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Networks in Social Science-Based Spatial Research

Dynamic Innovation Networks – In Time and Space

Pioneers' Networks – Spatial Pioneers in Disadvantaged Urban Neighbourhoods

Who Networks with Whom? – Project Networks across Europe

Networks are Useful – But who Benefits?

Network Research at the IRS

A musical actor is looking for a new engagement, the manager of a community centre is looking for news to improve the image of her district, and a scientist is striving to turn a novel biotechnological method into a product ready for the market. At first sight, these scenarios do not seem to have much in common. Once we adopt a particular perspective, however, certain parallels come into view. In order to pursue their goals, all these actors make use of networks – be it in an intuitive or in a strategic manner. These activities also have a spatial dimension; hence our interest at the IRS, particularly as network analyses and the development of original approaches have always been a major aspect of the IRS's agenda of social science-based spatial research.

Today, most societal actors find it hard to imagine their general contexts of action without recourse to social networks thus underlining their relevance for the study of social action. For both individual and collective actors who wish to make a difference within society, it has become an absolute must to locate themselves in networks. "This is demonstrated by the fact that the concept of networking has recently developed into a buzzword. Even seminars for successful networking are on offer today", says Dr. Gabriela Christmann, head of the IRS research department "Dynamics of Communication, Knowledge and Spatial Development". In those seminars, people are taught how to establish contact with key people so as to better pursue their goals.

"Social science research has always taken account of the phenomenon that actors are involved in social networks – even at times when networks were much less in fashion than today", says Christmann. As part of its spatial research agenda, the IRS also conducts network analyses, in the course of which it has also developed a distinct perspective and instruments of its own. "We are searching for the spatial components of social relationships and we attempt to combine quantitative-structural with qualitative analyses", adds Prof. Dr. Oliver Ibert, head of the IRS research department "Dynamics of Economic Spaces". This implies that researchers should always examine a relationship's inherent qualities and configuration and not just detail the network structure. The same applies to the spatial and temporal dynamics of networks. "Elaborate graphs suggest that networks have a rather static nature", says Ibert. "By contrast, we often focus on the process and thus take a particularly close look at how networks tend to develop." How does the fixation on a certain space – e.g. a musical actor's hometown or a biotechnological innovation's region of origin – change over the course of such a process? To what extent should we regard proximity and distance as beneficial? How complex does a certain attribute turn out to be on closer inspection? All these are questions addressed by IRS research.

Generally, networks are assumed to be useful and advantageous. However, the costs and efforts required to establish and maintain them can sometimes disappear from view. "In reality, the boundaries between informal mutual help on the one hand and corruption on the other hand are often blurred", says Ibert. "Networks may influence – and thus also restrict – their members' world view." Moreover, the question of how much usefulness is ascribed to networks greatly depends on one's own particular perspective. The mutual benefit for insiders is often organised to the disadvantage of those on the outside. IRS network research attaches great importance to these ambivalences.

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The Analysis of Social Networks in Social Science-Based Spatial Research

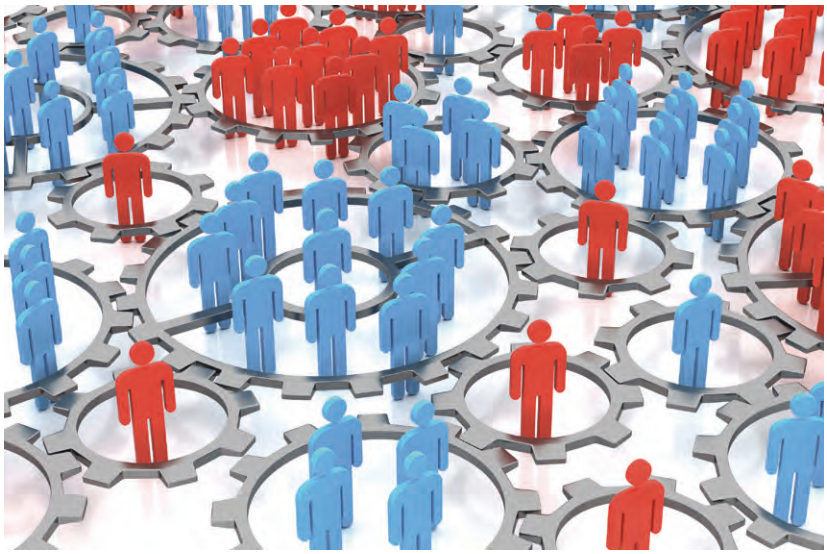
The present issue comprehensively documents the network analyses conducted by the IRS in various thematic contexts. Be it innovation research or neighbourhood development, investigating the structure, quality, and dynamics of networks has proven to be illuminating time and again. But what exactly are the starting points for network analyses and upon what kind of concepts are they based? Why do we analyse networks in connection with socio-spatial processes in the first place – and in what ways should they be explored? The following piece provides an overview of existing network concepts and discusses their importance for spatial sciences.

In the early 20th century, sociologist Georg Simmel's work provided concepts which became important for the study of networks. Outlining a theory of modern society, he suggested considering the embeddedness of individual persons within different "social circles" and the resulting interdependencies between these people and their social circles. In the 1930s, Jacob L. Morenos was the first to make an attempt to determine people's social status, integration, and influence in their respective network of relationships within small groups. This approach is considered the empirical precursor of network analysis. It was, however, not until the 1950s that social anthropologist and sociologist John A. Barnes discussed the network concept in a wider context in relation to the example of a Norwegian seaport. Barnes was the first to conceive networks as a major empirical analytical category. He was convinced that we can understand city life only by means of a systematic analysis of key actor constellations and the concomitant social relations and forms of action. 30 years later, and inspired by his ethnographic studies in Algeria, Pierre Bourdieu described social networks as one form of social capital, which must be regarded not only as a potential development factor for actors themselves, but also for the social unit within which they take effect. Authors like Jan van Dijk and Manuel Castells went one step further by describing the functions of networks as constitutive of societal development. "Even if both authors were more interested in electronically based information networks than in social networks, they make the rather general point that modern societies are largely organised through social networks – and thus must be characterised as 'network societies', explains Dr. Gabriela Christmann, head of the research department "Dynamics of Communication, Knowledge and Spatial Development".

A sensation was caused by Bruno Latour's "Actor-network Theory", according to which agency is not solely a possession of social actors. Instead,

it was argued that human action is dependent or even enabled by objects and therefore they need to be analytically considered. "As different as the concepts of social networks may be in detail, they are still united by the view that social processes gain momentum through collective action within interrelated and coordinated social networks rather than through individuals", Christmann summarises.

Christmann sees the crucial contribution of social science-based spatial research as being the analysis of the connections between network relations and space. "We assume spatial and social development to be closely intertwined. Accordingly, we are convinced that social action in networks also has a spatial component and as such will have spatial consequences."



The study of innovation networks in economic regions serves as a good example here: it focuses on how new ideas are generated and implemented within networks and, within this context, examines the relevance of physical proximity or distance among these actors. Other key interests include the exploration of social structures and their relation to actors as well as the potential for actors to participate in networks related to urban development. One crucial issue here is the analysis of individual figures with regard to their structural positions and their channels of influence within the network.

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As these examples demonstrate, we need to make a distinction between a group-based actor network on the one hand and an ego-centred network on the other hand, where one actor instigates individual contacts as he or she pleases. Ego-centred networks may consist of individuals, groups, or organisations, but in each case, there is one actor who cooperates with them on a project basis. Usually, network contacts occur bilaterally, in a spatially and temporally distributed manner, and via different forms of communication (e.g. face-to-face, by telephone, by e-mail). In contrast, group-based actor networks are characterised by members' meetings and other direct ways of communicating. These forms of exchange, which are repeated more or less regularly, also encourage coordination among the network's members.

Spatial social science research has benefited from the methodological approaches originally designed for empirical network analyses. One widely used method is a structuralist description of networks using graphs and measures. This allows for an illustration of a network's density along with the respective established contacts, but also the centrality of certain individuals to the networks.

Further, there are attempts to specify the functions commonly performed by key network figures. "For example, in connection with his research on innovation, Ronald Burt discovered that there are so-called 'information brokers' who obtain their key position by filling in 'structural holes', Christmann points out. "They forge links between hitherto unconnected network components or entire networks through conveying important information or problem solutions." Stanley Milgram's "small world" hypothesis is another approach that has proven fruitful for further methodological developments. In the course of an experiment, Milgram demonstrated that the linkage of different personal networks allows us to spread a message in relatively few steps – even up to the levels of high-ranking personalities in political offices.

This inspired mathematically oriented scientists to make use of models to illustrate the interrelationship of locally concentrated networks on the one hand, and global connectivity on the other hand. At the same time, this also allowed them to calculate "shortcuts" (rapid connections between one network and another) as well as "hubs" (nodal points with an exceptionally high number of contacts). These approaches have also

attracted some criticism. "Boris Holzer was right to indicate that some researchers have complained about the content-free character of the thus far explored network contacts", Christmann points out. "They state that in many cases, contacts are regarded as mere exchange channels. While this includes an investigation of these social contacts' formal structures and corresponding frequency distributions, the content and qualities of these relationships are largely neglected." Hence, some relevant questions remain unanswered: What is being exchanged? How does this exchange occur – and why?

In Christmann's department, researchers dealing with spatial pioneers have therefore decided to enrich their structural network analyses with social actors' communicative qualities, structures of meaning, and relational (hi)stories . This opens up the possibility to attach more importance to the quality of relations. "In this case – as for instance with its contributions to operationalising proximity and distance in different dimensions – the IRS plays a role in the methodological advancement of network research", Christmann concludes.

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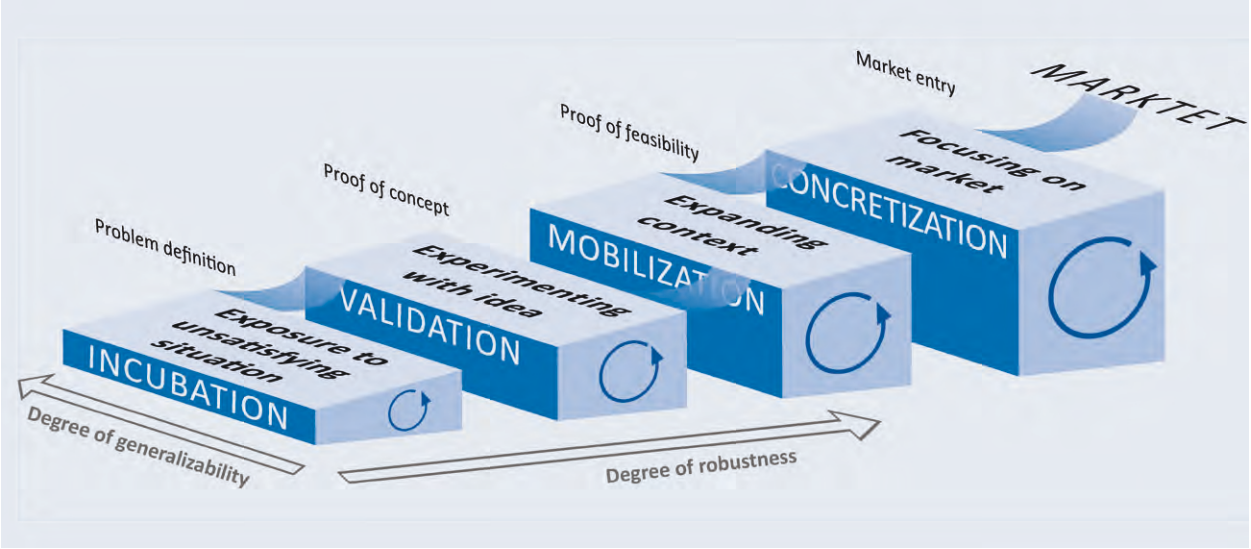

Innovation Networks: Dynamics in Space and Time

The solitary inventor is passé. Today, it is networks that generate innovations and bring them to market maturity. But how exactly do networks have to be designed to stimulate innovation – and how can regional policy making benefit from it? In order to gain a better understanding of the developments and changes in innovation networks and their spatial dimensions, Prof. Oliver Ibert and Felix Müller conducted an idea-centred network analysis. In doing so, they developed a phase model which reflects the dynamic character of networks in space and time.

Several academic disciplines have carried out a considerable amount of research on the connection between networks and the ability to innovate. Economic geographers, for instance, put particular emphasis on spatiality and the processes of knowledge genesis. Concepts such as knowledge clusters and creative milieux have resulted from such research. "Thus far, research has focused on the structural features of territories and networks in knowledge production", says Müller, who works at the IRS research department "Dynamics of Economic Spaces". "Such an approach allows us to give a good description of many framework conditions that taken together provide a general basis for innovation – such as the necessary balance between openness and seclusion, proximity and distance."

There are, however, also downsides to the fixation on territorial configurations in economic geography. As Müller points out, such a perspective is one-sidedly oriented towards structures, remains focused on spatial proximity, and tends to promote a perspective which is largely inflexible in terms of time. As a consequence, it is near impossible to trace the development of an innovation all the way from idea to product. "Our experience indicates that we need to attach much more importance to the actual quality of network connections and the smooth transition from one phase to the next if we are to gain a better understanding of spatiotemporal dynamics", says Müller. For this reason, the department's researchers decided to adopt a process-oriented approach and, on this basis, to conduct seven case studies in the form of "innovation biographies". By focusing on the actors involved and the shifting qualities and structures of their network relationships, the IRS researchers have reconstructed innovation pathways in a detailed manner.

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There are also practical reasons for the IRS researchers to have an interest in closing these gaps in spatial network research Thus far, politics and public administration have both implicitly and explicitly regarded innovation funding and regional policy as largely corresponding and mutually supportive. "Early on we already suspected it to be short-sighted to assume that such a spatially stable notion of innovations would be useful. To develop our phase model, we

therefore decided to concentrate on the changes in spatial parameters", explains head of the department Ibert. "In this manner, we began to understand that in some phases of innovation development, the maintenance of network relationships across spatial distances might be just as important as spatial proximity". Moreover, it was shown that a spatial separation from the place of origin at a later stage might even be regarded as beneficial.

The innovation biographies thus examined were drawn from the fields of legal counselling and biotechnological research and development. As both cases relate to business services, comparability of the case studies was generally ensured. For each innovation biography, the researchers conducted several detailed interviews and, in doing so, identified and traced the origin of its core ideas. As a matter of fact, reconstructing the idea's spatiotemporal dynamic turned out to be the decisive step here. "We explicitly chose not to depart from a clear and linear sequence of events" explains Müller. Instead, the overall development was characterised by dead ends, loops, and discontinuities. This allowed the researchers to draw inferences about which network constellations were (or were not) useful for the actors at a particular phase.

An innovation is "born" at the very moment when a person (or a group of people) manages to define and formulate a deficit in a certain context for the first time. In many cases, this recognition of a problem presupposes the existence of a distinct type of relation in this person's knowledge network. For instance, Müller and Ibert noticed that ideas are often born when a person belonged to several knowledge networks and therefore was able to reflect upon his or her relation to one group of individuals in the light of his or her experiences in other contexts. In one case study, a graduate physicist employed in a pharmaceutical company's development division was better placed to question established routines than his pharmacist colleagues. Moreover, the researchers identified "complicity" as a second important form of relationship, i.e. a close circle of personal contacts where ideas are reflected upon first. These contacts are hardly ever of a professional, but rather of a private nature (friends, acquaintances, or family members). Both forms of relation almost exclusively occur in everyday situations (i.e. family, work environment, or circles of acquaintances). As a consequence, social proximity plays a decisive role here.

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Throughout the validation phase, relations and their spatial manifestations start to change. The inventor examines whether his or her idea to solve a problem proves reliable and practicable. A concrete place

is needed to test the idea. This may either be a research lab or – almost as a real experiment – a company's newly established organisational unit. In this context, mentoring and rivalry emerge as two new relationship categories. Subject to a professional and personal relationship of trust, a mentor can provide resources and help build up an idea's reputation. Rivalry in turn is a complementary form of relationship, which is either rooted in personal or economic competition or in an affinity to differing currents within certain disciplines. Contrary to instinct, it showed that rivalry was also partly conducive to the innovation process. Whereas content-related proximity certainly does constitute a necessary prerequisite in this context, spatial proximity (which is at least temporarily necessary to build up personal relationships of trust) is not required here. "Here we can already notice the declining relevance of physical proximity, especially since mentoring relations and rivalry partly occur within the context of professional communities", Müller explains. "Symbolic and virtual spaces are increasingly utilised with the aid of journals, conferences, or the internet."

This trend continued in the phases of mobilisation and concretisation. After the test conducted within the professional community, the inventors sought to establish contact with pioneer users, i.e. potential customers for their innovation. However, suitable pioneer users are hard to find. One the one hand, their user behaviour is required to be as realistic as possible. At the same time, however, users should be interested in the advancement of the idea and therefore also must be willing to take risks. As a consequence, the recruitment of pioneer users reaches far beyond regional boundaries – and thus, the innovation is finally going on a journey for good. As the users operate from the standpoint of another, practical horizon of experience, a certain distance tends to emerge also in professional terms. The same applies to the "developmental partnerships" (Aufbaupartnerschaften) through which the developers work. Suitable partners offer partial solutions for particular niches whenever developers are unable to master certain challenges on their own account. In these cases, spatial proximity is merely of secondary importance here, as its

absence is compensated by increased mobility. "It was also interesting to note that ideally, the mentor of the previous phase now distances him- or herself from the innovation", says Ibert. "This will lead to a dismantling of the organisational and spatial proximity to the innovation's place of origin. For the innovation, this offers the opportunity to break away from the mentor's resources."

In the final phase, network relations with the users become crucial, while at the same time shareholders and competitors appear on the scene. "All three relationships do not need to be permanently located at the same place", says Müller. "However, this by no means implies that they would be 'spaceless'. In fact, the systematic use of spatially distant relations requires a highly strategic organisation of locations and mobility." Müller stressed that the success strategy for innovation consists in the ability to emancipate oneself from a local context's previous framework conditions. This, in turn, will be easier to achieve if the users are distributed across space. "We can therefore detect a gradual redefinition of local embeddedness as well as of various dimensions of proximity within the context of innovation processes", Ibert concludes.

In each phase, network constellations differ considerably – not only in terms of the amount and structure of relationships, but also and in particular with regard to their quality and relevance. Such a qualitative perspective on networks and the actors involved demonstrates the impact of social network theories upon the research department and its analyses. "For innovation research, this is something new and helps to sharpen our awareness of the configurations and organisation of transitional phases, says Ibert. "For an innovation to succeed, a well-managed advancement of the innovation network appears essential to maintaining the right balance between proximity and distance – not only in a spatial and physical sense".

In view of the fact that innovation was shown to be a spatially distributed and mobile process, the researchers have suggested adopting a more differentiated perspective whenever we make use of innovation funding for the purpose of regional development. "We should understand the logics of innovation and territorial development as fundamentally divergent", says Ibert. "While certain areas offer opportunities for creating mutual benefit, their relationship must be regarded as potentially conflict-ridden. Given the fact that dynamics of innovation processes do not comply with territorial boundaries, knowledge clusters should always aim to participate in global knowledge networks."

According to the researchers, opportunities tend to emerge whenever regional policies manage to provide a fruitful environment for parts of the innovation process and, moreover, succeed in becoming a constituent part of the space-encompassing networks, particularly during the late and especially productive innovation phases.

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Pioneers' Networks

Spatial Pioneers in Disadvantaged Urban Neighbourhoods

Spatial pioneers play a key role in the transformation of socially disadvantaged urban neighbourhoods. The make use of vacant spaces, intervene directly in the development of urban neighbourhoods and come up with new ideas for their living environment. Moreover, they influence discussions on spatial issues and therefore have the potential to change a neighbourhood's identity. Anika Noack and Tobias Schmidt, two researchers in the IRS research department "Dynamics of Communication, Knowledge and Spatial Development", have studied urban pioneers and their ability to influence spatial concepts and perspectives and spatial development in general. They discovered that taking a closer look at the networks of spatial pioneers may offer a key to understanding these issues.

The neighbourhood meeting place located at Berlin-Moabit's Bahnhofsstraße serves as a communication hub – not only for spatial pioneers, but also for a broader range of people. Numerous inhabitants come here to exchange news, meet friends, and discuss current developments in their neighbourhood. "From a social and spatial science point of view, people go there to synchronise their 'spatial images'", Anika Noack explains. For example, many discussions revolve around the different perceptions of certain processes. How are we, for instance, to assess gentrification processes? Would the neighbourhood benefit from it, or does it pose a threat to social cohesion? At the meeting place, but also on other occasions, questions like these are often subject to controversial debate and thus help to set things in motion.

The construction of such spatial images through communication processes is one of the key processes of neighbourhood development", says Noack. Ultimately, political decisions (e.g. about the distribution of subsidies) also depend on how particular actors perceive spaces and places. "As a consequence, we decided to ask ourselves: What kind of roles do individuals play in these processes – and why is it that spatial pioneers can generate more resonance with their views and ideas than other actors? To address this issue, Anika Noack and Tobias Schmidt conducted studies in Berlin-Moabit and Hamburg-Wilhelmsburg to reconstruct the networks of people who play an active and successful role in shaping their neighbourhoods. In doing so, it was important not only to describe the scope and reach of the contacts on which the interviewees were able to depend. Instead, they were also eager to find out more about the quality of these particular connections. For this reason, Noack and Schmidt decided to embed their network analyses in a broad, ethnographic framework.

"An ethnographic study of neighbourhoods implies a comprehensive and sometimes fairly long-term observation and description of those processes, persons, and projects that are known to have contributed to changes in both the perception of and discussion about spaces", Schmidt points out. "To this end, we deploy a range of scientific methods, such as the narration-based network survey." This entails in-depth interviews in the course of which we aim to reconstruct and graphically illustrate networks (in this case: those of spatial pioneers) step by step and jointly with the respondents. To be able to depict all relevant persons, groups, institutions, and places that appeared important according to the interviewees' descriptions, Noack and Schmidt made use of the "VennMaker", a special computer programme which allows for a visualisation of networks. "In this manner, we get to know the stories, conflicts, and successes behind these contacts and places instead of solely recognising the network structure. At the same time, we learn about the functioning of these networks, their development, and the way they have been built up", says Schmidt. Does a certain relation prove to be stable or frail? Does it exist permanently or is it only used occasionally and due to strategic reasons? Is it mainly based on trust or conflict? All these aspects are relevant for the question of whether and how a person may act as a spatial pioneer, and as such is able to establish spatial images and to initiate spatial processes of change.

Based on their findings, Noack and Schmidt concluded that one factor for the success of spatial pioneers consists in the balance among several relationship types within a personal network. "It is, for example, not enough just to have a large number of contacts. Instead, it has proved advantageous if one is able to combine long-term, reliable support networks with sporadic partnerships – which may be revived at any time due to tactical reasons – in a flexible manner", Schmidt explains. "This illustrates the great significance of qualitative and subjective factors for neighbourhood networks."

In disadvantaged neighbourhoods, spatial pioneers like this moderator often take the lead in revealing and representing the hidden potential and interesting sides of their neighbourhoods to the outside world. Owing to their special networks, they also often act as catalysts for processes of change in such neighbourhoods.

At the same time, spatial pioneers can benefit if they regard the maintenance of their network links as their capital and, moreover, if they purposefully aim to balance their various relationships. "Time after time, the moderator of the panel discussions at the Moabit neighbourhood meeting place succeeds in bringing together people with different perspectives", Noack explains. "By this means, she not only initiates a communicative negotiation of spatial images, but also strengthens her own position within this network of engaged citizens, developing her role as a powerful spatial pioneer in Berlin-Moabit. Instead of merely stimulating this exchange, she also channels it and – thanks to her good contacts – knows how to pass it on to the press and politicians." In disadvantaged neighbourhoods, spatial pioneers like this moderator often take the lead in revealing and representing the hidden potential and interesting sides of their neighbourhoods to the outside world. Owing to their special networks, they also often act as catalysts for processes of change in such neighbourhoods.

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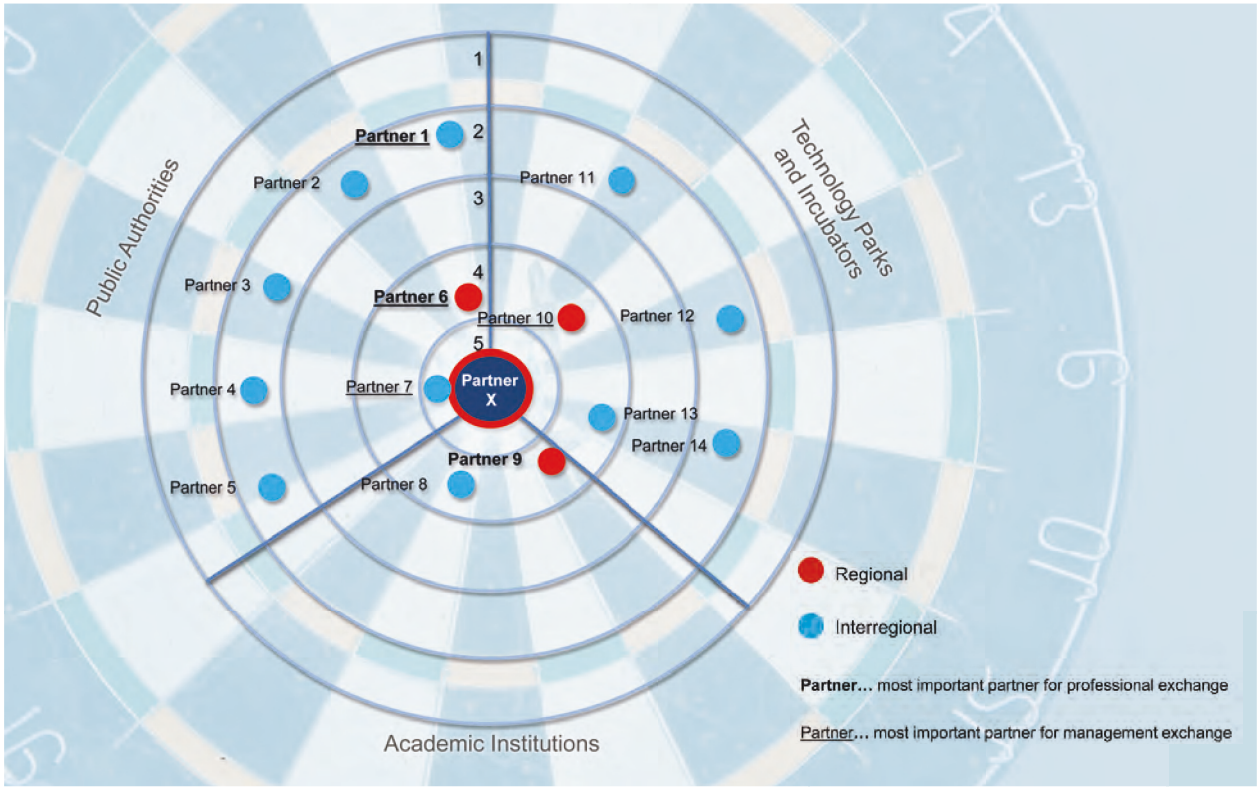

Intensity of relations from a network partner's perspective (at the centre of the illustration)

Who Networks with Whom? The Visualisation of Europe-wide Project Networks

Today, international cooperation plays a major role not only in the private, but also in the public sector, including science. For example, while EU projects allow for a Europe-wide exchange of experiences and knowledge, the structure and quality of these networks have been shown to be very heterogeneous. The visualisation of networks can help us to find out how to act and behave within these networks as a project partner – and to become aware of areas where improvement may still be required.

From 2010 until 2012, Dr. Suntje Schmidt and Christina Minniberger from the IRS research department "Dynamics of Economic Spaces" conducted the INTERREG IVC-project "Know-Man – Knowledge Network Management in Technology Parks". This project's aim was to improve instruments for a regional management of knowledge networks and to exchange experiences among all actors involved (regional developers, technology parks, and universities from seven European regions) in order to initiate learning processes. Minniberger has remained engaged in this subject even beyond the end of the project. Since 2010, she has been doing her dissertation - with the working title "Differentiated Integration through Interregional Projects in the European Union". By means of a qualitative analysis of the Know-Man project, she examines the cooperation structures and effects of interregional project networks within the EU. "I learnt that project partners are not always aware of their actually existing networks", says Minniberger. "In the first place, being a partner in the same EU project usually means nothing more than seeing the other partners at project meetings about twice a year. Beyond this, it is, however, up to the project partners to organise and shape their cooperation in a concrete manner." In this context, visualisations can help the actors to become aware of their own behaviour as well as of the specific patterns of their collaborations – and, moreover, may be helpful for reflecting upon their initial expectations and interests.

According to Minniberger's experience, EU projects are particularly suitable for analyses of this kind. "EU projects bring together a broad range of partners from all across Europe and provide a platform for exchang-

ing experiences. In this context, the formation of European networks is regarded as a valuable 'by-product'", she points out. "Nonetheless, European networks do present a challenge, as they have to surmount spatial and institutional obstacles. For researchers and project partners it can therefore be worthwhile scrutinising the ways partners behave within these networks."

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In doing so, it is helpful to switch between different visualisation perspectives. The holistic network perspective displays all network partners and their relations in the form of a spider web. Such a perspective is helpful for identifying cooperation structures – as for instance intensive collaboration between geographically close partners, or 'cooperation gaps' within a network.

One alternative is the so-called ego-perspective – a form of visualisation where individual partners take centre stage. "To my knowledge, the 'dartboard' – which is characteristic of this form of visualisation – often leads to a light bulb moment; for instance, when it is made clear to an actor that s/he has thus far primarily made use of a Europe-wide consortium to cooperate with a long-established core network", Minniberger concludes.

The diagram on page 11 depicts the network of one partner involved in the Know-Man project. The interviewee is located in the centre of the dartboard. Depending on the questions, it is possible to emphasise certain factors. In this case, partners from the same region are displayed in red. Moreover, the 'dartboard' is subdivided into the three participating groups of actors. "It becomes apparent that partner X has the most intensive relation to partners from his own region, which are marked in red here", Minniberger analyses.

Moreover, the interview partner (a research institution) cultivates close links to other scientific institutions that are also involved in the project. By contrast, relations to partners with other institutional backgrounds are much less pronounced. When this illustration was discussed with the interview partner, it became apparent that the closest links were actually maintained with already long known project partners. "The interview partner was, however, unaware of this circumstance – and this in turn provided a stimulus for self-reflection on strategic goals and on how to practically implement the cooperation", Minniberger concludes. Firmly established structures and collaboration deficits become visible and hence can be addressed when required.

In the context of the daily project routine, a visualisation of networks can help to challenge claims and realities of cooperation and, where necessary, improve the network by means of realigning certain project practices. To this end, it is one possible option to integrate network workshops into project meetings. From a scientific perspective, network visualisations appear interesting as a way of complementing or even deepening both qualitative and quantitative network analyses. As a survey instrument, they may also serve as a 'narration incentive' during an interview situation. During the evaluation stages, diagrams help to underline key arguments.

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Networks are Useful – But who Benefits?

Regardless of whether people want to advance their careers, encourage development in a certain neighbourhood, or wish to transform a good idea into a marketable product, networks are considered an indispensible factor of success. Connections to colleagues, spatial pioneers, investors, or customers provide additional knowledge as well as access to key figures and resources. But at what price? To address this question, Prof. Dr. Oliver Ibert and Dr. Suntje Schmidt conducted a study on the working environment of musical actors that illustrates the ambivalent character of networks in a particularly succinct manner. Notwithstanding that the utility of networks is often overrated, while the associated costs are often underrated, Ibert and Schmidt demonstrate that there is virtually no way to avoid networks these days.

"When a new role is advertised, many actors get wind of it at an early stage thanks to informal channels. If you are not part of these networks yourself, you probably won't get far." This is the general view of most young musical performers when describing the recruitment process in their professional field. Given that musical actors are usually employed on a temporary basis, the continuous search for new contracts is an integral part of their job. As a consequence, they have an interest in expanding their professional networks so as to make themselves known to, and appreciated by, as many potential key figures as possible (e.g. producers, directors, or casting agents). "This is why especially career entrants spend a great deal of time and energy on networking", Schmidt points out. "From their point of view, networks are seen as an unavoidable tool which provides access to roles. They see networks as being highly effective, even if they often feel excluded from them – especially at the beginning of their career."

> "If you're not part of these networks yourself, you probably won't get far."

According to Schmidt, the costs associated with the establishment and maintenance of networks mainly become manifest in a blurring of boundaries between the private and the public – especially since people tend to underestimate the time required for these activities. "Networking requires several unpaid hours a week", adds Ibert, who has dealt with the impact of networks for some time. Once they are actively involved in several engagements, actors may also come to experience conflicts of loyalty towards their network partners. Moreover, many actors feel very uneasy about an active cultivation of contacts. At premieres or other events, for instance, they often feel obliged to make contact with certain people identified as key persons and, at the same time, struggle to avoid giving the impression that they are only making contact for strategic reasons.

> "Networking requires several unpaid hours a week."

"Likewise, many actors find it hard to maintain a constantly growing network of relationships", says Schmidt. "Apart from being a matter of time, this also contains a very emotional component – one could even speak of emotional work here."

"Once I have found my way in, many things will fall into place naturally."

While close ties often exist during a work engagement, they suddenly disintegrate into nothing more than loose contacts once the contract has expired. It is safe to assume that social media have considerably facilitated this aspect. "As online-networks like Facebook allow for the easy maintenance of contacts, and have thus become industry standards, showing presence and being active appears unavoidable today." This has also significantly altered the spatiality of networking activities. Given that the cultivation of contacts partly occurs via the Internet, the relevance of spatial proximity also varies on a case by case basis. On certain occasions like auditions, or in the context of events typical of this sector (e.g. launch parties), physical presence is certainly most advantageous. Here, too, the actors face the challenge of cultivating their contacts by finding the right mix between proximity and distance as well as between personal and virtual networking.

"Networks are seen as an unavoidable tool which provides access to roles."

"Once I have found my way in, many things will fall into place naturally". During her interviews, Schmidt heard this sentence in numerous variations. At an early stage in their careers, actors tend to justify the challenging process of establishing contacts with future benefit they hope to draw from valuable networks. "This positive assessment is, however, put into perspective over the course of their career", says Schmidt. "The actors realise that while good networking may to some extent be useful to gain access to information like new roles, and may help them improve their own image, it does not reduce the competition for roles.

In view of the fact that many of the contacts are maintained with colleagues in similar situations, the size of a network is of secondary importance. This in turn ensures a high share of redundant contacts, with only a small number of strategic contacts. "Moreover, there are limits to establishing a good reputation. In the long run, a number of actors will be able to earn a good reputation within their sector and enjoy relative success e.g. invitations to castings. However, it remains almost impossible to acquire such a high status that job offers arrive without any real investment of time and effort."

How useful are networks for those employed in the musical business, then? "I found that my case studies provide different answers to this question", Schmidt summarises. From the young actors' perspective from the outside, well-maintained networks appear extremely useful – but mainly for others. The high effort actors tend to expend on gaining access to supposed "elite circles" results from the exclusive character which is commonly ascribed to networks. From an internal perspective, however, research shows that these assumptions about the importance of networks are only partly true. Many contacts are 'nice to have' rather than essential. As Oliver Ibert puts it: "While young actors consider it absolutely essential to network, more experienced actors only network when deemed necessary."

"While young actors consider it absolutely essential to network, more experienced actors only network when deemed necessary."

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Oliver Ibert is head of the research department "Dynamics of Economic Spaces". As part of both the current and the previous lead project, he and other researchers employed at the department have conducted network analyses on the spatial and temporal dynamics of innovation processes. Moreover, he participates in the IRS bridging project "Key Figures as Driving Forces of Spatial Development", where he has, for example, addressed network-related questions.

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Suntje Schmidt is deputy head of the IRS research department "Dynamics of Economic Spaces" and has conducted research within the frame of the department's lead projects on spatial and temporal dynamics of innovation processes. She has also dealt with questions related to resilience in the context of volatile labour markets.

Internationalisation and Lively Debates: The 13th Workshop Discussions

On 16-17 January 2014, things were very busy at the IRS conference room. For the 13th time, the "Workshop Discussions" on the GDR's building and planning history took place, an event which is organised biannually by the IRS Department for Historical Research. This time, head of department Dr. Christoph Bernhardt had the opportunity to welcome more than 100 participants – mostly well-established and younger researchers from different professional backgrounds, but also several people directly involved in historical events, who also had the opportunity to participate actively.

In seven sections with altogether 19 presentations, researchers (from the IRS, Elke Beyer and Dr. Sylvia Necker contributed to the event) and the audience addressed a broad range of aspects related to the East German building and planning processes from the 1930s until the 1980s. The debates often deliberately exceeded this geographical and temporal frame – also towards West Germany and Western Europe. "This more pronounced inclusion of international topics and speakers has proved particularly conducive to overcoming an 'insular perspective' on the GDR", says Dr. Kai Drewes, head of the IRS Scientific Collections. "In the context of the IRS's internationalisation strategy, we aim to further expand this approach in the years to come."

The presentations and discussion dealt with architects' biographies as well as with research on pedestrian zones, planning concepts for industrial towns and holiday architecture. Other important issues included industrial housing construction, planning for city centres, and thoughts on architectural theory. On the evening of the first day, a well-attended reception took place at the pavilion which hosts the IRS Department for Historical Research. This event also included the opening of the exhibition "man and architecture", which presented pictures by the architect and painter Gerd Wessel.

The vibrant discussions and forceful debates during the breaks were proof that the GDR's building and planning history remain a relevant and lively research field – all the more so when it includes border-crossing comparative and relational elements. "In view of the fact that the GDR's history was often characterised by complex and entangled conditions beyond official responsibilities, language regulations, and historical traditions, the memories of those involved – subjective as they may be – definitely provide a valuable complement here", Drewes points out. As the workshop discussions provide an excellent framework for exchange and networking at a high level, they shall continue to take place every two years in the future.

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Research Fellowship for Matthias Bernt

On 1 February 2014, the research department "Regeneration of Cities and Towns" launched a new research project: a comparative study of regeneration policies and gentrification processes in Berlin, London, and St. Petersburg. The project's duration is 2014-2016 and will be conducted by Dr. Matthias Bernt. In his analyses, he will examine how various institutional contexts, planning policies, and property relations affect the pathways and dynamics of gentrification processes. The project will be funded by the Alexander von Humboldt Foundation's "Feodor Lynen Research Fellowship for Experienced Researchers".

This fellowship allows German researchers with above average qualifications to conduct a long-term research project in cooperation with an academic host at a research institution abroad. For his project, Bernt was able to win renowned partners at University College of London / Bartlett School of Planning, London as well as at the Center for Independent Social Research in St. Petersburg. From the beginning of the project, Bernt will first conduct his research in London for six months. Subsequently, he is planning a three-month research sojourn in St. Petersburg.

This successful acquisition of an individual fellowship underlines the IRS's expertise in basic research in the field of spatial sciences. As such, it provides an excellent opportunity to connect independent international and comparative research with work conducted at internationally leading research institutions, while extending strategic cooperation.

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Guest Stay at the Centre for Urban History, University of Leicester

In the context of the IRS's internationalisation strategy, deputy head of the IRS Department for Historical Research Dr. Harald Engler visited the Centre for Urban History at the University of Leicester, UK in November 2013. The guest stay explored options for cooperating with one of the most renowned institutes of urban and urbanisation research in Europe. Engler gave a presentation in which he presented the profile of the IRS Department for Historical Research, introduced its current research project and named potential fields of cooperation.

In conversations with the centre's director Dr. Prashant Kidambi (a specialist for colonial history and the history of Southeast Asia), Prof. Simon Gunn (history of urbanisation), Dr. Rebecca Madgin (history of planning), and Colin Hyde (head of the East Midlands Oral History Archive), he identified possible forms of future cooperation between the IRS and the Centre for Urban History. "For the IRS Department for Historical Research, these conversations opened up several obvious fields of cooperation between Leicester and Erkner", Engler concludes. More specifically, the discussions concentrated on organising exchanges of both senior and junior researchers and, further, explored the opportunities for joint research proposals and projects as well as joint English-language publications.

Before the end of 2014, the IRS and the Centre in Leicester will jointly conduct a workshop and in autumn, Prof. Gunn will come to Erkner for a guest stay of several weeks. Apart from initiating these various forms of cooperation – which are highly important and beneficial to the IRS Department for Historical Research – the guest stay also provided the opportunity to meet and get to know English and international researchers in the field of urban history.

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