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Cluster Initiative Expedition

Another visit to eight of the “go-cluster” members

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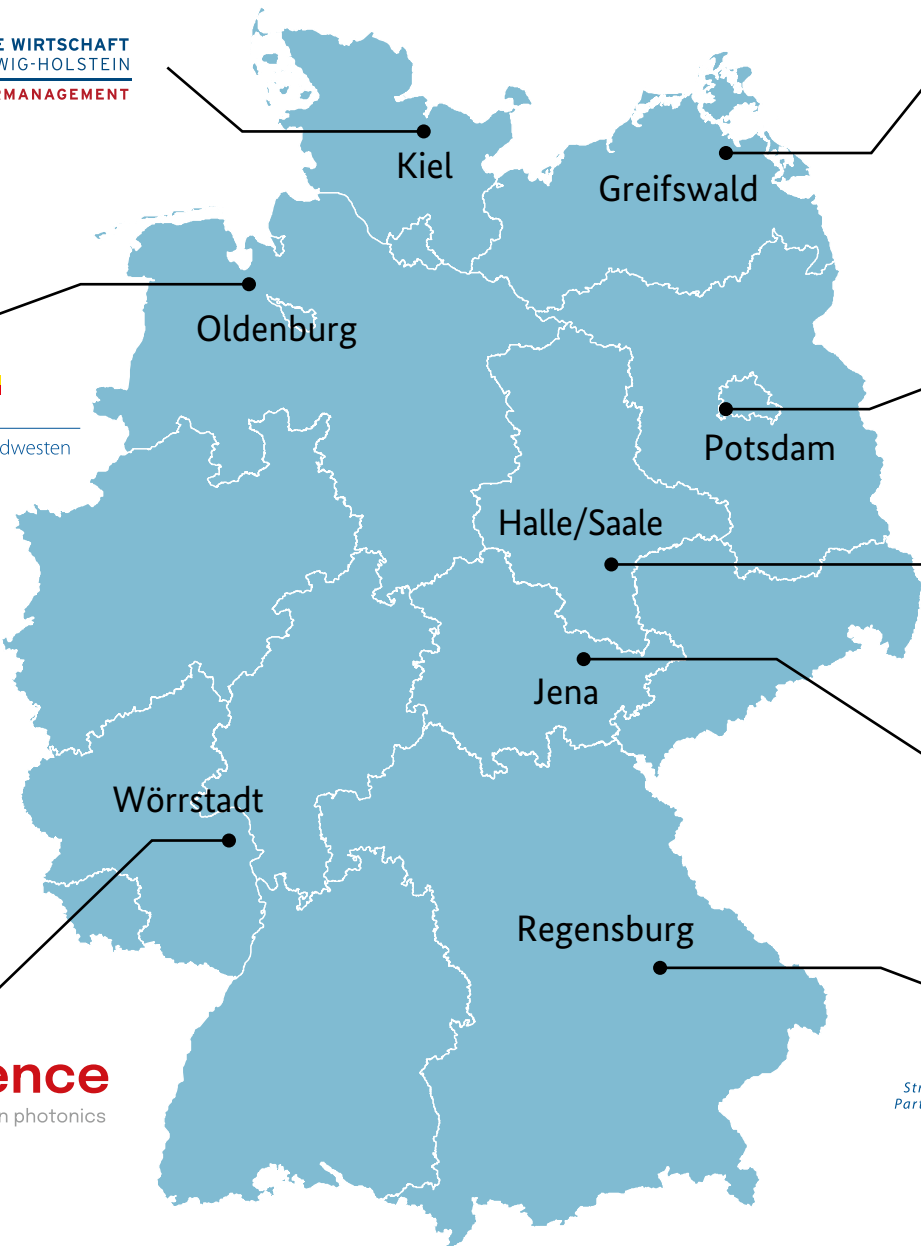
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Introduction

How does a cluster initiative actually work? What happens behind the scenes? What procedures apply? Who works with whom and what is the role of cluster management? The answers to these questions are as broad and diverse as the cluster initiatives themselves. The success stories and inspiring projects they create every day are a regular reminder that long-term collaboration between various actors in the business sector, academia and other co-operating partners pays off. A key element for success is professional cluster management. Working procedures and structures vary, however, depending on the field of technology, the collaboration goals and the organisational format.

The “go-cluster” programme team went on site to see the scale of this diversity first-hand and how it is reflected in practice. Launched by the Federal Ministry for Economic Affairs and Climate Action, the “go-cluster” programme brings together more than 80 outstanding German innovation clusters from a variety of industries and regions. More information about the programme can be found at www.go-cluster.de.

Eight members were already presented in the first part of the Cluster Initiative Expedition. In this second part, the team once again travelled across the country to visit eight more “go-cluster” members. This has resulted in highly interesting and timeless documentations, with both cluster managers and individual stakeholders from the clusters sharing their experience. The following pages provide an insight into the diverse working procedures, exciting projects and, importantly, the people behind the “go-cluster” members.

The first two editions of the Cluster Initiative Expedition only cover a fraction of the broad range of programme members and the diversity of Germany’s vibrant cluster landscape. More insights of this kind are provided in the monthly Cluster SUCCESS STORIES series, the programme newsletters and on www.clusterplattform.de. This website also contains additional information on the “go-cluster” programme, points of contact, an overview of Germany’s cluster landscape and cluster policy, and more news from the innovation clusters in the “go-cluster” programme.

A clear focus on optical technologies



Daniela Reuter (centre) and the team promoting optical technologies.

Set among the picturesque vineyards of Wörrstadt – a small town near Mainz – we find the headquarters of Optence e.V. If you are lucky (and not scared) you will receive a warm welcome from CEO Daniela Reuter's friendly dog. The biologist has been working for the cluster initiative since it was founded in 2001, and has held her current role since 2011. The network came about through an initiative of the Federal Ministry of Education and Research as the result of an agenda to promote optical technologies. "The priority was not to fall behind other countries in this key enabling technology. Consequently, there was a clear recommendation to pool regional expertise – and so the network was born," Daniela Reuter explains.

The eleven founding members had their headquarters in the states of Hesse and Rhineland-Palatinate. Optence was funded by the Federal Ministry of Education and Research until 2008, but is now financed independently through member contributions. Over the years, the network has increasingly expanded into other regions. The 110 members cover the entire process chain of optical technologies, ranging from optical materials, coating, component (lenses, prisms) and system manufacturers to mechanical engineering companies (component processing) through to companies specialising in metrology. 70% of the members are small- and medium-sized enterprises (SMEs), 11% are big industry, research and devel-

opment (R&D) accounts for a further 11% and other stakeholders make up the rest. Around half of the members are based in Hesse, followed by North Rhine-Westphalia, Rhineland-Palatinate, Bavaria and Baden-Württemberg. 3% are located in Switzerland and 7% in other regions – a business from Bulgaria has also joined the network, for example.

Daniela Reuter could well imagine additional stakeholders, with players from user industries such as medical technology and automotive, or from technological fields such as sensors or integrated systems particularly welcome. "Of course, the cluster is invariably open to all kinds of collaboration – ultimately that's what makes a network successful. In my view, as a cluster manager you need to be open and ready for dialogue in the interests of your members at all times. You can't just sit around and wait – you need to be proactive and keep taking things forward. The question 'what do the members need?' is always at the forefront of my work," Daniela says in describing her approach.

Diverse services for members

The aim of Optence e.V. is to use scientific knowledge effectively, to promote the use and prevalence of optical technologies, and to establish the foundations for their broader application

in science and in practice. Technology transfer in the field of optical technologies is supported to this end. Furthermore, the scientific and business communities (and the individual businesses themselves) are interconnected, and knowledge-sharing and collaboration encouraged through specialist events, professional development measures, the initiation of projects and the creation of working groups.

The brokering of contacts and provision of information is particularly valuable for the members of Optence e.V. The various formats include events like the members' general meeting, networking meetings of a more informal nature – including a wine-tasting –, networking days, meetings of working groups with a high level of specialisation, business contact development through international delegations (e.g. the upcoming trip to the Czech Republic), matchmaking and of course further training programmes. In 2019 alone, 33 events and further training courses took place. Optence e.V. is happy to take the preferences and needs of the cluster stakeholders on board when planning and implementing the events.

There are also specialised working groups – currently five – including a measuring technology standardisation group which was born out of the network. This group works together on standard-

What the members say

Udo Umhofer
CEO of TOPAG
Lasertechnik GmbH:

“As a committed ‘networker’ we have been with Optence since it was founded in 2001. We particularly value the pleasant atmosphere within the network and the trustful sharing of information with members from industry and higher education institutions (HEIs), which has given rise to many personal contacts. If you have any questions or problems, you can quickly reach out to a colleague, ask them for their opinion or get additional tips. As a small business we successfully managed to gain access to funded research projects with the active support of Optence. We implemented our first funded project with partners from the network. Like Optence, we have a broader base nowadays and are also active at the international level.”



isations in the field of metrology, which are to be presented to the DIN committee. The standardisation is jointly prepared by the members and perfectly reflects their requirements. Importantly, this sets the direction for the future and offers members a competitive advantage. Maximum added value for all, and brought about as a joint effort.

Other service projects support public relations and marketing, as well as the dissemination of information through newsletters, social media or a website with job listings. There are also other digital formats such as the “Resources Exchange for Metrology and Production”, which was established with funding from the Federal Ministry for Economic Affairs and Climate Action and gives businesses a platform to exchange offers.

The topics covered are just as varied as the formats themselves and are derived from the network. One current project is the “Photonics Road Map”, which is sponsored by the Economics Ministry of Rhineland-Palatinate. The project analyses the future trends and target markets of the next decade and identifies their technological need for optical technologies in an interactive process in collaboration with the members of Optence e.V. and other players in the industry. The result-

ing technology fields are to be evaluated, documented, published and made available to the businesses and users of optical technologies and political representatives to support strategy development. The businesses can use the “Photonics Road Map” to spot market opportunities, identify and plan projects in good time, and in doing so get an edge over competitors. The “Photonics Road Map” takes particular account of the altered market situation as a result of the COVID-19 pandemic, which will require many businesses to adapt their business strategy.

All this work is carried out by a four-person team. While each member has an individual priority focus – newsletters, further training, internationalisation, management – they provide mutual assistance and support. Daniela Reuter describes the job of a cluster manager as follows: “You must enjoy interacting with other people and take a very structured approach to your work. You must be familiar with management accounting even if you don’t have a business background; you need to be able to write a press release even if you didn’t study German; you need industry-specific expertise even if you’re not a physicist, and on top of that you need soft skills – so it’s quite a multi-faceted skillset as you can see!”

Special highlights

One particular success story for Optence was its participation in the “Internationalisation of Leading-Edge Clusters, Forward-Looking Projects and Comparable Networks” project at the end of 2019, where it successfully won three R&D projects with total funding of €3 million for the cluster members.

One of its last big jobs was to prepare and hold the anniversary event celebrating the “10th Wetzlar Autumn Conference on Modern Optics Production” at the end of September 2020. “When you’ve been planning an event for months and then see all the satisfied faces at the conference, you know that all the effort has been worth it.” Furthermore, another important milestone was passed in Jan-

What the members say

Tobias Müller – Manager of the Optics Business Unit, Fraunhofer Institute for Production Technology IPT:

“For us, the Optence network is the ideal platform to network with companies in the local optics industry along the entire value chain. Our institute is based in North Rhine-Westphalia and we are relative newcomers to Optence, having only joined three years ago. As the first institute from Aachen in the Optence network, we’re quite proud of the fact that several other Aachen-based businesses have since followed suit. Over the past three years we have benefitted from our membership in more ways than one. A prime example is the three-year “FOSDIGUM” project, which commenced in April 2020 and in which we get to work with skilled and innovative partners from Finland and Germany on the digitalisation of the manufacture of optical systems. The project is part of the internationalisation project which Optence won.”



uary 2019 when Optence welcomed a small start-up as its 100th member.

360° communication

Different feedback loops are used to ensure that the organisation's work really reaches the members and helps them going forward. While a conventional members' survey is conducted every two years, Daniela Reuter and her team always have their ear to the ground to hear what members have to say. One-to-one talks, analysis of direct mailing campaigns and participation in the events offered give Optence insight into how well its work is received. Given the size of the network, it is not possible to visit every member regularly but Daniela Reuter makes sure to stay in touch by phone and takes advantage of events and trade fairs to meet several members at once: "If I feel I need to get in touch, then I find a way to make that happen. I would describe communication and engagement within the network as very positive. All communication is based on a very good personal level and that is key when it comes to networking. When you notice you're reaching the people and are getting the input you need – this sharing of information and ideas – that's a fantastic reward for all the hard work." Experiences

always feed into strategy development. Furthermore, it is important to accept the fact that not all feedback will be positive.


Interregional and cross-sectoral exchange and interaction is facilitated through Optence's membership in associations like the OptecNet Deutschland e.V. umbrella organisation and in other networks such as IVAM (the International Microtechnology Business Network), Zenit (Centre for Information and Technology), *Kunststoff-Institut Lüdenscheid* (Lüdenscheid Plastics Institute), Automatisierungsregion RheinMainNeckar (Rhine-Main-Neckar Automation Region) to name but a few. At the international level, too, Daniela Reuter and her team are constantly engaged in active dialogue with partner networks. In all these activities, networking is and remains the central focus!



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A powerful partner for the north-west

OLEC | 

Energie bewegt den Nordwesten



Klaus Zelder (City of Oldenburg, left) and Georg Blum (deputy cluster manager at OLEC e.V., right) in front of the Oldenburg Technology and Business Start-up Centre.

The Oldenburg Technology and Business Start-up Centre (Technologie- und Gründerzentrum Oldenburg, (TGO)) in the west of the city is the perfect environment for young, innovative and technology-focussed businesses, and it is here that more than 60 small enterprises, spin-offs and start-ups from the fields of information and communication technology, health science, agriculture and agritech have their base. At just a stone's throw from the Carl von Ossietzky University, these businesses enjoy an innovation-friendly atmosphere that encourages informal exchange, interaction and networking. Since 2009, the TGO has been home to the headquarters of the Oldenburg energy cluster OLEC e.V., a six-person team headed by cluster manager Isabelle Ehrhardt and deputy cluster manager Georg Blum.

OLEC e.V. was initiated by the City of Oldenburg and the then mayor Dietmar Schütz, former Member of the Bundestag and co-founder of the Renewable Energy Act (EEG). In the early 2000s, he managed to bring together the most important energy companies in the region, and thereby laid the foundation for today's cluster initiative with over 60 members. The association OLEC e.V. was founded in 2005. "At the start, the City of Oldenburg pushed the agenda and the association was directly attached to the city's business development programme," says Klaus Zelder of the City of Oldenburg, who has followed the establishment

of OLEC from the very beginning. "Over time, the association increasingly freed itself from such ties and became more and more independent". The main reason was that more and more staff joined and the association's range of responsibilities expanded continuously. It still has close links to Oldenburg's business development programme, however – not least through Roland Henschel, chairman of OLEC e.V. and deputy director of Oldenburg Business Development.

Extensive expertise for the energy transition in the north-west

Today, the OLEC e.V. cluster initiative is the biggest cross-technology energy industry network in north-west Germany. Small-, medium- and large-sized businesses (around two-thirds of the members), start-ups, universities, institutions, regional authorities and education facilities work together in the initiative. "We bring together the key players in the region and see ourselves as a platform for dialogue for the energy transition in Lower Saxony," says Georg Blum, deputy cluster manager. At the start, wind power was the primary focus. "Things have changed a lot since then. Nowadays, our members adopt a holistic approach to the transformation of the energy system." In addition to dealing with topics such as sector coupling and digitalisation, alternative drive technologies and strategies for the genera-

tion, storage and use of green hydrogen, the initiative also focuses on the participation of the public and initial and further training in the sector. To this end, the members typically work in thematic working groups and engage in close dialogue with experts from the region. “Our members are therefore important points of contact for policy-makers and government,” Georg Blum continues. It is also not uncommon for cluster members to be the first to implement pilot projects for the energy transition in the region, as the following examples demonstrate.

Regulatory sandbox for smart city technologies

In its current work in the project “ENaQ – Energy Neighbourhood in Fliegerhorst Oldenburg”, OLEC is successfully lobbying to make the North-West Energy Region a “smart region”. For this, a largely climate-neutral neighbourhood will be designed and operated as a “regulatory sandbox” in the Oldenburg district of Fliegerhorst by 2022. The focus here is on the development of 110 residential units – both new builds and modernised existing buildings – that are connected to the

What the members say

Dr. Thorsten Jöhnk

Management committee of KEHAG Holding AG:

“We’ve been an OLEC member since 2012 – so just shortly after our business was founded. As a business group based in Oldenburg and active in the area of renewable energy – and now also decentralised power supply – our membership was virtually automatic. Apart from providing us with interesting contacts, our membership in the network also allows us to apply our knowledge and expertise. This results in a rich and positive exchange, in addition to opportunities for collaboration. As part of the ENaQ project, KEHAG works alongside other OLEC members on innovative energy markets for residential areas where various players can exchange electricity and heat. In the ELogZ project, we deal with the climate-friendly provision of energy to logistics centres by practically incorporating existing refrigerated trailers into the properties’ energy supply concept.”



public grid. At the heart of the “neighbourhood approach” is an association of energy producers and consumers that are located in close proximity to one another and convert their excess energy into other energy forms, store it or make it available directly for use by neighbouring consumers. The approach is guided by the principle of increasing energy efficiency by avoiding “waste energy” and maximizing the local consumption of energy generated in the local area. In addition to sector coupling, an open and secure digital platform is being developed that complies with data protection regulations and enables the public to automate the local exchange of energy. The project receives funding of around €18 million from the joint “Solar Construction/Energy-Efficient Cities” funding initiative operated by the Federal Ministry for Economic Affairs and Climate Action and the Federal Ministry of Education and Research. Partners from the business community provide another €8.4 million. Thirteen businesses and research centres from the OLEC network are involved in the five-year project, in addition to the cluster initiative itself.

Making the north-west a hydrogen hub

Another important agenda actively promoted in the cluster initiative and increasingly important for the region is hydrogen. OLEC, together

with EWW – another cluster member – is therefore deeply involved in the “Hyways for future” project, which is supported by the Federal Ministry for Digital and Transport with funding in the region of €90 million. In a consortium of around 90 partners from industry and the political arena, with this project EWE seeks to develop a market for hydrogen produced from renewable energy in the north-west. The long-term goal is to establish climate-friendly hydrogen in the areas of industry, energy supply and transport in the North-West Metropolitan Region. The cities of Cuxhaven, Wilhelmshaven, Bremerhaven, Oldenburg and Bremen are the centres of the hydrogen model region. The focus here is on how hydrogen can be used in the mobility sector, with the plan to set up hydrogen refuelling points and purchase hydrogen buses for the public transportation system, sanitation vehicles and hydrogen-powered cars and trucks. Given its geographical location, the North-West Metropolitan Region offers perfect conditions for a large-scale green hydrogen sector, as green hydrogen can be produced here with existing and future offshore and onshore wind farms, imported by ship, stored in existing cavern storage facilities and used in industry, the energy sector and the heating market in addition to the transport sector. “The ability to supply our local industrial companies with hydrogen would be a major accomplishment,” Klaus Zelder imagi-

What the members say

Dr. Stephan Barth

Managing Director of ForWind – Centre for Wind Energy Research:

“ForWind was a member of OLEC right from the get-go. The advantage of OLEC is the close connection between businesses, research and administration in a single cluster. Thanks to these direct personal contacts, members can ask for advice quickly and easily, find skilled partners or develop joint positions for strategic arguments. OLEC is a mouthpiece and valuable disseminator for all topics associated with the energy transition. In the initial and boom phases of renewable energy, there was enormous demand for information and skilled labour. With OLEC as our partner, job and education fairs, specialised events and dinner debates were held quickly and with the utmost professionalism. This benefited both the cluster members and the entire region.”



nes. “The innovative spirit of local businesses and the regional infrastructure certainly offer the best prerequisites for a new hydrogen hub in Germany’s north-west”.

Powerful networking

To implement projects like this and therefore deliver the energy transition in the north-west, the cluster management organisation adopts a wide variety of roles. For example, the association itself acts as an applicant for funding projects and implements them in tandem with the members,

via service contracts for example. Furthermore, the OLEC team also acts as a service provider in the members’ funding projects – e.g. in the organisation of events or as a coordinating body – by bringing together the right players and pointing them towards suitable funding opportunities. The network organises up to 30 events annually on different aspects of the energy transition for this purpose, including information sessions, workshops, series of dialogues, an annual meeting and general meeting of members or dinner debates. The team also works successfully across industries, as in the current series of workshops

jointly conducted with the Automotive Northwest e.V. cluster from Bremen and the Agrotech Valley Forum e.V. cluster from Osnabrück. The aim of the series is to present the possibilities and technologies of hydrogen drives for utility vehicles and agricultural machines and to jointly develop ideas for vehicle designs to be submitted as new research proposals.

Shaping the energy system of the future together

The OLEC members are currently developing a clear vision and mission for the years ahead: “We want the north-west to be a model for other regions in Germany,” says Georg Blum. “We want to take a bold approach and shape the energy system of the future together. Our motto is to network, explain, enable, promote and transfer from the region”. OLEC gives its members the ideal platform to jointly deliver on this goal. Going forward, the team headed by Isabelle Ehrhardt and Georg Blum wants to offer its members additional exclusive services and step up innovation management, e.g. through innovation radars and whitepapers on future-oriented topics, in order to advance innovation for the North-West Energy Region even more effectively than before.



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Healthcare industry in Mecklenburg-Western Pomerania: successful sector and economic driver

BioCon Valley®

Netzwerk der Gesundheitswirtschaft
für Mecklenburg-Vorpommern



The BioCon Valley® team with Lars Bauer (4th from right), CEO of BioCon Valley® GmbH and Michael Lüdtké (3rd from left), head of business communication at BioCon Valley® GmbH and managing director of BioCon Valley® Mecklenburg-Vorpommern e.V.

2,000 km of Baltic coastline, 2,000 lakes and 70 designated spa and health towns with beach resorts and curative forests – these are the assets with which Mecklenburg-Western Pomerania not only attracts over seven million tourists each year but also workers in the state’s thriving health-care industry. In addition to the traditional economic sectors, such as the maritime industry, machine building, the energy sector, the food industry and tourism, the healthcare industry also plays an important role for the *Bundesland* on the Baltic coast. This is also reflected in the industry’s “economic footprint”: its share in the total economic output of the state of Mecklenburg-Western Pomerania stands at almost 15%, its revenue amounts to €5.8 billion, which translates to almost every seventh euro in gross value added originating in the state. Furthermore, every fifth job in the state is associated with the health-care sector: around 150,000 workers are currently employed in healthcare, making it the biggest sector in Mecklenburg-Western Pomerania.

The fact that these statistics on the economic footprint of the healthcare industry exist at all is thanks to the hard work of the BioCon Valley® cluster initiative, the healthcare sector network for Mecklenburg-Western Pomerania. “These sector statistics for the individual Bundesländer have only been available since 2015. Before that, there were no detailed records,” says Lars Bauer, CEO

of the limited company BioCon Valley® GmbH. “At the time, we wanted to quantify the economic footprint of our industry in Mecklenburg-Western Pomerania. We sat down with an institute in Darmstadt and together worked out how this could be achieved. The outcome are these numbers, thanks to which the industry is even visible in the first place,” Bauer continues. By now, sector statistics are available for all of Germany and the Federal Ministry for Economic Affairs and Climate Action also publishes them once a year for the other *Länder*. Now with a nationwide reach, the creation of sector-specific statistics – known as health industry accounting – is just one of the many accomplishments the BioCon Valley® team has to its credit since the initiative was founded.

The mission: to be the engine of the successful healthcare sector

The cluster initiative is an alliance of the limited company (GmbH) and the BioCon Valley® association (e.V.), which were both founded in 2001. The initiative can be traced back to the founder Professor Dr. med. Dr. h.c. (mult.) Horst Klinkmann, F.R.C.P., who placed the issue squarely on the political agenda in the early 2000s. The story goes that the Teterow native and Dr. Reinhard Dettmann, Teterow’s long-standing mayor, stood on top of a hill near Teterow, looking down on an expansive field of rapeseed. Together the two

contemplated how they could counteract the high rate of unemployment in the region – situated around an hour’s drive from Rostock – with life science as an engine of economic development. Inspired by “Silicon Valley” in the United States, they called their project “BioCon Valley” and managed to attract a number of companies to the area, including Miltenyi Biotec. With a current workforce of 450, the company is seen as the region’s poster child and has drawn many other firms in the sector to the area. As this milestone was passed, it quickly became clear that the *Land* wanted to grow its healthcare sector further. But for this, lasting structures needed to be put in place – this heralded the birth of BioCon Valley® Mecklenburg-Vorpommern e.V. The limited company BioCon Valley® GmbH was founded shortly afterwards and has since acted as the service provider for the *Land*. Its remit: to coordinate the measures of the healthcare industry for Mecklenburg-Western Pomerania. “We are the network of the successful healthcare sector,” says Michael Lüdtkke, head of business communication. “We are the central point of contact and the driving force when the priority is to strengthen employment, growth, value add and competitiveness on a national and international scale.” BioCon Valley® GmbH now employs 16 people at its centres in Greifswald and Rostock-Warnemünde. The network has around 130 members, roughly

half of which are small- and medium-sized enterprises and start-ups. Local authorities, consulting companies and service providers make up the other half, with the local authorities accounting for 20% of the members. In future, the association plans to attract even more members and get new companies to set up in the region. Ideally, these companies would then also produce for the export market. “In general, Mecklenburg-Western Pomerania still has much room for improvement in this regard, and this is also true of the healthcare sector,” says Bauer. “We definitely want to up our game here.” To achieve this goal, the team has developed several measures in recent years that can benefit the members – particularly the small- and medium-sized enterprises.

A master plan for the healthcare sector

The work of BioCon Valley® spans a variety of fields. In the area of the bio-economy, it was involved in reformulating the Regional Innovation Strategy – the basis for directing funding for innovation into the *Bundesland* in the next EU funding period. The network is also responsible for the “Healthcare Industry Advisory Board” – a consultative body of the *Land* government – and for the continued development of the Healthcare Sector 2030 Master Plan. In the Advisory Board, around 70 representatives of associations, such as

What the members say

Professor Dr. Dagmar Braun – CEO of Braun Beteiligungs GmbH, Greifswald, former chairwoman of BioCon Valley Mecklenburg-Vorpommern e.V. and former member of the supervisory board of BioCon Valley® GmbH:

“The BioCon Valley® GmbH network plays an important role in the health-care sector in Mecklenburg-Western Pomerania: it helps the establishment of start-ups, particularly in the field of life science, and generates valuable synergy, also among the medium-sized companies.

My family has been involved in the network from the very beginning: my husband was a founding member of BioCon Valley Mecklenburg-Vorpommern e. V., initially co-chair and later vice-chairman of the executive board, a position he passed on to me when he left.

We see the initiative as incredibly important for our state because our initially very fragmented healthcare sector urgently needs an efficient networking system that maximises synergy. BioCon Valley® helps to ensure short lines of communication to ministries and enable joint further training programmes in the state, so participants can avoid having to make long journeys to events in other Bundesländer. The dedicated staff help businesses apply for funding and promote joint collaborative projects.

Activities within the network are not to be underestimated: even during my time as co-CEO at RIEMSER, I gladly ran clinical studies with service providers from Mecklenburg-Western Pomerania. BioCon Valley® provided enormous support in this regard and in the generation of funding to build RIEMSER. In addition, the network also gives parties the opportunity to work together and help hone the Healthcare Industry Master Plan for Mecklenburg-Western Pomerania, and – within the Advisory Board – to optimise conditions for the positive development of the sector.”



insurance fund associations or healthcare institutions, higher education institutions, medical councils, the political arena and businesses in the healthcare sector meet twice a year. In total, there are five strategy groups that match the action areas of the Healthcare Sector 2030 Master Plan: life science, health services, healthy ageing, health tourism, and nutrition and health. The body is headed by Minister-President Manuela Schwesig as chairwoman and President Professor Wolfgang Schareck, chancellor of the University of Rostock. This gives the topic the necessary political support and attention – and the members the necessary roadmap for the healthcare sector in Mecklenburg-Western Pomerania to reach the goals set out in the Master Plan.

Further to this, the members benefit from the fresh impetus of the cluster initiative to initiate and oversee new projects, for example as part of the “Ideas for the Healthcare Sector” competition, which BioCon Valley® coordinates. The competition is held once a year and the topics are also based around the Master Plan. Up to 40 applications are submitted, which are then viewed and assessed by an expert panel. The winning teams can receive funding of €150,000 from ERDF funds – allocated by the Ministry for Economics, Labour and Health of Land Mecklenburg-Western Pomerania – over a total of two years. During this time,

What the members say

Dr. Dirk Forberger
CEO of RoweMed
AG – Medical 4 Life,
Parchim:

“For us, being part of the BioCon Valley® industry network has always been important and is key to our success in the fiercely competitive medical technology market. With its events, international trade shows and close ties to policy-makers and government, BioCon Valley® enables a variety of communication channels and information flows that are strategically significant for us.

We have been a member since 2004 when we first began production in Parchim. When we started looking for partners and a network, we quickly found the answer in BioConValley®.

As a business in the healthcare sector, the opportunity to network with other businesses and with policy-makers and the scientific community is critical. While this has not yet resulted in a specific project for us, we have always benefited from the valuable contacts.”



the businesses – often start-ups – then have the opportunity to develop their ideas, work out the finer details and make them ready for the market. If they have additional need for funding at that point, they can find information on more funding opportunities in the funding brochure that BioCon Valley® issues and updates regularly. This competition has produced many excellent ideas for Mecklenburg-Western Pomerania so far.

Mecklenburg meets Dubai

The network is also very active in the area of internationalisation. In addition to accompanying and arranging foreign delegations, BioCon Valley® organises and takes part in national and international trade fairs specifically for the healthcare sector. “Mecklenburg-Western Pomerania is home to an incredible number of small businesses that have neither the time nor the human resources to dedicate to gaining access to international markets,” says Lüdtke. One way is the MEDICA fair in Düsseldorf, for example. The BioCon Valley® team was instrumental in developing the joint exhibition stand for the state of Mecklenburg-Western Pomerania for MEDICA and organises it each year in collaboration with business development agency “Rostock Business”. With over 120,000

attendees, MEDICA is seen as the world’s largest trade fair for the healthcare industry and the stand showcasing healthcare in the state has also been visited by the Economics Minister for Mecklenburg-Western Pomerania, Harry Glawe (CDU), in recent years. Here, members have the opportunity to present their business and make important business contacts. Another opportunity is Arab Health in Dubai, the second-biggest healthcare industry trade show in the world. With the headline “Health Made in Northern Germany” BioCon Valley® joins forces here with the Life Science North cluster, and therefore the states of Hamburg and Schleswig-Holstein, to showcase what northern Germany has to offer in this field. “This is particularly beneficial for the small firms because they often serve niche markets, so it’s very interesting for them to be able to build new business at this joint stand representing northern Germany,” says Lars Bauer. And it works: “We’ve already helped set up a business in the region.” With assistance from BioCon Valley®, the German company Allergo Natur, which makes encasings for allergy sufferers, was able to set up operations in Dubai at the start of 2020. The opening of the subsidiary was celebrated in the presence of the German Consul General in Dubai and Mecklenburg’s Minister for Health.

The strength of a network is proven in a crisis

These and many other examples illustrate that BioCon Valley® thrives on collaboration with stakeholders in the healthcare industry, primarily small- and medium-sized enterprises. How well this works was also demonstrated during the COVID-19 crisis. The team received many calls asking whether they knew who produced PPE in the region. In next to no time, the “Corona Assistance” project was launched in which the cluster gathered all the relevant information for the sector: medical personal protection equipment, information on support measures and funding, and information on occupational safety and remote working. At the same time, all new listings were communicated through BioCon Valley® social media channels and in concise format in the monthly newsletter. Direct reach-out to businesses also helped. Due to this high-level assistance in the first phase of the COVID-19 pandemic, BioCon Valley® GmbH was asked to set up the “Corona Co-operative Exchange MV” online platform for the state of Mecklenburg-Western Pomerania. With the “Find” and “Offer” functions on this website, users can find and offer urgently needed materials to address the pandemic, and also find partners to jointly develop home-grown solutions and services. “The strength of a network is proven in a crisis,” says Lars Bauer.

“Our approach is to have collaborative partnerships here in Mecklenburg-Western Pomerania. After all, in our *Bundesland* we are never far from decision-makers. Businesses and politicians from other *Bundesländer* and countries are often impressed at how quickly top-level meetings can be arranged here – even with ministers.”

For ongoing networking, the team at BioCon Valley® also uses traditional channels, such as its website, newsletters, public relations, social media or annual reports. Actual networking among members is through events, however. Each year, the cluster management organisation organises over 65 specialised and themed events and official delegations, reaching around 3,000 national and international participants. In addition to traditional workshops, information events and strategy group meetings, the formats also include the “Ship to Business” format where young businesses, potential investors and representatives of regional government spend around two hours on a ship getting to know one another. “With this approach we are trying to attract venture capital to Mecklenburg-Western Pomerania,” says Lars Bauer. The event is part of the National Conference of the Healthcare Industry, which is next scheduled for 3-4 June, 2021 and is currently being planned by the BioCon Valley® team. The partner country is Israel, and Minister-President Manuela Schwesig is the event patron. As in every

year, between 700 and 800 attendees are expected over the two days. “The National Conference is the main convention for the healthcare industry – both for Mecklenburg-Western Pomerania and Germany as a whole. The new industry statistics are also presented by the Federal Economics Ministry at this event each year, a fact that fills us with pride,” says Bauer.



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Bio-economy: the economic driver in Saxony-Anhalt



Professor Dr. Matthias Zscheile (2nd from left) and his team boost the bio-economy in Saxony-Anhalt.

As you approach the Weinberg Campus Technology Park in Halle (Saale), you sense that this is a very special place. In front of the Weinberg Campus' gates, German and European flags wave in the wind alongside those of the Max-Planck, Leibnitz and Fraunhofer Institutes and distinguished businesses from the fields of life science, biomedicine and materials sciences. It is not surprising that the Economics Minister for Saxony-Anhalt, Professor Dr. Armin Willingmann, only recently described this technology park as a "centre of the future". And right at its heart, the headquarters of BCM BioEconomy Cluster Management GmbH.

Professor Dr. Matthias Zscheile is the co-founder and current manager of the BioEconomy cluster initiative. He grew up in the Harz area, in a sawmill his family ran. After several training programmes and jobs, Zscheile joined the Technical University of Rosenheim where he has been Professor for Wood Technology, Production Technology/Sawmill Engineering and Solid Wood Processing since 2003. He has never forgotten his home, however, and since 2006 has been successfully lobbying to revitalise the timber industry in Saxony-Anhalt, with several companies setting up operations in the region so far. In 2012, he teamed up with Professor Dr. Thomas Hirth (Fraunhofer IGB) to develop the "Where Wood Meets Chemistry" idea of using renewable raw materials in

the chemical industry. This innovative project led the team to win the Leading-Edge Clusters Competition hosted by the Federal Ministry of Education and Research in 2012, which marked the birth of the BioEconomy e.V. association. Professor Zscheile became managing director of BioEconomy at the end of 2012 and assumed the role of cluster manager in 2017 when the period of funding ended. Dr. Joachim Schulze, Technical Director of Corvay Bioproducts GmbH, took over as chairman at the same time. Since then, and with the support of their three-person team, both have followed the vision of making the Central Germany cluster region an international bio-economy model region. The BioEconomy team seeks to ensure the efficient co-production and cascade use of wood – a natural feedstock – and other non-food energy crops as materials, for fuel and for chemical purposes. The BioEconomy cluster now boasts 54 members, around half of which are small- and medium-sized enterprises (SMEs). Global players like the Finnish companies UPM and Fortum, major corporations like DOMO Chemicals, or research facilities like the Helmholtz Centre and the Fraunhofer Institute for the Microstructure of Materials and Systems (IMWS) in Halle are also active players in the cluster initiative, however. That this is even possible is all thanks to the perseverance, commitment and outstanding work of the cluster management team.

New biorefinery successfully established

Case in point: recently, UPM Biochemicals GmbH (UPM) successfully established the world's first and largest biorefinery in Saxony-Anhalt with the assistance of the BioEconomy cluster. A Finnish company, UPM is a global leader in the pulp and paper industry that specialises in sustainable and biodegradable feedstocks for the production of recyclable everyday items and materials. The plant is due to go into operation at the end of 2022, creating 200 jobs in the region. The investment

amounts to €550 million. The new biorefinery at the Leuna chemical park will be able to process around 500,000 tonnes of beech wood annually. With this project, UPM is investing in the next generation of biochemicals and is therefore forcing the pace of transition from fossil-based to sustainable solutions – a major accomplishment for the region, the state of Saxony-Anhalt and BioEconomy.

The road to this success was not always easy, however. It was preceded by almost ten years of

What the members say

Dr. Michael Duetsch – CEO of UPM Biochemicals GmbH:

“We’ve been part of the BioEconomy cluster since 2018. Back then it became clear that the Leuna chemical park and the Central Germany region are attractive locations for investment in a wood-based bio-refinery. The interconnection of industry, smaller medium-sized enterprises, public institutes, universities and colleges help create an environment in which the bio-economy sector, with its forward-looking approach, can take root more quickly than in other regions. The cluster initiative can formulate the technological needs to policy-makers and explain what goes into the right infrastructure make-up. Action to strengthen the bio-economy is important, particularly in times of structural change in the Central Germany region as it moves towards sustainable business models.”



painstaking work and constant wrangling. For example, despite numerous preliminary studies and research activities conducted by the members of the BioEconomy cluster, UPM originally wanted to establish operations in Frankfurt am Main. Ultimately, it was the two-and-a-half years of unrelenting persuasive efforts by the BioEconomy team and the involvement of the state of Saxony-Anhalt, the local authorities, various banks and marketing companies that convinced UPM to relocate to Saxony-Anhalt. “We hope UPM’s presence in Saxony-Anhalt will have a global “pull” effect: once a major corporation settles in a place, many others will follow,” Zscheile anticipates. There are already signs that this strategy is working. “Another large Finnish company has already expressed interest, and companies from Italy, France, Belgium and even the U.S. and Canada are also keen.”

New hubs step up innovation

Another milestone that cluster management has set together with the Fraunhofer Centre for Chemical -Biotechnological Processes (CBP), and which will further strengthen the bio-economy going forward, is the new BioEconomy Hub. Currently in the design phase, this hub will be financed through funding from the Structural Reinforcement Act (*Strukturstärkungsgesetz*). The

hub’s aim is to promote and assist young businesses in the bio-economy sector – also in difficult phases of their business development process – by giving them access to office and lab spaces as well as to pilot installations and established infrastructures, services and networks. The BioEconomy team in the southern Harz region is also planning a similar project with a focus on wood. Labelled “The Future is Wood”, the aim is to advance the needs-oriented provisioning of wood, use of wood and broader timber deployment, such as through timber construction or the production of wood products. Any waste materials after the wood has been processed are to be used in the chemical industry, further closing the bio-economy cycle. With the two hubs, the intention is to bring the region closer to the vision of making Central Germany an international bio-economy model region.

Cluster: the white knight

Apart from being key actors for long-term regional economic and structural development, cluster initiatives can also instinctively prove their mettle as flexible, highly efficient networks, as another recent success story of the BioEconomy cluster demonstrates. In light of the acute shortage of disinfectant during the COVID-19 crisis and the many cluster members that produce the raw

What the members say

Prof. Dr. Michael Nelles – CEO of DBFZ –
Deutsches Biomasseforschungszentrum gGmbH:

“We’ve been on board since 2011 – even before the cluster officially launched! Given our research activities, we knew even then how important this topic will be in the future in light of limited resources and the pressure of competing use. It made sense to take part in an initiative that brings various stakeholders together and takes account of different needs in approaches, projects and strategies. Through the BioEconomy cluster we have managed to build a close-knit network encompassing all areas of the bio-economy. For example, we now have very close and productive collaboration with the Fraunhofer CBP including a number of joint R&D projects on the use of bio-based feedstocks as a material and energy source. Joint projects of this kind – and particularly those conducted with industrial partners – are important to us as they give us a deeper insight into the challenges of the bio-based economy and we can feed this knowledge into new technology and process developments at DBFZ.”



materials for disinfectants, the cluster management organisation made the snap decision to assume responsibility for coordinating the production and distribution of disinfectant in Saxony-Anhalt and beyond, and organised the process at the technical, business and policy level. From the very start of the crisis, cluster management took care of organising approvals for the producer companies, and discussed the tax aspects with the Federal Administrative Office, the Ministry of Finance (at federal and *Land* level)

and the Ministry for Labour, Social Affairs and Integration of *Land* Saxony-Anhalt. As a result, around 15,000 litres of disinfectant could initially be produced per day and delivered to the states of Bavaria, North Rhine-Westphalia, Lower Saxony and Thuringia. A significant amount was earmarked and distributed by the *Land* and the Federal Procurement Office to meet the demand for disinfectant in areas of systemic importance, such as hospitals, nursing homes, food processing facilities or commercial kitchens.

Professional networking a guarantee for success

How does this cluster initiative manage to produce such success stories? How are the members organised? And how do they communicate? The professional networking activities of the BioEconomy cluster play a key role here. Under the heading “Information and Networks”, the formats that cluster management organises include business meetings, information events and general meetings of members. Added to this are newsletters and webinars – some of which are organised with the cluster partners in the Netherlands, France and England – as well as an annual conference and regular representation at trade shows, such as Hannover Messe, LIGNA in Hannover, BIOPOLYMER in Halle (Saale) and even BIO World in the United States and Canada.

When asked whether companies are already lining up to become part of the BioEconomy cluster, Zscheile replies: “Admittedly, members need some persuasion. That’s what we did with UPM. The CEO agreed that the cluster was exactly what they needed, as they wanted to be active locally. Other businesses also see that the environment for the bio-economy here in Halle (Saale) is good and that they receive the right support here. We try to take good care of the members and give them ideas for projects they could implement and how best

they could go about this. When they realise that what we do here can help them, they become a member.”



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Representing the team of GEOkomm e.V. (left to right): Dr. Klaus Hildebrandt, Matthias Richter, Dr. Peter A. Hecker, Isabelle Uhlig and Dr. Silva Fischer.

On the way to the headquarters of GEOkomm e.V., you pass through Potsdam's "Dutch Quarter", renowned for its red brick buildings. The offices of the Association of the Geoinformation Industry (*Verband der Geoinformationswirtschaft*) are located in a period building over two floors, interconnected by a spiral staircase.

Since its establishment in 2002, the innovation cluster has grown to now employ a team of seven, and as early as 2005 it became part of the "Networks of Excellence in Germany", the forerunner to the "go-cluster" excellence initiative run by the Federal Ministry for Economic Affairs and Climate Action (BMWK). Originally founded as a lobbying group, the association focused on the promotion of innovation and quickly became a central representative for the geoinformation industry – both in the Berlin-Brandenburg capital region and nationwide.

Right in the heart of the geoinformation industry

The Berlin-Brandenburg Metropolitan Region is home to the world's strongest research and science environment in the geoinformation field. The offices of GEOkomm are right beside key players in the sector: the German Research Centre for Geosciences (GFZ), the German Aerospace Centre (DLR), several higher education institu-

tions, universities and research centres, such as the Hasso Plattner Institute (HPI), and the Operations Command of the German Armed Forces are all based in Berlin, Potsdam and the surrounding area. An entrepreneurial environment and a decision-making centre – which of course includes the state governments of Brandenburg and Berlin and the German Federal Government – has developed within a short radius of the cluster initiative. As Peter Hecker explains: "This level of concentration is unique in Germany."

GEOkomm brings innovation to SMEs

Peter Hecker, the founder and CEO of the innovation cluster, comes from a farming background and originally ran an agricultural consulting agency. A contract from the then EADS subsidiary, Infoterra, now Airbus Defence & Space, introduced him to public funding for the first time – in that case from the Federal Ministry for Economic Affairs. The aim of the project was to market satellite data from the radar sector: the idea was to sell the data for a profit and use the revenue generated to finance the development of the second generation of the satellites deployed. At that time – around the turn of the millennium – satellite data were primarily used in the defence sector but not in commerce or at administrative levels. Back then, the community consisted of a handful of microenterprises. As the partners wanted to

reach these businesses and customers in administration, they came up with the idea of forming an organisation as the “association of the geoinformation industry” – and so GEOkomm e.V. was born. By conducting extensive PR work and holding weekly events for a variety of target groups, the association earned a strong reputation and enjoyed a high profile within a short space of time.

The association not only achieved its original goal of financing the satellites, but also expanded its activities to the EU level: GEOkomm became a founding member of the Brussels-based NEREUS Network that supports and connects regions where space technology is produced and used. Other EU projects followed, with GEOkomm assisting in transposing the requirements of the European Union in the PSI Directive into national law, for example. This work, in particular, gave the association such visibility that Peter Hecker even got a call one day from the Federal Cartel Office asking Peter for his opinion and expertise. After this successful start, it became clear, however, that other organisations were better placed for lobby work, above all financially. For this reason, the decision was made to focus the work of GEOkomm on support and added value for businesses – its evolution to a cluster initiative had begun.

The story behind the financing of the association began with a Brandenburg “Industry Network of Excellence”, with initial funding obtained from the joint federal/*Länder* programme for improving regional economic structures through the Berlin Investment Bank. Today, the innovation cluster stands on its own two feet and is independently financed. Much of the work of the GEOkomm team is concerned with the promotion of innovation: here the cluster initiative guides SMEs from A-Z through the entire innovation process, and gives its members access to scientific knowledge and findings. The cluster staff assist in a variety of areas, such as applications for funding, R&D activities and ultimately the marketing of the developed products.

Most importantly, GEOkomm closes the gap between R&D and marketing. SMEs generally have difficulty gaining access to new scientific findings. Large corporations have their own research facilities, something small SMEs cannot afford. Moreover, the financial risk would be too big. To address this, GEOkomm brings the innovations to the SMEs. The cluster initiative also sees itself as the partner that guarantees that whatever the SMEs plan also works out. “We oversee the entire process: the businesses get to know one another, have an idea, we develop the idea in unison with them, go through all the paperwork – quite the

What the members say

Professor Dr. Jürgen Döllner – Head of the Computer Graphics Systems research group at the Hasso Plattner Institute in Potsdam:

“The Hasso Plattner Institute is a founding member of GEOkomm e. V. and I was even on the board during the first few years. Back then it became clear that geo-data, i.e. spatial data, would become one of the most important categories of data that applications and systems would need. For the first time ever, we were able to systematically and automatically make geodata available to be fed into and processed by databases and analytical systems – for example for use in navigation systems and cartographic services, but also for urban planning and pollution control. We predicted that completely new fields of application would emerge, including insurance claims settlement, delivery service route and trip planning, or digitalisation in the agricultural sector.

We faced a number of questions: What obstacles need to be cleared? What legal requirements need to be established? What is the relationship between the needs of the government and private interests? How do we address the issues of data access and licensing? Against this backdrop, Peter Hecker was keen to establish an organisation to develop answers and solutions in tandem with policy-makers and the business community. As a research and training institute, the HPI is primarily concerned with the design and analysis of complex software-based systems and was therefore happy to get involved as a scientific institute in the creation of the cluster.

Development has clearly been moving towards artificial intelligence for a number of years: this offers an enormous increase in information, as both disciplines – geodata and AI – are very well matched. There is always a certain degree of ambiguity associated with geodata, which AI can easily handle. The potential uses are manifold. One example is local authorities creating inventories. They may ask questions like: „How many trees do we have?“, „What is their volume and how will this develop?“, or „How much CO2 can these trees hold?“. An AI system can run these calculations within minutes on the basis of older data records. GEOkomm coordinates such new technological considerations of the R&D organisations and combines them with the needs of the business partners and the authorities at Land and federal level.”



challenge for first-timers – and then, if all goes well, we assist and guide the businesses through to the successful completion of their R&D project and beyond when it comes to marketing,” Peter Hecker says in summarizing the work of the association.

A fast-changing sector

Over the past 10-20 years, the significance and use of geodata has increased tremendously. Not only has the accuracy with which sensors can capture, handle and process data improved but the data volume and storage capabilities have also increased. “Previously geo was much more niche and specific. Nowadays, almost everyone has a device that uses spatial services,” says Peter Hecker. Geoinformation has since become a very broad field that “starts in a greenfield project” and ends somewhere in health informatics.

Artificial intelligence has also made its way into the geoinformation industry: it offers an incredible added value in the processing of this data for businesses and their value creation, and also for the public and society. As a cross-disciplinary field, the geoinformation sector particularly offers small- and medium-sized businesses many niche areas in which they can gain a solid presence and leverage existing technological information.

GEOkomm: a reliable partner for innovation

These days, GEOkomm is particularly active in the innovation networks of the Central Innovation Programme for SMEs (ZIM) and deals with topics like inland waterway transport, the communication infrastructure or the agricultural industry:

The DigiShip network drives forward the digitalisation of inland waterway transport. This includes driver assistance systems for ships, self-driven vessels, navigation and route planning with regard to locks and fuel consumption, and assistance to inexperienced skippers, for example, when parking sport boats. Ecological aspects and IT security challenges play an important role here. The technology used is deployed in parallel in another project in Teheran, the Iranian capital. The problem in Teheran is that vast quantities of ground water were drained in the past with the result that parts of the city are subsiding, causing buildings to collapse and damage to roads. The antennae that were developed under DigiShip are used for monitoring purposes so that any movements can be registered early on and prompt action can be taken.

In the network for Interconnected Digital Healthcare (VerDiGes), the focus is on digital development in the healthcare sector. The geoinforma-

What the members say

Dr. Rico Richter – CEO of Point Cloud Technology GmbH, Potsdam:

“I studied at the Hasso Plattner Institute (HPI), did my doctorate there, and set up Point Cloud Technology GmbH as an institute spin-off in 2015.

We are experts for the analysis of 3D data produced when infrastructures, cities and countries are captured digitally; in effect we digitise reality. Both data capture and data analysis are automated nowadays. The devices to capture 3D data are fitted on vehicles like cars, drones or trains, depending on what information needs to be captured. These large volumes of captured data can be evaluated automatically using a variety of methods, including artificial intelligence.

As I have known Peter Hecker for over 10 years and appreciate his work, Point Cloud Technology GmbH has been a member of GEOkomm since it was first established. We particularly benefit from the events, the group stand at the INTERGEO industry trade fair, and knowledge-sharing and exchange in the network. Furthermore, GEOkomm gives us a platform where we can demonstrate ideas and run through various scenarios. Through the GEOkomm network, we can pass on queries we have received and also receive queries from others, for example as partners for joint projects.

So far, the most important projects we have had in collaboration with GEOkomm were the 3D Point Cloud and twin4bim ZIM networks for which we jointly acquired and supported suitable companies.”



tion industry comes into play particularly with regard to the provision of care in rural areas, through telemedicine for example. In this context, too, IT security plays a very important role.

The agrASpace network looks at the use of aerospace technology in agriculture, where unmanned aircraft or drones are used to monitor vineyards for example.

Work is already underway on the follow-up project to the twin4bim network (BIM = building information modelling) that recently ended. The aim of this network was to create digital images – or digital twins – in the construction industry of existing buildings and buildings that are still in the planning phase. This network proved to be particularly successful, with over 20 applications for research and development.

The ZIM innovation networks are the foundation for cluster financing, so new networks always create a certain degree of planning predictability.

In addition, GEOkomm was involved in Potsdam's successful application under the "Smart City Model Municipality," a call for proposals by the Federal Ministry of the Interior and Community.

In its role as a Copernicus Relay – i.e. an ambassador of the European Commission's space strat-

egy – the cluster initiative is currently involved in a project proposal for the development of a project office for municipal applications. The aim is to bring municipal requesting agencies closer to Copernicus data. GEOkomm acts as the interface, enables access to the data and provides the necessary know-how. Project partners BavAIRia – also a "go-cluster" member – Aviaspace, the geoinformation provider GAF AG and the analysis and test engineering company IABG mbH have their headquarters in southern Germany and Bremen.

The GEOkomm team explains that so far it has been difficult to track the success of the projects. In addition to the successful completion of a project, another criterion for success are "repeaters", i.e. parties that repeatedly approach GEOkomm on their own initiative to recruit project partners through the cluster. Given the individual requirements, every success for a partner is also a success for GEOkomm. Or as Peter Hecker puts it in a nutshell: "Every day is a successful day!"

Interface between expertise and project management

GEOkomm currently represents around 100 members, most of whom are SMEs and research institutes. New players are approached and incorporated into the cluster where needed, such as for ZIM innovation networks. A particular challenge

for the team is to communicate on an equal footing as peers with the CEOs and businesses despite the broad range of topics addressed and to get up to speed on new projects and their specific topics. The motto of the cluster team is: “We bring together the people who ultimately are the specialists.”

GEOkomm offers knowledge-sharing, further training and expertise

Before the pandemic, the GEOkomm team primarily relied on face-to-face conversations to network and reach out to members and relevant players. The COVID-19 pandemic, with all its ramifications, initially stopped this flow of information and many companies pulled back. Online events are now the norm. Klaus Hildebrandt, however, “[...] would like to have more in-person events once again. You notice that digital events cannot truly replace a face-to-face meeting.” This applies for the programme offerings of the GEOkomm Academy, for example. The Academy offers further training for specific target groups, with the speakers often GEOkomm members themselves.

The pandemic and its aftermath also significantly limited knowledge-sharing and exchange with other cluster initiatives and networks in Berlin und Brandenburg, which makes it difficult to see

the bigger picture and broaden horizons. Before the pandemic hit, there was always intensive interaction and dialogue between all the bigger clusters in Berlin and Brandenburg.

GEOkomm offers its members two repeat knowledge-sharing and exchange formats: the technology brunch and the technology salon. At the small-scale monthly technology brunch, now held again in-person, interested parties meet once a month for a 15-minute presentation followed by a 15-minute discussion. The brunch afterwards gives everyone the opportunity to discuss the topic further and to network. The technology salon – with a view from the rooftop of the Brandenburg state parliament building – gives GEOkomm members the opportunity to test out new topics and explore the position in the market. Members are invited to get together for a relaxed “fireside chat” afterwards.

With each new request and project, the GEOkomm team faces the challenge of having to understand the specialist topic as experts for cross-cutting issues, while also recognising their own limits. Members’ expectations vary greatly: some want events and the opportunity to forge new contacts, while others primarily want assistance in obtaining potential project funding and finding project partners.

The services the innovation cluster offers its members are many and varied: in addition to providing financing information and expertise in the securing of funding – such as the ZIM networks supported by the Federal Ministry for Economic Affairs and Climate Action and qualification pathways – GEOkomm primarily provides access to networks such as ESA – in its role as a Copernicus Relay – and to the MediaTech Hub Potsdam.

“go-cluster” membership – the hallmark of quality

When Peter Hecker began the demanding application process for “Networks of Excellence in Germany” in 2005, he was most attracted by the certifications that came with network membership. From his experience working at the international level, particularly in Scandinavia, he values certifications as objective quality criteria, and states that he openly advertises his “go-cluster” membership.

Communication and exchange after “go-cluster” events also provide the opportunity to develop new subject-specific networks. Talks with attendees, e.g. other cluster managers, produce fresh ideas for new projects and consortia.



GEOkomm

Verband der GeoInformationswirtschaft
Berlin/Brandenburg e.V.
(Association of the Geoinformation
Industry in Berlin/Brandenburg)

Contact:

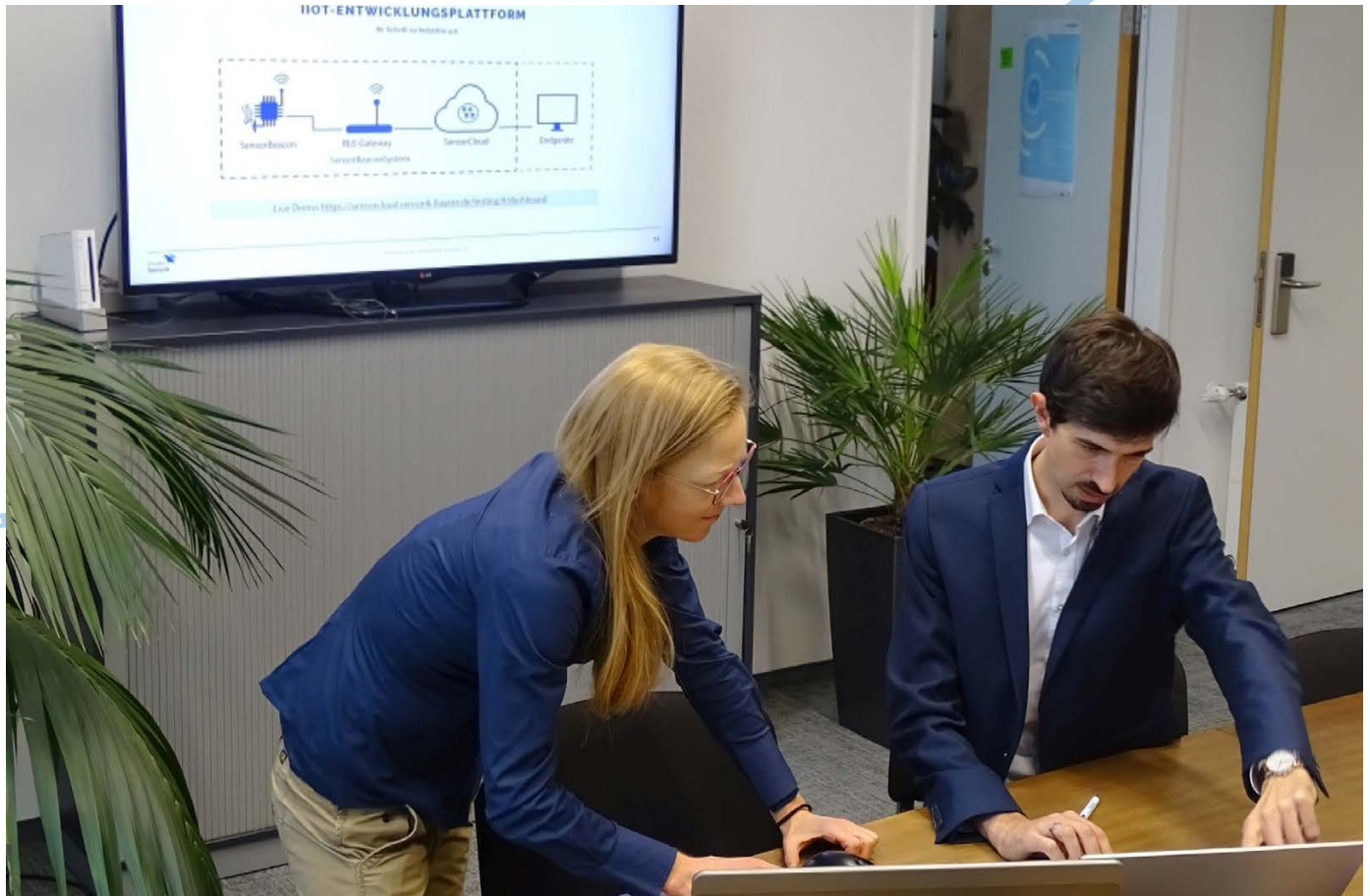
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Sensor expertise in the region of networks



Stefanie Fuchs and Matthias Streller form the team managing the cluster initiative.

The Strategic Partnership for Sensor Technologies (SPS) organisation (Strategische Partnerschaft Sensorik e.V.) is located at the heart of “TechCampus Regensburg”, just a few steps from the university and higher education institute. The cluster initiative has had its offices in “TechBase Regensburg” for over five years and benefits from its close proximity to start-ups and SMEs. Situated in a valley basin, Regensburg greets its visitors with green forests, meadows and hills. The south of this city on the Danube is home to the “TechBase Regensburg” high-tech centre, a sober building dominated by glass, concrete and metal. On the ground floor, the management team consisting of Stefanie Fuchs and Matthias Streller are currently working on an Industry 4.0 project.

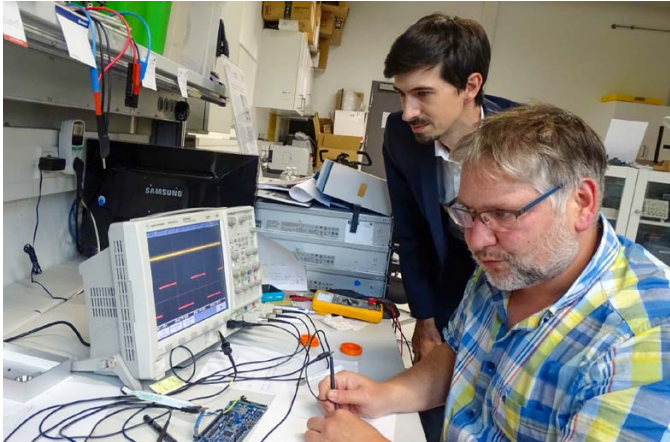
From an association of businesses to a professional cluster initiative

It all began in 2003 with a loose association of several businesses under the umbrella of business development. From 2006 onwards this evolved into the Sensor Network for Bavaria under the Bavarian Cluster Campaign led by the Bavarian State Ministry for Economic Affairs, Development and Energy. At that time, SPS was still based in “BioPark Regensburg” – the historic city’s second innovation centre – and not far from its current offices.

The sensor cluster’s current home in “Tech-Base Regensburg” connects start-ups with multiple networks and brings together experts from a whole host of industries. Describing day-to-day operations, Matthias Streller explains: “An entire eco-system can be found here. Meeting places were intentionally incorporated into the building layout: the foyer including the canteen provide a perfect infrastructure for networking. The centre even has space for small trade exhibitions, it boasts several superbly equipped conference rooms for workshops, and now even has an innovation lab for sessions where creativity is key.” “Networking is in Regensburg’s DNA,” says Stefanie Fuchs.

Network for a cross-cutting technology

SPS considers its core discipline – sensor technologies – to be a cross-cutting technology. Gone are the days when sensors were simply hardware. Sensor technologies are now sensor systems that not only record data but also evaluate it automatically – think “artificial intelligence”. Stefanie Fuchs, Matthias Streller and their team see their remit as supporters of economic development, an approach which all team members apply holistically and across Bavaria. In addition to technology development, the broad service portfolio includes support for PR work and personnel development –



Matthias Streller and Andreas Hofmeister, development engineer at Sensorik-Bayern GmbH, examine a circuit board.

increasingly also in the form of online programmes. To ensure it stood as a peer with members in the field of technology – and was not simply an “event network” – the Strategic Partnership for Sensor Technologies set up the limited company Sensorik-Bayern GmbH as a wholly owned subsidiary in 2007. Consisting of technology experts, its team independently conducts research and development in collaborative projects with network players. In 2012, SPS joined the “Networks of Excellence in Germany”, the precursor to the “go-cluster” excellence initiative organised by the Federal Ministry for Economic Affairs and Climate Action.

The innovation cluster currently has around 80 members from Bavaria, Germany and the entire world, representing the entire sensor technology value chain – even in Bavaria alone. While currently the SPS service offerings primarily benefit SMEs, they also serve twelve universities and HEIs, three research institutes and twelve large corporations. For business start-ups, Bavaria has a well-developed system of regional start-up centres. The Sensor Technology Network works closely with the Regensburg-based business incubator DGO and the service offerings complement each other well. New members are always welcome. As Stefanie Fuchs explains: “We are genuinely open to all organisations and businesses along the modern value chain that see sensors as a system. We love to work across disciplines and sectors.”

Tailored support as needed

SPS provides support tailored to actual needs: in close communication with the members, in frequent one-to-one discussions and – where possible – during in-person meetings, the staff at SPS engage with the members, listen closely to their needs and then offer tailored support formats, including networking events like technology fora or workshops, for example. Under pandemic circumstances, communication is online

and well received by the members, and even a virtual version of the innovation cluster's joint stand for trade fair events was organised. However, the cluster will be rolling out the blue carpet once again at the Nuremberg exhibition centre for the "SENSOR+TEST" trade show in 2022. Together with roughly 15 members representing the network bandwidth, there will be plenty of room to network in person over an area of 200m².

Organisational and personnel development is another focal area of the cluster's consulting activities. SPS offers its members a comprehensive range of qualification and skills development opportunities, being well-connected to other networks across Germany in this field. Its involvement in think tanks and interdisciplinary working groups gives it the opportunity to receive fresh ideas and impetus and think outside the box.

At the organisation's headquarters, eleven staffers work together on an interdisciplinary basis and bring their knowledge from the business sector, technology and education to the cluster. They are assisted by seven employees at the limited company, primarily with skills from the field of physics and electrical engineering. The organisation's subsidiary promotes research and development for the members at very fair rates. From SPS, members expect practical support that meets

their needs as (technological) peers and personal and confidential exchange within the network. For its part, SPS wants to have active members and offers safe spaces – e.g. management training programmes – where participants can open up in an environment based on trust and share experience and knowledge.

SPS gets inspiration from its interaction with other cluster initiatives, such as the nanotechnology cluster, the new materials cluster and the MAI carbon leading-edge cluster. SPS is currently involved in the "Artificial Intelligence Regensburg (AIR)" initiative, funded by the Federal Ministry for Economic Affairs and Climate Action, which brings together and leverages regional potential for artificial intelligence. The project partners include the Regensburg-based networks Cluster Mobility & Logistics, IT Security Cluster and the BioPark Regensburg.

Continuous quality assurance ensures that the right level of support is provided where it is needed. Evaluations after training events, feedback questionnaires, talks with stakeholders and event attendees, certification according to the Silver Label Standard of the European Secretariat for Cluster Analysis (ESCA) and evaluations by the Fraunhofer Institute for Systems and Innovation Research (ISI) feed into this QA process.

What the members say

Mareike Onkelbach – CEO of Chips 4 Light GmbH, Sinzing:

“Chips 4 Light has been a member of the Strategic Partnership for Sensor Technologies for over ten years. We joined the cluster on a recommendation just two years after our company was founded. We wanted to network with other businesses and individuals who were in the same situation – and preferably in our region. And this regional networking is precisely what characterises the work of SPS. We regularly take part in events where we have really good conversations with companies with the same technology focus, or a different one but whose basic interests and approaches are the same. Membership in the same cluster provides a common foundation and creates a safe space where the companies are very open and trust one another. Thanks to this, the companies are also there for each other outside the events, ready to provide advice and support at all times. We also like to take advantage of the very beneficial seminars and training courses SPS organises, particularly those dealing with personnel development. In addition, we benefit greatly from the regular newsletter, above all the information relating to HR and funding. Sometimes, the introduction of a new cluster member opens the door to new partnerships or, as in our case, participation in research projects – we’ve taken part in two so far.

We appreciate the dedication and commitment SPS shows and that it always strives to be at the cutting edge of new developments. During the pandemic, the cluster team quickly came up with a solution to attend trade fairs and showcase online, allowing us to take part in SENSOR+TEST, a very important industry trade show for us.”



Past success stories and current challenges

The continuous hard work of the Strategic Partnership for Sensor Technologies is reflected in its many success stories! In recent years, several projects have won awards, including:

- In 2014, SPS received the “Innovative Network” award from the “Skilled Labour for the Region” innovation office run by the Association of German Chambers of Commerce and Industry. Today this is part of the “New Quality of Work (INQA)” initiative of the Federal Ministry of Labour and Social Affairs.
- Together with its members, the network produced the “Digitalisation via Smart Sensor Systems (DiviSs)” study in 2019 and 2020, which resulted in a recommendation for funding.
- In September 2021, the cluster initiative won third place in the “HR Digital” category of the prestigious “German HR Award” with the “CoDiCLUST – Coaches for Digital Learning in Clusters” project, which is funded by the Federal Ministry of Education and Research.

The work of the SPS team is currently focused on the topics and areas of “Smart and resource-efficient sensor systems”, “Data value creation”, “Green transition and sustainability”, “Sensor technology in agriculture”, “Transformation of

the automotive industry”, and “Artificial intelligence”. As part of the “AIR” initiative, SPS is currently developing the “Service Centre for Data-driven Business” modelled on the “Service Centre for Digital Learning”, which was developed as part of a project conducted by the Federal Ministry of Education and Research.

Are there specific examples of how the innovation cluster addresses these issues in its day-to-day work?

- The agricultural sector plays a large role in the Bavarian economy and is currently also shaping technology development in the region. This is what prompted the cluster initiative to set up a dedicated expert group for this area that will also initiate new development projects at regular meetings.
- The automotive sector in the region is currently in the process of transitioning to sustainable mobility. Job profiles are changing, new mobility strategies are emerging and autonomous driving is becoming increasingly important. To address this, skills development programmes for workers in this industry and networking with relevant stakeholders beyond the field of sensor technology are already in progress.

What the members say

René Hempel – Head Quality Management at SYSTEMA Systementwicklung
Dipl.-Inf. Manfred Austen GmbH, company locations include Dresden and Regensburg:

“SYSTEMA has been delivering automation solutions for manufacturing since 1993. The owner-run family business has its roots in Regensburg and still has a subsidiary there. SYSTEMA has been a member of the Strategic Partnership for Sensor Technologies since 2013. The collaboration came about because of the close physical proximity to the cluster and personal contacts that still connect us to this day. The benefits our membership brings us are many and varied. The further training programmes for the development of staff skills are particularly important for SYSTEMA. The product portfolio serves our needs, is comprehensive and offers a good level of expertise. Furthermore, the network allows us to gain access to funded research projects, to leverage synergies when exhibiting with others at trade shows, and to make new business contacts. With regard to innovation, funding and research projects are a particularly good way for SYSTEMA to consistently drive forward innovative products, solutions and services to serve our customers. This has given rise to projects with current-day customers and reliable partnerships. Our deep understanding of production processes and a professional consulting service are the basis for the success and satisfaction of our customers. While they may sound abstract, the topics of Industry 4.0, High Automation and Business & Factory Intelligence are some of the main challenges facing our customers, whom we support with our innovative service portfolio, which includes machine integration and data capture, preventive maintenance, data analysis and predictive analytics. Process optimisation in manufacturing requires a high degree of automation. For this, we rely on consistent standardisation, modularisation and reusability of functions to deliver maximum customer benefit. Everything I have just mentioned is a constant cycle of continuous innovation. The tasks we are set are seldom resolved with standard products, so it’s hard to separate the benefits reaped from research projects – sometimes originating from our membership of SPS – and research and development we conduct in-house. A demonstrator produced in a research project might only visualise a problem for a customer and raise the customer’s awareness. The associated potential and our expertise are then developed in the client project to ultimately produce an effective solution or product. Some of our products have originated in this way. Following on from the advantages previously mentioned – and apart from direct benefits – lasting partnerships, common understanding of applications and knowledge of technical expertise are important additional benefits of our membership. The Strategic Partnership for Sensor Technology also provides the framework to receive effective support in areas that are not part of our core business.”



- Another expert group is dedicated to the topic of “HR development” and addresses a number of central topics. One of the results of its work is the development of a two-day diversity training programme exclusively for major corporations.
- In the field of sustainability, SPS was funded by the European Cluster Collaboration Platform (ECCP) in 2021 as a “Towards Green Transition Facility”: In the resulting four-part workshop series, the members jointly developed the “Towards Green Transition” roadmap.

SPS and “go-cluster”: a long-standing symbiosis

The Strategic Partnership for Sensor Technologies (SPS) has witnessed the entire development of the “go-cluster” funding programme first hand and come to appreciate its value: the interdisciplinary engagement and interaction at events particularly benefits the cluster management team. The cluster initiative also gains from financial support measures that allow the initiative to experiment in new fields, and from public relations activities, such as those of *Clusterplattform Deutschland* and the newsletters. “go-cluster is an important platform for us,” the CEO team agrees.



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Innovations for Thuringia: how medways is advancing the health technology and biotechnology sector

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ways.



The office of medways e.V. is the meeting place of the Central Germany health technology and biotechnology industry.

The journey from Jena city centre to the offices of medways e.V. takes you directly along the Saale River, past the Obere Aue floodplains and ends at the foot of the Kernberge hills after a less than ten-minute tram ride. In this central yet idyllic small business park to the north of the Lobeda university clinic, we find a well-kept 1960s building with a generous garden. From the outside there is little to suggest that this building is the meeting place of the Central Germany health technology and biotechnology industry and the office of CEO Dr. Eike Dazert and her team. Together with her four employees, she works here to get future innovations in Thuringia's health technology and biotechnology industry successfully off the ground.

From a traditional network to a one-stop-shop

medways e.V. has been around since 1999, and was founded in the course of the nationwide competition to promote “centres of excellence in medical technology”. The aim of the competition was to more effectively interconnect research and industry and translate ideas from science into marketable products even more quickly than before. Back then, medways took part in the competition as “Ophthalmology Innovation Thüringen e.V.” (OIT) – consisting of five founding mem-

bers from the field of optics – and emerged as one of the seven winners. As the name suggests, the focus then was exclusively on ophthalmology. At the end of the funding period, the organisation added biotech and life science to its portfolio, and new members and businesses, such as suppliers and manufacturers, joined the network. The name changed to medways e.V. in 2008 following the merger of OIT with Bioinstrumente Jena e.V. and marked the expansion of its focus to medical technology and biotechnology.

Since then, the network's scope and services have gone from strength to strength to make it a needs-based service provider for its members. It is always available with support and advice to answer members' technical and regulatory questions and constantly examines and upgrades its offerings to support businesses. According to Dr. Eike Dazert, medways CEO since 2017, medways has become a one-stop-shop for Thuringia-based innovations in the field of medical technology and biotechnology. “All the key players in the industry are part of the network: ranging from the relevant research facilities to manufacturers and suppliers through to the Thuringia investment company for start-up financing. So if the universities have good ideas for a start-up business, we establish communication channels with investors who provide funding, establish con-

tacts with business angels or organise laboratory space. In this way, we create comprehensive service packages for our members and help them put their innovations into practice as quickly as possible.”

medways brings together medtech skills in Thuringia and beyond

The fact that medways’ evolution to a one-stop-shop resonates well with members is clearly reflected in the organisation’s strong membership growth: since 2016 the network has increased by almost 150% and currently boasts 91 members, including 44 small- and medium-sized enterprises (SMEs), 16 major corporations, four HEIs and universities, ten research facilities and 19 intermediary and individual members. Overall, medways is financed through funding as an innovation cluster, which covers around 40-50% of outlays for staff and events. Other sources of revenue include the organisation of joint trade show stands, seminars, workshops and membership fees.

The network is open for new members. However, to quote Frau Dazert, “at this stage we are quite particular when it comes to accepting new members”. “We closely examine what exact added value the candidates would bring to our network. For one thing is clear: we are not an acquisition plat-

What the members say

Andreas Lißner,
CEO of ASSKEA GmbH:



“We’ve been a medways member since 2017. As a family-run medical technology company that develops and produces aspirators for in-hospital use and home care, we reap the greatest benefits from our membership with regard to the new EU Medical Device Regulation (MDR). With medways’ help, in recent years we have successfully managed to address the main challenges presented by the MDR. In addition, we also appreciate the level of knowledge-sharing among the members. Members receive plenty of well-presented industry information very quickly. And when it comes to difficult issues, your concerns are always heard, even as a small medium-sized company.”

form. Rather, we want to promote the exchange of expertise and transfer of knowledge among our members. We see ourselves as a network with exacting standards that aspires to offer the industry the comprehensive services it needs.”

Most of medways’ members have their offices in Thuringia and Central Germany. More and more contacts with other networks in Europe are being established, however, not least because medways was instrumental in launching the Cross Cluster Initiative for Thuringia (CCIT). In this initiative, the network offices of clusters in the materials expertise, sensor technology, optics, diagnostics, textile, energy and IT und mechanical engineering industries engage and share knowledge and information on a monthly basis or as required. “For our network it certainly makes sense to also look for collaboration partners outside our domain. Ultimately medical technology is the result of components from various sectors merging into one device, such as software, cables and sensors. The CCIT has created a safe space where the head offices of the clusters can get together and learn from one another – and ideally also start new collaborations,” Dazert explains.

How effective CCIT is in practice was demonstrated in February 2022. The three clusters InfectoGnostics Forschungscampus e.V.,

What the members say

Dietmar Körner,
CEO of rmw Kabel-
systeme GmbH:



“Our company, rmw Kabelsysteme GmbH, specialises in the installation of electromechanical components and cable assemblies for customers in the medical technology, aviation and aerospace, and mechanical engineering sectors. We’ve been a member of medways e.V. since 2008. The organisation gives our company better access to potential new customers in the medical technology sector, for example through digital and physical events and particularly through the professional organisation of the joint stand at the MEDICA trade show.”

ITNet e.V. and medways e.V. joined forces with 14 other partners to submit a proposal for the “clusters of excellence for anonymisation for the safe use of data” bid invitation by the Federal Ministry of Education and Research. This had a maximum subsidy volume of €10 million and a project duration of three years. “Without exact knowledge of the expertise of the partner clusters and the mutual trust among the head offices involved, I think it would never have been possible to bring together over 50 partners within the space of one month and work on a bid invitation of this kind.” The outline has since been positively assessed by the Federal Ministry of Education and Research and the consortium is currently preparing the application. The project is due to start by the end of 2022.

Further to this, medways e.V. is also involved in developing a platform to more closely link industry and clinics for innovative product development. The core idea is to bring manufacturing, development, production and application expertise together in the development of new products. The platform gives businesses in the health technology and diagnostics field access to resources for clinical studies, medical expertise for clinical analysis and to data from fit-for-purpose assessments and function tests that is gathered in a realistic application setting. In turn, doctors in

the clinics get access to the latest health technology and diagnostics or innovative therapies. They can therefore bring their expertise directly to the development process and influence product development. In addition they are not required to deal with secondary organisational tasks and can therefore deploy their very scarce resources in a focussed manner.

medways offers project management, advocacy and further training

With the “medways Research Center”, medways not only offers its members professional project management but is also available to answer all questions regarding research and development – sometimes even as a project partner – and briefs member companies on funding opportunities at the *Land*, federal and European Union level. And all this is just one of medways’ three multi-faceted fields of activity.

Consulting and advice regarding regulatory conditions has also proven to be another important field of work. “As the regulations regarding the Medical Products Act (*Medizinproduktegesetz*) introduced in the 1990s grew more and more detailed, this became an important issue for the businesses. We provided comprehensive advice to members, including smaller businesses, with

regard to quality management and compliance with DIN standards. Then the new EU Regulations (MDR/IVDR) were introduced in 2017/2018, which added another level of escalation, with the focus on patient safety and proof of the effectiveness of medical products. Thanks to our many years of experience with the MDR, we were also able to offer tailored assistance in line with the needs of SMEs, major corporations and start-ups,” says Dazert. medways offers advice on the regulatory framework in its “medways Service Centre” business unit and manages it through the medConform GmbH limited company. In the medways Service Centre, medways also organises and manages joint exhibition stands for the industry at key trade fairs or even job fairs. “Job fairs are becoming increasingly important for our industry given the shortage of skilled workers. Unfortunately Thuringia currently does not have a good reputation among international skilled workers. We hope to rebalance this with the recently signed Diversity Charter and also recruit skilled workers from a migrant background for this attractive sunrise industry in Thuringia,” says Dazert.

medways also takes on representative roles in this business division. The association represents the interests of members to the *Land* government, is involved in strategically important boards, committees and networks, and acts as

advocate for the industry at national and European level. “At this stage, Thuringia’s health technology and biotechnology industry is very strong



Dr. Eike Dazert, CEO of medways e.V. standing before the freshly signed Diversity Charter and the Silver Label Certification in the “go-cluster” programme.

and our goal is therefore to also raise awareness for the health technology sector in the political arena. And our efforts have paid off: the ministry now often asks us about certain topics and our opinion is much sought-after,” Dazert is delighted to report. In addition, medways explores international target markets for its member businesses, establishes important contacts in these markets and accompanies delegations to raise the visibility of the industry abroad. For example, medways was a founding member of the “MedTech Cluster Alliance D-A-CH”, an alliance of health technology networks in the Germany/Austria/Switzerland region. Furthermore, at the European level

medways is involved in the “S3 Platform Medical Technology”, and at the global level is part of CIIPA, the China International Investment Promotion Agency, a network with a focus on the Chinese market.

Another line of business is the “medways Academy”. Here, Dr. Eike Dazert’s team offers comprehensive further training programmes, including in-house courses for SMEs and research centres, that deal with the approval of medical products or the introduction and maintenance of local quality management systems. Not least, medways also organises regular information events on technology-related topics and provides briefings on the current legal situation and standards that are relevant for the industry.

A well-respected network

“Our members most appreciate the fact that in our network they get to talk to different companies on a whole host of topics and can connect and network. And I think our members also value the fact that we attend to their requests personally and do not simply pass them on to someone else; it is usually us who reach out to establish much-needed initial contacts and organise introductory talks, and don’t just hand out the contact details,” says CEO Dr. Eike Dazert. This “hands-on” approach went down particularly well during the

What the members say



Chris Stockmann, founder and technical director of Redwave Medical GmbH:

“Redwave Medical GmbH is delighted to have been a member of medways e.V., the industry association for medical technology and biotechnology, since 2018. As a young company in the medical technology field, we frequently have questions about funding or current regulatory requirements and have found medways to be a professional and knowledgeable contact who is always there to help. The medways Academy seminars and further training courses are a real plus for us and our staff, and the communication and knowledge-sharing within the network is also a genuine asset. We have already been able to make valuable contacts with study centres and other potentially long-term co-operative partners.”

pandemic when medways spoke directly to the ministry, for example, organised certifications, initiated processes and even quickly set up purchasing groups for COVID-19 test kits for the staff of member companies in order to negotiate a more attractive price.

In addition to an annual members' meeting, a monthly newsletter and various information events, medways offers its members tech scouting events four to five times a year on topics such as funding, sustainability or other strategically important areas. At this event, which medways organises regularly – preferably in an in-person format – the members get to know new, interest-


ing partners, which opens the door to new leads and technologies. Another exciting format is medways' "Member for Member" matchmaking event: in this low-threshold format, members present their services and other members have the opportunity to engage with them and others directly. For example, CEOs can meet HR managers here or the quality management officer can meet the quality management officer of another member. Ultimately, this all serves the purpose of networking and medways' goal of getting the future innovations of Thuringia's medical technology and biotechnology industry off the ground.



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Excellent connections in the digital north



The DiWiSH team: Karin Heyn, Dr. Johannes Ripken, Nastasja Heuer and Anna Christina Frahm (left to right).

Seagulls calling in the distance, the blast of a container ship's horn, the clatter of trolley bags as tourists alight from a cruise liner, sizzling fish meatballs on the high street and the leisurely chit-chat of friends relaxing in the sun: this is the impressive soundscape that accompanies you on the way from Kiel central station to the "Haus der Wirtschaft" (House of Commerce and Industry), a 20 minutes' walk away at the edge of Kiel's historic centre. The listed 1950s building is located by a small lake with a view of the skyline of Kiel's historic centre. The Haus der Wirtschaft is the headquarters of the Business Development and Technology Transfer Corporation of Schleswig-Holstein (Wirtschaftsförderung und Technologietransfer Schleswig-Holstein GmbH, (WTSH)) and is directly adjacent to Kiel's Chamber of Industry and Commerce. And right in the middle, we find DiWiSH Cluster Management, the cluster management unit for the Digital Economy of Schleswig-Holstein (DiWiSH).

Direct link to the (digital) economy in Schleswig-Holstein

DiWiSH is the network for all small- and medium-sized enterprises in the IT, media and design sector in the region that stretches from the North Sea to the Baltic Sea. Since 2006, the goal of the cluster management unit, in tandem with the

DiWiSH e.V. association, has been to promote and strengthen the digital economy in Schleswig-Holstein and to help the businesses in this digital ecosystem achieve their business objectives. DiWiSH Cluster Management was founded in 2006 on the initiative of the then *Land* government in collaboration with WTSH and DiWiSH e.V. Together the partners devised the idea to develop cluster management. For the purpose of co-funding and strategic support, the Kiel-based association „Community Treff“ and the Flensburg association „Schleswig-Holstein Multimedia und IT“ merged to form DiWiSH e.V. During the first three years, DiWiSH e.V. and the WTSH had joint responsibility for cluster management: the WTSH provided the cluster manager, while DiWiSH e.V. employed additional staff on the basis of the funding. In 2009, the WTSH assumed sole responsibility for cluster management under a contractually agreed partnership with DiWiSH e.V. As a result, DiWiSH Cluster Management is both physically and organisationally part of the WTSH, underlining the successful public-private collaboration between DiWiSH e.V. and the WTSH. In terms of financing, the cluster management unit today receives 50% of its funding from funds under the *Land* "Economy" programme, channelled from funding under the European Regional Development Fund (ERDF), 30% from

What the members say

Dr. Gerrit Jochims
CEO IdeaChamp
Innovation GmbH:



“IdeaChamp Innovation GmbH is a DiWiSH member by conviction. DiWiSH is an effective gatekeeper that unites its members with empathy and skill. Productive and mutually beneficial communication and dialogue between the individual organisations is actively promoted, and DiWiSH is very quick to get things done. Partnerships that create synergies are formed – we’ve experienced that first hand. For us, membership gives us a clear information edge, an advantage that helps to set us apart from the competition and also benefits our customers.”

DiWiSH e.V. membership fees, and 20% from the WTSH’s own funds.

“Our close ties to economic institutions mean we always have our finger on the pulse and are acutely aware of the issues that affect businesses in Schleswig-Holstein,” says Dr. Johannes Ripken, a project manager at the DiWiSH cluster since January 2020. “The beauty is that we influence the digital economy from the inside and can advance and further develop the ecosystem but – thanks to our proximity to the WTSH and Kiel’s Chamber of Industry and Commerce – also have access to the “general” economy that is to be digitalised.” In the early days of DiWiSH, cluster management was focused squarely on the development of a stable network in the region, the promotion of knowledge-sharing among the members, and on gradually making the industry an integral part of the Schleswig-Holstein economy. In recent years, however, it has increasingly broadened its horizons and now also has a clear focus outside the sector. “A well-functioning network is important. However, if the digital sector only conducts projects with partners in its field, there is no chance to achieve greater added value,” Ripken explains. “Therefore, this move to step outside the sector is particularly important for our members – and also for the visibility of our cluster and the digital economy in Schleswig-Holstein”.

DiWiSH increases the visibility of the digital sector in northern Germany

Specifically aiming to enhance this cluster visibility, DiWiSH has launched a number of successful communication campaigns in recent years. In one, DiWiSH drew attention to digital innovations and players in the region with the hashtag “#hiergehtwas – echt digital der Norden”. It also organised over 20 activities, including participation in the Kiel Digital Week, held annually in September, or the Lübeck Gateway49 Accelerator Programme. In the campaign, it also conducted exciting interviews, like that with Windcloud 4.0, a start-up that provides data centres with renewable energy – 100% of which is generated locally – and uses any resulting waste heat for an algae farm. A three-minute film was also produced to show what makes the digital industry in Schleswig-Holstein so special: great ideas, strong projects, brilliant minds, productive exchange and communication across the region and beyond coupled with the stunning landscape and backdrop between the North Sea and the Baltic Sea. On-site visits to companies by Dr. Bernd Buchholz, then *Land* Minister for Economic Affairs, Transport, Labour, Technology and Tourism in Schleswig-Holstein, were another cornerstone of the campaign. The minister visited 16 DiWiSH member companies in total and the businesses had the opportunity

to introduce themselves and voice their needs. This resulted, for example, in better collaboration between Dataport, the IT service provider for public administration in Schleswig-Holstein, and the private companies in this sector.

Another successful DiWiSH communication campaign was “Women@Tech”, the brainchild of the “Frauen@DiWiSH” specialist group. “The thought struck us one day that women in the tech sector should be more visible,” says Karin Heyn, a project assistant at DiWiSH for almost four years, and seen as a “walking encyclopaedia” in the team. “So we asked the women in the member companies to send us in a profile of their professional career. We expected to just get a handful of answers but in the end over 40 women replied.” This level of interest was encouragement enough for the DiWiSH Cluster Management team to launch “Women@Tech” and put together a modern campaign design with professional photo shoots in the space of a few months. The campaign then began with a kick-off event at the Kiel Digital Week, where four women were presented as role models for the tech industry. In collaboration with the “#bleiboben” skilled labour campaign of the Schleswig-Holstein Economics Ministry, which encourages people to stay in Schleswig-Holstein and build their career there, a professional video was made about one of the four women and her career path. In addi-

What the members say



Dr. Christoph Jansen – President of the Flensburg University of Applied Sciences:

“The Flensburg University of Applied Sciences has been a DiWiSH member since 2011; and as university president I have been actively involved in the cluster advisory board for four years. For us, it is important to pave the way for our graduates. In addition to training graduates for emerging fields with great potential for growth, such as sustainability, energy and life sciences, we are also currently training around 1000 skilled IT specialists to meet the challenges of the digital labour market and society. The range of study programmes runs the gamut from IT security to e-Health. Obviously examples of business practice are very valuable. In dialogue with professionals in the field, we learn how we as a university can embed our academic qualifications and skills into the general requirements of the industry. We work together with DiWiSH to address this, both as a project initiator and as a co-organiser.”

tion, DiWiSH has also visited schools with some of the women to talk to pupils about their career choices. Since then, the profiles of the women in tech have appeared regularly in the newsletters and recently they were asked to send in a short film of themselves inspired by the headline: “I am a Woman@Tech because...”

“We then uploaded the films directly to TikTok and Instagram, which caused quite a stir. We really weren’t expecting that,” says Nastasja Heuer, who joined DiWiSH at the start of the year and whose responsibilities include social media and online marketing. “The women’s videos have a huge number of views”. With this campaign, DiWiSH successfully managed to create a high-profile platform and illustrate the breadth of the digital industry. Far from solely being the domain of computer techies, it can also be the working environment for women and men from the fields of design, German literature and language, or sociology.

Specialist groups setting the agenda in the digital economy and society

“Frauen@DiWiSH” is not the only specialist group that manages to set the agenda for the digital economy in the “real north”. The topics of digitalisation and artificial intelligence were also first dealt with in DiWiSH before being elevated to the Economics Ministry or State Chancellery.

Even the fact that information technology (IT) has become a compulsory subject in Schleswig-Holstein's schools can be traced back to DiWiSH. The original idea to introduce the subject came from the "Digital Education in Schools" specialist group. After more than five years of intensive collaboration between the cluster management unit, DiWiSH e.V., the State Chancellery and the Ministry for Education, it was finally announced in November 2021 that IT was to become a core-curriculum subject. A major achievement for Schleswig-Holstein and one in which DiWiSH played a central role.

There are currently 18 specialist groups in total, handling a variety of topics including digital education, IT security, new work, smart cities and even games development and e-sports. "The specialist groups are an important element of networking at DiWiSH," says Anna Christina Frahm, a project manager at DiWiSH for around five years. "They are an excellent platform and a great way for members to get to know one another and intensively share information on the topics that truly interest them". Aside from the specialist groups, the team at DiWiSH holds in-depth talks with the members that are repeated every two years on average. New members are introduced in the network's newsletter and members are regularly invited to attend relevant events or

are actively included in the events themselves. "For us, it is always extremely important to raise the visibility of our great member companies in Schleswig-Holstein," Frahm says. "Furthermore, we are delighted that the members get involved and bring their knowledge and expertise to the network – all with the goal of advancing the digital economy in Schleswig-Holstein."

DiWiSH projects make Schleswig-Holstein a digital trailblazer



The solar beach chair makes it possible to live and work directly by the sea.

Members not only demonstrate this level of dedication and commitment in the specialist groups but also in the collaborations and projects that DiWiSH Cluster Management organises as a project partner, such as the "Care AI" project, for

example. This German/Danish network project seeks to find solutions to support decision-making in connection with digitalisation and artificial intelligence in eldercare. Within this framework, DiWiSH works with higher education institutions, IT and AI businesses, nursing care providers and the Danish Life Science Cluster. The aim is to lay the foundation for a large-scale flagship project concept that develops innovative German/Danish cross-border collaboration. Furthermore, the project seeks to raise international awareness for current and future needs and challenges in the eldercare sector that can be addressed with AI.

“Digital visitor management” is another exciting project that DiWiSH Cluster Management is currently working on. The aim of the project is to prevent overcrowding at Schleswig-Holstein’s beaches in the future and to direct visitors to other, emptier beaches using smart technology. Complementing this, DiWiSH is also working on a solar beach chair in the “ClapSolar” project: this allows people to live and work directly by the sea and makes it possible to stay connected and work from anywhere, while also using the sun as a natural and plentiful power source.

Last but not least, DiWiSH members are also involved in a “CXO network” where primarily the CEOs of the member companies actively dis-

cuss the Online Access Act (*Onlinezugangsgesetz*) – the provision of all public services online – and develop projects in this context. The aim is to ensure a more democratic approach to service contracts for online public services, i.e. that the task of implementation can also be awarded to small local businesses and not only to large corporations. The plan is to set up a kind of a “shop” where the businesses can offer their services. All this has been and will be organised in close collaboration with the Minister and Head of the State Chancellery, Dirk Schrödter, Zentrales IT-Management Schleswig-Holstein (*Land* government division with responsibility for IT strategy), ITV.SH, the now former Minister for Economic Affairs, Dr. Bernd Buchholz, and other political figures.

DiWiSH addresses the top issues of the future

The projects that DiWiSH will tackle in the future is now clearer than ever before. In a recent strategy meeting, the team defined four action areas that will be particularly important for the network and for its members in the coming years.

- Skilled labour and further training: How to attract more skilled workers for the digital economy to Schleswig-Holstein? How can

workers in the general economy increase their affinity for digital technology? How to optimise the interaction of people, space and technology against the backdrop of new work?

- **Visibility:** How to increase the visibility of the digital sector in Schleswig-Holstein? How can campaigns and events contribute to this goal even more effectively than before and improve networking both within the sector and beyond?
- **Digital transformation:** How can the digital transformation be achieved in the business sector, administration, society and schools? How can we convince people to get on board?
- **Sustainability and ethics:** How can the industry's carbon footprint be reduced and the use of renewables intensified? How can ethical principles, particularly in AI, be developed and enshrined?

These and other topics are also reflected in the current general activities of DiWiSH. On 1 July, the “Level Up Your Business” business day was held at Gamevention in Neumünster, where DiWiSH Cluster Management prepared fun and engaging methods and technologies for the mid-market, including game-based learning, gamification, augmented reality (AR), virtual reality (VR) or drones for the business community in Schleswig-Holstein. “This area offers huge potential for skilled labour development,” says Ripken.

“If roofers use drones rather than a yardstick to survey a house in the future, that will certainly make the job more attractive.” Other highlights this year include the Kiel Digital Week, “Flensburg digitalisiert”, and the (previously postponed) celebration to mark DiWiSH’s 15-year anniversary in September. With this approach, we manage to present our topics in an attractive format, thereby promoting our network but also specifically driving forward digitalisation in Schleswig-Holstein!”



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The “go-cluster” programme



The “go-cluster” programme is used by the Federal Ministry for Economic Affairs and Climate Action to promote cluster excellence. It brings together the most productive innovation clusters in Germany. These innovation clusters have excellent structures and support cluster players according to their needs in various fields of activity. Under the “go-cluster” programme, the Federal Ministry for Economic Affairs and Climate Action provides advisory and other services to aid the innovation clusters in their professional development to become organisations with global excellence in their fields, and strengthens international networking among innovation clusters.

In order to be admitted to the programme, organisations need to fulfil a number of excellence criteria in the areas of structure and composition, cluster management and structure, activities and cooperation, and visibility and impact. Candidates must go through an application process. The necessary forms are available at www.go-cluster.de.

Whether it be for cluster managers, cluster players or representatives from the political field, science or business, the “go-cluster” programme offers services that are geared to the needs of the respective target group. Innovation clusters taking part in the programme receive the following free services:

The “Clusterplattform Deutschland” website is a joint initiative by the Federal Ministry for Economic Affairs and Climate Action and the Federal Ministry of Education and Research. At www.clusterplattform.de you can get a clear and concise overview of cluster-related activities at state, national and EU level. In addition, a search tool offering a variety of search categories is used to reflect the diversity of Germany’s cluster landscape.

Are you interested in the “go-cluster” programme, or do you have any questions about it?

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