ability to attract and retain business and talented people. These capabilities are reflected on a city's physical environment (Yang and Hua, 2004). Equipping sites with modern infrastructure along with the design of open space and buildings is an essential prerequisite for succeeding in the global competition for new businesses and attracting new companies to a revitalised site. In order to market the image of a site, in many cases a modernisation of the site has to take place and huge investments on urban infrastructure are necessary. Parc Logistic is a good example for a successful revitalisation process of an abandoned industrial site to a modern business and logistic area alongside existing industries in Zona Franca. But also other case studies researched prove the importance of creating modern and attractive locations for large, well-known companies. Examples across Europe indicate that attracting companies such as Jaguar in Liverpool, Motorola in Berlin, or Volvo in Gothenburg were central for further development. Such companies act as flagships for the revitalisation, improve the image of the site and draw in further companies in part because of their networking abilities.



### *Cooperation and collaboration*

Close cooperation and collaboration between all stakeholders responsible for or affected by the revitalisation of the site helps to balance the different, often contradicting interests and requirements on one single site. Mutually beneficial cooperation and rewarding interactions among stakeholders also lead to more trust and “win-win-situations” become more likely (Barton, 2000). This encompasses cooperation between the private and the public sector, between different departments within one organisation, or between different stakeholders in a metropolitan region.

In Barcelona close cooperation between the city and its suburban region can be observed. The city and its first suburban belt are intensively interlinked – functionally they represent a unit. In order to be able to manage the mutual dependencies and resulting flows of companies and people, Barcelona decided to develop a Strategic Plan. The recent Strategic plan of 2002 encompasses the metropolitan area of Barcelona, which is increasing in importance. Current dynamics are driving the Barcelona region in the direction of a more integrated urban structure, functionally less centralised and morphologically more reticulate. Barcelona and its immediate surroundings will continue to play a decisive role in the region as a whole. The coordination and cooperation between the core city and its suburban region helps the city deal with urban dynamics that do not stop at the city’s borders. The varying advantages of urban and suburban locations are more likely to be accepted and used, which strengthens the competitiveness of the metropolitan area as a whole.

### *The role of developer companies*

Successful collaboration can also result in public-private partnerships. In Barcelona and in most of the case studies researched, developer firms - often private companies with a public board - are in charge of revitalising derelict old industrial sites. City authorities and developer companies have different rationalities: cities strive for a reintegration of the derelict site into the urban fabric, they aim to improve the image of the city and to reach a socially acceptable and long-term sustainable development. Developer companies mainly have economic objectives such as profit maximisation rather than social or ecological priorities. At first sight, the rationalities of public and private stakeholders seem to contradict one other. However, if a successful coordination or cooperation between public authorities and a private developer can be established, it can lead to a very efficient process and balanced outcome. City authorities are often swamped with staying up-to-date regarding rapidly changing market conditions in the global economy and specific location needs of particular industries (Soule, et al. 2004).

Thus, many cities have already recognised the benefit of cooperation or partnerships with the private sector in revitalisation processes. Private developers are and must be much closer to the market than public authorities are. Even though the initiative to start a redevelopment process often comes from the public sector, executing the actual mandate to revitalise is often placed in the hands of developer firms. Developers also have to be fiscally responsible which forces them to get the best possible return on their investments and ultimately be profitable. Some developers receive initial public funds, others have to finance themselves entirely through the private market. And lastly, private developers are likely to work a lot more efficiently and with less bureaucracy than would be the case if e.g. city administrations were in charge of revitalising sites. Developers thus find themselves in a rather difficult and challenging role, because they need to strike a balance between investing in environmental remediation, attracting industry to ensure employment opportunities and fulfilling short and long-term goals of the city (Tomerius, 2000). Thus, communication, cooperation and collaboration with the public authorities promote the mutual learning process, build trust and are essential to facilitate negotiations. This helps to accelerate the process and to achieve desired and sustainable outcomes

## **Conclusions**

Today, cities are facing a highly dynamic urban economy due to globalisation and economic transition. Many old industrial cities across Europe have to deal with migrating industries and sites becoming functionally obsolete. Although cities can benefit from revitalising underutilised and derelict former industrial sites, barriers such as soil contamination, liability issues, a large number of regulations and extremely high redevelopment costs for municipalities need to be overcome before launching a revitalisation process. Redevelopment simultaneously tackles environmental contamination, improves a city's economic and tax base and is likely to offer new jobs thereby incorporating all three pillars of sustainable urban development.

The case study of Barcelona 'Parc Logistic/Zona Franca' demonstrates that redeveloping a former industrial site represents an essential and valuable step for the renewal of the entire city. Revitalising the former SEAT area not only transforms the location into an attractive reused site, but also improves the image of the site and is an impetus for further urban renewal.

Barcelona and several other cases studied revealed that developer firms rather than the public sector were in charge of revitalising the sites. They did, however, cooperate very closely with

one or several public agencies in order to harmonise often differing objectives between the public and the private sector. One important approach to tackle the complexity and uncertainty inherent in revitalisation processes is close coordination and transdisciplinary cooperation among stakeholders. Stakeholders also emphasised the need to remain flexible in a highly variable regional and global market. Sudden economic changes must result in adjusted strategies at the local level in order to remain competitive with other cities and ultimately create a successful site by e.g. encouraging mixed uses.

The case studies illustrate that a lot has been learned in revitalisation processes. By sharing key concepts and lessons learned with others undergoing similar processes many existing obstacles could be overcome. Approaching revitalisations with a willingness to learn from the process will likely result in more innovative approaches such as better funding mechanisms, improved models for regional cooperation, and ultimately a more sustainable urban redevelopment.

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