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**Between Luminaries and Meat Grinders:  
International Trade Fairs as Temporary Clusters**

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## Between Luminaries and Meat Grinders: International Trade Fairs as Temporary Clusters

**Abstract:** In the contemporary economy, knowledge has become a decisive factor for firms to achieve and sustain a competitive advantage. We argue that international trade fairs, viewed as temporary clusters, are important events which support processes of interactive learning and knowledge creation for those who participate. In this paper, we focus only on international flagship fairs which take place every two or three years and bring together firms from different parts of the world as exhibitors or visitors. The participants in these fairs originate from one or several industry branches which are vertically or horizontally related in the value chain. In such temporary settings, spatial proximity and face-to-face contact enable firms from different countries to exchange information about new market developments, present new products and monitor the innovations of others. The variety of planned and unplanned meetings with different actors, constant updates of information and gossip and different forms of interaction, ranging from chatting and in-depth conversations to observations and systematic monitoring, creates what has been referred to as 'global buzz'. Firms also use such events to consciously establish linkages or 'pipelines' with new business partners which are located in other regions and nations or maintain existing network relationships. We present empirical evidence based on more than 140 interviews from two major international trade fairs which took place in Frankfurt/Main, Germany in 2004; i.e. Light and Building – International Trade Fair for Architecture and Technology (L+B) and International Trade Fair for the Meat Industry (IFFA). While the first fair can be considered as a consumer goods fair in which many of the products presented are design-intensive, the latter is a technical fair where technological issues of capital goods dominate. The paper will show why and in which way exhibitors communicate with customers, competitors and suppliers during these events, how this interaction is enabled by face-to-face contact and what advantages result from such temporary gatherings.

**Keywords:** Temporary clusters, international trade fairs, global buzz, pipeline formation, knowledge creation, face-to-face contact

**JEL codes:** D83, L22, M21, O17, O18, R12

## 1. Introduction: international trade fairs as temporary clusters

In the contemporary economy, knowledge has become a decisive factor for firms to achieve and sustain a competitive advantage. This has been acknowledged in conceptualizations of industrial clusters which view processes of knowledge creation as being at the heart of understanding industrial agglomerations (Maskell 2001; Malmberg and Maskell 2002; Pinch, Henry, Jenkins and Tallman 2003; Bathelt, Malmberg and Maskell 2004; Bathelt 2005b). Following these approaches, we define 'clusters' as local or regional concentrations of industrial firms, as well as their support infrastructure and institutions, which are closely interrelated through traded and untraded interdependencies. Further, we conceptualize clusters along multiple dimensions which help explain why clusters exist, the way in which they grow and how they reproduce themselves, i.e. the vertical, horizontal, institutional, power and external cluster dimensions (Bathelt 2005a).

In this paper, we argue that international trade fairs can be viewed as temporary clusters which support processes of interactive learning and knowledge creation for those who participate. In recent work, Maskell, Bathelt and Malmberg (2004) suggested that international flagship fairs, which bundle together agents from all over the world, define temporary spaces of presentation, communication and interaction between suppliers, producers and customers of a particular technology or value chain. While trade fairs are often viewed as pure marketing events in the business literature where firms present and sell their products to customers (Backhaus and Zydorek 1997; Fuchslocher and Hochheimer 2000; Meffert 1993; Troll 2003; Rodekamp 2003; Ziegler 1992), the arguments presented here are based on a different interpretation. Similar to the effects of global business travelling, Internet thinking studios and transnational epistemic communities, international trade fairs will be regarded as a particular form in the context of the new geographies of circulation through which knowledge can be created at a distance (Thrift 2000; Allen 2003; Amin and Cohendet 2004).<sup>1</sup>

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<sup>1</sup>/. Torre and Rallet (2005) also emphasize that the need for geographical proximity in economic interaction does not necessarily require permanent co-location. Relatively new forms of professional mobility produce what they refer to as "temporal geographical proximity". Such organized proximity enables regular interaction between different spatial entities (see, also, Gertler 1993).

Like permanent clusters, trade fairs can be analyzed along multiple dimensions (Malmberg and Maskell 2002; Bathelt 2005a).<sup>2</sup> They are characterized by distinct vertical and horizontal interaction although real transactions need not take place. Vertical interaction with suppliers and customers draws upon information exchange about recent market trends, experiences and requirements for future products. Such meetings are a vital source of information for adjustments in strategies and innovations, as well as for the establishment of new and the maintenance of existing pipelines. Trade fairs also bring together firms which compete against one another and would normally not interact. This horizontal dimension provides multiple opportunities for firms to observe and compare their products and strategies with those of their competitors (see, also, Porter 1990; 1998; Dahl and Pedersen 2003; Maskell and Lorenzen 2004). This, in turn, helps to make decisions about future investments and the direction of innovation and serves to stimulate reflexive practices within the firms.

In sum, these events serve as a rich arena for interfirm learning processes. New ideas and projects in the industry or technology field can be identified through observation and monitoring. This is possible because important information, news, trends and gossip make their round. Information and knowledge exchange occur in scheduled meetings with business partners, as well as accidental meetings with former colleagues and systematic scouting for trends. During trade fairs, people are surrounded by a thick web of specialized information flows from which they can hardly escape (see, also, Grabher 2002a; Storper and Venables 2004). These information flows have been characterized by Maskell, Bathelt and Malmberg (2004) as 'global buzz'. This buzz helps to identify potential future partners, acquire information about them and make initial contact.

International trade fairs bring together leading-edge firms from different parts of the world and enable trans-local information flows in a localized setting. 'Global buzz' and shared technological and organizational institutions likewise support the reduction of information asymmetries and uncertainties. Maskell, Bathelt and Malmberg (2004) have argued that international trade fairs do not only help maintain and intensify networks with international customers and suppliers (Prüser 1997; 2003) but also enable firms to identify and select suitable partners from other regional and national settings and develop new

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<sup>2</sup>/. Our intention is not to introduce a slippery concept when using the term 'temporary clusters'. We are aware that real transactions are not characteristic of these events and refer to this term strictly because the structure of information and knowledge flows during international trade fairs and other temporary, periodic events of the social economy (e.g. Norcliffe and Rendace 2003) resembles those flows characteristic for permanent clusters (Maskell, Bathelt and Malmberg 2004).

'trans-local pipelines' (see, also, Owen-Smith and Powell 2004; Bathelt, Malmberg and Maskell 2004; Bathelt 2005b).

In this paper, we aim to present some empirical evidence for knowledge creation during trade fairs. We focus only on international flagship fairs which take place every two or three years and bring together firms from different parts of the world as exhibitors or visitors. This paper is organized as follows. In the next section, we discuss the data and methodology used in our analysis. Empirical evidence is presented based on more than 140 interviews from two major international trade fairs which took place in Frankfurt/Main, Germany in 2004; i.e. Light and Building – International Trade Fair for Architecture and Technology (L+B) and International Trade Fair for the Meat Industry (IFFA). Section 3 systematically explores why and how exhibitors communicate with their customers, suppliers, partners and competitors in these events and which information flows result from this. In section 4, we investigate how this interaction is enabled through face-to-face contact and which advantages derive from the participation in international flagship fairs. This will be followed by some concluding comments regarding the character of network formation and pipeline generation during trade fairs.

## **2. Data used and methodology**

In order to investigate the effects of trade fairs as hypothesized by Maskell, Bathelt and Malmberg (2004), a study was designed to analyze the interaction between exhibiting firms and their suppliers, customers, competitors and complementary firms during such events. Frankfurt/Main in central Germany was chosen as the location to conduct this study because it is one of the leading centers of international trade fairs. In 2003, the city hosted 24 international trade fairs, among those the World Forum of the Process Industry (ACHEMA), International Motor Show for Passenger Cars (IAA) and the Frankfurt Book Fair. A total of 40,295 exhibitors presented their products at these fairs and more than 2.4 million visitors came to examine and evaluate these exhibits (Messe Frankfurt GmbH 2003; Ausstellungs- und Messe-Ausschuss der Deutschen Wirtschaft 2004). For our study, we selected two international flagship fairs for closer analysis which took place in April and May 2004, i.e. L+B and IFFA. Both are among the leading trade fairs in their respective areas of specialization and are characterized by a high degree of internationalization in terms of exhibitor and visitor participation (Table 1). They can be characterized as business-to-business fairs where firms present their exhibits to other firms and not primarily to end customers. Due to this business focus, we were able to conduct interviews with owners, leading marketing managers, product developers and engineers, instead of just sales personnel. The former were the target group in our interviews because they were most

suited to answer questions regarding knowledge creation and network and pipeline formation during international trade fairs.

## **2.1 Light and Building – International Trade Fair for Architecture and Technology (L+B)**

L+B spun off from the Hanover industrial fair in 2000 and takes place every two years. It brings together suppliers, producers, customers and their respective competitors in the areas of lighting (technical and decorative lighting and accessories, lamps), electrical engineering (cables and leads, electrical installation equipment, network technology, industrial controls and safety systems) and house and building automation. Although L+B is still a fairly young trade fair, it is one of the leading international events in the lighting industry. In 2004, 1920 firms exhibited their products at L+B, 57% of which were of foreign origin, including China and Taiwan<sup>3</sup> (Table 1). A total of 116,000 people visited the exhibits at L+B. The fact that more than 70% of the visitors were foreigners exemplifies the international character of L+B (Messe Frankfurt GmbH 2004a; 2004b; 2004c). A large part of the products shown at the exhibits can be characterized as consumer goods with a high degree of design intensity, produced to satisfy particular aesthetic needs or lifestyle images.<sup>4</sup>

## **2.2 International Trade Fair for the Meat Industry (IFFA)**

IFFA was established as an international trade fair in 1949 and, since then, takes place every three years. Even though it is somewhat smaller than L+B, IFFA is one of the world's leading trade fairs for firms in the area of meat production and processing and includes exhibits in all stages of the value chain, such as slaughtering and carving machines, processing equipment, boiling and smoking systems, packaging and transport technologies,

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<sup>3</sup>/. The latter group of exhibitors was not included in this study because we did not intend to analyze the effects of low cost competition. During the trade fair, we made some interesting observations, however, regarding the action of these firms and the way how others responded to this. We even witnessed cases where Chinese firms had to abandon their exhibits due to accusations regarding plagiarism and illegal imitation of innovations. Further, it was apparent that numerous people, often of Asian origin, systematically took photographs of creative, trendy and innovative products, although this was strictly forbidden. Other firms were quite upset about this behavior and, as several interviewees emphasized, avoided direct contact with their Asian counterparts. Several firms pointed out that it was virtually impossible to stop people from taking photographs since there were simply too many who did this.

<sup>4</sup>/. These were the products we focussed on in our survey. L+B, however, also includes product groups in which technological aspects dominate, such as in the area of house and building automation.



as well as meat processing utilities. IFFA focuses on capital goods in which Germany belongs to the leading producers and exporters (e.g. specialized equipment and machinery). Naturally, design-related aspects of these products are less important than technological features and aspects of practicability in handling them. In 2004, 852 firms exhibited their products at this trade fair, almost half of which originated from other countries (Table 1). Further, more than 60% of the 57,000 visitors originated from outside Germany (Messe Frankfurt GmbH 2004d; 2004e; 2004f).

**Table 1:** *Number of exhibitors and visitors by origin and rented exhibition space at L+B and IFFA, 2004 (Sources: Messe Frankfurt GmbH 2004a; 2004b; 2004d; 2004e)*

Indicator	L+B	IFFA
Number of exhibitors	1920 (100%)	852 (100%)
- German exhibitors	827 (43.1%)	433 (50.8%)
- Foreign exhibitors	1093 (56.9%)	419 (49.2%)
- Important countries of origin of foreign exhibitors	Italy, Spain, France, Netherlands, Austria, as well as China, Taiwan	Italy, France, Netherlands, Spain, USA
Number of visitors	116,000 (100.0%)	57,000 (100.0%)
- German visitors	32,500 (28.0%)	22,000 (38.5%)
- Foreign visitors	83,500 (72.0%)	35,000 (61.5%)
- Important countries of origin of foreign visitors	Benelux, Italy, Great Britain, Austria, France, Spain	Spain, Italy, Netherlands

The sampling strategy was to focus on exhibiting firms, approach them at their exhibits and ask them about the patterns of interaction and information exchange during the trade fair. A total of 110 firms participated in the study. At L+B and IFFA, 54 of 70 firms and 56 of 64 firms which were approached participated in the survey, respectively. This resulted in high response rates of 68% at L+B and 88% at IFFA. The firms interviewed were selected through a mixed random- and purposive-sampling procedure. According to the lists of exhibitors (Messe Frankfurt GmbH 2004a; 2004c; 2004d; 2004f), firms were classified according to product segments, exhibition halls and countries of origin and then chosen randomly. In addition, key firms in each product segment were identified beforehand and purposely included in the sample.

In order to reduce the amount of time to answer the questions, three types of interview guidelines were designed, i.e. focussing on interaction either with customers, competitors

or suppliers. Each firm was asked to answer the questions of one of the three guidelines. Sometimes, people voluntarily offered to also answer questions regarding other types of interaction. The questions asked focused on the ways in which existing and potential partners and competitors were contacted, when and where scheduled and accidental meetings took place, what kinds of interaction occurred and which purposes these interactions served. After a pre-test consisting of six firms, 142 interviews were conducted during L+B and IFFA, 63 of which focussed on customer-, 20 on supplier- and 59 on competitor-interaction (Table 2). Each interview took on average 15 minutes, although there were some which took more than one hour. Most interviews were recorded on tape and transcribed afterwards.

**Table 2.** *Number of interviews conducted at L+B and IFFA by interaction type and nationality of exhibitors, 2004 (Source: Survey Results)*

Interview focus	Number of interviews conducted at L+B		Number of interviews conducted at IFFA		Total
	with German firms	with foreign firms	with German firms	with foreign firms	
Customer interaction	21	4	22	16	63
Supplier interaction	5	3	6	6	20
Competitor interaction	25	8	21	5	59
Total	51	15	49	27	142

The samples show that trade fairs bring together a large variety of firms of different size and age groups. Although half of the exhibitors interviewed were small firms with less than 100 employees, both trade fairs also included a substantial number of large firms (Table 3).

About 27% of the survey firms at L+B and 17% of those at IFFA had more than 500 employees. In this size group, we identified most of the market leaders. Further, it is remarkable that a majority of exhibitors were relatively old and thus experienced in their area of expertise. Roughly three quarters of the firms were older than 20 years. About 50% and 40% of the exhibitors at L+B and IFFA, respectively, were even founded before the 1950's. This indicates that these trade fairs focus on traditional industries which have been

established over a long time period, with market leaders being among the largest and oldest firms.

**Table 3: Firms interviewed at L+B and IFFA by size, 2004 (Source: Survey Results)**

Number of employees	Firms interviewed at L+B		Firms interviewed at IFFA	
	Number	Share (%)	Number	Share (%)
1 - 20	12	23.5	8	14.8
21 - 50	5	9.8	8	14.8
51 - 100	6	11.8	12	22.2
101 - 250	10	19.6	9	16.7
251 - 500	4	7.9	8	14.8
501 - 1000	7	13.7	4	7.4
> 1000	7	13.7	5	9.3
Total	51	100.0	54	100.0

### 3. Information flows and communication during international trade fairs

When analyzing the information flows and communication patterns at L+B and IFFA, it becomes clear that there is a particular hierarchy of interaction patterns between firms according to their contact status (Table 4). Interaction with existing and potential customers were seemingly the most important incentive for firms to participate in trade fairs. About 60% of the firms interviewed mentioned that the most important goals for their participation at L+B and IFFA were (i) to inform the customers of their presence, (ii) make new customer contact and/or (iii) maintain and intensify contact with existing customers (Table 5). Another important reason to participate in the trade fairs was to present innovations to customers (see, also, *Ausstellungs- und Messe-Ausschuss der Deutschen Wirtschaft* 1996; 1999). In contrast, the traditional sales function of trade fairs had seemingly become less important.

**Table 4: Importance of contacts with customers, competitors and suppliers at L+B and IFFA, 2004 (Source: Survey Results); Note: <sup>1)</sup> Measured at an ordinal scale from 1 (very important) to 6 (unimportant)**

Median importance of contacts with other firms <sup>1)</sup>		
Firm type	at L+B	at IFFA
Existing customer	1	1
Potential customer	1	1
Competitor	2	3
Existing supplier	3	5
Potential supplier	4	5

**Table 5: Goals of trade fair participation at L+B and IFFA, 2004 (Source: Survey Results)**

Goal of trade fair participation	Firm responses at L+B		Firm responses at IFFA	
	Number (n=51)	Share (%)	Number (n=51)	Share (%)
Being there	33	64.7	34	66.7
Making new customer contact	31	60.8	32	62.7
Dealing with existing customers	31	60.8	25	49.0
Presentation of innovations	21	41.2	16	31.4
Sales and orders	4	7.8	1	2.0
Accessing new markets	-	-	4	7.8

Customer interaction was, however, not the only type of interaction firms had during these trade fairs. Direct and indirect contact with competitors was also ranked high, while contact with suppliers was ranked as being less important (Table 4). It would be wrong to interpret these results to mean that supplier and competitor interaction is of little or no value. Despite the dominance of customer contact in communication patterns, we will show in the

following subsections that systematic interaction with competitors, suppliers and complementary firms is also quite important. They enable firms to get an overview of the competition, compare themselves to others and get access to new markets and material supplies.

### **3.1 Interaction with Customers**

To get together and interact with customers was clearly the most important incentive behind the firms' decision to participate in L+B and IFFA. Almost all respondents mentioned that they systematically contact their existing and potential new customers before the trade fair to inform them about their presence and invite them to visit their exhibits. These initial contacts are usually fairly standardized and not customer-specific. In order to remain flexible with respect to their time schedule, most firms at L+B do not make appointments a priori unless a customer specifically asks for it. There is a difference between fairs, however, in the way how customer contact is being made. Much of the customer interaction at IFFA involves technical conversations and consultations and, thus, requires that specialists are available during the trade fair. In this case, it is often necessary to make appointments in advance. Only three firms interviewed at IFFA mentioned that customers generally did not need to make appointments. These were important market leaders who had a large number of representatives which were available for consultation at their exhibits.

#### **Interaction with potential customers**

Two types of meetings can be identified which differ in terms of the communication which takes place with potential future customers. In the first case, customers simply pass by the producers' exhibits to acquire general information about the production program and its characteristics. At L+B, for instance, information about price and delivery conditions is typically exchanged during such encounters. The second type involves customers which make specific inquiries about solutions for particular problems which exist or will occur in the foreseeable future due to changes in production. While the former interactions are often not very specific, they still help to identify potentially interesting customers and their needs. This is used to establish data bases of possible customers which are contacted at a later date. The latter contacts are less frequent but they are the most interesting because they are the basis of intensive future interaction and transactions. This is especially important in trade fairs which focus on technical aspects, such as IFFA. The head of the sales department of a machinery producer at IFFA emphasized that "the customer does not want to buy a machine; he wants a solution. If the machine has a good quality this is good.

It has to be that way. But what is decisive is not the machine; it is the solution behind the machine. And then it has to be cost efficient on top. ... Yesterday, an Asian visitor wanted to have our machine cut leek at an angle of 45 degrees. We do not need this here but such things are done in other places. In principle, every customer comes with a different idea or specific request (*translated from German*).” As suggested by Maskell, Bathelt and Malmberg (2004), such interaction serves as a pre-condition for the development of trans-local pipelines with transaction partners in other parts of the world and fosters the knowledge-creation process.

### **Interaction with existing customers**

Meetings with existing customers can also be classified into two groups. They are either meant to discuss particular circumstances of the business relation or to exchange general information to intensify the relation. In the first case, the communication between firms has the character of negotiations and takes place in a separate facility. Despite the fact that the importance of capital goods fairs as places where orders are made and contracts signed is decreasing (Backhaus 1992; Meffert 1997),<sup>5</sup> especially large firms and market leaders reported that they had received a substantial number of orders during L+B and IFFA.

In the second case, general information about markets and technological innovations within the industry are exchanged. Although individual conversations might not release much new information, such interaction enables exhibitors to accumulate substantial knowledge about customer needs and enable them to detect market and technology trends throughout the course of a trade fair. Often people have been in contact with one another for many years and also exchange private information with their partners. As some sort of trust has developed over time, the information flows in these interactions are quite detailed and multiplex by nature (Uzzi 1997).

In terms of product and strategy development, the acquisition of information about customer experience is of central importance. About 80% and 50% of the respondents at IFFA and L+B, respectively, mentioned that information exchange about the advantages and problems of their products, comparisons with the products of competitors and ideas of how to develop products further is particularly intensive. Customer-specific adjustments are occasionally also discussed during trade fairs, as indicated by five of the interviewees. Such

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<sup>5</sup>/.As reported by the respondents, actual sales were minor goals of trade fair participation at L+B and IFFA (Table 5).

adjustments would, however, typically take place in a different setting before or after the fair.

### **Circumstances of getting together**

Usually producer-user interaction takes place during the official fair hours. Contact is made or meetings are scheduled at the producers' exhibits. In few cases, where firms introduced complex new machines and equipment to the market, customers were invited to register for a day trip to the producer's development center to see how the machines operate under regular working conditions and to learn about the particularities of these machines. At IFFA, one firm organized helicopter flights for its customers which took them to a different location where they could inspect new machines. This did not only seem to be cheaper than to set up the machinery in the exhibition hall; it also provided this producer with the opportunity to develop a more intensive initial customer contact with some commitment from the very beginning.

About 70% of the respondents mentioned that they also aim to meet customers for dinners and other informal events in the evenings to discuss design variations and technological aspects in a more relaxed atmosphere. Such meetings are, of course, often scheduled to simply get together with customers and not to merely conduct business.<sup>6</sup> This inevitably happens though as it is hardly possible that peers would get together and not talk about their professional experience. At L+B, the head of the sales department of a German firm pointed out that they particularly try to meet their foreign customers with whom contact is not as intensive throughout the year: "Their accommodation is usually in a hotel close-by. So we meet in the evenings, go out for dinner and have a bit of fun. That is how you exchange information with one another (*translated from German*)." Such meetings help them to get to know one another on a personal basis. The multiplex nature of these meetings enables firms to develop expectations about the way how their partners conduct business. In the end, this reduces the risks of future transactions. Some interviewees indicated that they test out how they fit with their business partners and with whom they 'share the same chemistry'. They also develop a 'culture of communicating'. This seems to be especially important if direct personal contact is rare.

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<sup>6</sup>/. Not all exhibitors interviewed, however, said that they would want to meet customers after trade fair hours. Some were glad to have some time off after a hard work day. Newcomers seemingly did not know enough about customers to recognize the potential for such meetings. Our impression was that those who did not see much value in informal meetings with their customers did not realize this to be an opportunity to intensify existing contacts and develop stronger ties for joint future endeavors.

There are substantial differences, however, in how such informal meetings with customers are structured. On the one hand, large exhibitors at L+B and IFFA typically organized evenings with customers, sometimes including a comedy or artistic program, in an almost standardized fashion. During these events, the commitment involved and type of information exchanged is not very specific. Small and medium-sized firms (especially those at L+B) were, on the other hand, more spontaneous in meeting with their customers and were more interested in getting to know them on a more personal basis. Large internationally organized firms also used trade fairs as a forum to bring together personnel from different regions and countries to exchange their experience from different market contexts, support the formation of stronger bonds between the subunits and enable the development of solidarity (see, also, Backhaus and Zydorek 1997; Kirchgeorg 2004). Some interviewees pointed out that such intra-firm gatherings were also important in spreading important new information about markets and customer needs throughout the firms' worldwide operations. Employees would thus be able to build up intra-firm networks of experts who they can contact later if particular questions or problems arise.

About half of the respondents mentioned that they also coincidentally meet customers during important trade fairs. One executive said that "I met a customer this morning in the bus on my way to the fair. It happens all the time when you walk through the facilities. ... When you leave [your exhibit] to use a toilet, go for a smoke or grab something to eat and the like, you always bump into someone you know. Some would say that such conversations are the best because you are not interrupted by others (*translated from German*)." The opportunity for such meetings, of course, also depends on how often firms participate in important trade fairs and how well they are established. Overall, unplanned meetings provide additional important information.

The firms at L+B and IFFA indicated that 50 to 80% of all customer contacts were with existing customers, the remaining being with potential future customers. These results indicate how important trade fairs are in maintaining and intensifying existing customer networks (see, also, Prüser 1997; Zundler and Tesche 2003).

### **Customer information through third parties**

Exhibitors also acquire information about potentially new or important customers through interaction with other customers or partners. About 90% and 50% of the firms interviewed at IFFA and L+B, respectively, emphasized that information flows through third parties occur regularly, although this information may be biased. As one manager pointed out, one



must be experienced in evaluating this information properly or to know the people in advance to be able to interpret the content of such conversations.

Further, important information about customers is acquired through systematically scanning their exhibits in the event that they also present products at the fair. As described later, this enables firms to get ideas about trends in designs and the need for innovative efforts (see, also, Ausstellungs- und Messe-Ausschuss der Deutschen Wirtschaft 1999). Personal inspection of customers' exhibits also enables firms to gather experience which could not be acquired through conversation alone (Backhaus and Zydorek 1997; Goehrmann 2003a). Through this, the firms can get an impression about the personal and business qualities of potential customers.

Overall, the enormous amount of information, reports, opinions and gossip during L+B and IFFA establishes a particular 'global buzz' (Maskell, Bathelt and Malmberg 2004) through which information about customer needs and market trends can readily be acquired and customer contact be maintained (Kirchgeorg 2003; Prüser 2003).

Prüser (1997) suggested that customer contact during trade fairs has long-term advantages for the exhibitors. Although our results certainly confirm this conclusion, many firms do not openly acknowledge the importance of this effect. Only a quarter of the firms interviewed at IFFA agreed that trade fair contact with customers had clear advantages in the long term. They said that they had known most information already before the fair. However, as one representative mentioned, "The information which we had already beforehand or which we suspected gets confirmed. We get this information along with additional new information. And these ways [of information acquisition] are also quite decisive for our own products – for our production, for improvements. Otherwise you could easily produce over the heads of others, couldn't you? (*translated from German*)."

Almost all firms at L+B emphasized that customer contact was extremely important because "such dense information is only available during trade fairs (*translated from German*)", as one project manager pointed out. Further, "during a trade fair, you get to know whether it is worthwhile developing an idea further which you had on your mind (*translated from German*)." According to some respondents, another advantage of trade fairs is that they meet further customer groups with whom direct contact is rare in day-to-day operations (see, also, Backhaus 1992; Prüser 2004). During L+B, for instance, producers of 'luminaires'<sup>7</sup> regularly exchange ideas with architects.

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<sup>7</sup>/. The title of this paper is related to this term.

The differences we observed in the evaluation of trade fairs seem to be related to the character of customer communication in various industries. While exhibitors at IFFA have frequent personal contact with their customers to guarantee smooth production, L+B exhibitors have fewer regular contacts and therefore particularly need this forum for interaction.

### 3.2 Interaction with competitors

Most respondents emphasized the importance of opportunities to exchange information with or acquire knowledge about competitors during a trade fair. Although participation in trade fairs is the most direct and fastest way to get an overview of the market and competitive environment, not all firms acquire information in the same systematic way. On the one hand, small firms often did not have enough personnel at their exhibits to thoroughly scan and observe their competitors' exhibits. On the other hand, some important market leaders seemed quite self-confident and, for this reason, did not spend much time observing their competitors.<sup>8</sup> Our impression was that these firms could easily overlook less visible but significant trends in the market by having such an attitude.

#### Direct contact

Direct contact with competitors usually takes place during official fair hours and occurs mostly when representatives visit the exhibits of other firms. Typically, such meetings involve short conversations about the general business conditions and developments in the industry and remain at a very general level (e.g. Dahl and Pedersen 2003; Maskell, Bathelt and Malmberg 2004). As the marketing head of one firm mentioned, "you just talk. Everybody has to see what he thinks. These are news about the industry, about markets, about projects. This is, of course, also a big game. ... It is all about policy and strategy (*translated from German*)."

During IFFA, direct meetings with competitors are quite rare and information exchange extremely limited because of fierce competitive conditions. Firms often compete by publicly stating that their products are superior to those of their competitors, which creates rivalry

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<sup>8</sup>/. There seemed to be a tendency, particularly among leading firms, to question the importance of trade fairs as they had become very expensive. A manager at IFFA said that his firm would not miss much if they did not participate in the trade fair. They would be market leaders anyway. There is a danger, of course, that trade fairs could lose their importance if these firms decided not to show up.

between firms. We could almost feel the tension 'which was in the air' when we walked through some of the exhibition halls, talked to people and watched their performance. In contrast to this, information exchange with competitors seemed more open at L+B. People were fairly relaxed and did not hesitate to talk to some of their competitors. This openness is in part related to the fact that the lighting industry is segmented and differentiated. Through this, firms usually focus on particular market segments and have only partial market overlap. In such design-intensive industries, producer flexibility is greater than, for instance, in the area of producing meat processing machines, which cannot be changed within a short time period.

### **Competitor information through third parties**

More than half of the exhibitors mentioned that they received further important information about the actions and strategies of their competitors by talking to customers and other firms (see, also, Kirchgeorg 2004). These information flows do not necessarily have the character of passing on secrets. They are fairly general and mostly serve to round up the picture that firms already have of their competitors. Some comments about the products compared to those of a competitor, for instance, help to draw further conclusions about that firm's strengths and weaknesses.

### **Learning through observation and comparison**

The best way to obtain information about competitors is simply by observing and comparing their exhibits. Through this, firms get to know about their competitors' products, modifications, input materials and visions (e.g. Strothmann 1992; Prüser 1997; Fuchslocher and Hochheimer 2000; Grabher 2002; Meffert 2003). This information enables the firms to evaluate their own products and technological progress in relation to what is going on in other parts of the world. One executive of a firm at IFFA said that "this [trade fair] is the ideal platform. Here, you can examine everything. The whole market is in one place. You get to know something about product variations, about materials, about designs – not much about the internal structure but that you can see later on at your customer's site ... *(translated from German)*." An engineer at L+B added that "the trade fair is very up-to-date. You get an overview, can acquire a lot of information in a concentrated form. Only here can you get a complete impression of your competitors, their exhibits and their philosophy." This is an important advantage of trade fairs compared to other marketing instruments (see, also, Backhaus and Zydorek 1997; Kirchgeorg 1997; Meffert 2003).

One product manager pointed out that two thirds of his personnel were just at the trade fair to watch their competitors.<sup>9</sup> The systematic scanning and analysis of other exhibits enables a firm to evaluate its own products better.<sup>10</sup> From this, important conclusions for strategic decision regarding future investments and product policies can be derived or supported.

Most interviewees also said that they had not been surprised by technical innovations shown at the trade fair which were new to them. Although product and machinery changes are typically designed in such a way that they can be introduced to the customers during the trade show,<sup>11</sup> other firms would normally know about these developments beforehand. Some managers mentioned that they would nonetheless be excited to see how the details of new designs were and how customers responded to this. In the literature, it has been suggested that practices to keep new information secret prior to the fair can help flagship fairs to maintain their importance (Goehrmann 2003a; Dahl and Pedersen 2003). At least partially, this seems to have changed in the case of L+B and IFFA. Although some of the details of innovations might not be known in advance, firms are usually well informed about the actions of their competitors and have some prior knowledge. Even if firms do not identify many novelties, it is important to note that they have not missed important developments that have taken place between major trade fairs. Further, novel products and solutions are seemingly an issue of debate during a trade fair which helps firms, in turn, to evaluate the importance of these innovations.

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<sup>9</sup>/. Of course, firms have the option to remain anonymous when they approach their competitors' exhibits to 'spy out' some additional information (Maskell, Bathelt and Malmberg 2004). Although the business literature makes suggestions of how to deal with supposed colleagues from other firms who have not identified themselves as such (e.g. Clausen and Schreiber 2000), it remains unclear to what extent such behavior occurs and how important it is. While some firms said that this was common practice, others insisted that they would never conduct such business practices. Especially among well-established small and medium-sized firms, it seemed to be part of the code of conduct to treat competitors in a fair manner. Some interviewees mentioned that this had become much stronger over the past decade. Of course, our observations of people illegally taking photos of other exhibits are another matter.

<sup>10</sup>/. Unlike the exhibitors at IFFA, who have more regular contact with competitors and their products during day-to-day operations, respondents at L+B mentioned that the trade fair would be the only opportunity for them to get an overview about their competition.

<sup>11</sup>/. In contrast, other leading firms seemed to prefer introducing innovations at their own special events at some other time to receive full attention by the customers and relevant media.

### 3.3 Interaction with complementary firms

Many of the firms interviewed at L+B and IFFA explicitly mentioned that they also acquire information about complementary firms which operate in different countries or sell their products in related market segments. To make contact with these firms is, for instance, useful when partners for joint marketing campaigns or sales are needed. This is especially important when it is aimed to enter new markets in different countries. In this case, firms scan the other exhibitors to identify potential partners and begin some initial discussions. Particularly when their experience in foreign markets is limited, firms use trade fairs as an opportunity to develop trans-local 'pipelines' with other firms, in the way described by Bathelt, Maskell and Malmberg (2004) and Bathelt (2005b).

The firms interviewed at L+B and IFFA often develop such contacts over several consecutive trade fairs and get to know their potential partners over a longer time period before a closer contact is established. One owner of a company at L+B mentioned that "occasionally new cooperations are established during trade fairs. In principle, however, you stay in loose contact for a while, sometimes over years. And then, when a particular project is undertaken, you get back to that firm (*translated from German*)."

Through regular attendance at international trade fairs, latent networks develop which can be activated and used when needed (Grabher 2002a; 2002b; Maskell, Bathelt and Malmberg 2004). Small firms seem to prefer this route when they establish international networks.

### 3.4 Supplier interaction

As opposed to customer and competitor interaction, contact with suppliers is less important for the exhibitors at L+B and IFFA (Table 4). Consequently, they spend less time and effort in dealing with existing and potential suppliers than expected by Maskell, Bathelt and Malmberg (2004). This occurred despite the fact that both trade fairs included firms in virtually all stages of the value chain. They would offer plenty of opportunities for interaction with suppliers. The reason for the limited significance of supplier interaction is that the focus of the firms is primarily downstream-oriented towards their customers. Due to the high costs of participation, they tend to minimize the amount of personnel at their exhibits and do not have enough people to systematically scan the supplier sector. One sales manager at IFFA insisted: "We do not have time for this. Do you have any idea at all how expensive our exhibit is? (*translated from German*)".

While exhibitors are often not overly interested in upstream-oriented communication, suppliers aim to systematically visit the exhibits of existing and potential customers. Usually, this does not, however, lead to in-depth discussions or problem-solving activities.

Most exhibitors did not have supply-side managers at hand which could lead such conversations. Nonetheless, all interviewees at L+B and half of the respondents at IFFA said that it was advantageous to have personal contact with suppliers during the fair. Especially, small creative producers in the lighting industry had an interest to meet with their suppliers. The executive of an L+B firm said that "you can see the products of your suppliers. You get all information about new developments. You can see it, hear it – you can see the materials and their effects on people. This is something you cannot get from a catalogue (*translated from German*)."

Such experiences seem to stimulate processes of creative thinking about new product designs in the lighting industry. A number of interviewees mentioned that the high density of suppliers during the fair would provide a multitude of opportunities to make new contact. From this, they would be able to pre-select those suppliers that seem compatible and leave a good impression. Further thorough scanning would then occur after the trade fair. Especially, for small and medium-sized firms, trade fairs seem important in order to identify future transaction partners without much additional cost and effort.

Many interviewees pointed out, however, that they would much prefer a separate trade fair specialized in materials and supplies over a full-coverage fair. In this case, they would have more time to communicate with existing and potential new suppliers. Our impression was that many firms did not fully exploit the potential to acquire supplier information during trade fairs due to their practice of selective communication.

#### **4. The ecology of face-to-face contact in international trade fairs**

Face-to-face communication during trade fairs is extremely important because it helps to establish new network relations and trans-local pipelines, maintain and intensify existing networks and support the development of joint attitudes, language and understandings (Goehrmann 1992; Prüser 2003; Storper and Venables 2004; Bathelt, Malmberg and Maskell 2004). According to an empirical investigation of Brühe (2003), this is of great significance for both most exhibitors and visitors. These contacts are the primary impetus for firms to participate in these events.

##### **4.1 Advantages of face-to-face (F2F) interaction**

It is well-known that face-to-face communication provides important opportunities for economic agents to generate new knowledge and stimulate learning. Storper and Venables (2004, pp. 354-355) have pointed out the importance of face-to-face interaction in

transferring complex messages, getting immediate feedback and responding further: "Communication in F2F context occurs on many levels at the same time – verbal, physical, contextual, intentional, and non-intentional. Such multidimensional communication is held by many to be essential to the transition of complex, tacit knowledge." Even though all firms interviewed were aware of this opportunity, not all made equally strong efforts to benefit from such interaction.<sup>12</sup>

However, most interviewees emphasized the importance of face-to-face communication in judging others and their information. One executive at IFFA described this as follows: "Gestures and postures – this tells you so much more than pure voice. You just have to look into the faces of others, into their eyes to judge whether it is true what they have told you or whether these were just empty phrases (*translated from German*)." Another interviewee mentioned that "you need face-to-face contact to develop a feeling for what your customer needs (*translated from German*)." This includes sometimes that firms see how customers conduct themselves and how they are dressed.

Face-to-face communication also helps limit information asymmetries, as there are many ways of how to inquire about the validity of information and the reliability of new contacts. It also helps to find partners which share 'the same chemistry' and reduces the risks in interaction (e.g. Gertler 2001). All of this becomes part of the 'global buzz' which develops during international flagship fairs. This 'global buzz' is advantageous for exhibitors and visitors as it generates openness and swift access to external influences from different parts of the world. Firms simply benefit from the variety of ideas which circulate during such events.<sup>13</sup> They use the information acquired from face-to-face contact when making decisions regarding the choice of transaction partners and the selection of customer and market strategies.

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<sup>12</sup>/. Our interviews indicated that personal contact at IFFA seemed less important than those at L+B because they focus on technological issues instead of design. One leading engineer of a specialized producer pointed out that it would be not be important "how somebody looks when you try to urgently solve a problem (*translated from German*)." In this case, people need to conduct ongoing adjustments and find the need for additional contact at a trade fair less urgent. As Backhaus (1992) pointed out, intensive face-to-face communication would also be less important from the view of the customers if products need exhaustive testing in their facilities.

<sup>13</sup>/. This is similar to the advantages fashion producers have when they operate in New York City (Rantisi 2002). They benefit from economies of overview (Moulaert and Djellal 1995; Glückler 2004) without having to be located in or having to develop active pipelines to many different places worldwide.

The participants of a trade fair, which normally operate at a distance from their suppliers and customers in day-to-day routines, have the opportunity to meet many business partners within a short time period. They often know these people personally from similar events or telephone conversations.

#### **4.2 Advantages of knowing one another from former interaction**

Face-to-face contact with people who know one another already is particularly efficient for the exchange of information and knowledge. According to our interviews, this is advantageous because “people know what their partners want (*translated from German*)”. Firms can build upon prior experience and trust can be established through consecutive meetings. Over time, latent networks develop which can be activated if needed without time-consuming negotiations (Grabher 2002a; Maskell, Bathelt and Malmberg 2004). To become an insider in a circle of people who get together regularly can have clear advantages. It might reduce transaction costs in the future (Maskell, Eskelinen, Hannibalsson, Malmberg and Vatne 1998).

Although we did not ask directly for the causal relationships between such latent networks and future benefits, we received some indirect information about the advantages of knowing partners from before. About 60% of the respondents said that they regularly meet a similar group of exhibitors during such events. Interestingly, some foreign exhibitors said that they often meet the same people from their home base and use these occasions to talk about the prospects and problems in their home market.<sup>14</sup> This would hardly be possible within the rhythms of everyday work routines at home. Sometimes, loose friendships can seemingly develop through these meetings. Not all respondents thought, however, that networks from previous contact were decisive.

#### **4.3 Community building**

one another, how well you fit together and whether difficulties could arise in adjustments or due to miscommunication. ... This is how people function. In my case, I would say, 90% [of the evaluations of other people] are based on common understanding and sympathy.

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<sup>14</sup> /. For these firms, the country or city in which the trade fairs takes place is not important, as long as it is located outside the home market and provides opportunities for intensive discussions and knowledge exchange.



You just have to be compatible (*translated from German*).” This seems to be particularly important for creative, design-intensive firms, such as those at L+B.

Despite these advantages, not all firms are active members of such ‘focussed communities’ and utilize the benefits which arise from them in the same fashion. On the one hand, large multinational firms seemed much more reliant on their internal communities of practice and tended to neglect Meeting a similar group of people in consecutive trade fairs which have a comparable education, technology focus and experience supports the formation of communities. The people participating in these trade fairs share a common understanding based on their experience and interpret new developments through a similar lens. This may lead to the formation of loose ‘focussed communities’. Similar to communities of practice and epistemic communities (Duguid and Brown 1991; Wenger 1998; Knorr Cetina 1999), such communities develop further through repeated interaction. The lighting specialist of one L+B firm explained directly how communities are supported by face-to-face contact. This would help to select those people with whom he shares similar thinking patterns, feelings, evaluation schemes and the like: “Through personal conversation you just notice whether you understand loose external communities. On the other hand, many young firms were seemingly not yet long enough in business to be able to participate in these communities. This demonstrates also that market newcomers had more difficulties to get access to information which requires prior contact. Although they need to learn more about the market than others, their opportunities to do so are more limited because they do not know much about the communication patterns at trade fairs.

#### **4.4 Trade fairs versus internet market places**

One could argue that the importance of trade fairs could decrease over time if Internet market places become more widespread and substitute these events. This is, however, unlikely to happen because aspects of face-to-face interaction, direct product inspection and multiple opportunities to screen competitors cannot be replaced by virtual meetings (e.g. Backhaus and Zydorek 1997; Meffert 1997; Goehrmann 1997; Fuchslocher and Hochheimer 2000).

One manager of an L+B firm described the advantages of trade fairs over Internet market places as follows: “[During the trade fair], I can see products directly and touch and experience them. This is completely different from a product which I can only see partially as a PDF. ... Here, you can observe the full effect of a product, look at its materials, its emotions, its colors – see it and feel it. All of this is not possible through the Internet (*translated from German*).” Most interviewees were convinced that product presentations

through new media would only complement other forms of marketing but not replace them.<sup>15</sup> The executive of a specialized IFFA producer suggested that “the Internet is a dead media. I cannot directly express myself and exchange this with others. Before I sit at my computer to write some pages and pages of explanations, I much prefer to make direct personal contact to explain myself and what I want. In a personal conversation, this is much clearer: What is there? Three questions – three answers – gestures and postures – this tells me a lot more. In the Internet you cannot do this. It is only a platform to get some preliminary overview. But it does not replace [face-to-face] communication and never will (*translated from German*).”

Another advantage of trade fairs over Internet platforms is that people who participate in such events commit themselves to spend time just for the purpose of interacting with other peers on all kinds of matters relevant for the industry and its products. During this time, their attention is not distracted by other issues which would automatically come up in daily work routines. The participants are fully focussed on the exhibits, exhibitors and visitors.

## **5. Conclusions: ‘global buzz’ and pipeline formation in temporary clusters**

Following the suggestions of Maskell, Bathelt and Malmberg (2004), this paper argues that international trade fairs can be conceptualized as temporary clusters and characterized along several dimensions. International trade fairs and conventions serve to systematically acquire information about competitors, suppliers and customers and their technological and strategic choices. On different occasions and through different routes, global information about firms, their requirements, trends and ideas, as well as all sort of news and gossip, flow back and forth between the participants of trade fairs. The multidimensional structure of information and knowledge flows enables firms to get an overview of the market and scrutinize the trends visible in the exhibits of competitors and complementary firms. This helps firms to evaluate their own activities and achievements compared to others and make decisions about future strategies and products. Information and knowledge flows are thus not only diffuse in character but are also goal-oriented. Exhibitors and visitors are surrounded by a densely knit web of information and knowledge flows which cannot be ignored.

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<sup>15</sup>/. There were, of course, also positive comments which we received about the Internet as a platform to exhibit and sell products. Particularly in the area of standardized products, Internet market places are important outlets while complex, design-intensive and innovative products still require opportunities for personal inspection and interaction, such as a trade fair (Backhaus and Zydorek 1997; Goehrmann 2003b).

Through their regular attendance at such events, firms are able to find suitable partners to complement their needs, establish trust with distant partners and undertake first steps toward the development of durable interfirm pipelines in research, production and/or marketing. International trade fairs help accelerate the transfer of information, instigate interactive learning processes and become a catalyst for knowledge creation. Initial promising contact during trade fairs can be intensified by follow-up visits between potential partners and eventually lead to trans-local business relations and transactions. Through this, permanent flows of external knowledge result and the innovative capabilities and competitiveness are supported.

Furthermore, the number and intensity of meetings between firms with a similar technology focus are heavily influenced by their spatial proximity during the trade fair. The advantages of these interactions are closely related to the face-to-face character of these events. Firms do not need to make specific commitments or additional investments to initiate contact with others. This is much easier, less risky and not as expensive compared to the process of building pipelines from within permanent clusters (Bathelt, Malmberg and Maskell 2004).

**Figure 1:** Pipeline creation and the complementary relation between temporary and permanent clusters

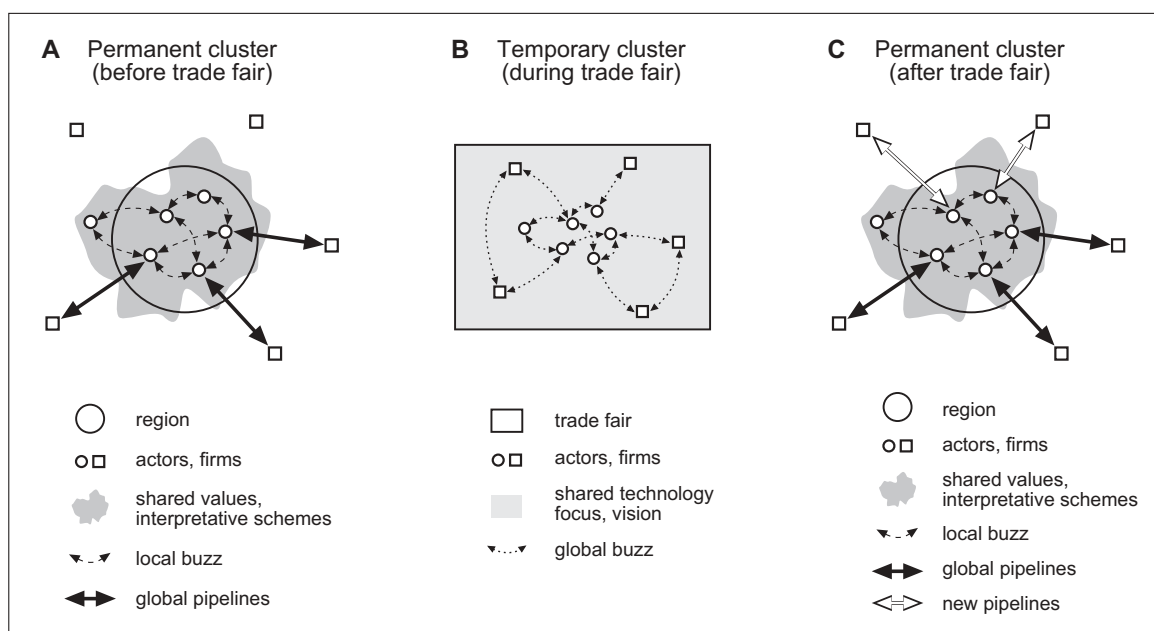


Figure 1 exemplifies the processes and effects of international trade fairs in finding external partners and establishing trans-local pipelines. On the one hand, firms from permanent clusters meet with existing pipeline partners during trade fairs to intensify, maintain or extend these contacts. On the other hand, firms use the 'global buzz' which develops at a

trade fair and the knowledge acquired at earlier events to identify suitable partners and make initial contact with them. Through this, new pipelines can be established from which firms get access to new knowledge pools and markets. Further, these pipelines likely have positive effects for other firms in the original cluster which benefit from additional local buzz and transactions. In sum, our research provides initial evidence that trade fairs are an important means to help stabilize permanent clusters. They enable firms to expand the external dimension of the cluster and play an important role in securing innovativeness and competitiveness for the respective firms.

## References

- Allen, J. (2003): *Lost Geographies of Power*. Malden, MA, Oxford: Blackwell.
- Amin, A. and Cohendet, P. (2004): *Architectures of Knowledge: Firms, Capabilities, and Communities*. Oxford, New York: Oxford University Press.
- Ausstellungs- und Messe-Ausschuss der Deutschen Wirtschaft (1996): *Ziele und Nutzen von Messebeteiligungen (Goals and Uses of Trade Fair Participation)*. AUMA edition No. 4. Berlin: AUMA.
- Ausstellungs- und Messe-Ausschuss der Deutschen Wirtschaft (1999): *Messequktionen- und Potentialanalyse (Goals and Potentials of Trade Fair Participation)*. AUMA edition No. 9. Berlin: AUMA.
- Ausstellungs- und Messe-Ausschuss der Deutschen Wirtschaft (2004): *AUMA Messe Guide Deutschland (AUMA Trade Fair Guide for Germany)*. Berlin: AUMA.
- Backhaus, H. (1992): *Investitionsgütermarketing (Investment Goods Marketing)*. München: Vahlen.
- Backhaus, H. and Zydorek, C. (1997): Von der Mustermesse zur ubiquitären Messe (From sample fairs to ubiquitous trade fairs). In: Meffert, H., Necker, T. and Sihler, H. (eds.): *Märkte im Dialog: Die Messen der dritten Generation (Markets in Dialogue: Trade Fairs of the Third Generation)*. pp. 134-158. Wiesbaden: Gabler.
- Bathelt, H. (2005a): Geographies of production: growth regimes in spatial perspective 2 – knowledge creation and growth in clusters. *Progress in Human Geography* **29**: 204-216.
- Bathelt, H. (2005b): Cluster relations in the media industry: exploring the 'distanced neighbour' paradox in Leipzig. *Regional Studies* **39**: 105-127.
- Bathelt, H., Malmberg, A. and Maskell, P. (2004): Clusters and knowledge: local buzz, global pipelines and the process of knowledge creation. *Progress in Human Geography* **28**: 31-56.
- Brown, J. S. and Duguid, P. (1991): Organizational learning and communities of practice: toward a unified view of working, learning, and innovation. *Organization Science* **2**: 40-57.
- Brühe, C. (2003): Messen als Instrument der Live-Communication (Trade fairs as a means for live communication). In: Kirchgeorg, M., Dornscheidt, W. M., Giese, W. and Stoeck, N. (eds.): *Handbuch Messemanagement: Planung, Durchführung und Kontrolle von Messen, Kongressen und Events (Handbook of Trade Fair Management: Planning, Execution and Control of Trade Fairs, Conventions and Events)*. pp. 73-86. Wiesbaden: Gabler.
- Clausen, E. and Schreiber, P. (2000): *Messen optimal nutzen: Ziele definieren und Erfolge programmieren (How to Optimise the Use of Trade Fairs: Defining Goals and Planning Success)*. Würzburg: Schimmel.

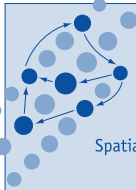
- Dahl, M. S. and Pedersen, C. O. R. (2003): *Knowledge Flows Through Informal Contacts in Industrial Clusters: Myths or Realities?* DRUID Working Paper 2003-01. Copenhagen (URL: <http://www.druid.dk/wp/wp.html>).
- Fischer, W. (1992): Zur Geschichte der Messen in Europa (On the history of trade fairs in Europe). In: Strothmann, K.-H. and Busche, M. (eds.): *Handbuch Messemarketing (Handbook of Trade Fair Marketing)*. pp. 3-13. Wiesbaden: Gabler.
- Fuchslocher, H. and Hochheimer, H. (2000): *Messen im Wandel: Messemarketing im 21. Jahrhundert (Trade Fair Marketing in the 21st Century)*. Wiesbaden: Gabler.
- Gertler, M. S. (1993): Implementing advanced manufacturing technologies in mature industrial regions: towards a social model of technology production. *Regional Studies* **27**: 665-680.
- Gertler, M. S. (2001): Best practice? Geography, learning and the institutional limits to strong convergence. *Journal of Economic Geography* **1**: 5-26.
- Glückler (2004): Geographien der Vernetzung und Skalen der Globalisierung – Das Beispiel der Unternehmensberatung in Frankfurt (Geographies of interrelations and scales of globalization – The case of management consulting in Frankfurt). *Petermanns Geographische Mitteilungen* **148 (4)**: 28-37.
- Goehrmann, K. E. (2003a): Die Nutzung der IT auf der Messe steht erst am Anfang (The Application of IT During Trade Fairs is Only Just Beginning). In: *Wirtschaftskurier*, November, p. 24.
- Goehrmann, K. E. (2003b): Messen als Instrument des Regionen- und Politmarketings (Trade Fairs as an Instrument of Regional and Political Marketing). In: Kirchgeorg, M., Dornscheidt, W. M., Giese, W. and Stoeck, N. (eds.): *Handbuch Messemanagement: Planung, Durchführung und Kontrolle von Messen, Kongressen und Events (Handbook of Trade Fair Management: Planning, Execution and Control of Trade Fairs, Conventions and Events)*. pp. 87-96. Wiesbaden: Gabler.
- Grabher, G. (2002a): Cool projects, boring institutions: temporary collaboration in social context. *Regional Studies* **36**: 205-214.
- Grabher, G. (2002b): The project ecology of advertising: tasks, talents and teams. *Regional Studies* **36**: 245-262.
- Kirchgeorg, M. (2003): Funktionen und Erscheinungsformen von Messen (Functions and types of trade fairs). In: Kirchgeorg, M., Dornscheidt, W. M., Giese, W. and Stoeck, N. (eds.): *Handbuch Messemanagement: Planung, Durchführung und Kontrolle von Messen, Kongressen und Events (Handbook of Trade Fair Management: Planning, Execution and Control of Trade Fairs, Conventions and Events)*. pp. 51-72. Wiesbaden: Gabler.
- Knorr Cetina, K. (1999): *Epistemic Cultures: How the Sciences Make Sense*. Chicago: Chicago University Press.
- Malmberg, A. and Maskell, P. (2002): The elusive concept of localization economies: towards a knowledge-based theory of spatial clustering. *Environment and Planning A* **34**: 429-449.

- Maskell, P. (2001): Towards a knowledge-based theory of the geographical cluster. *Industrial and Corporate Change* **10**: 921-943.
- Maskell, P., Bathelt, H. and Malmberg, A. (2004): *Temporary Clusters and Knowledge Creation: The Effects of International Trade Fairs, Conventions and Other Professional Gatherings*. SPACES 2004-04. Marburg: Fachbereich Geographie, Philipps-Universität Marburg (URL: <http://www.uni-marburg.de/geographie/spaces>).
- Maskell, P., Eskelinen, H., Hannibalsson, I., Malmberg, A. and Vatne, E. (1998): *Competitiveness, Localised Learning and Regional Development: Specialisation and Prosperity in Small Open Economies*. London: Routledge.
- Maskell, P. and Lorenzen, M. (2004): The cluster as market organisation. *Urban Studies* **41**: 991-1009.
- Meffert, H. (1993): Messen und Ausstellungen als Marketinginstrument (Trade fairs and exhibitions as a marketing tool). In: Goehrmann, K. E. (ed.): *Polit-Marketing auf Messen (Marketing Policy on Trade Fairs)*. pp. 74-96. Düsseldorf: Wirtschaft und Finanzen.
- Meffert, H. (1997): Neuere Entwicklungen in Kommunikation und Vertrieb (New developments in communication and distribution). In: Meffert, H., Necker, T. and Sihler, H. (eds.): *Märkte im Dialog: Die Messen der dritten Generation (Markets in Dialogue: Trade Fairs of the Third Generation)*. pp. 134-158. Wiesbaden: Gabler.
- Meffert, H. (2003): Ziel und Nutzen der Messebeteiligung von ausstellenden Unternehmen und Besuchern (Goals and Effects of Trade Fair Participation). In: Kirchgeorg, M., Dornscheidt, W. M., Giese, W. and Stoeck, N. (eds.): *Handbuch Messemanagement: Planung, Durchführung und Kontrolle von Messen, Kongressen und Events (Handbook of Trade Fair Management: Planning, Execution and Control of Trade Fairs, Conventions and Events)*. pp. 1145-1163. Wiesbaden: Gabler.
- Messe Frankfurt GmbH (2003): *Geschäftsbericht 2003 (Annual Report 2003)*. Frankfurt/Main: Messe Frankfurt GmbH.
- Messe Frankfurt GmbH (2004a): *Light + Building, Internationale Fachmesse für Architektur und Technik, vom 18. bis 22. April 2004 in Frankfurt am Main: Aussteller in Zahlen (Data Report of Exhibitors at the Light + Building From April 18 Through 22, 2004)*. Frankfurt/Main, Press Release, April 15.
- Messe Frankfurt GmbH (2004b): *Light + Building, Internationale Fachmesse für Architektur und Technik, vom 18. bis 22. April 2004 in Frankfurt am Main: Schlussbericht (Final Report of Light + Building From April 18 Through 22, 2004)*. Frankfurt/Main, Press Release, April 22.
- Messe Frankfurt GmbH (2004c): *Light + Building. Internationale Fachmesse für Architektur und Technik: Offizieller Katalog (Official L+B Catalogue)*. Frankfurt/Main: Messe Frankfurt GmbH.

- Messe Frankfurt GmbH (2004d): *IFFA/ IFFA-Delicat, Internationaler Treffpunkt für die Fleischwirtschaft vom 15. bis 20. Mai 2004 in Frankfurt am Main: Aussteller nach Ländern (Data Report of Exhibitors by Origin at IFFA From May 15 Through 20, 2004)*. Frankfurt/Main, Press Release, May 10.
- Messe Frankfurt GmbH (2004e): *IFFA/ IFFA-Delicat, Internationaler Treffpunkt für die Fleischwirtschaft vom 15. bis 20. Mai 2004 in Frankfurt am Main: IFFA/IFFA-Delicat 2004 fest im Sattel (General Report of Exhibitors and Vistors by Origin at IFFA From May 15 Through 20, 2004)*. Frankfurt/Main, Press Release, May 12.
- Messe Frankfurt GmbH (2004f): *IFFA: The Meating-Point. Offizieller Katalog (Official IFFA Catalogue)*. Frankfurt/Main: Messe Frankfurt GmbH.
- Moulaert, F. and Djellal, F. (1995): Information technology consultancy firms: economics of agglomeration from a wide-area perspective. *Urban Studies* **32**: 105-122.
- Norcliffe, G. and Rendace, O. (2003): New geographies of comic book production in North America: the new artisans, distancing, and the periodic social economy. *Economic Geography* **79**: 241-263.
- Owen-Smith, J. and Powell, W. W. (2004): Knowledge networks as channels and conduits: the effects of spillovers in the Boston biotechnology community. *Organization Science* **15**: 2-21.
- Pinch, S., Henry, N., Jenkins, M. and Tallman, S. (2003): From 'industrial districts' to 'knowledge clusters': a model of knowledge dissemination and competitive advantage in industrial agglomerations. *Journal of Economic Geography* **3**: 373-388.
- Porter, M. E. (1990): *The Competitive Advantage of Nations*. New York: Free Press.
- Porter, M. E. (1998): Clusters and the new economics of competition. *Harvard Business Review* **76** (November-December): 77-90.
- Prüser, S. (1997): *Messemarketing: Ein netzwerkorientierter Ansatz (Trade Fair Marketing: A Network Approach)*. Wiesbaden: Deutscher Universitäts-Verlag.
- Prüser, S. M. (2003): Die Messe als Networking-Plattform (Trade fairs as a platform for networking). In: Kirchgeorg, M., Dornscheidt, W. M., Giese, W. and Stoeck, N. (eds.): *Handbuch Messemanagement: Planung, Durchführung und Kontrolle von Messen, Kongressen und Events (Handbook of Trade Fair Management: Planning, Execution and Control of Trade Fairs, Conventions and Events)*. pp. 1181-1195. Wiesbaden: Gabler.
- Rantisi, N. (2002): The local innovation system as a source of 'variety': openness and adaptability in New York City's Garment District. *Regional Studies* **36**: 587-602.
- Rodekamp, V. (2003): Zur Geschichte der Messen in Deutschland und Europa (On the history of trade fairs in Germany and Europe). In: Kirchgeorg, M., Dornscheidt, W. M., Giese, W. and Stoeck, N. (Eds.): *Handbuch Messemanagement: Planung, Durchführung und Kontrolle von Messen, Kongressen und Events (Handbook of Trade Fair Management: Planning, Execution and Control of Trade Fairs, Conventions and Events)*. pp. 5-13. Wiesbaden: Gabler.
- Storper, M. and Venables, A. J. (2004): Buzz: face-to-face contact and the urban economy. *Journal of Economic Geography* **4**: 351-370.



- Strothmann, K.-H. (1992): Segmentorientierte Messepolitik (Segmented Trade Fair Policy). In: Strothmann, K.-H. and Busche, M. (Eds.): *Handbuch Messemarketing (Handbook of Trade Fair Marketing)*. pp. 99-115. Wiesbaden: Gabler.
- Thrift, N. (2000): Performing cultures in the new economy. *Annals of the Association of American Geographers* **90**: 674-692.
- Torre, A. and Rallet, A. (2005): Proximity and localization. *Regional Studies* **39**: 47-59.
- Troll, K. F. (2003): Messekonzepte im Wandel der Zeit – Von der „Leidmesse“ zur „Leitmessen“ (Changes in Trade Fair Concepts Over Time). In: Kirchgeorg, M., Dornscheidt, W. M., Giese, W. and Stoeck, N. (eds.): *Handbuch Messemanagement: Planung, Durchführung und Kontrolle von Messen, Kongressen und Events (Handbook of Trade Fair Management: Planning, Execution and Control of Trade Fairs, Conventions and Events)*. pp. 31-50. Wiesbaden: Gabler.
- Uzzi, B. (1997): Social structure and competition in interfirm networks: the paradox of embeddedness. *Administrative Science Quarterly* **42**: 35-67.
- Wenger, E. (1998): *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.
- Ziegler, R. (1992): Messen – ein makroökonomisches Subsystem (Trade fairs as a macroeconomic subsystem). In: Strothmann, K.-H. and Busche, M. (eds.): *Handbuch Messemarketing (Handbook of Trade Fair Marketing)*. pp. 115-126. Wiesbaden: Gabler.
- Zundler, A. W. and Tesche, M. (2003): Maßnahmen zur effizienten Vor- und Nachbereitung von Messeauftritten (Efficient ways to prepare and analyze trade fair participation). In: Kirchgeorg, M., Dornscheidt, W. M., Giese, W. and Stoeck, N. (eds.): *Handbuch Messemanagement: Planung, Durchführung und Kontrolle von Messen, Kongressen und Events (Handbook of Trade Fair Management: Planning, Execution and Control of Trade Fairs, Conventions and Events)*. pp. 1163-1180. Wiesbaden: Gabler.



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