cluster-dialog
BADEN-WÜRTTEMBERG

Regional Cluster Atlas Baden-Württemberg 2012

Overview of cluster-related networks and initiatives

Baden-Württemberg
MINISTRY OF FINANCES AND ECONOMICS

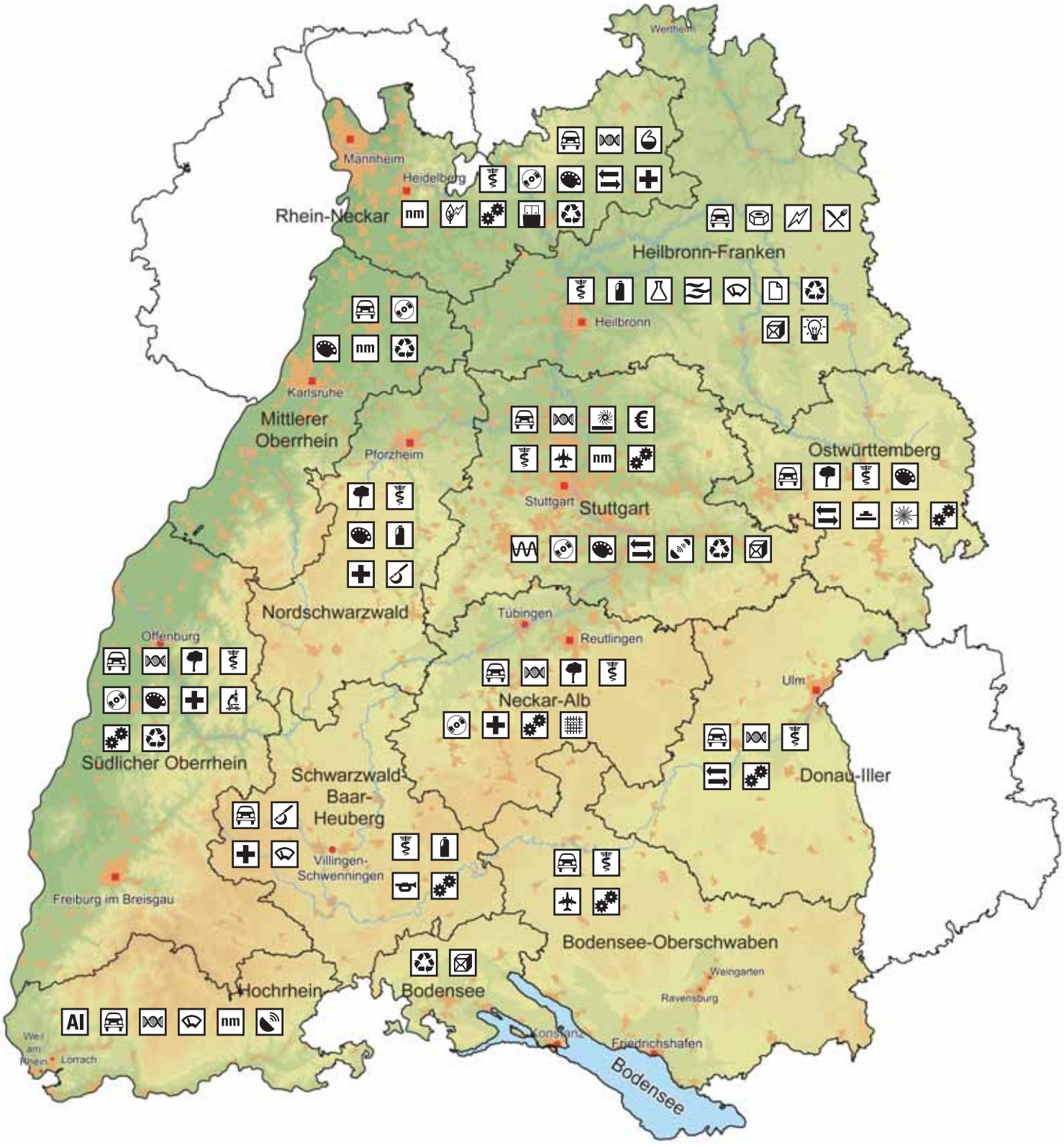
Regional Cluster Atlas Baden-Württemberg 2012

Overview of cluster-related networks and initiatives

Legend for regional cluster map

- Aluminium processing
- Automotive
- Fastening technology
- Biotechnology
- Chemicals
- Energy
- Food industry / nutrition
- Precision engineering etc.
- Finance
- Forestry and timber
- Health industry
- Information technology / enterprise software
- Industrial component and surface cleaning
- Creative industries
- Plastics technology and plastics processing
- Lab glass
- Logistics
- Aerospace
- Ventilation technology
- Medical engineering
- Measuring and control technology
- Metal processing
- Microsystems technology
- Music industry
- Nanotechnology
- Surface technology
- Organic electronics
- Paper processing
- Photonics
- Production technology
- Radiofrequency identification
- Satellite communication
- Satellite navigation
- Storage systems and smart grids
- Textiles and clothing
- Environmental technology
- Packaging technology
- Knowledge industry including business-related services
- Chipping / metal working / founding

Regional cluster map Baden-Württemberg



Foreword

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Clusters and Cluster Initiatives in Baden-Württemberg

Research and development are the basis for technological progress and so a precondition for sustainable economic growth. Over the past years, it has shown that cluster initiatives provide decisive advantages for enterprises and activate their innovative potential. Companies may rely on a tightly woven network and benefit from synergies. Industry-specific and local concentrations ensure a quick and personal exchange of knowledge and expertise. Research institutions and specialised suppliers allow those companies to recognise market and innovation trends early, to work towards and realise innovative solutions jointly. Contributing to cluster initiatives actively provides added value for every participating company.

In Baden-Württemberg, state-wide networks and regional cluster initiatives have started to form early; and they have become well established due to the consequent and sustained support through the state government. This cluster atlas impressively shows the great variety of activities and the diverse spectrum of clusters and initiatives in this state: We could identify more than 130 cooperations of this type in the state of Baden-Württemberg.

The goal of this cluster atlas and of the web-based cluster database is to provide hands-on assistance to state politicians as well as the decision-makers in the various regions and associations. Both media will give you an outstanding overview of the existing and also planned regional clusters and cluster-relevant research, development and transfer institutions. They will help you find possible starting points for further regional, cross-regional and cross-border networking options. And they provide opportunities for companies to find contacts within specific industries quickly and efficiently.

Now, this third updated version of the cluster atlas impressively illustrates the development and professionalisation of the Baden-Württemberg cluster landscape. And in a national and European context, this piece of work is an important tool, too.

The cluster atlas and the database are essential components of the broad and diversified cluster policy and cluster promotion through the Ministry of Finances and Economics.

Dr. Nils Schmid
Deputy Prime Minister and
Minister of Finances and Economics of Baden-Württemberg

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Introduction

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Basis

In Baden-Württemberg, a complex and differentiated cluster landscape has developed over the past years. A great number of companies, research institutions and universities is involved in regional cluster initiatives and in state-wide networks. The stakeholders of these cluster initiatives interact effectively, on a high level. With this cluster-oriented approach, innovative processes are enabled through an interdisciplinary and organised exchange of knowledge and expertise.

The development of innovative products and services generates competitive advantages for the cluster stakeholders in the national and international markets. Therefore, the development and sophistication of future-proof regional clusters will gain more and more importance. The Baden-Württemberg state government intends to support this development of regional, national and international clusters systematically with its cluster initiatives. Therefore, the various cluster-related activities represent important instruments of the state's innovation and structure policy. In addition to the financial support of effective cluster management structures with EFRD funds, internationalisation measures and support for cluster managers in form of workgroups and cluster-specific qualification events, it is the state government's intent to show and promote the diversity of the regional clusters and cluster initiatives.

This is why the Ministry of Finances and Economics has commissioned VDI/VDE Innovation + Technik GmbH located in Berlin to update the regional cluster atlas published in 2010. The data collected in this updating process also represent the basis of the web-based cluster database (Website: www.clusterdatenbank-bw.de).

Since the last update in 2010, there have been numerous changes with cluster initiatives, state-wide innovation networks and within the cluster landscape in general. These are partly due to the regional cluster competition conducted in Baden-Württemberg, the Leading-Edge Cluster Competition of the Federal Ministry of Education and Research, activities in the private sector, but also to the contextual and strategic development of cluster policy.

Objectives of the cluster atlas

The cluster atlas provides cluster politicians on the state, federal and European levels, and cluster politicians in the individual regions, in associations, clubs, companies and academic and research institutions with

- An ordered overview of regional clusters, existing innovation-targeted cluster initiatives and cluster-relevant research, development and transfer institutions in the various regions of Baden-Württemberg (Transparency function);
- Basic information on the relevant regional clusters and their initiatives;
- A basis for identifying further regional, supra-regional and cross-border networking options; and
- An important source of information for promoting Baden-Württemberg as a business location to domestic and foreign investors.

In this update, the major changes made in the 2010 edition of the regional cluster atlas were maintained:

- The data basis for the individual cluster initiatives has been improved, in width and in depth;
- The cluster-relevant information about the regions has been enhanced;
- It has adopted the newly established regional cluster initiatives resulting from competitions and other initiatives and state-wide and cross-region networks and platforms;
- It has assigned the regional clusters to the defined target fields of the state's cluster policy;
- Presentation was improved by adding descriptions of cluster networks and platforms across the state and across regions.

Data base

In 2010, a web-based data base was created for the state of Baden-Württemberg for the first time. It shows the great variety of regional clusters and cluster initiatives. Supplementing this regional cluster atlas, it presents the clusters and cluster initiatives in detail. This data base is updated continuously as new facts become known with respect to existing or new clusters and cluster initiatives. Its website address is: www.clusterdatenbank-bw.de

Data basis

The structural data and the innovation-specific information on the regional clusters and cluster initiatives were collected with uniform structured data collection sheets, in close cooperation with the contacts in the twelve regions. Lacking a suitable statistical basis, creation of the cluster atlas and the data base was based on the data collected by the contacts for the regions and the various cluster initiatives. This data collected on the basis of a self-assessment of the cluster initiatives was supplemented by analyses of relevant paper and electronic documents from the regions and the statistical office of Baden-Württemberg. Additional sources of data were thorough web and data base searches and our own knowledge of Baden-Württemberg.

For example, the descriptions of the twelve regions have been completed by specific structural data (Breakdown of employees subject to social insurance contributions[1] and presentation of the most important industries[2]). In addition, the innovation power of the various regions has been rated in accordance with the innovation index based on the data and calculations of the Baden-Württemberg statistical office.

The innovation index comprises two sub-indexes, „Level“ and „Dynamic“. The level index includes the relevant recent unit and per capita values of six innovation indicators and shows the current status of the innovation potential of the regions examined.

The following factors have been considered in the calculation of the innovation index for the Baden-Württemberg urban and rural districts (survey period shown in brackets):

- Internal R&D expenses of companies, in relation to the gross value added of the manufacturing industry and real estate business, corporate services, in percent (1999-2007)
- R&D personnel in companies (equivalent to full-time personnel) related to the number of employees (per capita) in the manufacturing industry, real estate sector and corporate services in percent (1999-2007)
- Employees subject to social insurance contributions in industrial high-tech industries related to the total number of employees subject to social insurance contributions in percent (2003-2009)
- Employees subject to social insurance contributions in skill-intensive service industries related to the total number of employees subject to social insurance contributions in percent (2003-2009)

1 Source: Bundesagentur für Arbeit
2 Source: Statistisches Landesamt Baden-Württemberg (Baden-Württemberg statistical office)

- Start-ups in high-tech industries per inhabitant aged 21 to 59 (two-year average 2003/2004-2008/2009)
- Published patent applications by industry and science in relation to the number of inhabitants aged 21 to 64 (1999-2007)

The dynamic index indicates the average change rates per year of these six indicators, in general since the end of the 1990s; thus, it is an indicator for the medium-term development of innovation capability. For calculating the innovation index, the values of the twelve indicators have been standardised; the highest indicator value being 100 and the lowest being 0. All indicators have been included in the sub-indexes „Level“ and „Dynamic“ with the same weight; finally, they have been merged in the innovation index at the ratio of 3:1[3].

The cluster atlas and the data base do not represent statistical works because they are continuously updated with new findings regarding existing but also new clusters, cluster initiatives, networks and platforms, on a regional, state and cross-regional basis.

Structure of the cluster atlas

For practical reasons (interdependence of sectors, competences of different chambers of commerce) the cluster atlas follows the order of the twelve regions of Baden-Württemberg as specified in the state development plan. In two cases, these are cross-border regions (Rhein-Neckar and Donau-Iller).

Each region is described as follows:

1. A brief introduction of its characteristics with the relevant structural data and a map showing its location;
2. A regional map showing approximate locations and names of the regional clusters;
3. Individual descriptions of the regional clusters with associated cluster initiatives including contact data; and
4. An overview of universities, research and transfer institutions of relevance for the regional clusters.

The individual regional clusters are merged in a matrix-like summary. With this, basic networking options of clusters can be identified, across administrative borders and competences. This update also includes, in addition to the presentations of individual regions, the state-wide and cross-regional networks and platforms including contact data.

Tables with contact data of official regional contacts, contacts of regional cluster initiatives and state-wide networks and platforms facilitate communication and contact.

Terms, definitions and characteristics

This Baden-Württemberg cluster atlas is based on the following definitions for clusters, cluster initiatives and state-wide networks[4]:

Cluster

Cluster means a geographically defined region’s layout as an “innovative economic cluster”; that means the targeted collaboration of companies – that may even be competitors – and other partners from research, science and other organisations within an economic area for a higher overall benefit. This collaboration may develop in

3 Source: Statistisches Landesamt Baden-Württemberg (Baden-Württemberg statistical office). Statistik AKTUELL. Innovation index 2008, edition of 2009
4 See: Analytical and conceptual bases for cluster policy in Baden-Württemberg. 2008 (Prognos AG for the Ministry of Economics of the state of Baden-Württemberg)

diverse ways. So, during the lifetime of a cluster, at some times research-driven topics may dominate and at other times purely economic topics such as marketing may be in the focus of activities.

Including but not limited to, essential qualifying criteria for regional clusters may be:

- Topical market-related proximity (horizontal: same products, services; vertical: same value adding chain or level thereof);
- Geographic or spatial proximity (fast accessibility, capacity for easy coordination),
- Adequate number and density of companies (critical mass) and
- At least a national sales potential for products or services and consequently a high export capability from the regional point of view.

These central elements allow a corporate cluster culture capable of engendering spatial cohesion. Only the conformity of content combined with spatial proximity of the various stakeholders along the value adding chain allows implementation of innovative processes. Criteria therefore are the spatial proximity of companies and institutions of applied research, universities, universities of applied sciences or transfer institutes. These are of immediate importance for the innovative development of products and thus for the adding of value within the cluster. Indirectly, they also represent an important source for future generations of specialists.

It should not be forgotten that regional economic clusters in the past often evolved without the involvement of scientific institutions such as universities, research or transfer institutes. In many cases, it is the client, its product and application experience and the resulting ideas for improvement that form a central source of impetus for innovative product and process solutions.

Cluster initiatives

Cluster initiative means the strategic and systematic alignment and documentation of innovation-oriented cooperations evolved from the networks (Marketing), the targeted closing of gaps, for example with regard to competences or the value adding chain, and the integration of activities into organisations, for example by associating with supporting bodies. Often such cluster initiatives are part of a regional structure policy or innovation policy, as part of the promotion of the economy or transfer of technology, or have been established in such a context. An important criterion is that the cluster participants see and intend a stronger individual and overall benefit through the common goal of systematic and organisational collaboration within the cluster that cannot be achieved on their own. In contrast to supra-regional and state-wide networks or loose forms of cooperation, they are characterised by the fact that they are regional and that they systematically activate innovative cooperation potential for generating synergies and growth.

Based on these definitions, pure competence, marketing and innovation networks or technology centres and other networks without an innovative cluster-relevant relation, for example tourism organisations, were not included. Tourism-related initiatives were included to an extent only that they relate to or support health services.

State-wide and cross-regional networks or platforms

State-wide networks and also innovation platforms take responsibility for the state-wide coordination and moderation of the relevant regional clusters or cluster initiatives, together with other partners such as location agencies, exhibition corporations or transfer institutions, to strengthen the synergies. It is in their responsibility to focus on existing networks and regional cluster initiatives with regard to their effects on the value adding chain and the advancement of competencies, for better adjustment and effective coordination and cooperation at a state level.

Target fields of cluster policy

In the course of the study “Analytical and conceptual bases for cluster policy in Baden-Württemberg“, conducted for the Ministry of Economics and presented in 2008, 18 different promising target fields of cluster policy with respect to individual industries, technologies, market fields and cross-section technologies have been identified and discussed by the state government. Identification of target fields and assignment of existing regional cluster initiatives to these target fields provide the basis for a further characterisation of the regional clusters but also for a consequent development of cluster initiatives.

Overview: Assignment of industry sectors (themes of regional clusters) to cluster policy target fields

Target field of cluster policy	Reasoning for cluster development	Industry sectors (Presentation in accordance with the federal statistical office's system of industry sectors (WZ 03))
Automotive	Leading car manufacturers and a strong supplier industry are characteristic for Baden-Württemberg's automotive industry. Its wide value adding spectrum is a fundamental characteristic of the automotive industry who also tries to integrate its suppliers into the production processes and at the production sites in order to achieve a lower vertical range of manufacture. So, suppliers from the most different industries take over large shares of development and production.	Vehicle production, electrical engineering, metal industry, rubber / plastics industry
Biotechnology	Biotechnology is considered one of the key technologies of the 21st century. The core area of biotechnology is red biotechnology which mainly includes biopharmaceuticals, regenerative medicine and diagnostic tests. Other areas are green and white biotechnology. It cannot be assigned to a single sector but is found in a great variety of applications.	Medical engineering, pharmaceutics, chemicals
Energy	Baden-Württemberg as an energy location offers best conditions for energy providers and manufacturers of energy technology for both, conventional and also regenerative energy. Baden-Württemberg has strong competences in the utilisation of regenerative energy. In the area of fuel cell technology, Baden-Württemberg is one of the pioneers in Germany. For the automotive industry in particular, this is of high relevance.	Energy production, mechanical engineering, automotive, measurement and control technology
Information technology. IT[5] applications / enterprise software	The Baden-Württemberg IT industry employs 232,000 people. With an industry share of 18 %, almost one out of five jobs in the German IT industry is found in Baden-Württemberg. Fundamental catalysts for the positive development in recent years have been the establishment of new basic technologies in the industry and the development of intercompany internet platforms (B2B, E-commerce) and public partner networks in the area of enterprise software.	IT / software
Logistics including intralogistics	Logistics is one of the basic functions of the modern economy based on the division of labour. Sophisticated logistic services are a prerequisite for the successful integration of our industry into global procurement and distribution structures. In official statistics, the logistics industry is not reported as an individual industry. Repeatedly, special analyses have shown, however, that the wider logistics industry with just under 400,000 employees is one of the largest industries in this state.	Logistics including transport and telecommunication, logistics-related industries, logistics-related services, mechanical engineering

5 IT = Information technology

Target field of cluster policy	Reasoning for cluster development	Industry sectors (Presentation in accordance with the federal statistical office's system of industry sectors (WZ 03))
Aerospace	Represented are leading aerospace companies in Baden-Württemberg. In recent years, the aerospace industry was characterised by a strong growth in jobs. Strong networks between research institutions and the relevant enterprises play a crucial role in utilising this growth potential.	Vehicle production and other manufacturing industries such as mechanical engineering, metal, plastics and electrical engineering, etc.
Mechatronics	Mechatronic systems combine mechanical, electrical and data processing components. Its main focus is on supplementing and upgrading mechanical systems by adding sensors and microchips to realise semi-intelligent products and systems.	Mechanical engineering, electrical engineering, IT/software, automotive
Media, culture and creative industries	These industries represent the operative sector of the culture and creative industry, engaged in the creation, production, distribution or media-based distribution of cultural/creative goods and services. Baden-Württemberg hosts about 16 % of the jobs in this sector in Germany (in about 29,000 companies).	Book market, art market, film industry, radio industry, performing arts, design industry, architecture, press, advertising, software and games industry
Medical engineering	Due to its strength in employment and sales and its high export rate, medical engineering is an important model and growth industry with excellent competitiveness internationally and good future prospects. Collaboration of medical engineering and health industry provides many opportunities for innovations and accelerates the time-to-market for new medical devices. This networking of the two industries is an important prerequisite for pioneer applications.	Medical engineering, health and social services
Microsystem technology including nanotechnology	Microsystem technology downsizes and at the same time increases efficiency of components and this is applied in more and more products in the most different industries. To a great extent, microsystem technology is represented by highly specialised R&D institutions and companies in different user industries. The importance of this industry reflects the importance of this technology.	Automotive production, mechanical engineering, measurement and control technology
New materials/surfaces	The development of new materials and surface features is equally important for many industries in Baden-Württemberg. For the various industries, the development of new materials and surface features is an important part of their innovation management in order to maintain or improve their competitive position. Therefore, the development and application of new materials is one of the strategically important fields of technology in the economy.	Information and communication technology, automotive, mechanical engineering, medical engineering, metal industry, plastics, jewellery, textiles

Target field of cluster policy	Reasoning for cluster development	Industry sectors (Presentation in accordance with the federal statistical office's system of industry sectors (WZ 03))
Pharmaceutical industry	Compared to Germany as a whole, the pharmaceutical industry is strongly represented here. One out of four jobs in the German pharmaceutical industry and one out of three of the 30 most job-intensive German pharmaceutical locations are located in Baden-Württemberg. On the contrary, the chemical industry, in a narrower sense, concentrates at some locations only.	Chemical, pharmaceutical sub-industry
Photonics	On the one hand, optical technologies form an independent well-established high-tech industry, and on the other hand, they are more and more often considered enabling technologies. Baden-Württemberg takes a leading position here within Germany. The range of optical technologies includes, for example, lighting technology, information and communication technology, measurement and control technology, medical engineering, biophotonics and production engineering. Especially the synergies resulting from the cross-linking of these industries make for the future prospects of the value adding chain. Due to its general importance it highly influences many other production areas.	Optical industry, measurement and control technology, electrical engineering
Production technology including Mechanical engineering	With respect to employment in total, production technology is the largest sector of the manufacturing industry and a major pillar of the Baden-Württemberg economy and it is the leading mechanical engineering location in Germany. The high demands on production engineering result from increasing specialisation and the emphasis on system solutions. Innovative projects are generated through cross-industry cooperations, thus achieving competitive advantages.	Mechanical engineering (and metal industry, electrical engineering)
Satellite navigation	The main users and consumers of classic satellite navigation in Baden-Württemberg are the aerospace industry and increasingly the automotive industry as well. Of special importance, however, are enterprises who apply satellite navigation technology. The Galileo satellite navigation system will be another catalyst.	Aerospace industry, automotive industry, IT/software
Security technology	Security technology represents a very heterogeneous technology that is firmly anchored in Baden-Württemberg, interdisciplinary and cross-industry. Security technology covers the areas of sensor technology, identification and access control technology, for example biometric processes, structural protection for buildings, microsystem technology, IT security, telecommunication and more.	Electrical engineering, optics, IT/software, telecommunication, production engineering, etc.

Target field of cluster policy	Reasoning for cluster development	Industry sectors (Presentation in accordance with the federal statistical office's system of industry sectors (WZ 03))
Telecommunication	In some regions, we see a concentration of the telecommunications industry and their great economic importance there. These regional centres include the Stuttgart, Mannheim, Karlsruhe and Ulm areas.	Telecommunication engineering, electrical engineering, IT/software
Knowledge industry including business-related services	Providers of such services are, for example, engineering companies, consultancies, marketing, research and development service providers. They represent important elements of the industrial value adding chain, they are closely linked to the industry and are of general importance for various stakeholders.	Business related services

The target fields of health industry and environmental technology have been added as well; they have been integrated into above target fields. Their separate listing accounts for the growing importance of both field of politics and supports operative policy implementation.

Not all of the identified regional cluster initiatives can be clearly assigned to these 18 target fields (plus health industry and environmental engineering) of cluster policy; some of these regional clusters and their initiatives relate to more than one of above target fields. In particular, this applies for clusters such as electromobility, packaging technology, surface technology or fastening technology that have their own specific roles.

Because of this and because of the partly historical importance of these regional clusters, the original cluster description was basically maintained, also to maintain their specific identifying regional character. These clusters were assigned to one or several target fields which shows in the listing of the target fields of cluster policy. A thematic outline of the fields of industry or technology characterising the clusters is given in Overview 1 "Fields of industry and technology of regional clusters".

Stuttgart

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The region

The Stuttgart region is the spatial and economic centre of Baden-Württemberg and stretches over 3,654 km². The region includes the city of Stuttgart and the surrounding districts of Böblingen, Esslingen, Göppingen, Ludwigsburg and Rems-Murr-Kreis. Approximately 2,674,500 people live in this region. More than one out of four employees in the state of Baden-Württemberg works in this region. Compared to the state of Baden-Württemberg, the economy of the Stuttgart region is less characterised by production and more by the services sector. A reason for this is that the share of corporate service providers is above state average.

In detail[6]:

- Production sector: 34.8 % (State: 37.8%)
- Services sector in total: 64.8 % (State: 61.8 %)
  - Trade: 13.2 % (State: 13.8 %)
  - Corporate service providers: 14.6 % (State: 11.6 %)
  - Transport: 4.2 % (State: 3.9 %)

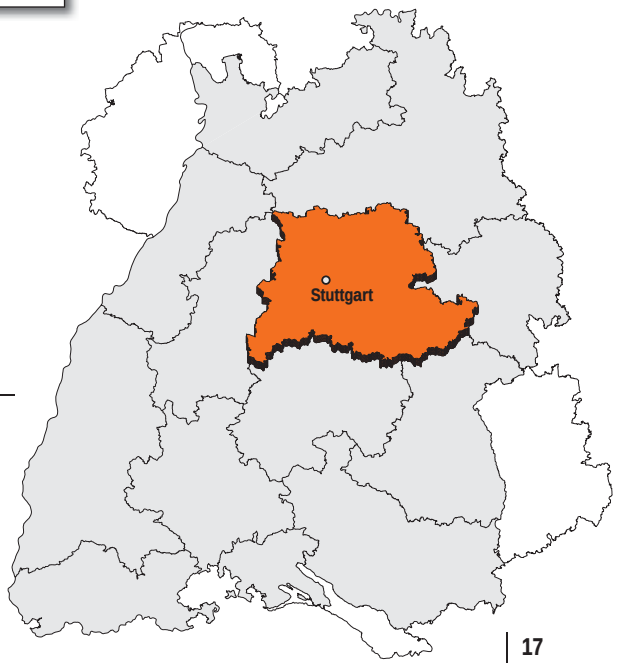
On a global scale, the Stuttgart region is the leading engineering location. This position is supported by the extensive research and development capacity in the region, whose close geographical ties to the production of complex system goods forms the basis of the strong international competitive standing of the region. The relevant automotive, mechanical engineering and creative industries clusters – also in conjunction with allied clusters in adjacent regions – achieve an almost unique real net output ratio. The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Vehicle production and suppliers;
- Metal industry with mechanical engineering and production of metal products and
- Information services.

Compared to other regions of Baden-Württemberg, it is the top-ranking region with regard to innovation power. The region hosts numerous globally leading companies or their subsidiaries that have outstanding research and development capacities. While the innovation level reached is far beyond average, its innovation dynamic is slightly below the state average, which is due to the high level achieved so far.

The index values[7] for the region are as follows:

- Total index: 46.8 % (State: 35.6 %)
- Level index: 51.6 % (State: 35.7 %)
- Dynamic index: 32.5 % (State: 35.4 %)



6 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011
7 Note : For an explanation see section „Data basis“

The region's clusters and cluster initiatives

Automotive cluster

Target fields of cluster policy: Automotive

The automotive cluster continues to play a central role in the Stuttgart region – focus on „premium segment passenger cars" – with its major manufacturing companies and system suppliers of premier world ranking and a large number of highly competitive small and medium-sized suppliers. The value adding chain is represented within the region almost completely. The automotive cluster in the Stuttgart region affects many other regions of the state of Baden-Württemberg.

CLI[8]: CARS – Cluster initiative Automotive Region Stuttgart

CARS and the sub-project CARS IT help strengthen the Stuttgart region as an important vehicle production location on a global scale and bring forward the region as a location for suppliers of new technologies (electric mobility) and services around the topic of mobility. In addition to managing the cluster, the cluster initiative is responsible for providing customised information to the target groups and for improving communication within the cluster.

CARS – Cluster-Initiative Automotive Region Stuttgart
c/o Wirtschaftsförderung Region Stuttgart GmbH

Holger Haas *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-14* *Fax: +49 711 22835-55* *www.cars.region-stuttgart.de*

Biotechnology cluster

Target fields of cluster policy: Biotechnology

The excellent academic environment of three universities, five universities of applied sciences with focus on biotechnology and the research activities of internationally renowned research institutions in the biotechnology cluster form a strong basis that is necessary for the translation of good basic research into biotechnological applications. Through this outstanding academic infrastructure, the BioRegion ranks among the top German BioRegions. This growth potential reflects in the growing number of biotech companies located in this region. In addition, its collaboration with other innovative industries such as medical engineering and automation has intensified.

8 CLI = Cluster initiative

CLI: BioRegio STERN Management GmbH

BioRegio STERN Management GmbH is a common competence network, a place of contact and consultancy for start-ups, entrepreneurs and researchers in the area of biotechnology. BioRegio STERN promotes the cooperation of the most different disciplines such as medicine, bioengineering, sensor technology, nutrition science, biochemical analysis and bioinformatics. Its major focus is on regenerative medicine, medical engineering and automation for life sciences.

BioRegio STERN Management GmbH	
Dr. Klaus Eichenberg *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 870354-0* *Fax: +49 711 870354-44* *www.bioregio-stern.de*

CLI: Engineering – Life Sciences – Automation (ELSA)

The cluster initiative Engineering – Life Sciences – Automation (ELSA) aims to link the life sciences industry with the mid-sized engineering industry, to open up new fields of business at the intersections of the clusters and to identify solutions utilised in other industries. Companies from the life sciences cluster are encouraged to present their issues to the mid-sized engineering industry and so initiate new projects. Companies from the mid-sized companies of the engineering industry are to present their technologies, as options for the life sciences industry, with the intention of initiating new cooperation projects.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2010. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Engineering – Life Sciences – Automation (ELSA) *c/o BioRegio STERN Management GmbH*	
Dr. Kathrin Ballesteros Katemann/Simone Schell *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 870354-0* *Fax: +49 711 870354-44* *www.bioregio-stern.de*

CLI: Competence network Medtech & Biotech

The target of the Medtech & Biotech competence network is a more intense collaboration between medical engineering and biotechnology and the strengthening of both industries as key technologies within BioRegion STERN. Collaboration of these highly innovative but extremely differing industries is not only to bring forward the development and marketing of new biotechnological products and therapies but also to prepare the path for new convergence technologies.

Kompetenznetz Medtech & Biotech *(Competence network Medtech & Biotech)* *c/o BioRegio STERN Management GmbH*	
Dr. Klaus Eichenberg *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 870354-0* *Fax: +49 711 870354-44* *www.bioregio-stern.de*

Finance cluster

Target fields of cluster policy: Knowledge industry including business-related services

Following Frankfurt, the Stuttgart financial centre is one of the most significant German financial centres. Besides the largest state bank and the L-Bank, being the largest business development bank, especially leading insurance companies and building societies have their headquarters in the Stuttgart region. Furthermore, Stuttgart hosts the second largest German stock exchange, who is Europe's market leader in the segment of secured derivatives. Stuttgart also holds a strong market position in the fast-growing leasing market.

CLI: Stuttgart Financial

To promote Stuttgart as a location for financial services, Vereinigung Baden-Württembergische Wertpapierbörse e. V. established a centre for bundling the financial interests of the region under the brand Stuttgart Financial in 2007. Cofounders are the Ministry of Finances and Economics of Baden-Württemberg and Stiftung Kreditwirtschaft of the University of Hohenheim. This overall platform for financial issues in Baden-Württemberg is to strengthen the financial industry, for the benefit of its citizens and the economy. Stuttgart Financial's activities can be assigned to four categories: Organisation of events, communication with the financial centre's stakeholders and their linking and provision of information relevant for the financial centre and the promotion of research and education in the area of finances.

Stuttgart Financial
c/o Vereinigung Baden-Württembergische Wertpapierbörse e. V.

Ulli Spankowski *Börsenstraße 4* *70174 Stuttgart*	*Telephone: +49 711 222985-752* *Fax: +49 711 222985-661* *www.stuttgart-financial.de*

Health industry cluster

Target fields of cluster policy: Health industry

Renowned research institutions and universities, numerous hospitals and clinics and many small and medium-size enterprises form the health industry cluster in the Stuttgart region. In the area of biotechnology, there are many overlappings with other significant clusters in the region, too, for example with engineering. Main focuses are, for example, regenerative medicine, telemedicine, orthopaedics technology, drug production, health tourism and many other services.

CLI: Cluster initiative Health Region Stuttgart

This cluster initiative splits into two areas: (1) BeneFit Region Stuttgart – this initiative for corporate health programs is demand-oriented and informs companies in the region from outside the health sector about corporate health programs and corporate health management. (2) GesundheitsRegion Stuttgart is primarily offer-oriented, a network of service providers, research institutions, universities, health insurance companies and public bodies, which intends to intensify collaboration in the health sector.

Cluster-Initiative GesundheitsRegion Stuttgart
(Cluster initiative Health Region Stuttgart)
c/o Wirtschaftsförderung Region Stuttgart GmbH

Sebastian Menzel *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-875* *Fax: +49 711 22835-55* *www.gesundheit.region-stuttgart.de*

CLI: Health Region REGiNA

REGiNA stands for the development of a user centre for regenerative medicine in the regions of Stuttgart, Tübingen and Neckar-Alb. The knowledge and expertise of partners from institutions, clinics, companies and health insurance companies are bundled in this project to make regenerative medicine broadly available for the patients.

Gesundheitsregion REGiNA (Health Region REGiNA)
c/o BioRegio STERN Management GmbH

Dr. Manfred Kauer *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 870354-26* *Fax: +49 711 870354-44* *www.info-rm.de*

CLI: Netzwerk für innovative Orthopädietechnik O-PAEDIX e. V.

Modern orthopaedic and rehabilitation technology is the most important technology for restoring lost mobility. The next generation of orthoses and prostheses is strongly dependent on material and process innovations, on transfer of technology and know-how and on expert's visions. Therefore, Netzwerk für innovative Orthopädietechnik O-PAEDIX has made it its goal to promote new technologies for better prosthesis/orthoses in the future.

Netzwerk für innovative Orthopädietechnik O-PAEDIX e. V.
c/o Fraunhofer Institut für Produktion und Automatisierung (IPA)

Dr. Urs Schneider *Nobelstraße 12* *70569 Stuttgart*	*Telephone: +49 711 970-3731* *Fax: +49 711 970-3727* *www.o-paedix.com*

Industrial component and surface cleaning cluster

Target fields of cluster policy: Production technology

The industrial component and surface cleaning cluster includes companies along the value adding chain (manufacturing industries and services) involved with cleaning jobs and aspects in the processes prior to, during and following industrial production.

CLI: Kompetenznetzwerk für Industrielle Bauteil- und Oberflächenreinigung Leonberg e. V. (CEC) – Competence network for industrial component and surface cleaning

Renowned companies from various interest groups and research institutions exchange their knowledge and expertise within the CEC network of the industrial component and surface cleaning process chain, with regard to procedures, framework conditions and process requirements for optimised results in component cleaning. The benefit for all participants is the assessment of cleaning jobs, independent from the manufacturer, and of their preliminary, concomitant and follow-up processes within the CEC.

Kompetenznetzwerk für Industrielle Bauteil- und Oberflächenreinigung Leonberg e. V. (CEC)
(Competence network for industrial component and surface cleaning)

Dr. Vanessa Wertmann *Hertichstraße 57* *71229 Leonberg*	*Telephone: +49 7152 330-8471* *www.cec-leonberg.de*

Information technology / enterprise software cluster

Target fields of cluster policy: Information technology / enterprise software

This cluster is characterised by a small number of large enterprises on the one hand and a series of small and medium-sized enterprises on the other hand. The large enterprises have radically thinned out their vertical range of production. The functions remaining, which are largely dispositive in nature, are exposed to a high level of competition from other locations – also internally within companies. Development impetus originates largely from young small and medium-sized IT firms. A high enterprise density can be found mainly in the area of open source software.

CLI: ITS Baden- Württemberg e. V.

ITSBW was founded together with other innovation and competence centres 10 years ago, initiated by Wirtschaftsförderung Region Stuttgart GmbH (WRS). The idea was brought up by the municipality of the state capital Stuttgart and the municipality of Filderstadt; they could win renowned companies and institutions for this project, for example Sony, HP, Daimler, Hamann-Becker, Stuttgarter Straßenbahnen, University of Stuttgart, and more. The task and target of the former KTMC (competence centre for telematics, mobile computing and customer care) was to act as a hub for telematics services and telematics innovations, and this was achieved successfully: Today, under a new flag and as a member of ITS Network Germany e. V., ITSBW stands for comprehensive know-how in the areas of traffic telematics and traffic information services, health telematics and telemedicine, mobile communication, smart home and ambient assisted living.

ITS Baden-Württemberg e. V. *c/o IVU Forschen & Beraten, Institut für Mobilitätsmanagement, Transport und Umwelt*	
Prof. Dr.-Ing. Günter Sabow *Industriestraße 3* *70565 Stuttgart*	*Telephone: +49 711 781929-12* *Fax: +49 711 781929-15* *www.its-bw.de*

CLI: Open Source Region Stuttgart

To make users and IT companies aware of open source software, the cluster initiative Open Source Region Stuttgart was founded in 2004. With this initiative, Wirtschaftsförderung Region Stuttgart extends the Stuttgart region's lead in competence in this important field of innovation.

Open Source Region Stuttgart *c/o Wirtschaftsförderung Region Stuttgart GmbH*	
Hjalmar Hiemann *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-49* *Fax: +49 711 22835-55* *www.opensource.region-stuttgart.de*

CLI: Software-Zentrum Böblingen/Sindelfingen e. V.

With the goal to attract new companies from the IT industry to this region and to maintain and create new jobs, Software-Zentrum Böblingen/Sindelfingen e. V. was established in 1996. This cluster initiative consists of 90 companies, plus universities, academies, chambers and other organisations and networks.

Software-Zentrum Böblingen/Sindelfingen e. V.	
Hans-Ulrich Schmid *Otto-Lilienthal-Straße 36* *71034 Böblingen*	*Telephone: +49 7031 714-700* *Fax: +49 7031 714-705* *www.softwarezentrum.de*

CLI: Virtual Dimension Center Fellbach w. V.

Due to the geographical concentration of leading universities and research institutions in the area of Virtual Reality (VR), visualisation and simulation, plus suppliers and users of these technologies, the Stuttgart region hosts a virtually unique expertise in the area of visualisation and VR technology worldwide. To consolidate and extend this strong position of the Stuttgart region and to make available these developments for medium-sized companies in the automotive and mechanical engineering industries in particular, VDC Fellbach was initiated.

Virtual Dimension Center Fellbach w. V.	
Dr.-Ing. Christoph Runde *Auberlenstraße 13* *70736 Fellbach*	*Telephone: +49 711 585309-0* *Fax: +49 711 585309-19* *www.vdc-fellbach.de*

CLI: Wachstumsinitiative Technische 3D-Visualisierung (TechVis) – Growth initiative for technical 3D visualisation

The growth initiative for technical 3D visualisation (TechVis) is conducted by the Virtual Dimension Center (VDC), Fellbach. The VDC is Germany's leading network for Virtual Engineering. Since 2002, the VDC creates synergies between its members and promotes technology transfer. Today, about 100 members and associates cooperate within the VDC, along the value adding chains of Virtual Reality and Virtual Engineering. TechVis will extend these process chains towards technical 3D visualisation and 3D content generation.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2010. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Wachstumsinitiative Technische 3D-Visualisierung (TechVis)
(Growth Initiative Technical 3D visualisation)
c/o Virtual Dimension Center Fellbach w. V.

Dr.-Ing. Christoph Runde *Auberlenstraße 13* *70736 Fellbach*	*Telephone: +49 711 585309-0* *Fax: +49 711 585309-19* *www.vdc-fellbach.de*

Creative industries cluster

Target fields of cluster policy: Media, culture and creative industries

Besides the automotive and mechanical engineering industries, the creative industries are characteristic for the Stuttgart region. The Stuttgart region hosts a great potential of companies, academic institutions and creatives from the fields of architecture, design, digital, events, film, photography, illustration, art and culture, music, PR and text, publishing and advertising.

CLI: Animation Media Cluster Region Stuttgart

The Stuttgart and Ludwigsburg region is to become the leading digital VFX/animation location in Germany. MFG Filmförderung intends to respond to this rapid technical development within this industry with a network focused on value adding. With a pilot project, the proven British model, which has been successfully applied by the VFX[9]-industry for years, is to be transferred to the region, being the first project of this kind in Germany.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Animation Media Cluster Region Stuttgart
c/o MFG Filmförderung

Andreas Trautz *Breitscheidstraße 4* *70174 Stuttgart*	*Telephone: +49 711 90715-415* *Fax: +49 711 90715-350* *www.amcrs.de*

CLI: Corporate Media Cluster Region Stuttgart

Corporate Media Cluster Region Stuttgart (CMCRS) is the cluster initiative for moving pictures in corporate communication of mid-size companies in Baden-Württemberg and acts in the area of consulting, networking, competency, innovation, public relations and internationalisation. Corporate Media – defined as the use of audiovisual media in corporate communication – is the economically significant field of the media location of the Stuttgart region and, at the same time, a significant factor as regards competitiveness of the Baden-Württemberg mid-size companies.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2010. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Corporate Media Cluster Region Stuttgart
c/o Film Commission Region Stuttgart

Christian Dosch *Breitscheidstraße 4* *70174 Stuttgart*	*Telephone: +49 711 259443-0* *Fax: +49 711 259443-33* *www.film.region-stuttgart.de*

9 VFX = visual effects

CLI: Film Commission Region Stuttgart

Film Commission Region Stuttgart is the cluster initiative for film production. Its regional and industry-specific focus and practical consulting services are its success factors. Its services include, for example, project-based support for finding suitable film locations, for cooperation with the authorities and targeted information on production structures in the region. Film Commission sees itself as a coordinator and mediator at the interface of culture, economy, the public and administration.

Film Commission Region Stuttgart

Christian Dosch *Breitscheidstraße 4* *70174 Stuttgart*	*Telephone: +49 711 259443-0* *Fax: +49 711 259443-33* *www.film.region-stuttgart.de*

CLI: MedienInitiative Region Stuttgart

MedienInitiative Region Stuttgart is a network of creatives from this region: 400 media and creative people, such as publishers and authors, advertisers, designers and architects, journalists, film producers and screenplay writers, multimedia service providers and musicians, take an active part. Their common goal is to develop the media location, to improve the framework conditions for the companies of the creative industry and to make their achievements more visible. Successes are, for example, Film Commission Region Stuttgart, Popbüro Region Stuttgart and the monthly print newsletter „in media res“.

MedienInitiative Region Stuttgart
c/o Wirtschaftsförderung Region Stuttgart GmbH

Bettina Klett *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-15* *Fax: +49 711 22835-55* *www.medien.region-stuttgart.de*

CLI: Popbüro Region Stuttgart

The Stuttgart region, besides Berlin, Hamburg, Cologne, Munich and Frankfurt, is among the most important locations of the German music industry. Targeted location marketing is to help boost the perception of the local music industry on a regional, national and international level. Popbüro helps enhance the conditions for this industry and promotes musicians, bands, music enterprises, start-ups and educational institutions. It brings together the promotion of the economy and culture with work with juveniles. Popbüro is a joint organisation of Wirtschaftsförderung Region Stuttgart GmbH (WRS) and Stuttgarter Jugendhaus gGmbH (SJG).

Popbüro Region Stuttgart

Peter James *Naststraße 11a* *70376 Stuttgart*	*Telephone: +49 711 489097-0* *Fax: +49 711 489097-29* *www.popbuero.de*

Logistics cluster

Target fields of cluster policy: Logistics including intra-logistics

The Stuttgart region is one of Baden-Württemberg‘s three „core regions of logistics“. Consequently, it is home to important infrastructure institutions working in the field of transport logistics and also to numerous transport and logistics service providers.

CLI: KLOK Kooperationszentrum Logistik e. V.

KLOK approaches the logistic tasks and issues that exist in the Stuttgart region, asking for integrative solutions. KLOK is in contact with communal, regional, state, federal and EC politicians and economists. Since the end of 2010, KLOK has also been the supporting organisation of Logistik-Netzwerk Baden-Württemberg (LogBW), which represents an independent state-wide network itself. In addition, an important field of activity is the initiation and coordination of projects improving logistic infrastructure, together with several partners.

KLOK Kooperationszentrum Logistik e. V.

Martin Brandt *Stammheimer Straße 10* *70806 Kornwestheim*	*Telephone: +49 7154 96500-51* *Fax: +49 7154 96500-79* *www.klok-ev.de*

Aerospace cluster

Target fields of cluster policy: Aerospace

The aerospace industry looks back on a long tradition in the Stuttgart region. Only few locations offer such a tightly woven and diversified network of large enterprises and medium-sized aerospace companies, universities and research institutions. 25 % of the Baden-Württemberg companies and 80 % of the research institutions of this industry are located here.

CLI: FAN – Future Aerospace Network

FAN is to connect the stakeholders of the Baden-Württemberg aerospace cluster with traditional industries, through professional management and for a mutual benefit, in terms of organisation and communication. It intends to support the companies from the industry with regard to the consolidation process of the aerospace supply chain. Common projects and activities are to strengthen the network and help exploit synergies.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

FAN – Future Aerospace Network

Corinna Noltenius *Nobelstraße 12* *70569 Stuttgart*	*Telephone: +49 711 687031-41* *Fax: +49 711 687031-55* *www.fan-bw.de*

Nanotechnology cluster

Target fields of cluster policy: Microsystem technology including nanotechnology

Nanotechnology is one of the key technologies of the 21st century. However, several analyses have shown that nanotechnology is still used very rarely. On the other hand, many of the companies located in the Stuttgart region see the great potential of this technology. Especially the nanotechnology area of „catalysis, chemistry and material synthesis“ is of great significance for chemical processes, for the automotive field and for current issues regarding energy-efficient production and industrial biotechnology.

CLI: Anwendungscluster Nanotechnologie der Metropolregion Stuttgart – Nanotechnology application cluster of Stuttgart metropolitan region

For facilitating the transfer of scientific nanotechnology research to industrial applications, Anwendungscluster Nanotechnologie in der Metropolregion Stuttgart was founded in 2008. This cluster intends to improve the nanotechnology competence in the Stuttgart metropolitan region, to promote networking of technology suppliers and users and to bring forward innovations and turn them into marketable products together. The ZIM-Nemo network for the field of surface functionalisation was spun off from this application cluster in 2011. Based on the competencies and products of the SMEs involved in the ZIM-NEMO network, selected fields of application are to be exploited and adapted for the subsequent specific development projects of the companies, also using synergies.

Anwendungscluster Nanotechnologie der Metropolregion Stuttgart
(Application cluster Nanotechnology Metropolitan Region Stuttgart)
c/o IHK Region Stuttgart

Manfred Müller *Jägerstraße 30* *70174 Stuttgart*	*Telephone: +49 711 2005-1329* *Fax: +49 711 2005-1429* *www.nano-ihk.de*

Production technology cluster

Target fields of cluster policy: Production technology including mechanical engineering

Alongside the automotive cluster, production technology takes an outstanding role in the Stuttgart region and is characterised largely by small and medium-sized enterprises. This cluster remains highly competitive due to its sustained innovation power. It is widely diversified with certain emphases in the fields of machine tools and automation engineering. It is true for this cluster as well that the Stuttgart region hosts practically the entire value adding chain. The European Cluster Observatory has identified this production technology cluster as one of the most important clusters in this field of technology in Europe.

CLI: Cluster initiative for mechanical engineering in the Stuttgart region

Since 2007, this cluster initiative in the field of mechanical engineering includes a series of measures and offers for improving the innovation potential of regional mechanical engineering companies. Its focus is on offering networking options within the industry, facilitated access to research results and support for establishing new fields of business; and this is specifically true for the initiative „Initiative Industrielle Dienstleistungen im Maschinenbau“. This cluster initiative targets about 800 companies and three universities with focus on mechanical engineering in the Stuttgart region and also eight non-academic research institutions that work in close cooperation with the mechanical engineering industry.

Cluster-Initiative Maschinenbau Region Stuttgart
(Cluster initiative for mechanical engineering in the Stuttgart region)
c/o Wirtschaftsförderung Region Stuttgart GmbH

Oliver Reichert *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-872* *Fax: +49 711 22835-55* *www.wrs.region-stuttgart.de*

CLI: Kompetenznetzwerk Mechatronics BW e. V.

Kompetenznetzwerk Mechatronik intends to bring up new ideas for the Baden-Württemberg location and to use future technologies to maintain an attractive location and secure jobs. Founded in 2001, following a call of the industry, its priorities are an efficient transfer of technology and results, a shortening of the innovation cycle and the initiation of innovation partnerships in future-oriented topics, for example mobility, security, energy and environment.

Kompetenznetzwerk Mechatronics BW e. V.

Volker Schiek *Manfred-Wörner-Straße 115* *73037 Göppingen*	*Telephone: +49 7161 965950-0* *Fax: +49 7161 965950-5* *www.mechatronik-ev.de*

Radiofrequency identification cluster

Target fields of cluster policy: Information technology, IT applications / enterprise software, logistics including intra-logistics, mechatronics, microsystem technology including nanotechnology and satellite navigation.

The Stuttgart region is one of the leading regions regarding RFID (radiofrequency identification) research. Also, RFID technology will gain much importance in the years to come. In addition to a good research infrastructure in the area of RFID, there are many companies in this region who have made RFID applications marketable.

CLI: RFID network for the Stuttgart region

IHK Region Stuttgart has initiated this network to meet the companies' high demand for information. It is the initiative's goal to show RFID's importance for the future of this high-tech location. This network is a neutral dialogue platform offering regional companies, scientists and politicians the chance to discuss this technology. Moreover, it offers regular workshops with respect to the application of the RFID technology and cooperations between the members of the network.

RFID-Netzwerk Region Stuttgart
c/o IHK Region Stuttgart

Manfred Müller *Jägerstraße 30* *70174 Stuttgart*	*Telephone: +49 711 2005-1329* *Fax: +49 711 2005-1429* *www.stuttgart.ihk.de*

Satellite communication cluster

Target fields of cluster policy: Aerospace and telecommunication

Satellite communication, meaning the bi-directional telecommunication between two earth stations via satellite, has seen a boost over the past two decades. This area of technology definitely has a huge growth potential. In the Stuttgart region, you find a unique concentration of globally active companies in the area of satellite communication nationwide.

CLI: DeSK – Deutsches Zentrum für Satelliten-Kommunikation e. V.

Companies, scientific institutions and universities from the area of satellite communication have formed the cluster initiative DeSK, Deutsches Zentrum für Satelliten-Kommunikation e. V., in 2008. DeSK's goal is to bundle the companies and institutions involved to make a powerful network. In addition, it is to strengthen the cooperation of the companies working in the field of satellite and broadband communication in the Stuttgart region and Germany as a whole to produce synergies. Further, DeSK coordinates the activities for recruiting new talent and experts.

DeSK – Deutsches Zentrum für Satelliten-Kommunikation

Reinhard Schnabel *Schillerstraße 34* *71522 Backnang*	*Telephone: +49 7191 187-8312* *Fax: +49 7191 187-8316* *www.desk-backnang.de*

CLI: DeSK – Initiative zur Strategie- und Kompetenzerweiterung auf dem Gebiet der Satellitenkommunikation (DISK) – Initiative for enhancement of strategies and competences in the area of satellite communication

This cluster initiative, DISK, encouraged by DeSK, explicitly includes the stakeholders from the Stuttgart region, especially the SMEs. It is an initiative for enhancing the strategies and competencies in the area of satellite communication. Cluster management's key responsibility is the planning and realisation of a theme park presenting modern technologies of satellite communication. This bundling of expert knowledge is to make visible the location's competences and give it a clear profile. In addition, it organises activities for recruiting talent and experts and strategy development events for the member companies.

This cluster initiative was awarded a prize in the regional cluster competition of the Baden-Württemberg Ministry of Economics in 2010. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

DeSK – Initiative zur Strategie- und Kompetenzerweiterung auf dem Gebiet der Satellitenkommunikation (DISK)
(Enhancement of strategies and competences in the area of satellite communication)

Dilara Betz *Schillerstraße 34* *71522 Backnang*	*Telephone: +49 7191 187-8314* *Fax: +49 7191 187-8316* *www.desk-backnang.de*

Environmental technology cluster

Target fields of cluster policy: Environmental technology

The Clean Energy Cluster in the Stuttgart region is formed by universities and research institutions and globally active large enterprises and also start-ups, that is, almost 300 companies, many of them conducting their own research and development projects. 600 craft businesses and many architects, engineers and consultants add to this. Companies from the mechanical and plant engineering industries in the Stuttgart region have noted this young industry and benefit from its boom as suppliers.

CLI: Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW) – Fuel Cell and Battery Alliance

The Fuel Cell and Battery Alliance Baden-Württemberg (BBA-BW) is a network for promoting the development and spreading of sustainable and environmentally friendly energy production and storage technologies on the basis of fuel cells and batteries in mobile, stationary and portable applications and the related infrastructure. BBA-BW supports its members from the industry, science and administration with regard to preparing the market, demonstrating and industrialising their products and represents them when dealing with political boards and other organisations.

Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW)
(Fuel Cell and Battery Alliance)

Dr. Till Kaz *Gymnasiumstraße 43* *70174 Stuttgart*	*Telephone: +49 711 72230-487* *Fax: +49 711 72230-491* *www.bba-bw.de*

CLI: Clean Tech cluster initiative

Wirtschaftsförderung Region Stuttgart GmbH does its share for the region so that by 2020, it will be recognised world-wide for its clean cars, durable and efficient machines, energy and material-efficient buildings and environmental products and processes.

Cluster-Initiative Clean Tech
c/o Wirtschaftsförderung Region Stuttgart GmbH

Dr. Taj Kanga *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-803* *Fax: +49 711 22835-55* *www.zukunftsenergien.region-stuttgart.de*

CLI: ENERGETIKOM – Energiekompetenz und Ökodesign e. V.

ENERGETIKOM – Energiekompetenz und Ökodesign e. V. is a non-profit organisation. It is neutral and supports companies, public institutions, municipalities and private persons with their projects relating to the topics of energy-saving, energy efficiency, climate protection and ecological design. ENERGETIKOM sees itself as a development and implementing body and as a link between research and the market. ENERGETIKOM develops energy-saving and resource-friendly solutions and concepts guaranteeing climate protection and energy efficiency for the projects to be realised.

ENERGETIKOM e. V.

Dr. Taj Kanga *Hermann-Hagenmeyer-Str. 1* *71636 Ludwigsburg*	*Telephone: +49 7141 99057-0* *Fax: +49 7141 99057-249* *www.energetikom.de*

CLI: Kompetenzzentrum Umwelttechnik – KURS – Competence centre for environmental technology

This competence centre is a network for regional and supra-regional competence owners in the field of environmental technology, resource protection and recycling management. The network is a communication and discussion platform organising scientific events and training programs, promoting the transfer of expertise and developing and implementing R&D projects.

Kompetenzzentrum Umwelttechnik – KURS
(Competence centre for environmental technology)
c/o Institut für Siedlungswasserbau, Wassergüte- und Abfallwirtschaft der Universität Stuttgart

Andreas Sihler *Bandtäle 2* *70569 Stuttgart*	*Telephone: +49 711 685-65498* *Fax: +49 711 685-65460* *www.kurs-net.de*

CLI: Leading-Edge cluster Electric Mobility South-West - road to global market

The intention of the leading-edge cluster „Electric Mobility South-West“ is to establish electric mobility in Germany and to turn Baden-Wuerttemberg into a world-leading region for electro-mobile solutions. With its motto „road to global market“, the cluster makes use of the unique potential which the region Karlsruhe - Mannheim - Stuttgart - Ulm offers in cross-linking amongst other well-respected large, middle-sized and small enterprises from the automotive technology, energy technology, information and communication technology (ICT) as well as the cross-sectional field of production technology. The cluster management is handled by e-mobil BW GmbH, the state agency for electric mobility and fuel cell technology in Baden-Wuerttemberg. e-mobil BW GmbH supports the cluster‘s activities by means of methodic approaches of modern project management. More than 80 stakeholders from industry, universities and research institutes have joined the cluster thus far, making it one of the largest regional networks in the field of electric mobility. Electric Mobility South-West has been selected as a German leading-edge cluster by the Federal Ministry of Education and Research in the third round of the Leading-Edge Cluster Competition.

Elektromobilität Süd-West
c/o e-mobil GmbH

Stefan Büchele / Tobias Luhm *Leuschnerstraße 45* *70176 Stuttgart*	*Telephone: +49 711 892385-10* *Fax: +49 711 892385-49* *www.e-mobilbw.de, www.emobil-sw.de*

Packaging technology cluster

Target fields of cluster policy: New materials / surfaces and production technology including mechanical engineering

In the field of production technology including packaging technology, the region shows a clear geographical concentration in the Rems-Murr area; the location of Waiblingen is of specific importance here. This location features a broad coverage of the value adding chain as well, from suppliers to mechanical engineering firms and specialised engineering service providers.

CLI: Packaging Excellence Region Stuttgart e. V.

The competence centre for packaging and automation technology, Packaging Excellence Region Stuttgart e. V., was initiated by the industry and other institutions and organisations and founded in 2007. It is the participating companies’ goal to identify and benefit from synergies between the individual technical disciplines and make available scientific findings for all of them. Packaging Excellence Region Stuttgart e. V. cooperates with Packaging Valley Germany e. V., whose office is in Schwäbisch Hall in the Heilbronn-Franken region.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Packaging Excellence Region Stuttgart e. V.

Hans-Christian Zeiner *Gewerbestraße 11* *71332 Waiblingen*	*Telephone: +49 7151 9814-861* *Fax: +49 7151 9814-930* *www.packaging-excellence.de*

The Stuttgart region also hosts the offices of the state-wide and cross-regional networks Allianz Faserbasierte Werkstoffe Baden-Württemberg e. V., autoland-bw, automotive-bw, Baden-Württemberg: Connected e. V., BIOPRO Baden-Württemberg GmbH, bw-construction, Forestry and timber cluster Baden-Württemberg, Netzwerk Kreativwirtschaft Baden-Württemberg, e-mobil BW GmbH, Forum Luft- und Raumfahrt Baden-Württemberg e. V., Intralogistik Netzwerk BW e. V., Kraftwerke für das 21. Jahrhundert (KW 21), Landescluster Mechatronik BW GmbH, Logistik-Netzwerk Baden-Württemberg (LogBW), MANUFUTURE-BW e. V., MFG Baden-Württemberg mbH – Innovationsagentur des Landes für IT und Medien and Plattform Umwelttechnik e. V. (see chapter 13: State-wide and cross-regional networks).

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Universität Stuttgart	**University of Stuttgart** Focus on technical and scientific faculties: Construction and environmental engineering, chemistry, earth and biological sciences, ICT and electrical engineering, aerospace engineering, mechanical engineering, mathematics and physics. Numerous research centres located at university, for example: • Automotive Simulation Center Stuttgart (ASCS) • Stuttgart Research Centre for Simulation Technology (SRC SimTech).
Universität Hohenheim	**University of Hohenheim** Faculties for natural, agricultural and economic sciences with various research centres, for example: Life Science Centre or FZID (Forschungszentrum Innovation und Dienstleistung).
Hochschule Esslingen	**University of Applied Sciences** Faculties for applied natural sciences, automotive engineering, information technology, mechanical engineering, mechatronics and electrical engineering, supply and environmental engineering. Transfer through three institutes for applied research, such as • Energetic systems • Mechatronics • Social affairs and health Hochschule Esslingen also hosts Steinbeis transfer centres.
Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen	**University of Applied Sciences for Economics and Environment** Five faculties offering study programmes such as business administration/international financial management, agricultural economics, automobile economics, energy and resource management, urban and landscape planning, environmental protection. Transfer through an institute for applied research (IAF) and other specialised institutes at the university.
Hochschule für Technik Stuttgart	**University of Applied Sciences for Technics** Architecture, civil engineering, surveying, computer science, mathematics. Transfer through two institutes for applied research (IAF) and a Steinbeis transfer centre – technical consultancy for Stuttgart university.

Institution	Fields of activity
Hochschule der Medien Stuttgart	**University of Applied Sciences for Media** Faculties for printing and media, electronic media, information and communication. Transfer through an institute for applied research (IAF) and four companies of the Steinbeis organisation.
Duale Hochschule Baden-Württemberg Stuttgart	**Cooperative State University** Faculties for economics, technology and social work, Steinbeis transfer centres and consulting centres.
Filmakademie Baden-Württemberg, Ludwigsburg	**Film Academy** Study programmes: Screenwriting, directing, image composition/cinematography, montage/editing, cinematic experimentation, animation, education and science, documentary film, feature film, advertising film, series, interactive media, production, animation & Vfx producing, creative producing, international producing, series producing, interactive media producing.
Staatliche Akademie der Bildenden Künste	**State Academy of Performing Arts** Study programmes in the areas of visual arts, architecture and design.
Research and transfer institutions	**Institutes of Fraunhofer-Gesellschaft** • Fraunhofer-Institut Arbeitswirtschaft und Organisation (IAO) – Work organisation concepts • Fraunhofer-Institut Grenzflächen- und Bioverfahrenstechnik (IGB) – Interfacial engineering and biotechnology • Fraunhofer-Institut Produktionstechnik und Automatisierung (IPA) – Production technology and automation • Fraunhofer-Institut Bauphysik (IBP) – Building physics • Fraunhofer-Informationszentrum Raum und Bau (IRB) – Space and construction **Institutes of Max-Planck-Gesellschaft** • Metals research • Solid state research **Institutes of Hahn-Schickard-Gesellschaft für angewandte Forschung e. V. – Society for applied research** • Institut für Mikroaufbautechnik (HSG-IMAT) – Micro design technology **Other institutions** • Deutsche Institute für Textil- und Faserforschung Denkendorf (Textilchemie und Chemiefasern ITCF) – Textile chemistry and chemical fibres research • Institut für Textil- und Verfahrenstechnik (ITV) – Textile technology and process engineering, • Zentrum für Management Research (DITF-MR) Centre for management research • Deutsches Zentrum für Luft- und Raumfahrt (DLR) – German aerospace research centre, Stuttgart site • Forschungsinstitut für Kraftfahrwesen und Fahrzeugmotoren Stuttgart (FKFS) - Research institute for automotive engineering and vehicle engines • Kompetenznetz Verfahrenstechnik Pro3 e. V. – Competence network for process engineering • Verkehrswissenschaftliches Institut an der Universität Stuttgart – Institute for transportation research • Institut für Mikroelektronik Stuttgart (IMS) – Institute of microelectronics • Zentrum für Energieforschung (ZES) - Centre for energy research • Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW) - Centre for solar energy and hydrogen research

Heilbronn-Franken

02

The region

The Heilbronn-Franken region is the largest region by area in the state of Baden-Württemberg, with an area of 4,765 m², and is home to 885,000 people. The region includes the urban and rural district of Heilbronn, the Hohenlohe district, the Schwäbisch Hall district and the Main-Tauber district.

The entire Heilbronn-Franken region is part of the European metropolitan region of Stuttgart and acts as one of its motors. Compared to the state of Baden-Württemberg as a whole, its economy is more production-based. Therefore, its share of the entire services sector, especially corporate services, is below state average.

In detail[10]:

- Production sector: 44.7 % (State: 37.8 %)
- Services sector in total: 54.8 % (State: 61.8 %)
  - Trade: 15.0 % (State: 13.8 %)
  - Corporate service providers: 9.9 % (State: 11.6 %)
  - Transport: 3.6 % (State: 3.9 %)

The industry in this region has a broad basis and has developed historically. Measured by the number of inhabitants, the Hohenlohe district features the highest concentration of market leaders. The large share of employees working in cluster companies also makes the region an express cluster region.

The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Metal industry with mechanical engineering and production of metal products;
- Vehicle production and suppliers;
- Food industry including production of food and animal feed; and
- Information services.

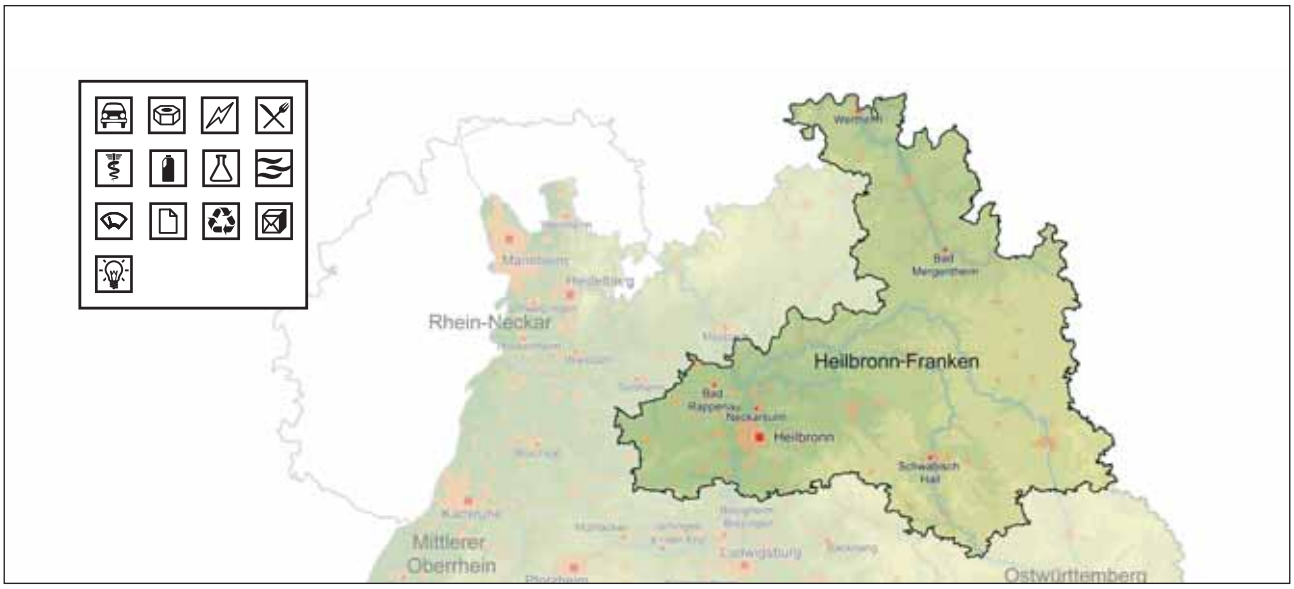
Its innovation power ranks in the middle compared to that of other regions. While the innovation level is below average of all regions, the Heilbronn-Franken region shows the strongest dynamic with regard to innovations, being the clear leader among all the regions. Important R&D locations, for example, are Abstatt and Hardthausen-Lampoldshausen.

The region's innovation index is as follows:

- Total index: 32.4 % (State: 35.6 %)
- Level index: 27.0 % (State: 35.7 %)
- Dynamic index: 48.4 % (State: 35.4 %)

10 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011

The region's clusters and cluster initiatives



Automotive cluster

Target fields of cluster policy: Automotive

The automotive industry is THE industry that drives the Heilbronn region economically. In addition to the companies well-known world-wide, there are large, medium-sized and small companies supplying the vehicle manufacturers with premium products. With about 20,000 employees working in the automotive industry, one out of three industry jobs in the urban and rural district of Heilbronn is in this key industry. The automotive cluster in the Heilbronn-Franken region is focused on the Heilbronn area. In terms of products, practically every aspect is presented in the region: From passenger car production to development and production of commercial and special-purpose vehicles, research and development and different automotive suppliers, complemented by certain investment goods manufacturers. So, the entire automotive value-adding chain is represented in this region.

CLI: Automotive-Dialog

With its motto „Profitable growth for our region", this cluster initiative that was initiated by Wirtschaftsförderung Raum Heilbronn GmbH in 2007 intends to strengthen the region's attractiveness and competitiveness. Managed by Wirtschaftsförderung Raum Heilbronn GmbH, too, its main activities are location marketing, initiation of cooperations, research and development activities and increasing availability of highly qualified personnel. Automotive-Dialog promotes the regional automotive industry. And, through automotive-bw, it maintains contacts all over Baden-Württemberg.

Automotive-Dialog
c/o Wirtschaftsförderung Raum Heilbronn GmbH

Dr. Patrick Dufour-Bourru *Weipertstraße 8-10* *74076 Heilbronn*	*Telephone: +49 7131 7669-700* *Fax: +49 7131 7669-709* *www.automotive-region.de*

Energy cluster

Target fields of cluster policy: Energy and environmental technologies

Numerous renowned companies and research institutions are located in the Heilbronn-Franken region that operate in the field of innovative energy and environmental technologies. The focuses of this cluster are the appropriate and efficient use of renewable energies and energy saving.

CLI: energieZENTRUM – Energy agency of the Schwäbisch Hall district

energieZENTRUM (eZ) in the Schwäbisch Hall district was established by WFG Schwäbisch Hall mbH in 2003, as a regional contact point for issues regarding regenerative energies and energy saving. It advises private persons, communities, trade, industry and agriculture, it organises events and supports innovative technology transfer and also new projects of the EC. eZ is in charge of implementing the energy model project, the major photovoltaic project and managing the climate protection information centre of the district administration.

energieZENTRUM – Energy agency of the Schwäbisch Hall district

Heinz Kastenholz *Haller Straße 29/1* *74549 Wolpertshausen*	*Telephone: +49 7904 94599-13* *Fax: +49 7904 94599-29* *www.energie-zentrum.com*

Food industry / nutrition cluster

Target fields of cluster policy: Health industry, biotechnology, energy

The food industry, with about 5,800 companies, is the second largest employer after mechanical engineering in Germany. This statistic does not consider the numerous craft enterprises (bakeries, butchers, etc.) with less than 30 employees. In the Schwäbisch Hall district, more than 3,600 employees work in this branch. Including the upstream and downstream sectors, this number is even higher. Despite this huge number of employees and the many big and small food producers in the district, so far there has been no real cluster identity or communication. This is to be improved with the cluster initiative „Lebensmittelnetzwerk Schwäbisch Hall“. The fact that the Schwäbisch Hall district is part of the first gourmet region of Baden-Württemberg emphasises the importance of the local food production and food processing industry as well.

CLI: Lebensmittelnetzwerk Schwäbisch Hall – Food network

In cooperation with the municipalities of Schwäbisch Hall and Crailsheim, the WFG Schwäbisch Hall initiated the formation of a food cluster. The companies and institutions discussed and stipulated the framework conditions, the themes and the financial issues of the cluster initiative in 2011. The cluster initiative starts operating these days; three subject-related workgroups have been formed and work out the demands of companies, the catering sector and the agricultural sector in order to develop and plan specific common activities. In the areas of energy, recruitment and marketing, a Best Practice exchange takes place, networking among the stakeholders is improved and suggestions for new external activities are made. WFG Schwäbisch Hall has taken over the coordination of the cluster.

This association was awarded a prize in the regional cluster competition of the Ministry of Economics in 2010.

Lebensmittelnetzwerk Schwäbisch-Hall
(Food network)
c/o WFG Schwäbisch Hall mbH

Melanie Schlebach *Haller Straße 29/1* *74549 Wolpertshausen*	*Telephone: +49 7904 94599-15* *Fax: +49 7904 94599-29* *www.lebensmittelcluster.wfgsha.de*

Health industry cluster

Target fields of cluster policy: Health industry

In December 2003, Wirtschaftsförderung Raum Heilbronn GmbH established an information and communication platform which health insurance companies, hospitals, private clinics, rehabilitation clinics, health and therapy centres and other institutions in the city and district of Heilbronn have used to enhance cooperation. The 30 partners and some specialists from hospitals are now also actively supported by representatives of doctors and dentists in private practice, representatives of pharmacies and opticians through the Gesundheits-Dialog initiative. Hochschule Heilbronn (who has cooperated with Heidelberg University for a long time) also contributes to the Gesundheits-Dialog initiative with its study programme of medical informatics.

CLI: Gesundheits-Dialog – health dialogue

The health dialogue of Wirtschaftsförderung Raum Heilbronn GmbH brings together health insurers, hospitals and private clinics, rehabilitation clinics, health spa and therapy centres and other institutions and facilities in the Heilbronn region. The focus of activities is the networking of its stakeholders, promotion of information exchange, transfer of knowledge and marketing of the Heilbronn health region. Also, in the context of the Gesundheits-Dialog initiative, the growing medical engineering industry in the region is supported by Wirtschaftsförderung Raum Heilbronn GmbH.

Gesundheits-Dialog
(Health dialogue)
c/o Wirtschaftsförderung Raum Heilbronn GmbH

Benjamin Schweizer *Weipertstraße 8-10* *74076 Heilbronn*	*Telephone: +49 7131 7669-703* *Fax: +49 7131 7669-709* *www.gesundheits-region.de*

Plastics technology and plastics processing cluster

Target fields of cluster policy: Automotive, new materials / surfaces and production technology including mechanical engineering

Over the past few years, the plastics technology cluster has emerged in the Hohenlohe district, including approx. 25 enterprises and other industry-specific institutions. These companies operate in the areas of production and marketing of films, high-tech synthetic materials and artificial leather for furniture, vehicles, fashion and the construction industry and comfort products for caravans, campers, trucks, passenger cars and boats. More than 150 companies from the plastics industry are located in the urban and rural district of Heilbronn. Compared to Germany as a whole, the industry is clearly above average as regards jobs. The companies cover the areas of plastics production and processing, injection moulding and the full design and development services. And there are tool and mould making companies specialising in plactics and offering supplementary services.

CLI: Kunststoff-Dialog – Plastics dialogue

The Kunststoff-Dialog cluster initiative of Wirtschaftsförderung Raum Heilbronn GmbH supports the industry with various activities. On a web-based platform, the companies from the plastics processing industry have the chance to exchange their thoughts and ideas and to discuss options for collaborations. At regular industry events, speakers inform about new material technologies, new processes and machines and about the latest news about the economy, especially the plastics industry. The resulting strategic partnerships and collaborations are to boost and maintain competitiveness of the companies long-term. The Kunststoff-Dialog initiative is complemented by shared stands at trade fairs for the plastics industry that are offered by Wirtschaftsförderung Raum Heilbronn GmbH.

Kunststoff-Dialog (Plastics dialogue)
c/o Wirtschaftsförderung Raum Heilbronn GmbH

Alexandra Schneider *Weipertstraße 8-10* *74076 Heilbronn*	*Telephone: +49 7131 7669-708* *Fax: +49 7131 7669-709* *www.kunststoff-region.de*

Lab glass cluster

Target fields of cluster policy: New materials / surfaces

Located in the northernmost region, Wertheim has been home to a laboratory glassware cluster for more than 60 years now. The foundations for this were laid after World War II, picking up in terms of industrialisation. In the 1970s and 1980s, the glass sector experienced a structural change. The Wertheim glass cluster's classical segments of lab glass and special-purpose thermometers were supplemented by gift articles and liquid handling products. The field of liquid handling has long been outrun by digital measuring technology and glass was replaced by plastic more and more often. However, despite downsizing, substitution and diversification developments, the glass processing industry with more than 20 companies and approx. 2500 employees remains the dominating industry in Wertheim.

Measurement and control cluster

Target fields of cluster policy: Mechatronics, pharmaceutical industry, production technology including mechanical engineering security technology and environmental engineering

A series of companies working in the measurement and control sector are located in the Hohenlohe / Schwäbisch Hall area; some of which have only evolved over recent years. The spectrum ranges from the development and production of valves to control systems for solar plants. The measurement and control cluster includes more than 20 enterprises.

Assembly and fastening technology cluster

Target fields of cluster policy: Automotive, logistics including intra-logistics, mechatronics, production technology including mechanical engineering and environmental engineering

In and around Künzelsau, a cluster has evolved since World War II which basically focuses on the marketing of fastening technology for the construction industry. The wholesale trade, or rather one wholesaler, was catalyst for the development of this cluster, which today also includes screw and fitting production, in addition to sophisticated logistics competences. This cluster also represents the production of and trade with supplies, consumables and tools, chemical-technical products and warehousing systems. To this extent, fastening technology is another example of geographically concentrated specialisation in which a system of contracting out has provided a decisive impetus for growth and at the same time created competitive strength on a supra-regional level. The fastening technology cluster in the Hohenlohe district includes approx. 25 enterprises.

Paper processing cluster

Target fields of cluster policy: Production technology including mechanical engineering

The development of the paper processing cluster started in Heilbronn. Heilbronn's historical attribute of being a „paper city" is still true today. Its 14.1 % share of employees in the paper, publishing and printing industry in the city of Heilbronn in 2008 is still above average. The number of employees in the paper, publishing and printing industry of approx. 3000 has been largely constant during the past 100 years. Today, the paper processing sector is dominated by the folding box industry with 1,400 employees in eight companies. Second is the school and office supplies industry with two companies and 950 employees. Other industries with clearly less employees are envelopes, pouches, bags and handle bags.

CLI: IHK-Chef Arbeitskreis „Druck, Verpackung, Medien" – CCI entrepreneur's workgroup for „printing, packaging and media"

Headed by the CCI Heilbronn-Franken, currently 14 medium-sized companies from the paper processing cluster have formed an active entrepreneur network. For more than 10 years now, these entrepreneurs meet regularly for structured and pragmatic benchmarking at the top-management level. They also exchange their experiences and opinions on management and leadership-related topics.

IHK-Chef Arbeitskreis „Druck, Verpackung, Medien"
(CCI entrepreneur's workgroup „printing, packaging and media")
c/o IHK Heilbronn-Franken

Christiane Ballreich *Ferdinand-Braun-Straße 20* *74074 Heilbronn*	*Telephone: +49 7131 9677-298* *Fax: +49 7131 9677-88298* *www.heilbronn.ihk.de*

Environmental technology cluster

Target fields of cluster policy: Environmental technology

The environmental technology cluster in the Hohenlohe district is characterised by two successful cluster initiatives. One goal is to develop a Zero Emission Region in order to reduce dependency on imported energy and to strengthen regional value adding. The second emphasis is on increasing energy efficiency of the industry and the crafts.

CLI: Bioenergie-Region Hohenlohe-Odenwald-Tauber

Together with the Neckar-Odenwald district and the Main-Tauber district, the Hohenlohe district forms the Bioenergie-Region Hohenlohe-Odenwald-Tauber cluster initiative. It is one of 25 bioenergy model regions in Germany that was selected by the Federal Ministry of Food, Agriculture and Consumer Protection in the course of a competition. The head office of the cluster is located in Buchen (for more detailed information on the Bioenergie-Region H-O-T see Region 05 Rhein-Neckar).

More information: www.bioenergie-hot.de

CLI: Modell Hohenlohe Netzwerk betrieblicher Umweltschutz und Nachhaltiges Wirtschaften e. V. – Network for environmental protection in enterprises and sustainable economic development

Modell Hohenlohe e. V. with headquarters in the Hohenlohe district is a non-profit association of about 180 companies. The network is a platform for collaboration between its members and follows the principle of a sustainable economic development. Its target is the strengthening of environmental and climate protection through economically successful concepts such as learning networks. Its focus is on working with EnergyEfficiency Tables (EnergieEffizienz-Tisch, EE-T), conducting EMAS convoys, and now also the area of resource efficiency. Eight to fifteen companies associate in a learning network, an EE-T, and so reduce costs and CO_2. Each project starts with individual consulting on the company level. They work out a common goal which is monitored on an annual basis and scientifically proven. Regular meetings at the Energy Efficiency Round Table promote the exchange of opinions on topics that are chosen by the participants in advance. The organisation is a platform for collaboration between its members and follows the principle of a sustainable economic development.

Modell Hohenlohe Netzwerk betrieblicher Umweltschutz und Nachhaltiges Wirtschaften e. V. (Network for environmental protection in enterprises and sustainable economic development)

Jutta Bauer *Weststraße 37* *74629 Pfedelbach*	*Telephone: +49 7941 6463-010* *Fax: +49 7941 6463-029* *www.modell-hohenlohe.de*

Fan and ventilation technology cluster

Target fields of cluster policy: Automotive, energy, mechatronics, production technology including mechanical engineering and environmental engineering

Over the last decades, companies working in the field of motor and fan technology have settled in the Künzelsau area and in the Jagst valley, the largest of which now being global players. The two large enterprises ebm-papst Mulfingen GmbH & Co.KG and Ziehl-Abegg AG in Künzelsau are leading the world markets in the field of electrical engineering / ventilation technology. Numerous subsidiaries, spin-offs and newly established companies operate very successfully in this sector as well. Their core products are air management systems ranging from specific motors to fans and complex ventilation systems including the relevant control technology. So, a substantial portion of the specific value-adding chain has settled in the Künzelsau area and the Jagst valley.

Packaging technology cluster

Target fields of cluster policy: New materials / surfaces and production technology including mechanical engineering

Within the last 100 years, a whole series of successful and innovative packaging machine manufacturers have settled around the cities of Crailsheim and Schwäbisch Hall. Some of them have become world market leaders, others are well on the way. This concentration process attracts more and more companies from this segment who settle in this area and expand and enhance the product and service portfolio. This cluster employs around 7,000 people in the Schwäbisch Hall district alone. Exports account for over 80 % of the packaging machine manufacturers' sales. Thus, the region has become an important location in the global packaging machine industry.

CLI: Packaging Valley Germany e. V.

Packaging Valley Germany e. V. with head office in Schwäbisch Hall links the many stakeholders in the industry, markets the region and intends to expand the value-adding chain and promote cooperation between science and the industry. Packaging Valley Germany e. V. cooperates with Packaging Excellence Region Stuttgart e. V. located in the Stuttgart region.

This association was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Packaging Valley Germany e. V.

Kurt Engel *Stauffenbergstraße 35-37* *74523 Schwäbisch Hall*	*Telephone: +49 791 580-122* *Fax: +49 791 580-113* *www.packaging-valley.com*

Knowledge industry including business-related services cluster

In the Heilbronn-Franken region, within a radius of 200km from the city of Heilbronn, there are many companies involved with innovative aspects or services in the area of corporate controlling.

CLI: Controlling-Dialog

The Controlling-Dialog initiative is a place for exchanging experiences and ideas with respect to current and innovative topics, about strategies, controlling and accounting. Its main focus is on learning together and from each other. This exchange of experiences and opinions takes place in form of specific lectures, workshops, projects, seminars and the Heilbronn Controlling Forum. Professional development is promoted by regular seminars offered. Innovative topics are dealt with in expert lectures at the Heilbronn Controlling Forum, in lectures at the Heilbronn university of applied sciences, in workshops in companies and in semi-annual projects with a small group of companies, if necessary, together with students and professors.

Controlling-Dialog
ZfBU GmbH, Institut für Strategie & Controlling

Prof. Dr. Ralf Dillerup *Grimmstraße 25* *74223 Flein*	*Telephone: +49 7131 203-464* *Fax: +49 7131 598-360* *www.controlling-dialog.de*

In addition, industry-specific companies located in the Heilbronn-Franken region are actively involved in innovation activities of other cluster initiatives, for example the Anwendungscluster Nanotechnology der Metropolregion Stuttgart or the Leading Edge Cluster MicroTec Südwest.

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Hochschule Heilbronn mit RWH Künzelsau (Reinhold-Würth-Hochschule)	**University of Applied Sciences** Technical study programmes: Mechanics and electronics with automotive systems engineering, electronics and information technology, mechanical engineering, mechatronics and microsystem technology, robotics and automation, process and environmental technology, technical management, medical informatics, information management in medicine, software engineering. Selected business-oriented programmes: Business administration, electronic business, business management, business administration in transport and logistics (master's degree), economics and technology. **Campus RWH Künzelsau:** Drive engineering and mechatronics, energy management, industrial engineering, technical management, building systems technology, business administration and culture, leisure, sports management, business administration and marketing. Transfer mainly through ten companies belonging to the Steinbeis organisation and the institute of applied research (IAF).
Duale Hochschule Baden-Württemberg Mosbach, Bad Mergentheim campus	**Cooperative State University** The Cooperative State University of Bad Mergentheim offers the study programmes International Business and Health Management.
Research and transfer institutions	**Bildungs- und Technologiezentrum der Handwerkskammer Heilbronn (BTZ Heilbronn)** – Training and technology Centre of the chamber of handicrafts The competence centre "Regenerative energies technology" is being developed currently. **Deutsches Zentrum für Luft- und Raumfahrt, Lampoldshausen site – Aerospace centre** The DLR site Lampoldshausen, today employing about 220 people, was founded in 1959 as a test site for testing liquid rocket engines and started operation in 1962. One key responsibility of the DLR site Lampoldshausen is the planning, construction and operation of test stands for space engines for the European Space Agency (ESA) and in cooperation with the European space industry. **Fraunhofer Institut für Silicatforschung ISC, Würzburg, Bronnbach site** – Silicate research Focus on: New testing methods and modern machining technologies specifically for the laboratory glass sector, conservation and coating programmes for cultural assets at risk, close cooperation with Forschungsgemeinschaft Technik und Glas (FTG). **Lehr- und Versuchsanstalt für Wein- und Obstbau Weinsberg** – Training and research centre for viticulture and fruit farming This institute run by the state of Baden-Württemberg acts as a training college (viticulture, oenology, fruit farming and distillery) and quality inspection centre. The Weinsberg state vineyard is affiliated with this institute. **Technologie-Transfer-Zentrum Lampoldshausen** Responsibilities: Support cooperation of scientists, engineers, technicians and research-oriented craftsmen, knowledge transfer from science to industry, provision of expertise and infrastructure. Goals: Boost exchange of knowledge and information on the basis of technology transfer, maintain contacts to enterprises, universities, research institutions and federal and state authorities. • Member of the Forum LRBW - Luft- und Raumfahrt Baden-Württemberg • Project partner of the cluster initiative Future Aerospace Network FAN • Member of the technology and start-up centre association "Verband der Baden-Württembergischen Technologie- und Gründerzentren e. V." • Forum Ariane Lampoldshausen e. V.

Ostwürttemberg

03

The region

The Ostwürttemberg region covers an area of 2,138 km² and has about 450,000 inhabitants. This region includes the two districts of Heidenheim and Ostalbkreis. Its integration into the Stuttgart metropolitan region and its proximity to the Ulm area offers many different networking options.

Compared to the state of Baden-Württemberg as a whole, Ostwürttemberg's economy is clearly more production-based. Therefore, its share of the entire services sector, also of corporate services, is lower than the state average.

In detail[11]:

- Production sector: 49.0 % (State: 37.8 %)
- Services sector in total: 50.6 % (State: 61.8 %)
  - Trade: 12.0 % (State: 13.8 %)
  - Corporate service providers: 8.3 % (State: 11.6 %)
  - Transport: 3.0 % (State: 3.9 %)

The structures are based on the early industrial development in many areas, especially in the area of mechanical engineering and in metal machining and processing. This applies to surface technology but also to the automotive sector and the areas of production technology including mechanical engineering or design.

The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Metal industry including mechanical engineering and the production of metal products;
- Vehicle production and suppliers;
- Production of electrical equipment and
- Production of computers and electrical and optical products.

Its innovation power ranks above average compared to other regions. Due to the innovation power of the powerful small and medium-sized businesses and of some global leaders and due to the close cooperation of businesses and science, this region ranks among the top leaders in the German patent statistics. Compared to the innovation index of 2008, Ostwürttemberg could improve its ranking from number 5 to 3. The two Ostwürttemberg districts of Heidenheim and Ostalbkreis are now also among the 13 most innovative of the total 44 urban and rural districts. While the reached level of innovations is average, its innovation dynamic is clearly above average.

The region's innovation index is as follows:

- Total index: 36.6 % (State: 35.6 %)
- Level index: 35.2 % (State: 35.7 %)
- Dynamic index: 40.8 % (State: 35.4 %)

11 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011

The region's clusters and cluster initiatives

Automotive cluster

Target fields of cluster policy: Automotive

The automotive sector in this region concentrates mainly on the supply industry. The product spectrum offered by the well over 200 largely small and medium-sized enterprises with about 30,000 employees in total, who often are market leaders in their respective sectors, ranges from individual parts to complex system components. This cluster includes suppliers from all areas relevant for the production of passenger cars, but also for commercial and special purpose vehicles. Moreover, it includes matching engineering services, from design to testing services and more. In addition, you will find investment goods manufacturers offering production technology for the automotive sector.

CLI: Automotive-Initiative Ostwürttemberg

Founded in 2006, this cluster initiative, in addition to creating transparency, focuses on networking among the automotive stakeholders, within the region but also state-wide, generating cooperations and value adding relationships to boost competitiveness. Several projects and events accelerate knowledge transfer between universities, R&D institutions and companies. Emphasis here is on current issues such as new design and development principles, simulation methods and quick processes or the changed role design plays in the automotive industry. This initiative is also involved as a partner in the state-wide network "automotive-bw".

Automotive-Initiative Ostwürttemberg
c/o Wirtschaftsförderungsgesellschaft mbH Region Ostwürttemberg (WiRO)

Markus Hofmann	*Telephone: +49 7171 92753-21*
Universitätspark 1	*Fax: +49 7171 92753-33*
73525 Schwäbisch Gmünd	*www.ostwuerttemberg.de/automotive*

Forestry and timber cluster

Target fields of cluster policy: Energy, logistics including intra-logistics, new materials / surfaces and production technology including mechanical engineering

The highly forested region benefits from excellent competence in the processing, working and manufacture of end products manufactured from the raw material wood. Applications in the timber and paper industry are wide-spread, ranging from forestry to transport and logistics, timber processing, paper and cellulose industry, packaging industry and regenerative energy. The timber and paper-related mechanical engineering and tooling industry and the printing and publishing industry are traditionally represented strongly in this

cluster as well. Ostwürttemberg hosts approx. 700 companies with around 9000 employees that can be assigned to the forestry, timber and paper industries.

CLI: Cluster initiative Forestry and Timber Ostwürttemberg

The initiative that started in 2008 creates transparency with respect to the forestry and timber-related stakeholders along the entire value adding chain – as regards wood as a material and also regarding its energetic use – and provides support for cooperation projects. Under inclusion of the rural district of Schwäbisch Hall, the Ministry for the Rural Areas and Consumer Protection of Baden-Württemberg and an EC funded study have commonly developed projects for strengthening the competitiveness of the timber sector and for increasing efficiency in the forestry area. Marketing activities for the timber and paper field of competence take place in the context of regional location marketing. The Ostwürttemberg cluster initiative is strongly involved in the state-wide forestry and timber cluster.

Cluster-Initiative Forst und Holz Ostwürttemberg (Cluster initiative Forestry and Timber)
c/o Wirtschaftsförderungsgesellschaft mbH Region Ostwürttemberg (WiRO)

Dr. Ursula Bilger *Universitätspark 1* *73525 Schwäbisch Gmünd*	*Telephone: +49 7171 92753-0* *Fax: +49 7171 92753-33* *www.ostwuerttemberg.de/holz*

Health industry cluster

Target fields of cluster policy: Health industry

The health industry with approx. 1800 companies and about 25,000 employees represents the strongest sector in Ostwürttemberg employment-wise. Besides hospitals, clinics and health service providers, many small and medium-sized enterprises and major market leaders specialize in health products and services. In addition, universities in this region have developed several study programmes for later employment in the health industry, for example ophthalmic optics, hearing acoustics and health management at Aalen university, health promotion at Pädagogische Hochschule Schwäbisch Gmünd and social work at the Baden-Württemberg cooperative state university in Heidenheim. SRH FernHochschule Riedlingen also offers the distance study programmes of food management and food technology at Ellwangen. Further, the Limes spa and the mine sanatorium in Aalen or the WELEDA garden of medical plants, for example, are being developed for the tourism industry.

CLI: Health industry cluster initiative of Ostwürttemberg

Companies, service providers and universities have associated and form the Gesundheitswirtschaft Ostwürttemberg workgroup that is led by the Ostwürttemberg CCI. Relevant issues for the workgroup are the knowledge transfer between industry and universities, overall trends in the health industry and the dialogue between the various partners. The exchange of experiences regarding corporate health programmes is another point of interest in the region.

Cluster-Initiative Health industry Ostwürttemberg (Health industry cluster initiative)
c/o IHK Ostwürttemberg

Markus Schmid *Ludwig-Erhard-Straße 1* *89520 Heidenheim*	*Telephone: +49 7321 324-183* *Fax: +49 7321 324-169* *www.ostwuerttemberg.ihk.de*

Creative industries cluster

Target fields of cluster policy: Media, culture and creative industries

Gold and silverware production has a long tradition in the Ostwürttemberg region, especially in Schwäbisch Gmünd. This was the basis for today's university of design in Schwäbisch Gmünd that is the nucleus for far more than 100 design studios and creative service providers with about 1700 employees in total that have mainly settled in the Schwäbisch Gmünd region. Together with the university, they have won many prizes and renowned awards, about 200 since 2000. The cluster's core industries are industrial and product design, communication and jewellery design.

CLI: Creative industries of Ostwürttemberg

About 150 design studios, advertising and multi-media agencies, architects and other creative service providers make Schwäbisch Gmünd a region with a strong competence in design and a high innovation potential. Presenting this competence and networking among creatives, the industry, politics and the public, are the primary goals of this cluster initiative. At the centre of its activities is the Hochschule für Gestaltung, the University of Design, who has started and realised many different development projects together with creative agencies and regional production companies.

Cluster-Initiative Kreativwirtschaft Ostwürttemberg
(Creative industries)
c/o Stadt Schwäbisch Gmünd

Alexander Groll *Marktplatz 1* *73525 Schwäbisch Gmünd*	*Telephone: +49 7171 603-1020* *Fax: +49 7171 603-1019* *www.schwaebisch-gmuend.de*

Logistics cluster

Target fields of cluster policy: Logistics including intra-logistics

Ostwürttemberg's location with direct access to the North-South connection, motorway A 7, and very close to the East-West connection, motorway A 8, is beneficial for the settlement of logistics companies. The region hosts all types of logistics companies, from major globally active transport companies to logistics service providers and small haulage companies and logistics-related packaging companies who cover the entire spectrum of the logistics value adding chain and who make noteworthy above-average investments. All in all, about 400 companies from the entire value adding chain have settled in this region, with about 3,400 employees in total.

CLI: Logistics initiative of Ostwürttemberg

The logistics initiative of Ostwürttemberg links the regional companies, on the supplier and the consumer side, for generating cooperations and value-adding relationships and for boosting competitiveness. The initiative contributes to the state-wide logistics network LogBW and benefits from it as well. Synergies are to be created by cooperating with Duale Hochschule Baden-Württemberg in Heidenheim which offers its own logistics study programme and so puts the issue in focus.

Logistik-Initiative Ostwürttemberg
c/o Landratsamt Heidenheim
Wirtschaftsförderung

Michael Setzen *Felsenstraße 36* *89518 Heidenheim*	*Telephone: +49 7321 321-2595* *Fax: +49 7321 321-2592* *www.landkreis-heidenheim.de*

Surface technology cluster

Target fields of cluster policy: Automotive, new materials / surfaces and production technology including mechanical engineering

Far more than 30 companies settling in Ostwürttemberg offer surface technology, be it the traditional designing of jewellery or the highly technical optimisation of functional characteristics of material surfaces. Adding to this, there is a large number of companies utilising these processes, for example in the mechanical engineering, metal working and machining, automotive or plastics industries. Further, the Ostwürttemberg region hosts, in addition to Forschungsinstitut Edelmetalle & Metallchemie (fem) and Aalen university, several training and educational institutions, institutes and organisations supporting surface technology, some even with supra-regional significance.

Photonics cluster

Target fields of cluster policy: Photonics

The regional photonics cluster with about 60 companies and more than 7,000 often highly qualified jobs is strongly influenced by the largely diversified Zeiss Group and Aalen university with its corresponding study programmes. The cluster is also characterised by innovative developments and products and by interlinked value adding processes. Its broad range of photonic technologies is used for interim and end products, for example, in applications in production and measurement technology, in IT, electronics, biotechnology and life sciences.

CLI: Photonic Valley Ostwürttemberg

Photonic Valley Ostwürttemberg was initiated by the Wirtschaftsförderungsgesellschaft mbH Region Ostwürttemberg (WiRO), as an impulse and with involvement of different regional stakeholders and numerous companies in 2001; its goals are networking, know-how transfer, cooperations and a marketing platform for optical technologies, which is considered a future industry. Further goals are winning start-ups and innovative companies as new cluster members with its "Starter Package Photonics" and strengthening and expanding its close cooperation with Photonics BW e. V.

Photonic Valley Ostwürttemberg
c/o Wirtschaftsförderungsgesellschaft mbH Region Ostwürttemberg (WiRO)

Dr. Ursula Bilger / Markus Hofmann	*Telephone: +49 7171 92753-21*
Universitätspark 1	*Fax: +49 7171 92753-33*
73525 Schwäbisch Gmünd	*www.photonic-valley.de*

Photonics BW e. V. – Centre of competence for optical technologies in Baden-Württemberg has its headquarters in Oberkochen (see chapter 13: State-wide and cross-regionalnetworks).

Production technology including mechanical engineering cluster

Target fields of cluster policy: Automotive and production technology including mechanical engineering

Manufacture of tools and machines for chipping and metal working and the relevant processes have a long tradition in the Ostwürttemberg region. It is home to more than 400 companies, some of them with an excellent reputation worldwide. A large number of small and medium-sized enterprises have its core competencies in the field of founding. This technology offers enormous potential for future innovation. Aalen university is renowned world-wide for its founding research centre (Gießerei Technologie Aalen – GTA). Its competence in the area of chipping is expressed in the fact that companies have established and funded a chair in this field at Aalen university. This topic is also given special consideration in the project Zukunftsinitiative Ostwürttemberg 2015.

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Hochschule Aalen – Technology and economics	**University of Applied Sciences for Technology and Economics** More than 30 study programmes in the faculties of chemistry, electronics and informatics, mechanical engineering and material technology, optics and mechatronics and economics guarantee academically based but yet practically oriented training in the areas of technology and economics. Transfer through Zentrum für Optische Technologien (ZOT), Forschungszentrum Metallguss (Gießerei Technologie Aalen – GTA), Institut für Angewandte Forschung (IAF), the cross-university centre of applied research (Zentrum für Angewandte Forschung ZAFH PHOTONn) and numerous companies from the Steinbeis organisation. A forward-looking and EC-funded project starts at the innovation centres at the university campus. Its goal is to boost and professionalise the transfer between the university and the companies in the region. A sustainable innovation environment is created, spin-offs from the university are facilitated and the innovation capability of regional enterprises is strengthened.
Hochschule für Gestaltung Schwäbisch Gmünd	**University of Applied Sciences for Design** Education of communication, interaction and product designers
Duale Hochschule Baden-Württemberg Heidenheim	**Cooperative State University** Selected technical and economic study programmes: Information technology, mechanical engineering, computer science, industrial engineering, service management with focus on media industry, business administration for transport and logistics with focus on logistics information systems.
SRH FernHochschule Riedlingen, Studienzentrum Ellwangen	**Remote University of Applied Sciences** So far, the only university in Germany that offers food management and food technology distance study programmes while working or completing an apprenticeship. In addition, the university offers the distance study programmes of business administration, health and social economics and business psychology.
Research and transfer institutions	**Forschungsinstitut Edelmetalle & Metallchemie (fem) - Research institute for precious metals and metal chemistry** Forschungsinstitut Edelmetalle & Metallchemie (fem) in Schwäbisch Gmünd, which participates in the Innovationsallianz Baden-Württemberg, has operated as an independent not-for-profit institute in the fields of metallurgy and surface technology since 1922. The work of about 60 scientists is focused on applications of different coating technologies. Its activities range from short-term problem solutions to comprehensive development projects.

Mittlerer Oberrhein

04

The region

With 2137 km², the region of Mittlerer Oberrhein is the smallest of the twelve regions of Baden-Württemberg area-wise, but it has just under a million inhabitants. It is located in the Upper Rhine area, in the middle between the Frankfurt am Main and Basel metropolitan areas. The region includes the cities of Karlsruhe and Baden-Baden and the two districts of Karlsruhe and Rastatt.

Especially Karlsruhe and its surroundings belong to the leading locations in the areas of information and communication technology and nanotechnology in Europe. Due to its geographical location, with direct borders to the state of Rheinland-Pfalz and the French department Bas-Rhin, some of the region's cluster initiatives operate across state and country borders.

Compared to the state of Baden-Württemberg as a whole, the region of Mittlerer Oberrhein is characterised by the service sector rather than by production. The share of corporate service providers is above state-average.

In detail[12]:

- Production sector: 32.9 % (State: 37.8 %)
- Services sector in total: 66.8 % (State: 61.8 %)
  - Trade: 13.2 % (State: 13.8 %)
  - Corporate service providers: 15.0 % (State: 11.6 %)
  - Transport: 4.2 % (State: 3.9 %)

The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Vehicle production and suppliers;
- Production of electrical equipment;
- Information technology service providers and
- Mechanical engineering.

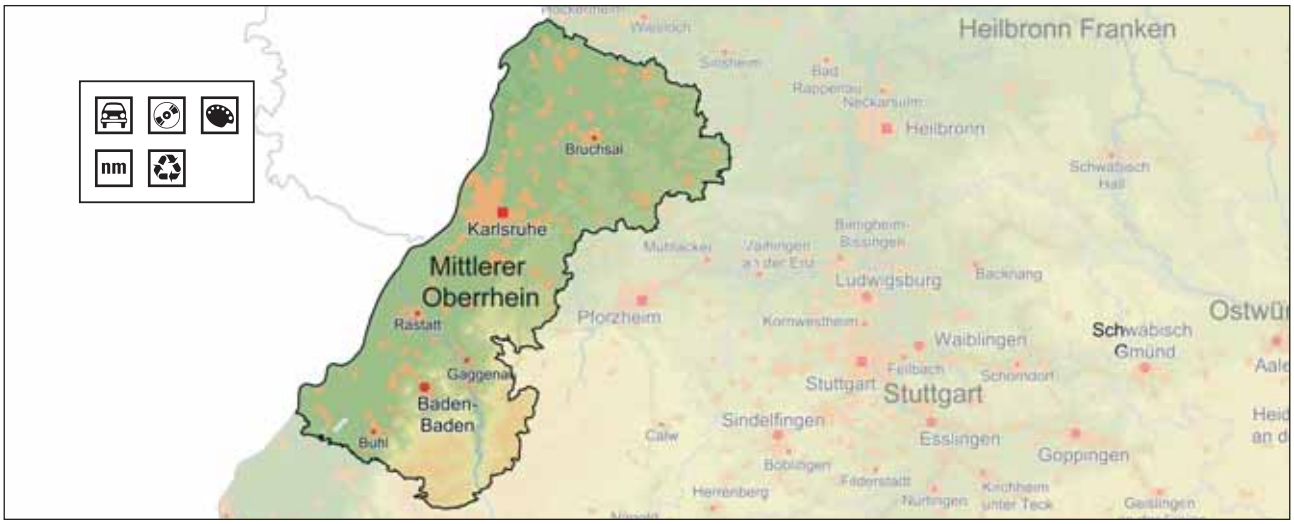
Its innovation power ranks in the middle compared to other regions. The level index is slightly below average. The dynamic index is above the state average. Its innovation power is based on its outstanding research infrastructure, in particular institutions like the Karlsruher Institut für Technologie (KIT) and several Fraunhofer institutes.

The region's innovation index is as follows:

- Total index: 32.3 % (State: 35.6 %)
- Level index: 30.3 % (State: 35.7 %)
- Dynamic index: 38.3 % (State: 35.4 %)

12 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011

The region's clusters and cluster initiatives



Automotive cluster

Target fields of cluster policy: Automotive

TechnologieRegion Karlsruhe is home to production sites of the Mercedes-Benz group and on the other side of the Rhine, in Wörth, directly opposite to Karlsruhe, has settled the world's biggest Mercedes-Benz truck factory. In addition, the region features an outstanding research infrastructure in the automotive area. This includes, for instance, the Karlsruher Institut für Technologie (KIT), the Fraunhofer Institut für chemische Technologie (ICT), which is internationally recognised as a competence centre in the field of airbag technology, the Fraunhofer Institut für Optronik, Systemtechnik und Bildauswertung (IOSB) or the Forschungszentrum Informatik (FZI).

CLI: Automotive Engineering Network Südwest

The initiative was founded in 2005 as a supplier network and sees itself as a communication platform for enterprises and institutions in the automotive area. The network includes more than 80 stakeholders in the areas of supply, equipment, mechanical engineering, engineering and research. The initiative also initiates and manages cooperation projects between its members, involving the research institutions of the region as well. The AEN, on the state level, is part of the automotive-BW network and is a cooperation partner of the French automotive network „pole vehicule du futur".

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Automotive Engineering Network Südwest
c/o Wirtschaftsförderung Karlsruhe

Uwe Timrott *Zähringerstraße 65a* *76133 Karlsruhe*	*Telephone: +49 721 133-7345* *Fax: +49 721 133-7309* *www.ae-network.de*

CLI: eMobilitätszentrum Karlsruhe

eMobilitätszentrum Karlsruhe started its operation in September 2011. 17 partners from Karlsruhe and the surrounding region present the entire value adding chain of E-mobility, from research to readily available vehicles on the market. An important element of eMobilitätszentrum is its practical value, that means that all presented vehicles can actually be purchased, rented or tested. At the same time, however, the centre is a platform for entrepreneurial contacts and presentations of new technologies. For example, the

involved research institutions present the latest developments in the battery field – one of the key issues of E-mobility – or current developments in the areas of lightweight design, vehicle safety and drivetrain innovations.

eMobilitätszentrum Karlsruhe
c/o Wirtschaftsförderung Karlsruhe

Ralf Eichhorn/Uwe Timrott *Zähringerstraße 65a* *76133 Karlsruhe*	*Telephone: +49 721 133-7340/+49 721 133-7345* *Fax: +49 721 133-7309* *www.emobilitaetszentrum.de*

CLI: KITe hyLITE

The development of lightweight structures in vehicle production results in lower fuel consumption and thus lower emissions. New function-integrated designs enhance product attractiveness and also the passive and active safety of vehicles. Goal of the KITe hyLITE initiative of industry and research is the quick translation of innovative technologies, production methods and products into economically reasonable small and high volume series. KITe hyLITE is the platform for the composites technology cluster in which several research institutions in Baden-Württemberg, together with partners from the industry, particularly Daimler and Porsche, develop innovative processes for the large-scale production of fibre composite components.

KITe hyLITE
c/o Fraunhofer Institut Chemische Technologie

Prof. Dr. Frank Henning *Joseph-von-Fraunhoferstraße 7* *76327 Pfinztal*	*Telephone: +49 721 4640-420* *Fax: +49 721 4640-730* *www.ict.fraunhofer.de*

Information technology / enterprise software cluster

Target fields of cluster policy: Information technology, IT applications / enterprise software, logistics including intra-logistics and security technology

The ICT[13] cluster in the Karlsruhe area has evolved over the past 25 years and represents the cluster with the greatest development potential in the region. The high-tech entrepreneurs network Cyberforum offers comprehensive support to start-ups and emerging companies. Value adding processes focus on information technology (IT), primarily in technical software. This applies mainly to the business-to-business segment, including the IT and media industry itself. Through the „Network of the IT2Rhine project“, the region also features a tri-national IT cluster, with focus on the areas of Green-IT and the high-tech industries. Based on the European network „CLOE – Clusters Linked over Europe“ coordinated by the city of Karlsruhe, steps are under way to expand international networking in the field of cluster management.

CLI: CyberForum e. V.

With about 950 members, CyberForum e. V. is the largest regionally active high-tech entrepreneur network in Germany. The CyberForum network brings together entrepreneurs, founders, employees in research and other institutions, students, business angels and apprentices. In total, the members represent about 25,000 jobs. CyberForum organises around 120 events each year, for networking and advanced training. Another key area are programmes for specific target groups, for example, mentoring & coaching, access to a dedicated investor network for founders and startups or the training initiative for apprentices. In addition, CyberForum is actively involved in clusters and cooperative projects. It was the regional coordination office of the software cluster that received an award in the Leading Edge Cluster competition of the Federal Ministry of Education and Research. Founded in 1997 as a private public partnership, CyberForum now employs a team of more than 20 employees.

13 ICT = Information and communication technologies

CyberForum e. V.

David Hermanns *Haid-und-Neu-Straße 18* *76131 Karlsruhe*	*Telephone: +49 721 6183-330* *Fax: +49 721 6183-335* *www.cyberforum.de*

CLI: Karlsruher IT-Sicherheitsinitiative (KA-IT-Si) – IT security initiative

Karlsruher IT-Sicherheits-Initiative was established in 2000 in order to provide a platform for managers and IT security officers with regard to IT security in companies. This initiative intends to promote the exchange of experiences among IT security officers, provide the knowledge required for taking appropriate security measures and sensitise companies, in particular small and medium-sized companies, for the importance of IT security. KA-IT-Si is a special interest group of CyberForum e. V. with headquarters in Karlsruhe.

Karlsruher IT-Sicherheitsinitiative (KA-IT-Si)
(IT security initiative)
c/o Secorvo Security Consulting GmbH

Saskia Mendler/Dirk Fox *Ettlinger Straße 12-14* *76137 Karlsruhe*	*Telephone: +49 721 255171-0* *Fax: +49 721 255171-100* *www.ka-it-si.de*

CLI: Mobile Region Karlsruhe

Mobile Region Karlsruhe is an initiative of companies involved with mobile applications or applications for mobility (transport, logistics). Together, the members intend to act as a showroom for innovative and competent solutions for the information society to come. Top priorities are collaboration and exchange of experiences between science and industry. Mobile Region Karlsruhe is a special interest group of CyberForum e. V.

Mobile Region Karlsruhe
c/o CyberForum e. V.

Kerstin Weber-Sanguigno *Haid-und-Neu-Straße 18* *76131 Karlsruhe*	*Telephone: +49 721 6183-330* *Fax: +49 721 6183-335* *www.mobileregion.de*

CLI: Leading Edge Cluster – Software-Cluster „Software innovations for the digital enterprise“

The software cluster in Southwestern Germany is known as the European Silicon Valley. Around the centres of software development in Darmstadt, Karlsruhe, Kaiserslautern, Saarbrücken and Walldorf, universities, companies and research institutions work closely together and jointly develop the enterprise software of the future. For this, the software cluster received an award in the Leading Edge Cluster competition of the Federal Ministry of Education and Research in 2010. The software cluster coordination offices hereby support the cluster development through a variety of activities, for example, technology transfer, international communication, founding and settling support, advanced training and many other cluster services. The Baden-Württemberg part of the cross-state software cluster is supported in this regard by the Karlsruher Netzwerk CyberForum e. V.

Software-Cluster „Softwareinnovationen für das digitale Unternehmen“
(Software innovations for the digital enterprise)
Koordinierungsstelle Nordbaden, c/o CyberForum e. V.

David Hermanns *Haid-und-Neu-Straße 18* *76131 Karlsruhe*	*Telephone: +49 721 6183-337* *Fax: +49 721 6183-335* *www.software-cluster.com*

Creative industries cluster

Target fields of cluster policy: Media, culture and creative industries

With about 14,600 employees, Karlsruhe is a centre of the culture and creative industry in Southwestern Germany. Almost one out of nine companies belongs to this sector. Karlsruhe is said to be an ideal place for

new talents, new ideas and new business models. Important locational advantages are its diverse university landscape, sophisticated networks and the active cultural environment. Karlsruhe has an outstanding position in Baden-Württemberg in the field of software/games. A great potential for innovations lies in the interface where technology, software, design, media art, research and science meet.

CLI: K3 – Kultur- und Kreativwirtschaftsbüro Karlsruhe – Office of the culture and creative industry

Various pilot projects stand as examples for the systematic development of the creative location: Transformation of the former slaughterhouse area into a creative park with a start-up centre for creative businesses, establishment of K3 - Kultur- und Kreativwirtschaftsbüro Karlsruhe - as a competent contact centre for the creative industry and international collaboration, in particular with the leading metropolitan regions on the upper Rhine (Freiburg, Basel, Strasbourg).

K3 – Kultur- und Kreativwirtschaftsbüro Karlsruhe
(Office of the culture and creative industry)

Dirk Metzger (Creative industry) *Sabrina Isaac-Fütterer (Culture industry)* *Durlacher Allee 53* *76131 Karlsruhe*	*Telephone: +49 721 133-7348/+49 721 133-4055* *Fax: +49 721 133-957348/+49 721 133-4009* *www.kultur.karlsruhe.de*

Nanotechnology cluster

Target fields of cluster policy: Automotive, biotechnology, energy, microsystem technology including nanotechnology, new materials/surfaces and photonics

With its focus of excellence at Karlsruhe University, at the institute of nanotechnology and the federal competence network NanoMat at Forschungszentrum Karlsruhe, this region has evolved as the state's key centre in this field. Cooperations between scientific and company R&D and corporations from Karlsruhe, the surrounding area and the neighbouring Rhein-Neckar region provide the basis for an excellent cluster quality, in the national and international arena. Recently, the Netzwerk Nanotechnologie of the Rhein-Neckar metropolitan region and Karlsruhe Nanoforum have merged and become „nanoValley.eu".

CLI: NanoMat competence network

The NanoMat competence network is a supra-regional association of renowned research institutions and companies from the industry. Currently, 31 members coordinate their research activities within this network. Beyond this, NanoMat operates in diverse fields of technology communication and lobbying and sees itself as a pioneer, bringing together research and industrial applications in the small and medium firm sector.

Kompetenznetzwerk NanoMat (NanoMat competence network)
c/o Karlsruher Institut für Technologie

Dr. Regine Hedderich/Ines Höltje *Hermann-von-Helmholtz-Platz 1* *76344 Eggenstein-Leopoldshafen*	*Telephone: +49 721 608-28318* *Fax: +49 721 608-26420* *www.nanomat.de*

CLI: nanoValley.eu

nanoValley.eu is a new high-tech initiative founded in 2009 that promotes medium-sized enterprises. Its topmost goals are the transfer of knowledge and technology between companies, the strengthening of research and development in enterprises and the economic utilisation of research results. Moreover, nanoValley.eu sees itself as an information and news platform that advertises the innovation-oriented companies and research institutions in the nanoValley region (Baden-Württemberg, Hesse, Rhineland-Palatinate, Saarland, Northern Switzerland, Alsace).

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF). Furthermore, BASF SE, the Karlsruher Institut für Technologie (KIT), the state of Baden-Württemberg and the chambers of commerce and industry provide funding as well.

Technologiebüro nanoValley.eu *c/o Karlsruher Institut für Technologie KIT*	
Institut für Nanotechnologie *Dr. habil. Sven Dierig* *Hermann von Helmholtz Platz 1* *76344 Eggenstein-Leopoldshafen*	*Telephone: +49 721-608 28493* *Fax: +49 721-608 26368* *www.nanovalley.eu*

Environmental technology cluster

Target fields of cluster policy: Energy and environmental technologies

The Karlsruhe region hosts numerous companies and also research institutions operating in the area of energy efficiency. The value adding chain focuses on the connection between IT and energy industry, on increasing energy efficiency and the use of new technologies for biomass and geothermal energy production.

CLI: EnergieEffizienz-Netzwerk Karlsruhe

The Energy Efficiency Network Karlsruhe (EEN-KA) understands itself as an offer for cooperation and platform for networking for the Karlsruhe industry. Its basic components are individual initial consulting services, exchange of hands-on experiences and regular expert lectures. In addition, the ten participating companies have fixed a common energy saving goal by the end of the 4-year term. The participating companies intend to reduce their energy consumption by at least seven percent and their CO_2 emissions by at least six percent within three years. Progress is monitored on an annual basis and scientifically proven.

EnergieEffizienz-Netzwerk Karlsruhe *c/o Stadt Karlsruhe (Umwelt- und Arbeitsschutz)*	
Daniel Hogenmüller *Marktgrafenstraße 14* *76131 Karlsruhe*	*Telephone: +49 721 133-3104* *Fax: +49 721 133-3109* *www.karlsruhe.de/b3/natur_und_umwelt/klimaschutz/Klimaprojekte/een-ka*

CLI: EnergieForum Karlsruhe

The EnergieForum Karlsruhe initiative founded by 29 research and development institutions and 90 enterprises in 2006 forms a strong competence network. Its goal is to ensure a rapid competence transfer from research and development to companies, for them to develop targeted new products, services and markets. Boosting energy productivity, research of new energy sources and the consequent development of environmental and renewable energies are the central aspects of a future-oriented energy strategy that needs to be worked out and implemented in common. Closely associated with nanotechnology and computer science, Karlsruhe ranking at the top in both fields, it will produce sustainable and environmental energy concepts for the future.

EnergieForum Karlsruhe *c/o Wirtschaftsförderung Karlsruhe*	
Ralf Eichhorn / Diethelm Rumpel *Zähringerstraße 65a* *76133 Karlsruhe*	*Telephone: +49 721 133-7340 / +49 721 133-7333* *Fax: +49 721 133-7309* *www.energieforum-karlsruhe.de*

In addition, the region of Mittlerer Oberrhein hosts the offices of the state-wide and cross-regional networks such as the biomimetics competence network and the competence networks "Funktionelle Nanostrukturen in Baden-Württemberg" and "Südwestdeutscher Forschungs- und Lehrverbund Kerntechnik" (see chapter 13: State-wide and cross-regional networks).

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Karlsruher Institut für Technologie (KIT)	**Institute of Technology** The former Forschungszentrum Karlsruhe and Karlsruhe University have been merged effective as of 1 October 2009 to become the Karlsruher Institut für Technologie. The KIT employs a workforce of 8,000 and manages an annual budget of € 600 millions, combining the strengths of the two partners. In analogy to the renowned MIT in Boston/Massachusetts, the KIT aims to utilise the synergy effects generated by the exchange between industry and science. So, on the one hand KIT offers academic qualification and research capacity in the faculties of architecture, civil engineering, geo and environmental sciences, chemistry and biosciences, electrical engineering and information technology, humanities and social sciences, computer science, mathematics, physics, economics and business engineering. On the other hand, KIT is home of the former Forschungszentrum Karlsruhe belonging to the Helmholtz-Gemeinschaft and being one of Europe's largest natural and engineering science research institutions. This part of KIT is broken down into five research faculties: Matter and materials, earth and environment, health, energy and key technologies. The central KIT services unit Innovations Management (IMA) is service partner for the commercial use of research results at the KIT.
Hochschule Karlsruhe – Technology and economics	**University of Applied Sciences** Specialising in technology and economics with the faculties of architecture and construction, geomatics, mechanical engineering and mechatronics, electrical and information engineering, computer science and business informatics, and economics.
Duale Hochschule Baden-Württemberg Karlsruhe	**Cooperative State University** Faculties for economics and technology
Transferorientierte ForschungsInstitutionen	**Institutes of Fraunhofer Gesellschaft** • Fraunhofer-Institut für Chemische Technologie ICT, Pfinztal-Berghausen – Chemical technology • Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung IOSB, Karlsruhe – Optronics, system technologies and image evaluation • Fraunhofer-Institut für System- und Innovationsforschung ISI, Karlsruhe – System and innovation research **Other institutions** • Forschungszentrum Informatik (FZI) – Computer science research centre • Zentrum für Kunst und Medien (ZKM) – Arts and media centre 20 companies belonging to the Steinbeis organisation are also located in Karlsruhe.

Rhein-Neckar

05

The region

The Rhein-Neckar metropolitan region is located in the South-East of Germany, where three German states meet: Baden-Württemberg, Hessen and Rheinland-Pfalz. It encompasses seven districts (Bad Dürkheim, Bergstraße, Germersheim, Neckar-Odenwald-Kreis, Rhein-Neckar-Kreis, Rhein-Pfalz-Kreis, Südliche Weinstraße) and eight independent municipalities (Frankenthal, Heidelberg, Landau, Ludwigshafen, Mannheim, Neustadt a. d. Weinstraße, Speyer, Worms). About 2.4 million people live in an area of 5,637 km².

Compared to the state of Baden-Württemberg as a whole, this region is dominated far more by the service sector than by production. The share of corporate service providers is above state-average.

In detail[14, 15]:

- Production sector: 29.3 % (State: 37.8 %)
- Services sector in total: 70.4 % (State: 61.8 %)
  - Trade: 14.1 % (State: 13.8 %)
  - Corporate service providers: 13.9 % (State: 11.6 %)
  - Transport: 4.0 % (State: 3.9 %)

The economic success of this region is closely connected with its outstanding science and research landscape offering an extraordinary innovation potential. With the restructuring of the organisations involved in common regional development in 2006, a public-private partnership model was established that is unique in Germany. Since then, Metropolregion Rhein-Neckar GmbH, Verband Region Rhein-Neckar and Zukunft Metropolregion Rhein-Neckar e. V. have stood for common regional development work.

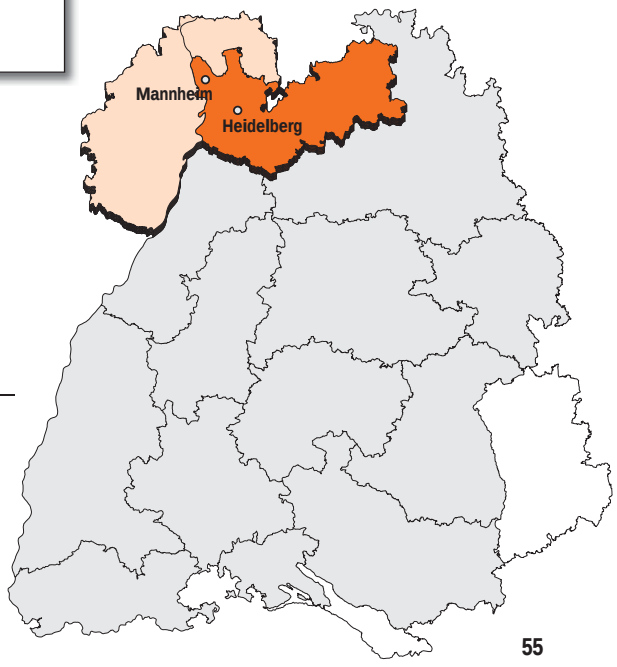
The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Mechanical engineering.
- Information technology service providers;
- Vehicle production and suppliers; and
- Recruitment agencies.

Its innovation power ranks clearly at the top compared to other regions. The level reached, number 2 in the ranking, and also the innovation dynamic, number 4 in the ranking, are above average.

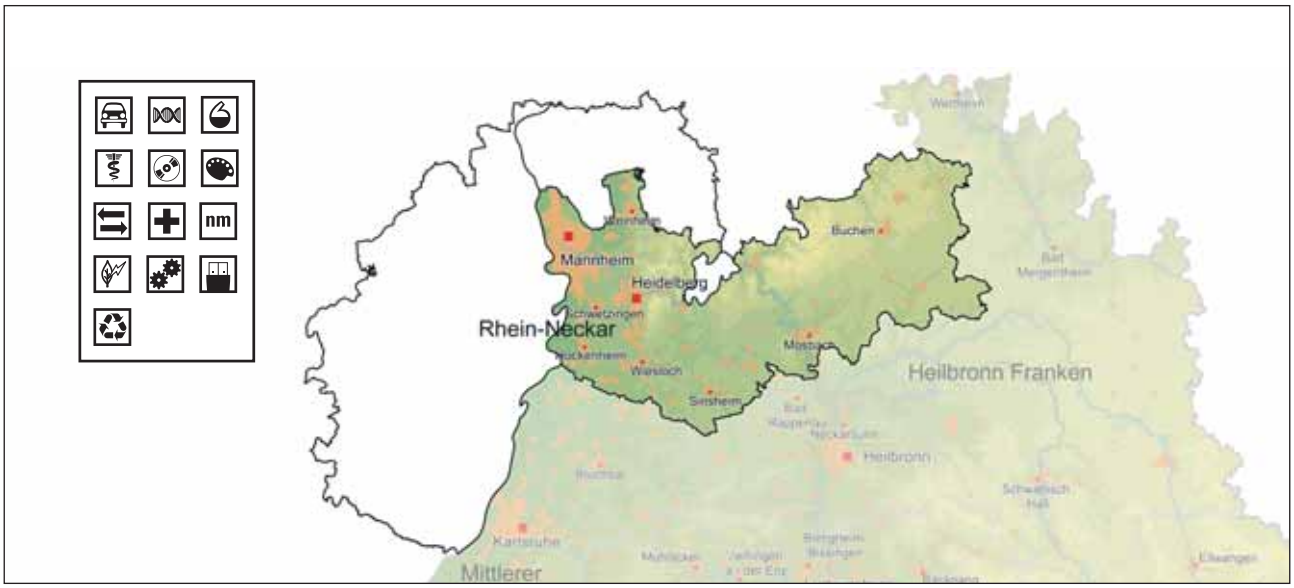
The region's innovation index is as follows:

- Total index: 37.3 % (State: 35.6 %)
- Level index: 36.7 % (State: 35.7 %)
- Dynamic index: 39.1% (State: 35.4 %)



14 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011
15 Note : All data as far as they apply to Baden-Württemberg.

The region's clusters and cluster initiatives



Automotive cluster

Target fields of cluster policy: Automotive

The cluster region hosts about 2,700 mostly small and medium-sized automotive companies representing about 12.3 % of the jobs in this region. The automotive cluster located in the Rhein-Neckar metropolitan region is focused on commercial vehicle manufacture (trucks, buses, rolling stock, tractors). The major manufacturers which form the centre of the cluster enjoy a leading international standing. The supply sector in this segment is also characterised by a high real net output ratio. In addition, the suppliers operating within this cluster service the entire value adding chain for passenger vehicle production. In particular the region's engineering competence and its specialist component manufacturers enjoy an excellent reputation both in the national and international arena.

CLI: Automotive-Cluster RheinMainNeckar

This cluster initiative was founded by the Darmstadt chamber of commerce and industry, Ingenieurbüro Bertrandt GmbH and the district of Groß-Gerau in September 2003, under the patronage of the district administrator of the Groß-Gerau district. This initiative bundles the competencies of the automotive supply industry and acts as the coordinator and moderator for the individual partners of the network.

Automotive-Cluster RheinMainNeckar
c/o Industrie- und Tradeskammer Darmstadt

Martin Proba *Rheinstraße 89* *64295 Darmstadt*	*Telephone: +49 6151 871-0* *Fax: +49 6151 871-181* *www.automotive-cluster.org*

CLI: Commercial Vehicle Cluster Südwest (CVC)

Due to the high concentration of companies of the commercial vehicle industry (manufacturers and suppliers) in the states of Rheinland-Pfalz and Baden-Württemberg (trucks, buses, agricultural machinery and construction machinery), Commercial Vehicle Cluster Südwest was founded in 2006. Since March 2008, the cluster has operated as a German limited company in the context of a PPP with Daimler AG, John Deere, Grammer AG, Kirchhoff Automotive GmbH, euro engineering AG and the state of Rheinland-Pfalz. Priority goals are the improvement of the cluster partners' competitiveness, promotion of cooperations and common projects and also scientific and technological networking of the stakeholders in the commercial vehicle industry.

Commercial Vehicle Cluster Südwest (CVC)
c/o Commercial Vehicle Cluster Nutzfahrzeug GmbH

Dr. Barbara Jörg *Europaallee 3-5* *67657 Kaiserslautern*	*Telephone: +49 631 414 862-50* *Fax: +49 631 414 862-59* *www.cv-cluster.com*

Biotechnology cluster

Target fields of cluster policy: Biotechnology

A state-wide leading and highly innovative cluster for medical biotechnology has established in this region, including pharmaceutical and diagnostic companies, small and medium-sized biotech companies and research and university institutions. It is focused on personalised medicine and cancer research.

CLI: Leading Edge Cluster – Biotechnologie-Cluster Rhein-Neckar (BioRN)

Biotechnologie-Cluster Rhein-Neckar (BioRN) is a conglomeration of companies operating in the area of red biotechnology. Many of the companies majorly focus on the topics of personalised medicine or cancer. Medicines, technology platforms and diagnostic products are developed in the BioRN cluster and made marketable, at an industrial scale. The companies are located within a radius of approximately 30 km and include the cities of Heidelberg, Mannheim, Ludwigshafen and Darmstadt. Most companies have settled in the vicinity of academic research and training institutions. The BioRN cluster does not correspond to any district or state borders but to a historically developed region.

The cluster won the Leading Edge Cluster competition of the Federal Ministry of Education and Research in 2008.

Biotechnologie-Cluster Rhein-Neckar (BioRN)
c/o BioRN Cluster Management GmbH

Dr. Christian Tidona *Im Neuenheimer Feld 582* *69120 Heidelberg*	*Telephone: +49 6221 655-780* *Fax: +49 6221 655-7811* *www.biorn.org*

Chemicals cluster

Target fields of cluster policy: Biotechnology and pharmaceutical industry

The chemicals cluster is characterised by globally active companies and a large number of small and medium-sized enterprises and plays a key role in the metropolitan region. Vertical supply networks in the region are dominated by „leader corporations“. On the horizontal level, the cluster is supplemented by a number of highly specialised small and medium-sized enterprises.

Health industry cluster

Target fields of cluster policy: Health industry

On the basis of the health strategy for the region that is being established currently, it is intended to position the Rhein-Neckar metropolitan region as one of the most attractive and competitive health regions, guiding the way. This is to be achieved in close cooperation with all relevant stakeholders from science and research institutions, enterprises, communities and facilities of the health industry.

The foundations for this were laid with the award won in the competition „Gesundheitsregionen der Zukunft“ of the Federal Ministry of Education and Research in May 2010.

CLI: MRN – Raum für Gesundheit GmbH – Room for health in the metropolitan region of Rhine-Neckar

This cluster initiative, MRN Raum für Gesundheit GmbH, was founded in the context of the competition „Health regions of the future“ of the Federal Ministry of Education and Research, being the contribution of the Rhine-Neckar metropolitan region, as an operative and neutral platform for the regional health initiatives.

MRN Raum für Gesundheit GmbH
(Room for Health)

Wolf-Rainer Lowack *Firmensitz: N7, 5-6* *68161 Mannheim*	*Telephone: +49 621 12987-82* *Fax: +49 621 12987-52* *www.m-r-n.com*

Information technology / enterprise software cluster

Target fields of cluster policy: Information technology, IT applications /enterprise software

Europe's biggest software company holds an outstanding position within the region, providing major impetus for the region's value adding chain also in the vertical direction. Besides this, the IT cluster is highly diversified.

CLI: GeoNet.MRN

The geoinformation industry is a highly innovative industry whose market participants are highly specialised. Networking and the organisation of information exchanges between the geoinformation industry and companies from other industries promote the economy. The network management is to support measures for improving access to geoinformation.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2010.

GeoNet.MRN
c/o Metropolregion Rhein-Neckar GmbH

Robert E. Kautzmann *N7, 5-6* *68161 Mannheim*	*Telephone: +49 621 10708-101* *Fax: +49 621 10708-100* *www.m-r-n.com*

CLI: IT-Forum Rhein-Neckar e. V.

IT-Forum Rhein-Neckar e. V. is the network for companies and institutions from the media and IT industries and the creative industry in the Rhine-Neckar metropolitan region. Target of this forum is to develop a sharp profile for this region, as a media and IT location, to provide a lasting added value for its members. In addition to the networking activities at regular events and in a virtual environment, it is the strategic development of the industry that is in its focus. The more than 100 members of the IT-Forum are mainly service companies from the media and IT industry and companies utilising media and IT-dependent technology.

IT-Forum Rhein-Neckar e. V.

Nina Schulz *Donnersbergweg 1* *67059 Ludwigshafen*	*Telephone: +49 621 59570-501* *Fax: +49 621 59570-503* *www.itforum.de*

CLI: IT FOR WORK

IT FOR WORK is one of the most powerful ICT clusters for enterprise software world-wide, it is located in the Rhine-Main-Neckar region and includes producers, service providers, research and training institutes and users. IT FOR WORK assists its members with information and consulting services, networking opportunities, training and common marketing. Cooperation partners are, for example, the Darmstadt chamber of commerce and industry, the Darmstadt University of Technology and the Software-Cluster

IT FOR WORK
c/o IHK Darmstadt Service GmbH

Sascha A. Peters *Rheinstraße 89* *64295 Darmstadt*	*Telephone: +49 6151 871-270* *Fax: +49 6151 871100-270* *www.it-for-work.de*

Creative industries cluster

Target fields of cluster policy: Media, culture and creative industries

This young cluster has evolved in Mannheim from an established pop music scene, the state-run pop academy, communal pop music sponsoring, the conservatory and a specific start-up centre. These institutions take a leading role for many other individual stakeholders in this metropolitan region. Besides its diversified music scene, there is a film funding initiative in the region with own contact office, furthering the networking of all regional stakeholders.

CLI: FilmCommission Metropolregion Rhein-Neckar

FilmCommission MRN is a contact point for all regional film professionals and supra-regional productions intending to shoot in the region. Each year one or two film industry meetings take place in this region. At the centre of its activities are consulting and agency work, support for regional and supra-regional festivals, acting as a link between business and culture, provision of online databases for locations and film professionals, internet video channelling, initiation of projects, cooperations, cultural support, public relations work and lobbyism, location marketing and support for young artists.

FilmCommission Metropolregion Rhein-Neckar

Michael Ackermann *E 4,6* *68159 Mannheim*	*Telephone: +49 621 293-9264* *www.filmcommission-mrn.com*

CLI: Music Industry Mannheim & Region

A productive network and a lot of creative freedom provide the basis for companies from the music industry and musicians of all genres and help them find the right place for working successfully in Mannheim and the entire Rhine-Neckar metropolitan region.

Cluster-Management Musikwirtschaft Mannheim & Region (Cluster-Management Music Industry)

Janina Klabes *Hafenstraße 47* *68159 Mannheim*	*Telephone: +49 621 39186-430* *Fax: +49 621 39186-434* *www.cm-musikwirtschaft.de*

Logistics cluster

Target fields of cluster policy: Logistics including intra-logistics

The Mannheim / Ludwigshafen harbour centre with intermodal connections is the second biggest in Europe. The Mannheim railway yard is the second biggest in Germany. 120 train arrivals and departures are handled here every day. The Rhine-Main airport hub in Frankfurt is only 31 minutes away. This ensures an optimal connection to the international commercial transportation network, on rail, waterways and airways.

Medical engineering cluster

Target fields of cluster policy: Medical engineering

The city and region of Mannheim form a hotspot of medical technology and biotechnology within Europe. Looking at the value adding chain as a whole, from the development and processing of active ingredients to their marketing, the medical engineering industry in Mannheim employs more than 7,000 people, and together with the pharmaceutical industry more than 14,000. This makes it one of the biggest industries in Mannheim. Therefore, the cluster holds a unique industrial and clinical research potential and skilled employee potential for expanding companies from the medical engineering sector.

CLI: Mannheim Medical Technology Cluster

Based on the new economic and political strategy of the city of Mannheim, a medical engineering cluster is established for Mannheim and the metropolitan region. Its goal is the efficient linking of research, hospitals and medical engineering companies, in a network organisation. This is to establish an internationally competitive, economic, clinical, research and skilled labour environment for existing companies, start-ups and newly settling companies.

Mannheim Medical Technology Cluster
c/o Rathaus
Wirtschafts- und Strukturförderung

Elmar Bourdon *E5* *68159 Mannheim*	*Telephone: +49 621 293-2155* *Fax: +49 621 293-9850* *www.mannheim.de/medtech*

Nanotechnology cluster

Target fields of cluster policy: Microsystem technology including nanotechnology

The Rhein-Neckar metropolitan region and the region of Mittlerer Oberrhein represent the largest knowledge and technology pool in the field of nanotechnology in Baden-Württemberg. Outstanding research institutions and numerous companies have settled in this region. Considering this, it is a top priority for the cluster to translate the expertise in research and education in this region into market-relevant applications. The companies and research institutions settling in the Rhein-Neckar metropolitan region are also involved in innovation activities of the supra-regional and cross-border cluster initiative nanoValley.eu with contact office at the Karlsruher Institut für Technologie (see cluster initiative nanoValley.eu under Mittlerer Oberrhein region).

Organic electronics cluster

Target fields of cluster policy: New materials / surfaces, energy and production technology including mechanical engineering

Globally leading enterprises, universities and research institutes have formed the cluster „Forum Organic Electronics“ in the Rhein-Neckar metropolitan region. The cluster partners from science and industry cooperate on an equal footing, striving for realising innovative applications and products in the area of this future technology of organic electronics. Its main activities are in the fields of environmental energy production using organic photovoltaic, economic energy use through organic light emitting diodes and resource-friendly production of electronic components such as circuits, storage and sensors. The cluster‘s specific competence is the area of printing technology being a cost-efficient production method for organic electronic components.

CLI: Leading Edge Cluster – Forum Organic Electronics

Goals of the Forum Organic Electronics cluster initiative are creating a leading research, development and production location for organic electronics on a global basis, an attractive location for top specialists and talents and a globally leading innovation centre for knowledge transfer and start-ups. The cluster partners work closely together, across disciplines and along the entire value adding chain of organic electronics; from research and development of new materials to design of devices and systems and marketing of applications and services. InnovationLab GmbH (iL), a common application-oriented research and transfer platform of science and industry, is an essential part of the Leading Edge Cluster Forum Organic Electronics and is responsible for its management. At the centre of its activities is the cooperative research of cluster partners, all under one roof, the translation of inventions into marketable products and training of talent.

The Forum Organic Electronics cluster was the winner of the first round of the Leading Edge Cluster competition of the Federal Ministry of Education and Research in 2008.

Spitzencluster Forum Organic Electronics
c/o InnovationLab GmbH

Dr. Martin Raditsch *Speyerer Straße 4* *69115 Heidelberg*	*Telephone: +49 6221 5419-100* *Fax: +49 6221 5419-110* *www.forumoe.de* *www.innovationlab.de*

Production technology cluster

Target fields of cluster policy: Production technology including mechanical engineering

The production technology cluster is shaped by the mechanical and automotive engineering cluster and has a highly heterogeneous structure throughout the region. Leading large-scale corporations work in close cooperation with regional universities and research institutes to develop innovative production systems.

CLI: Automatisierungsregion Rhein Main Neckar

Automatisierungsregion brings together suppliers and users from the automation industry. These about 500 companies and about 70 scientists cover all areas of automation.

Automatisierungsregion Rhein Main Neckar
c/o IHK Darmstadt

Richard Jordan *Rheinstraße 89* *64295 Darmstadt*	*Telephone: +49 6151 871-284* *www.automatisierungsregion.de*

CLI: Kompetenzzentrum Moderne Produktionssysteme (KMP)

Exchange of experiences and knowledge transfer through modern production and management systems with focus on the Rhein-Neckar metropolitan region and the academic consideration and development of the topic of Lean Companies are the basic centre of activities of Kompetenzzentrum Moderne Produktionssysteme founded in 2006. KMP is a cross-industry cooperation of production companies in the region with the institute of production systems and organisation of Mannheim University.

Kompetenzzentrum Moderne Produktionssysteme (KMP)
c/o Hochschule Mannheim

Prof. Dr. Boris Brinzer *Paul-Wittsack-Straße 10* *68163 Mannheim*	*Telephone: +49 621 292-6215* *Fax: +49 621 292-664531* *www.kmp.hs-mannheim.de*

Storage systems and smart grids cluster

Target fields of cluster policy: Information technology, new materials

Companies and scientific institutions from the Rhine-Neckar metropolitan region and neighbouring regions together work out innovative solutions for the energy concepts of the future. Through projects such as LIB2015, Web2Energy or the E-energy projects MOMA and MeRegio, the cluster partners have gained much experience as regards cooperations, over many years. A specific strength of the cooperation area and its stakeholders is that they cover all the elements and functions of a smart grid.

CLI: Development and application of smart, stationary energy storage systems – StoREgio

The goal of this cluster initiative is to provide marketable, profitable energy storage systems as components of a smart grid. The cluster partners come mainly from the chemical, electrical engineering, information/communication technology and energy industry. This allows efficient dealing with all relevant value adding levels, for example, materials and components, recycling, storage unit production, grid integration, control and communication technology, from battery to energy management system and operation of smart grids. In addition, craft enterprises, architect's offices and other partners contribute their hands-on expertise to the work in the cluster. Different storage technologies are used, in accordance with the diverse applications. The cluster has specifically committed itself to electrochemical (batteries) and chemical storage systems („power to gas") and thermal storage systems. Beside this, it also examines options of smart load management as an alternative. In addition to the technical suitability, specific emphasis is put on the product and system safety. At training and consulting events, this technology is demonstrated in practice, for a better understanding.

StoREgio GmbH

Dr. Peter Eckerle *N7, 5* *668161 Mannheim*	*Telephone: +49 173-3478885* *Fax: +49 621 -12987-52* *www.m-r-n.com*

Environmental technology cluster

Target fields of cluster policy: Environmental technology

Encompassing 600 companies and renowned institutes of research and education, the environmental and energy technologies cluster represents a significant economic factor and offers optimum conditions for the region to assume a leading position among its international competitors. Alongside well developed value adding chains, a successfully operating network already exists between science, industry and politics/administration. The fields of excellence are defined as: Energy efficiency in buildings; energy efficiency in industry; environmental and energy concepts for regions; deep geothermics.

CLI: Bioenergie-Region Hohenlohe-Odenwald-Tauber GmbH

Goal of the cluster initiative Bioenergie-Region Hohenlohe-Odenwald-Tauber is to detach communal heating supply from fossil fuels. The main focus here is the development of self-sustained areas, energy-wise (for example, bioenergy villages). Through research and innovations in the field of energy systems, a competence region for renewable raw materials is being developed systematically. Specific importance has gained the mobilisation and energetic utilisation of organic waste from private households through a bioenergy bin.

Bioenergie-Region Hohenlohe-Odenwald-Tauber GmbH

Sebastian Damm *Sansenhecken 1* *74722 Buchen*	*Telephone: +49 6281 906-800* *Fax: +49 6281 906-808* *www.bioenergie-hot.de*

CLI: Energy and Environment

Increasing energy efficiency in the region, generating orders for the region and maintaining and creating jobs are the basic strategic goals of the cluster Energie & Umwelt Metropolregion Rhein-Neckar GmbH. This initiative was founded in 2009. Its fields of excellence have been defined as energy efficiency in buildings, energy efficiency in industry, environmental and energy concepts for regions and deep geothermics.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Cluster Energie & Umwelt (Energy and Environment)
c/o Metropolregion Rhein-Neckar GmbH

Bernd Kappenstein *P7, 20-21* *68161 Mannheim*	*Telephone: +49 621 10708-102* *Fax: +49 621 10708-100* *www.m-r-n.com/energie&umwelt*

CLI: Umweltkompetenzzentrum Rhein-Neckar e. V. – Environmental competence centre

Umweltkompetenzzentrum Rhein-Neckar e. V. (UKOM) is an environmental network of the Rhine-Neckar metropolitan region, the number of members constantly rising. UKOM provides a platform for disseminating know-how and it creates projects that become possible through networking only. By initiating workgroups and making contacts, it focuses on the strengths of its members and takes over communication and coordination and so majorly contributes to the regional promotion of the economy. One key point is the establishment of learning entrepreneur networks in the region, for various topics. For example, small and medium-sized enterprises are supported in establishing environmental management systems, with the project „Nachhaltiges Wirtschaften MRN“ (Sustainable business administration in the Rhine-Neckar metropolitan region). With larger enterprises, the focus is solely on energy efficiency. In the course of a moderated and assisted exchange of experiences during the projects, common issues, solutions and strategies and best practices are discussed and targets fixed. TP UmweltPark‘s head office is in Heidelberg.

Umweltkompetenzzentrum Rhein-Neckar e. V. (Environmental competence centre)
TP UmweltPark

Carolin Kappenstein *Wieblinger Weg 21* *69121 Heidelberg*	*Telephone: +49 6221 6505-876* *Fax: +49 6221 6506-895* *www.umweltkompetenz.org*

In addition, the Rhein-Neckar region hosts the office of the state-wide and cross-regional network Netzwerk Holzindustrie Baden-Württemberg e. V. (see chapter 13: State-wide and cross-regional networks).

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Universität Heidelberg	**University** This university of excellence offers a diverse scientific spectrum, in particular the science faculties, for example organic electronics and medical engineering (common institute with Mannheim university), mathematics and computer science; Transfer through UniTT (= University Technology Transfer) at the research department.
Universität Mannheim	**University** Law, economics and social studies
Universität Koblenz-Landau	**University** Landau campus, in particular science and environmental studies; transfer through Präsidialamt/Referat A1
Hochschule Mannheim	**University of Applied Sciences** Faculties: In particular biotechnology, electrical engineering, IT, mechanical engineering, process and chemical technology, industrial engineering, medical engineering (joint institute with Heidelberg university), design. Transfer through Institut für Angewandte Forschung (IAF), department of research and development and three companies of the Steinbeis organisation.
Hochschule Ludwigshafen am Rhein	**University of Applied Sciences** for business studies
Fachhochschule Worms (Rheinland-Pfalz)	**University of Applied Sciences** Economics, tourism and transport, computer science. Transfer through Zentrum für Technologietransfer und Telekommunikation (ZTT).
Duale Hochschule Baden-Württemberg Mannheim	**Cooperative State University** Study programmes: Business administration, engineering, information technology.
Duale Hochschule Baden-Württemberg Mosbach	**Cooperative State University** Study programmes: Business administration, engineering, information technology and lumber business administration and wood engineering
Popakademie Baden-Württemberg GmbH	**Pop Academy** Study programmes in music business and pop music design.

Institution	Fields of activity
Research and transfer institutions	**Deutsches Krebsforschungszentrum (DKFZ)** – German cancer research centre within the Helmholtz association; transfer through technology transfer office. **Europäisches Laboratorium für Molekularbiologie (EMBL)** – European molecular biology laboratory This laboratory is one of the leading research laboratories in the field of molecular biology world-wide. Transfer is realised through EMBLEM GmbH. **Other institutions:** • Medical engineering competence centre at the Mannheim University hospital • Central institute of technical informatics • Mannheim Business School • SRH Hochschule Heidelberg, University of Applied Sciences • East Asian institute at the Ludwigshafen University of applied sciences **Institutions of Max-Planck-Gesellschaft with transfer through Max-Planck-Innovation GmbH** • Max-Planck-Institut für Kernphysik – Nuclear physics • Max-Planck-Institut für medizinische Forschung – Medical research • Max-Planck-Institut für Astronomie – Astronomy **Institutes of Fraunhofer-Gesellschaft** • FHG Project group for Automation in Medicine and Biotechnology (PAMB)

Nordschwarzwald

06

The region

The Nordschwarzwald region covers an area of approx. 2,339 km² and has almost 600,000 inhabitants. The region encompasses the Enzkreis district, the urban district of Pforzheim and the rural districts of Calw and Freudenstadt.

This region serves as a bridge between the neighbouring regions of Karlsruhe and Stuttgart and cooperates in different ways with the industry and university and research institutions located there, which reflects in the cluster structures.

Compared to the state of Baden-Württemberg as a whole, the Nordscharzwald region‘s economy is even more production-based. Therefore, the share of the entire services sector, in particular corporate services, is below state average.

In detail[16]:

- Production sector: 44.2 % (State: 37.8 %)
- Services sector in total: 55.5 % (State: 61.8 %)
  - Trade: 14.7 % (State: 13.8 %)
  - Corporate service providers: 8.0 % (State: 11.6 %)
  - Transport: 3.4 % (State: 3.9 %)

The region‘s economy is characterised by small and medium-sized enterprises and hosts many highly specialised companies whose current competences are directly linked to the historic crafts and industrial traditions of the Black Forest region, for example the jewellery and clock industry that are still important industries. Its industrial centre is in the Northern part of this region, whereas the city of Pforzheim being the centre of the German jewellery and clock industry represents its economic centre.

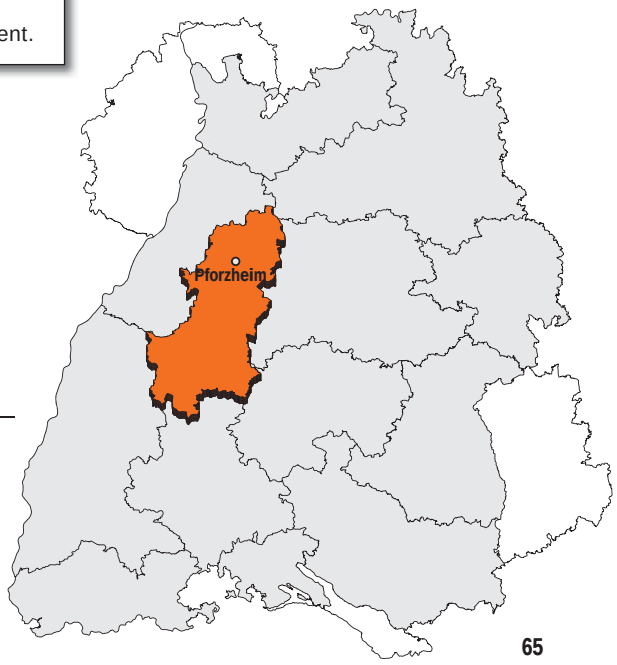
The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Metal industry including mechanical engineering and the production of metal products;
- Vehicle production and suppliers; and
- Production of electrical equipment.

Compared to the other regions, the innovation power is below average, the dynamic index, however, is average within the state.

The region’s innovation index is as follows:

- Total index: 26.1 % (State: 35.6 %)
- Level index: 23.1 % (State: 35.7 %)
- Dynamic index: 35.2 % (State: 35.4 %)



16 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011

The region's clusters and cluster initiatives

Forestry and timber cluster

Target fields of cluster policy: New materials / surfaces and production technology including mechanical engineering

Basis of the cluster is the timber industry in the Northern part of the Black Forest. In addition, globally leading manufacturers of wood machining systems have their headquarters in this region. Other processing sectors include a number of major furniture producers, which in turn cultivate close links to metal / die cutting technology (furniture hardware), surface processing and also the plastics cluster.

CLI: Forestry and Timber Cluster Nordschwarzwald Region

The forestry and timber network „Cluster Forst und Holz Region Nordschwarzwald" is underway currently. An application for support with funds from the European Fund for Regional Development (EFRD) was filed with the Ministry for the Rural Areas, Nutrition and Consumer Protection of Baden-Württemberg. In addition to the creation of a networking platform for all stakeholders, the new cluster initiative's goals are the marketing of the regional competences and attracting and keeping of skilled labour.

Forestry and timber cluster Region Nordschwarzwald (Forestry and Timber)
c/o Wirtschaftsförderung Nordschwarzwald GmbH

Jens Mohrmann *Blücherstraße 32* *75177 Pforzheim*	*Telephone: +49 7231 1543690* *Fax: +49 7231 1543691* *www.nordschwarzwald.de*

Health industry cluster

Target fields of cluster policy: Health industry

Complementing the specialist expertise in the medical / dental technology sector, the Nordschwarzwald region is home to a large number of clinics with diagnostic imaging systems, some of which are unique in Germany. There are many renowned experts working in the region, particularly in the field of orthopaedics and joint surgery. Also, there is tremendous experience in the area of prevention and rehabilitation. In Bad Wildbad, for example, lay some of the foundations of physical therapy. The region is also characterised by modern concepts of vocational rehabilitation allowing holistic customised therapy concepts. The many inpatient and outpatient care institutions are complemented by health programmes in many certified spas and health resorts (for example, the „Thermal Spring Quartet": Bad Herrenalb, Bad Liebenzell, Bad Teinach, Bad Wildbad) with a long tradition. Given the scenic beauty of the landscape in this region, the topic of „health tourism" is well covered.

CLI: Health cluster

In the context of the regional development programme LEADER+, the Nordschwarzwald chamber of commerce and industry launched the project „Gesundheitsregion Nordschwarzwald" in 2007. In 2009, the

health management competence centre for small and medium-sized companies was established under the incentive programme for strategic sustainability in Baden-Württemberg, sponsored by the Ministry of Labour and Social Affairs. The chamber of commerce and industry for the Northern Black Forest region has started building the health industry network in 2011, with the intention to assist all the regional stakeholders in the health industry. Fields of activity of the network are health management and prevention programmes, rehabilitation and care, technology and qualification.

Cluster Gesundheit (Health cluster)
c/o Industrie-und Tradeskammer Nordschwarzwald

Hubert Spannagel *Dr.-Brandenburg-Str. 6* *75173 Pforzheim*	*Telephone: +49 7231 201105* *Fax: +49 7231 41201105* *www.nordschwarzwald.ihk24.de*

Creative industries cluster

Target fields of cluster policy: Media, culture and creative industries

Based on the jewellery and clock industry, a diverse creative industry has evolved which, in addition to the traditional creative industries, focuses on the areas of design (jewellery design, industrial design, visual communication, fashion design, interior design, transportation design) and manufacture of jewellery, clocks and watches.

CLI: Cluster for the creative industry

Almost 1.500 companies from the region can be assigned to the creative industry that are supported by the cluster initiative CREATE! PF. Goals of this cluster initiative are stronger networks between individual companies and institutions in Pforzheim and the region, the strengthening of innovation activities, improved knowledge and technology transfer and maintaining and enhancing competitiveness.

Cluster management is supported with funds from the European Regional Development Fund (ERDF) in the context of the urban development programme.

Cluster für die Kreativwirtschaft (Cluster for the creative industry)
c/o Wirtschaft und Stadtmarketing Pforzheim

Almut Benkert *Marktplatz 4* *75175 Pforzheim*	*Telephone: +49 7231 39-3730* *Fax: +49 7231 39-2595* *www.create-pf.de*

Plastics processing cluster

Target fields of cluster policy: New materials / surfaces and production technology including mechanical engineering

More than 400 mostly small and medium-sized plastics technology enterprises form the plastics processing cluster. Except for plastic production, the entire value adding chain is present in the region - from injection moulding machine manufacturers to the relevant mould making and various plastic processing companies; and also some downstream processes such as printing, laser machining, measuring and testing.

CLI: INNONET Kunststoff

The entrepreneurs network INNONET Kunststoff is a platform for and link between companies from the plastics industry in the Nordschwarzwald region. The network has about 40 active members, and those companies cover the value adding chain of the plastics industry almost entirely. The plastics competence is further complemented by the membership of universities and research institutions. An intensive exchange of ideas and experiences between the network partners takes place at the regular network meetings. Further common activities of the network are research projects and shared stands at industry-specific trade fairs. Due to this close collaboration, system suppliers have evolved from the network, whose interfaces with the collaboration partners of upstream and downstream production processes have been settled long ago. The INNONET Kunststoff network is a joint initiative of Technologiezentrum Horb and Wirtschaftsförderung Nordschwarzwald.

INNONET Kunststoff
c/o Technologiezentrum Horb GmbH & Co. KG

Jens Mohrmann *Weberstraße 3* *72160 Horb am Neckar*	*Telephone: +49 7451 6233-24* *Fax: +49 7451 6233-23* *www.innonet-kunststoff.de*

Medical engineering cluster

Target fields of cluster policy: Medical engineering

This cluster represents a major sector of industry for the region. This has evolved from the jewellery/precision mechanics industries and demonstrates an advanced level of competence particularly in the field of precision engineering. The evolving cluster encompasses the fields of implantology, orthodontics, dental technology, instrumental analysis and the manufacture of materials (precious metals, ceramics), recycling and disposal. The core competences in the field of medical engineering include endoscopy, the manufacture of medical instruments and devices as well as analytical systems for clinical diagnostics and life sciences.

Precision engineering cluster

Target fields of cluster policy: Automotive, microsystem technology, medical engineering, new materials/surfaces and production technology including mechanical engineering

Precision engineering – with its specific focus on metal working and dental and medical engineering – is an important branch of industry in this region and has evolved from the jewellery industry and fine mechanics. The value adding chain of metal working is present almost in full and includes all upstream and downstream supplier industries: Machining or stamping of material, mechanical engineering and presses, tooling, refinement, quality assurance, organisation, process optimisation and worldwide logistics. Medical and dental engineering encompasses the fields of implantology, orthodontics, dental technology, instrumental analysis and the manufacture of materials (precious metals, ceramics), recycling and disposal.

CLI: HOCHFORM – Precision engineering

Approximately 300 companies in the areas of precision engineering – metal working, dental and medical engineering are supported through various networking measures for gaining a competitive advantage. This includes, for example, focused marketing that underlines the significance of this competence industry and gives the Pforzheim/Enzkreis location and the neighbouring districts and cities in the Nordschwarzwald region a unique profile.

This cluster initiative was awarded a prize in the regional cluster competition of the Baden-Württemberg Ministry of Economics in 2010. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

HOCHFORM – Präzisionstechnik (Precision engineering)
c/o Wirtschaft und Stadtmarketing Pforzheim

Reiner Müller *Marktplatz 4* *75175 Pforzheim*	*Telephone: +49 7231 39-1698* *Fax: +49 7231 39-2595* *www.pforzheim-in-hochform.de*

Another cluster option that seems worth following is in the field of information technology, IT applications/enterprise software.

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Hochschule Pforzheim	**University of Applied Sciences** Technical study programmes: Electrical engineering / information technology, technical informatics, mechanical engineering, mechatronics, medical engineering, industrial engineering. Business study programmes: Purchasing and logistics, international business, marketing, international marketing, advertising, human resources management, resources efficiency management, controlling, finances and accounting, business informatics and business law. Design study programmes: Industrial design, fashion, jewellery and everyday objects, visual communication, accessories design, transportation design, intermedial design. Transfer through Schmucktechnologisches Institut, Erni-Bühler Foundation and ten companies belonging to the Steinbeis organisation.
Internationale Hochschule Calw	**International University of Applied Sciences** Master programmes and research projects in the area of creative education and art therapies; training courses and seminars.
SRH-Hochschule Calw	**University of Applied Sciences** Study programmes in media and communication management as well as tax accountancy and auditing.
Duale Hochschule Baden-Württemberg Stuttgart, Campus Horb	**Cooperative State University** Technical study programmes: Applied informatics, electrical engineering, mechanical engineering (with focus on, for example, design and development, plastics technology or production technology), mechatronics, information technology. Transfer through two companies of the Steinbeis organisation.
Research and transfer institutions	**IHK Umwelt-Akademie in Freudenstadt** – CCI environmental academy Qualification and higher education in the field of industrial environmental protection (study programmes in environmental management, environmental specialist, waste management, water protection, emission protection, hazardous materials, management, energy), technical radiation protection and occupational safety. **IHK Tourismus-Akademie Baden-Württemberg in Freudenstadt** – CCI tourism academy IHK Tourismus-Akademie Baden-Württemberg is an information hub, a discussion forum and a future workshop designed to boost competitiveness and improve efficiency of enterprises in the tourism industry. Since 2003, current topics and issues in the tourism industry are discussed and dealt with at events and qualification courses offered each year. Experts and best practices are presented.

Südlicher Oberrhein

07

The region

The region of Südlicher Oberrhein covers an area of 4,062 km² and is part of the European Upper Rhine area. The region is home to about one million-odd people. This region includes the city district of Freiburg, the districts of Breisgau-Hochschwarzwald, Emmendingen and Ortenaukreis.

Compared to the state of Baden-Württemberg as a whole, the region's economy is characterised more by the service sector than by production. However, the share of corporate service providers is somewhat below the state-average.

In detail[17]:

- Production sector: 33.4 % (State: 37.8 %)
- Services sector in total: 66.1 % (State: 61.8 %)
  - Trade: 15.3 % (State: 13.8 %)
  - Corporate service providers: 9.5 % (State: 11.6 %)
  - Transport: 4.2 % (State: 3.9 %)

The regional economy is characterised by a well-balanced variety of industries and small and medium-sized enterprises and many clusters, especially in the services sector (publishing industry, transport, computer science and research). Due to its vicinity to France and Switzerland, the regional cluster structures partly reach beyond the state borders.

The region shows an impressive specialisation in combination with a strong innovation power in the health industry. The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Metal industry including mechanical engineering and the production of metal products;
- Recruitment agencies; and
- Information services.

Compared to other regions in Baden-Württemberg, the region's innovation power ranks at the lower end of the scale. The innovation level reached and also the innovation dynamic are clearly below average.

The region's innovation index is as follows:

- Total index: 23.6 % (State: 35.6 %)
- Level index: 19.7 % (State: 35.7 %)
- Dynamic index: 35.2 % (State: 35.4 %)

17 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011

The region's clusters and cluster initiatives

Automotive cluster

Target fields of cluster policy: Automotive

The Southwestern part of the state of Baden-Württemberg, especially the Freiburg region, hosts the entire value adding chain of the automotive sector, including the supplier industry.

CLI: AUTOMOTIVE_NETZ

Selected companies that have an excellent technical knowledge in their field of expertise meet regularly for exchanging ideas and for discussions. A diversified network, including Think Tanks and government offices, offers great perspective. Its instruments are the moderated exchange of experiences, transfer of technology, cooperation fairs, contacts to Think Tanks and government offices, consulting and agency work.

AUTOMOTIVE_NETZ (Automotive network)
c/o wvib e. V. Wirtschaftsverband Industrieller Unternehmen Baden e. V.

Manfred Kastel *Merzhauser Straße 118* *79100 Freiburg*	*Telephone: +49 761 4567 -320* *Fax: +49 761 4567 -399* *www.wvib.de*

Biotechnology cluster

Target fields of cluster policy: Biotechnology

The first centre of this cluster is Freiburg with its great variety of scientific institutions and young spin-off companies, the second is in the Basel area with its international pharmaceutical corporations and the third in the Strasbourg area. In terms of products, the cluster is concerned primarily with the research, development and production of biotechnical products for the life sciences sector, in particular for the pharmaceutical and agricultural industry.

CLI: BioRegio Freiburg / BioValley Plattform Deutschland

BioRegio Freiburg/BioValley Plattform Deutschland is a partner of the tri-national BioValley network bundling the biotechnological potential in the Upper Rhine area, along the centres of Freiburg (Germany), Basel (Switzerland) und Strasbourg (France). Top priority are the support for entrepreneurial growth and targeted innovation and technology transfer from research to industry. Its main focus is on maintaining existing structures, sharpening the profile of the BioValley brand and networking in the areas of biotechnology, pharmaceutical and medical engineering with the goal of creating a comprehensive life sciences cluster that is understood as a European knowledge and research region world-wide.

BioRegio Freiburg/BioValley Plattform Deutschland
c/o Technologiestiftung BioMed Freiburg

Dr. Michael Richter *Rathausgasse 33* *79098 Freiburg*	*Telephone: +49 761 3881 -1201* *Fax: +49 761 3881 -1299* *www.bioregion-freiburg.de, www.biovalley.com*

Forestry and timber cluster

Target fields of cluster policy: Energy, production technology and environmental engineering

The timber value-adding chain is particularly highly developed in the Ortenau area: From raw materials to sawmills, refinement, woodworking machinery, special-purpose vehicle production and energy saving prefab houses.

CLI: Holzkette Schwarzwald e. V. – Timber chain

Holzkette Schwarzwald e. V. is an association of representatives from communities, forestry and timber industry, crafts enterprises and businesses, service providers and private persons with the goal of promoting cooperation, from wood working companies to the end customer, to strengthen the timber industry in general but specifically in the Black Forest region.

Holzkette Schwarzwald e. V. (Timber chain)

Anette Pfaff *Glottertalstraße 20* *79274 St. Märgen*	*Telephone: +49 7669 9399-801* *Fax: +49 7669 921126* *www.holzkette.de*

Health industry cluster

Target fields of cluster policy: Health industry

This cluster is based beyond the region of Südlicher Oberrhein and actually encompasses the entire Black Forest and parts of the Rhine valley within the Black Forest region, including the cities of Karlsruhe, Baden-Baden, Offenburg and Freiburg. This cluster is currently undergoing a positive process of upheaval in terms of its offering, which ranges from classical spa and convalescent tourism to health and wellness tourism, with cross-border significance.

CLI: Healthcare & Economy – Freiburg Region of Competence

This cross-sector and cross-industry cluster initiative intends to strengthen the innovation power and the competitiveness of the two complementary areas, the health industry and tourism, lastingly. This involves the development of innovative products and services in the areas of medical tourism, E-health and telemedicine and the health trips preferred by the relevant lead groups of „Lifestyle of Health and Sustainability“ that are gaining more and more importance from a tourism point of view.
This cluster initiative was awarded a prize in the regional cluster competition of the Baden-Württemberg Ministry of Economics in 2010. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Cluster „Healthcare Freiburg“
c/o Freiburg Wirtschaft Touristik und Messe GmbH & Co. KG

Dr. Michael Richter *Rathausgasse 33* *79098 Freiburg*	*Telephone: +49 761 3881 -1221* *Fax: +49 761 3881 -1299*

Information technology / enterprise software cluster

Target fields of cluster policy: Information technology, IT applications /enterprise software

Almost any job in the commercial or producing sector can only be done with direct or indirect IT support. Hardware, software and IT services and training are of specific importance. The region of Südlicher Oberrhein hosts numerous companies offering these products or services.

CLI: Software-Forum Oberrhein

Due to the strong demand for IT services, Software-Forum Oberrhein was founded in 1995; it encompasses the core regions of Baden, Alsace and North-western Switzerland. Its basic goals are improved contacts between industry and science, improved information exchange, initiation of cooperations along the value-adding chain and organisation of information and training events. The network Software-Forum Oberrhein is to make these products and services known and accessible to all users. With an internet database, events and publications, this goal has been pursued for more than 15 years successfully.

Software-Forum Oberrhein
c/o IHK Südlicher Oberrhein

Hauptgeschäftsstelle Lahr *Burkhard Peters* *Lotzbeckstraße 31* *77933 Lahr*	*Telephone: +49 7821 2703-630* *Fax: +49 7821 2703-777* *www.software-forum-oberrhein.de*

Creative industries cluster

Target fields of cluster policy: Media, culture and creative industries

Over nine per cent of all those in employment in the region of Südlicher Oberrhein work in the media and IT sector between Achern and Weil am Rhein. In the Offenburg/Ortenau area, a specialist sector has grown around the media company Burda, which focuses on the fields of publishing, printing and direct marketing. The IT and communication sector is an important component of this specialist field. Printing and publishing houses such as Haufe, Herder and Rombach as well as renowned software producers such as Lexware are located in the university town of Freiburg.

CLI: medien forum freiburg e. V.

medien forum freiburg e. V. is the regional media initiative in the Southern Upper Rhine area. Its functions include promotion of the economy and location marketing for the media and IT sector as well as cultivation of a network of involved and interested organisations in the region by organising information events and network meetings. With its specialist groups of IT security, online marketing, agencies, knowledge transfer/green learning and software, the forum creates a platform for cross-industry use of technology.

medien forum freiburg e. V.

Katja Schwab *Kaiser-Joseph-Straße 284* *79098 Freiburg*	*Telephone: +49 761 21808 -600* *Fax: +49 761 21808 -602* *www.mff.net*

Medical engineering cluster

Target fields of cluster policy: Medical engineering

In the Southern Upper Rhine region, mainly around Freiburg, about 40 companies belong to the medical engineering industry. In the focus are the production and international sale of medical devices.

CLI: Medi_NETZ

Selected companies that have an excellent technical knowledge in their field of expertise meet regularly for exchanging ideas and for discussions. A diversified network, including Think Tanks and government offices, offers great perspectives for the parties involved. Instruments used are: Moderated exchange of experiences, transfer of technology, cooperation fairs, contacts to Think Tanks and government offices, consulting and agency work.

Medi_NETZ
c/o wvib e. V. Wirtschaftsverband Industrieller Unternehmen Baden e. V.

Edgar Jäger *Merzhauser Straße 118* *79100 Freiburg*	*Telephone: +49 761 4567 -230* *Fax: +49 761 4567 -299* *www.wvib.de/cluster*

Microsystem technology cluster

Target fields of cluster policy: Microsystem technology including nanotechnology

This growing cluster is highly science-driven and has a central focus in the form of the IMTEK (Institut für Mikrosystemtechnik). The companies assigned so far have often existed successfully for several decades. In product terms, the focus is on sensor engineering. On a higher product level, it is life sciences and measurement and control technology.

CLI: microtec REGION FREIBURG

microtec REGION FREIBURG combines science and entrepreneurial creativity with savoir vivre and quality in a unique way. Leading companies from the industry and research institutions and also a comprehensive network encompassing the entire range of experiences and expertise in microsystem technology are the decisive competitive edge of this location. The stakeholders within the cluster feature a unique competence profile in the key areas of sensor engineering (SmartSensors for automation technology) and life sciences (Neuronal interfaces and lab-on-chip applications). The regional cluster microtec REGION FREIBURG belongs to the parent and Leading-Edge cluster MircroTEC Südwest.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008.

microtec REGION FREIBURG
c/o Mikrosystemtechnik Baden-Württemberg e. V. (MST BW)

Peter Josef Jeuk *Emmy-Noether-Straße 2* *79110 Freiburg*	*Telephone: +49 761 386909 -0* *Fax: +49 761 386909 -10* *www.mstbw.de*

CLI: Leading Edge Cluster – MicroTEC Südwest

MicroTEC Südwest is located in one of the strongest economic and science regions in Europe - where Germany, France and Switzerland meet. The cluster brings together more than 350 companies, institutions, universities and research institutes with more than 1,200 scientists. The goal of the cluster stakeholders is to expand Baden-Württemberg‘s international leadership position in the area of microsystem technology. Global leaders develop and produce products in this cluster. This is where you can see the greatest concentration of top research in microsystem technology. MicroTEC Südwest‘s target markets are: Mobility and sensor engineering, life sciences and medical engineering, mechanical engineering and process technology but also resources, energy and environment.

MicroTEC Südwest won the Leading Edge Cluster competition of the Federal Ministry of Education and Research in 2010.

Leading Edge Cluster – MicroTEC Südwest
c/o Mikrosystemtechnik Baden-Württemberg e. V. (MST BW)

Peter Josef Jeuk/Dr. Christine Neuy *Emmy-Noether-Straße 2* *79110 Freiburg*	*Telephone: +49 761 386909 -0* *Fax: +49 761 386909 -10* *www.microtec-suedwest.de*

Freiburg also hosts the main office of Mikrosystemtechnik Baden-Württemberg e. V. operating state-wide (see chapter 13: State-wide and cross-regional networks).

Production technology cluster

Target fields of cluster policy: Production technology including mechanical engineering

Ortenau is the site of a long-standing geographic specialisation in the field of mechanical engineering. The companies active in this sector serve widely differing markets (e.g. automotive, commercial dishwashers, hoisting technology, tunnel boring machines). Nevertheless, common themes exist from technical methodology, development and design to staff qualification and training and quality assurance.

Environmental technology cluster

Target fields of cluster policy: Environmental technology

This field of specialisation is still young. It is driven to a large degree by concrete applications for resource-saving generation of energy, namely solar technology (thermal and voltaic), in the Freiburg area, and consequently by local demand. A large number of service providers such as architects and consulting offices have specialised in this subject area. With the Fraunhofer-Institut für Solare Energiesysteme (ISE), the region also benefits from Europe's largest solar research institute.

CLI: Green City Freiburg cluster – Environmental and solar industry in the Freiburg region

This network started in 2009 and intends to intensify networking of the regional enterprises and institutions in the areas of renewable energy, energy efficiency, sustainable planning and construction, mobility concepts and environmental engineering. In addition to assisting the transfer of knowledge and technology and the designing of cooperation projects, its declared goal is a stronger international profile and knowledge of the cluster members' competences within the green growth model Green City Freiburg.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Cluster "Green City Freiburg"
c/o Freiburg Wirtschaft, Tourismus und Messe GmbH & Co. KG

Philipp Oswald *Rathausgasse 33* *79098 Freiburg*	*Telephone: +49 761 3881 -1212* *Fax: +49 761 3881 -1299* *www.greencity-cluster.de*

CLI: Energie_NETZ

Selected companies and institutions that have an excellent technical knowledge in their field of expertise meet regularly for exchanging ideas and for discussions. A diversified network, including Think Tanks and government offices, offers great perspectives for the partners. Its instruments are the moderated exchange of experiences, transfer of technology, cooperation fairs, contacts to Think Tanks and government offices, consulting and agency work.

Energie_NETZ
(Energy network)
c/o wvib e. V. Wirtschaftsverband Industrieller Unternehmen Baden e. V.

Werner Rombach *Merzhauser Straße 118* *79100 Freiburg*	*Telephone: +49 761 4567 -200* *Fax: +49 761 4567 -299* *www.wvib.de/cluster*

CLI: SolarRegion Freiburg

Its key topics are sustainable regional development, climate protection, energy efficiency and the utilisation of renewable energies and these are in the focus of activities of SolarRegion Freiburg; it was founded in 2000 and in the same year it participated at the world fair EXPO 2000 in Hanover, as an exclusive partner for renewable energies, solar energy in particular.

SolarRegion Freiburg
c/o Umweltschutzamt Stadt Freiburg

Thomas Dresel *Talstraße 4* *79102 Freiburg*	*Telephone: +49 761 201 -6146* *Fax: +49 761 201 -6199* *www.solarregion.freiburg.de*

In addition, the region of Südlicher Oberrhein also hosts the main office of the state-wide network Windcluster Baden-Württemberg e. V. (see chapter 13: State-wide and cross-regional networks).

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Albert-Ludwigs-Universität Freiburg (including university clinic centre)	**University** Technical and scientific study programmes: Applied computer science, bioinformatics, biology, chemistry, computer science, smart embedded microsystems, medicine, molecular medicine, microsystems engineering, pharmacy, physics, environmental sciences, forestry, forest management and environment, dentistry, forest management and environment, European forestry, forestry. Selected institutes: Institute of Microsystems Engineering, Institute of Informatics, Material Research Centre, Centres for Applied Biosciences, Biosystem Analysis, Renewable Energies, Neurosciences, Biological Signal Studies, Central Office for Research Promotion and Technology Transfer, supplementary transfer activity through eight companies of the Steinbeis organisation.
Hochschule Offenburg	**University of Applied Sciences** Faculties: Business administration / industrial engineering, electrical engineering / information technology, mechanical engineering / process technology, media / information science. Transfer through an institute for applied research and five companies of the Steinbeis organisation
Research and transfer institutions	**Forstliche Versuchs- und Forschungsanstalt Baden-Württemberg** – Forestry Testing and Research Institute Based in Freiburg, it is the key institute for further development of forestry and timber industry, in particular for forest management. **Institutes of Fraunhofer-Gesellschaft** • Fraunhofer-Institut für Solare Energiesysteme ISE – Solar Energy Systems • Fraunhofer-Institut für Angewandte Festkörperphysik IAF – Applied Solid-State Physics • Fraunhofer-Institut für Werkstoffmechanik IWM – Material Mechanics • Fraunhofer-Institut für Kurzzeitdynamik, Ernst-Mach-Institut, EMI – Short-Term Dynamics • Fraunhofer-Institut für Physikalische Messtechnik IPM Physical Measurement Technology **Institutes of Max-Planck-Gesellschaft** • Max-Planck-Institut für Immunbiologie und Epigenetik – Immunobiology and Epigenetics

Schwarzwald-Baar-Heuberg

08

The region

The Schwarzwald-Baar-Heuberg region encompasses a territory of 2529 km² and has about 485,000 inhabitants. The region includes the districts of Rottweil and Tuttlingen and the Schwarzwald-Baar district. This region that has positioned itself as a winner region as regards location marketing; it hosts an extraordinarily high number of companies who have been awarded or have won prizes in recognised competitions world-wide.

All in all, compared to the state of Baden-Württemberg, its economy is clearly more production-based. Therefore, its share of the entire services sector, also of corporate services, is below state average.

In detail[18]:

- Production sector: 51.9 % (State: 37.8 %)
- Services sector in total: 47.8 % (State: 61.8 %)
  - Trade: 11.9 % (State: 13.8 %)
  - Corporate service providers: 7.8 % (State: 11.6 %)
  - Transport: 3.3 % (State: 3.9 %)

Its industrial history reaches back into the first half of the 19th century. Over the past three decades, the region has undergone a noticeable structural change during which existing cluster structures were confirmed and new cluster potentials developed further.

The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Metal industry including production or metal products and mechanical engineering;
- Production of electrical equipment; and
- Production of computers and electronic and optical products.

Its innovation power ranks in the lower middle compared to other regions. Innovation level and also innovation dynamic are below average.

The region's innovation index is as follows:

- Total index: 28.4 % (State: 35.6 %)
- Level index: 29.1 % (State: 35.7 %)
- Dynamic index: 26.1 % (State: 35.4 %)

18 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011

The region's clusters and cluster initiatives

Automotive cluster

Target fields of cluster policy: Automotive

The Schwarzwald-Baar-Heuberg region is home to about 1000 enterprises belonging to the automotive innovation cluster. A speciality here is the geographical concentration of turned part manufacturers on the plateau known as the Great Heuberg with the town of Gosheim as its major centre. This can be called a regional centre of competence for turned part production, whose origins reach back into the sixties. Switch elements and locking systems from the Tuttlingen area are a benchmark for innovation in this sector up to this day. The automotive industry is its major consumer. Individual companies have since grown to become medium-sized enterprises. In addition, the region hosts automotive suppliers, for instance in the Schramberg area, who can claim to be among the world leaders in their fields. Special purpose vehicle construction also looks back on a long tradition in the region. Major product families within the cluster are turned parts, electro-mechanical and electronic switches and switching systems, springs, planetary gears, motors, navigation systems, route detection and tachographs.

CLI: Netzwerk Auto-Mobil – Automobile network

In the region of Schwarzwald-Baar-Heuberg, more than 30 percent of all industrial jobs are jobs with automotive suppliers. However, the automotive industry currently experiences a structural change and global developments require new mobility concepts. Netzwerk Auto-Mobil provides the suppliers in this region with a platform for this dialog. With regular industry meetings and workgroups regarding key issues, the network helps boost the innovation power of individual network partners and strengthen the location with respect to its competitiveness. Netzwerk Auto-Mobil is supported by the winner region, the Schwarzwald-Baar-Heuberg chamber of commerce and industry and the trade association Südwestmetall.

Netzwerk Auto-Mobil
(Automobile Network)
c/o IMDAHL Strategie + Kommunikation

Angela Imdahl *Hochturmgasse 17* *78628 Rottweil*	*Telephone: +49 741 1755534* *Fax: +49 741 1755532* *www.netzwerk-auto-mobil.de*

CLI: GVD Gemeinnützige Vereinigung der Drehteilehersteller e. V. – Non-profit association of turned parts producers

GVD Gemeinnützige Vereinigung der Drehteilehersteller e. V. was established in 1974 and has since represented the common economic and technical interests of its members. This trade association currently

has about 80 members operating in the machining sector as suppliers of precision parts, assembly groups and components, aggregates and systems to the most different industries and branches of industry. About 80 sponsors from the mechanical engineering industry, tooling manufacturing and complementary industries support the association's activities. Its goals of strengthening competences, recruiting and training of personnel are to make their member enterprises future-proof.

GVD Gemeinnützige Vereinigung der Drehteilehersteller e. V.
(Non-profit association of turned parts producers)

Ingo Hell *Daimlerstraße 9* *78559 Gosheim*	*Telephone: +49 7426 5298-0* *Fax: +49 7426 5298-78* *www.gvd.de*

CLI: Kompetenzzentrum Leichtbau der InnovationsAgentur Rottweil e. V. – Competence centre for lightweight construction

The automotive supplier industry has a strong footprint in the Rottweil district. For better marketing of innovative services, local enterprises have taken the initiative and established the Competence center Lightweight construction, together with innovation coach Dr. M. Wolber. Goals of this competence centre are the speedy handling of customer requests regarding material selection and alternative production methods, enhancement of material efficiency and early involvement of service providers in the development process.

Kompetenzzentrum Leichtbau der InnovationsAgentur Rottweil e. V.
(Competence center for lightweight)

Dr.-Ing. Mechthild Wolber *Schramberger Straße 14* *78628 Rottweil*	*Telephone: +49 741 170-4935* *www.innovationsagentur-rw.de*

CLI: Virtual Dimension Center – Technologiezentrum St. Georgen w. V.

Virtual Dimension Center – Technologiezentrum St. Georgen w. V. bundles the innovative potential in the areas of calculation, simulation, visualisation and virtual reality in the Schwarzwald-Baar-Heuberg region to make it available to the local companies. Its members have access to the latest VR technology and various other services for an optimum benefit from digital product development. This helps reduce costs and time of production cycles, by up to 50 %.

VDC TZ St. Georgen w. V.

Martin Zimmermann *Leopoldstraße 1* *78112 St. Georgen im Schwarzwald*	*Telephone: +49 7724 949-422* *www.vdc-tz-stgeorgen.de*

Precision engineering / micro-engineering / microsystem technology

Target fields of cluster policy: Health industry, medical engineering, microsystem technology including nanotechnology, production technology including mechanical engineering and security technology

In this cluster, a tradition stretching back over a hundred years and links between many companies have given rise to production plants whose competitive strength continues to grow to the present day. This cluster encompassing more than 3,000 companies today, plus the Hahn-Schickard-Gesellschaft institute of micro-engineering and information technology and Furtwangen University, has evolved from the clock and watch industry around Villingen-Schwenningen and Schramberg that has dominated the global clock and watch market for a long time. Precision engineering in this sector found a direct outlet in the field of micro-engineering, in which several hundred companies are currently active in the production of micro and precision components. They are involved with micro-assembly and micro-production. Production takes place in cleanrooms or under cleanroom conditions using ultra-modern methods from the field of microsystem technology. Through the work within the networks and the resulting intense exchange of experiences, new applications have been identified in recent years.

CLI: MicroMountains Network e. V.

Innovations, specialists and high-tech start-ups are priority topics of MicroMountains Network e. V. 42 enterprises and institutions have committed themselves to enhancing the technological infrastructure, promoting young people's interest for technology and supporting young entrepreneurs. One cluster initiative project, for example, is the application centre MicroMountains Applications AG that assists small and medium-sized enterprises in realising research projects in microsystem technology.

MicroMountains Network e. V.
c/o IHK Schwarzwald-Baar-Heuberg

Egon Warfia *Romäusring 4* *78050 Villingen-Schwenningen*	*Telephone: +49 7721 922-181* *Fax: +49 7721 922-193* *www.micromountains.com*

Health industry cluster

Target fields of cluster policy: Health industry

An important cluster is the health cluster in symbiosis with tourism including the health industry. This encompasses primarily the existing spa and mineral baths industry and their associated therapeutic and convalescent institutions. More than 1,000 health service providers and about 1,000 tourism locations, hotels and restaurants belong to this regional cluster and complement the health industry's activities. The Black Forest health and holiday region stretches across the North-western part of the Black Forest and beyond. Another tourist area complemented by a huge range of health services is located in the East of this region, the Danube highland. The Black Forest is a highly appreciated health region, on a national and international scale.

CLI: Healthcare network Schwarzwald-Baar

The healthcare network Schwarzwald-Baar initiative initiated by the district administration is to support and further strengthen the health sector. The basic concept of this network is the cross-professional collaboration of all health professionals in the Schwarzwald-Baar district. Solutions and activities are developed in common and realised on a project-basis. Each health care provider in the district can participate in various individual projects. The concept was developed in cooperation with several partners from the health sector in 2009 and is supported by them as well.

Gesundheitsnetzwerk Schwarzwald-Baar (Healthcare network)
Geschäftsstelle im Landratsamt Schwarzwald-Baar-Kreis
- Gesundheitsamt -

Daniela Drzyzga *Schwenningerstraße 2* *78048 Villingen-Schwenningen*	*Telephone: +49 7721 913-7184* *Fax: +49 7721 913-8918* *www.gesundheitsnetzwerk-sbk.de*

Plastics processing cluster

Target fields of cluster policy: Automotive, mechatronics, medical engineering, microsystem technology including nanotechnology, new materials / surfaces and production technology including mechanical engineering

Originating from the metal-oriented supplier companies to the automotive industry, over recent years an increasing number of efficient plastics processing companies have emerged, whose high technology credentials are lending this cluster increasing weight in the region. New developments in the field of fibre reinforced plastics are opening up new perspectives for this cluster.

Medical engineering cluster

Target fields of cluster policy: Medical engineering

A textbook regional cluster has formed in the Tuttlingen area whose origin stretches back to the 19th century. The location and cluster structure is characterised by more than 400 companies, most of them small workshops in the craftsmanship tradition, but also globally oriented corporations. The foundation of the medical engineering cluster is the still highly important sector of surgical mechanics, which stands for a

wide range of surgical instruments, supplementary devices and implants made of metal. Today, systems for rigid and increasingly also flexible endoscopy for keyhole diagnosis and surgery represent an innovative product category in this cluster. Endoscopic systems call for a far more advanced level of expertise than classical precision mechanical skills. Here, alongside system-specific knowledge, also video / microoptical, microelectronic and other microsystems engineering skills are required. Added to this is the need for specific IT and software expertise. Alongside human medicine, this cluster now also focuses on veterinary medicine and industrial endoscopy applications. Especially over the recent years, the medical engineering companies in this region have become suppliers of highly complex surgical systems.

CLI: Kompetenzzentrum Minimal Invasive Medizin + Technik Tübingen – Tuttlingen (MITT) e. V.

The MITT competence centre is a non-profit organisation offering companies, inventors and research institutions specific advice and support for all issues around the topic of minimal invasive medicine and technology. The MITT maintains information centres at its Tübingen and Tuttlingen (Neuhausen ob Eck) locations and has more than 70 members, of which 70 % are enterprises.

Kompetenzzentrum Minimal Invasive Medizin + Technik Tübingen – Tuttlingen (MITT) e. V.
(Competence centre for minimal invasive medicine and technology)

Dr. Ludger Schnieder *Hechinger Straße 262* *72072 Tübingen*	*Telephone: +49 7071 857893-100* *Fax: +49 7071 857893-200* *www.mittev.de*

CLI: MedicalMountains AG

Tuttlingen is one of the most significant clusters for modern medical engineering globally. The MedicalMountains cluster initiative is mainly focused on small and medium-sized enterprises to expand their international networking activities and to promote transfer of new technologies. MedicalMountains AG is an initiative of the Tuttlingen district administration, BIOPRO Baden-Württemberg GmbH and the Schwarzwald-Baar-Heuberg chamber of commerce and industry. Another priority of this cluster initiative is promoting and providing advice to start-ups.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

MedicalMountains AG

Yvonne Glienke *Max-Planck-Straße 17* *78532 Tuttlingen*	*Telephone: +49 7461 969721-1* *Fax: +49 7461 969721-9* *www.medicalmountains.de*

Measurement and control cluster

Target fields of cluster policy: Microsystem technology including nanotechnology, production technology including mechanical engineering and security technology

Precision and micro engineering call for stringent standards of excellence in measurement and production technology. Many components can only be manufactured using highly automated production technologies. This has led to the formation of a relatively new cluster in the field of measurement and automation technology. Sensor telemetry and contactless measurement technology, in particular, are represented by highly competent firms in this region. The field of microsystems engineering is represented here as well as in the clusters of precision engineering, micro-engineering and microsystem technology.

Music industry cluster

Target fields of cluster policy: Media, culture and creative industries

Music industry and musical instrument production have a long tradition of more than 150 years in this region. This cluster includes 25 enterprises and other music-related institutions operating in the fields of musical instruments, sound storage mediums, video production, musical instrument trade, music events and radio broadcasting.

Production technology cluster

Target fields of cluster policy: Production technology including mechanical engineering

Special purpose machine manufacture as well as series production of machine tools provide thousands of jobs in the region. Knowhow transfer of the latest technologies helps to secure the leading edge of about 5,000 local companies in the world markets.

InnovationsAgentur Rottweil e. V.

InnovationsAgentur Rottweil e. V. is a network of small and medium-sized enterprises, mainly located in the Rottweil district, supported by competent and independent partners such as banks, communities, chamber of commerce and industry and educational institutions. For delivering its services, InnovationsAgentur uses the services of professional innovation coaches. If needed, more experts are called in, for example from research institutions. In addition to an innovation checkup, the innovation agency offers first aid when companies do not develop their own products or if specific innovation projects seem to get lost in day-to-day business. Main priorities in the area of production technology/mechanical engineering are material substitution and hybrid value adding concepts in the production industry.

InnovationsAgentur Rottweil e. V.

Dr.-Ing. Mechthild Wolber *Schramberger Straße 14* *78628 Rottweil*	*Telephone: +49 741 170-4935* *Fax: +49 741 170-4932* *www.innovationsagentur-rw.de*

CLI: INNOVATIONSNETZWERK Gewinnerregion – Winner region innovation network

Innovations are an opportunity for the employment market and may be serve as a base or support of cluster development. This network offers a presentation platform to innovating entities from the region's production technology environment, but mainly to small and medium-sized enterprises to make their innovations known within the region but also beyond regional borders. This not only helps improve the regional innovation climate but also attracts experts and cooperation potential to the region.

INNOVATIONSNETZWERK Gewinnerregion
(Winner region innovation network)

Armin Frank *Am Wiesenhof 16* *78087 Mönchweiler*	*Telephone: +49 7721 409865* *Fax: +49 7721 409864* *www.standortoffensive.de*

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Hochschule Furtwangen University	**University of Applied Sciences** Furtwangen University with campuses in Furtwangen, Villingen-Schwenningen and Tuttlingen offers a total of 35 study programmes, of which ten are technical, four in the area of computer science, four in the area of business informatics, three in the area of industrial engineering, five in the area of international management, four in the area of media and five in the area of health science. The university's link to industry is supported primarily by the institute for applied research and by twelve companies of the Steinbeis organisation.
Staatliche Musikhochschule Trossingen	**State University Institute of Music** An internationally recognised university institute whose origins lie in the cluster of manufacturers of musical instruments of different kind.
Duale Hochschule Baden-Württemberg Villingen-Schwenningen	**Cooperative State University** Faculties for economics and social work.
International Business School Tuttlingen	**International Business School** Since 2003, renowned companies active in the field of medical engineering have participated in the Master's degree programme sponsored by the city and district administration of Tuttlingen, which culminates in an MBA degree. This postgraduate program which focuses on medical devices & healthcare management communicates the latest management expertise to the highest level as well as the soft skills required for next-generation management, engineers and company successors.
Research and transfer institutions	**Institut für Mikroelektronik und Informationstechnik der Hahn-Schickard-Gesellschaft e. V.** HSG-IMIT, institute of microelectronics and information technology, located in Villingen-Schwenningen, offers R&D solutions. It considers itself a leading research and development service provider for micro-engineering components and systems in Baden-Württemberg. **MicroMountains Applications AG** MicroMountains Applications AG is one of six micro-engineering application centres in Germany. The aim of this application centre is the translation of latest microtechnology into marketable products. **Kunststoff-Institut Südwest (KISW), Villingen-Schwenningen** – Plastics institute

Hochrhein-Bodensee

09

The region

The Hochrhein-Bodensee region with the districts of Lörrach, Waldshut and Constance spans a territory of approx. 2,756 km² with 665,000 inhabitants. The region's spatial specialisation is determined by the two development poles: the Trinational Eurodistrict Basel (TEB) in the Lörrach-Basel area and the European Lake Constance region.

A basic characteristic of this entire area are its intensive linkages with neighbouring regions in France, Switzerland, Austria and Liechtenstein that are determined by both, direct economic links and research cooperations. In the Waldshut district, there is plenty cooperation along the High Rhine. Of significance for the Constance district is collaboration within the international Lake Constance business region. The regional clusters stretch beyond national borders and the cluster initiatives also operate across state borders. Outstanding is the innovation power of the chemical-pharmaceutical sector.

Compared to the state of Baden-Württemberg as a whole, the economy of the Hochrhein-Bodensee region is equally characterised by the production and the services sector. Yet, the share of corporate service providers is below state-average.

In detail[19]:

- Production sector: 37.9 % (State: 37.8 %)
- Services sector in total: 61.4 % (State: 61.8 %)
  - Trade: 15.6 % (State: 13.8 %)
  - Corporate service providers: 8.9 % (State: 11.6 %)
  - Transport: 3.6 % (State: 3.9 %)

The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

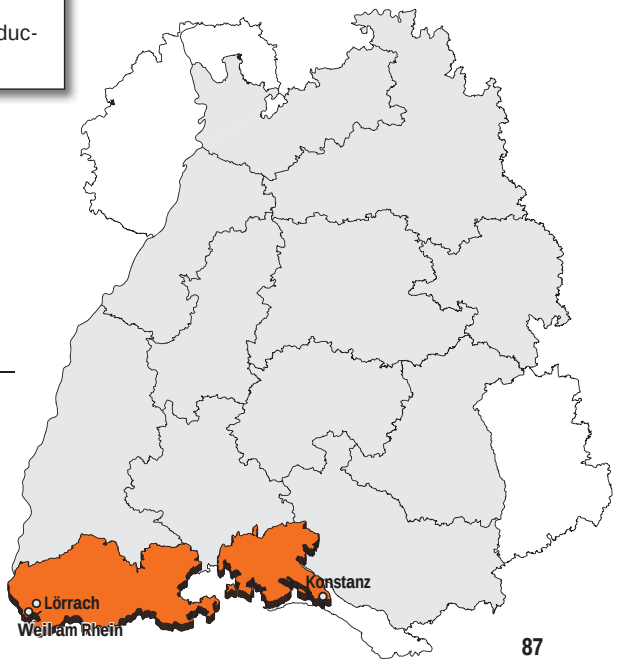
- Metal industry including mechanical engineering, metal production and working and production of metal products and
- Food industry including the production of food and animal feed.

Compared to other regions, innovation power of the Hochrhein-Bodensee region ranks in the lower middle. Nonetheless, the region has improved compared to the 2008 innovation index, from rank 11 to 8. Inter alia, this is due to the above-average and distinct dynamic with regard to innovations.

One reason for the improved innovation capability is the increase in research spending and R&D jobs in the associated rural district of Lörrach[20].

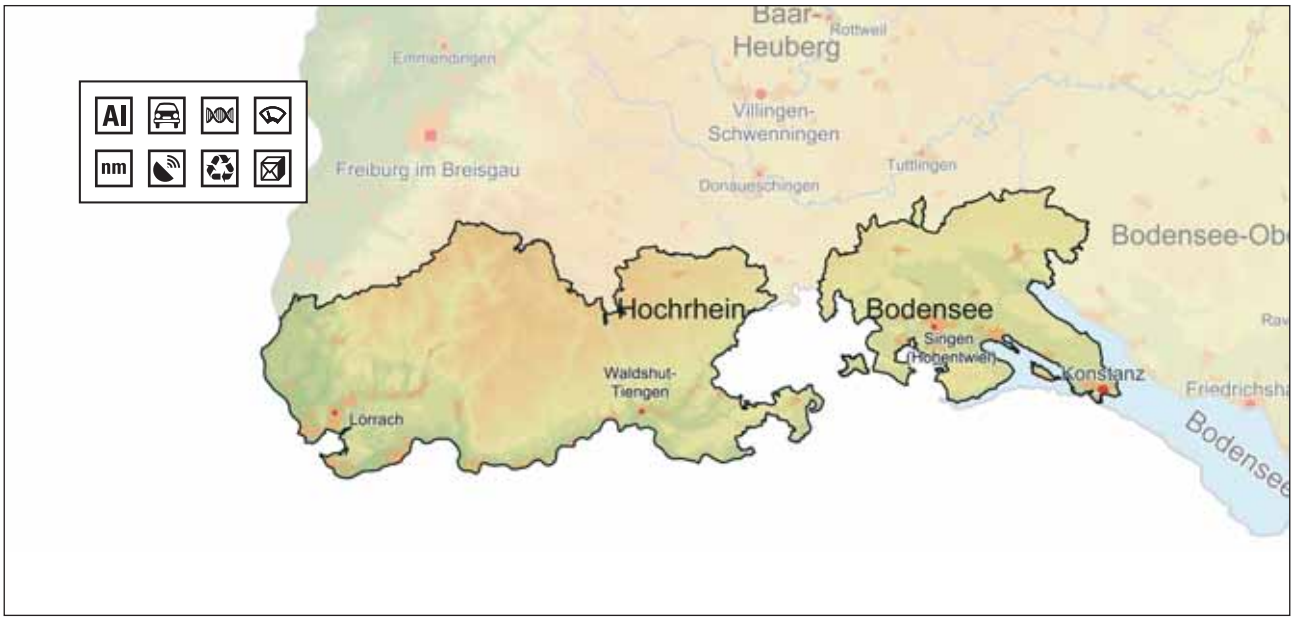
The region's innovation index is as follows:

- Total index: 31.0 % (State: 35.6 %)
- Level index: 28.3 % (State: 35.7 %)
- Dynamic index: 39.3 % (State: 35.4 %)



19 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011
20 Innovation index 2011: Baden-Württemberg: The success story continued. Monthly statistical brochure for Baden-Württemberg 12/2010

The region's clusters and cluster initiatives



Al Aluminium processing cluster

Target fields of cluster policy: Automotive, aerospace, medical engineering and new materials / surfaces

The abundance of water in the High Rhine area, the Lake Constance and the Singen area was instrumental in attracting aluminium manufacturing and processing enterprises to the region, as early as more than a hundred years ago. The aluminium processing locations are consequently grouped along the High Rhine, from Weil am Rhein in the West as far as Singen and Kreuzlingen in the East, with a high concentration in the Wutach valley. In-between is Swiss territory, with Neuhausen and Schaffhausen at its centre which is part of this geographical concentration as well. The Wutöschingen community forms a local centre here. In terms of value adding, the focus here lies on processing, machining and refinement of aluminium for the manufacture of semifinished products and components as well as some end products.

CLI: Aluminiumforum Hochrhein

This network of the aluminium processing and machining industry operates in the Hochrhein region. Its goals are: Improve awareness in the region of the economic importance of the aluminium industry, build and strengthen cooperation between the network's member companies and regional and communal authorities, bundle business competences, commonly recruit specialists bringing additional know-how into the region and establish the region as an aluminium competence centre.

Aluminiumforum Hochrhein
c/o Wirtschaftsregion Südwest GmbH

Geschäftsstelle Waldshut *Kai Müller* *Gartenstraße 7* *79761 Waldshut-Tiengen*	*Telephone: +49 7751 8626-603* *Fax: +49 7751 8626-699* *www.aluminiumforum-hochrhein.de*

Automotive cluster

Target fields of cluster policy: Automotive

This cluster comprises primarily a group of component and part manufacturers, important sectors of which are directly linked to aluminium specialisation, but with a broader base taken overall. These enterprises are also located along the High Rhine.

CLI: Wirtschaftsregion Südwest automotiveforum – South-western automotive forum

The regional activities of the cluster initiative are closely connected with the state-wide automotive-bw cluster. Members of Wirtschaftsregion Südwest automotiveforum network for strengthening regional value adding. The automotiveforum initiative also markets the region as an attractive and powerful location.

Wirtschaftsregion Südwest automotiveforum
(South-western automotive forum)
c/o Wirtschaftsregion Südwest GmbH

Geschäftsstelle Waldshut *Kai Müller* *Gartenstraße 7* *79761 Waldshut-Tiengen*	*Telephone: +49 7751 8626-603* *Fax: +49 7751 8626-699* *www.wsw.eu*

Biotechnology cluster

Target fields of cluster policy: Biotechnology

Lörrach area: The life science cluster mentioned here, its competitiveness being improved by integration into the tri-national BioValley initiative, stretches along the Upper Rhine area and therefore primarily covers the Lörrach-Basel area. Major industries here are the pharmaceutical and medical engineering industries. Lake Constance area: This location features a variety of young technology-oriented company, among them some research and analytic service providers, but also well-established enterprises like the researching pharmaceutical company Nycomed Gmbh or GATC Biotech. Besides, institutions like Constance University or the academically affiliated Biotechnologie-Institut Thurgau conduct basic research in the area of life sciences.

CLI: BioLAGO e. V. – Life science network

BioLAGO e. V. is a cross-border network for life sciences and biotechnology around Lake Constance. As a platform, the organisation brings together about 80 companies and research institutions located in the German, Swiss and Austrian Lake Constance area, operating in the key areas of pharmaceuticals, diagnostics, medical (engineering), chemical industry, environmental engineering and the food industry. The targets of this cluster initiative are the transfer between science, industry and politics, the development of marketable services for and together with the members and the creation of an innovative branch of industry, with a strong financial position, within the regional economy, based on modern life sciences. In addition, it drives the international positioning of the regional life sciences industry, as a high performer standing for the future competitiveness of the region and promotes science and technical education programmes (public relations). BioLAGO e. V. is part of the Bodensee cluster initiative[21].

BioLAGO e. V. – life science network

Andreas Baur *Blarerstraße 56* *78462 Konstanz*	*Telephone: +49 7531 284-2722* *Fax: +49 7531 284-3106* *www.biolago.org*

Several stakeholders and activities of the biotechnology cluster are involved in and integrated into the activities of BioRegion Freiburg / BioValley platform Germany (see region Südlicher Oberrhein).

Measurement and control cluster

Target fields of cluster policy: Microsystem technology including nanotechnology

The Hochrhein-Bodensee region is home to a whole series of companies active in the field of measurement and control technology. Similar to the Südlicher Oberrhein region, an increasing number of microsystems technologies are being applied in the companies operating in this sector.

21 Note : Contact for Bodensee cluster initiative : Thorsten Leupold, see contact Packaging technology cluster Region Hochrhein-Bodensee

Nanotechnology cluster

Target fields of cluster policy: Microsystem technology including nanotechnology

Euregio Bodensee is home to numerous outstanding enterprises and research institutions in the area of nanotechnology bundling their activities for improved competitiveness. The centre of the cluster activities is Nano-Zentrum Euregio Bodensee.

CLI: Nano-Zentrum Euregio Bodensee

The strong competences of the universities in the countries around Lake Constance (in the Euregio Bodensee) in the subject areas of physics, chemistry, material science and process technology become the nucleus of cross-border transfer from top research to innovative SMEs and large corporations through Nano-Zentrum Euregio Bodensee in Constance. In cooperation with the Steinbeis foundation in Stuttgart, the Constance Center for Applied Photonics (CAP), the chambers of commerce and industry's nano network, and the Association for Micro and Nanotechnology (MNT) in St. Gallen, technical specialists are trained in Germany, Austria, Switzerland and Liechtenstein. The competence and transfer centre is responsible for increased and accelerated transfer of research results to the businesses of Euregio Bodensee. Nano-Zentrum Euregio Bodensee advises companies with regard to practical applications for micro and nanotechnology and thus promotes their dissemination. Actual orders in the areas of surface processing and refining, nanoanalysis, material science and applied photonics affect the cluster's work long-term. Technological competition creates growth perspectives and added value for future industries and products. In this regard, the nano structure lab at Constance University plays an important role and, in addition, ensures the direct transfer to the industry by guided tours and training. Events for students of technical higher secondary schools (for example, nanoTruck Bodenseetour 2009 and 2010) for industry specialists (for example, conference on nanotechnology and surface purity) and for master craftsman (for example, conference „Craft meets Nano") transfer the research activities. Nano-Zentrum Euregio Bodensee is part of the Bodensee cluster initiative.

Nano-Zentrum Euregio Bodensee

Prof. Dr. Günter Schatz *Universitätsstraße 10* *78464 Konstanz*	*Telephone: +49 7531 88 3791* *Fax: +49 7531 88 3789* *www.neb-konstanz.de*

Satellite navigation cluster

Target fields of cluster policy: Satellite navigation

The European satellite system Galileo is planned to be operating in 2013. A decisive factor for the success of the European satellite navigation system will be the cross-border cooperation of industry and science in particular. The cluster includes outstanding companies leading the global markets and renowned research institutions. These companies are involved in various activities of "Netzwerk Baden-Württemberg: Connected e. V. (bwcon)" that is operating state-wide (see chapter 13 State-wide and cross-regional networks).

Environmental technology cluster

Target fields of cluster policy: Environmental technology

This cluster encompasses a large number of companies and institutes in the Lake Constance area. The focus of the value-adding chain lies here in the fields of analytics, components and systems for water and regenerative energies, and is supplemented by specific supply companies and consulting firms as well as university-affiliated and independent research institutes.

CLI: Netzwerk Umwelttechnologie Bodensee – Lake Constance Environmental technology network

The environmental technology network includes enterprises, craft shops, start-ups, universities, research institutions, service providers, organisations and foundations from the sector of environmental engineering. Goals of this network are increasing communication dynamics between the individual stakeholders, promoting knowledge and technology transfer and improving competitiveness and innovation capability, especially of SMEs. In the Lake Constance region, encompassing four countries, the network is to boost regional value adding and employment. The environmental technology network is part of the Bodensee cluster initiative (CLIB).

Netzwerk Umwelttechnologie Bodensee
(Environmental technology network)
c/o Bodensee Standort Marketing GmbH (BSM)

Dr. Barbara Giehmann *Benediktinerplatz 1* *78467 Konstanz*	*Telephone: +49 7531 800-1145* *Fax: +49 7531 800-1146* *www.umweltnetzwerk.net*

Packaging technology cluster

Target fields of cluster policy: New materials / surfaces and production technology including mechanical engineering

This cluster is based on well-established enterprises along a wide-stretched value adding chain. Its major centres are located North as well as South of the Rhine and Lake Constance. The German side is characterised particularly by packaging firms working in the food and pharmaceuticals sector and by manufacturers of packaging materials (flexible packaging). Schaffhausen (Switzerland) is home to the International Packaging Institute (IPI), which acts on a cross-border basis as a centre of competence and a central platform for the packaging industry. Under the academic roof of HTWG (Hochschule für Technik, Wirtschaft und Gestaltung, Constance - University of Applied Sciences for Technics, Economics and Design), Masters of Engineering in packaging technology are educated at the IPI. Another centre of the packaging technology cluster is located in the Singen area, around the company Alcan Packaging Singen GmbH. In terms of value adding, packaging machine manufacturers, packing material producers, packaging manufacturers and packaging firms (for example Maggi Singen) but also their suppliers and some universities are involved.

CLI: Cluster Verpackungstechnologie Bodensee – Lake Constance packaging technology cluster

International network in the Lake Constance region, which encompasses four countries, that focuses on the strengthening of the companies existing in this sector and the relevant job market. All levels of the value adding chain are represented in this cluster initiative, some even by world market leaders. Companies and research institutions are to be linked across borders and a technological centre of competence for packaging technology is to be extended for strengthening innovation capability. The Lake Constance/ Northern Switzerland packaging technology clusteris part of the Bodensee cluster initiative.

Cluster Verpackungstechnologie Bodensee
(Packaging technology cluster)
c/o Bodensee Standort Marketing GmbH

Thorsten Leupold *Benediktinerplatz 1* *78467 Konstanz*	*Telephone: +49 7531 800-1145* *Fax: +49 7531 800-1146* *www.Cluster-Initiative-bodensee.de*

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Universität Basel	**University** The university offers both science and medical study programmes. Both faculties additionally form a research centre for life sciences with a large number of different research groups of direct relevance to the BioValley initiative.
Universität Konstanz	**University** Technical and scientific study programmes: Biological sciences, life science, chemistry, computer science, physics. Transfer through Center for Applied Photonics (CAP) and more than ten organisations of Steinbeis transfer centres.
Hochschule Konstanz – Technik, Wirtschaft und Gestaltung (HTWG)	**University of Applied Sciences – Technics, Economics and Design** Cluster-relevant study programmes include mechanical engineering, environmental and process technology, electrical engineering, information technology, computer science and communication design. Transfer also through Institut für Angewandte Forschung (IAF).
Duale Hochschule Baden-Württemberg, Lörrach	**Cooperative State University** Selected technical and economics study programmes: Biosystem informatics, information technology, mechatronics, mechanical engineering, business engineering, industrial business administration, tourism business administration, international business management, business informatics.
Research and transfer institutions	**Fraunhofer-Institut für Kurzzeitdynamik – Short-Term Dynamics** Of relevance for the regional cluster is the Freiburg-based Fraunhofer-Institut for Short-Term Dynamics (Ernst-Mach-Institut, EMI) with its external branch in Efringen-Kirchen. **International Solar Energy Research Center Konstanz e. V.** International Solar Energy Research Center Konstanz e. V. researches and develops crystalline silicium solar cells. Transfer through NEB e. V. (Nano Zentrum Euregio Bodensee) and ten other companies from the Steinbeis organisation (Associated with the university of Constance, Hochschule Konstanz – Technik, Wirtschaft und Gestaltung and Duale Hochschule Baden-Württemberg Lörrach).

Neckar-Alb

10

The region

The Neckar-Alb region stretches over an area of 2,531 km²; it is home to about 670,000 inhabitants. The region includes the districts of Reutlingen, Tübingen and Zollernalbkreis. The cities of Reutlingen and Tübingen, located approx. 40 km south of the state capital Stuttgart, are the region's economic centre.

Compared to the entire state of Baden-Württemberg, the region's economy is even more production-based. Therefore, its share of the entire services sector, also of corporate services, is below state average.

In detail[22]:

- Production sector: 40.7 % (State: 37.8 %)
- Services sector in total: 58.9 % (State: 61.8 %)
  - Trade: 14.4 % (State: 13.8 %)
  - Corporate service providers: 7.7 % (State: 11.6 %)
  - Transport: 3.0 % (State: 3.9 %)

The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

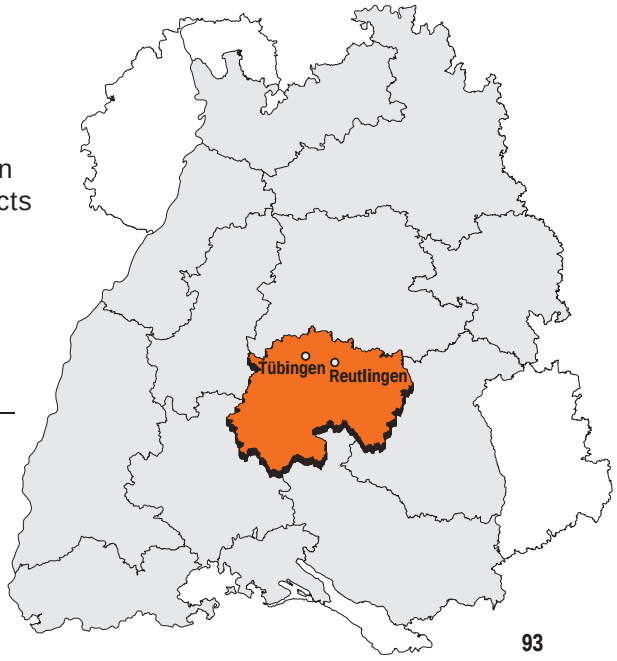
- Metal industry including mechanical engineering and the production of metal products and
- Textile industry including production of clothes.

Its innovation power ranks in the lower middle compared to other regions. Nevertheless, an above-average innovation dynamic has developed in the Neckar-Alb region.

The innovation index is as follows:

- Total index: 30.4 % (State: 35.6 %)
- Level index: 28.0 % (State: 35.7 %)
- Dynamic index: 37.7 % (State: 35.4 %)

The Neckar-Alb region is the Southern part of the European metropolitan region of Stuttgart. This partly reflects in the regional cluster structures. In particular the automotive and mechanical engineering clusters, which play an instrumental role for the Neckar-Alb region, must also be regarded in connection with the Stuttgart region. It is located directly south of the fair area Messe Stuttgart and the Stuttgart airport, between the motorways A 8 and A 81, which is a key infrastructural advantage. In contrast, the textile, medical engineering and biotechnology clusters and their interlinked activities are oriented more towards the Neckar-Alb region and its southern neighbours. Four universities provide for an intense transfer of knowledge. Its highly diversified economic structure contributes to the clusters' networking activities beyond regional borders.



22 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011

The region's clusters and cluster initiatives

Automotive cluster

Target fields of cluster policy: Automotive

Due to the favourable location relative to well-known car factories in the Stuttgart region (30-45 minutes driving time), the region is a preferred location for supplier firms. The predominantly small to medium-sized enterprises as well as the traditional locations of larger-scale plants employing a workforce of over 1,000 both benefit from the outstanding innovation power as a result of close cooperative arrangements all along the value-adding chain.

CLI: IHK-Netzwerk Automotive - CCI automotive network

The CCI automotive network was established in November 2007 for representing location interests and networking of corporate and research activities in the automotive supplier industry. The network represents a selection of 43 companies from about 188 automotive suppliers in the Neckar-Alb region. It features a sustainable self-financed network structure on a management basis.

IHK-Netzwerk Automotive
(CCI automotive network)
c/o IHK Reutlingen

Dr. Markus Nawroth *Hindenburgstraße 54* *72762 Reutlingen*	*Telephone: +49 7121 201-185* *Fax: +49 7121 201-4185* *www.netzwerk-automotive.de*

Biotechnology cluster

Target fields of cluster policy: Biotechnology

This young cluster is highly research-driven and includes a series of spin-offs from Tübingen University with links to pharmacy and also to medical engineering. A business incubator focusing on biotechnology at Technologiepark Tübingen-Reutlingen (TTR) acts as a crystallisation point for this cluster.

CLI: Cluster Innovative Hospital

The network was founded in November 2009. The goal of this interdisciplinary health cluster is the promotion of cross-links among its members and the transfer of knowledge about health institutions to future markets. This specifically includes staff qualification and support for investors and ministries in the planning and construction of customised and certified health facilities.

Cluster Innovative Hospital
c/o wwH-c GmbH

PD Dr. Ulrich Matern *Rossbergstr. 10* *72379 Hechingen*	*Telephone: +49 7471 18058-55* *Fax: +49 7471 -18058-56* *www.innovative-hospital.de*

Forestry and timber cluster

Target fields of cluster policy: Energy, production technology including mechanical engineering and environmental engineering

Importance of wood as raw material and fuel has constantly grown. The Neckar-Alb region hosts many enterprises offering innovative products such as new materials, pellet furnaces and wooden prefabricated houses. The Rottenburg University of Forestry educates the required specialists. The cluster's two workgroups "Holz als Brennstoff" and "Holz als Werkstoff" organised by the Reutlingen chamber of commerce and industry provide for the necessary exchange of ideas. It generates new products and joint projects.

CLI: Arbeitskreis „Holz als Brennstoff" – Workgroup „Wood as Fuel"

It covers the entire production chain from the forest to furnace manufacturers and furnace operators. The workgroup contributes to a better utilisation of wood as fuel.

CLI: Arbeitskreis „Holz als Werkstoff" – Workgroup „Wood as Material"

More than 1,000 companies in the Neckar-Alb region use wood as a construction or raw material. The workgroup supports a more rapid establishment of modern raw materials and new cooperations.

Arbeitskreis „Holz als Brennstoff – Workgroup „Wood as Fuel"
Arbeitskreis „Holz als Werkstoff – Workgroup „Wood as Material"
c/o IHK Reutlingen

Dr. Albrecht Walcher *Hindenburgstraße 54* *72762 Reutlingen*	*Telephone: +49 7121 201-184* *Fax: +49 7121 201-4184* *www.reutlingen.ihk.de*

Health industry cluster

Target fields of cluster policy: Health industry

Measured by the number of jobs, the health industry is the largest industry in Baden-Württemberg and the Neckar-Alb region. As demographics change, services around human health gain more and more importance. Especially preventive measures and care services benefit from this change. The region benefits from the Tübingen University hospital and the fact that life expectancy in the region is the highest within Baden-Württemberg up to this day. Services in this area in particular offer great employment potential and promoting employment is of great significance for the local labour market in addition to the good perspectives for start-ups.

CLI: IHK-Netzwerk Gesundheit, Ernährung, Sport – CCI Network Health, Nutrition, Sports

The network for health, nutrition and sports links service providers in the health/prevention sector in the Neckar-Alb region. Its goal is an exchange between the primary and secondary health market and the further development of health services.

IHK-Netzwerk Gesundheit, Ernährung, Sport
(CCI Network Health, Nutrition, Sports)
c/o IHK Reutlingen

Marijana Tomin *Hindenburgstraße 54* *72762 Reutlingen*	*Telephone: +49 7121 201-122* *Fax: +49 7121 201-4122* *www.reutlingen.ihk.de*

Information technology / enterprise software cluster

Target fields of cluster policy: Information technology, IT applications / corporate services

The cluster features key competences in the areas of networks, security, hardware and software, telecommunication, IT infrastructure, providing and hosting, marketing, internet, communication and multimedia. Through its open structure, the information and communication technology cluster pushes cooperative activities within the Stuttgart metropolitan region and expands these.

CLI: Netzwerk ITK & Multimedia

This IT, communication technology and multimedia network was founded in 2004 for improved networking of the companies in this region. In addition, it is to utilise synergetic effects from cooperations between the network members in order to participate in tenders or projects where one company alone would lack the capacities. Another network goal is the support of charity projects with both, monetary donations as well as practical assistance or project-related donations in kind.

Netzwerk ITK & Multimedia
(Network IT, communication technology and multimedia)
c/o IHK Reutlingen

Thorsten Schwäger *Hindenburgstraße 54* *72762 Reutlingen*	*Telephone: +49 7121 201-117* *Fax: +49 7121 201-4117* *www.breitbandforum-neckaralb.de*

Medical engineering cluster

Target fields of cluster policy: Medical engineering

This cluster is dominated largely by medium-sized enterprises focusing on electrical medicine and is still in the growth phase. It is based on a variety of development lines: Spin-offs around and originating from Tübingen University as well as developments in the Hechingen area which are undoubtedly linked to the textile tradition and to the locally evolved competence in the field of precision mechanics.

CLI: Cluster Medical Valley Hechingen

In 2002, the city of Hechingen initiated a cooperation of all companies in the medical engineering industry in the Hechingen area targeted at: Strengthening of the medical engineering cluster, innovative development of the level of employment and increasing awareness of politics and industry for the region. In 2003, this resulted in the network of competence named Medical Valley Hechingen which, in turn, founded Medical Valley Hechingen Akademie e. V. in December 2009. This association, in addition to employee training, has mainly committed itself to the promotion of talents, through cooperations with various schools. The network includes more than 40 companies from the medical engineering industry, their suppliers and service providers, the universities of Stuttgart and Tübingen, the NMI (Institute of science and medicine at Tübingen University) and BioRegio STERN Management GmbH.

Medical Valley Hechingen Akademie e. V.
c/o Stadt Hechingen, Wirtschaftsförderung

Hans Marquart *Marktplatz 1* *72379 Hechingen*	*Telephone: +49 7471 940-127* *Fax: +49 7471 940-160* *www.medical-vally-hechingen.de*

CLI: Medical engineering Neckar-Alb

More than 70 medical engineering companies, the Tübingen University hospital and specific research institutions form the centre of the network. Electromedical devices, blood pressure meters, stents and mobility devices are typical products of the researching and producing members. In addition to generating new projects and orders for the companies involved, the cluster initiative intends to attract new companies to settle in the region and to strengthen the Neckar-Alb location.

Medical engineering Neckar-Alb
(Medical Engineering)
c/o IHK Reutlingen

Dr. Stefan Engelhard *Hindenburgstraße 54* *72762 Reutlingen*	*Telephone: +49 7121 201-119* *Fax: +49 7121 201-4119* *www.reutlingen.ihk.de*

Production technology cluster

Target fields of cluster policy: Production technology including mechanical engineering

Overall, this is a largely mature cluster comprising primarily small and medium-sized enterprises with considerable growth potential remaining, in particular in the field of tool and machine tool manufacture and – in connection with the textiles cluster – also textile machinery. In addition, special-purpose machines and robot technology play a distinct role. As regards the value-adding chain, the Neckar-Alb mechanical engineering cluster is fully integrated into state-wide networks.

CLI: Production and automation technology Neckar-Alb

Its technological focus areas originate from the production areas of automation technology, mechanical engineering and production systems, electronics, nanotechnology and surface technology, lightweight design solutions, sensor engineering, image processing and measuring and simulation technology. Together, they intend to strengthen the Neckar-Alb location, attract new companies to the region and realise future-oriented projects.

Produktions- und Automatisierungstechnik Neckar-Alb
(Production and automation technology)
c/o IHK Reutlingen

Dr. Stefan Engelhard *Hindenburgstraße 54* *72762 Reutlingen*	*Telephone: +49 7121 201-119* *Fax: +49 7121 201-4119* *www.reutlingen.ihk.de*

Textiles and clothing cluster

Target fields of cluster policy: New materials / surfaces und Production technology including mechanical engineering

This traditional cluster characterised by a medium-sized enterprise structure enjoys a strong competitive position – despite a steady decrease in employment in this sector over a period of some decades. The value-adding chain in the region is largely represented, including textile machine engineering, textile chemistry and supra-regional marketing structures.

CLI: Technical textiles cluster Neckar-Alb

The motto of „Benefit from regional strengths – establish internationally as a supplier of solutions“ stands for the two pillars of the cluster initiative. The first pillar helps to make known the companies and the Neckar-Alb textile region internationally. The second pillar systematically explores future markets for technical textiles. Science, industry and potential customers and users meet in workgroups dealing with future-related topics.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2010. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

Cluster Technische Textilien Neckar-Alb
(Technical textiles cluster)
c/o Institut für Wissensmanagement und Wissenstransfer an der IHK Reutlingen

Birgit Krattenmacher *Hindenburgstraße 54* *72762 Reutlingen*	*Telephone: +49 7121 201-257* *Fax: +49 7121 201-4119* *www.expertenforum-textil.de*

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Universität Tübingen	**University** Faculties: In particular medicine, mathematics and physics, chemistry and pharmacy, biology, geosciences, information and cognitive sciences. Transfer: Technology transfer centre of Tübingen University and a series of companies belonging to the Steinbeis organisation and managed by university professors.
Hochschule Reutlingen	**University of Applied Sciences** Computer science, production management, international business administration, applied chemistry, technology, textile and design. Transfer through two institutes for applied research and seven companies of the Steinbeis organisation.
Hochschule Albstadt-Sigmaringen	**University of Applied Sciences** Faculties of engineering, business and computer science and life sciences. Transfer through Institut für Angewandte Forschung (IAF).
Hochschule Rottenburg	**University of Applied Sciences** Study programs in forest management, bioenergy and Sustainable Energy Competence (SENCE) as well as transfer through two companies of the Steinbeis organisation.
Research and transfer institutions	**Naturwissenschaftliches und Medizinisches Institut (NMI) at the university of Tübingen in Reutlingen – Institute of Natural and Medical Sciences** The NMI conducts industry-related contract research and development where bioscience and material science meet. **Other institutions:** • Max-Planck-Institut für Biologie • Max-Planck-Institut für biologische Kybernetik • Friedrich-Miescher-Laboratorium for biology workgroups at Max-Planck-Gesellschaft In addition, there are the Deutsche Institute für Textil- und Faserforschung (DITF) in Denkendorf which are actually located in the Stuttgart region but have their origins in Reutlingen and are of major significance for the textile cluster.

Donau-Iller

11

The region

The cross-state Donau-Iller region stretches over an area of approx. 5,460 km² – The Baden-Württemberg part of this region comprises the Alb-Donau district, the district of Biberach and the city of Ulm. The Baden-Württemberg city of Ulm together with the Bavarian city of Neu-Ulm form the centre of the cross-border region of Donau-Iller. The regional clusters or cluster initiatives mostly operate beyond state borders.

Compared to the state of Baden-Württemberg as a whole, its economy[23] is more production-based. Therefore, its share of the entire services sector, also of corporate services, is below state average.

In detail[24]:

- Production sector: 41.6 % (State: 37.8 %)
- Services sector in total: 57.9 % (State: 61.8 %)
  - Trade: 13.7 % (State: 13.8 %)
  - Corporate service providers: 10.2 % (State: 11.6 %)
  - Transport: 4.5 % (State: 3.9 %)

Economy is dominated by medium-sized companies and comprises many family-run businesses. It is home to many world market leaders. Its strength in terms of industry (mechanical engineering, pharmaceuticals, etc.) is supported by an outstanding sector mix.

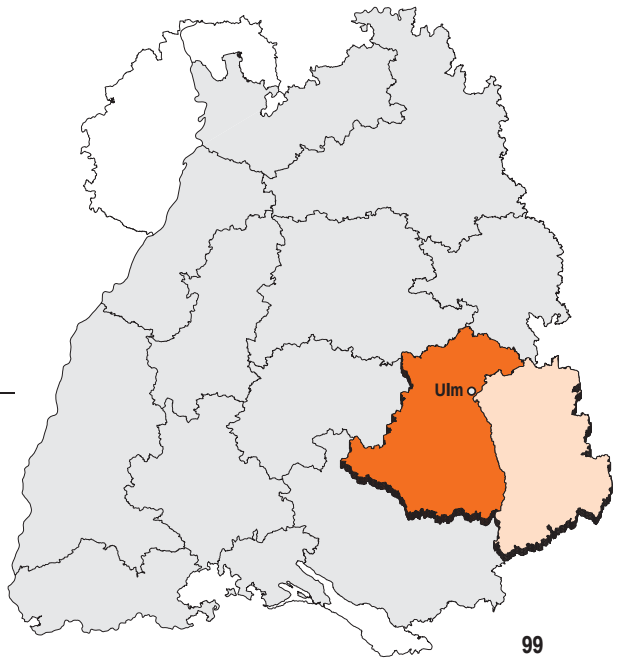
The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Metal industry with mechanical engineering and production of metal products;
- Commercial vehicle production and suppliers; and
- Manufacturers of pharmaceutical products.

Its innovation power ranks in the upper quarter compared to other regions. This is due to the average innovation level, ranking at place 4 in a regional ranking, and the slightly above-average dynamic in innovation activities.

The innovation index is as follows:

- Total index: 35.6 % (State: 35.6 %)
- Level index: 35.4 % (State: 35.7 %)
- Dynamic index: 36.1 % (State: 35.4 %)



23 Note : All data as far as they concern Baden-Württemberg
24 Note : Employees subject to social insurance contributions by selected industry sectors and sections in the regions of Baden-Württemberg on 30-Jun-2011

The region's clusters and cluster initiatives

Automotive cluster

Target fields of cluster policy: Automotive

This is a well-established cluster with additional potential for development. It encompasses not only the Ulm/Neu-Ulm centre, but the entire territory of the Ulm chamber of commerce and industry and also parts of the Schwaben chamber of commerce and industry area in the Bavarian districts of Neu-Ulm and Günzburg. Large sections of the associated commercial vehicle value-adding chain are represented in this area: From the actual commercial vehicle manufacturers through tier[25] 1, 2 and 3 suppliers and the relevant engineering service providers. Alongside the unique concentration of six OEMs[26] covering the various partial segments of the commercial vehicle industry, the regional universities with their special automotive competence centres are also worth mentioning.

CLI: Cluster Nutzfahrzeuge Schwaben (CNS) e.V. – Commercial vehicles

This commercial vehicles cluster initiative, Cluster Nutzfahrzeuge Schwaben (CNS) e. V., comprises a total of 32 member companies and other relevant institutions operating in the fields of commercial vehicles, special-purpose vehicles, body and trailer manufacture and system and component manufacture. The initiative was established in 2007, as an official association, and targets the creation of an open innovation culture through intense networking, to achieve a noticeable competitive advantage. The key point of interest here is to find potentials for synergies and cooperations and to make them usable. Access to the region's universities and thus new technologies is facilitated. CNS sees itself as a network for partnership, benchmarking and exchange of experiences.

Cluster Nutzfahrzeuge Schwaben (CNS) e. V.
(Commercial vehicles cluster)

Lothar Riesenegger *Olgastraße 95* *89073 Ulm*	*Telephone: +49 731 173-245* *Fax: +49 731 173-249* *www.cns-ulm.com*

25 Tier = Rang. In the automotive-industry the direct suppliers are described as „tier 1". „Tier 2" suppliers supply „tier 1" etc.
26 OEM = Original Equipment Manufacturer

Biotechnology cluster

Target fields of cluster policy: Biotechnology

This cluster is an example of expansion across regional and state borders. The cluster stretches across the Ulm innovation region with its regional centre of Ulm / Neu-Ulm and the two districts of Alb-Donau and Neu-Ulm as well as the Upper Swabian districts of Biberach and Ravensburg; while in the North it stretches as far as the district of Heidenheim in the Ostwürttemberg region. It is a central European location for research, development and production in this field of competence, focusing particularly on the area of biopharmaceuticals. In this sector, the region enjoys outstanding potential for growth.

CLI: BioPharMaXX

Cluster initiative BioPharMaXX is a project of BioRegionUlm e. V. and is to promote networking of companies and research institutions from the fields of biotechnology, pharmaceuticals, medical engineering and the health industry. This cluster initiative intends to intensify cooperation between universities and enterprises and support settling and establishing of new companies to create new jobs in the life sciences sector. It is the small and medium-sized enterprises in the region the initiative‘s activities are mainly targeted at. BioPharMaXX‘s emphasis is on upstream and downstream processes, biodisposables, technical support/supply, pharmacovigilance, quality management, bioanalytics and regeneration.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2008. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

BioPharMaXX
c/o BioRegionUlm e. V.

Niklas Nold *Olgastraße 95-101* *89073 Ulm*	*Telephone: +49 731 173-224* *Fax: +49 731 173-5224* *www.biopharmaxx.de*

Health industry cluster

Target fields of cluster policy: Health industry

The focal point of this cluster is the university clinic in Ulm with its academic teaching hospitals, the armed forces hospital, university and rehabilitation clinics in Ulm and institutes located in the Science Park. The university clinic exerts an influence radiating out beyond the region‘s borders. In addition, the region is characterised by its many Upper Swabian spa and therapeutic mineral baths including the spa and rehabilitation clinics.

Logistics cluster

Target fields of cluster policy: Logistics including intra-logistics

The Donau-Iller region is one of Baden-Württemberg‘s three „logistical core regions“. The Ulm region is defined by the motorway junction between the A 7 and A 8 and with its transshipment logistics sector serves as a vital hub for freight traffic. Consequently, alongside the new freight transport centre in the North of Ulm with its CT terminal[27] for combined freight traffic, the region is home to numerous companies operating in the field of freight logistics, particularly forwarders and carriers including storage and transshipment capacity. Various studies confirm that the region‘s industry diversity is above average and that it is also characterised by a strong dynamic.

CLI: Logistik-Cluster Schwaben (LCS) e. V.

The goal of the logistics cluster Schwaben is to bring together companies, universities, municipalities, business promoters and other logistics-related stakeholders to form a powerful cluster initiative. Cluster management‘s foremost responsibility is, among other things, to intensify the collaboration of all stakeholders, promote new business opportunities, organise logistics-related events and deal with topics such as securing skilled labour and personnel development.

27 Note: CT Terminal terminal for combined traffic, that means transport chains of different traffic carriers (for example road - railway)

Logistik-Cluster Schwaben (LCS) e. V.
c/o IHK Ulm

Dr. Robert Schönberger *Olgastraße 95-101* *89073 Ulm*	*Telephone: +49 731 173-285* *Fax: +49 821-3162-178* *www.logistik-schwaben.de*

Production technology cluster

Target fields of cluster policy: Production technology including mechanical engineering

The mechanical engineering sector is present in the Ulm area, but primarily also in the districts of Alb-Donau and Biberach. In terms of products, the industry is not focused on a particular machine type, but encompasses a wide range of machines for different target markets. Mechanical engineering is the region's biggest sector of industry. Employment in the region is well above the national average. The combination of a large number of small and medium-sized enterprises with the presence of leading manufacturers ensures a high degree of perception and a high level of competence in the region.

CLI: Netzwerk in der Maschinenbaubranche – Network within the mechanical engineering industry

This cluster initiative founded in 2008 integrates the regional stakeholders in the fields of production technology, mechatronics and new materials/surfaces. It also organises industry-specific workshops for enhancing competences and generates ideas for common projects or realises them as cooperation projects.

Netzwerk in der Maschinenbaubranche
(Network within the mechanical engineering industry)
c/o IHK Ulm

Karl Schick *Olgastraße 97-101* *89079 Ulm*	*Telephone: +49 731 173-122* *Fax: +49 731 173-292* *www.ulm.ihk24.de*

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Universität Ulm	**University** Selected technical, scientific and economic study programmes: Electrical engineering, computer science, information system technology, media informatics, molecular medicine, biology, biochemistry, industrial chemistry, physics, industrial physics as well as study programmes in medicine, dentistry and the institute of laser technology in medicine and metrology in Ulm
Hochschule Ulm	**University of Applied Sciences** Selected technical and economics study programmes: Automotive engineering, automotive electronics, industrial electronics, mechanical engineering, mechatronics, medical engineering, telecommunication engineering, production technology, industrial engineering, systems engineering and management. In addition, a cooperative study programme is offered in conjunction with Neu-Ulm university: industrial engineering with focus on logistics.
Hochschule Neu-Ulm	**University of Applied Sciences** The particular focus of this university of applied sciences is on logistics/supply chain management.
Hochschule Biberach	**University of Applied Sciences** Selected study programmes: Pharmaceutical biotechnology, business administration, project management
Research and transfer institutions	**Institut für Lasertechnologien in der Medizin und Messtechnik (ILM) – Laser Technology in Medicine and Metrology** This institute located in Ulm works transfer-oriented in the fields of medicine and metrology. **Zentrum für Sonnenenergie- und Wasserstoff-Forschung (ZSW) – Solar Energy and Hydrogen Research** ZSW conducts applied research in the field of renewable energies at its locations in Stuttgart and Ulm. Its research spectrum ranges from thin-layer photovoltaic to regenerative energy sources and battery research. Current research focuses on improving efficiency of thin-layer photovoltaic (world record in CIS solar cells), the power to gas project, fuel cell systems and material research in the area of lithium ion batteries. Transfer at the Ulm location also takes place through 20 companies belonging to the Steinbeis organisation.

Bodensee-Oberschwaben

12

The region

The Bodensee-Oberschwaben region is located in the most Southeastern part of Baden-Württemberg and comprises the three districts of Ravensburg, Sigmaringen and Bodenseekreis. The region covers an area of approx. 3,500 km² and has almost 615,000 inhabitants.

Compared to the state of Baden-Württemberg as a whole, its economy is more production-based. Therefore, its share of the entire services sector, also of corporate services, is below state average.

In detail[28]:

- Production sector: 42.4 % (State: 37.8 %)
- Services sector in total: 56.8 % (State: 61.8 %)
  - Trade: 12.7 % (State: 13.8 %)
  - Corporate service providers: 8.0 % (State: 11.6 %)
  - Transport: 3.2 % (State: 3.9 %)

A strong industrial centre is located in the area along the Schussental, in the urban agglomeration of Friedrichshafen, Ravensburg and Weingarten. In the Württemberg part of the Allgäu region (Leutkirch-Wangen-Isny) and the rural part of this region exist important production companies, too. From the historical point of view, the airship enterprise founded by Graf Zeppelin in 1908, Luftschiffbau Zeppelin GmbH, has been instrumental in the development of the local technology-oriented clusters.

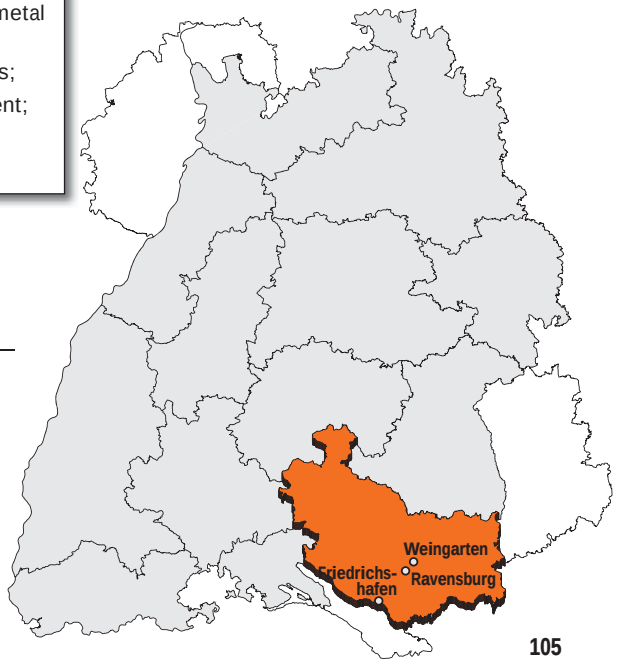
The Bodensee-Oberschwaben region also enjoys international reputation as a tourist and health region. The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Metal industry with mechanical engineering and production of metal products;
- Vehicle production and suppliers;
- Producers of electrical equipment; and
- Aerospace industry.

Its innovation power ranks medium to top compared to other regions, at place number 5. This is specifically due to the level of innovations reached by the region, which ranks at place 3 in the region ranking. Its industry is characterised by a high research intensity, a large share of jobs in the research-based branches of industry and a high patent density[29].

The innovation index is as follows:

- Total index: 35.2 % (State: 35.6 %)
- Level index: 35.8 % (State: 35.7 %)
- Dynamic index: 33.2 % (State: 35.4 %)



28 Note : Employees subject to social insurance contributions at job location by selected sectors and branches of industry in the regions of Baden-Württemberg on 30-Jun-2011

29 See: Innovation index 2011: Baden-Württemberg: The success story continued. Monthly statistical brochure for Baden-Württemberg 12/2010

The region's clusters and cluster initiatives

Automotive cluster

Target fields of cluster policy: Automotive

The core of this cluster is formed by two large-scale corporations from the field of drive and chassis technology which have achieved top positions in the international arena. A series of small and medium-sized enterprises (around 100) is also active in this cluster, some of them are integrated into the networks operating on a state level: automotivebw and Autoland Baden-Württemberg. This cluster is characterised by small and medium-sized engineering companies. The subject of engineering is generally closely linked to the region's technology-intensive system goods (mechanical engineering, automotive engineering, aerospace). The broad-based customer structure on the one hand and the common method basis on the other and the geographical concentration justify the definition of a separate cluster in this field.

Health industry cluster

Target fields of cluster policy: Health industry

This cluster is characterised on the one hand by Lake Constance tourism and on the other hand by the spa and therapeutic bathing culture of the Upper Swabian area including spa and rehabilitation clinics. The widely diversified field of spa and health tourism achieves a high real net output ratio in the region.

Aerospace cluster

Target fields of cluster policy: Aerospace

The development of this cluster is inextricably linked to the names Zeppelin and Dornier. The Lake Constance region is home to several large corporations from the field of satellite, aeroplane and defence technology with connections to many small and medium-sized suppliers in the region. In addition to these enterprises, the new study programme of aerospace technology at the Baden-Württemberg cooperative state university, campus Friedrichshafen, the leading European aviation trade fair AERO and the Lake Constance Airport are highly relevant for this cluster.

CLI: bodenseeairea

In 2011, Wirtschaftsförderung Bodenseekreis, together with its project partners Fraunhofer IAO, Cooperative State University Baden-Württemberg and Zeppelin University, founded the bodenseeairea cluster initiative. Numerous companies participate actively in this initiative and intend to intensify their networking activities, internally and with the research institutes and universities, to utilise the individual stakeholder's innovation potential even more effectively.

This cluster initiative was awarded a prize in the regional cluster competition of the Ministry of Economics in 2010. Cluster management is supported with funds from the European Regional Development Fund (ERDF).

bodenseeairea
c/o Wirtschaftsförderung Bodenseekreis GmbH

Bernhard Grieb
Heiligenbreite 34
88662 Überlingen

Telephone: 49 7551 94719-37
Fax: 49 7551 94719-39
www.bodensee-airea.de

Production technology cluster

Target fields of cluster policy: Production technology including mechanical engineering

Activities in the production technology cluster have a long tradition and cooperations of the many companies located in the region are characterised by a great innovation and growth potential. The companies' target markets are the international markets.

CLI: Virtuelle Fabrik Baden-Württemberg e. V. – Virtual Factory

Virtuelle Fabrik Baden-Württemberg is a cooperation network of legally and economically independent enterprises. These small and medium-sized enterprises are all express specialists in their fields - with lots of experience, extensive know-how and best references. To complete a job, it calls on exactly those specialists that are necessary for the best possible performance - simply the best for the job.

Virtuelle Fabrik Baden-Württemberg e. V.
(Virtual Factory)
c/o DC DEHNEL CONSULT

Edmund Dehnel
Am Ottersberg 27
88287 Grünkraut

Telephone: +49 751 3550-408
www.virtuelle-fabrik-bw.com

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Zeppelin University, Friedrichshafen	**Zeppelin University** Study programmes in economics, communication and cultural management, public management and governance.
Hochschule Ravensburg-Weingarten	**University of Applied Sciences** Study programmes in economics (business administration, business informatics), social work (pedagogics of nursing, social work) and engineering (electrical engineering and IT, automotive engineering, mechanical engineering, technical management, physical engineering); transfer through the institute of applied research and nine companies of the Steinbeis organisation.
Hochschule Albstadt-Sigmaringen	**University of Applied Sciences** Faculties of engineering, business and computer science and life sciences. Transfer through the institute of applied research (IAF) and through a company of the Steinbeis organisation.

Institution	Fields of activity
Duale Hochschule Baden-Württemberg, Ravensburg	**Cooperative State University** Study programmes in economics, engineering (electrical engineering, mechanical engineering, industrial engineering, information technology), media and communication design, business informatics, aerospace technology.
Research and transfer institutions, Isny	**Naturwissenschaftlich-Technische Akademie (NTA) Prof. Dr. Grübler gGmbH – Licensed university of applied sciences and vocational college** Study programmes in pharmaceutical chemistry, physical electronics, physical engineering and specialist subjects of molecular biotechnology, food chemistry, nanotechnology and laser technology.

State-wide and cross-regional networks

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AFBW – Allianz Faserbasierte Werkstoffe Baden-Württemberg e. V.

AFBW (Alliance for fibre-based materials) is a pool of companies, research institutions, business organisations and universities in Baden-Württemberg. As a cross-industry network, AFBW provides a platform for dialogue and knowledge transfer. Fibre-based materials are an important catalyst for innovations in many industries. Opportunities for new developments can be found at all levels of value adding, from thermoplastic elastomers to functional plastics.

AFBW – Allianz Faserbasierte Werkstoffe Baden-Württemberg e. V.
(Alliance for fibre-based materials)

Prof. Dr. Heinrich Planck *Gerhard-Koch-Straße 2-4* *73760 Ostfildern*	*Telephone: +49 711 327325-0* *Fax: +49 711 327325-69* *www.afbw.eu*

AKZ – Baden-Württemberg e. V.

AKZ – Baden-Württemberg e. V. is a network of independent medium-sized family enterprises in Baden-Württemberg. The association was initiated by the Baden-Württemberg Ministry for Economic Affairs and founded in 1972 for improving performance of regional small and medium-sized companies as regards their export activities. It supports its member companies through various activities in the areas of information, communication and project-based cooperation for a common benefit from the given potentials.

AKZ – Baden-Württemberg e. V.
c/o Kownatzki GmbH & Co. KG

Michael Kownatzki *Weckstraße 19* *79664 Wehr*	*Telephone: +49 7761 9288-0* *Fax: +49 7761 9288-299* *www.akz-online.de*

autoland-bw

The automotive industry will have a significant influence on Baden-Württemberg‘s future. A large share of the high-tech jobs will be created by the automotive industry, above all in the context of alternative vehicle and drive concepts. The supplier initiative of the state of Baden-Württemberg in the future will continue to focus on supporting small and medium-sized supplier companies actively, for them to use their future and growth opportunities. Over the next years, it will be the Baden-Württemberg Ministry of Finances and Economics‘ top priority to design industry communication and networking and to assist the structural change within the industries. This networking activity will be continued and expanded over the next years and linked with the state-wide network automotive-bw of the state‘s agency e-mobil BW GmbH.

autoland-bw
c/o Ministerium für Finanzen und Wirtschaft Baden-Württemberg

Dr. Markus Decker *Schlossplatz 4* *70173 Stuttgart*	*Telephone: +49 711 123-2430* *Fax: +49 711 123-2145* *www.autoland-bw.de*

automotive-bw

Goal of this state-wide network automotive-bw is the establishment of an independent and centralised cluster management. This is to increase exchange among the stakeholders of the automotive industry within the state, throughout the entire value adding chain. Besides RKW Baden-Württemberg as the responsible body for the project, automotive-bw bundles eight regional network partners. That means that existing regional cluster initiatives of chambers of commerce and industry and business development institutions from all over Baden-Württemberg have been integrated.

automotive-bw
c/o Projektträger RKW Baden-Württemberg

Dr. Albrecht Fridrich *Königstraße 49* *70173 Stuttgart*	*Telephone: +49 711 22998-0* *Fax: +49 711 22998-10* *www.automotive-bw.de*

Baden-Württemberg: Connected e. V. (bwcon)

Baden-Württemberg: Connected e. V. (bwcon) is the leading business initiative for promoting the innovation and high-tech location of Baden-Württemberg. With its fields of work of IT infrastructure, business, energy, mobility, health care and creative industries, bwcon creates a basis for cross-industry utilisation of technology and interdisciplinary cooperation that is unique in Baden-Württemberg. With its three key fields of activity, founder, knowledge and networking, this network promotes, for example, new and emerging enterprises and offers a comprehensive consulting and coaching programme, organises events and seminars and supports cooperation and support projects.

Baden-Württemberg: Connected e. V. (bwcon)

Dr. Sami Rabieh *Breitscheidstraße 4* *70174 Stuttgart*	*Telephone: +49 711 90715-371* *Fax: +49 711 90715-550* *www.bwcon.de*

BIOPRO Baden-Württemberg GmbH

To promote biotechnology, the state government of Baden-Württemberg founded BIOPRO Baden-Württemberg GmbH late in 2002; it is located in Stuttgart. As an innovation enterprise operating state-wide, it has specifically supported research institutions and companies in the biotechnology and life science industry. Biotechnology as an innovative cross-industry technology contributes to a positive development of the entire life-science sector long-term. Progress in medicine, the pharmaceutical industry, in agriculture or medical engineering is significantly influenced by it. Also in classical industry areas joint developments can generate a high innovation potential. Specifically designed promotional measures help secure jobs and know-how in the state and transfer innovative research to the industry. BIOPRO Baden-Württemberg GmbH‘s other responsibilities are to demonstrate the strengths of the leading biotechnology location in the national and international arena and to develop the location for the future.

BIOPRO Baden-Württemberg GmbH

Dr. Ralf Kindervater *Breitscheidstraße 10* *70174 Stuttgart*	*Telephone: +49 711 218185-00* *Fax: +49 711 218185-02* *www.bio-pro.de*

Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW) – Fuel cell and battery alliance

The fuel cell and battery alliance of Baden-Württemberg (BBA-BW) is a network for promoting the development and spreading of sustainable and environmentally friendly energy production and storage technologies on the basis of fuel cells and batteries in mobile, stationary and portable applications and the related infrastructure. BBA-BW supports its members from the industry, science and administration with regard to preparing the market, demonstrating and industrialising their products and represents them when dealing with political boards and other organisations.

Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW) (Fuel cell and battery alliance)

Dr. Till Kaz *Pfaffenwaldring 10* *70569 Stuttgart*	*Telephone: +49 711 72230-487* *Fax: +49 711 72230-491* *www.bba-bw.de*

bw-construction

Under the name „bw-construction“, a network of Baden-Württemberg craft enterprises, planners and engineers from the construction industry started on 25-May-2011. This network of entrepreneurs is to allow the canvassing of interesting foreign and domestic markets, provide a platform for exchange of experiences and promote the development of innovative solutions in the area of sustainable construction.

bw-construction

Jürgen Schäfer *Heilbronner Straße 43* *70191 Stuttgart*	*Telephone: +49 711 1657-280* *Fax: +49 711 1657-827* *www.bw-construction.de*

Cluster Forestry and Timber Baden-Württemberg

The forestry and timber sector is based on the most important regenerative raw materials and at the same time is one of the powerful sectors in Germany in terms of sales and jobs. With the cluster initiative Forestry and Timber Baden-Württemberg, networking and cooperation between companies and of companies with research institutions is to be supported, to increase the industry‘s competitiveness.

Cluster-Management Forst und Holz Baden-Württemberg (Forestry and Timber)

Uwe Andrè Kohler *Scharnhauser Park* *Hellmuth-Hirth-Straße 7* *73760 Ostfildern*	*Telephone: +49 711 23996-64* *Fax: +49 711 23996-964* *www.cluster-forstholz-bw.de*

e-mobil BW GmbH – State agency for electric mobility and fuel cell technology

The state agency for electric mobility and fuel technology in Baden-Wuerttemberg is a central contact and information center of Baden-Wuerttemberg for all matters relating to the topic of electric vehicles. Its main task is to support the emerging technology shift for electric vehicles and pave the way to the industrialization of electric vehicles. Almost a third of the vehicle manufacturing industry in Germany - or about 350,000 workers - are working in the automotive state of Baden-Wuerttemberg and generate annual sales of around 110 billion Euro.

e-mobil BW GmbH

Franz Loogen *Leuschnerstraße 45* *70176 Stuttgart*	*Telephone: +49 711 892385-10* *Fax: +49 711 892585-49* *www.e-mobilbw.de*

Forum Aerospace Baden-Württemberg e. V. – Aerospace forum

Forum LR-BW represents the aerospace industry in Baden-Württemberg. With its members, it represents the link between industry, science and political decision-makers and all other relevant groups in society. Forum LR BW‘s goals are to bundle the industry‘s activities, to develop the technology in cooperations between companies and scientific institutions and to translate them into innovative projects. Further, future-proven projects are to optimise the infrastructure for the industry in the state and the competitiveness of the enterprises.

Forum Aerospace Baden-Württemberg e. V. (Forum Aerospace)
c/o LVI Beratungs- und Service GmbH

Wolfgang Wolf *Gerhard-Koch-Straße 2-4* *73760 Ostfildern*	*Telephone: +49 711 327325-55* *Fax: +49 711 327325-69* *www.lrbw.de*

Intralogistik Netzwerk in Baden-Württemberg e. V.

This state-wide intra-logistic network intends to position on a global scale and expand the intra-logistics location Baden-Württemberg. The network, through its members, represents a total of about half a million jobs. On average, the participating companies invest 7 % of their annual sales in research and development. All levels of the intra-logistic value adding and innovation chain are represented within the network. The common activities mainly involve research and development in the area of technical and methodical innovations, exchange of experiences and industry-related training.

Intralogistik-Netzwerk in Baden-Württemberg e. V.

Kristin Wedekind *Industriestraße 25* *70565 Stuttgart*	*Telephone: +49 711 78237-173* *Fax: +49 711 99779-677* *www.intralogistik-bw.de*

Biomimetics competence network

Kompetenznetz Biomimetik is a platform for scientists of various disciplines and for partners from industry and business allowing joint developments of innovative products and technologies. This network bundles competences of research groups involved in bionics in Baden-Württemberg. Due to the participants‘ interdisciplinarity and existing R&D projects, translation of the research results into technical products along the entire value adding chain is guaranteed. Biomimetics (Bionic) involves research and systematic translation of design principles and problem solving strategies in nature into technical applications.

Kompetenznetz Biomimetik (Competence Network Biomimetics)
c/o Albert-Ludwigs-Universität Freiburg

Prof. Dr. Thomas Speck *Schänzlestraße 1* *79104 Freiburg*	*Telephone: +49 761 203 -2803* *Fax: +49 761 203 -2804* *www.kompetenznetz-biomimetik.de*

Kompetenznetz „Funktionelle Nanostrukturen“ in Baden-Württemberg – Competence network „Functional nanostructures“

This competence network for functional nanostructures represents a cooperation platform for research in the area of nanotechnology in Baden-Württemberg with involvement of about 200 scientists from physics, chemistry, biology and medicine and also material and engineering sciences. These interdisciplinary and cross-location projects are funded by Landesstiftung Baden-Württemberg and the Ministry of Science and Art of Baden-Württemberg.

Kompetenznetz „Funktionelle Nanostrukturen“ in Baden-Württemberg
(Competence network „Functional Nanostructures“)
c/o Institut für Angewandte Physik

Prof. Dr. Thomas Schimmel *Wolfgang-Gaede-Straße 1* *76131 Karlsruhe*	*Telephone: +49 721 608-3570* *Fax: +49 721 608-8480* *www.nanonetz-bw.de*

Kraftwerke des 21. Jahrhunderts (KW 21) – Power stations of the 21st century

This network „power stations of the 21st century“ engages in the development of new technologies for small power stations, cogeneration plants and other fuel-driven power plants. It also conducts and assesses energy industry related analyses and strategies from a commercial, economic and ecological view.

Kraftwerke des 21. Jahrhunderts (KW 21)
(Power stations of the 21st century)
c/o DLR Stuttgart

Philipp von Ritter *Pfaffenwaldring 38-40* *70569 Stuttgart*	*Telephone: +49 711 6862-311* *+49 711 6862-636* *www.kw21.de*

State-wide initiative for enterprise software: smart businessIT – Excellence for BW

First priority of the state-wide initiative „smart businessIT – Excellence for BW“ is to further strengthen the IT location of Baden-Württemberg and, in this regard, especially the segment of enterprise software and to provide for a high innovation dynamic in this industry, on the part of suppliers and users. CyberForum Service GmbH from Karlsruhe was entrusted with the overall coordination of the initiative because it already coordinates the software cluster „Software innovations for the digital enterprise“ for Northern Baden and functions as a role model with its network „Hightech.Unternehmer.Netzwerk“. Together with regional agencies such as medienforumfreiburg e. V. in Freiburg and Baden-Württemberg: Connected e. V. in Stuttgart, the initiative develops instruments to facilitate cooperations between the suppliers of enterprise software and to intensify networking between IT suppliers and IT users. This requires sufficient skilled labour which must be ensured through advanced training for IT people, maintaining the potential of older employees and recruiting students and apprentices. To achieve these goals, smart businessIT works towards a closer cooperation with other regional cluster initiatives or networks in the state. This will be funded by the Ministry of Science, Research and Art of Baden-Württemberg, in consultation with the Ministry of Finances and Economics.

Initiative „smart businessIT“
Gesamtkoordination
c/o CyberForum Service GmbH

Gennadi Schermann *Haid-und-Neu-Straße 18* *76131 Karlsruhe*	*Telephone: +49 721 6183-338* *Fax: +49 721 6183-335* *www.smartbusiness-it.de*

State-wide network Mechatronik BW GmbH

The state-wide mechatronics network intends to bring up new ideas for the Baden-Württemberg location and to use future technologies to maintain an attractive location and secure jobs. Founded in 2001 following a call of the industry, its priorities are an efficient transfer of technology and results, a shortening of the innovation cycle and the initiation of innovation partnerships in future-oriented topics, for example mobility, security, energy and environment.

Mechatronics BW GmbH

Volker Schiek *Manfred-Wörner-Straße 115* *73037 Göppingen*	*Telephone: +49 7161 965950-0* *Fax: +49 7161 965950-5* *www.mechatronik-ev.de*

Logistics Network Baden-Württemberg (LogBW)

The development of the state-wide logistics network LogBW will primarily show more clearly the existing competences in the field of external logistics and intra-logistics in Baden-Württemberg and facilitate access. As a platform for coordinated collaboration between industry and science, the network improves the transfer of innovations, expands enterprise coaching and supports it, strengthens the industry‘s innovation capability and improves the public perception of logistics.

Logistik-Netzwerk Baden-Württemberg (LogBW)
(Logistics network)
c/o KLOK e. V.

Martin Brandt *Stammheimer Str. 10* *70806 Kornwestheim*	*Telephone: +49 7154 96500-51* *Fax: +49 7154 96500-79* *www.logbw.de*

MANUFUTURE-BW e. V.

The Baden-Württemberg production technology cluster features complementary competences that are unique in Europe, along the entire value adding chain. The promotion of the factory of the future, with high-performing adaptive production systems, with integrated knowledge transfer and the respective consequences for training and advanced training, is the goal of the supporting association of the cluster founded in 2009, which uses a focused cluster management to effectively bundle the innovative powers and moderate the cooperation

between producers, lead customers and research and educational institutions. The focus is on maintaining competences, being able to adequately deal with the great complexity of the topic in the future as well and to maintain the competitiveness of the enterprises in this field of technology.

MANUFUTURE-BW e. V.
c/o Wirtschaftsförderung Region Stuttgart GmbH

Oliver Reichert *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-872* *Fax: +49 711 22835-55* *www.manufuture-bw.de*

MFG Innovationsagentur für IT und Medien Baden-Württemberg

As the state's innovation agency for IT and media, the MFG has strengthened Baden Württemberg's position as an IT, media and creative location since 1995. It improves the state-wide innovation capability and competitiveness, for example through promoting regional, national and international cooperations. In the centre of its focus is the support for successful entrepreneurship, especially SMEs, and their linking with practical research and public support programmes.

MFG Innovationsagentur für IT und Medien Baden-Württemberg

Klaus Haasis *Breitscheidstraße 4* *70174 Stuttgart*	*Telephone: +49 711 90715-300* *Fax: +49 711 90715-350* *www.mfg-innovation.de*

Mikrosystemtechnik Baden-Württemberg e. V.

Mikrosystemtechnik Baden-Württemberg e. V. was initiated by the Baden-Württemberg Ministry of Economics and founded in 2005; it engages in supporting the industrial application of microsystem technology, in research and development as well as training and communication of Baden-Württemberg's capabilities in the area of microsystem technology and the management of the MST cluster in Baden-Württemberg.

Mikrosystemtechnik Baden-Württemberg e. V.

Peter Josef Jeuk *Emmy-Noether-Straße 2* *79110 Freiburg (i. B.)*	*Telephone: +49 761 386909 -0* *Fax: +49 761 386909 -10* *www.mstbw.de*

Netzwerk Holzindustrie Baden-Württemberg e. V. – Timber industry network

Purpose of this network is the non-materialistic and informative support for companies from the timber and furniture industry and their suppliers. This is achieved by exchange and provision of contacts and information and events or other measures serving the purpose of informing these companies and promoting the network. The member companies of this network mutually support each other, in cooperation with the Ministry for the Rural Areas, Nutrition and Consumer Protection and the Ministry of Finances and Economics of Baden-Württemberg.

Netzwerk Holzindustrie Baden-Württemberg e. V.
(Network Timber Industry)
c/o Duale Hochschule Baden-Württemberg Mosbach

Matthias Rauter/Jürgen Klaus *Geisäckerweg 12* *72160 Horb am Neckar*	*Telephone: +49 7451 5539-611* *www.netzwerk-holzindustrie.de*

Creative industry network Baden-Württemberg

With the state-wide network of the culture, creative and IT industry named Netzwerk Kreativwirtschaft Baden-Württemberg, the MFG Innovationsagentur für IT und Medien, together with 17 project partners and 30 network and 100 other entrepreneurial partners, specifically strengthens the culture, creative and IT industry in Baden-Württemberg. To bring forward the growth potential of these industries the network

Kreativwirtschaft Baden-Württemberg was initiated, with the support of the Ministry of Finances and Economics of Baden-Württemberg. The state-wide network intends to better link the various sub-industries, to utilise synergies within the digital value adding chains and to make the Southwestern part of Germany a leading creative and IT location.

MFG Baden-Württemberg mbH Innovationsagentur für IT und Medien

Ulrich Winchenbach *Breitscheidstraße 4* *70174 Stuttgart*	*Telephone: +49 711 90715-313* *Fax: +49 711 90715-350* *www.kreativcluster-bw.de*

Photonics BW e. V. – Competence network for optical technologies in Baden-Württemberg

Photonics BW e. V. was founded in 2000, as a non-profit organisation sponsored by the Federal Ministry of Education and Research. Photonics BW's goal is the promotion of optical technologies in research, development and application, training and talent recruiting and development and public relations in Baden-Württemberg. The technical key areas here are optical design and simulation, laser machining, optical measuring technology, optics in medicine and biotechnology, optical communication and photovoltaics. Today, Photonics BW has 60 members from industry, SMEs, start-ups, research as well as banks and consultancies.

Photonics BW e. V. – Kompetenznetz für Optische Technologien in Baden-Württemberg
(Competence network for optical technologies)

Dr.-Ing. Andreas Ehrhardt (MBA) *Carl-Zeiss-Straße 1* *73447 Oberkochen*	*Telephone: +49 7364 20-3415* *Fax: +49 7364 20-4903* *www.photonicsbw.de*

Plattform Umwelttechnik e. V. – Environmental technology platform

This environmental technology platform is a pool of companies, research institutions, organisations and universities in Baden-Württemberg, on a voluntary and private basis. It promotes cooperations in the field of research, development and production in the area of environmental and energy technology and related services.

Plattform Umwelttechnik e. V.
(Environmental technology platform)
c/o LVI Beratungs- und Service GmbH

Michael Auer *Gerhard-Koch-Straße 2-4* *73760 Ostfildern*	*Telephone: +49 711 327325-33* *Fax: +49 711 327325-69* *www.pu-bw.de*

Südwestdeutscher Forschungs- und Lehrverbund Kerntechnik – Southwestern research and educational organisation for nuclear technology

Goal of this Southwestern research and educational organisation for nuclear technology is the cooperation of its members on a regional level. In a common work programme, competencies and current activities in nuclear research and education have been listed and future priorities defined and coordinated. In nuclear technology, compared with other states of Germany, Baden-Württemberg has the most comprehensive scientific and technical resources and the broadest range of technology, especially in the areas of reactor and safety technology, nuclear fuel cycle, material and material testing, radio and nuclear chemistry, final nuclear waste storage, radiology and demolition technology.

Südwestdeutscher Forschungs- und Lehrverbund Kerntechnik
(Southwestern research and educational organisation for nuclear technology)
c/o Karlsruher Institut für Technologie

Dr.-Ing. Joachim Uwe Knebel *Hermann-von-Helmholtz Platz 1* *76344 Eggenstein-Leopoldshafen*	*Telephone: +49 7247 82-5510* *Fax: +49 7247 82-5508* *www.kit.edu*

Umwelttechnik BW – Technologie- und Innovationszentrum Umwelttechnik und Ressourceneffizienz Baden-Württemberg GmbH – Centre of technology and innovation for environmental technology and resource efficiency

As the state's centre of technology and innovation for environmental technology and resource efficiency, Umwelttechnik BW has supported Baden-Württemberg's development to become the leading market and supplier of environmental technology since 2011. The state agency coordinates the state's activities, bundles its competences and supports communication and collaboration between science and industry. Umwelttechnik BW initiates research projects and is actively involved in the strategic project development.

Umwelttechnik BW/Technologie- und Innovationszentrum
Umwelttechnik und Ressourceneffizienz Baden-Württemberg GmbH
(Centre of technology and innovation for environmental technology and resource efficiency)

Dr.-Ing. Hannes Spieth *Bahnhofspassage 2* *71034 Böblingen*	*Telephone: +49 7031 2039-210* *Fax: +49 7031 2039-849* *www.umwelttechnik-bw.de*

Virtual Dimension Center Fellbach w. V.

Due to the geographical concentration of leading universities and research institutions in the area of Virtual Reality (VR), visualisation and simulation, plus suppliers and users of these technologies, the Stuttgart region hosts a virtually unique expertise in the area of visualisation and VR technology worldwide. To consolidate and extend this strong position of the Stuttgart region and to make available these developments for medium-sized companies in the automotive and mechanical engineering industries in particular, VDC Fellbach was initiated.

Virtual Dimension Center Fellbach w. V.

Dr.-Ing. Christoph Runde *Auberlenstraße 13* *70736 Fellbach*	*Telephone: +49 711 58309-0* *Fax: +49 711 585309-19* *www.vdc-fellbach.de*

Visual Computing Baden-Württemberg

In Baden-Württemberg a globally leading research and development cluster in the area of visual computing exists. The visual computing cluster initiative continues to drive the cross-discipline exchange of experts for a better exploitation of existing potential. Goal of this initiative is to support existing and initiate new R&D projects. In addition, technology transfer between research, software SMEs and user enterprises is expanded further.

Cluster Visual Computing Baden-Württemberg
c/o MFG Baden-Württemberg Innovationsagentur für IT und Medien

Martina Groeschel *Breitscheidstraße 4* *70174 Stuttgart*	*Telephone: +49 711 90715-397* *Fax: +49 711 90715-350* *www.visual-computing.de*

Windcluster Baden-Württemberg e. V.

Windcluster BW e. V. is the platform for a comprehensive presentation of the wind energy competences in Baden-Württemberg and it is open for enterprises of the entire value adding chain of wind energy generation. It does not compete with Bundesverband Windenergie (BWE) but supplements it.

Windcluster Baden-Württemberg e. V.

Andreas Heizmann *In der Grub 13* *77793 Gutach*	*Telephone: +49 7833 965-912* *Fax: +49 7833 960-008* *www.windcluster-bw.de*

Institutions supporting clusters and cluster initiatives

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Baden-Württemberg International (bw-i)

Services and offers for internationalisation of clusters:

- Embedment of clusters in the overall strategy for promoting Baden-Württemberg as an industry and science location
- Support for image building and international positioning
- Measures for entering domestic and foreign markets using market and industry information and events
- Assistance with initiation and development of international cooperations
- Support for recruiting new cluster members and raising funds for investments into the clusters
- Assistance with personnel recruitment

Baden-Württemberg International
Gesellschaft für internationale wirtschaftliche und wissenschaftliche Zusammenarbeit mbH

Bettina Klammt *Haus der Wirtschaft* *Willi-Bleicher-Straße 19* *70174 Stuttgart*	*Telephone: +49 711 22787-943* *Fax: +49 711 22787-22* *www.bw-i.de*

Steinbeis-Europa-Zentrum (SEZ)

Steinbeis-Europa-Zenturm (SEZ) supports political decision-makers and cluster organisations in the development of cluster strategies, the execution of cluster-political activities and international collaboration. In connection with the Enterprise Europe Network, SEZ supports the cluster stakeholders from the industry and from science and supports cluster management in the development and implementation of internationalisation strategies.

Services and offers for the strategic development and internationalisation of clusters:

- Systematic support for dialogue-oriented strategy processes for the targeted bundling of cluster forces and positioning in an international context.
- Networking of cluster stakeholders in the European research and innovation region through identification of and connecting with international partners, support for international technology and knowledge transfer, development and management of EC funded cluster projects, organisation and execution of entrepreneur trips, international cooperation fairs and conferences
- International exchange of best practices of cluster development and international matching of cluster promotion measures

Steinbeis-Europa-Zentrum	
Prof. Dr. Norbert Höptner *Haus der Wirtschaft* *Willi-Bleicher-Straße 19* *70174 Stuttgart*	*Telephone: +49 711 1234010* *Fax: +49 711 1234011* *www.steinbeis-europa.de*

Steinbeis Stiftung für Wirtschaftsförderung (STW)

The STW, Steinbeis foundation for promoting economic development, realises competitive knowledge and technology transfer for individual firms and also large groups of companies and offers services for the transfer of knowledge and technology for the cluster stakeholders, for the full range of all current technology and management competences.

- Consulting – Comprehensive solutions along the value adding chain
- Research and development – Competitive advantage through applied technology
- Education and advanced training – Seminars, courses and academic study programmes
- Analyses and expertises – Safe decisions through solid expertises

Steinbeis-Stiftung für Wirtschaftsförderung	
Prof. Dr. Michael Auer *Haus der Wirtschaft* *Willi-Bleicher-Str. 19* *70174 Stuttgart*	*Telephone: +49 711 1839-5* *Fax: +49 711 1839-700* *www.stw.de*

Other supporting institutions:

In addition, chambers of industry and commerce, chambers of crafts, trade associations and guilds in the region, chambers of foreign trade, various economy promoting institutions in the cities and districts of the regions and the above named cluster-relevant universities, research and transfer institutions offer support in the context of cluster development.

Network „Four Motors for Europe“

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The network Four Motors for Europe stands for multi-lateral cooperation between the German state of Baden-Württemberg, the Spanish autonomous community of Catalonia, the Italian Lombardy region and the French region of Rhône-Alpes. The partnership treaty between the four regions was signed in 1988. For some time now, the British region of Wales and the region of Flanders participate as associated partners in some of the network‘s activities.

Collaboration within the Four Motors for Europe network takes place following the principle of institutional flexibility. The partner regions take turns in presidency, for one year each time. The international strategy of Four Motors for Europe is targeted at strengthening the economic, scientific and technological competitiveness of the regions considering the global linkages, improving internationalisation and innovation capability of SMEs and at supporting a sustainable development.

In the context of this network, the Baden-Württemberg Ministry of Economics extended the dialogue in 2007 to include the topic of cluster policy. Its goal is to make the Four Motors for Europe and their associated partners, Flanders, Wales and the Greater Zurich Area, the major stakeholders in the area of European cluster promotion. To realise this goal, common targets, responsibilities and specific activities have been agreed.

Besides the general exchange of information and experiences, at the level of the political decision-makers as well as at the level of the cluster stakeholders, international collaboration has been identified as a major field of activity. This is to be realised through collaboration in the context of EC projects or inclusion into European support programmes, for example.

To support the regional stakeholders (Cluster stakeholders, cluster managers, business promoters and political decision-makers) a cluster matrix has been worked out (see Overview 6: Cluster matrix of the network Four Motors for Europe and associated partners) listing all relevant clusters in the partner regions. This cluster matrix and in particular the list of contacts with the supporting institutions within the regions is a practical instrument for cluster organisations, involved enterprises and research institutions who have an interest in internationalising their activities in the context of Four Motors for Europe.

More information on the network Four Motors for Europe
www.4motors.eu

Conclusion: Characterisation of regional clusters

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The state of Baden-Württemberg with its twelve regions is characterised by a diverse and innovative cluster landscape. The local clusters reflect the diversity of industries and in particular the technological and industrial strengths of the different regions. From the presentation of the clusters and cluster initiatives, the following aspects can be derived:

- The clusters existing in the regions and their associated cluster initiatives, feature great diversification and dynamic development. That means that, on the one hand, new initiatives are founded that are partly very much specialised and, on the other hand, initiatives are merged to bundle their competences and make them more comprehensive.

- Value-adding themes and markets exist which are shared by several regional clusters in Baden-Württemberg. In some cases, value-adding networks or potential for further networks exist across these regional clusters. In addition, state-wide networks have been founded over the past years, along these value adding topics (for example in the areas of automotive and timber and forestry), to show the overall expertise of the great variety of stakeholders and topics.

- The dominant industry relevant for all twelve regions is the Automotive target field where regional clusters have been identified in eleven out of twelve regions so far. Vehicle-related products and vehicle-related end products produced in series are manufactured in no fewer than five regions: Stuttgart, Heilbronn-Franken, Donau-Iller, Mittlerer Oberrhein and the metropolitan region Rhein-Neckar.

- Other value-adding potential with supra-regional network potential are, for example, the following target fields: Production technology including mechanical engineering, health industry, microsystem technology including nanotechnology, logistics including intra-logistics, biotechnology, information technology / enterprise software and media, culture and creative industries.

- In addition, a whole series of regional clusters exists which may be categorised rather as singular occurrences in Baden-Württemberg or which have been identified in one instance to date only. This includes, for example, aluminium processing, fastening technology, chemicals, precision engineering, glass and laboratory technology, music instrument production, photonics, surface technologies and textile and clothing industry.

- From a structural point of view, there are clusters with characteristic - but not dominant - lead companies who are usually large corporations in their relevant markets or even global market leaders. The cluster will then group around these lead companies. On the other hand, many clusters exist with a balanced structure of small and medium-sized enterprises.

- Another structural type are university or research driven clusters that have evolved around universities or non-university research institutions and have a strong focus on research.

- Corresponding to the historic importance of the service sector, cluster initiatives have been founded in this sector of industry as well, in particular in the cross-industry area of health / tourism but also, sporadically, in the area of business-related services.

- The quality range is extremely wide: It is characterised by the clusters that have recently won the federal competitions Leading Edge Cluster Competition and Health Region of the Future organised by the Federal Ministry of Education and Research and the state competition. It stretches out to well-established clusters with strong international activities and highly interesting approaches in individual fields of competence but also interdisciplinary fields of competence gaining more and more importance, for example environmental technology, security technology or nanotechnology.

- In addition, based on the existence of natural resources, a great variety of clusters exists.

Based on the current factual situation one can say that many of the clusters and cluster initiatives presented represent a specialisation in one or more partial regions of the state. For further linking of these potentials and for a state-wide orientation, state-wide networks and platforms have been established to further improve the performance of the clusters and cluster initiatives in Baden-Württemberg. Many of the presented clusters and their initiatives will need to stabilise over the next years so that they can work towards an international orientation; others can take this step now or have taken it already. More innovative cluster development potential can be seen in existing clusters and also in the known key areas of the various industries that are not reflected by cluster initiatives so far.

The regional and state-wide cluster stakeholders can examine and work towards a further activating and networking potential – also across borders and interdisciplinary.

Overviews

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Overview of cluster initiatives, fields of industry or technology and cluster stakeholders in Baden-Württemberg

The following overviews are to clearly show existing networking opportunities, any synergy potential, and can be used to assist mutual communication between the cluster stakeholders at a state, national and EC level.

Overview 1 shows the fields of industry and technology for which the clusters exist, in addition to the target fields of cluster policy. All clusters are defined by the value adding subject of the central corporations, that means by the key products or services offered. The table lists the names of the clusters and next to it a description of their respective field of activity.

Overview 2 summarises the links between the individual regions and the regional clusters.

Overview 3 provides the contact data of the main contacts for the various regions and

Overview 4 provides the contact data of the state-wide and cross-regional cluster platforms and networks. So, individual similarities in the clusters and common networking options can be recognised easily. In any event, it should be thoroughly checked in advance whether networking makes sense and will improve competitiveness, that means if there will actually be a win-win situation where each partner and the network will benefit from the situation.

Overview 5 affords easier access to the cluster initiatives listed by adding the relevant website addresses, where available. Further,

Overview 6 shows a comparison of the various clusters existing in the individual regions of the network „Four motors for Europe“.

Overview 1: Fields of industry and technology of the regional clusters

This overview supplements the definitions of the individual target fields of cluster policy (see Introduction) by regional clusters that are not or not sufficiently covered by the definitions there.

Cluster name	Profile
Aluminium processing	Aluminium processing, including upstream and downstream value adding stages, is also clearly region based. The resource water and thus primarily certain waterways play an important role as to location.
Fastening technology	This cluster encompasses the development, manufacture and supra-regional sale of fastening products (screws, hardware), primarily for structural but also civil engineering and also furniture production.
Chemicals	In the chemicals industry, a large variety of basic materials and specific chemical products are produced. As a regional cluster dominated by one large-scale corporation, it is located in the cross-border economic region between three states, today operating under the common umbrella of the Rhein-Neckar metropolitan region.
Electromobility	In the focus of electromobility is the development and utilisation of electric or hybrid vehicles that allow fully electric driving (full hybrid) to satisfy the differing individual mobility requirements.
Food industry/nutrition	The food industry includes the sectors of the economy that are involved in the production, processing of and trade with food. Within the food value chain, the food industry includes the wholesalers trading with agricultural products, companies carrying out the first steps in the processing of agricultural products, the food trade, secondary producers (the actual food industry), food wholesalers, food retailers, large consumers, suppliers, service providers and public institutions.
Precision engineering, microengineering	A line of development in the field of miniaturisation towards microsystem technology starts with precision engineered components passes micro engineered precision parts, components and systems to arrive at system products created using microsystem technology.
Finance	As one of the most important financial centres in Germany, the focus of the finance industry is the topic of financial services.
Forestry and timber	This is a cluster based on regenerative raw materials whose value added context ranges from reforestation and timber harvesting to different processing stages and high-grade end products (such as furniture) and which regularly also encompasses woodworking machine engineering.
Health industry	The health industry, as one of the largest German branches of the economy, is a catalyst for growth through its innovation power. At the centre of the value adding chain is the large number of important university clinics, medical and rehabilitation clinics, also offering additional health services (for example, therapy/wellness), and this across regional borders. These health services are complemented by, for example, tourist services and activities.
Industrial component and surface cleaning	This area includes all aspects of cleaning, during preliminary, concomitant and follow-up processes in industrial production.
Plastics technology and plastics processing	Plastics processing is the key area of interest of the plastics cluster. Basically, this entails injection moulding in a variety of forms, but partially also extrusion and deformation. Added to this is the plastics machinery sector, and particularly in the field of injection moulding, the development and manufacture of complex tools.
Lab glass	The glass and laboratory technology cluster focuses on the development and manufacture of technical glass with emphasis on laboratory-specific applications including metrology.
Ventilation technology	The ventilation technology cluster focuses on the development and manufacture of components and systems used in ventilation and air conditioning applications of various scope and size. These also encompass components central to this cluster such as drive (e motors) and control engineering.
Metal processing	The core competence of companies operating in this cluster is punched components in various materials, mainly metal, die complexity and surface quality. The value adding chain in this cluster also encompasses the marketing of punched components including sales and logistics as well as the associated mechanical engineering processes.

Cluster name	Profile
Measuring and control technology	The development and manufacture of measurement and control systems, devices and apparatuses are the main focus of the measurement and control cluster, whose products rely increasingly on mechatronics or microsystem technology components.
Music industry	This cluster focuses on the development and manufacture of musical instruments including upstream component production.
Nanotechnology	This relates to a methodology aimed at mastering the nanodimension in various different fields. This results in applications for a wide range of different sectors, currently and increasingly in the future. Despite this diversity it was agreed that the field of nanotechnology should be included in the regional cluster atlas as a potential for highly developed companies from various sectors of industry.
Surface technology	This cluster focuses on various processes used for surface finishing. Regional concentration of this type of company is not particularly frequent, partially due to the widely differing surface finishing processes involved.
Organic electronics	Another term used to describe this cluster is „polymer electronics“ or in short „polytronics“, as this technology centres on the use of conductive polymers for electronic circuits. Important applications include for instance product markers such as RFID tags (= Radio Frequency Identification Tags), solar cells or organic LEDs (OLEDs). In production engineering terms this relates to printing methods for large quantities in which polymer components are printed on film.
Paper processing	At the core of paper processing is the material paper with its multiple fields of use, for example for packaging (cardboard, boxes), stationery or special-purpose papers (for example, wallpaper or sanitary paper).
Radiofrequency identification	In the meantime, RFID technology has long left the pilot phase and provides interesting opportunities, for example in inventory management, monitoring and controlling of production chains, toll systems, in immobiliser systems or time recording. The list of potential fields of application is almost unlimited and so RFID technology will gain more importance over the next years. The main focus of the RFID clusters is the development of optimised products for the various fields of application.
Satellite communication	The key point of interest in satellite communication technology is bidirectional telecommunication between two ground stations via one satellite.
Storage systems and smart grids	Power storage systems will play an important role when power from renewable sources is to be fed into the grid. Smart Grids here means the communicative linking and controlling of power generators, storage systems, current consumers and grid utilities in the power transmission and distribution networks of power supply.
Textiles and clothing	This cluster focuses firstly on clothing products and home textiles aimed at the consumer goods market and secondly on technical textiles for use in technical applications such as the investment goods industry. The value adding chain of this cluster also includes textile chemistry (finishing) and the associated mechanical engineering sector and its suppliers.
Environmental technology	The focus of a cluster for this sector must be on corporations which develop and manufacture environmental and energy-related systems. Environmental technology is often „embedded“ meaning integrated in other plants or machinery.
Fan and ventilation technology	Fan and ventilation technology includes all products from fans to ventilation systems for homes, and ventilation systems for workplaces and industrial plants.
Packaging technology	The value adding chain of the clusters involved with this subject area basically encompasses developers and manufacturers of packaging machines and their components. On principle, however, the application aspect, i.e. the manufacture of packaging/packaging materials as well as packaging and filling operations, is integral to this cluster.
Chipping/metal working/founding	The term chipping encompasses all chip-producing machining processes for cutting or separating material particles (chips) to produce a workpiece with the desired shape. The focus here is on metalworking (but also wood and plastics processing). Metal working is a production method used to selectively form the shape of solid bodies made of metal. The core competence within this cluster includes primarily drop forging as well as free-form forging of large forged items. A pioneering new technology known as hydro-forming also has its origins within this cluster. The core competence of casting has concentrated in this cluster. Although this is one of the oldest production methods, it offers enormous potential for innovation in the future for aluminium and magnesium-based alloys.

Overview 2: Comparison of the regional clusters in Baden-Württemberg

Cluster name	Stuttgart	Heilbronn-Franken	Ost-württemberg	Mittlerer Oberrhein	Rhein-Neckar	Nord-schwarz-wald	Südlicher Oberrhein	Schwarzwald-Baar- Heuberg	Hochrhein-Bodensee	Neckar-Alb	Donau-Iller	Bodensee-Ober-schwaben
Aluminium processing									❖			
Automotive	❖	❖	❖	❖	❖		❖	❖	❖	❖	❖	❖
Biotechnology	❖				❖		❖		❖	❖	❖	
Chemicals					❖							
Energy		❖										
Food industry/nutrition		❖										
Finance	❖											
Forestry and timber			❖			❖	❖			❖		
Health industry	❖	❖	❖		❖	❖	❖	❖		❖	❖	❖
Industrial component and surface cleaning	❖											
Information technology./ Enterprise software	❖			❖	❖		❖			❖		
Creative industries	❖		❖	❖	❖	❖	❖					
Plastics technology and Plastics processing		❖				❖		❖				
Lab glass		❖										
Logistics	❖		❖		❖						❖	
Aerospace	❖											❖
Medical engineering					❖	❖	❖	❖		❖		
Measuring and control technology		❖						❖	❖			

Cluster-Bezeichnung	Stuttgart	Heilbronn-Franken	Ost-württemberg	Mittlerer Oberrhein	Rhein-Neckar	Nord-schwarz-wald	Südlicher Oberrhein	Schwarzwald-Baar- Heuberg	Hochrhein-Bodensee	Neckar-Alb	Donau-Iller	Bodensee-Ober-schwaben
Microsystem technology							❖	❖				
Music industry								❖				
Nanotechnology	❖			❖	❖				❖			
Surface technology			❖									
Organic electronics					❖							
Paper processing		❖										
Photonics			❖									
Precision engineering						❖						
Production technology	❖		❖		❖		❖	❖		❖	❖	❖
Radiofrequency identification	❖											
Satellite communication	❖											
Satellite navigation									❖			
Storage systems and smart grids					❖							
Textiles and clothing										❖		
Environmental technology	❖	❖		❖	❖		❖		❖			
Fan and ventilation technology		❖										
Packaging technology	❖	❖							❖			
Knowledge industry including business related services		❖										

Overview 3: Contact data of main contacts in the twelve regions

Region	Contact	Institution	Telephone	E-mail address	Postal address
Stuttgart	Stephanie Fleischmann	Wirtschaftsförderung Stuttgart region	+49 711 22835-26	stephanie.fleischmann@region-stuttgart.de	Friedrichstraße 10 70174 Stuttgart
Heilbronn-Franken	Dr. Andreas Schumm	Wirtschaftsregion Heilbronn-Franken GmbH	+49 7131 7669-860	a.schumm@heilbronn-franken.de	Weipertstraße 8-10 74076 Heilbronn
Ostwürttemberg	Dr. Ursula Bilger	Wirtschaftsförderungsgesellschaft mbH Region Ostwürttemberg (WiRO)	+49 7171 92753-0	bilger@ostwuerttemberg.de	Universitätspark 1 73525 Schwäbisch Gmünd
Mittlerer Oberrhein	Steffen Buhl	Wirtschaftsförderung Karlsruhe	+49 721 133-7343	steffen.buhl@wifoe.karlsruhe.de	Zähringer Straße 65a 76124 Karlsruhe
Rhein-Neckar	Klemens Gröger	Metropolregion Rhein-Neckar GmbH	+49 621 12987-17	klemens.groeger@m-r-n.com	N 7, 5-6 68161 Mannheim
Nordschwarzwald	Jens Mohrmann	Wirtschaftsförderung Nordschwarz-wald GmbH	+49 7231 154-3693	mohrmann@nordschwarzwald.de	Blücherstraße 32 75177 Pforzheim
Südlicher Oberrhein	Dr. Franziska Pankow	Freiburg Wirtschaft Touristik und Messe GmbH & Co.KG	+49 761 3881 826	franziska.pankow@fwtm.freiburg.de	Rathausgasse 33 79098 Freiburg
Schwarzwald-Baar-Heuberg	Heinz-Rudi Link	Wirtschaftsförderung Schwarzwald-Baar-Heuberg	+49 7720 830844-1	link@wifoeg-sbh.de	Eichendorffstraße 33 78054 Villingen-Schwenningen
Hochrhein-Bodensee	Anja Ober-mann	Wirtschaftregion Südwest GmbH	+49 7621 5500-150	anja.obermann@wsw.eu	Marie-Curie-Straße 8 79539 Lörrach
Neckar-Alb	Dr. Markus Nawroth	IHK Reutlingen	+49 7121 201-185	nawroth@reutlingen.ihk.de	Hindenburgstraße 54 72762 Reutlingen
Donau-Iller	Jonas Pürckhauer	IHK Ulm	+49 731 173-169	puerckhauer@ulm.ihk.de	Olgastraße 97-101 89073 Ulm
Bodesee-Oberschwaben	Dr. Wolfgang Heine	IHK Bodensee-Oberschwaben	+49 751 409-143	heine@weingarten.ihk.de	Lindenstraße 2 88250 Weingarten

Overview 4: Contact data of main contacts for state-wide and cross-regional networks / platforms

State-wide network or cross-regional cluster platforms	Contact	Telephone	Postal address	Website
AFBW – Allianz Faserbasierte Werkstoffe Baden-Württemberg e. V. (Fibre-based materials)	Prof. Dr. Heinrich Planck	+49 711 327325-0	Gerhard-Koch-Straße 2-4 73760 Ostfildern	www.afbw.die-wegmeister.com
AKZ – Baden-Württemberg e. V.	Michael Kownatzki	+49 7761 9288-0	Weckstraße 19, 79664 Wehr	www.akz-online.de
autoland-bw	Dr. Markus Decker	+49 711 123-2430	Schlossplatz 4 70173 Stuttgart	www.autoland-bw.de
automotive-bw	Dr. Albrecht Fridrich	+49 711 22998-0	Königstraße 49, 70173 Stuttgart	www.automotive-bw.de
Baden-Württemberg Connected e. V. (bwcon)	Dr. Sami Rabieh	+49 711 90715-371	Breitscheidstraße 4, 70174 Stuttgart	www.bwcon.de
BIOPRO Baden-Württemberg GmbH	Dr. Ralf Kindervater	+49 711 218185-00	Breitscheidstraße 10 70174 Stuttgart	www.bio-pro.de
BBA-BW Fuel cell and battery alliance Baden-Württemberg	Dr. Till Kaz	+49 711 72230-487	Pfaffenwaldring 10, 70569 Stuttgart	www.bba-bw.de
bw-construction	Jürgen Schäfer	+49 711 1657-280	Heilbronner Straße 43, 70191 Stuttgart	www.bw-construction.de
Forestry and Timber Cluster Baden-Württemberg	Uwe André Kohler	+49 711 23996-64	Scharnhauser Park Hellmuth-Hirth-Straße 7 73760 Ostfildern	www.cluster-forstholz-bw.de
Creative Industry Cluster Baden-Württemberg	Ulrich Winchenbach	+49 711 90715-313	Breitscheidstraße 4, 70174 Stuttgart	www.kreativcluster-bw.de
e-mobil BW	Franz Loogen	+49 711 892386-0	Leuschnerstraße 45, 70176 Stuttgart	www.e-mobilbw.de
Forum Luft- und Raumfahrt Baden-Württemberg e. V. (Aerospace Forum)	Wolfgang Wolf	+49 711 327325-55	Gerhard-Koch-Straße 2-4 73760 Ostfildern	www.lrbw.de
Intralogistik-Netzwerk in Baden-Württemberg e. V.	Kristin Wedekind	+49 711 78237-173	Industriestraße 25, 70565 Stuttgart	www.intralogistik-bw.de
Biomimetics Competence Network	Prof. Dr. Thomas Speck	+49 761 203 -2803	Schänzlestraße 1, 79104 Freiburg	www.kompetenznetz-biomimetik.de
Competence Network „Functional nano-structures“ in Baden-Württemberg	Prof. Dr. Thomas Schimmel	+49 721 608-3570	Wolfgang-Gaede-Straße 1 76131 Karlsruhe	www.nanonetz-bw.de
KW 21 – Power stations of the 21st century	Philipp von Ritter	+49 711 6862-311	Pfaffenwaldring 38-40 70569 Stuttgart	www.kw21.de
State-cluster Mechatronik BW GmbH	Volker Schiek	+49 7161 965950-0	Manfred-Wörner-Straße 115 73037 Göppingen	www.Mechatronics-ev.de
State-wide initiative for enterprise software: smart businessIT - Excellence for BW	Gennadi Schermann	+49 721 6183-338	Haid-und-Neu-Straße 18 76131 Karlsruhe	www.smartbusiness-it.de
Logistics network Baden-Württemberg (LogBW)	Martin Brandt	+49 7154 96500-51	Stammheimer Straße 10 70806 Kornwestheim	www.logbw.de
MANUFUTURE-BW e. V.	Oliver Reichert	+49 711 22835-872	Friedrichstraße 10, 70174 Stuttgart	www.manufuture-bw.de
MFG Innovationsagentur für IT und Medien Baden-Württemberg – Media development – Film funding	Klaus Haasis Gabriele Röthemeyer	+49 711 90715-370 +49 711 90715-400	Breitscheidstraße 4 70174 Stuttgart	www.mfg-innovation.de filmfoerderung@mfg.de
Mikrosystemtechnik Baden-Württemberg e. V.	Peter Josef Jeuk	+49 761 386909 -0	Emmy-Noether-Straße 2 79110 Freiburg (i. B.)	www.mstbw.de
Netzwerk Holzindustrie Baden-Württemberg e. V. (Timber industry)	Matthias Rauter / Jürgen Klaus	+49 7451 5539-611	Geisäckerweg 12 72160 Horb am Neckar	www.netzwerk-holzindustrie.de
Photonics BW e. V. – Competence network for optical technologies in Baden-Württemberg	Dr.-Ing. Andreas Ehrhardt (MBA)	+49 7364 20-3415	Carl-Zeiss-Straße 1 73447 Oberkochen	www.photonicsbw.de
Plattform Umwelttechnik e. V. (Environmental technology platform)	Michael Auer	+49 711 327325-33	Gerhard-Koch-Straße 2-4 73760 Ostfildern	www.pu-bw.de
Southwestern research and educational organisation for nuclear technology	Dr.-Ing. Joachim Uwe Knebel	+49 7247 82-5510	Hermann-von-Helmholtz Platz 1 76344 Eggenstein-Leopoldshafen	www.kit.edu
Umwelttechnik BW / Technologie- und Innovationszentrum Umwelttechnik und Ressourceneffizienz Baden-Württemberg GmbH (Environmental technology)	Dr.-Ing. Hannes Spieth	+49 7031 2039-210	Bahnhofspassage 2 71034 Böblingen	www.umwelttechnik-bw.de
Virtual Dimension Center Fellbach w. V.	Dr.-Ing. Christoph Runde	+49 711 58309-0	Auberlenstraße 13, 70736 Fellbach	www.vdc-fellbach.de
Visual Computing Baden-Württemberg	Martina Groeschel	+49 711 90715-397	Breitscheidstraße 4 70174 Stuttgart	www.visual-computing.de
Windcluster Baden-Württemberg e. V.	Andreas Heizmann	+49 7833 965-912	In der Grub 13, 77793 Gutach	www.windcluster-bw.de

Overview 5: Website addresses of regional cluster and network initiatives

Region	Regional cluster	Name of cluster initiative	Website
Stuttgart	Automotive	CARS – Cluster initiative Automotive Region Stuttgart	www.cars.region-stuttgart.de
	Biotechnology	BioRegio STERN Management GmbH	www.bioregio-stern.de
		Engineering – Life Sciences – Automation (ELSA)	www.bioregio-stern.de
		Kompetenznetz Medtech & Biotech	www.bioregio-stern.de
	Finance	Stuttgart Financial	www.stuttgart-financial.de
	Health industry	Cluster-Initiative GesundheitsRegion Stuttgart	www.gesundheit.region-stuttgart.de
		Gesundheitsregion REGiNA	www.info-rm.de
		Netzwerk für innovative Orthopädietechnik O-PAEDIX e. V.	www.o-paedix.com
	Industrial component and surface cleaning	Kompetenznetzwerk für Industrielle Bauteil- und Oberflächenreinigung Leonberg e. V. (CEC)	www.cec-leonberg.de
	Information technology / Enterprise software	ITS Baden-Württemberg e. V.	www.its-bw.de
		Open Source Region Stuttgart	www.opensource.region-stuttgart.de
		Software-Zentrum Böblingen / Sindelfingen e. V.	www.softwarezentrum.de
		Virtual Dimension Center Fellbach w. V.	www.vdc-fellbach.de
		Wachstumsinitiative Technische 3D-Visualisierung (TechVis)	www.vdc-fellbach.de
	Creative industries	Animation Media Cluster Region Stuttgart	www.amcrs.de
		Corporate Media Cluster Region Stuttgart	www.film.region-stuttgart.de
		Film Commission Region Stuttgart	www.film.region-stuttgart.de
		MedienInitiative Region Stuttgart	www.medien.region-stuttgart.de
		Popbüro Region Stuttgart (Pop Bureau Stuttgart Region)	www.popbuero.de
	Logistics	KLOK Kooperationszentrum Logistik e. V.	www.klok-ev.de
	Aerospace	FAN – Future Aerospace Network	www.fan-bw.de
	Nanotechnology	Anwendungscluster Nanotechnologie der Metropolregion Stuttgart	www.nano-ihk.de

Region	Regional cluster	Name of cluster initiative	Website
Stuttgart	Production technology	Cluster-Initiative Maschinenbau Region Stuttgart	www.wrs.region-stuttgart.de
		Kompetenznetzwerk Mechatronics BW e. V.	www.Mechatronics-ev.de
	Radiofrequency identification	RFID-Netzwerk Region Stuttgart	www.stuttgart.ihk.de
	Satellite communication	DeSK – Deutsches Zentrum für Satelliten-Kommunikation e. V.	www.desk-backnang.de
		DeSK – Initiative zur Strategie- und Kompetenzerweiterung auf dem Gebiet der Satellitenkommunikation (DISK)	www.desk-backnang.de
	Environmental technology	Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW)	www.bba-bw.de
		Cluster-Initiative Clean Tech	www.zukunftsenergien.region-stuttgart.de
		ENERGETIKOM – Energiekompetenz und Ökodesign e. V.	www.energetikom.de
		Kompetenzzentrum Umwelttechnik – KURS	www.kurs-net.de
		Leading-Edge cluster Electric Mobility South-West	www.e-mobilbw.de www.emobil-sw.de
	Packaging technology	Packaging Excellence Region Stuttgart e. V.	www.packaging-excellence.de
Heilbronn-Franken	Automotive	Automotive-Dialog	www.automotive-region.de
	Energy	energieZENTRUM – Energy agency of the Schwäbisch Hall district	www.energie-zentrum.com
	Food industry / Nutrition	Lebensmittelnetzwerk Schwäbisch-Hall	www.lebensmittelcluster.wfgsha.de
	Health industry	Gesundheits-Dialog	www.gesundheits-region.de
	Plastics technology and Plastics processing	Kunststoff-Dialog	www.kunststoff-region.de
	Paper processing	CCI Entrepreneur workgroup „Printing, packaging, media“	www.heilbronn.ihk.de
	Environmental technology	Bioenergie-Region Hohenlohe-Odenwald-Tauber	www.bioenergie-hot.de
		Modell Hohenlohe Netzwerk betrieblicher Umweltschutz und Nachhaltiges Wirtschaften e. V.	www.modell-hohenlohe.de
	Packaging technology	Packaging Valley Germany e. V.	www.packaging-valley.com
	Knowledge industry including business related services	Controlling-Dialog	www.controlling-dialog.de

Region	Regional cluster	Name of cluster initiative	Website
Ostwürttemberg	Automotive	Automotive-Initiative Ostwürttemberg	www.ostwuerttemberg.de/automotive
	Forestry and timber	Cluster-Initiative Forst und Holz Ostwürttemberg	www.ostwuerttemberg.de/holz
	Health industry	Cluster-Initiative Gesundheitswirtschaft Ostwürttemberg	www.ostwuerttemberg.ihk.de
	Creative industries	Kreativwirtschaft Ostwürttemberg	www.schwaebisch-gmuend.de
	Logistics	Logistik-Initiative Ostwürttemberg	www.landkreis-heidenheim.de
	Photonics	Photonic Valley Ostwürttemberg	www.photonic-valley.de
Mittlerer Oberrhein	Automotive	Automotive Engineering Network Südwest	www.ae-network.de
		eMobilitätszentrum Karlsruhe	www.emobilitaetszentrum.de
		KITe hyLITE	www.ict.fraunhofer.de
	Information technology / Enterprise software	CyberForum e. V.	www.cyberforum.de
		Karlsruher IT-Sicherheitsinitiative (KA-IT-Si)	www.ka-it-si.de
		Mobile Region Karlsruhe	www.mobileregion.de
		Software-Cluster „Softwareinnovationen für das digitale Unternehmen“	www.software-cluster.com
	Culture and creative industry	K3 – Kultur- und Kreativwirtschaftsbüro Karlsruhe	www.kultur.karlsruhe.de
	Nanotechnology	NanoMat	www.nanomat.de
		nanoValley.eu	www.nanovalley.eu
	Environmental technology	EnergieEffizienz-Netzwerk Karlsruhe	www.karlsruhe.de/b3/natur_und_umwelt/klimaschutz/Klimaprojekte/een-ka
		EnergieForum Karlsruhe	www.energieforum-karlsruhe.de
Rhein-Neckar	Automotive	Automotive-Cluster RheinMainNeckar	www.automotive-cluster.org
		Commercial Vehicle Cluster Südwest (CVC)	www.cv-cluster.com
	Biotechnology	Leading Edge Cluster – Biotechnologie-Cluster Rhein-Neckar (BioRN)	www.biorn.org
	Health industry	MRN Raum für Gesundheit GmbH	www.m-r-n.com

Region	Regional cluster	Name of cluster initiative	Website
Rhein-Neckar	Information technology / Enterprise software	GeoNet.MRN	www.m-r-n.com
		IT-Forum Rhein-Neckar e. V.	www.itforum.de
		IT FOR WORK	www.it-for-work.de
	Creative industry	FilmCommission Metropolregion Rhein-Neckar	www.filmcommission-mrn.com
		Musikwirtschaft Mannheim & Region	www.cm-musikwirtschaft.de
	Medical engineering	Mannheim Medical Technology Cluster	www.mannheim.de/medtech
	Organic electronics	Leading Edge Cluster – Forum Organic Electronics	www.forumoe.de
	Production technology	Automatisierungsregion Rhein Main Neckar	www.automatisierungsregion.de
		Kompetenzzentrum Moderne Produktionssysteme (KMP)	www.kmp.hs-mannheim.de
	Storage systems and smart grids	Development and application of smart, stationary energy storage systems StoREgio	www.m-r-n.com
	Environmental technology	Bioenergie-Region Hohenlohe-Odenwald-Tauber GmbH	www.bioenergie-hot.de
		Cluster Energie & Umwelt	www.m-r-n.com/energie&umwelt
		Umweltkompetenzzentrum Rhein-Neckar e. V.	www.umweltkompetenz.org
Nordschwarz-wald	Forestry and timber	Forestry and timber cluster in the region of Nordschwarzwald	www.nordschwarzwald.de
	Health industry	Health cluster	www.nordschwarzwald.ihk24.de
	Creative industries	Cluster for the creative industries	www.create-pf.de
	Plastics processing	INNONET Kunststoff	www.innonet-kunststoff.de
	Precision engineering	HOCHFORM – Präzisionstechnik	www.pforzheim-in-hochform.de
Südlicher Oberrhein	Automotive	AUTOMOTIVE_NETZ	www.wvib.de
	Biotechnology	BioRegio Freiburg / BioValley Plattform Deutschland	www.bioregion-freiburg.de www.biovalley.com
	Forestry and timber	Holzkette Schwarzwald e. V.	www.holzkette.de
	Health industry	Healthcare & Economy – Freiburg Region of Competence	
	Information technology / Enterprise software	Software-Forum Oberrhein	www.software-forum-oberrhein.de

Region	Regional cluster	Name of cluster initiative	Website
Südlicher Oberrhein	Creative industries	medien forum freiburg e. V.	www.mff.net
	Medical engineering	Medi_NETZ	www.wvib.de/cluster
	Microsystem technology	microtec REGION FREIBURG	www.mstbw.de
		Leading-edge cluster – MicroTEC Südwest	www.microtec-suedwest.de
	Environmental technology	Green City Freiburg cluster – Environmental and solar industry in the Freiburg region	www.greencity-cluster.de
		Energie_NETZ	www.wvib.de/cluster
		SolarRegion Freiburg	www.solarregion.freiburg.de
Schwarzwald-Baar-Heuberg	Automotive	Netzwerk Auto-Mobil	www.netzwerk-auto-mobil.de
		GVD Gemeinnützige Vereinigung der Drehteilehersteller e. V. – Turned parts	www.gvd.de
		Kompetenzzentrum Leichtbau der InnovationsAgentur Rottweil e. V. – Lightweight construction	www.innovationsagentur-rw.de
		Virtual Dimension Center – Technologiezentrum St. Georgen w. V.	www.vdc-tz-stgeorgen.de
	Precision engineering, microengineering and microsystem technology	MicroMountains Network e. V.	www.micromountains.com
	Health industry	Gesundheitsnetzwerk Schwarzwald-Baar	www.gesundheitsnetzwerk-sbk.de
	Medical engineering	Kompetenzzentrum Minimal Invasive Medizin + Technik Tübingen – Tuttlingen (MITT) e. V.	www.mittev.de
		MedicalMountains AG	www.medicalmountains.de
	Production technology	InnovationsAgentur Rottweil e. V.	www.innovationsagentur-rw.de
		INNOVATIONSNETZWERK Gewinnerregion	www.standortoffensive.de
Hochrhein-Bodensee	Aluminium processing	Aluminiumforum Hochrhein	www.aluminiumforum-hochrhein.de
	Automotive	Wirtschaftsregion Südwest automotiveforum	www.wsw.eu
	Biotechnology	BioLAGO e. V. – life science network	www.biolago.org
	Nanotechnology	Nano-Zentrum Euregio Bodensee	www.neb-konstanz.de
	Environmental technology	Netzwerk Umwelttechnologie Bodensee	www.umweltnetzwerk.net
	Packaging technology	Bodensee packaging technology cluster	www.Cluster-Initiative-bodensee.de

Region	Regional cluster	Name of cluster initiative	Website
Neckar-Alb	Automotive	IHK-Netzwerk Automotive	www.netzwerk-automotive.de
	Biotechnology	Cluster Innovative Hospital	www.innovative-hospital.de
	Forestry and timber	Workgroup „Wood as fuel“	www.reutlingen.ihk.de
		Workgroup „Wood as material“	www.reutlingen.ihk.de
	Health industry	CCI Network Health, Nutrition, Sports	www.reutlingen.ihk.de
	Information technology / Enterprise software	Netzwerk ITK & Multimedia	www.breitbandforum-neckaralb.de
	Medical engineering	Medical Valley Hechingen	www.medical-vally-hechingen.de
		Medizintechnik Neckar-Alb	www.reutlingen.ihk.de
	Production technology	Produktions- und Automatisierungstechnik Neckar-Alb	www.reutlingen.ihk.de
	Textiles and clothing	Neckar-Alb technical textiles cluster	www.expertenforum-textil.de
Donau-Iller	Automotive	Cluster Nutzfahrzeuge Schwaben (CNS) e. V. (Commercial vehicles)	www.cns-ulm.com
	Biotechnology	BioPharMaXX	www.biopharmaxx.de
	Logistics	Logistik-Cluster Schwaben (LCS) e. V.	www.logistik-schwaben.de
	Production technology	Netzwerk in der Maschinenbaubranche (Mechanical engineering)	www.ulm.ihk24.de
Bodensee-Oberschwaben	Aerospace	bodenseeairea	www.bodensee-airea.de
	Production technology	Virtuelle Fabrik Baden-Württemberg e. V.	www.virtuelle-fabrik-bw.com

Overview 6: Cluster matrix of the network „Four motors for Europe“

	Baden-Württemberg	Catalonia	Flanders	Lombardy	Rhône-Alpes	Wales	Zurich
Classical Sectors Klassische Branchen							
Agriculture & Food Landwirtschaft und Ernährung							
Automotive Automotive	X	X	X	X	X	X	X
Aerospace Aerospace	X	X	X	X	X	X	(X)
Building & Construction (Buildings, Roads etc.) Bauwirtschaft (Gebäude- und Straßenbau)	X	X	X	X	X	X	
Chemicals Chemie	(X)[1]			X	X		
Electronics Elektronik	X	X	X	X			
Mechanical Engineering & Production Technology Maschinenbau und Produktionstechnologien	X	X	X	X	X		
Metal Working Metallbearbeitung	X	X		X			
Textile & Leather Texil und Leder	X	X	X	X	X		
Timber, Paper & Cork Industries Holz-, Papier- und Korkindustrie	X	X	X				
Wood & Furniture Holz- und Möbelindustrie	(X)	X		X			
New Sectors & Cross-sectoral Technologies Neue Branchen & Quer-schnittstechnologien							

1) Fields of technology or industries in brackets are rather insignificant or less formalised in the regional cluster landscape.

	Baden-Württemberg	Catalonia	Flanders	Lombardy	Rhône-Alpes	Wales	Zurich
Biotechnology Biotechnologie	X	X	X	X	X	X	X
Environmental & Energy Technologies Umwelt- und Energietechnologien	X	X	X	X	X	X	X
ICT & Media Informations- und Kommunikationstechnologien	X	X	X	X	X		X
Life Sciences & Health Life Science & Gesundheitswirtschaft	X	X	X	X	X		X
Material & Surface Technologies Neue Werkstoffe & Oberflächentechnologien	X		X	X	X		(X)
Mechatronics Mechatronics	X		X		X		
Micro- & Nanotechnologies & Embedded Systems Mikro- & Nanotechnologien & Eingebettete Systeme	X		X	X	X		
Packaging Technologies Verpackungstechnologien	X		X				X
Photonics & Opto-Electronics Photonik und Optische Technologien	X	X	X		X		X
Service industries Dienstleistungswirtschaft							
Creative Industries (e.g. Design, Fashion) Kreativwirtschaft	X		X	X	X	X	X
Finances Finanzwirtschaft	X					X	X
Leisure & Tourism Freizeit- und Tourismuswirtschaft	X	X		X	X	X	
Transportation & Logistics Transport & Logistik	X	X	X		X		

Notes

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