Spatial opportunities of exhibition centers: Explaining path-dependencies in Amsterdam, Frankfurt, Munich and Milan

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Abstract

In order to understand recent physical exhibition center development, it is necessary to have a broader understanding of the trade fair sector and how it has evolved. Therefore, this introduction will provide the general background against which the research on development trajectories of specific exhibition centers took place. First, it describes the general development of the exhibition sector in Western Europe and the current state of the market. Second, it delves into the relation between trade fairs and their host-cities. Third, it looks at the constructions of ownership underlying exhibition centers. This together provides the context in which recent physical development of exhibition centers in Western Europe should be understood. Paragraph 1.4 provides an overview of this construction with a particular focus on Western Europe. Finally, this chapter takes a look at where in metropolitan regions these constructions were realized.
1.1 The changing nature of the exhibition

The exhibition industry is a very dynamic sector that has over the past decades adapted to new economic realities. Today’s trade fairs can be traced back to the National Exhibitions and World Fairs of the late 19th century and even to yearly medieval markets (Aillix, 1922, Schäfer, 2005). Still today, these various origins are reflected in the variety of different activities held at fairs. The trend, however, is one of increased specialization and internationalization, with a focus on interaction as the dominant activity. This paragraph will deal with the most recent transitions in the nature of the events held at exhibition centers.

Before 1900, fairs were, with the exception of the World Fairs, mainly focused on the exchange of goods. This changed in the early 20th century with the advent of sample fairs. At sample fairs, products were put on display and could be ordered by visitors. The actual transaction, however, only took place later in time. This was made necessary because of the more voluminous products that were produced by the growing industrial sector. Products like cars and household equipment were simply too big to keep in stock for every potential buyer. Moreover, mass-production made such products available in large quantities and also enlarged markets. This meant that economic exchange, for centuries the central activities of trade fairs, became only of indirect importance. With the samples fair, the dominant function of trade fairs shifted towards the promotion of products.

During the 1920s, industrialization and the invention of the samples fair led to an increase in the number of fairs being held. This was reflected in the construction of exhibition facilities in many cities (see paragraph 1.4) but also in the foundation of many international trade fair associations like the UFI (Union des Foires Internationales in 1925), AUMA (Aussetellungs- und Messe- Ausschuss in 1927), IAEM (International Association for Exhibitions Management in 1928), and several local and regional convention and visitors Bureaus (Rogers, 2008). Many cities saw the organization of trade fairs as an incentive to stimulate the economy in the harsh times following World War One. Although there were some specialized fairs like the Buchmesse in Leipzig and the AutoRAI in Amsterdam, many of these events like the Herbst- and Frühjahrsmesse in Frankfurt, the June Fair in Barcelona and the Campionaria in Milan were displaying a broad range of products for both consumers as well as a professional audience. These general fairs were by large the most important events at many cities.

1 The samples fairs originated in Germany as Mustermesse. This invention is generally ascribed to Leipzig that held such an event for the first time in 1894, thereafter the format was quickly adopted by other German fair cities (Uhlendorf, 2006).
2 Apart from lobbying for the sector, these institutions also aimed at reducing the morbid growth of exhibitions and focusing efforts on a few larger events: the so-called Fair inflation (Messeinflation) (AUMA, 2007). Also the RAI Association that in 1922 developed the Amsterdam exhibition center was established to coordinate the many small bicycle exhibitions in The Netherlands (De Jong, 1968).
3 The Buchmesse moved to Frankfurt after the Second World War as a result of the closing-off of the DDR (Möller, 1989).
fairgrounds and were for many people a yearly recurring day-out. Throughout the decades, these events grew and the most successful fairs developed into mega-events, attended by millions of people.

Reinvigorating the economy was also the driving force behind a new period of growth in the exhibition sector after World War Two. Again, this was accompanied by a functional shift. Although the format of the samples fair was kept, exchange of information became more central. This was reflected in a growing conference sector and in the organization of many conferences, complementary to exhibitions. The construction of many conference centers adjacent to exhibition centers throughout the 1960s and 1970s are testimony to this. This combination between exhibition and conference facilities is today almost ubiquitous (AUMA, 2007). From the 1980s onwards, information exchange would also be facilitated more informally through the hosting of dinners, drinks, award ceremonies and other side-events. Again, this required complementary facilities in exhibition complexes and made interaction in a broad sense the main function of trade fairs.

This focus on interaction was the result of a growing service sector, but mainly of the internationalization of the exhibition sector. Following the general internationalization of markets and an increasing number of multinational corporations, trade fairs were internationalizing. Whereas, before the 1980s, most trade fairs had a regional or national orientation, the number of international exhibitors and especially international visitors increased quickly.

From this internationalization emerged a hierarchy of international fairs, leading to a further diversification of the market. Whereas formerly fairs had a regional orientation, in every sector one or two international fairs became dominant (Möller, 1989). It was at these leading fairs (in German: Leitmesse) that all global players had to be present to keep up with latest trends and technological developments. Fairs that did not acquire this status thereby became less interesting for globally operating corpo-

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Footnote:
4 Again, German cities were at the forefront. The first international trade fair was opened in Hannover at August 18, 1947 in cooperation between the city and the Allied Forces in a 30.000 square meter facility. It lasted for three weeks and attracted 1298 exhibitors and 740.000 visitors.
rations. During these years, a clear separation between exhibition centers in terms of their reach became visible (De Hoog, 2012). Facilities that did not succeed in drawing international events were often thrown back to hosting regional events. In some cases these venues were even converted for other uses or demolished for reuse of their sites.

In an attempt to reach the status of a Leitmesse, many fairs focused on a particular niche, thereby leading to a specialization of the market. This specialization largely increased the number of fairs as well as their appeal. Through the 1980s the number of fairs in Europe increased with 150% (Rubalcaba, 1994).

It were first and foremost business oriented fairs that followed these trends of internationalization, diversification and specialization. Consumer fairs, aimed at the promotion of goods to a local market were not globalizing and kept their local orientation. Specialization of this branch was dependent on the success and development of a specific sector, rather than an autonomous trend. In fact, this segment of events was under hard competition from other emergent forms of leisure. Rather than going to the fair, people now also had other options to pass their free-time like go skiing, go to theme parks or stay at home behind the computer. Although there are still successful consumer fairs, their number and attendance overall is not growing. The large sample fairs that originated after the First World War and that had been able to continue this success after World War Two, had now either specialized into professional fairs or saw their attendance decline sharply.

Over the past decades, the exhibition sector has undergone some profound changes. They have integrated with conferences into events focused on interaction which then specialized, diversified and internationalized. Therewith came an increased competition for international leading trade fairs.

The end of fairs?

More recently, developments in Information and Communications Technology (ICT) have a large influence on the organization of trade fairs. Many products can now be shown and compared instantaneously on the world wide web. Also networking and monitoring of competitors has become more easy through the internet. This led in the 1990s to fear over the future of trade fairs. Would it in the future still be necessary to travel the world to interact with people?

This coincided with more general, academic debates on the ‘end of geography’ and ‘death of distance’ (Graham, 1998). Rapid innovations in ICT reduced the need to be

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5 Coinciding with the internationalization of many events was a regionalization of many formerly nationally oriented events. In this regard, many niches in the exhibition sector saw a ‘hollowing-out’ of the national level in favor of both international and regional events. This gave many venues which had trouble positioning themselves in the international market a regional alternative.

6 In Barcelona, the last general fair was held in 1991. In Milan, the Campionaria ceased to exist in 1992 after several unsuccessful changes in concept in the late 1980s.
physically present for the transfer of knowledge and information. Technological devices like the telephone, the internet and email increased the possibilities for mediated communication, thereby reducing the need for face-to-face interaction. It was expected that continuous technological developments would in the end lead to people being connected with anybody everywhere and always. In the end, as it was argued by some, this would dissolve comparative advantages of places and lead to disintegration of human settlements (Cairncross, 1997; Pascal, 1987).

Some people foresaw this would also largely impact trade fairs. If permanent concentrations of activity would dissolve, then certainly temporary concentrations of offer and demand would vanish. Websites, videoconferencing and virtual reality could substitute for all activities employed at trade fairs. Although this might hold truth for the old functions of trade fairs: exchange, promotion and information exchange, the nature of fairs has changed towards networking being the dominant activity. This networking was essential in building new relationships, creating trust and picking-up on and verifying the latest gossip and ‘buzz’ of a sector (Shuldt and Bathelt, 2010). Several studies have demonstrated that for such activities it is essential to have face-to-face contacts which always provide larger experience over interactions that are mediated through technology (Nevejan, 2007). Moreover, it turned out that online applications actually enlarge the necessity to meet in person and can enhance the experience at face-to-face contacts. Relationships that are forged online can be deepened and extended during trade fairs; online communities could provide a forum for interaction before and after the event (Von Lukas, 2010).

The hypothesis that new technological developments and digitalization would not lead to the demise of trade fairs has been supported by recent growth in the numbers of international conferences and trade fairs. Between 1997 and 2006 the number of conventions as registered by the International Congress and Convention Association (ICCA, 2007) has risen from 3.716 to 5.838. The number of events in Europe registered by the UFI7 has risen from 1.320 in 2001 to 2.248 in 2011.

Rather than ICT being a direct competitor for the exhibition business, it turned out that the challenge is to integrate ICT to enhance the experience of visitors. This, however, requires innovation in the products and services delivered at trade fairs.

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7 The Union des Foires Internationales (UFI) has since 2001 released yearly reports on the trade fair sector in Europe (Accessible at: http://www.fkm.de/Euro_Fair_Statistics,29.html). Although some part of this increase might be attributed to better registration of events, increases also reflect the growth of the sector.
1.2 City and fair

As a result of and parallel to these functional changes, also the relationship between fairs and their host cities has changed. Although fairs have always brought economic revenue to their host cities, their capacity to boost the economy has recently been rediscovered. Their potential as catalysts for urban development is solicited by many municipal administrations. Notwithstanding these benefits, however, their role in urban development are also questioned by some.

Economic gains

Studies on the construction of new exhibition centers often elaborately dwell on the economic benefits of the exhibition business (ICC Commission, 2005; Price Waterhouse, 1993; Sanders, 1998; 2002). Although there is indeed revenue coming from exploitation of facilities and the organization of events (see Figure 1.2), these often do not justify construction costs. The economic value of exhibition centers is rather found in their capacity to generate spin-off to the regional economy. Indirect economic effects are realized through all sorts of companies that supply to exhibition centers and organizers. These include security, catering, booth constructors, printing firms and promotion companies.

Often stated are also the capacities of exhibition centers to attract outward spending to a city or region. Visitors stay in hotels, visit bars, restaurants, tourist attractions, buy souvenirs and use public transportation. This brings revenue to these businesses and provides a critical mass to support facilities within the city. Several studies show that the expenditure of business tourists is generally higher than that of normal tourists (ICC Commission, 2005; NBTC, 2009). Moreover, leisure and business tourism are largely complementary because their peaks are at different times. While business tourism basically ceases activity during summer, these are the high-times of leisure tourism. Business tourist also help to fill the empty hotel rooms during weekdays that are filled with city-trippers during the weekends. It is therefore that locations with an extensive tourism offer are amongst the ones most aggressively trying to lure conferences and exhibitions (Fenich and Hashimoto, 2004). It is from this perspective that the construction of the Sands Expo and Convention Center in Las Vegas and the Hawaii Convention Center in the 1990s should be understood.

Economic spin-off is, however, not always direct and easily quantifiable. Arguably, professional gatherings invoke other positive effects such as information spill-overs, networking opportunities, competitor monitoring and innovation (Maskell et al., 2004). Schuldt and Bathelt (2011; see also Bathelt and Schuldt, 2006) conceptualize international trade fairs as a temporary version of permanent geographical clusters. Drawing on theories of agglomeration economics, their research shows that the activities of trade fairs serve similar ends as permanent clusters. Particular face-to-face encounters allow for picking-up on a ‘global buzz’, providing participants with the
latest detailed information. When conceptualizing trade fairs as temporary economic clusters, this provides the home cluster with considerable advantages as it is, because of lower travel costs, able to tap better into the event. Moreover, many local sectors organize side-events at their own headquarters and institutions in order to merge temporary and permanent clusters. The work of Rubalcaba and Cuadrado (1995) shows that regions with a strong permanent cluster in any one industry are more likely to also host temporary trade fairs in that sector. Thereby, trade fairs and permanently established firms and institutions reinforce each other.

Finally, there are benefits that are even less tangible in nature. Some municipalities develop an extensive infrastructure for business tourism with the aim to change the perception people have of their city (Bradley et al., 2002). Especially cities that are

<table>
<thead>
<tr>
<th>Company</th>
<th>turnover (in Million €)</th>
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<tbody>
<tr>
<td>1 Reed Exhibitions (GB)</td>
<td>813,0</td>
</tr>
<tr>
<td>2 GL events (F)</td>
<td>782,7</td>
</tr>
<tr>
<td>3 United Business Media (GB)</td>
<td>475,3</td>
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<tr>
<td>4 Messe Frankfurt (D)</td>
<td>467,5</td>
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<tr>
<td>5 Messe Düsseldorf (D)</td>
<td>372,7</td>
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<tr>
<td>6 VIPARIS (F)</td>
<td>299,9</td>
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<tr>
<td>7 Deutsche Messe (D)</td>
<td>278,0</td>
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<tr>
<td>8 Fiera Milano (I)</td>
<td>255,5</td>
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<tr>
<td>9 MCH Group (CH)</td>
<td>266,4</td>
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<tr>
<td>10 Koelnmesse (D)</td>
<td>235,3</td>
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<tr>
<td>11 Messe München (D)</td>
<td>222,5</td>
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<tr>
<td>12 Comexposium (F)</td>
<td>201,2</td>
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<tr>
<td>13 Tokyo Big Sight (JP)</td>
<td>194,7</td>
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<tr>
<td>14 Messe Berlin (D)</td>
<td>182,1</td>
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<tr>
<td>15 ITE Group (GB)</td>
<td>180,5</td>
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<tr>
<td>16 Nürnberg Messe (D)</td>
<td>173,3</td>
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<td>17 Coex (South Korea)</td>
<td>160,0</td>
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<tr>
<td>18 Informa (Great-Britain)</td>
<td>158,3</td>
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<tr>
<td>19 DMG Events (Great-Britain)</td>
<td>153,2</td>
</tr>
<tr>
<td>20 Jaarbeurs Utrecht (NL)</td>
<td>152,9</td>
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<tr>
<td>21 HKTDC (China)</td>
<td>141,6</td>
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<tr>
<td>22 Nielsen Expositions (USA)</td>
<td>138,2</td>
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<tr>
<td>23 Amsterdam RAI (The Netherlands)</td>
<td>133,9</td>
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<tr>
<td>24 Fira Barcelona (E)</td>
<td>114,7</td>
</tr>
<tr>
<td>25 IFEMA Madrid (E)</td>
<td>107,2</td>
</tr>
</tbody>
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*Figure 1.2: Annual turnover (2011) of the largest exhibition organizations*

*Source: AUMA, 2012*
generally perceived as industrial and traditional hope that the construction of exhibition and meeting facilities will lure people to perceive the city’s new identity. It is hoped that new venues will serve as a symbolic marker of cultural and economic change. Bilbao is a city that actively pursued this strategy through the construction of its now-famous Guggenheim Museum in 1997 which was followed in 2004 by the opening of the Bilbao Exhibition Center in the neighboring town of Baracaldo.

**Urban development**

Within the field of urban studies, exhibition centers can be argued a blank spot, relatively little empirical research is done on their development. Exhibition center development is, however, often embedded in broader fields of research where it is then mentioned as part of urban regeneration strategies, tourism districts or boosterist strategies. These works can shed some light on the role exhibition center development has played within urban development. Because most of these contributions are of an North-American origin, not all contributions deal with the kinds of exhibition centers at stake in this research but, in some cases, with the generally smaller, but comparable convention centers.

Exhibition centers were only noticed in academia throughout the 1980s and 1990s when many cities started to construct new venues. These early works largely focused on the value of exhibition centers for urban regeneration. In the 1970s and 1980s, many inner cities were in decay as a result of suburbanization and shifting market investment. Especially city centers in the USA were experiencing problems with insecure and dilapidated city centers. Therefore, many municipal administrations were targeting urban investment at reinvigorating these blighted areas (Frieden and Saganly, 1989; Hannigan, 1998; Robertson, 2007). Tourism infrastructure in general and exhibition center construction in particular were considered powerful tools to give a new impulse to blighted areas. The idea was that convention or exhibition centers would draw large crowds to the neighborhood, thereby generating new amenities and employment (Holcomb and Beauregard, 1981). Later, similar strategies were employed for areas that were outside of historic city centers but had suffered employment-loss through deindustrialization.

In the 1990s, exhibition centers were mentioned in studies looking at the development of tourist infrastructures in cities (Law, 1992; Eisinger, 2000). Throughout the 1980s, the phenomenon of urban tourism had grown to really boom in the early 1990s (De Hoog and Vermeulen, 2009). This was noticed by many urban administrations that wanted to benefit from the inward spending of tourists. Therefore, they conceived strategic mega-projects aiming to boost the tourism industry in their cities by constructing sports stadiums, festival malls, museums and exhibition centers (Judd, 1995; Fayos Sola et al., 1994; Altshuler and Luberonoff, 2003). Later, many studies embedded business tourism into the discourse of inter-urban competition. Exhibition center development was part of broader urban strategies to maintain or increase ranks in international
urban hierarchies (Rubalcaba and Cuadrado, 1995; Cuadrado and Rubalcaba, 1998).

Central focus, however, had never been on exhibition center construction itself, but rather on the discourses it was part of. This changed in the early 2000s when a controversy emerged, especially in the United States, over the legitimacy of exhibition center development (Detlefsen, 2005). Especially Heywood Sanders, professor at the University of Texas, strongly criticized the growth in square meters of exhibition surface (Sanders, 1992; 1999; 2002; 2005). He argued that construction was not demand driven, but rather based on the desire and anticipation of municipal governments to attract events from elsewhere. This, he argued, had created a rat-race of exhibition center construction leading to oversupply and empty buildings. The fact that many exhibition centers were publicly financed or were constructed with the backing of municipal loans, further aggravated the matter and led to disputes over the legitimacy and necessity of exhibition center construction. Was money not better spent elsewhere?

Exhibition center development was further questioned from another angle, not questioning the competitive effects but the ways in which exhibition centers were constructed. Dennis Judd (1999), coined the term ‘tourist bubble’, indicating sections of the city that were almost exclusively dedicated to tourism infrastructure and that were, consequentially, hardly ever frequented by local residents. Such areas, often consisting apart from exhibition centers of museums, shopping centers, aquaria and hotels, contributed to the urban economy but were only of limited value to residents. Therefore, also from this angle, the legitimacy of investment in facilities with no added value to residents was questioned (Laslo and Judd, 2004).

**Problems of integration**

The legitimacy of an exhibition center can also be questioned if it no longer fits to its surroundings. Whereas their surroundings can provide trade fairs with substantial benefits when urban amenities match the needs of trade fair visitors, modern trade fairs can also generate effects that are disruptive to neighboring communities. Often times, this comes with changing functionality and physical investment.

Traditionally, large parts of the visitors to trade fairs came from the city and region. This changed with the earlier described internationalization and professionalization of fairs. No longer were residents the main visitors of the city’s fairs. Nevertheless, it were still those residents that were confronted with negative effects like congestion, parking problems and other forms of nuisance generated by visitors and the construction and deconstruction of fairs. Especially for international fairs that have in some cases evolved into mega events, these events can be considerable (Hiller, 1995).

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8 Although there were similar debates in Europe (AUMA, 2007), these were mainly held within the industry itself whereas in the US debates were more intense and also spilled-over to academia.
A typical response to keep these effects limited has been the rationalization of exhibition complexes through internal logistical systems, garages, cargo docks and in-house facilities like bars, restaurants and hotels. Although this is a good way to keep pressure on surrounding parking facilities and road and public transport systems to a minimum, this further separates the everyday life of the city from the world of the trade fair, thereby further reducing the visibility, legitimacy and sometimes economic spin-off, of the facility. Exhibition centers became introverted islands in the urban tissue.

The most drastic way, however, in which exhibition centers impact their surroundings is when they try to extend their premises. As earlier described, many of them have done so freely and enthusiastically since the Second World War. In this regard, Altshuler and Luberoff (2003) have noted for large-scale projects in general but with explicit references to exhibition centers, that from roughly the 1970s onwards, the unbridled growth in large-scale projects has been somewhat curtailed. By this time, grassroots organizations and individual residents had been so well equipped by formal participation procedures, conservation policies and environmental restrictions that it has become feasible to stop or stall large-scale government-backed projects. According to Altshuler and Luberoff, apart from situations where disputes were indeed taken to court, in many cases even the threat of such procedures has been enough for governments to curb their ambitions. For exhibition center development this meant that neighborhoods that had seen trade fairs eat-off their green spaces and cut large fractures in the urban tissue since World War Two, were now provided with the tools to stop this.

Notwithstanding the problems of integration and legitimacy, the physical and economic development of exhibition centers is intertwined with the development of their surrounding areas, city and broader metropolitan region. Because by far the largest part of benefits, generated by exhibition centers does not fall on the facility itself, government has stepped-up to stimulate exhibition activities. This is very much reflected in the policy setting of exhibition center development.

1.3 Ownership constructions

European fairs are traditionally linked to local governments. In the 1920s, many fairs were initiated and financed by local administrations. Other fairs like in Amsterdam were initiated by industrial sectors but soon started to receive government support. Although almost all fairs have adopted a shareholder-construction over the years,
Figure 1.3: Ownership constructions of eight European trade fairs
these initial relations are still reflected within those shareholder relations. In almost every exhibition center the city and some higher tier of government are still present. These relationships tend to differ between countries.

German facilities are generally among the most government oriented. In Frankfurt shares are held for 60% by the City of Frankfurt and for 40% by the State of Hessen. In Hannover also the city (49.87%) and the State of Lower Saxony (50%) are the main shareholders, complemented by the Greater Hannover Region with a small stake of 0.13%. Sometimes, these relations change when investment for a new venue or hall is needed. The Free State of Bavaria increased its share in the Munich fair from 32.67% to 49.9% in 1992, in order to provide the necessary investment capital for the new Munich Fair (see Chapter 5). One of the few large German fairs that has acquired private capital is Düsseldorf. Here 20% of the shares is held by private shareholders.

Such constructions are more common in other countries. This is most prevalent in the Excel Centre in London that was constructed in 2000 by a British private investor and acquired in 2008 by the Abu Dhabi National Exhibitions Company. The ViParis association that owns and manages the largest exhibition and conference venues in Paris is owned for 50% by the development corporation of Unibail Rodamco.

In Spain, ownership is usually held by the city, region and chamber of commerce as is the case in Barcelona and Valencia. In the case of Bilbao, these actors are complemented by the province of Biscaya. Only in Madrid, private capital is involved through a 7% share of the Caja de Madrid. This is, however, a minority share with the city, region and the Chamber of Commerce all holding 31%. Lyon follows this pattern of a combination between city, region and Chamber of Commerce.

In Italy, competences of the exhibition sector were moved in 1999 from the national level to the regional level. As a result, many regions have invested in their exhibition center infrastructure during the past decade. However, in many cases, a listing at the stock exchange has been necessary to finance these developments. Bologna (46%), Milan (25%) and Rimini (15%) are all to a considerable part in private hands.

Also in the USA, exhibition and convention centers have problems to finance construction and extension. It is therefore that also here, government is stepping up through direct investments, loans and bonds to allow for exhibition center development (Sanders, 2005).

This makes exhibition centers a particular urban function. Even though most exhibition facilities operate as private entrepreneurs they are, at least partially, also controlled and steered by the public hand. This makes that their construction and location choice are likely to not only reflect entrepreneurial but also public interest.
Figure 1.4: Largest fairs in Europe by year of establishment and year of relocation
1.4 Exhibition center construction

Each of the earlier mentioned shifts in the nature of events held at exhibition centers coincided with a peak in exhibition center construction. Modern trade fairs appeared roughly during the first decade after World War One. Many cities saw the organization of trade fairs as a good way to stimulate the economy and needed facilities to do so (Carreras and Torra, 2005). Dedicated halls were built in cities like Leipzig, Utrecht, Amsterdam, Milan and Paris. Out of the thirty three largest Western European exhibition centers of today, eleven facilities or their predecessors were constructed between 1920 and 1931 (See Figure 1.4).

Although a few cities like Brussels that needed an exhibition venue for its 1935 World Expo constructed facilities throughout the 1930s, the spectacular growth in exhibition centers of the 1920s was not continued. Main reason was the economic depression which led to reduced interest amongst exhibitors. As a result of the Second World War, almost no facilities were constructed during the first half of the 1940s. In fact, many exhibition centers ceased their normal activities and were used as military quarters or storage. Thus becoming strategic targets, many exhibition centers did not survive the war. Facilities in Munich, Frankfurt, Düsseldorf, Essen, Cologne, Vienna and Milan were all to a considerable extent destroyed.

Relatively soon after the war, many cities decided to reconstruct and extend their facilities. The ruins left after the Second World War made it relatively easy to replace the small and often temporary pre-war halls with the larger and more modern facilities that were needed by a growing industrial sector. Surprisingly, especially in Germany that was left destructed and defeated by the war, many investments in exhibition infrastructure were made. To this testimony not only the quick reconstruction in Frankfurt and Munich but also the foundation of a new facility in Hannover\textsuperscript{10}. During the fifties and sixties new facilities were also constructed in other cities, most notably in Italy and The Netherlands. Many other facilities were extended as demand from exhibitors kept increasing with economic growth.

The earlier described internationalization and specialization in the 1980s led to a third boom in exhibition center construction in the 20th century. In order to attract footloose events and maintain the ones already hosted, exhibition centers felt the need to invest in their facilities. Although the trade fair sector in the US is different from that of Europe\textsuperscript{11}, data on the development of US exhibition centers illustrates this boom. Ac-

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\textsuperscript{10} Occupying forces, especially in Western Germany aimed at a quick reconstruction of the German economy and saw in trade fairs a good way to boost and promote the export of German products. The fact that relatively many cities followed this policy after the war can be attributed to the decentralized structure of the country with different occupational zones and relatively autonomous states (Uhlendorf, 2006; Möller, 1989). This decentralized pattern still characterizes the German exhibition sector of today.

\textsuperscript{11} As the exhibition center sector in the US lacks the long history of European fairs, the US sector was at the beginning of the 1980s probably less developed than that in Europe. It is therefore not unlikely that some of the US production was catching-up with
Figure 1.5: Sizes of fairgrounds compared, by square meters of covered exhibition space (1985-2012)
According to the database of *Tradeshow Week* the exhibition surface in the US increased yearly by 3.4 percent during the 1980s. The number of exhibition facilities increased even by 6 percent over the same period (Detlefsen, 2005). In Europe, new facilities were constructed and old ones renovated. Figure 1.5 shows the difference in surface between 1985 and 2012 for some exhibition centers in Western European cities. In Paris and more recently Barcelona, a second exhibition center was preferred over the infinite extension of the original venue. Moreover, cities like Düsseldorf, Leipzig, Munich and Stuttgart constructed new facilities. The transition of competences from the national to regional level in Italy in 1999 led to new facilities in Rimini, Rome and Milan in the following decade. In total, fourteen exhibition centers with over 100,000 square meter of covered exhibition space have been constructed in Western Europe since 1980.

Unfortunately, databases quantifying these developments only have a very recent time-span. Nevertheless, they are impressive. Wallace (2007) estimated European growth in exhibition space between 2000 and 2005 at 30%. A more recent study of the Union des Foires Internationales (UFI, 2012) calculated a 7% increase between 2006 and 2011, equaling one million square meter of covered exhibition space added in only five years\(^{12}\). The real amount of construction and investment is even higher if one realizes that many new facilities were constructed to replace old facilities. In Europe there are now 192 exhibition centers with over 20,000 m\(^2\) of covered exhibition space of which 36 are larger than 100,000 square meters.

**Architectural and morphological change**

Not only the number and size of exhibition centers has changed, also their appearance has altered dramatically. Already mentioned is that throughout the 1960s and 1970s conference centers were added to exhibition centers. This was later in some cases followed by hotel development. Throughout the years, the size of individual halls has also grown. Whereas large consumer fairs took place in pavilions and small halls, contemporary exhibitions require large, uninterrupted surfaces for a flexible layout of the event\(^{13}\).

This posed problems as many facilities gradually evolved into their surrounding areas and locations to add these larger surfaces were limited. This led in many occasions to

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12 Unfortunately the work of Wallace and UFI was based on different databases and their works are therefore not completely comparable. Nevertheless, it is not unlikely that the increase in exhibition space has recently flattened as a result of the financial and economic crisis.

13 In his famous work ‘Good City Form’ (1981), Kevin Lynch refers to the degree to which the form of a settlement matches the activity patterns as ‘fit’. It can be argued that recent construction in exhibition centers has been geared to restoring the fit between the form of trade fairs and their renewed functions.
Figure 1.6: The world’s exhibition centers of over 100.00 square meter covered exhibition space; Source: UFI, 2012
the squeezing-in of new halls wherever this was possible, a practice that did not render the most efficient fairground layouts for handling visitor streams and cargo flows. When considering the fairground maps in Appendix C, one sees that especially old facilities have made many concessions towards efficiency in order to allow for larger capacity. Some facilities like Basel and Cologne have issued large schemes to reorganize their historical fairgrounds. This often entailed large-scale demolition of old facilities and the reconstruction of new halls.

More recent facilities do not have these problems. They are often organized in geometrical layouts with two rows of halls siding a central axis (see Milan, Rome, Madrid and Bilbao). Another popular layout, used in Lyon and Paris Nord is a semi-circle of halls around a central square. At these modern facilities, cargo and visitors are separated completely. Often these venues are designed in such a way that several events can take place simultaneously, each with their own entrance and catering facilities.

These new facilities, as well as the latest extensions of old venues, often also pay considerable attention to architectural quality and appeal. Whereas facilities constructed in the first decades of the 1920s like the Festhalle in Frankfurt were designed to impress visitors and show the status of the city, architectural designs became much more sober during the following decades. This was, of course, largely dictated by the lack of recourses after World War Two. Exhibition halls manly served the functional purpose of an efficient exhibition. This changed in the early 1980s when exhibition centers commissioned internationally famous architects to design their new halls and complexes. Nowadays, many new exhibition facilities are developed not just as functional artifacts but also as icons underlining the status of the facility and its host city (Sklair, 2006; Kong, 2007).

The global market

Although this study focusses on exhibition development in Western Europe it is useful to place these developments in a broader, global perspective. As previously mentioned, Europe is by far the continent with the longest tradition in trade fairs, rooted in medieval markets. At other continents, these roots cannot be traced back that long. Although some, most notably North American cities, have hosted World Exhibitions in the late 19th and early 20th century, large scale construction of trade fairs like in Europe did not take place. Trade fairs seem to have been for long a European way to exchange and promote goods.

History is reflected in today’s offer in exhibition space. Almost half of the worldwide exhibition space can be found in Europe. Moreover, Europe also hosts the largest fa-
Figure 1.7: Increase in exhibition space per region (2006-2011); Source: UFI, 2012
facilities: 36 of the 54 exhibition centers of 100,000 square meter or more are located in Europe. Amongst the top ten largest exhibition centers, eight are located in Europe.

As mentioned, the supply of exhibition space in the United States has increased enormously during the 1980s: 3.4% annually. Also during the 1990s (3%) and the 2000s (estimated at 3.8%\textsuperscript{15}) large-scale construction continued (Detlefsen, 2005). This partially, but not completely, repaired the lag with Europe. By now, 24% of worldwide exhibition space is to be found in North America (UFI, 2012). Construction has, however, also fueled discussion about the feasibility of these developments. It is feared that many convention centers are constructed out of a desire to attract events rather than on the basis of sound calculation of potential market demand (Sanders, 2002; Altshuler and Luberoff, 2003). Moreover, as many convention centers are directly or indirectly financed by ambitious local governments, the legitimacy of these projects has been discussed rather fiercely in the early 2000s (Detlefsen, 2005; Altshuler and Luberoff, 2002; Sanders, 2002, 2005).

These discussions, probably complemented by the decline in business travel after the events of September 11\textsuperscript{th} 2001, have recently flattened growth in exhibition center construction in North America. Although still limited compared to Europe, some observers argue that the huge construction of exhibition centers throughout the eighties and nineties have turned North America into a mature market for exhibition centers (Detlefsen, 2005) which has recently resulted in an increase of net space which is actually even lower than Europe (5% and 7% respectively; UFI, 2012).

\textsuperscript{15} This estimation was based on plans for convention centers. As it is not likely that all plans will be realized, the percentage of actually realized extension is probably lower.
Figure 1.9: Number of exhibition venues and square meter of covered exhibition space (in million) per region; Source: UFI, 2012
Asia, although rapidly catching-up in terms of square meters, is only recently emerging as an important region for the exhibition sector (Feng, 2004). Together with the Pacific Region, the number of square meter exhibition space has increased with 38% between 2006 and 2011. Roots for this boom can be found in the liberalization of the exhibition sector in 1993 which made it possible for other parties than central government and selected international organizations to organize exhibitions (Kay, 2005). Amongst these facilities are twelve facilities of over 100,000 square meter, double their number in North-America. Most of these facilities were recently developed in China. Apart from the Liuhua complex in Guangzhou that dates back to 1974, all facilities were developed during the first decade of the 21st century. Apart from a second, larger complex in Guangzhou this comprised new exhibition centers in in Shanghai, Yiwu, Chengdu, Shenyang, Shenzen and Beijing. Between 2006 and 2011, over 1,500,000 square meter of exhibition space was constructed in China alone. Recent new facilities were also constructed in Bangkok (1999), Singapore (1999) and Seoul (2005). With these being only the largest of 184 venues in the Asia/Pacific region, this can, without a doubt, be argued the booming region in the international exhibition market. Nevertheless, also China recently started to show signs of market saturation and overproduction of exhibition space (Kay, 2005).

Another growth market is the Middle East that is profiting from huge urban investment and more and better flight connections. Here, exhibition space increased with 16% between 2006 and 2011. Other continents have relatively limited exhibition spaces that mainly cater for niche markets and regional events.

1.5 Emerging geographical patterns

What now are the geographical patterns these developments are producing? The maps on the following pages schematize the current location of the 34 largest exhibition centers in Western Europe in relation to build surface, road infrastructure and public airports. These maps were used to determine the location of exhibition centers within their region by their relative location towards the urban fabric. Exhibition centers embedded within or attached to continuous urban settlement were deemed as central.

Consequently, exhibition centers outside of the continuous urban fabric were deemed as peripheral. The term ‘peripheral’ has been used to indicate exhibition centers that are not on central locations, even though such centers might still be surrounded by

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16 Guangzhou was traditionally the location of the national export commodity fair which was held from 1956 onwards (Kay, 2005).

17 These are the 34 exhibition centers of over 100,000 square meters, identified by the UFI in 2011. To these, the RAI exhibition center in Amsterdam is added as it only contains 89,000 square meter of covered exhibition space but is one of the case studies in the later chapters.
Figure 1.10: Western European exhibition facilities by location and relative size; Source, UFI, 2012.
other urban functions. As discussed earlier, the peripheries of metropolitan regions are to an increasing extent attracting functions other than suburban dwellings, industry and small businesses. Apart from airports, that for obvious reasons have always been outside of the central cores of regions, also other high-level urban functions that were traditionally reserved for city centers are now found within urban peripheries. As the maps show, exhibition centers are amongst these functions, together with hospitals, shopping malls and sports stadiums.

This simple approach makes it possible to assess both the largest European metropolises like Paris, London and Berlin as well as smaller cities with large exhibition centers like Rimini, Utrecht, Herning and Zaragoza. Of course, within the smaller metropolises ‘central’ means that the exhibition center is close to the historic city center and, for example, the city’s central station. In the larger metropolises, this is less self-evident. Although the Messe Berlin is embedded within residential areas, and

Figure 1.11: Western European exhibition centers by as-the-crow-flies distances to Central Station and airport
thus deemed central, it is still located at quite a distance from the Central Station and the main tourist attractions. The same accounts for Paris Versailles and London Excel. The elaborate public transportation networks that are in place in these cities partially make-up for this.

Without exception, all facilities constructed before the 1940s are centrally located within their cities. This is not surprising as even if they were at the time of construction located outside of the urban core, the city has throughout the following decades developed around the facility.

Post-war facilities show a mixed pattern. Even though there were still some facilities located at central locations (like Utrecht and Bologna) or over time encapsulated by the city (like Amsterdam), there are also some facilities located at sites that are still exterior to the city (like Valencia, Hannover, Herning and Zaragoza). Particularly facilities constructed during the 1970s, pose problems for a neat categorization. Geneva,

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Figure 1.12: Old and new location of five exhibition centers by as-the-crow-flies distances to Central Station and airport
Nurnberg, Birmingham and Düsseldorf are at the edge of the urban settlement but share many characteristics with peripheral facilities. Geneva and Birmingham are located next to the city’s airports. Therefore, the latter two were classified as peripheral.

From the 1970s onwards, this example has been followed by many new facilities. During the 1980s and 1990s, all new exhibition centers were located in the urban periphery with Paris Villepinte, Madrid, Munich, Parma, Düsseldorf, Geneva and Rome being constructed at the airport or on the axis between the city and the airport. These investments in new exhibition centers reshape regional configurations. Many cities that formerly had central facilities have been replacing those with out-of-town facilities. Whereas before 1980 six of the thirty-four largest facilities were at a location that can be deemed peripheral, there are now eighteen such facilities, signifying a shift away from central locations.

Simultaneously, however, a series of extensions and reconstructions of inner-city facilities were taking place. In the 1990s Berlin, Barcelona and Frankfurt extended their facilities. In the 2000s, they were followed by Paris Versailles, Essen, Amsterdam, Basel and Cologne. All these facilities not only expanded their facilities but also increased quality through improving technical facilities, adding conference space and streamlining visitor and cargo flows. Since the year 2000, also new facilities have been created at relatively central locations. Although not quite in downtown, they are located within the urban ring road and part of continuous urban fabric. In London, the Excel Centre was constructed in the year 2000 as part of the redevelopment of the eastern London waterfront. This facility was later extended by an International Convention Center. In 2004, the Bilbao Exhibition Center was constructed in the urban area of Bilbao-Barakaldo. Barcelona constructed a second exhibition center within its urban ring road on a new business location, adjacent to a residential neighborhood. These new exhibition centers underline the attraction central cities still have on exhibition centers.

Of course, the distinction between central and peripheral facilities is an artificial one. Metropolitan areas are diverse landscapes with different degrees of centrality. Peaks of density and diversity also occur outside of historic inner-cities. Exhibition centers are hardly ever found in the undisputed heart of the city and are always, although still within the city, a little outside of historic urban cores. Especially facilities that are found along the urban ring-road share central and peripheral characteristics.

Nevertheless, it is possible to attribute some common characteristics to both types. Surprisingly size is not a determining factor. The fairs in Frankfurt, Cologne and Paris Versailles show that some of the largest fairs in the world are centrally located. As will be demonstrated by the case studies in the remainder of this study, the urban fabric around these central facilities, however, does pose problems when these exhibition centers want to extend. For peripheral facilities that are generally surrounded by open space to at least one side of the fairground, this is generally much easier. Moreover,
land is available in generally larger quantities and for lower prices. The urban fabric and the diversity of functions this provides is, however, often an asset for central facilities. Within these neighborhoods, often a set of complementary functions like bars, hotels and restaurants is developed to facilitate the visitors of the fair complex. Around peripheral venues, these functions are generally on shorter supply. Therefore, it was claimed in a 2005 study that centrally located exhibition facilities generate more economic spin-off than peripheral facilities (ICC Commission, 2005).

In terms of accessibility, central fairs are generally closer located to the international or central train station but more distant to the regional airport. As was already discussed, new facilities in the urban periphery are often constructed adjacent to international airports. Therefore, peripheral facilities show a reversed pattern: they are closer to the airport but more distant from central train stations. This pattern is depicted in Figure 1.11 where as-the-crow-flies distances from the exhibition center to the airport and the international or most important railway station are depicted in a scatterplot. Apart from showing the generally larger distances within large metropolitan areas, this figure also shows a separation between central and peripheral facilities, with centrally located facilities relatively found towards the lower-left and peripherally located venues located to the upper-right of the chart. Figure 1.12 strengthens this observation. Here, the new and old location of the five most recently relocated trade fairs are shown in a similar scatterplot with distances to airport and central station.

Construction in the third period of large scale investment in exhibition infrastructure in Western Europe is enormous and drastically changing the nature of exhibition facilities. Underlying these developments are processes of specialization and internationalization combined with toughening competition between both trade fairs and cities over visitors and investment. Characterizing current exhibition center development projects is a divergent geographical pattern. On the one hand, there is a series of new facilities emerging in the metropolitan periphery, located at highway connections and near airports. On the other hand, there is a number of facilities continuing along the traditional path of central locations for exhibition centers. This league of facilities is headed by facilities that are strengthening their historic locations but also comprises a few recently constructed facilities.
Figure 1.13: The Jaarbeurs Utrecht is an example of a central facility, tightly embedded within its urban surroundings.

Figure 1.14: The Feria de Zaragoza is a peripheral facility, relatively isolated from other urban functions.