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Germany's role in the foreign direct investment configuration of Korean multinational enterprises in Europe

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No. **80** 2009

Chan-Mi STRÜBER

**Germany's Role
in the Foreign Direct Investment
Configuration of Korean
Multinational Enterprises in Europe**



Title:

Germany's Role in the Foreign Direct Investment Configuration of Korean Multinational Enterprises in Europe

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Abstract:

Germany has always been one of the major direct investment destinations for Korean multinational enterprises (MNEs) within Europe. However, along with the internationalization of Korean firms, the motives and patterns for direct investments have changed. This paper discusses the development of Korean MNEs' investment motives and patterns, specifically regarding the role Germany has played over the years. For this purpose, geographical configuration patterns of the largest Korean MNEs within Europe are analyzed. The main findings indicate that Germany is considered more important to automobile companies than electronics companies, and that the investment activities of small and medium-sized enterprises are increasing, whereas the investment activities of large MNEs are decreasing.

Keywords:

Foreign direct investment, geographical configuration, Multinational enterprises, internationalization, Korea, Germany, Europe

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1 Introduction¹

Korean² outward foreign direct investment has been rising consistently during the past decades, reaching a record volume of over 15 billion US dollars in 2007. Experiencing fast track internationalization, large Korean conglomerates like Samsung, LG and Hyundai have become major players in the international markets. These large multinational enterprises (MNEs) have spread their activities worldwide, creating added value in selected locations.

Europe has become the second largest direct investment destination for Korean firms. In particular, large MNEs have invested heavily in Europe. In 2007, Korean firms invested nearly 4 billion US dollars in Europe, of which 85 % consisted of investments from large companies.³ Germany, as well as the UK and the Netherlands, has been one of the major European investment destinations for Korean companies. Korean companies started their European operations with sales subsidiaries in the major European markets: Germany, UK and France. However, since the opening of the Eastern European markets, a substantial number of investments have been flowing into countries like Poland, the Czech Republic and Slovakia, the latter of which became the European production base for large Korean MNEs. Not only sales and production operations are located in Europe, but Korean MNEs' European operations have also grown from mere sales activities to regional full-scale operations including sales, production, logistics, research, and headquarters activities.

This paper discusses how Germany's role as a direct investment destination for Korean firms has changed over the years. For this purpose, the geographical configuration of the biggest Korean multinationals, Samsung Electronics, LG Electronics, Hyundai and KIA Motors will be examined. By analyzing where and why these major investors located their activities within Europe, the dynamics of the relationship between investment motives and location decision can be understood. The conclusions gained from this analysis can then be used to comprehend the development and changes in Germany's role in the configuration of Korean companies.

This paper is structured as follows. First, a brief overview concerning the characteristics of Korean direct investments (DI) in Europe and Germany will be given. Second, the European geographical configuration of the aforementioned Korean MNEs will be analyzed. Finally, Germany's role in Korean direct investments will be discussed.

2 Characteristics of Korean Foreign Direct Investment

2.1 Korean Foreign Direct Investment in Europe

Europe has become one of the largest FDI destinations for Korean firms. The main target regions for Korean FDI are Asia, North America and Europe. Asia, especially China, makes up the largest portion. Since 2000, Europe has been catching up to North America and outpaced it in 2001, 2002 and 2007. The investments have been mostly sales driven, the percentage for market entry and export promotion made up nearly 80 % of the FDI motives to Europe.⁴ In Europe, the ratio of large company investors is significantly higher than in other regions. Regarding the accumulated amount of investment since 1998, large companies have made up 87 % of the total investment towards Europe, whilst for Asia and North America the percentages were 58 % and 72 %, respectively. The main target countries, as measured by the accumulated amount of investment since 1968, are the Netherlands, UK and Germany followed by Poland, Norway and the Czech Republic. Measured by the total number of investments, Germany heads

1 This is the revised version of a paper presented at the "Korea Conference" on 14th November 2008 in Düsseldorf, Germany, organized by Prof. Dr. Werner Pascha and the author on behalf of the Institute of East Asian Studies (IN-EAST) of Duisburg-Essen University and the Düsseldorf Chamber of Industry and Commerce, in cooperation with the Bonn Branch of the Embassy of the Republic of Korea, the German-Korean Chamber Seoul, and the German-Korean Business Association (DKW). Financial support from the *Zustiftung Familie Horstmann* of the *Haniel Foundation* for the conference and for the research project on which this paper is based is gratefully acknowledged.

2 In this text, Korea always refers to South Korea.

3 Data from Korea Eximbank.

4 Data from Korea Eximbank.

the table, followed by the UK and the Netherlands.⁵ The main industries have been manufacturing, wholesale and retail. In particular, electronics and automobile companies have invested heavily in Europe.⁶ For the last five years, a substantial amount of money has been invested in non-financial holding companies. The professional services industry ranks third based on the accumulated investment amount.⁷

Comparing the three major Western European investment destinations, the following characteristics can be summarized (see Table 1). In Germany, the top 30 investors were almost exclusively automobile and electronics companies. Furthermore, Germany has attracted more companies than the UK and the Netherlands in the past. In the UK, the largest investors have been electronics and financial companies. Several manufacturing plants have been located there, mostly from the big electronics firms, and there have been consistently high investment volumes since 1990. Moreover, The UK has the most balanced ratio between large companies and SMEs (small and medium enterprises). Many holding companies are located in the Netherlands. It has the largest accumulated investment amount among European countries due to some large-scaled joint ventures. The largest one was the joint venture between LG Electronics and Philips, founding LG Philips Display Holding.

Table 1: Comparison of FDI characteristics of major direct investment destinations

Germany	UK	The Netherlands
<ul style="list-style-type: none"> Primarily automobile companies (especially since late 1990s) Predominately excellently automobile and electronics companies Largest number of Korean companies (Germany around 300, UK around 200, The Netherlands around 100) 	<ul style="list-style-type: none"> Primarily electronics and financial companies Several manufacturing bases of Korean companies Consistently high investment volumes since 1990 Most balanced ratio between large companies and SMEs 	<ul style="list-style-type: none"> Location of holding companies Largest investment amount among European FDI through JV between LG Electronics and Philips (LG Philips LCD) Largest accumulated investment amount due to investments in holding companies Above average growth of Korean inward FDI since 2006

Source: Korea Eximbank, Unternehmensregister (Germany's company register), own table

2.2 Korean Direct Investment Characteristics in Germany

The main characteristics of Korean FDI in Germany are illustrated in Table 2. According to data provided by the Korea Eximbank, 93 % of the Korean FDI in Germany is in the manufacturing, wholesale and retail industries.⁸ Again, the main motives are market entry and export promotion. The proportion of SMEs investing in Germany is increasing rapidly. Since 2000, more than half of the investment projects in Germany were carried out by Korean SMEs. However, their share of the volume of investments is still low, consisting of less than 20%.⁹ The main target regions are Hesse, North Rhine-Westphalia and Baden-Württemberg.

Table 2: Main characteristics of Korean FDI in Germany

Main industries	Main Motives	Main target regions	Company size
Manufacturing (49 %)	Market entry (38 %)	Hesse (48 %)	Large companies (88 %)
Wholesale and retail (44 %)	Export promotion (30 %)	North Rhine-Westphalia (15 %)	SMEs (12 %)
Finance (2 %)	Natural resources (18 %)	Baden-Württemberg (8 %)	Other (0 % [0,002 %])

Source: Korea Eximbank (accumulated data from 1968 to 2008 measured by amount of investments), Unternehmensregister (Germany's company register), own table

⁵ Data from Korea Eximbank.

⁶ In the manufacturing sector, which makes up 50 % of total investments, nearly 80 % of the investors have been automobile and electronics companies.

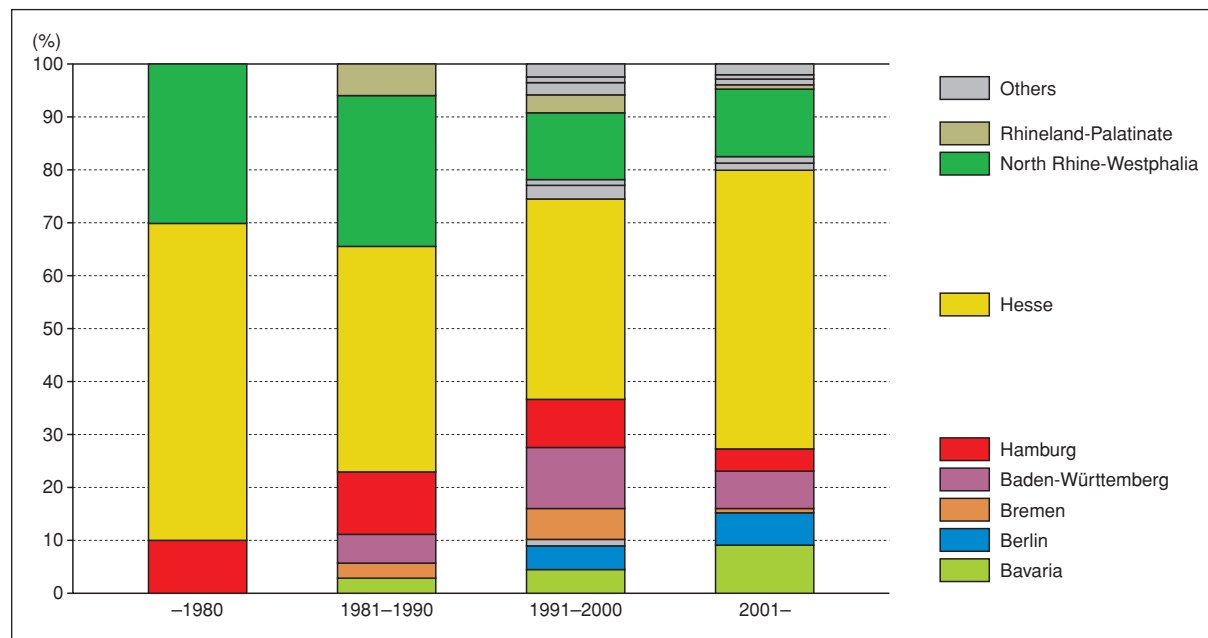
⁷ Data from Korea Eximbank.

⁸ Note that although 49 % is categorized as manufacturing industry, this does not necessarily mean that the subsidiaries are manufacturing plants. Rather, they are in the manufacturing industry.

⁹ In contrast, in Asia there is very little difference between SMEs and large companies concerning volume of investments.

Figure 1 shows the distribution of Korean companies within Germany. The diagram demonstrates the substantial gap between Hesse and the other German states. The region in and around Frankfurt is especially preferred. This diagram also illustrates how the geographical diversification among Korean companies has progressed.

Figure 1: Distribution of Korean companies within Germany



Source: Unternehmensregister (Germany's company register), own diagram

In the 1960s and 1970s, Germany was Korea's number one European trading partner. However, not only goods and services were exchanged, but with respect to labour migration as well, Korean nurses and coal miners were hired by the German government to cover labor shortages. The first corporate expansion towards Europe took place in Germany: In 1970, the Korea Exchange Bank opened a branch office in Frankfurt. This was the beginning of Korea's link to the region in and around Frankfurt. Trading companies were the first to follow, among them LG, Samsung and Daewoo. North Rhine-Westphalia (NRW) and Hamburg were also preferred regions. In NRW, Düsseldorf was the first city where Korean trading companies invested. The first company arrived in NRW in 1977. Retrospectively, it is difficult to gather facts which would help explain the reasons Korean firms started to invest in NRW. One possible explanation could be that Düsseldorf had been the center for Japanese companies. Since the Korean economy was tightly linked to Japan in that period, it is plausible that the Korean companies followed Japanese companies or that, at least, the so-called "psychic distance"¹⁰ was lower compared to other cities. Also, many coal miners were sent to the mines in Duisburg and Castrop-Rauxel¹¹. Consequently, these were among the few regions where Korean communities existed. Last but not least, NRW had a high population density combined with high purchasing power, which made it an attractive market.¹²

Hamburg was the premier location for shipping and logistics companies. During 1981 and 1990, LG Electronics operated a factory in Worms (Rhineland-Palatinate). At the end of the 1990s, KIA and Daewoo entered Germany through Bremen. Samsung Corning established a factory in Tschernitz (Brandenburg). To date, Korean direct investment has occurred in every German state, except for Saarland.

¹⁰ Psychic distance describes the degree of familiarity with a location (see e. g. Johanson, J. and Vahlne, J. (1990), p. 13).

¹¹ Both are cities in North Rhine-Westphalia.

¹² According to an official statement of LG Electronics, this was one of the main reasons to locate their sales subsidiary nearby Düsseldorf.

3 Geographical Configuration of Four Korean MNEs

In this section, the location decision motives of Korean companies within Europe will be explained based on case studies regarding the geographical configuration of the aforementioned Korean MNEs. The reasons for selecting these companies were as follows: First, as we saw in the previous section, Korean foreign direct investment in Europe has been dominated by large companies. The four companies selected made up the largest proportion regarding both the total amount and the total number of investments. Second, only large Korean companies have a differentiated functional organization structure within Europe. SMEs usually possess only one or two European subsidiaries¹³ and, thus, the examination of geographical (re-) configuration is not meaningful. And finally, by analyzing the configuration patterns of the most representative large companies, implications for other Korean companies can be derived.¹⁴ Before exploring the case studies, some theoretical consideration will be explained.

3.1 Theoretical Considerations

First of all, location decisions derive from the motives for the investment as well as from the resulting role the established subsidiary is to play. The motives for investments vary significantly and can include market-seeking, efficiency-seeking or strategic asset-seeking motives.¹⁵ The role of the subsidiary is determined by the investment motive and the function which is going to be expanded. When the role of the subsidiary is defined, the company identifies critical locational factors. In figure 2, major locational factors are listed according to a subsidiary's role.

For sales subsidiaries, the most relevant issue is the proximity to the potential markets and customers. Conducting sales activities involves more than promoting and selling products to customers. It also includes tasks like gathering intelligence about customers' taste, preferences or needs as well as the competitor's product and marketing strategy.¹⁶ Therefore, indicators like GDP, population density and purchasing power are important for location decisions.¹⁷ The location of any major customers can also be an important consideration. Additionally, the information about customers and competitors has to be transmitted to the headquarters. In general, an urban structure with sufficient access to information and services as well as a good transport connection is essential.

Research on production site investment has been most extensive in comparison to other functions. Therefore, numerous investment determinants have been identified.¹⁸ For most industrial products, like automobiles and consumer electronics goods, production is very price sensitive. Therefore, the most important locational factors are costs, such as labor and real estate. Lower costs can also be achieved through government subsidies or a favorable tax policy. Trade barriers, like tariffs or local content regulations, can also stimulate production investment, since on-site production may reduce tariff-costs or meet local content regulations.

Headquarters have similar needs as sales subsidiaries concerning urban structure and good transport connections. Henderson et al. (2005) highlighted the importance of good access to information and services, while Holt et al. (2006) discovered that headquarters were attracted by good communication, education and transport infrastructure. According to the focus of activities, the proximity to strategically important subsidiaries can be relevant as well. If the headquarter's function is to coordinate regional

13 Own research.

14 The industrial structure in Korea has been very concentrated for a long time. Large companies dominated the markets and SMEs were often just suppliers for the large conglomerates, so that their businesses were tightly linked to the businesses of the large companies. Particularly in the capital- and technology-intensive industries, such as electronics and automobile industry, business was dominated by large companies (see for example Cherry, J. (2001), Ch'oe, K.-C. (1992) or Shin, S.-H. (1998)).

15 See e.g. Dunning, J. (1998), p. 53, Borghoff, T. (2005), p. 65, Kim, Y.-C. und Choi, Y. (2004), p. 19 or Hur, J.-Y. (2007), pp. 440–442.

16 On-site presence of sales and marketing divisions are especially important if the customer needs are differentiated and market specific adjustments are necessary (Prahalad, C. and Doz, Y. (1987), pp. 18–21).

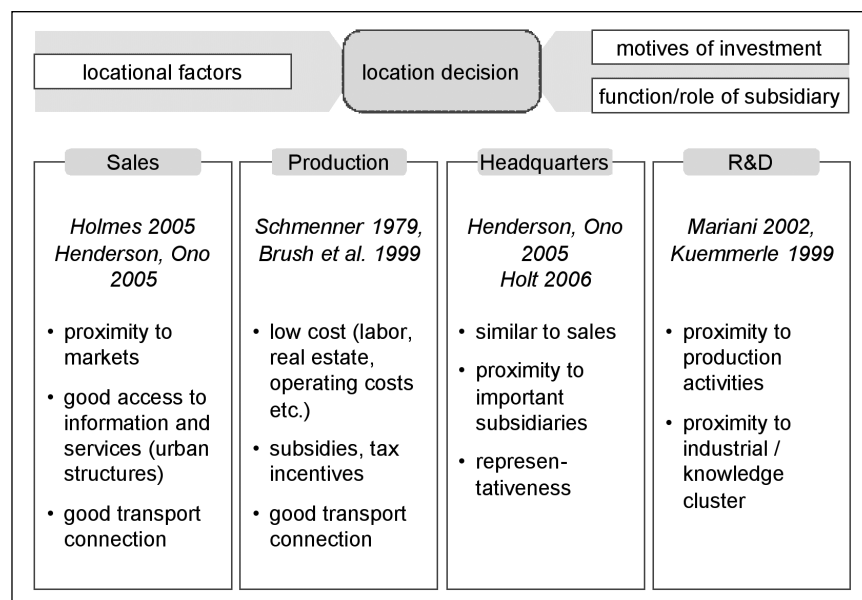
17 Holmes, T. (2005) examined the location of manufacturers' sales offices in the USA and discovered that they are located nearby big cities.

18 See for example Dunning, J. (1973), summary of FDI-Studies (pp. 296–297), Brush, T., Maritan, C. und Karnani, A. (1999) or Blonigen, B. (2005).

activities, proximity to key subsidiaries becomes more important, whilst activities aimed at integrating regional operations globally require good flight connections and representativeness.¹⁹

The determinant factors for the location of R&D labs also vary according to the specific role. If the activities are focused on exploiting existing knowledge and skills, proximity to production sites is favored. To generate new knowledge and skills a good scientific and knowledge base is more important.

Figure 2: Influential factors for location decisions



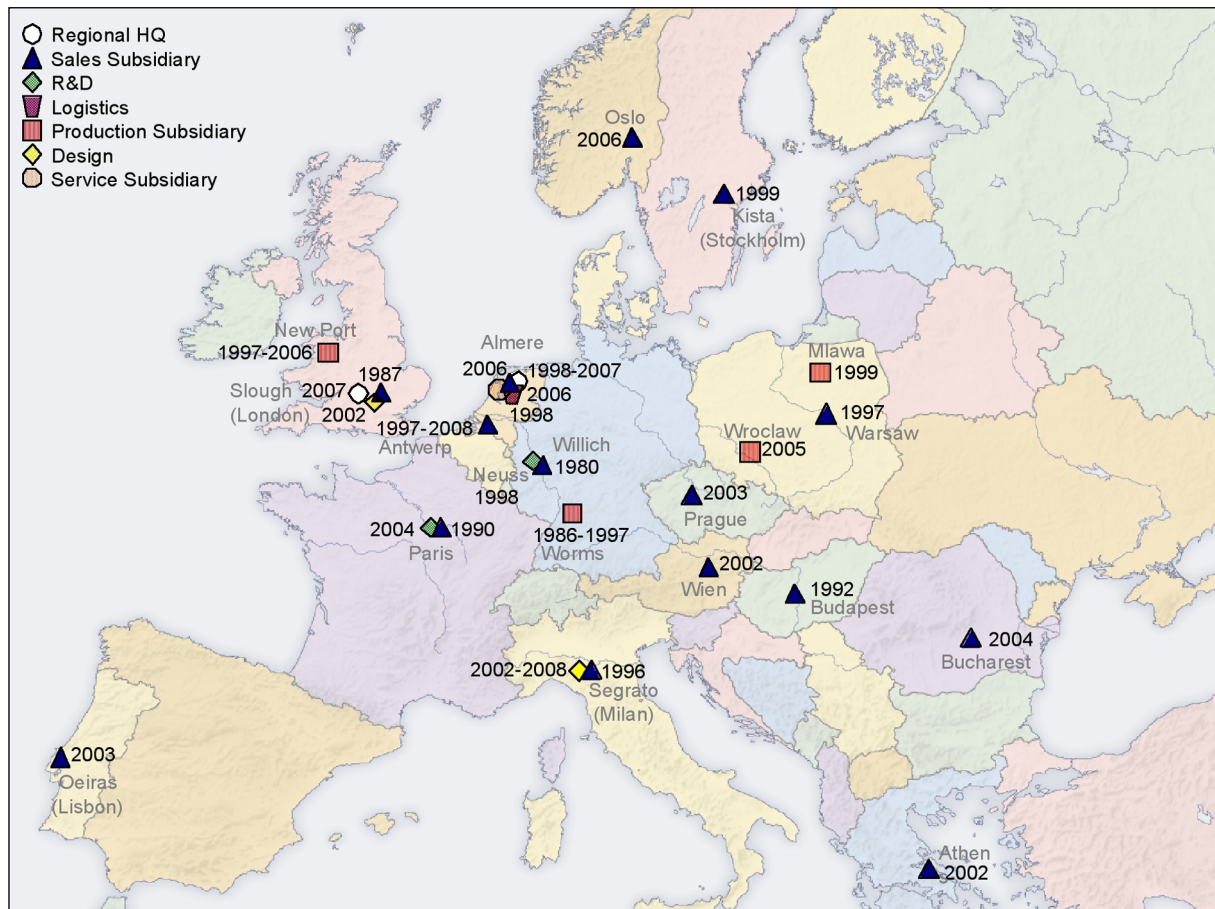
Source: Own illustration based on Kuemmerle (1999), Mariani (2002), Henderson et al. (2005), Holt et al. (2006), Holmes (2005), Schmenner (1979), Brush et al. (1999)

3.2 Case Studies

Data Collection. The data sources for the empirical research were annual reports from the companies, press releases, newspaper articles and interviews as well as prior research results. Annual reports have been publicly available for LG Electronics and Samsung Electronics since 1998, for Hyundai Motor Company since 2000, and KIA Motors since 2006. The annual reports contain lists of overseas subsidiaries, their current locations and in some cases the year of foundation. They also provide data about new establishments and the withdrawal and transfer of locations. Supplementary data was provided by previous research e.g. Ch'oe (1992), Shin (1998), Cherry (2001) and Hyun (2003). News articles, press releases and interviews with managers from the respective companies were used to identify reasons for their location decisions. Interviews were conducted with one to three people, per company, from the middle or upper management level.

LG Electronics. LG Electronics (hereafter called LG) first established a sales subsidiary in Germany in 1980, followed by a factory in 1986. Within a decade, they opened up sales subsidiaries both in the UK and France. During the next seven years, sales subsidiaries were established in the five biggest markets in Europe as well as Hungary and Poland. In 1997, production activities were moved from Germany to the UK. 1998 saw the establishment of their European headquarters and logistic center in the Netherlands. During the next six years, LG's European presence grew to include eight more sales subsidiaries, an additional production plant in Poland as well as their first research and development and design centers in Europe. In 2006, LG closed its production facilities in the UK and transferred them to Poland. Headquarters were moved in February 2007 from the Netherlands to London. The design center in Milan was merged with the design center in London in 2008 (See figure 3).

¹⁹ See Holt, J. et al. (2006).

Figure 3: Geographical configuration of LG Electronics' European operations

Source: Own research and own diagram based on data from homepage, LGE Annual Reports (1998–2007), interview with LGE employees

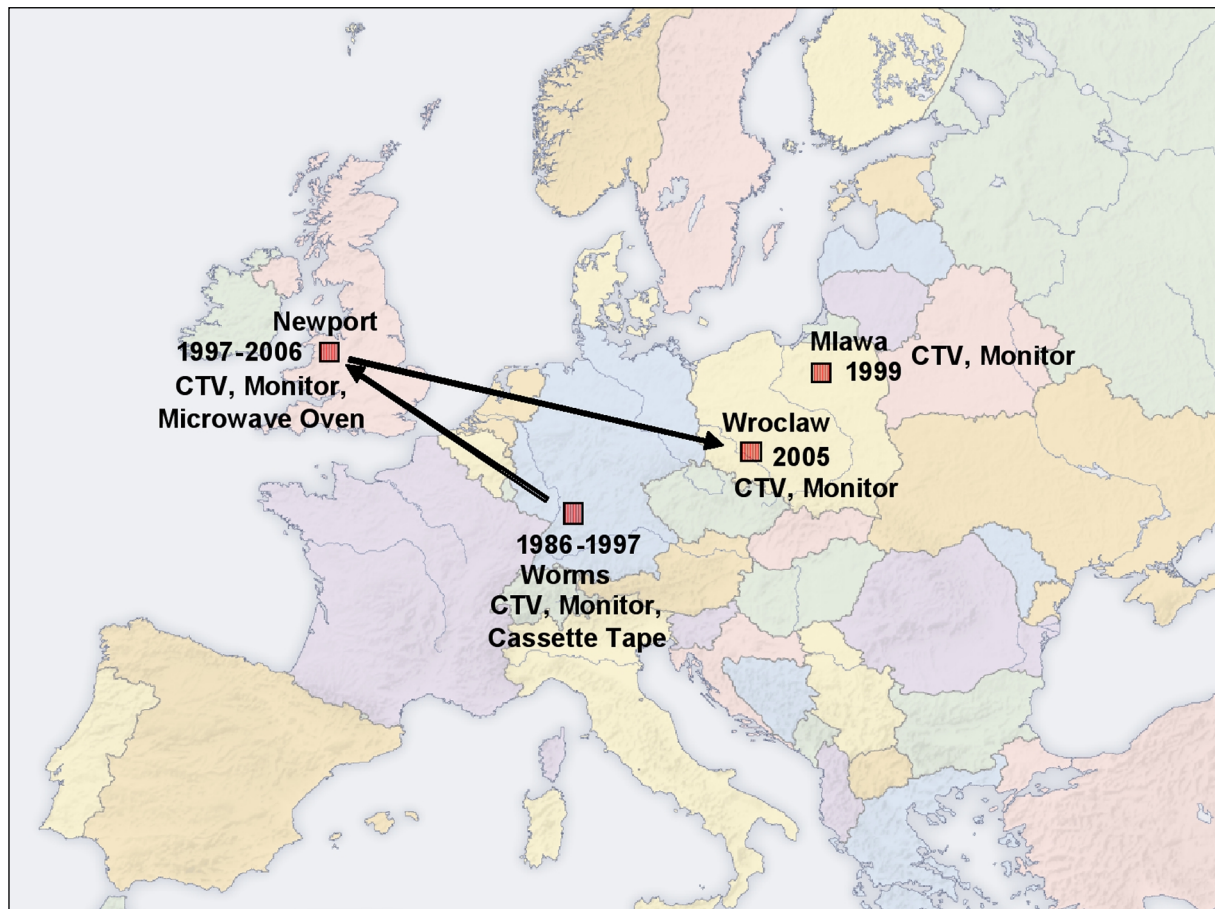
Looking at the reasons for location choice, the following characteristics can be pointed out. Sales subsidiaries are mostly located in areas with a high population density and purchasing power, normally a capital city. Costs have been an issue, too. Nearly all sales subsidiaries are located in the suburbs rather than the city center. One further commonality is that they are all located near a motorway. In conclusion, the factors used to determine the location of sales subsidiaries can be summarized as follows: proximity to a major market but at comparably low costs with motorway accessibility.

The aim of the R&D center in Paris is to develop new mobile solutions for the European market.²⁰ Paris was chosen because of its proximity to the *European Telecommunications Standards Institute* and the *Third Generation Partnership Project*, which oversee the technological standards of the next generation in telecommunications.²¹ As a result, in this case, the proximity to related institutions accounts for the location choice. The transfer of the design center from Milan to London was explained by London's locational advantages regarding design competencies.²² Moreover, LG announced that it would make London their European hub after relocating their headquarters to London only one year ago. The official statement from LG states that London attracted their interest because of the business and financial environment and its global position. A more informal statement of a manager is that London was chosen for the headquarters location because other large electronics companies such as Samsung are located there as well. This indicates that the region in and around London offers a favorable environment to electronics firms.

20 This is stated on the company's homepage.

21 According to LG's press release from 8th December 2004.

22 According to a press release from 25th June 2008.

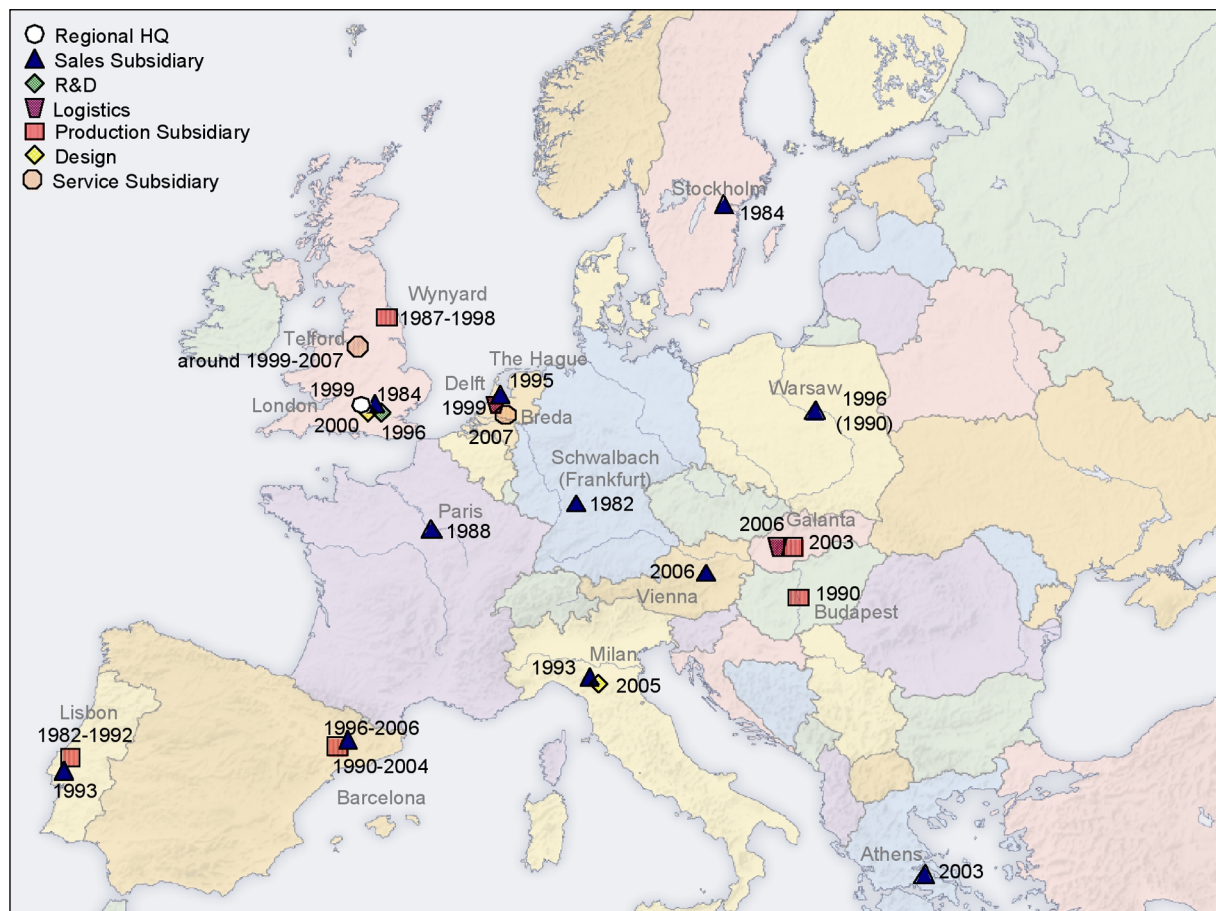
Figure 4: Shift of production activities of LG Electronics

Source: Own research and own diagram based on data from homepage, LGE Annual Reports (1998–2007), interview with LGE employees

Figure 4 shows the shift of production activities over time. Clearly, display products dominate the product portfolio. The plant in Worms also produced video recorders and cassette tapes. This plant served the Western European market prior to 1989; after the reunion of Germany it began catering to the East German market. After the East German market was saturated, the plant was closed and TV production capacities were moved to the UK. In the late 1990s, LG expanded its production activities into Poland. Only recently, all production activities have been moved to Poland. In Wroclaw, LG affiliates and partners established a LCD display cluster.

Due to Germany being the only country where LG had a subsidiary, it is not surprising that they chose to open a production facility in Germany as well. Although this plant had been located in Germany for quite a long time, it had to be shut down due to high wages and decreased demand from the new German states. At the end of the 1990s, the South East of Wales had become a major site for electronics companies, among them Sony and Dell. This region offered comparably low wages and skilled workers. However, the competitiveness of this region faltered with the opening of the Eastern European countries, and currently all production activities are based in Poland. A plant manager in Wroclaw stated that Poland was chosen, among other Eastern European countries, because of highly skilled work and a better infrastructure.

Samsung Electronics. Samsung Electronics (hereafter Samsung) has a similar configuration pattern to LG (see figure 5). Samsung also has, although less than LG, several sales subsidiaries in the major European markets. Their production facilities are located in Eastern Europe as well, however in Slovakia and Hungary rather than Poland. Samsung's European plants have a clear focus on display products as well. Both have logistic centers located in the Netherlands and headquarters located in London. Some differences in the make-up between the two companies exist: Samsung has an additional logistic center in Slovakia, and two design centers as well as its R&D center are located in London rather than Paris.

Figure 5: Geographical configuration of Samsung Electronics' European operations

Source: Own research and own diagram based on data from homepage, SEC Annual Reports (1998–2007), interview with SEC employees

Their factory in Lisbon was the first to be established in Europe. This manufacturing subsidiary produced color TVs. The second plant they opened was in Wynyard (UK). There, they manufactured color TVs, monitors and microwave ovens. This plant was enlarged to an integrated manufacturing complex in 1996. Samsung opened up another plant in Hungary right after the fall of the Iron Curtain. The plant in Barcelona, which was opened at the same time as the manufacturing complex in Wynyard, also produced color TVs and video recorders. Like LG, Samsung transferred its production activities from Western European countries to Eastern European countries. The production plant in Portugal was closed first and the production capacities transferred to the UK. After closing Wynyard, color TV production was moved to Hungary, while Spain's production plant was transferred to Slovakia.

Samsung and LG considered similar factors when making their locational decisions. For sales subsidiaries, this especially holds true: They are situated in the suburbs of large cities. Even the regional headquarters is located in Surrey rather than in the central parts of London. This is mainly due to cheaper real estate costs, but also to the proximity to the Heathrow Airport.²³

At the same time when Samsung enlarged the Wynyard factory, it established a R&D lab in London, which supplies R&D support across Europe for Samsung's production complexes. The lab focuses on technological development and product design for a number of areas including telecommunications, audio/visual, multimedia and other consumer electronic products.²⁴ One year later, an electromagnetic compatibility (EMC) and quality assurance laboratory (QA-Lab) was transferred from Germany to London.

23 According to Google Maps, it takes 20 minutes from the headquarters to the airport by car.

24 Press release from 18th May 1996.

But just as operations grew, there were also losses for the UK. In 2007, the European service and distribution center was moved from UK (Telford) to the Netherlands (Breda) due to better proximity to European markets.

Hyundai Motor Company. The next two companies that will be analyzed, Hyundai Motor Company and KIA Motors, merged in 1999. However, in this paper they will be treated as separate companies, because, except for some financial connections, they behave as such.

In general, companies in the automotive industry have fewer self-owned sales subsidiaries than in the electronics industry, choosing rather to find independent sales agents than to establish many sales subsidiaries. This is due to the very high costs and risks associated within these capital intensive activities.

Hyundai Motor Company (hereafter Hyundai) started its European operations in 1978 with independent Dutch and Belgian distributors. During the 1980s, Hyundai spread out its sales activities throughout Europe with independent sales agents in various countries. In an effort to coordinate European sales activities, Hyundai established an office in Eschborn (Germany) in 1992. This office became the European headquarters in 2000. It moved from Eschborn to Rüsselsheim in 2003 and finally to its current location in Offenbach in 2006. In 1998, Hyundai established a parts supply center in Lummen (Belgium), not far away from the port of Antwerp. This subsidiary now belongs to Hyundai Mobis, a parts supplier for Hyundai. A sales subsidiary in Poland followed in 1999 and a new R&D facility in Rüsselsheim in 2003, where existing R&D activities from Hyundai and KIA were merged and increased. Rüsselsheim and the adjacent region contain an automobile industry cluster, including the European R&D base for General Motors. This region, therefore, offers a large pool of industry-related skilled workers and a well-established network of suppliers. In 2005, Hyundai acquired full distributorship in the UK and announced its intention to conduct aggressive marketing in order to raise sales volumes.²⁵ Currently, they have five sales subsidiaries located throughout Europe and a production plant is being built in the Czech Republic. Independent sales agents, who are spread all over Europe, are not displayed in figure 6.

With the exception of opening an office in Eschborn, Hyundai waited a long time before starting up self-controlled operations in Europe. Only recently has Hyundai begun to set up a subsidiary network. According to some research concerning the Korean automobile industry (e.g. Lautier (2001), Hyun (2003) or Lansbury et al. (2007)), Hyundai's internationalization strategy was at first more cautious, concentrating on entering markets in developing countries. But with increasing global competition, Hyundai was forced to pursue a more aggressive internationalization and marketing strategy to enhance overall sales volume and secure its global position. In light of higher sales requirements, Hyundai has had to extend its own operations in Europe in order to better coordinate activities and reach the company's goals.

Again, the sales subsidiaries are located in big cities close to motorways. But in the case of Hyundai, the locations were predetermined by the locations of the distributors they merged with (Milan, Oslo, London and Prague). Only the German and Polish subsidiaries were established by Hyundai itself.

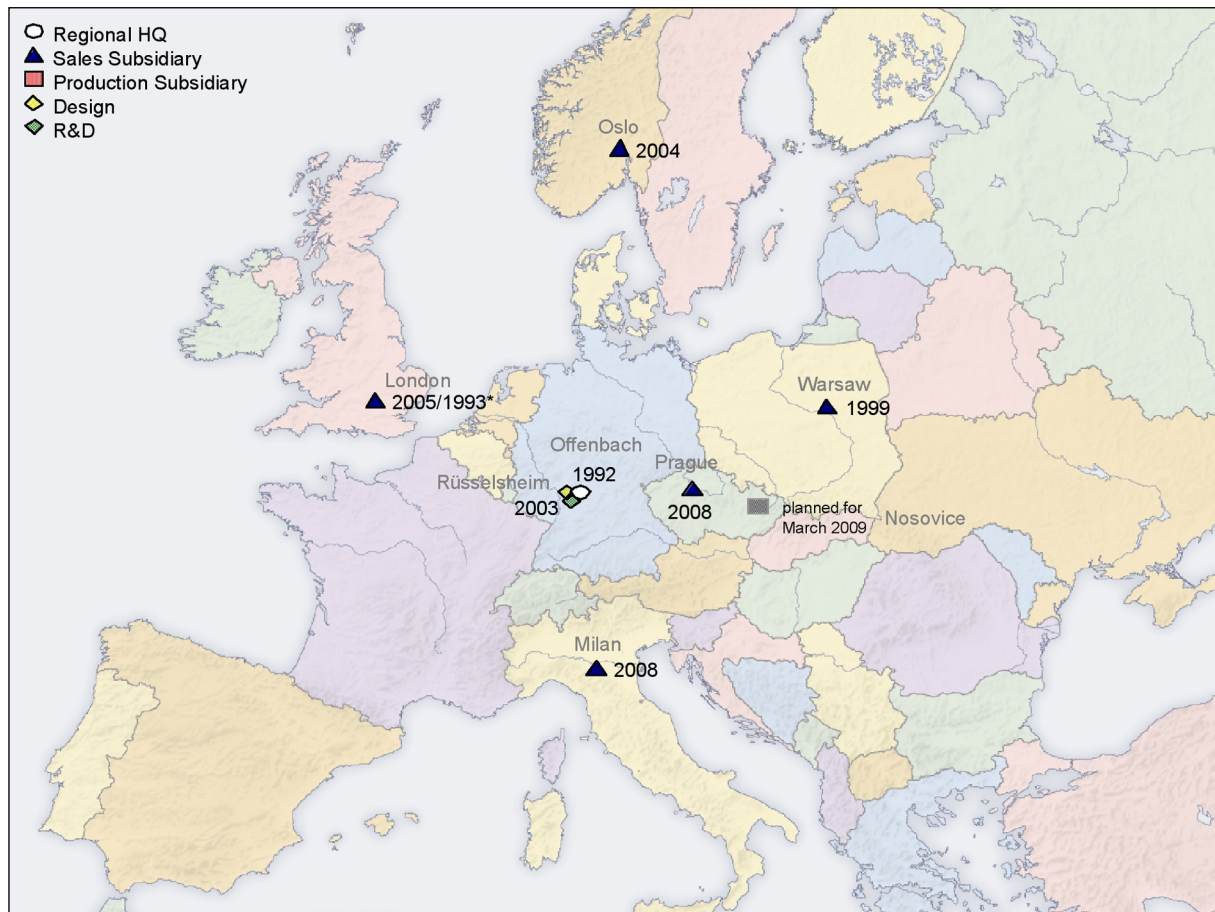
Hyundai chose Germany as their European hub because of its importance in the industry.²⁶ However, why Hyundai chose Eschborn as the starting point of its European activities is not quite clear. The most simple answer might be that the airport in Frankfurt was, until recently, the only German airport which had direct flights to Seoul. The office in Eschborn was established to coordinate regional sales activities. The work in the office was therefore dependent on frequent exchanges with the companies' headquarters in Seoul. This meant that a reliable means of transportation to the central headquarters was essential. It certainly still is today as well, because regional headquarters require frequent exchange with the parent company.²⁷ A connection to prior investments can be found as well. The Hyundai Corporation, the former parent company of Hyundai Motor Company, had a subsidiary in Eschborn since 1987.²⁸ As a result

25 Company's press release (July 2005).

26 Interview result.

27 See Kuemmerle, W. (1999).

28 According to Germany's company register.

Figure 6: Geographical configuration of Hyundai Motor Company's European operations

Source: Own research and own diagram based on data from the official Hyundai Motor Company website, HMC Annual Reports (1998–2007), interview with HMC employees

Establishment of own subsidiary / Starting operations (through independent sales agent)

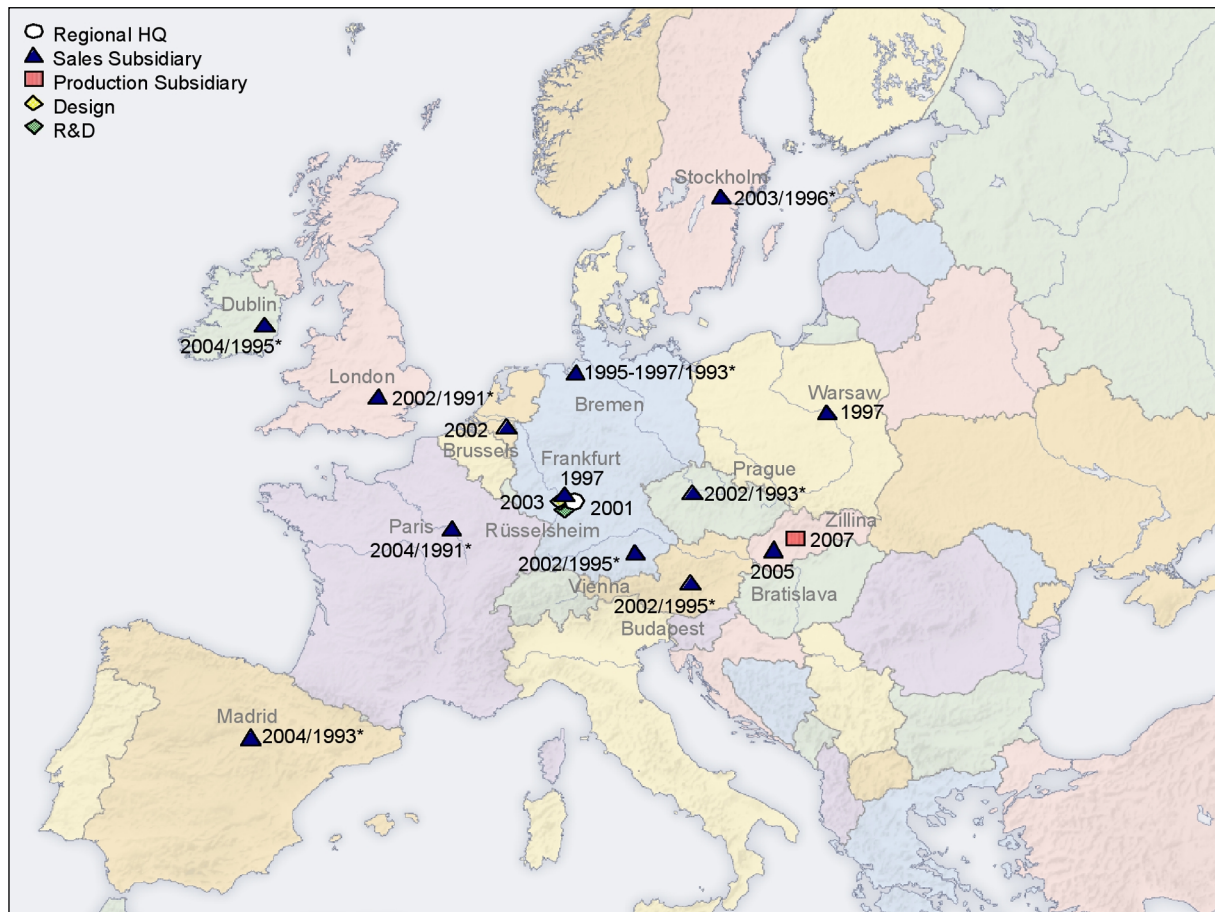
there were already personal and institutional ties. Additionally, by co-locating the offices from Hyundai Corporation and Hyundai Motor Company, synergies could be exploited.

KIA Motors. Considering KIA, a very similar configuration can be seen except for the fact that KIA has many more sales subsidiaries. It is interesting to note that Hyundai and KIA operate two distinct headquarters but have a common R&D and design center. Although located in different countries, their production facilities are only 95 km apart. In figure 7, independent sales agents are not displayed.

The most obvious question after looking at these figures is, why KIA Motors has so many sales subsidiaries while Hyundai does not. The answer is simple. KIA was forced to acquire the distributorship in many cases because the independent sales agents would not continue selling KIA cars – cars from a company that had gone bankrupt.²⁹ So, external factors accounted for this expansion. The locations for the sales subsidiaries were also predetermined, because KIA mostly acquired existing independent sales agents. The location decision for the headquarters was also influenced by external factors. KIA followed Hyundai from Bremen to Frankfurt.

To sum up the location decisions by the latter two companies: the sales subsidiaries are located mostly in a country's capital, similar to the electronics companies. But the location decision was often predetermined by existing facilities. R&D operations are located near the headquarters, but also near to an in-

²⁹ But despite difficulties to coordinate such a rapidly grown organization and a large financial burden, a marketing firm representative told me, that, retrospectively, this was not bad fortune for KIA. Through its large network of subsidiaries KIA is able to implement marketing activities more effectively. Hence, KIA managed to close substantially the brand image gap between Hyundai and itself.

Figure 7: Geographical configuration of KIA Motors' European operations

Source: Own research and own diagram based on data from homepage, KIA Annual Reports (1998–2007), interview with KIA employees
Establishment of own subsidiary / Starting operations (through independent sales agent)

dustrial cluster. The production facilities are located in the Czech Republic and Slovakia, two countries where automobile production is prevailing. The production facilities are, as mentioned, not far away from each other. Therefore, they are able to exploit synergies in supply and production. Due to being located in two different countries, they were able to enjoy investment promotion measures from both countries.

3.3 Analysis of Empirical Results

Looking at the empirical results, some characteristics of location decision can be pointed out. Sales subsidiaries are located in large cities, usually the capital city, with good access to market information and services as well as a good urban infrastructure. Large cities also offer high population density and purchasing power. Another common feature of these locations is that they are situated near motorways, which means that good transport connections are essential. These characteristics hold true for both electronics and automobile firms. These findings correspond to theoretical considerations. However, the subsidiaries are mostly located in peripheral districts or suburbs of the cities. Since the role of sales subsidiaries is to coordinate sales, rather than selling directly to private customers, it is not necessary for them to be located in expensive central shopping areas. By locating the subsidiaries in peripheral districts, costs can be saved.

Production sites are *all* situated in the Eastern European countries. In the case of the electronic companies, the production sites moved from Western peripheral regions to the East. The main reason for this concentration of plants in the East is lower wages. However, the companies did not choose the cheapest countries like Romania or Bulgaria. Instead, they preferred comparably higher developed countries like Poland and Slovakia due to a higher skilled workforce and more reliable institutions.

Regional headquarters' locations present a less homogeneous picture. LG first placed its regional headquarters, together with its European logistics center, in Almere near Amsterdam. After almost ten years, they decided to move the headquarters to London, where Samsung had already established its regional headquarters. London is a major metropolitan city with a favorable business and financial environment. This corresponds with the theoretical findings concerning the importance of urban structure as well as communication and information infrastructure. At the same time, the headquarters are located in the less expensive suburbs rather than in the center of the city. Obviously, practical factors like costs outweighed representativeness. As mentioned, the reasons for the location decision for Hyundai's regional headquarters couldn't clearly be identified. In KIA's case, there was an external force: the merger with Hyundai. Interestingly, Hyundai's headquarters building is situated in Offenbach, with a suburban-like distance to Frankfurt, while KIA's building is located in Frankfurt's city. Both companies have a similar strategy and a similar organizational structure. Why should one company look for more representativeness than the other? According to interview results, this was just coincidence. There simply was no site available in Frankfurt's city area when Hyundai wanted to settle down.

LG and Samsung both established a regional hub in and around London, having placed their regional headquarters, sales subsidiaries and design centers there. Design is, along with technical innovation, one of the key competitive factors for both companies.³⁰ Technological research is still concentrated in the home countries. But each company established a global design network to develop new designs for their products. London is one of the design hotspots in Europe, offering an excellent skill base.

For technical R&D, Samsung chose London while LG selected Paris. Samsung's R&D operations were established along with the production operations in the UK and were meant to provide R&D support for the products sold in Europe. The R&D operations were placed in the UK at the time when the manufacturing complex in Wynyard was enlarged, but they were not placed in the vicinity of the manufacturing site. The R&D operations required highly skilled workers and good infrastructure regarding communication and transport between the site and Korea. Therefore, they were located nearby London. LG's R&D operations are focused on one specific topic, namely the adaptation of mobile devices to European telecommunication standards. Therefore, the proximity to the professional institutes was decisive. For the automobile companies, the region around Frankfurt am Main constituted the European hub. In this region, they placed their regional headquarters, sales subsidiaries and R&D center. The R&D center is placed close to an industrial cluster which provides a good skill base.

4 Germany's Role in Korean MNEs' Geographical Configuration

What are the implications of these findings for Germany? Germany has been, and will continue to be, a very important market for Korean companies due to its market volume. It was the first destination for Korean companies in Europe. But its importance has changed along with the industries involved. For the automobile companies, Germany has almost an emotional value. A manager from KIA stated that Germany is so important for Hyundai KIA, because it is the most sophisticated and toughest market regarding competitors and customers. If they prevail in Germany, they can be successful anywhere. That is one reason why Germany has become the European hub for these companies. The electronics companies initially placed their central activities in Germany. As a result, Germany was somewhat of the European hub. But with time, the center of activities moved towards the UK. This move can be explained with the UK's leading role in the electronics industry. Some regions in Wales were especially attractive for production and many electronic company headquarters are located in London.

Small and medium-sized companies from Korea are becoming more and more important for Germany as a location. As aforementioned, the number of investment cases by SMEs is increasing rapidly. Companies in the electronics and computer industry particularly invest in Germany. Whereas once SMEs were often satellites of the big conglomerates, today they are investing on their own.³¹

30 See companies' introduction on homepages and annual reports.

31 According to our own research, only 20 % of total companies that have been founded since 2000 were founded by large conglomerates, the so-called Chaebols.

The rise of SMEs' proportion in overall FDI is a general trend in Korea. This trend can be observed especially after the Asian financial crisis, i.e. since the end of the 1990s, following a series of economic reforms, including the deregulation of FDI. This deregulation allowed SMEs to undertake FDI projects without bureaucratic difficulties.³² However, the type of SME-related FDI in Germany is different from the overall trend. While most FDI undertaken by Korean SMEs on a worldwide basis is in labor-intensive manufacturing³³, investments in Germany are largely sales-based.³⁴ This explains why the amount of investment by SMEs is still low compared to large companies. In Asia, for example, where investments in production facilities prevail, the investment amount of SMEs is almost equal to that of large companies.³⁵

For future research, Korean SMEs will become even more important than at present. Moreover, there are indicators that a shift in industries and functions is possible. With the foundation of the Korean-German Cooperation Committee on Science & Industrial Technology in December 2007, closer educational and technological cooperation between Korea and Germany has been promoted. High-tech areas such as nanotechnology, biotechnology or environmental technology are focused areas for cooperation. This could be the cornerstone for more R&D investments from Korean firms in Europe and to Germany in particular.

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32 See Korea Trade-Investment Promotion Agency (2006), p. 13.

33 See Korea Trade-Investment Promotion Agency (2006), p. 13.

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35 According to data from Korea Eximbank.

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