



German-Polish Network-based R&D-Co-operation

Enablers and Barriers

Gerd Meier zu Köcker, David Hein, Maciej Chinalski

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The present document was financed by funds of the Federal Ministry of Education and Research.
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Preface

The views expressed in this report are those of the Institute for Innovation and Technology (iit) and not necessarily those of the BMBF. They are based on an empirical survey of regional networks and anecdotal information provided by a wide range of network managers and network numbers.

Neither the BMBF nor any person acting on behalf of the BMBF is responsible for the use that might be made of the information contained in this document.

Acknowledgements

We would like to thank the German and Polish network managers who provided information and contributed to the study with interviews. Special thanks also are due to Dr. Erika Rost (Head of Co-operation with Eastern Europe, BMBF) and Dr. Michael Lange (BMBF-IB).

Impressum

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Layout

Stefanie Boehler, VDI/VDE-IT

Print

Druckerei Feller, Teltow

October 2008

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Introduction

Stimulating research and innovation can be considered as one of the major tasks of a national approach to increase the wealth of a domestic economy. It aims at different objectives, like economic growth, full employment, stable prices or positive balance of payments from international trade. Insufficient innovation was recently considered a major cause of Europe's disappointing growth performance. As a consequence European regions need more research and innovation to catch up with the global challenges. In 2000 the European Council decided to make the European Union the most competitive and dynamic knowledge-based economic area by 2010. A central element of the strategy was to strengthen research and development in the Member States and to increase the R&D expenditure in the Member States to 3 % of the GDP by 2010. Consequently, more and more European nations set up new national initiatives for innovation and growth under which additional funds have been invested for research and development. This is also valid for Germany and Poland, who considerably increased their efforts in research and development by launching new initiatives.

In parallel, transnational research and development was considered to be an important element in a national research strategic agenda by the most European Member States. As a consequence, several bilateral and multilateral research and development initiatives were successfully set up. The German-Polish R&D co-operation very much benefited from this trend, when several different bilateral R&D initiatives have been set up in the recent years.

National and regional governments have also recognised the potential of networks as a real driver in regional development policy. They contribute significantly to strengthening local economies, creating new jobs and attracting new investors. For this reason many network or network initiatives have been launched. Some countries included network or network policy in national development plans, others pursue regional policy models. The positive impact on the development of the targeted industrial sectors, the companies as well as the societies addressed by these measures, by evaluating such innovation related programmes and initiatives, is impressive. Even in countries that started recently. There is plenty of evidence of the positive impact on national economies. Interest in networks has world-wide grown because they are a leverage point for action, not just a description of economic reality. Policy makers world-wide have turned to network policy because of a shift in priorities from macro- to microeconomic issues. Networks or networks turn out to be a useful way to organise these efforts and launch effective action initiatives. In Germany as well as in Poland there are publicly funded initiatives existing on regional

as well as on national level to stimulate networking of companies and R&D institutions (Spitzenclusterwettbewerb, Kompetenznetze Deutschland, etc.).

Michael E. Porter (1998) defines cluster or networks as "geographically proximate groups of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities". Networks are important, because they allow companies to be more productive and innovative than they could be in isolation. And cluster and networks (in the following the term "networks" is used instead of the term "clusters and networks") are important because they reduce the barriers to entry for new business creation relative to other locations.

In the course of globalisation and the consequential overcoming of national boundaries, furthermore as an effect of the eventual stagnation of domestic markets, the previous internationalisation of business partners and clients and the entry of foreign companies and corporations onto the domestic market, companies of all sizes are forced to compete on an international level in order to stay competitive and fit for the future on converging markets. The same is for internationalisation of research and development (R&D). Today, R&D became more an more international world-wide. Networks can be of great use to many companies concerning their internationalisation ambitions. One reason for that lies in the reduction of internationalisation costs for the analysis of the intended future area of application, furthermore, the collective use of resources like distribution channels, suppliers and capacity of transportation becomes possible. Especially in the field of fundamental R&D, so called R&D networks can be of considerable advantage, when the R&D capabilities of several partners are clustered to solve specific challenges. Another important aspect is the momentum of dividing responsibilities and work within networks and the subsequent company's concentration onto corporate core products respectively services. Even more, as a result of co-operation a networks' allied companies can not only offer advanced or innovative products or services, but can provide full-scale system solutions if the network as a whole is involved into the internationalisation process.

As a logical consequence, support to facilitate transnational co-operation between regional networks and (their members) appears on top of the agenda. Hence, it becomes evident that this competence is an important criterion for networks from a member company's point of view. Regional networks and even more the involved companies benefit from the rapid transnational transfer of both information and knowledge and from mutual technological improvement. They become able to for-

mutate standards for innovations within development co-operations respectively promote the cross-national harmonisation of standards. These standards can serve as amplifiers for further innovations, since open standards are becoming localised, finally leading to new products and services.

German-Polish R&D co-operations have a long tradition. There are plenty of excellent examples showing the mutual benefits of such bilateral co-operation in almost all scientific fields. The Governments of the Federal Republic of Germany and the Republic of Poland have recently agreed to appoint dedicated coordinators of cross-border co-operation to intensify the neighbourly, amicable relations between the two countries.

Many interviews with companies and network managers in this study showed the growing demands of German and Polish companies and R&D institutions to implement concrete supporting activities to increase the bilateral R&D co-operation for mutual benefits. The current study aims to better understand the potentials as well as the existing barriers of bilateral R&D co-operation of regional networks and their respective members between Poland and Germany. Only when the potentials and barriers are well known by all parties involved, appropriate measures can be undertaken to take away the existing barriers and to increase the additional value of bilateral R&D co-operation between German and Polish partners. The current study has been financed by the Federal Ministry for Education and Research (BMBF).

Transnational Co-operation - Enablers and Barriers

The national landscape for Research & Development (R&D) in Europe is extremely diverse, both in terms of relative investment in R&D and the systems for implementing national programmes. Transnational co-operation in R&D therefore becomes more and more important in order to meet the respective expectation, often connected with the programmes. Especially in such cases when capabilities or know-how is needed in certain regions or countries, transnational co-operations seem to be the most promising solution to overcome such obstacles. There are many reasons for national policy makers to engage in transnational activities but the most important seem to be concerned with the need to improve the quantity or quality of national research capacity.

Previous surveys of about 150 national R&D programmes revealed that over 80% of programme managers spend some part of the own national budget on transnational activities or foreign participants.¹ The most common approach is the use of national programme funding to sponsor scientists or companies that are participating in transnational projects. The least common, although most effective, is the opening of national programmes to foreign participants, particularly if they need to be paid. The analyses and own wider experience, clearly indicate that most of the national administrations are still reluctant to sponsor non-residents or contribute to central budgets. This is also valid for most policy makers and programme owners in Poland and Germany. There are, of course, notable exceptions and we have reported on some of these in the case studies.

Bilateral or transnational investment in R&D, within national programmes, seems to be driven by one of four main objectives:

1. Development of knowledge-based industries
2. Internationalisation (of industry and research actors)
3. Increasing scientific competitiveness
4. Addressing societal or environmental challenges

As far as barriers to transnational R&D-co-operation and mutual opening are concerned, many different barriers do exist. These encompass all levels of administration from policy to projects. Of course, the importance varies very much. The most important appear to be related to legal/organisational factors and lack of explicit encouragement for transnational co-operation. Significant variances can be highlighted between different types of countries, particularly between the larger and smaller economies. The larger countries appear less active because they are relatively self-sufficient, whilst the smaller countries and the new EU countries are more open for any kind of transnational R&D co-operation. This is also valid

for Poland, where policy makers well understood the importance of bilateral R&D co-operation. Nevertheless, there are many administrative and budgetary hurdles to overcome existing barriers to open R&D programmes for non residents. The New Members States are quite keen but their relatively low R&D intensity is a barrier. Finally, programme users are certainly interested in more flexible national programme budgets, or a dedicated budget, to enable international co-operation but do not wish to see more domestic competition and bureaucracy through mutual opening.

Besides of existing barriers, also factors can be identified (enablers) that have a positive effect on investment in transnational co-operation and/or opening. These include explicit design rules, operational flexibility and external influencers that encourage such activities. The most prevalent enabler is external encouragement from 'influential decision makers that see the value in additional European collaboration'. This is clearly important as anecdotal evidence suggests that a lack of political will is holding back progress towards joint programmes in many ERA-NET projects. It is interesting to note, however, that this enabler is also present in 30% of the programmes investigated that have no separate transnational activity. This suggests that lack of bottom-up motivation (from the programme or project level) can also be a barrier. An analysis of the most open and closed programmes indicates that embedded rules and instruments to encourage transnational activities are the most important pre-condition.

There are a number of options to increase the impact of national programmes through transnational co-operation and opening, which should also be regarded for a potential intensifying of Polish-German R&D co-operation. These options can be described as transnational features (or transnationality within national programmes) and include:

- ▶ Allowing national researchers to utilise programme funding to participate in transnational research projects (or feasibility studies for such projects)
- ▶ Allowing national researchers to utilise programme funding to participate in cross-border technology transfer projects
- ▶ Utilising programme funding to support cross-border mobility or training of researchers
- ▶ Utilising programme funding to support the participation in European or international committees or networks
- ▶ Utilising research capacity and expertise from other countries (foreign partners or subcontractors)
- ▶ Using foreign evaluators
- ▶ Providing incentives for foreign researchers to become residents (permanent or temporary)

¹ Study „Examining the Design of Research Programmes“, A. Hunter, G. Meier zu Köcker, 2005.

Transnational Co-operation between Regional Networks

Transnational co-operation of companies and R&D institutions can be facilitated by regional networks, when the respective managers or coordinators pay dedicated attention to this issue and run appropriate measures. But regional networks do not just adapt to an international orientation per se - increasingly, they often react to trends and changes imposed upon them externally, mainly by the regional network members. Since international activities and co-operation are more expensive and time-consuming than those strictly limited to national level, clear benefits have to arise from such action or have to be expectable at least.

Own investigations have revealed that a wide range of reasons for a more international orientation of networks and their subjects exist. It is to be taken into account that these reasons are very different and may be influenced by many factors. Among others, four reasons for transnational co-operation and a more international orientation of regional networks are dominating.² Most regional networks regard the contribution internationalisation promises to assure the lead in technology internationally and to strengthen the market position world-wide as primary reasons for the necessity to internationalise their focus increasingly (s. Fig. 1). Furthermore expectations predominate that this type of co-operations will make access to eligible target markets easier and more efficient. Given the case networks lack some important competences internally, international co-operations shall

primarily allow for the missing know-how on usability or technology to be acquired. This is even more important if regional networks focus their activity upon areas with high generic character, in which an increasing convergence of technologies originating from different fields is to be observed. On the contrary, mutual exchange of experiences and information does also play a major role, though not as important as one might have expected. This fact is even more surprising given that no obligations follow the type of co-operation exchange of experience and information represents; accordingly this type of activity should be easier to realise than the other three primary motives. The wish for collective peer assessments as a possibility to intentionally match up, thus making a mutual comparison of competence in technology and knowhow possible, is another important argument even if it is not one of the top four. This kind of peer reviews is a good instrument to identify the participants' individual strengths and weaknesses and to find areas to be improved. Unfortunately these peer assessments are usually both time-consuming and require a lot of mutual trust, the last mentioned often being the primary barrier for a transnational co-operation. Because actual literature rarely presents indicators or instruments to assess peer reviews between networks there is a definite need to provide appropriate instruments to interested networks in the future.

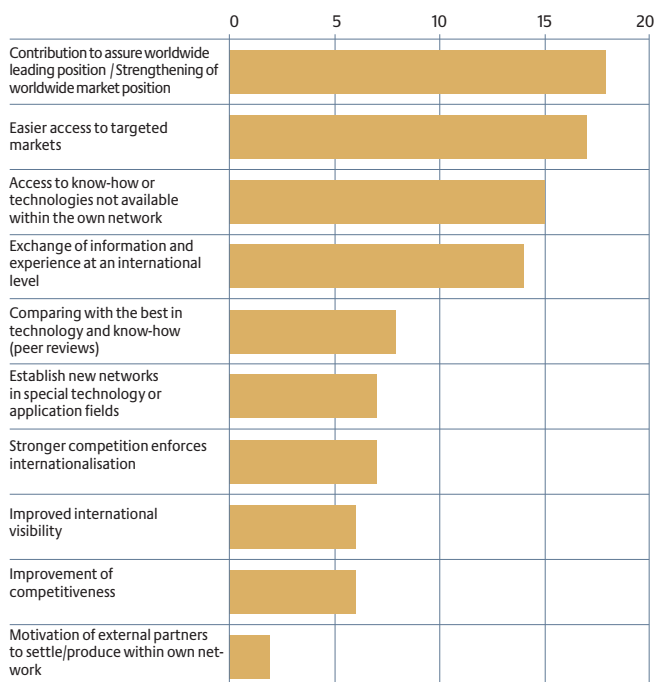


Figure 1: Reasons for the internationalisation of networks (based on information provided by 89 networks out of Europe, max. two answers per network possible, figures in %)²

² Study "Internationalisation of Networks", G. Meier zu Köcker, C. Buhl, 2007

In spite of numerous examples for successful co-operations between networks respectively their members a number of barriers for partnerships with other networks still remain, as one might have expected particularly to international ones. Intended strengthening of international focus of networks on the part of networks' managers or on behalf of motivational support by third parties calls for the awareness of characteristic causes for these barriers in order to reduce or remove them in advance, if possible.

Lack of mutual trust between partners is the most dominant single reason posing a barrier, usually because networks are not sufficiently familiar with each other (s. Figure 2). Also the fact that often competitors are present in networks willing to co-operate impedes co-operation (at least in the beginning) or possibly leads to conflicting interests, as one might have expected. Lack of time and resources as well as financial reasons were stated quite often as well, illustrating the fact third parties can only provide little help to reduce barriers e.g. with external support only. An insufficient level of concretion of potential co-operation projects, spatial distance or language barriers are minor factors.

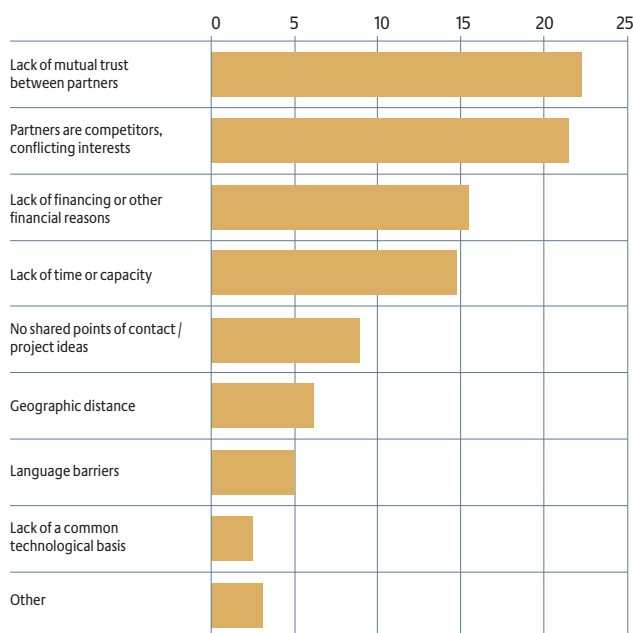


Figure 2: Main barriers, hindering a possible co-operation between networks from their managers' point of view (based on information provided by 84 regional network scattered around Europe, max. two answers per network possible, figures in %)²

Aims and Methodology

All in all the main barriers for international co-operation between networks appear similar to those problems arising on a national level, valid for Germany and Poland as well, often pre-dominant in the beginning of the lifecycle of respectively young networks (lack of mutual trust and fear of co-operation with competitors).

The current study aims at creating a better understanding for the similarities and differences, needs, existing strategies, barriers and enablers referring to bilateral R&D co-operation between regional networks and their members from Germany and Poland. Only a better understanding of those matters will allow developing and implementing more tailor-made supporting measures to facilitate and strengthen such kind of bilateral R&D co-operation. This study shall make a contribution to that issue.

Due to the fact that internationalisation of regional networks is regarded as a very important and actual policy topic and a lot of supporting measures are being discussed respectively implemented at the moment, the question arises what opinion regional networks themselves hold on the topic. Appropriate public funded accompanying measures can be designed and realised effectively only if the initial position, enablers and barriers as well as the needs of the target group are sufficiently known and understood.

Primarily those regional networks were chosen that already co-operate with regional networks from the respective country or that had at least stated a serious interest in starting possible bilateral R&D co-operation with other regional networks. These regional networks are mostly regional networks incorporating developing and producing companies of every size, research institutions (including universities), institutions for training and education and other service providers (e.g. Chamber of Commerce, banks etc.) while at the same time retaining regional concentration.

Altogether 20 regional networks (eleven regional networks from Germany and nine from Poland) participated in this survey. The participating German regional networks were well known to the authors due to their day-to-day work. Additionally, in Appendix I we listed those regional networks and members of the Initiative Kompetenznetze Deutschland (Competence Networks Germany)³, that expressed dedicated interest in future R&D co-operation with Polish networks. As far as the Polish regional networks were concerned, about 32 regional networks have been identified and initially contacted (s. Table 1). Most of them responded and were interviewed by phone. In order to get a deeper understanding of the operation and management of the regional networks, five Polish regional networks have been visited beginning of 2008.

³ The Initiative Kompetenznetze Deutschland is financed by the German Federal Ministry of Economics and Technology, www.kompetenznetze.de

The German Regional Network Landscape in Brief

National Regional network Supporting Initiatives

The goal of the German innovation policy, among others, is to give new impetus to collaboration between industry and research. Which is why Germany has developed for the first time ever a comprehensive regional network strategy for all its ministries, a strategy whose range extends from measures with a widespread impact to modular, region-specific or technology-specific approaches all the way to fostering and funding high-powered, highly productive leading-edge networks. The currently ongoing national initiatives are covering the whole life cycle of regional networks. Programs, like ZIM (previously known as NEMO initiative or the previous Bio-RegionN approach), supporting the emerging of new, competitive regional networks. For those regional networks, already established and belonging to the most innovative and competitive ones, the Competence Networks Germany campaign being conducted by the Federal Ministry of Economics and Technology is making the most productive networks more visible not only nationally and internationally - but to potential investors as well.

The overall strategy encompasses the various strategic actions⁴:

- ▶ Make exchanges between science and industry visible
- ▶ Expand non-technology-specific co-operation funding for small and medium-sized enterprises
- ▶ Optimise innovation processes and put the potential offered by Germany's eastern Federal States to use
- ▶ Support the development of networks in selected fields of technology
- ▶ Launch a competition to promote outstanding innovation-oriented alliances

During the last years, network policy has become of high importance in Germany both at the national and regional level. One of the first national activities to initiate network development was in 1995, when the BMBF launched a new funding concept, the BioRegio competition. Its main purpose was to encourage local biotech communities to interact more closely and to promote commercial applications. The competition acted as a catalyst on commercial biotech throughout Germany and on creating new regional networks. Even those networks participating in the BioRegio competition, which finally were not awarded, were instead funded on regional level. National and local networks have been generated that have facilitated the exchange of knowledge and led to a striking increase in new start-ups. Since then, the federal government has implemented a number of other technology-specific or region-specific network schemes, like BioProfile and BioIndustrie 2021 or the initiative Entrepreneurial Regions including the programme Innovative Regional Growth Cores.

But also on regional and Federal State level, many initiatives have started since then, to create competitive regional networks (s. Figure 3).

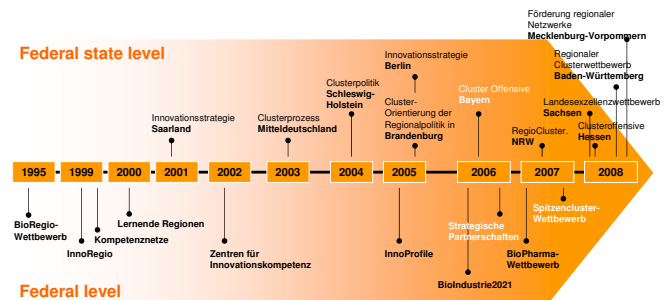


Figure 3: History of selected German network initiatives
(Source: iit, Institute for Innovation and Technology, Berlin)

Concerning the development of the New Federal States the federal government directs its funding policy consistently towards networks, which can make use of regional strengths to generate sustainable economic growth in the respective regions. The government assumes that such growth centres have also an effect outside their own regions and contribute to a positive economic development in all parts of the New Federal States. Besides of previous or currently ongoing network supporting initiatives, there are many other national funding schemes, to increase the innovation capability and to strengthen the co-operation between the industry on one side and the academia on the other side.⁵

In 2006, the federal government has started to develop for the first time ever a comprehensive High-Tech Strategy involving all its ministries. The federal government's regional network strategy is part of this approach. The range of the network strategy extends from measures with widespread impact to modular, region-specific or technology-specific approaches all the way to fostering and funding highly productive leading-edge networks. This can be considered as a new stage in the federal government's network policy (Figure 4).

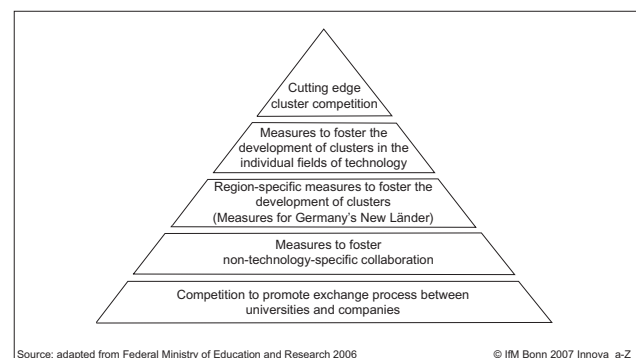


Figure 4: The German Governments Network Strategy

⁴ High-Tech Strategy Germany, 2006.

⁵ Network Observatory, 2007, www.networkobservatory.eu

Another quite successful instrument for the improvement of regional economic structures is the so-called joint scheme for the improvement of regional economic structures (Gemeinschaftsaufgabe "Verbesserung der regionalen Wirtschaftsstruktur" [GA]). The GA's planning committee, consisting of the Federal Minister of Finance and the respective specialised ministers of the federal and state level, decides on the individual projects. In 2005, the Government took the decision to widen the instruments promoting the economic development by supporting regional networks. The new funding scheme is titled "co-operation networks and network management" and its objective is to strengthen existing regional and sectoral potential and to enhance co-operation between businesses and commerce-related partners and institutions. This involves organizing the funding instruments in a more targeted manner and enhancing their effectiveness in boosting growth and employment. So far, more than 30 regional networks have emerged, financially supported by the Funding scheme: "Co-operation networks and network management" (part of the Joint Scheme for the improvement of regional economic structures [GA]). Geographic coverage is quite complete, regarding development areas in Bavaria, Berlin, Brandenburg, Free Hanseatic City of Bremen, Hesse, Mecklenburg-Western Pomerania, Lower Saxony, North Rhine-Westphalia, Free State of Saxony, Saxony-Anhalt, Schleswig-Holstein, Free State of Thuringia.

But the German Government is not only taking care to increase the number of networks, rather than also support the top performing ones as well. The so called Spitzencluster Wettbewerb (Cutting edge cluster competition) was launched in late August 2007 by the Federal Ministry of Research and Education (BMBF) and is equipped with EUR 600 million of funding. The goal of the competition is to strengthen the innovative clout of the most capable networks in science and business, and to support them on the path to become leading international groups. This is the prelude to a total of three rounds of bidding, each of which concerns EUR 200 million of funding. A maximum of five networks can be awarded funding in each round. Alongside information and communication technologies, the area of health appears to offer great network-potential in Germany. The top prize-winners have been announced in September 2008. 38 regional networks submitted their applications for the first round by the end of 2007⁶. Most of these originate from southern Germany, with eight from Bavaria and seven from Baden-Württemberg. The 'new' federal states are less well represented; only Saxony saw more than one network apply for the competition. Thematically, most networks focus on information and communication technologies, followed closely by health and production. In all cases research and development plays an important role to further develop the clusters.

Another very important Federal state Network Initiative is the Kompetenznetze Deutschland Programme, which is an initiative by the German Federal Ministry of Economics and Technology (BMWi)⁷. It acts as an instrument to internationally market Germany by presentation of the top-performing networks as well as an attractive source for research and a platform for communication for those looking for information and co-operation from Germany and abroad. With the Initiative Kompetenznetze Deutschland the BMWi gathered the most innovative, industrial driven regional networks, as well as supports their further development. The concept of Networks of Kompetenznetze Deutschland is to be the "League of the best innovation networks" in Germany. Membership to the initiative is a quality label only for the best networks. Those networks being interested to become members must fulfil several requirements, such as

- ▶ Thematic focus
- ▶ Industry driven
- ▶ Regional concentration
- ▶ Organisation and identity of the network
- ▶ Gathering players from various levels of added value
- ▶ Collaborative development of technology
- ▶ Sustainability of the network
- ▶ Potential of innovation and creation of value

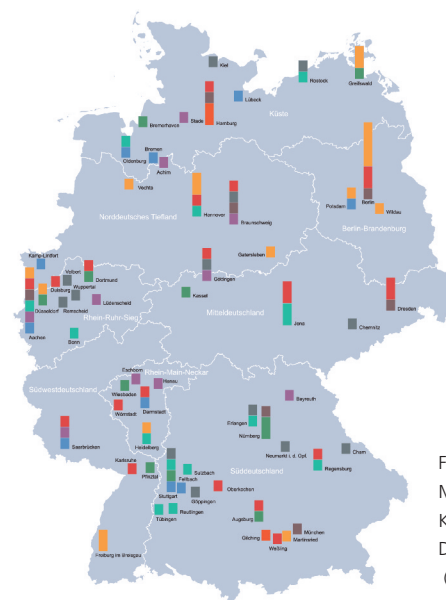


Figure 5:
Members of the Initiative
Kompetenznetze
Deutschland
(due to March 2008)

Currently, the Initiative incorporates 107 networks, containing almost 10.000 members, like SME, international companies, universities, R&D institutions, banks and VC-companies, service providers as well as public authorities. The Agency of the Kompetenznetze Deutschland, which is implemented in the VDI/VDE Innovation + Technik GmbH, actively supports its members in different demand-oriented fields⁸.

⁶ 12 out of 38 were selected to prepare their full proposal. Out of these 12 candidates, five clusters have been awarded: Forum Organic Electronics, Cool Silicon, Solar Valley Mitteldeutschland, Luftfahrtcluster Metropolregion Hamburg and BioRN

⁷ For more information, see www.kompetenznetze.de

⁸ All members are listed under www.kompetenznetze.de

Polish Regional Network Landscape in Brief

Work policy in Poland began in 2002 with the analysis of the development of industrial networks and of possible support elements for its development. It was also the research of European Commission on identifying networks in new member states that was very helpful in developing network support policy. Network supporting initiative as well as network-based policy has just lately become an important issue on the national and regional level, which even brought some legislative initiatives. In reality the first network emerging and supporting actions were implemented in 2005, when the Polish Parliament passed the bill on some forms of supporting innovative activities of Polish Agency for Entrepreneurial Development (PAED). It states that undertaken actions should focus among others on realisation of innovation policy of Poland, supporting and promoting entrepreneurship, helping business supporting organisations. On its portal Polish Agency for Entrepreneurial Development set up a network forum where entrepreneurs can find information about networks, seminars, trainings and available programs. End of 2006 the amended version of Disposition of Minister of Economy on providing financial support besides operational programs by Polish Agency for Entrepreneurial Development was passed. It allowed rendering calls for proposals for network development.

All national but also regional institutions are aware, that regional networks shall become part of innovation policy. They see their role as coordinators of co-operation between companies, business supporting organisations, R&D institutions and administration. The governments want to play a supporting role, while the main responsibility is on the companies' side. Nowadays, the regional network policy framework is mainly drawn by the Ministry of Economics and PAED. Those two institutions carried out research on regional network development in Poland and best examples of other EU countries to create the best model for supporting Polish regional networks. Currently PAED is also involved in ongoing projects, like INNET, funded by the European Commission. Besides of dedicated regional network support activities, accompanying measures are also ongoing to raise the awareness of companies, introduce the idea of closer co-operation between firms but also research units and administration.

The National and Regional Operational Programs point out, that regional and national government(s) want(s) rather to play only a supportive role by providing financial help, trainings, conferences for regional network initiatives and already existing regional networks, while the actual creation of regional networks shall come from the companies themselves.

Although the idea of networks is quite new in Poland and network development often faces many challenges, impressive results were gained, which are referred to later in this study. Many Polish networks spend increased efforts to become more visible nationally and internationally and start some sustainable relationships. Some of the most relevant networks in Poland are listed in Table 1.

Nr.	Name	Innovationsfeld	Ort/Region	Telefon	Email Adresse	Internetseite
1	AVIA Splot	Flugzeugherstellung	Mielec/Ostpolen	+48 17 773 18 89	fundacja@ptc.pl	http://www.splot.org.pl/pl/11/11/
2	Klaster Bydgoski	Kunststoffprodukte	Bydgoszcz/ Nord-Mitte Polen	+48 52 345 80 00	bkp@klaster.bydgoszcz.pl drozniewski@klaster.bydgoszcz.pl	http://www.klaster.bydgoszcz.pl/index.php
3	Aviation Valley - Dolina Lotnicza	Flugzeugindustrie	Rzeszow / Süd - Ost Polen	+48 17 850 19 35	info@dolinalotnicza.pl	http://www.dolinalotnicza.pl/en/
4	Dolnoslaski Klaster Przemyslowy / Niederschlessisches Wirtschaftsklaster	Rohstoffförderung	Wroclaw / Niederschlessien	+48 71 781 22 01	kghm@cuprum.wroc.pl	http://www.cuprum.wroc.pl/
5	EKLAŠTER	IT Branche	Krakow	+48 12 633 15 39	eklaster@eklaster.org	www.eklaster.org
6	Podkarpacki Klaster Informatyczny	IT Unternehmen	Rzeszow		stowarzyszenie@informatykapodkarl.pl	
7	Incytatywa klastrowe w wojewodztwie warmińsko - mazurskim	Yachten, Fenster, Türen und Möbel	Olsztyn / Nord- Ost Polen	+48 89 521 12 50	wmarr@wmarr.olsztyn.pl	www.wmarr.olsztyn.pl
8	Innovativer "Kociol Pleszewski" / Innowacyjny Kociol Pleszewski	Unternehmen aus der Heizungsbranche	Pleszew / Großpolen	+48 62 742 03 61	eurocentrum.pleszew@neostrada.pl	http://www.forumgospodarcze.org.pl/index.php http://coal.silesia.pl/index.php?option=com_frontpage&Itemid=1
9	Innowacyjny Slaski Klaster czystych technologii węglowych Cluster: Bio Lebensmittel / Dolina ekologicznej żywności	Saubere Kohle Technologien Nahrungsmittelhersteller; Lebensmittel Produzenten; Herstellung von Bio Produkten;	Katowice / Schlesien	+48 32 259 22 86	i.pyka@qia.katowice.pl	http://www.ekolubelszczynna.pl/
10	Cluster Bio Produkt / Klaster BioProdukt		Lublin	+48 81 740 84 85	biuro@ekolubelszczynna.pl	http://www.eko.f.pl/eko-o_projekcie.82.html
11	Cluster E- Gesundheit / Klaster E- Zdrowie	Gesundheitswesen	Krakow		biuro@oeko.f.pl	http://www.eko.f.pl/eko-o_projekcie.82.html
12	Cluster E- Pharmacie / Klaster E- Farmacja		Wroclaw / Breslau	+48 71 320 43 02	marek.qirek@pwr.wroc.pl	http://www.e-zdrowie.dcz.wroc.pl/
13	Cluster ICT Pommern / Klaster ICT Pomerania	Arzneimittel Produzenten	Ganz Polen	+4822 498 6775	biuro@konsorcjum.org	http://eurofarmacja.f.pl/ http://www.ictpomerania.pl/2007/content/index.php
14	Multimedia und IT-System Cluster / Klaster Multimediów i systemów informatycznych	IT Branche in der Wojewodschaft Pomorskie	Gdynia / Pommern	+48 782 41 32	info@ictpomerania.pl	
15	Klaster Transportu Szybnego, Sieci wyborow Medycznych, sieci turystyki	Neue Technologien, Medien, Innovationen	ganz Polen	+48 18 44 99 460	elwira.waszkiewicz@multiklaster.pl	http://www.multiklaster.pl/
16	Lifescience Cluster Krakow	Eisenbahn, Medizintechnik, Tourismus	Schlessien	+48 32 251 64 21-3	biuro-sieci@gapp.pl	http://sc.gapp.pl/scn/saktual.php
17	Malopolsko- Podkarpacki Klaster czystych technologii	Pharmazie, Biotechnologie, Gesundheitswesen	Krakow / Krakau	+48 12 664 63 01	cluster@lifescience.pl	http://www.lifescience.pl/index.php
18	Interregional maritime Cluster - EU Projekt Interreg IIC	Erneuerbare Energien, Effiziente Nutzung von Energie Quellen, Innovation im Bereich Energieherstellung	Krakow	+48 12 617 27 49	klaster@agh.edu.pl	http://www.klaster.agh.edu.pl/index.php
19	Masuren fenster / Mazurskie Okna	Kooperation im Bereich Schiffbau, Marine Technologien	International: Polen, Deutschland, Frankreich	+49 431 77 5 99-0	schiff@schiff-gmbh.de	http://www.intermarec.net/intermarec.html http://www.mazurskieokna.pl/index.php?page=260
20	Kunststoff Valey / Plastikowa dolina	Fensterhersteller in den Masuren	Masuren	+48 89 521 12 70	a.wojciechowski@wmarr.olsztyn.pl	http://www.tkp.com.pl/
21	BioTech Netzwerk / Cluster	Chemiebranche, Kunststoffbranche	Tarnow / Südpolen	+48 14 627 75 94	sekretariat@tkp.com.pl	
22	Verenigung der Autoteile Hersteller	IT Technologie, Medizintechnik, Gesundheitswesen, Biotechnologie	Wroclaw / Breslau	+48 71 320 43 04	monika.krackzowska@pwr.wroc.pl	http://www.biotech.dcz.wroc.pl/
23	Chemie Cluster Großpolen / Wielkopolski Klaster chemiczny	Produzenten von Autozubehör	Großpolen / Wielkopolska	+48 61 829 1366	info@klasterchemiczny.pl	http://www.nspcm.webd.pl/ http://www.klasterchemiczny.pl/
24	Automobilcluster Großpolen	Chemie, Biotechnologie, Logistik...	Großpolen / Wielkopolska		m.rekowski@ae.poznan.pl	http://www.wkm.ae.poznan.pl/
25	Baltic Eco-Energetic Cluster (BKEE)	Automobilbranche	Gdansk	+48 694 428 180	janusz.golaszewski@uwm.edu.pl	
26	Baltic Off-Shore Energy Cluster	Erneuerbare Energien, Bioenergie	Koszalin		info@aos.pl	http://www.bosec.lt/Poland.htm
27	Wielkopolska Furniture Cluster	Erneuerbare Energie, Windenergie	Poznan	+48 61 65 63 509	bartosz.warniello@warp.org.pl	http://www.klastermeblarski.warp.org.pl
28	Polish Maritime Cluster	Möbelindustrie	Gdynia	+48 058 7820191	kigim@kigim.pl	http://www.kigim.pl

Table 1: Survey of Polish regional networks (own analysis)

To most of the regional networks in the table above questionnaires were sent to evaluate the interest of bilateral co-operation between the Polish and a German regional network. Altogether nine questionnaires were returned. The main outcome of the questionnaires is that all regional networks that replied are interested in a R&D co-operation with international networks, but most of them do not have any contacts to or knowledge about the regional networks on international level.

The survey showed that most of the regional networks in Poland are very young compared to regional networks in Germany. The majority of the regional networks stated that they were in an embryonic state. The oldest one was founded in 2005. Five out of nine regional networks that returned the questionnaire were founded 2007 and the remaining three were established in 2006. Nevertheless the regional networks are really active and some had already an impressive number of members. The Life Science Regional Network in Krakow for example was founded in 2006 and has about 50 members.

development of new technology and products to be one of their main strategic objectives. Here is a great opportunity to start co-operations with German regional networks within EU-funded research and development projects.

Although most of the regional networks have a national ambition at least four out of nine regional networks answered that they have a national and European ambition. Two even have a worldwide ambition. They are looking for partners in Europe and in countries outside Europe to develop new technologies, products and services together.

Description of Visited Polish Networks

In the following those Polish regional networks are described which are very much interested in regional network-based German-Polish R&D co-operation and which very much contributed to the investigations presented in this study. All of them were interviewed by phone and personally visited. During these visits, a much better understanding was gained concerning potential links for mutual co-operation.

When mapping those Polish networks which are very open for bilateral co-operation, it becomes clear that these regional networks are mainly operating in the field of Life Sciences (incl. Biotechnology, Health and Medicine) and Renewable Energy. Similar impressions were gained for the German regional networks. 50 % of those expressing their serious interest in intensifying any regional network-based co-operation with Polish partners also operate in both of the respective sectors.

Regional Network

NutriBiomed Wrocław

The regional network NutriBiomed has been founded in November 2007 by the University of Wrocław and the technology centre lower Silesia. The creation of this regional network followed three conferences in which the potential of the region in the field of nutrition and biotechnology was discussed. The participants of the conferences finally decided to co-operate and to start to develop new ideas and products together. The University of Wrocław has a long experience in nutrition and biotechnology research which results in several patents and licence-agreements. The aim of the new regional network is to combine the strengths of the industry and the research facilities in Wrocław and to become more efficient in the development of new products.

The regional network is organised as a consortium but has no own financial resources. The regional network management is actually trying to acquire funding from the Silesian administration to finance projects and a regional network office. At the moment the regional network has 20 members, of which the majority are small and medium sized enterprises. But there are also pharmaceutical companies, agricultural enterprises and three universities organised in the regional network. The regional network is open for additional members and there are already some applicants. The main activity of this new regional network is the development of new products in the field of nutrition supplements. Additionally the regional network is intending to support its members in marketing and public relations activities and to develop a common brand for all regional network members. Members have also the possibility to use resources of the technology centre or of the universities like offices or laboratories. Members of NutriBiomed are very much interested in international co-operations. Due to its very young stage the regional network is interested to co-operate with experienced regional networks in other countries. The main focus is to establish new contacts, to exchange know-how and technology and to start to develop and to market new products together. The regional network is also interested in organising a conference with international guests to discuss the potentials and possibilities of co-operations of an international level.

Network data sheet

Complete Name	Network Nutribiomed Wroclaw
Subject	To develop new substances for Nutrition Supplements
Location / city	Wroclaw
Field of Innovation	Biotechnology / Medicine
Number of members in total	20
Number of companies	17
Number of R&D institutions and universities	3
Date of establishment	2007
Contact person	Mr. Marek Winkowski
Further information	www.technologypark.pl

Life-Science Network Krakow

Network data sheet

Complete Name	Life Science Network Krakow
Subject	Networking and development of innovations in Life Sciences
Location / city	Krakow
Field of Innovation	Biotechnology
Number of members in total	47
Number of companies	19
Number of R&D institutions and universities	8
Date of establishment	2006
Contact person	Mr. Kazimierz Murzyn
Further information	www.lifescience.pl

The Life Science Cluster initiative has been established in October 2006 by 32 founding members from Malopolska Region with a leading role of Jagiellonian University of Krakow. Partners of the initiative have signed an agreement to co-operate in the field of life sciences to share information, to develop new products and innovations and to increase research and development activities in the region. Today the network has about 50 members of which are three universities, five research and development institutes, eleven health care related institutions, four consulting companies and three regional administrations. The remaining members are businesses including small and medium sized enterprises.

The cluster is managed by Mr. Kazimierz Murzyn who is employee of the Jagiellonian Centre of Innovation Ltd – one of the partners playing also the role of cluster's administrator.

The offices of the cluster are located in the Centre's Business Incubator and the cluster's management is partly financed by the Centre. The cluster management is responsible for coordinating the network, marketing and public relations, maintenance of the portal "www.lifescience.pl" and for initiating and managing the projects aimed at innovations and technology transfer.

The cluster has a strong ambition in internationalisation. There are already several agreements with clusters and programmes from Greece, Germany, France and the USA. They have already successfully joined the Interreg IV B and C Programme. The cluster has a big interest to establish new co-operations in the field of life science with international clusters to exchange know-how and information.

Clean Energy Network Krakow

Network data sheet

Complete Name	Clean Energy Network Krakow
Subject	To increase the use of renewable energy in the Krakow region
Location / city	Krakow
Field of Innovation	Renewable Energy
Number of members in total	29
Number of companies	16
Number of R&D institutions and universities	11
Date of establishment	2006
Contact person	Prof. Solinski
Further information	www.klaster.agh.edu.pl

The clean energy network of Krakow was founded in 2006 by the University of Applied Sciences AGH (Akademia Gorniczo – Hutnicza) of Krakow. The main focus of this network is to increase the share of renewable energies in the regions and to increase the awareness of the public in the field of clean energy resources. The network acts as a co-operation platform for its members.

Currently the network has 29 members, 16 SMEs, 11 universities and two regional administrations.

It is financed by the operational programmes of the regions, but is seeking for EU funding of new projects. The network management is looking for a permanent office for the network and is intending to establish professional management- and administration-structures for the network.

The network is very much interested in co-operating with international networks, which are active in the fields of renewable energy, bio-fuel, bio-waste or geothermal energy.

Mega-Nano Network Wroclaw

Network data sheet

Complete Name	Klaster Energia Mega Nano
Subject	To develop new products in the field of Energy production
Location / city	Wroclaw
Fields of Innovation	Energy, Renewable Energy
Number of members in total	19
Number of companies	11
Number of R&D institutions and universities	2
Date of establishment	2007
Contact person	Dr. Kruczek
Further information	n.a.

The Mega-Nano regional network has been founded in October 2007 but has already 19 members. The regional network is a bottom-up initiative to promote innovations and new technologies in the fields of renewable energies and clean coal technology in a mega and nano scale. The main technological focus lies on energy production this is why the regional network is also called "Klaster Energia Mega Nano".

The regional network is managed by a board with representatives from university and industry. The initial funding was given by the University of Applied Sciences of Wrocław. They provide an office and a secretary for the regional network. The coordinator of the regional network is also paid by the University. Further funding is obtained from the local and regional administration.

The regional energy network Mega-Nano is interested in internationalisation. They already have existing projects with partners from Czech-Republic in the field of biomass or bio-energy and they are interested in starting projects with German regional networks that are active in field of clean or renewable energy as well. There is a potential to share knowledge and information, to exchange scientists, to co-operate in common projects or to organise international conferences.

The main barrier for a co-operation with German regional networks is a lack of information about German regional networks which are active in the field of clean or renewable energy and are interested in a co-operation with Polish regional networks.

eHealth Network Wrocław

Network data sheet

Complete Name	eHealth Network Wrocław
Subject	To develop new products in the field of medicine and IT
Location / city	Wrocław
Fields of Innovation	Medicine, Information Technology
Number of members in total	19
Number of companies	10
Number of R&D institutions and universities	2
Date of establishment	2005
Contact person	Marek Girek

The eHealth network of Wrocław was founded in 2005 by the Silesian technology centre. Its aim is to build a link between science, research and industry. The network is organising knowledge transfer, supports spin-off and start-up companies and is coordinating research and development in the field of eHealth in the region.

The main focus of the network is the development of new products and services which combine new information technologies with traditional health care or medicine technology. One aim is to raise the public awareness for this new field of technology by marketing and public relation campaigns.

The coordinator of this network is the European Centre for Information Technology and Management of Wrocław. At its beginning the network was funded by the EU-structural funds and regional funds but today the network is financed by its members. There are 19 members, mainly SMEs, but also hospitals, pharmaceutical companies and local administration.

Internationalisation is highly appreciated by the network. New contacts to European networks that are active in the field of eHealth could be used for knowledge and technology exchange and for co-operation in EU-projects. The issue eHealth is rather new in Poland whereas it is quite common in other European countries. A co-operation should promote this issue in Poland and should be used for the exchange of knowledge and experience.

eHealth Network Poland

Network data sheet

Complete Name	Health Network Poland
Subject	Development of a medical data centre and of Electronic data-systems for health business
Location / city	Wroclaw
Fields of Innovation	Medicine, Information Technology
Number of members in total	17
Date of establishment	2007
Contact person	Krzysztof Bednarek
Contact person	Marek Girek

The eHealth network Poland is linked to the Wroclaw eHealth network, but it has a national focus rather than a regional one. It is a national competence network initiated by the University of Wroclaw, the medical academy of Wroclaw and the Science and Technology park of Wroclaw. The network has 17 members from all over Poland and is managed by the Wroclaw medicine and technology park. The aim is to build a medicine data centre and to create an e-learning platform for medicine and pharmaceuticals. It also plans to develop and to test electronic datasystems for the health business.

The network is interested in co-operations with international networks which are active in the fields of IT systems and medicine. A collaboration to realise major projects would be appreciated. The network intends to close the knowledge gap between the German and the Polish network and then wants to start co-operations in the field of eHealth with international partners.

EEI Cluster – Energy, Ecology, Innovations

Network data sheet

Complete Name	EEI Cluster–Energy, Ecology, Innovations
Subject	Promoting technological solutions in Energy
Location / city	Wroclaw
Fields of Innovation	Renewable energy sources
Number of members in total	11
Date of establishment	2006
Contact person	Krzysztof Bednarek

During performance of scientific network “Energia” within Lower Silesian Centre of Advanced Technologies many activities were carried out in order to create an eco-energetic cluster devoted to SMEs. Crucial activities involved evaluation of potential of renewable energy sources (RES) and use of RES in Lower Silesian region.

The Polish renewable energy market appears to be an emerging one compared to e.g. USA or German markets. Studies performed to evaluate future situation show dynamic growth of SMEs’ potential in RES within next 5-10 years. Most of the Lower Silesian potential hides in various forms of biomass. It is expected that a few hundred biogas power plants could be built in Poland. This development also applies to the use of dry biomass – especially straw.

The EEI cluster was founded in 2006 by the Lower Silesian Centre of Advanced Technologies. Its aim is to build a link between science, research and industry. The cluster is coordinating research and development in the field of renewable energy sources in the Lower Silesia region. For this moment the cluster has 11 members who form a core in order to absorb critical mass.

The members aspire to enter into new relations with international partners. The EEI cluster has already established connections with entities from north Czech Republic region and Saxony in Germany. Foundation Centre for Eco-development and Renewable Energy Sources is a leader of EEI cluster. Other members are mainly small and medium enterprises involved in energy industry.

German and Polish Regional Networks – Similarities and Differences

German and Polish regional networks have been target of investigations on transnationalisation issues in general within a separate investigation recently². These investigations gave first hints of existing (dominating) barriers and enablers for transnational co-operation. From the very beginning the authors knew that only a small part of the vast area of German and Polish networks could be covered. Irrespective thereof it was of interest to get an inside view of what enablers and barriers are dominating in terms of bilateral R&D co-operation.

In the following the main findings will be presented. At the very beginning we will present some statistical results which are of importance to better understand the rationale for some other results later on.

Network Size

Regional networks in general display a wide variation with respect to their size, beginning from only a few until several thousand world-wide. About half of the investigated Polish regional networks have between 25 and 50 members, followed by the category “less than 25 members” (s. Fig. 6). Only one regional network, the Innovative Silesian Regional network of Clean Coal Technologies, currently possesses about 90 members. The median for the number of members in Polish regional networks was 36 compared to 82 – 103 in Germany depending of the innovation field the regional networks are active in (s. Fig. 9).

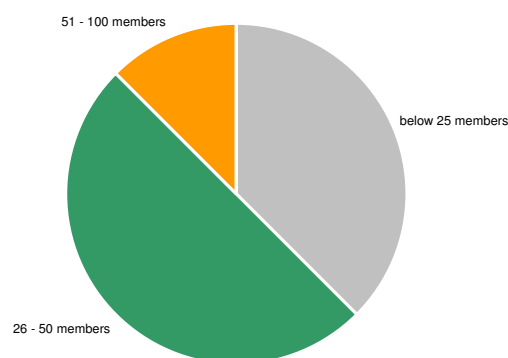


Figure 6:

Number of companies and institutes gathered within Polish regional networks.

When looking all over Europe, regional networks typically tend to be bigger than Polish ones in terms of number of members. Fig. 7 shows the size distribution of 80 different regional networks from 9 different European countries.

It is interesting to note that according to previous regional network analyses, the majority of regional networks world-wide tend to have less than 100 companies⁹.

⁹ The Demography of Clusters, Findings from the Cluster Meta-Study, Class Van der Linde, 2003.

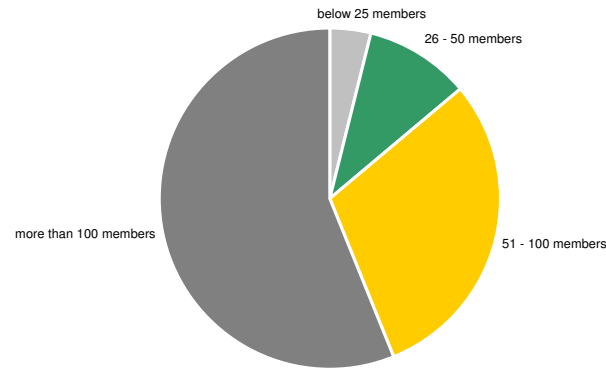


Figure 7:

Number of companies and institutes represented by regional networks (base: 80 regional networks investigated, without the Polish participants²)

Status of Evolution of Regional Networks

Besides the age, the phase of development of the individual networks is of interest. Generally older, established networks have gained experiences in the context of internationalisation respectively are aware of the necessity to internationalise. The respondents were offered four categories to assess themselves.

- ▶ Embryonic network (newly founded network; communication, exchange of information and services offered by the network have just begun recently)
- ▶ Established network (network is established and has clear perspectives to grow).

- ▶ Fully developed network (well established network which has reached its peak performance, further growth is only to be expected to a minor degree)
- ▶ Declining network (network is past its prime, will loose members and importance respectively).

As expected most networks assess themselves embryonic followed by established regional networks. Taking into account that most of the interviewed networks are younger than two years (Figure 8) the figures are not surprising. Regional networks all over Europe tend to assess themselves as established or fully developed networks (more than 75% of the cases)².

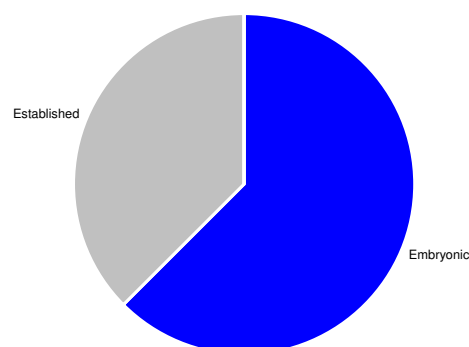


Figure 8:

Phase of development of the interviewed regional networks (self-assessment of interviewed Polish networks)

Composition of Network Members

The number of members and composition varies considerably between the regional networks. Figure 9 reveals the average numbers of total members, firms and R&D institutions, for Polish regional networks as well as for German ones. Since the innovation field, the regional networks are active in, has a significant impact on the composition of the regional network members, German Biotechnology and Energy networks are shown separately.

This distribution was not done for the Polish regional network since the number of interviewed ones was too small. Whereas Energy ones in Germany tend to be bigger than Biotechnology regional networks and both have more members on average as Polish ones, the ratio of R&D institutions and total number of members is quite similar for all three analysed regional network groups (between 0,18 and 0,22). This means that the R&D intensity within the different regional network groups seems to be comparable.

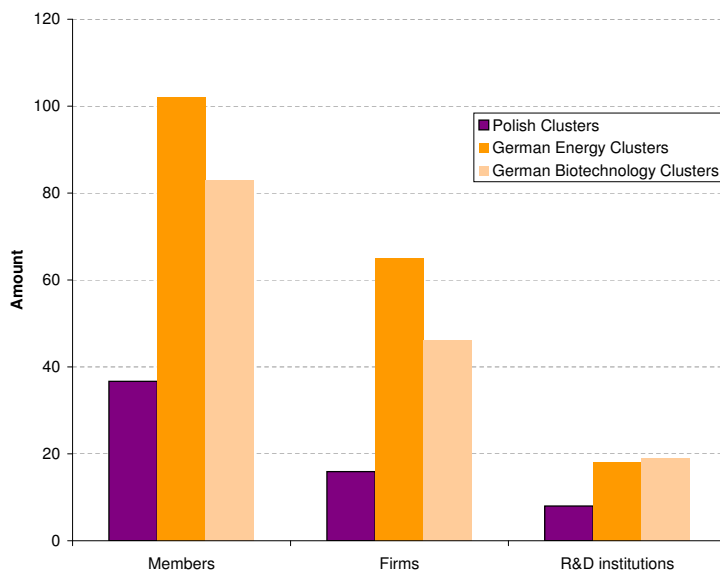


Figure 9:

Numbers of firms and R&D institutions represented within a regional network

Network Governance

According to our own experiences and ongoing analyses there appears to be a positive and statistically significant relationship between the performance of networks and the way the network management is linked to a network. There are several entirely different approaches to that being practiced in a similar fashion throughout Europe. One approach consists of the co-ordinator or the office themselves being members of the network. In another approach the co-ordinator or the office are no direct members of the network, but are entrusted with this responsibility by the network. In a third variant an external service-provider takes the lead being appointed by third parties. This variant is especially common if the network management is financed by thirds and the financier wants to exercise an amount of direct influence.

In our survey a clear majority of the interviewed Polish regional networks was managed by a co-ordinator from their own ranks (88%). In about 12 % of cases the coordinator did not originate from the networks directly, but was assigned by a third party (Fig. 10).

When comparing these findings with those of our previous European survey, almost half of the analysed regional networks is coordinated by own members (s. Fig. 11). The rest is, at same parts, coordinated by a third party or a management nominated by the regional networks themselves.

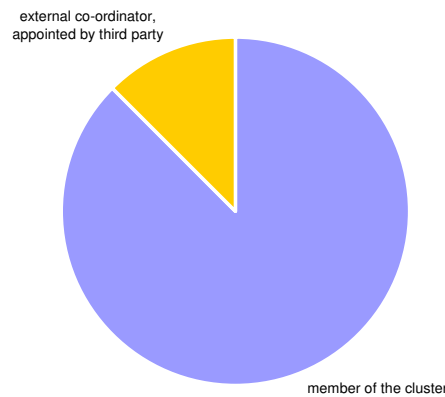


Figure 10:

Relation between Polish Networks and their network governance

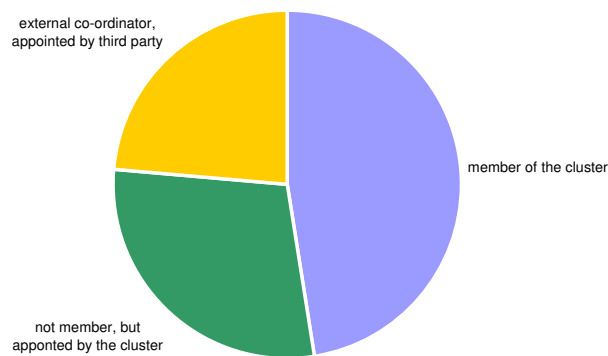


Figure 11:

Relation between selected networks in Europe and their network managers (base: 80 regional networks investigated, without Polish participants²)

Strategic Objectives

When setting a regional network, the initiators typically have certain objectives in their mind the regional network has to fulfil. These objectives vary from classical regional business development and improvement of employees in a region to mutual information and experience exchange among the members. In cases when regional or public authorities act as initiators, their objectives are typically completely different compared to so called bottom-up regional networks, initiated by private companies.

In order to better understand potential barriers and enablers for German-Polish co-operation, it was of high interest to know the main objectives of the analysed regional networks. Those aiming at collaborative co-operation and joint R&D were assumed to be more likely open for bilateral co-operation than those targeting only at bundling regional competences. Fig. 12 compares the main strategic objectives of the analysed German and Polish regional networks.



Figure 12: Comparison of strategic objectives of German and Polish networks (figures in %)

According to our findings, there are a lot of similarities in terms of objectives for German and Polish regional networks. Collaborative technology co-operation, including joint R&D projects, are most dominant objectives of the interviewed regional networks. The improvement of the overall competitiveness is also of comparable importance of all regional networks. Significant differences became visible in terms of the importance of mutual information and experience exchange as well as regional business development, which seems to be more important for German regional networks than for Polish ones. On the contrary Polish regional networks consider internal training and education for their members to be of more importance.

In general, at least the interest in bilateral co-operation or the already gained partnerships, are quite high for regional networks from both countries. Polish networks report of more existing contacts than German ones. Only 35 % of the interviewed German networks gained first or more intensive contacts so far. On the contrary, more than the half of the interviewed Polish networks gave a positive feedback (about 55 %). A quite significant number of German regional networks (about 25 %), seem not (yet) interested in starting any bilateral co-operation.

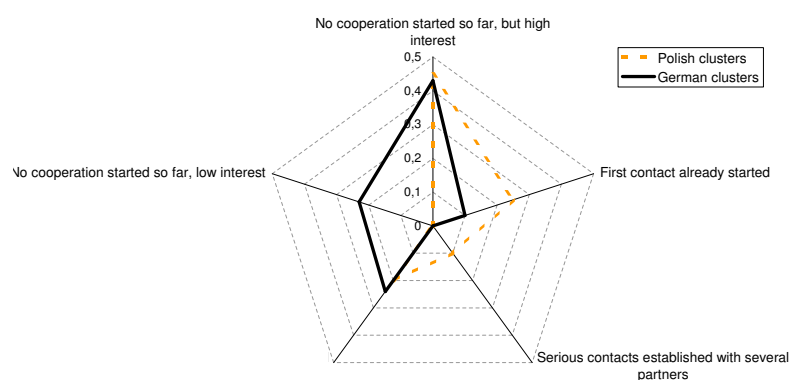


Figure 13: Bilateral co-operation gained so far between German and Polish networks (figures in %)

Bilateral Co-operation gained so far

Finally the interviewees were asked to provide information about already existing contacts to regional networks of the respective opposite country. (Fig. 13).

Enablers and Barriers for Network Based Co-operation Between Germany and Poland

After comparing the similarities and differences between German and Polish Networks, potentially dominating enablers (factors which facilitate bilateral co-operation) and barriers (issues which hamper bilateral co-operation) were tried to be identified. At the beginning, it was of interest which kind of strategy dominated in terms of bilateral co-operation between the Networks and their members.

Strategy for Bilateral Network based Co-operation

All of the interviewed Networks were aware of the importance and benefits of bilateral R&D co-operation. Furthermore, they expressed their serious interest in starting such joint actions.

Surprisingly, most of them tend to be not really prepared for future actions, since most of them (regardless whether German or Polish networks) were not able to present a dedicated strategy how to co-operate bilaterally (Fig. 14). Of course, most of them (especially German ones) have had some rough ideas, like starting bilateral co-operation by joint R&D projects or intensifying contacts to other Networks. Although by now, these were more thoughts rather than specific strategies and action plans, such ideas can be used as future focal point to start actions for stimulating bilateral co-operation. Polish interview partners mostly confirmed that they did not have any strategy available, which is not a surprise, since they are mostly young and not so established like German ones.

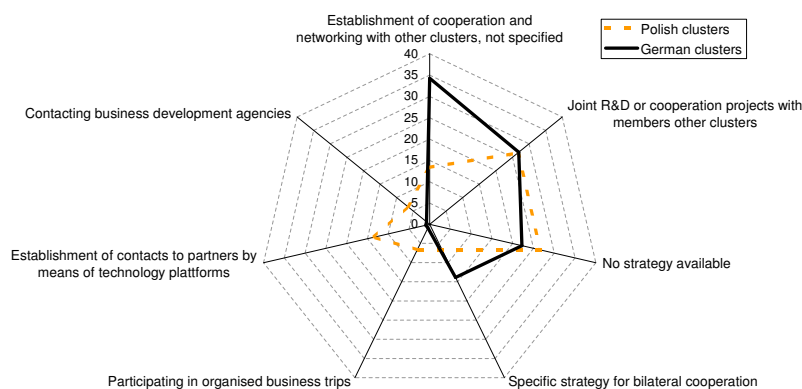


Figure 14: Strategies on network based bilateral co-operation (figures in %)

Enablers for Network based bilateral Co-operation

Depending on the individual objectives regional networks offer certain services to their members. Provided these activities and services aim to facilitate bilateral co-operation in the field of innovation or R&D, they can be considered as enablers for regional network based bilateral co-operation. Therefore, in the next step, it was of interest, how regional networks support their members and which kinds of services are offered (s. Fig. 15).

Comparing the respective activities and services offered to their members, bilateral co-operation by German and Polish networks are both mainly targeted at initiating collaborative R&D projects and business trips or networking visits. These services are clearly dominating the others ones and of comparable importance for both sides. Networking visits are considered by both sides also to be an appropriate tool to facilitate bilateral co-operation. As far as Polish networks are concerned, classical co-operation tools, like contacting chamber of commerce or developing agencies as well as participating in trade fairs in order to find foreign partnership are more popular than in Germany.

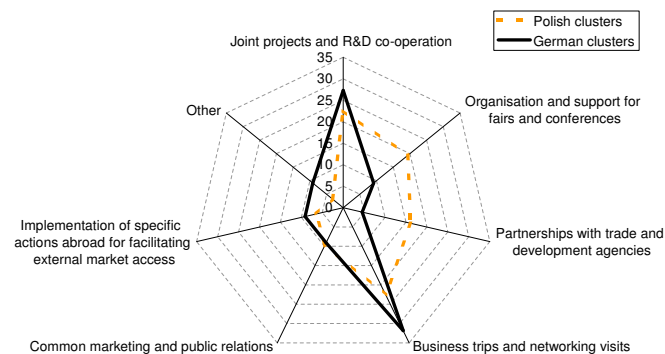


Figure 15: Enablers for regional network based bilateral German Polish co-operation (figures in %)

Barriers for Bilateral Co-operation

Doubtless, bilateral or transnational co-operation faces different obstacles, which may be more dominant on international than on national level. This may be caused by existing barriers, which should be clearly identified beforehand in order to take them away or reduce them as much as possible. When looking more closely at the barriers identified (s. Figure 16), it becomes visible that the existing barriers partly differ between German and Polish networks.

It also become obvious that money or lack of funding is not always a major issue (although it seems to be more dominant for Polish networks). Surprisingly, a lack of detailed information about existing regional networks and their respective members was named most frequently by German as well as by Polish networks.

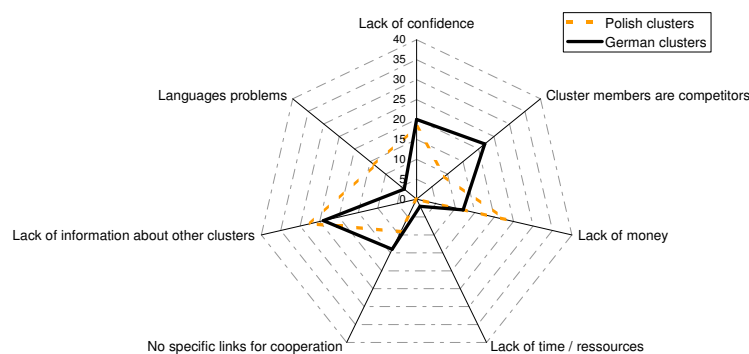


Figure 16: Barriers for network based bilateral German Polish co-operation (figures in %)

This very much fits to the findings of Figure 15, when most interviewees consider networking visits as an appropriate tool to improve information and knowledge about other networks. Another important barrier seems to be the lack of confidence, which dominates very often at the very beginning of any potential co-operation. German networks consider Polish networks (and foreign ones) more often as competitors than Polish interviewees. On the contrary, the language issue is considered of more importance by the Polish networks point of view.

Financing Sources for bilateral Network based Co-operation

In the beginning expenses for R&D co-operation of every kind usually outweigh any potential additional turnover and profit, this is even more true for international co-operation. Since there were a lot of successful transnational co-operations on bilateral, European level and worldwide were reported, it was of special interest to find out about their present and future financing. Figure 17 gives a good impression of the prevailing experiences and expectations in terms of financial support for international co-operations from the networks' point of view.

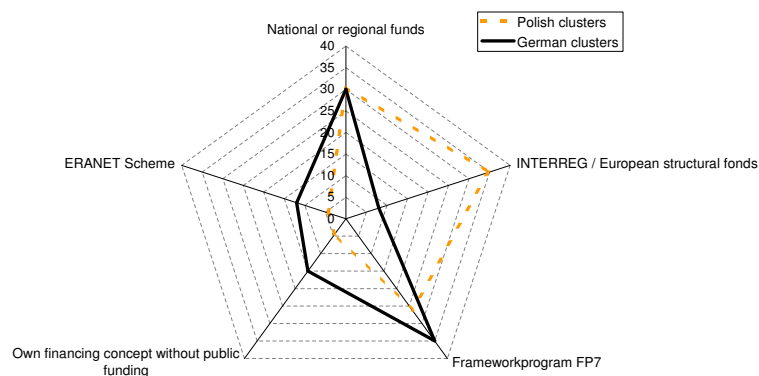


Figure 17: Primary financing sources for bilateral co-operation from the networks' point of view (figures in %)

By most of the Polish networks point of view, European Structural funds are preferred as well as national and European Framework Program funds to set up and run regional networks or clusters. Own financial resources were, according to the interviewed Polish networks, mainly not available for such kind of co-operation.

German networks consider national and European Framework Program based funds to be most appropriate. Own financial resources as well funding according to the ERANET scheme are mentioned more frequently than by Polish networks, but are less important than the previously named funding resources.

Good Practices for Successful German – Polish Co-operation

There are many excellent examples for successful German-Polish co-operation activities in the past as well as currently ongoing in almost scientific fields. As far as successful network (or networking) co-operation is concerned, two examples of bilateral R&D co-operation are reported. Both are coming from the Life Science sector which seems to be one of the most promising scientific fields in terms of bilateral R&D co-operation.

First, the international network BalticNet-PlasmaTec e.V is presented, a network in which partners from several neighbouring countries, incl. Germany and Poland, successfully started fruitful R&D co-operation a long time ago. The other example describes a bilateral network in the field of eHealth, which has been started many years before.

BalticNet-PlasmaTec e.V.

BalticNet-PlasmaTec e.V. is a network for plasma technology in the Baltic Sea region which initiates and promotes technology and market-oriented cooperation between science, research, and private enterprise. The network aims at significantly increasing the awareness of plasma technology in society. To this purpose, Baltic-Net-PlasmaTec takes on coordinating tasks in the realisation of crossnational marketing activities and scientific projects. The network is an attractive platform for users and investigators in the field of plasma technology.

As a cross-border network, BalticNet-PlasmaTec aims to support the creation of new jobs in the long term by introducing and disseminating the low-temperature plasma technology in the industry of the Baltic Sea states. The main means to this end include opening up new business fields, fostering company spin-offs, and intense joint marketing.

The main activities of the network include:

- ▶ Searching for and procuring partners in R&D and industry
- ▶ Drawing up market and feasibility studies
- ▶ Defining joint projects and participating in international tenders
- ▶ Paving the way for and managing development projects and cooperation
- ▶ Acquiring funds and organising (EU) projects
- ▶ Organising collaboration projects
- ▶ Exchanging teachers, students, and employees
- ▶ Procuring graduates, doctoral candidates, and internships
- ▶ Conducting technology marketing for new procedures and products
- ▶ Holding presentations at fairs and representing the network
- ▶ Organising workshops, conventions, and informative meetings
- ▶ Conducting cooperative network marketing and drawing up information leaflets
- ▶ Supporting new entrepreneurs and established companies.

BalticNet-PlasmaTec e.V. network is a registered association created to foster the propagation of technologies based on physical plasma from their origin in northern Germany to the countries bordering on the Baltic Sea, including Poland. The BalticNet-PlasmaTec network was set up as a consortium in September 2004 on the initiative of the Institute for Low-Temperature Plasma Physics (INP), the Technology Centre of Western Pomerania (TZV) and the Technical Universities of Szczecin (TUS) and Koszalin (TUK). The network was restructured as a registered non-profit-making association in March 2006.

To coordinate its day-to-day work, BalticNet-PlasmaTec e.V. has set up a central office at the Technology Centre of Western Pomerania in Greifswald. The purpose of this office is to represent the network and to take care of everyday management tasks. The network manager coordinates and supports the activities of the working groups and carries out organisational tasks. The chief objective of the network is to pool and consolidate the existing potential in the area of plasma technology in terms of knowledge, financial resources and man-power. By combining economic, social and legislative resources under professional management, BalticNet-PlasmaTec e.V. aims to evolve into a permanent network for the application of plasma technology and for the associated research.

To achieve this aim, the net-work supports existing co-operative ventures and initiates new ones between universities, industrial firms, small businesses, public institutions, users, and other specialists/promoters in the field of plasma technology. In pursuit of its parallel goal of increasing public awareness of plasma technology, the network coordinates the organisation of joint activities, often involving more than one country. It provides a platform for co-operation between the academic world, public institutions, private enterprise and individuals.

As a cross-border network, BalticNet-PlasmaTec e.V. sets out to promote the creation of new jobs through the introduction and propagation of low-temperature plasma technology throughout industry in northern Germany, the Euroregion of Pomerania and the Baltic Sea region. It aims to achieve this goal primarily by tapping new business segments, spinning off new companies, and closing ranks in a targeted marketing drive. A further objective is to enhance the competitiveness of new and existing products, services and processes by opening up new markets and introducing new manufacturing technologies. BalticNet-PlasmaTec ultimately aims to become the point of contact in northern Germany for small and medium-sized enterprises dealing with plasma technology problems.

Work on specific issues is carried out in working groups responsible for handling clearly defined tasks. The focal areas are specified at workshops organised by BalticNet-PlasmaTec. So far, the following goals, tasks and responsibilities have been defined for the respective working groups:

- ▶ PlasmaplusBio
- ▶ PlasmaplusUmwelt
- ▶ Vacuum technology and surface modification
- ▶ International vocational and further training
- ▶ Joint marketing

In addition to the regular workshops, the working groups hold numerous smaller meetings on specific topics. The possibilities of modern technology, such as Internet conferences and e-mail ballot, are particularly useful in coordinating these activities. To coordinate its day-to-day work, BalticNet-PlasmaTec e.V. has set up a central office at the Technology Centre of Western Pomerania in Greifswald.

The purpose of this office is to represent the network and to take care of everyday management tasks. The network manager coordinates and supports the activities of the working groups and carries out organisational tasks.

The executive committee is the decision-making forum of BalticNet-PlasmaTec e.V.. It has been invested with the authority to decide on all matters of relevance to BalticNet-PlasmaTec e.V. and to implement the appropriate measures. It is also responsible for defining the association's development strategy. The network gathered four universities and R&D institutions, almost 20 industrial members and four service providers. BalticNet-PlasmaTec is member of the German Network Initiative Competence Networks Germany.

POMERANIA – An International Network within the Field of eHealth

Already 10 hospitals in Mecklenburg.-Vorpommern, including the University of Greifswald, are co-operating since 2003 in the project „Telemedizinisches Netzwerk zur Unterstützung der Tumorversorgung in der Euroregion POMERANIA“. The network covers the improvement of communication within the fields Telepathologie, Teleradiologie, Teleconference, Telecardiologie and Telemammographie and especially the medical attendance of the patients in the very low populated area in the German - Polish border. It is the main objective of the network to secure a high quality medical care to patients in the north-eastern region by using of most modern eHealth technology.

For the realisation of the project the Nordbrandenburgische Onkologische Schwerpunkt e.V. in which altogether 6 hospitals were organised, as well as hospitals in Poland (Pomeranian medical academy in Stettin, Wojewodschafts-Hospital Koeslin, University of Poznan), so that today a network has developed over the entire range of the Euro-Region POMERANIA.

The Euro region POMERANIA, formed in 1992, with 3,7 million people consisting of 11 cities and districts in Brandenburg and M.-Vorpommern, as well as the Polish district Szczecin and the Swedish District „Skane“ (www.pomerania.net). In order to meet the new requirements of the further implementation of the project, the non-profit Association „Telemedizin Euroregion POMERANIA e.V.“ was founded in Greifswald last year.

In the establishment meeting also representatives of the Pomeranian medical academy from Stettin participated. The aim of the association is to continue the successful work of the tumour center Vorpommern e.V.. The German-Polish association is supported by the European Commission, mainly by funding from the INTEREG IIIa Programme for a period 2007 to 2013. The main emphasis continues to remain in the Health sector. With eHealth, data and pictures of the patients can be exchanged by digital transmission between the medical centres and experts. The eHealth system in Vorpommern will in future be expanded to hospitals in Brandenburg and on the Polish side to hospitals in Poznan.

Conclusion

The findings presented so far revealed that there is a huge potential for bilateral network based R&D co-operation between German and Polish networks and their respective members for mutual benefits. In addition, networks are recognised as appropriate tool to stimulate bilateral R&D co-operation. The similarities of the networks in both countries in terms of strategies and willingness for bilateral R&D co-operation overweight the currently existing differences. German and Polish networks very often identified similar strategies or actions needed to stimulate bilateral co-operation (s. Figure. 14 / 15). Many interviewees already reported of successful first co-operation or expressed their serious interest in starting such co-operation (Figure. 13).

It is quite obvious that German networks and their members operate in a more innovation friendly surrounding and are longer implemented in the ERA than Polish ones. This fact results in much better starting position in terms of innovation capability and competitiveness. But, nevertheless, impressive improvements were reported in terms of enhancing the Polish innovation System and publicly supported innovation related measures by the Polish government.¹⁰ As a consequence, Polish networks and their members reduced the previous gap towards the EU25 partners.

Taking a closer look at services and supporting measures networks offer their members in Germany and Poland, support of internationalisation appears on top of the agenda. Hence, it becomes evident that this competence is an important criterion for networks from a member company's point of view. Many interviews with network managers showed the growing demand companies and R&D institutions pose to the management of their networks to get concrete support benefits for their internationalisation efforts. Members expect the networks' managers to realise goal-oriented and efficient measures fulfilling their client's specific needs. Established conventional methods alone, like business trips to Germany or Poland organised by business development agencies or Chambers of Commerce seem to be increasingly insufficient nowadays. On the contrary, initiating joint R&D projects or co-operation as well as tailor-made networking visits are examples how the current demand for joint cooperation between German and Polish networks can be satisfied (s. Figure 15). The latter one is also important since there is still a considerable lack of knowledge about potential network partners in the respective countries (s. Figure 16).

Members themselves often lack a distinctly defined strategic approach on how to get in contact with suitable other networks. Network managers are often called to design appropriate internationalisation strategies and prepare to back them up with concrete measures on short-term. If network managements are able to meet such expectations and realise them successfully there is a clear communicable benefit for members, often strengthening the affected member's long-term motivation and participation within the network. The bilateral, cross-border R&D collaboration of entire networks with other networks represents a form of network based internationalisation, in particular leading to the development of competitive, dynamic economy-, research- and technology-based agglomeration areas. Networks and even more the involved companies benefit from the rapid transnational transfer of both information and knowledge and from mutual technological improvement.

All in all, the comparatively young age of the interviewed Polish networks does not come as a surprise. This exemplifies the continuing dynamic in the process of network establishment. Still more than 90% of the interviewed Polish and German networks have Europe-wide or world-wide ambitions, independent of age, phase or the branch of application the networks are active in.

The imperative internationalisation poses for networks on the one hand and the strategies and steps necessary for its realisation on the other are way apart. Only 15 % of the German networks and less than 5 % of the Polish networks interviewed were able to present reliable strategies or appropriate approaches for action concerning the internationalisation of their network and the participating member companies. Most networks in Germany and Poland confirmed not having any strategy at all or just have vague ideas on what could be done concerning the desired bilateral R&D co-operation (s. Figure 14). These figures reinforce the thesis already existing which criticises the lack of long-term and strategic thinking within networks on the topic "internationalisation".

In order to convince policy makers, who may finance such future bilateral co-operation, the main benefits of such a bilateral network-based R&D co-operation must become as visible as possible. In order to become more specific, a working group was established in the context of the German-Polish Forum on Research Co-operation 2008.¹¹ Especially the benefits of bilateral cross-border cooperation compared such on national level have been discussed.

¹⁰ European Trendchart on Innovation for Poland, 2006.

¹¹ German-Polish Working group „Networking and its Role in Bilateral and European R&D Co-operation“ established in the context of the German-Polish Forum on Research Co-operation, Leipzig, April 22, 2008. (Organized by the BMBF and the Polish Ministry of Science and Higher Education).

The main results of the respective discussions with the network representatives as well as with the members of the working group can be summarised as follows

The main benefits for cross border networking and R&D co-operation

Most prevalent for German-Polish R&D co-operation

- ▶ Lower costs and risk of R&D
- ▶ Higher efficiency and synergies due to broader access to knowledge and interested partners
- ▶ Facilitating exploitation and dissemination of results inside the networks for mutual benefits
- ▶ Complementary bundling of German and Polish research strengths
- ▶ Higher national impact and additionality of funding compared to EC-projects
- ▶ Achieving technological coherence
- ▶ Creation of long-term partnerships as a basis for successful bilateral cooperation

also important on international level

- ▶ Faster exploitation
- ▶ Higher quality research
- ▶ Increased research capacity
- ▶ Access to experiences, know-how and research facilities
- ▶ Influencing the complementarities of investment in research infrastructure
- ▶ Some Pan-European issues can only be tackled multilaterally

Taking the benefits of bilateral R&D co-operation into account, it was also of importance to discuss by which tools or options such co-operation could be stimulated. Especially, when such co-operation should be supported or funded by national authorities, such options should be selected which can be realised by the currently existing funding instruments and administrative regulations.

All parties agreed that a short term mutual opening of national funding programs in Germany and Poland is not very likely. But a lot of other options were identified which principally fit to national funding regulations in Germany and Poland.

The most preferable options for bilateral transnational networking and co-operation

- ▶ Allowing national researchers to use national programme budgets to participate in bilateral R&D projects
- ▶ Using programme budgets to support cross-border mobility or training of researchers
- ▶ Utilising research capacity and expertise from the respective other country by allowing foreign experts to participate in national programmes (with or without funding)
- ▶ Utilising research capacity and expertise from the respective other country by allowing participants to use foreign experts as subcontractors (make budgets more open for bilateral issues)
- ▶ Involving evaluators from the respective other country in the assessment of project proposals
- ▶ Using programme budgets to support participation in European or international committees or networks for mutual benefit

Summarising the main findings, a considerable demand for bilateral, network-based R&D co-operation between Germany and Poland exists. Networks can contribute very much to this and facilitate stimulating cross-border co-operation. At least at the beginning, public funding of bilateral R&D co-operation is needed to support companies, universities and R&D institutions involved. Appropriate funding tools partly exist, but may be adopted to the current, network-specific needs.

Nevertheless, it seems that German and Polish funding policies and programmes do not take into account the promotion policy with regard to networking in the other respective country. Therefore, a very promising way could be to develop respective funding roles which encourage German-Polish R&D co-operation, maybe in selected fields.

Appendix I

In the following some German regional networks are presented in brief which expressed its general interest in R&D co-operation with Polish networks. All of them are members of the Initiative Kompetenznetze Deutschland. Further information about these networks are available by www.kompetenznetze.de.

BioCon Valley - Life Sciences and Healthcare in Mecklenburg-Vorpommern

The network's profile

An initiative of the State of Mecklenburg-Vorpommern, BioCon Valley® fosters the economical use of modern life science technologies and the health care industry. In 1996, this network was initiated as "BioRegio Greifswald-Rostock" within the scope of the federal BioRegio initiative. With this development, the region has achieved recognition with its core competencies in:

- ▶ Medicine / medical technologies
- ▶ Agrobiotechnologies
- ▶ Marine biotechnology

As a service provider for the life science and health care industry, BioCon Valley® initiates and supports projects which can distinguish Mecklenburg-Vorpommern economically and scientifically. Bio-Con Valley®'s portfolio comprises:

- ▶ Management of life sciences
- ▶ Incubators
- ▶ Networking and consulting
- ▶ Project management
- ▶ Public relations services.

BioCon Valley® collaborates in strategic partnership with the life science initiatives in the Baltic Sea region (ScanBalt), Japan, and Vietnam. Mecklenburg-Vorpommern is constantly expanding its potential and distinguishing itself as Germany's No. 1 health region – "MV is good for you". Currently, BioCon Valley® is coordinating a multitude of diverse activities on behalf of the state government in order to further enhance the validity of this motto.

Nuremberg Energy Region – Competence and Cooperation Network of the Energy Industry in the Nuremberg Metropolitan Region

The network's profile

With about 500 companies and more than 50,000 jobs in the energy sector, the Nuremberg Energy Region occupies a leading position in Europe. Competencies in the region are unique in the following sectors:

- ▶ Energy technology
- ▶ Power electronics
- ▶ Automation
- ▶ Energy and buildings.

These four areas of specialisation lead to the inclusion of further competencies in the network. Founded in March 2001, the Nuremberg Energy Region has since functioned as a nucleus of crystallisation in these networking activities.

The competencies of the Nuremberg Energy Region network extend across the whole value added chain in various business segments. Technology-oriented segments are:

- ▶ Automation
- ▶ Power electronics
- ▶ Building and energy
- ▶ Energy technology.

These segments are accompanied by the following broader fields:

- ▶ Research and development
- ▶ Professional training

Key issues in the activities of the network are:

- ▶ Initiation and coordination of projects
- ▶ Support of international cooperation
- ▶ Identification of R&D and qualification demands and derivation of recommended specific strategies
- ▶ Advancement of the network's political influence
- ▶ Active use of the network's virtual platform.

The emergence of synergies is promoted by:

- ▶ Cooperation platforms for research and development projects
- ▶ Joint support measures in professional training
- ▶ Intensification of the dialogue between business, universities and politics.

Lüdenscheld Centre of Competence for Surface Technology and Plastics

The network's profile

In the Centre of Competence for Surface Technology and Plastics, partners from a number of sectors collaborate on R&D projects and organise training opportunities for their members. The concentration of expertise along the technological value chain is designed to give all the protagonists industrial growth, more jobs and a competitive edge. The network is represented by the Kunststoff-Institut für die mittelständische Wirtschaft NRW GmbH, an external institute of the South Westphalia University of Applied Sciences focusing on improving the quality and cost-effectiveness of injection moulded parts.

The Lüdenscheld Plastics Institute has been investigating the application of surface and thin-film technologies specifically for use in plastics since 1990, and has worked on joint projects with over 350 companies during this period. Employing a staff of 40, the institute generated annual revenues of approximately four million euros. The main shareholder, with 75% of the Institute GmbH, is a promoting company whose membership has risen to over 140 firms since 1988.

The city of Lüdenscheld holds a 25% share. The network's activities focus on surface engineering and decorative finishing processes for plastic components, the modification of tool and component surfaces with the aid of surface and thin-film technologies, and surface analysis and testing. All of these sectors include surface protection and decoration and the creation of functional surfaces in their range of services. In addition to company joint ventures and R&D projects, the companies can avail of a wide range of services for solving company-specific tasks. Practical knowledge is passed on to the companies through numerous professional development and training measures. Other opportunities for technology transfer are provided by numerous external activities such as trade fairs, lectures at various events, publications and the network's own newspaper.

NanoBioNet – Network of Competence for Nano & Biotechnology

The network's profile

NanoBioNet is an efficient network of more than 100 members from universities, research institutes, clinics and businesses from the areas of development, production, industry and commerce and technology transfer. Each individual member contributes to a broad spectrum in the process, which makes the system attractive for all participants. All of the members are interested in research and development and the practical applications of nanotechnology and biotechnology for the creation of marketable products and new jobs.

Services offered to the members

Technology promotion and consultation

- ▶ Support of SMEs through financial sponsorship of feasibility studies
- ▶ Technology scouting
- ▶ Competent consultation on all issues related to nanotechnology and biotechnology
- ▶ Supervision of research and development projects
- ▶ Support in finding the appropriate sponsorship programmes for projects
- ▶ Support in finding project partners
- ▶ Help in submitting and processing applications.

PR and marketing

- ▶ Support of press and PR work
- ▶ Organisation of events and lectures
- ▶ Procurement of competent contributors in the areas of Nanotechnology and Biotechnology, Life Sciences and Materials Sciences.

Advanced training

- ▶ Development of advanced-training modules in the field of nanotechnology
- ▶ Arrangement of traineeships and graduate positions at research facilities and network member companies for students
- ▶ Guided tours of the "Demonstration Centre for Nanobiotechnology" at the Science Park Saar.

Ultra-precise Surface Figuring Competence Centre

The network's profile

The Nanotechnology Competence Centre CC UPOB is a registered association with 34 members. Its activities are financed mainly by member contributions and income from fee-based services. The association promotes the cooperation of its members in the field of ultra-precise surface figuring. It creates opportunities for the exchange of ideas and experience, and supports the resulting cooperation.

The executive office of the CC UPOB e.V. is located on the premises of one of the founding members of the CC UPOB, the Physikalisch-Technische Bundesanstalt (PTB) in Braunschweig. The spatial vicinity creates a great number of opportunities for cooperation and joint projects of UPOB members and PTB. The main focus is on the following activities:

- ▶ Producing feasibility studies
- ▶ Intermediating cooperation partners between industry and research
- ▶ Organising joint fair stands
- ▶ Providing expert opinions
- ▶ Conducting seminars and workshops
- ▶ Offering support in the search for surface figuring methods and corresponding measurement technique
- ▶ Defining standards and technical regulations
- ▶ Organising advanced training measures

Optence e.V., Network of Competence for Optical Technologies Hesse / Rhineland Palatinate

The network's profile

Optence sees itself as a centre for cooperation and knowledge transfer in the field of optical technologies. It links partners from industries and R&D institutions, and establishes new and effective communication structures in order to cut time from idea to commercial product. With concentrated public relations work, Optence is improving the public image of the optical technologies. In addition, Optence offers a variety of services such as consulting for funding programmes and start-ups, project management, technical training programmes and special workshops.

In order to achieve its defined targets, Optence has been concentrating its activities mainly on the following objectives:

- ▶ Communication
Strong personal contacts to the members, the Industry Days, common projects and the newsletter are the communication channels.
- ▶ Working groups
They are the think tank of the network. Non-disclosure contracts pave the way for common projects.
- ▶ Public relations
Press releases and the website are the main focal points. Joint booths at trade fairs, organised by Optec-Net Germany, have also been of great interest.
- ▶ Training programmes
Offering special training courses and workshops help to improve skills in the companies.
- ▶ Optence Portal
With the large knowledge base of the members in optical technologies, Optence is acquiring more and more projects and supports project management.

bavAIRia e.V.

The network's profile

The Bavarian Ministry of Economic Affairs chose aerospace and satellite navigation to be two of a total of 19 clusters in its cluster initiative. bavAIRia, an association headed by Dr. Martin Haunschild, was founded in Munich in July 2006 as the successor of the workgroup "Aerospace and Satellite Navigation in Bavaria", a voluntary association which brought together companies and research institutes. From the start, it was able to count on the strong participation of the Bavarian aerospace industry.

Its agenda is to promote collaboration, drive development, and push innovative projects in Bavaria, which is a prime location for research and technology in the field of aerospace and satellite navigation. The association creates new structures for contact and communication in order to enable networking between science and industry. Promoting excellent scientific research and a competitive edge at all levels of the value chain in the aerospace industry, it collaborates with enterprises in Bavaria and aims to fully develop the great potential of satellite navigation.

Its main activities include:

- ▶ Realising an integrated concept for internal and external communication
- ▶ Marketing Bavaria as a business region both nationally and internationally
- ▶ Designing and implementing a suitable development strategy for the envisaged Bavarian aerospace sector
- ▶ Coordinating the demand for education and training with the needs of the industry.

In creating separate technically specialised platforms in the clusters of aerospace and satellite navigation, the intention is to ensure and strengthen Bavaria's excellent position in these fields.

Network of Competence for Distributed Energy Technologies - deENet e.V.

The network's profile

Over the past 25 years, the North Hesse region has built up extensive know-how in the field of distributed power generation and energy efficiency. Successful companies, the University of Kassel and research institutions are addressing a range of issues such as distributed power generators and their integration into existing supply systems, environment-friendly construction, rational energy utilisation and climate-efficient production methods. deENet e.V., comprising over 90 companies, research institutions and service providers, was founded against this backdrop in 2003.

Based on the extensive experience of deENet member companies in the field of distributed and renewable energy systems and energy efficiency, combined with up-to-date research and development findings, deENet is able to develop technical solutions for complex supply tasks. The work undertaken ranges from concept and feasibility studies to specific planning. deENet works with its members to develop the North Hesse region into a model for distributed energy and energy efficiency. Systems solutions that primarily leverage know-how from the region are intended to demonstrate what is currently feasible and what will be possible in the future. deENet plans to turn the topic of distributed energy generation and energy efficiency into one of the economic and social pillars of the region. To carry out publicly funded R&D projects, the network has founded "deENet GmbH", a non-profit society for the promotion of distributed power generation technologies. The company was founded to intensify applied research on distributed energy supply technologies and measures to increase energy efficiency. In cooperation with companies and research institutions, the society is coordinating applied projects in research, development and demonstration.

