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BADEN-WÜRTTEMBERG

Regional Cluster Atlas Baden-Württemberg 2010

Overview of cluster-related networks and initiatives

Baden-Württemberg
MINISTRY OF ECONOMICS

Regional Cluster Atlas Baden-Württemberg 2010

Overview of cluster-related networks and initiatives

Legend for regional cluster map

Aluminiumverarbeitung
Aluminium processing

Automotive
Automotive

Befestigungstechnik
Fastening technology

Biotechnologie
Biotechnology

Chemie
Chemicals

Energie
Energy

Feinwerktechnik etc.
Precision engineering etc.

Finanzwirtschaft
Finance

Forst und Holz
Forestry and timber

Gesundheitswirtschaft
Health industry

Informationstechnologie/Unternehmenssoftware
Information technology / enterprise software

Kreativwirtschaft
Creative industries

Kunststofftechnik und Kunststoffverarbeitung
Plastics technology and plastics processing

Laborglas
Lab glass

Logistik
Logistics

Luft- und Raumfahrt
Aerospace

Lüftungstechnik
Ventilation technology

Medizintechnik
Medical engineering

Mess-, Steuer- und Regeltechnik
Measuring and control technology

Metallverarbeitung
Metal processing

Mikrosystemtechnik
Microsystems technology

Musikindustrie
Music industry

Nanotechnologie
Nanotechnology

Oberflächentechnologie
Surface technology

Organic Electronics
Organic electronics

Papierverarbeitung
Paper processing

Photonik
Photonics

Produktionstechnik
Production technology

Radiofrequenz Identifikation
Radiofrequency identification

Satellitenkommunikation
Satellite communication

Satellitennavigation
Satellite navigation

Textil und Bekleidung
Textiles and clothing

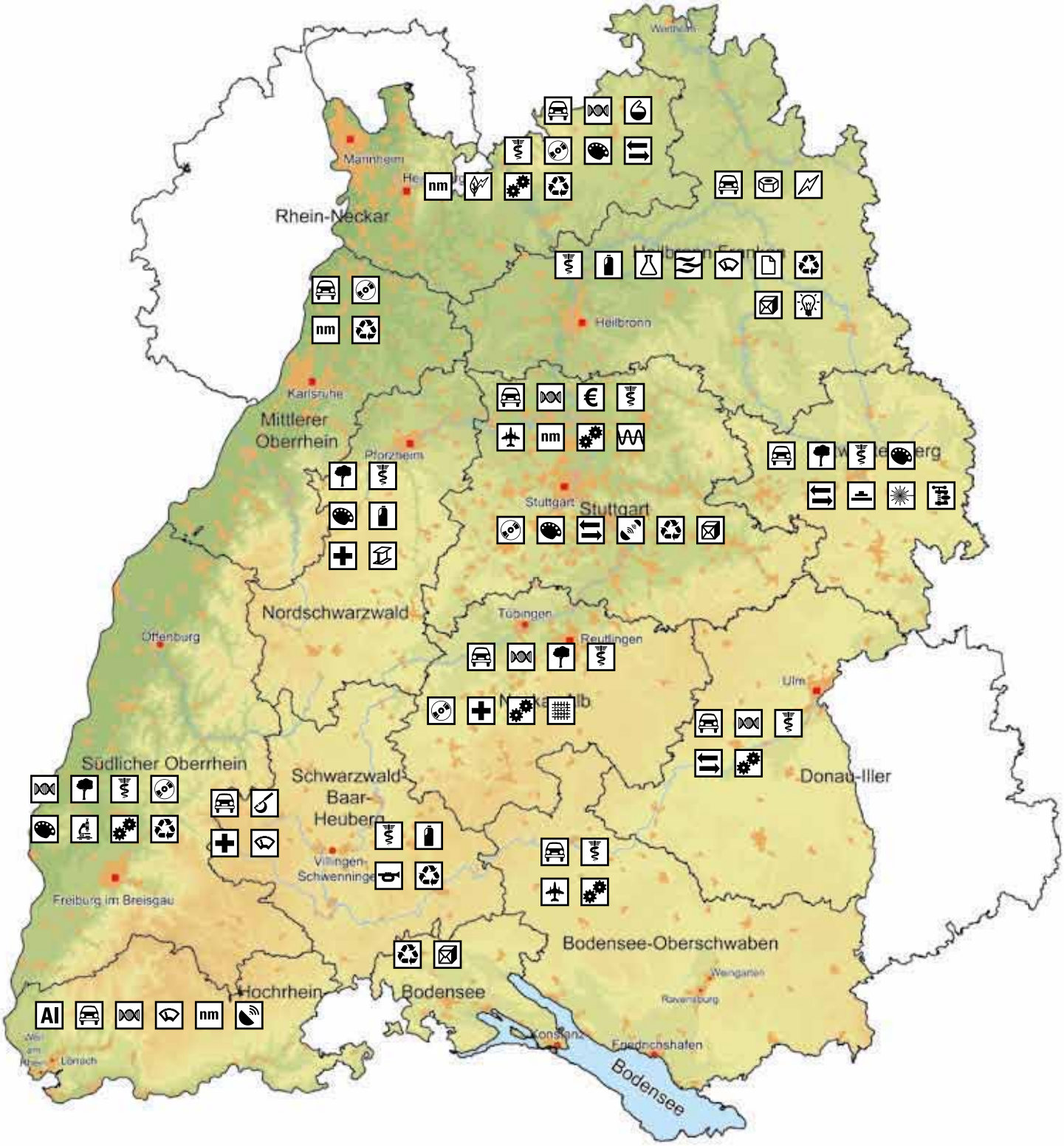
Umwelttechnologie
Environmental technology

Verpackungstechnik
Packaging technology

Wissenswirtschaft inklusive unternehmensnahe Dienstleistungen
Knowledge industry including business-related services

Zerspanung/Umformung/Metallguss
Chipping/metal working/founding

Regional cluster map Baden-Württemberg



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Introduction

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Basis

Increasing globalisation and internationalisation of the markets and ever shorter production cycles make it necessary for companies to generate competitive advantages through innovative products and services. A basic prerequisite for this is intense cooperation between regional universities, research institutions and companies. With this cluster-oriented approach, innovative processes are enabled through an interdisciplinarily organised exchange of knowledge and expertise. Therefore, the development and strengthening 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 supporting establishment of effective cluster management structures for strengthening individual clusters, it intends to show and further promote the great variety of regional clusters and cluster initiatives in particular.

This given, the Ministry of Economics has commissioned VDI/VDE Innovation + Technik GmbH located in Berlin with updating the regional cluster atlas first published in 2008 for the state of Baden-Württemberg, utilising a moderated process, and also with creating a new web-based cluster data base (Website: www.wm.baden-wuerttemberg.de/clusterpolitik/170321.html) on the basis of data collected in the course of this updating process. The many changes regarding cluster initiatives, some resulting from competitions but also from a deeper knowledge of the cluster activities within the state, have made this update necessary.

Objectives of the cluster atlas

With this second edition of the regional cluster atlas, the following changed compared to the first edition of 2008:

- 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.
- The basis for a web-based data base has been created.
- 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.
- Readability was improved through direct assignment of individual regional cluster initiatives to their basic clusters.
- Presentation was improved by adding descriptions of cluster networks and platforms across the state and across regions.

With this update, the goals of this regional cluster atlas can be achieved even better. 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.

Data base

For the first time, a web-based data base was created for the state of Baden-Württemberg. 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.

Data basis

The structural data and 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 self-assessment of cluster initiatives was supplemented by analyses of relevant paper and electronic documents from the regions and the state statistical office. Additional sources of data were thorough web and data base searches and our own empiric 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 contribution[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.

Indicators (Examination period in brackets):

- Internal R&D expenses of companies in relation to the gross value added by the manufacturing industry, real estate sector and corporate services in percent (1999-2005)
- 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 (1999-2005)
- Employees subject to social insurance contributions in high-R&D industries related to the total number of employees subject to social insurance contributions in percent (1999-2007)
- 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 (1999-2007)

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 2003/2004-2006/2007)
- Published patent applications from industry and science filed with the German patent and brand office and the European patent office without double counts related to the number of inhabitants aged 21 to 64 (1999-2005)

The Dynamic index indicates the average change rates per year of these six indicators, in general since the end of the 1990ies; 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 are included in the sub-indexes „Level" and „Dynamic" with the same weight; finally, they are merged in the innovation index at the ratio of 3:1[3].

The cluster atlas and the data base do not represent statistical documents 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 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 regional clusters with associated cluster initiatives including contact data;
4. An overview of 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 initia-tives 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 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.

3 Source: Statistisches Landesamt Baden-Württemberg (Baden-Württemberg statistical office). Sta-tistik 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)

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 national sales potential for products or services and consequently 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 academic or scientific institutions such as universities, research or transfer institutes. In many cases, it is the clients, their product and application experience and the resulting ideas for improvement that form a central source of impetus for innovative product and process solutions.

Cluster initiative

Cluster initiative means the strategic and systematic alignment and documentation of innovation-oriented co-operations evolved from the networks (Marketing), the targeted closing of gaps, for example with regard to competences or the value adding chain, or the integration of activities into organisations, for example integration into a body. 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 organisa-tional 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 cen-tres 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 competence-competence, 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 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/plastic 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 great 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 workplaces in the German IT industry is located 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 intra-logistics	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 infrastructures and the relevant enterprises play a crucial role in utilising this growth potential.	Vehicle production and other manufacturing industries such as mechanical engineering, metal, plastic 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, medical 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 production, mechanical engineering, medical engineering, metal industry, plastics, jewellery, textiles
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

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))
Photonics	On the one hand, optical technologies form an independent well-established high-tech industry and on the other, 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.
Telecommunication	In some regions the telecommunications industry concentrates and is of great economic importance. 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 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 fields 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 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 shown 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 or technology of regional clusters".

Stuttgart

01

The region

The Stuttgart region is the spatial and economic centre of Baden-Württemberg and stretches over 3,654 square kilometres. 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: 35.6 % (State: 38.6 %)
- Services sector in total: 64.1 % (State: 61.0 %)
  - Trade: 13.6 % (State: 14.1 %)
  - Corporate service providers: 13.7 % (State: 10.5 %)
  - Transport: 4.2 % (State: 3.8 %)

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 for 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.

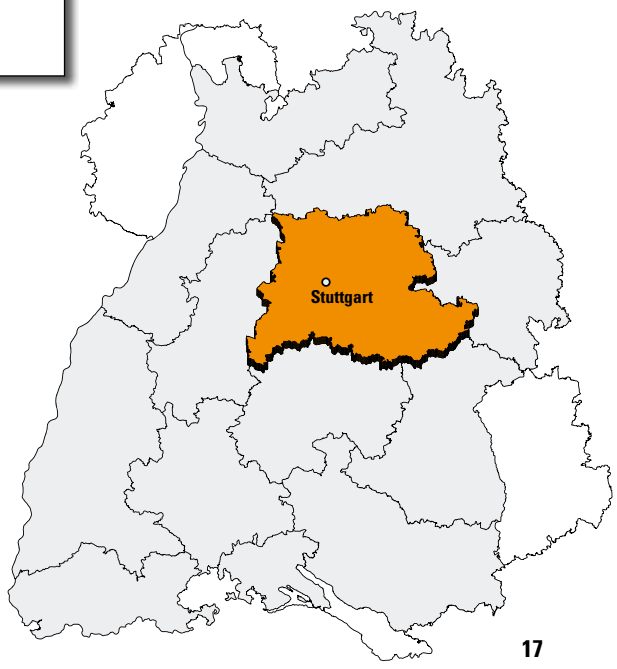
The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- 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. 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: 46.7 % (State: 35.5 %)
- Level index: 51.1 % (State: 35.1 %)
- Dynamic index: 33.7 % (State: 36.4 %)



6 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.
7 Note: For an explanation, see section "Data basis" under Introduction.

The region's clusters and cluster initiatives

Automotive cluster

Target field 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 helps 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 the network management, the cluster initiative is responsible for providing customised information to the target groups and for improvement of communication within the cluster.

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 field 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 Bio-Region 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. Strong emphasis is on regenerative medicine and medical engineering.

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: Kompetenznetz Medtech & Biotech

The competence network Medtech & Biotech intends to intensify the collaboration between medical engineering and biotechnology and to strengthen the two industries, making them key technologies of 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
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 field 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 and loan institutes have their headquarters in Stuttgart. 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

Stuttgart Financial provides a comprehensive communication platform for financial issues in Baden-Württemberg. Stuttgart Financial bundles existing contents and strengths of the Baden-Württemberg finance business and boosts its visibility. Activities for promoting this financial centre can be assigned to three categories: Organisation of events, communication with the financial centre's stakeholders and their linking and provision of information relevant for the financial centre.

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 field 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, remedy production, health tourism and many other services.

CLI: Clusterinitiative GesundheitsRegion Stuttgart

This cluster initiative splits into two areas: (1) BeneFit Region Stuttgart – Initiative für betriebliche Gesundheitsförderung 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.

Clusterinitiative GesundheitsRegion Stuttgart *c/o Wirtschaftsförderung Region Stuttgart GmbH*	
Dr. Matthias Knecht (Gesundheit Region Stuttgart) *Anne-Kathrin Spielmann (BeneFit)* *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-893* *Fax: +49 711 22835-55* *www.gesundheit.region-stuttgart.de*

CLI: Gesundheitsregion REGiNA

Regenerative medicine (RegMed) is one of the most significant future fields of medicine. Gesundheitsregion REGiNA has established a user centre for this: Patients and doctors are receiving advice over a telephone hotline and an internet portal (www.info-rm.de) and new regenerative medical methods of treatment are studied in R&D projects. This cluster initiative intends to integrate these and already existing RegMed products and processes into clinical routines. In addition to this, training programmes for doctors are established, ethical and approval-related problems are discussed and health economical analyses are conducted together with health insurance companies.

Gesundheitsregion REGiNA *c/o BioRegio STERN Management GmbH*	
Dr. Thomas Grieshammer/Dr. Manfred Kauer *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 870354-21* *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 technology and transfer of 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 prostheses/orthoses in the future.

Netzwerk für innovative Orthopädietechnik O-PAEDIX e. V. *c/o Fraunhofer Institut für Produktion und Automatisierung (IPA)*	
Sebastian Klasen *Nobelstraße 12* *70569 Stuttgart*	*Telephone: +49 711 970-3661* *Fax: +49 711 953-800* *www.o-paedix.com*

Information technology/enterprise software cluster

Target field 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. 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: Kompetenzzentrum KTMC Telematik, Mobile Computing, Customer Care e. V.

For bundling regional competences in telemetric technologies and services and for representing these competences externally, Kompetenzzentrum KTMC Telematik, Mobile Computing, Customer Care e. V. was founded in 2001.

Kompetenzzentrum KTMC Telematik, Mobile Computing, Customer Care e. V.
c/o IVU Institut für Verkehr und Umwelt e. V.

Prof. Dr.-Ing. Günter Sabow *Industriestraße 3 (im Pavillon)* *70565 Stuttgart*	*Telephone: +49 711 781929-13* *Fax: +49 711 781929-15* *www.ktmc.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

Hans-Ulrich Schmid *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-27* *Fax: +49 711 22 835-55* *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[9] worldwide. To consolidate and extend this strong position of the Stuttgart region and to make available these developments to medium-sized companies in the automotive and machine engineering industries in particular, VDC Fellbach was founded.

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*

Creative industries cluster

Target field 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

9 VR technology =Technology in the area of virtual reality

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/Ludwigsburg region is to turn into the leading digital AV location in Germany. MFG Filmförderung intends to account for this rapid technical development of digital AV media[10] by value-adding networking. With a pilot project, the proven British model, which has been successfully applied by the VFX[11]-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

Johannes Kümmel *Breitscheidstraße 4* *70174 Stuttgart*	*Telephone: +49 711 907154-00* *Fax: +49 711 907154-50* *www.amcrs.de*

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 Region Stuttgart

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

CLI: mediafaktur filder e. V.

Mediafaktur filder e. V. is an organisation for promoting innovation and competence in printing and publishing, communication and advertising in electronic media and IT and telecommunication for improving competitiveness, and for attracting new media companies and maintain and create new jobs and study places.

mediafaktur filder e. V.

Helmut Drodofsky *Friedrich-List-Straße 4* *70771 Leinfelden-Echterdingen*	*Telephone: +49 711 781941-0* *Fax: +49 711 781941-79* *www.mediafaktur-filder.de*

CLI: MedienInitiative Region Stuttgart

MedienInitiative Region Stuttgart is a network of creatives from this region: 400 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 identify the specific demands of companies and use it for developing activities and projects. New projects are regularly discussed and refined in initiative circles.

10 AV media = audio-visual media
11 VFX = visual effects

MedienInitiative Region Stuttgart
c/o Wirtschaftsförderung Region Stuttgart

Bettina Klett *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-15* *Fax: +49 711 22 835-55* *www.medien.region-stuttgart.de*

CLI: Music business and marketing (Popbüro Region Stuttgart)

Popbüro Stuttgart is an organisation promoting pop music where industry, culture and youth meet. This cluster initiative's task is the promotion of pop culture, music and young artists, and also of music companies and start-ups. New business models, young doers and young musicians are to benefit from the music business and marketing cluster.

Music business and marketing
(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 field 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 logistic 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. So, its most important field of activity is the initiation and coordination of projects improving logistic infrastructure, with several partners.

KLOK Kooperationszentrum Logistik e. V.

Martin Brandt *Stammheimer Straße 10* *70806 Kornwestheim*	*Telephone: +49 7154 827-401* *Fax: +49 7154 827-409* *www.klok-ev.de*

Aerospace cluster

Target field of cluster policy: Aerospace

The aerospace industry looks back on a long tradition in the Stuttgart region. Only few locations offer such a tightly weaved 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

Knut Drachsler *Nobelstraße 12* *70569 Stuttgart*	*Telephone: +49 711 327325-50* *Fax: +49 711 327325-69* *www.fan-bw.de*

Nanotechnology cluster

Target field 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

Small and medium-sized enterprises see a great demand for cooperation in the various fields of nanotechnology, especially with regard to specific applications. For a more efficient utilisation of this potential and 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.

Anwendungscluster Nanotechnologie der Metropolregion Stuttgart
c/o IHK Region Stuttgart

Manfred Müller *Jägerstraße 30* *70174 Stuttgart*	*Telephone: +49 711 2005-329* *Fax: +49 711 2005-429* *www.nano-ihk.de*

Production technology cluster

Target field 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: Clusterinitiative Maschinenbau Region Stuttgart

Since 2007, Clusterinitiative Maschinenbau Region Stuttgart offers services to cluster companies. Some services have existed for several years. With this cluster initiative, however, they have been coordinated better and adapted to the target group. This initiative includes about 650 companies and three universities with focus on mechanical engineering in the Stuttgart region and also eight non-academic research institutions with direct focus on the mechanical engineering industry.

Clusterinitiative Maschinenbau Region Stuttgart
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 Mechatronik BW e. V.

The Mechatronik competence 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 follow-

ing a call of the industry, its priorities are an efficient transfer of technology and results, a shortening of innovation cycles and the initiation of innovation partnerships regarding future-oriented topics, for example mobility, security, energy and environment.

Kompetenznetzwerk Mechatronik 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*

CLI: MANUFUTURE-BW e. V.

Promoting the factory of the future, with high-performance adaptive production systems, with integrated knowledge transfer and the related implications on job training and advanced training, is the goal of this cluster initiative established in 2009. Further, it is to enhance exploitation of cluster potential and use inherent synergies for boosting competitiveness of the companies in this area of technology.

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

Dr. Martin Zagermann *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-53* *Fax: +49 711 22835-55* *www.manufuture-bw.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 in researching Radiofrequency Identification (RFID). 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-Netzwerk Region Stuttgart

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.

RFID-Netzwerk Region Stuttgart
c/o IHK Region Stuttgart

Manfred Müller *Jägerstraße 30* *70174 Stuttgart*	*Telephone: +49 711 2005-329* *Fax: +49 711 2005-429* *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'll find a nationwide unique concentration of globally active companies in the area of satellite communication.

CLI: DeSK – Deutsches Zentrum für Satelliten-Kommunikation

Companies, scientific institutions and universities from the area of satellite communication have formed the cluster initiative DeSK in 2008. It is DeSK's goal to bundle the partner institutions and form a powerful network and to intensify cooperation of the companies located in the Stuttgart region working in the area of satellite and broadband communication, thus linking existing expertise. In addition, this bundling of ex-

pert knowledge is to make visible the location's competences and give it a clear profile. Further, DeSK has initiated activities for winning and binding talent and for conducting research and development projects.

DeSK – Deutsches Zentrum für Satelliten-Kommunikation

Reinhard Schnabel *Spinnerei 44* *71522 Backnang*	*Telephone: +49 7191 930-3942* *Fax: +49 7191 930-3849* *www.desk-backnang.de*

Environmental technology cluster

Target field of cluster policy: Environmental technology

The Clean Energy Cluster in the Stuttgart region is shaped by universities and research institutions and globally active large enterprises and also start-ups, that is, almost 300 companies, many of which 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)

This fuel cell and battery alliance of Baden-Württemberg (BBA-BW) was founded in 2007, by merging the former competence centre for fuel cell technology and the Baden-Württemberg research alliance; currently, it represents the interests of 70 members from industrial enterprises, research institutions and administration. Its purpose is the promotion of developments 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.

Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW)

Sabine Sadjak *Pfaffenwaldring 10* *70569 Stuttgart*	*Telephone: +49 711 685-63334* *Fax: +49 711 685-63559* *www.bba-bw.de*

CLI: Clusterinitiative Clean Tech

Wirtschaftsförderung Region Stuttgart 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.

Clusterinitiative Clean Tech
c/o Wirtschaftsförderung Region Stuttgart GmbH

Holger Haas *Friedrichstraße 10* *70174 Stuttgart*	*Telephone: +49 711 22835-14* *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 saving energy, 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 *Rheinlandstraße 13* *71636 Ludwigsburg*	*Telephone: +49 7141 99057-0* *www.energetikom.de*

CLI: Kompetenzzentrum Umwelttechnik – KURS

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
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*

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 is characterised by the wide-range 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.

Thomas Hoffmann *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., automotive-bw, autoland-bw, Baden-Württemberg: Connected e. V., BIOPRO Baden-Württemberg GmbH, Cluster Forst und Holz Baden-Württemberg, e-mobil BW, Forum Luft- und Raumfahrt Baden-Württemberg e. V., Intralogistik Netzwerk BW e. V., Kraftwerke für das 21. Jahrhundert (KW 21), MFG Baden-Württemberg mbH – Innovationsagentur des Landes für IT und Medien, Plattform Umwelttechnik und Visual Computing Baden-Württemberg (see chapter 13: State-wide and cross-regional networks).

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Universität Stuttgart	**University** 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** 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 of applied research, for example: • 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 of 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 of applied research (IAF) and a Steinbeis transfer centre – technical consultancy for Stuttgart university.
Hochschule der Medien Stuttgart	**University of Applied Sciences for Media** Faculties for printing and media, electronic media, information and communication. Transfer through an institute of 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, in-ternational 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.

Institution	Fields of activity
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 Building **Institutes of Max-Planck-Gesellschaft** • Metal Research • Research of Solids **Institutes of Hahn-Schickard-Gesellschaft für ange-wandte Forschung e. V. – Society for Applied Research** • Institut für Mikroaufbautechnik (HSG-IMAT) – Micro de-sign Technology • Institut für Mikro- und Informationstechnik (HSG-IMIT) – Micro and Information Technology **Other institutions** • Deutsche Institute für Textil- und Faserforschung Denkendorf (Textilchemie und Chemiefasern ITCF) – Textile Chemistry and Chemical Fibers • Textil- und Verfahrenstechnik (ITV) – Textile Technology and Process Engineering, Center for Management Research (DITF-MR) • Deutsches Zentrum für Luft- und Raumfahrt (DLR) – Research Center for aeronautics and space Stuttgart • Forschungsinstitut für Kraftfahrwesen und Fahrzeugmotoren Stuttgart (FKFS) – Research Institute of Automative Engineering and Vehicle Engines • Kompetenznetz Verfahrenstechnik Pro3 e. V. – Competence Network for Process Engineering • Verkehrswissenschaftliches Institut an der Universität Stuttgart – Institute of 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 square kilometres and is home to 885,000 people. The region includes the city and 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 even more production-based. Therefore, its share of the entire services sector, also of corporate services, is below state average.

In detail[12]:

- Production sector: 45.5 % (State: 38.6 %)
- Services sector: 53.9 % (State: 61.0 %)
  - Trade: 15.3 % (State: 14.1 %)
  - Corporate service providers: 8.5 % (State: 10.5 %)
  - Transport: 3.4 % (State: 3.8 %)

The industry in this region has a broad basis and has developed historically. Measured by number of inhabitants, the Hohenlohe districts features the highest concentration of market leaders.

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 reached is below average in the state, the Heilbronn-Franken region shows the strongest dynamic with regard to innovations.

The region's innovation index is as follows:

- Total index: 31.8 % (State: 35.5 %)
- Level index: 25.7 % (State: 35.1 %)
- Dynamic index: 50.2 % (State: 36.4 %)

12 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

The region's clusters and cluster initiatives

Automotive cluster

Target field of cluster policy: Automotive

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
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*

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.

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. 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 the climate protection information centre of the district administration.

energieZentrum – Energy agency of the Schwäbisch Hall district

Martin Henßler *Haller Straße 29/1* *74549 Wolpertshausen*	*Telephone: +49 7904 9413640* *Fax: +49 7904 9413641* *www.energie-zentrum.com*

Health industry cluster

Target field 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 this health dialogue initiative with its study programme of medical informatics.

CLI: Gesundheits-Dialog

Focus of activities of this health dialogue initiative is the networking of its stakeholders, promotion of information exchange, transfer of knowledge and marketing of the Heilbronn health region.

Gesundheits-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.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.

In addition, a plastics industry cluster has developed between Eppingen and Heilbronn. This encompasses more than 50 companies that are basically part of the injection moulding industry; however, some offer even complete design and development services. And there are plastic-specific tool and mould making companies offering supplementary services.

CLI: Kunststoff-Dialog

Many companies from the plastics industry are located in the city and district of Heilbronn. Unfortunately, the great variety of plastic processing companies and model and mould makers in this region, and their high-quality products, is not very much known yet. Since 2004, this plastics dialogue initiative has been working on advertising the great potential of the Heilbronn plastics region. Initiated by Wirtschaftsförderung Raum Heilbronn, a platform was created on which companies from the plastic processing industry can communicate on a sophisticated level, exchange ideas and discuss cooperation options. This is to intensify contacts between the companies; strategic partnerships and cooperations are to increase and maintain the companies' competitiveness long-term.

Kunststoff-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.kunststoff-region.de

Lab glass cluster

Target field 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.

Ventilation 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.

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.

Paper processing cluster

Target field 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 produce envelopes, pouches, bags and handle bags.

CLI: IHK-Chefarbeitskreis „Druck, Verpackung und Papier“

Headed by the IHK Heilbronn-Franken, currently 15 medium-sized and mostly owner-managed companies from the printing, packaging and paper 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-Chefarbeitskreis „Druck, Verpackung und Papier“ *c/o IHK Heilbronn-Franken*	
Peter Schweiker *Ferdinand-Braun-Straße 20* *74074 Heilbronn*	*Telephone: +49 7131 9677-300* *www.heilbronn.ihk.de*

Environmental technology cluster

Target field 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.

Modell Hohenlohe e. V. with head office in the Hohenlohe district is a non-profit organisation of ap-prox. 180 companies from this region who build and benefit from regional competences. All of them are ecologically active, involved in charity and economically successful. Besides its core competences of „Introduction of the environmental management system EMAS in collaborative enterprise groups” and MENZEL (a regional company network striving for increasing material efficiency), its main focus is on increasing energy efficiency. This is achieved by working out energy saving concepts for companies at regionally organised Energie Efficiency Round Tables.
Between eight and fifteen companies meet for Energy Efficiency Round Tables (EE-T) and reduce costs and CO2. 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.

Modell Hohenlohe Netzwerk betrieblicher Umweltschutz und Nachhaltiges Wirtschaften e. V.	
Jutta Bauer *Hohebuch 36* *74638 Waldenburg*	*Telephone: +49 7942 94491-10* *www.modell-hohenlohe.de*

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 economy. Packaging Valley Germany e. V. cooperates with Packaging Excellence Region Stuttgart e. V. located in the Stuttgart region.

This organisation 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 Heilbronn-Franken

Controlling-Dialog Heilbronn-Franken promotes the exchange of experiences and opinions on current and innovative topics. The main focus, in this regard, is on learning together and from each other. This exchange of experiences and opinions takes place in form of specific lectures, workshops 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 Heilbronn-Franken

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 Anwendungscluster Nanotechnology in the Stuttgart metropolitan region or the top cluster MicroTec Südwest.

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Hochschule Heilbronn with 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 microsystems 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, busi-ness administration and marketing. Transfer mainly through ten companies belonging to the Steinbeis organisation and the institute of applied research (IAF).
Duale Hochschule Mosbach, Campus Bad Mergentheim	**The Cooperative State University Bad Mergentheim** offers the study programmes International Business and Health Management.
Research and transfer institutions	**Bildungs- und Technologiezentrum der Handwerk-skammer Heilbronn (BTZ Heilbronn)** – Training and Tech-nology 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 re-sponsibility 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, Würzburg, Bronbach site** – Silicate Research Focus on: New testing methods and modern machining technologies specifically for the laboratory glass sector, con-servation 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 aerospace forum LRBW - Luft- und Raumfahrt Baden-Württemberg • Project partner of the cluster initiative Future Aerospace Network FAN • Member of the techonology and start-up centre associa-tion "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 square kilometres 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 below state average.

In detail[13]:

- Production sector: 50.9 % (State: 38.6 %)
- Services sector: 48.8 % (State: 61.0 %)
  - Trade: 12.2 % (State: 14.1 %)
  - Corporate service providers: 6.5 % (State: 10.5 %)
  - Transport: 2.9 % (State: 3.8 %)

The region's clusters, with their historic 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 chipping/metal working/founding or design.

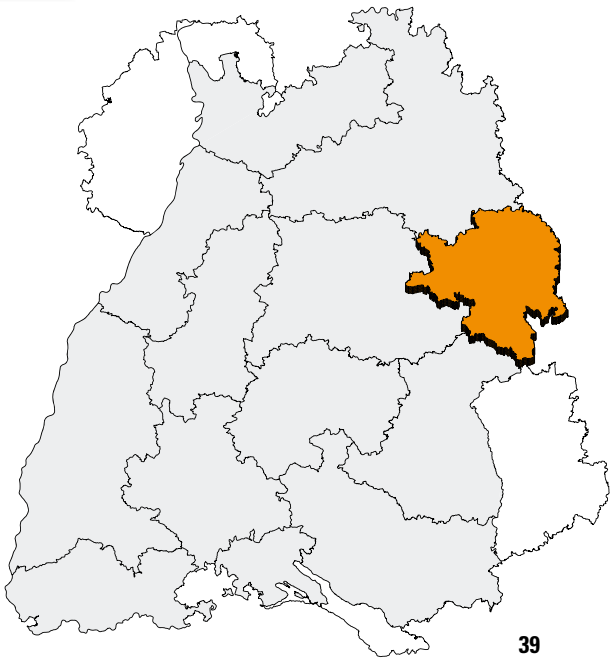
The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Metal industry with mechanical engineering and production of metal products;
- Vehicle production and suppliers;
- Production of electrical equipment and
- Production of data processing equipment and electronic and optical products.

Its innovation power ranks in the middle 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. While the reached level of innovations is below average, its innovation dynamic is clearly above average.

The region's innovation index is as follows:

- Total index: 34.3 % (State: 35.5 %)
- Level index: 32.2 % (State: 35.1 %)
- Dynamic index: 40.5 % (State: 36.4 %)



13 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

The region's clusters and cluster initiatives

Automotive cluster

Target field 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 focuses on networking among the automotive stakeholders, on a regional basis but also state-wide, for generating cooperations and value adding relationships to boost competitiveness. Several projects accelerate knowledge transfer between universities, R&D institutions and companies. Special emphasis is on current topics such as electric mobility, lightweight design (magnesium, cast) or engineering/simulation. 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)*	
Dr. Ursula Bilger / Markus Hofmann *Universitätspark 1* *73525 Schwäbisch Gmünd*	*Telephone: +49 7171 92753-21* *www.ostwuerttemberg.de/automotive*

Forestry and timber cluster

Target fields of cluster policy: Energy, Logistics including intralogistics, 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 Forst und Holz Ostwürttemberg

This cluster initiative was founded in 2008 and increases competitiveness of the companies by networking and creating regional and supra-regional cooperations. In addition, the cluster marketing activities will increase the publicity of this region as a whole. It is planned to integrate this Ostwürttemberg cluster initiative into the state-wide forestry and timber cluster that is currently underway. Coordination and development of this cluster initiative lies in the responsibility of Wirtschaftsförderungsgesellschaft mbH Region Ostwürttemberg (WiRO).

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

Dr. Ursula Bilger/Kai Hinderberger *Universitätspark 1* *73525 Schwäbisch Gmünd*	*Telephone: +49 7171 92753-31* *www.ostwuerttemberg.de/holz*

Health industry cluster

Target field 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 specialise 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 the university of education Schwäbisch Gmünd and social work at the Baden-Württemberg cooperative state university in Heidenheim. Further, the Limes spa and the mine sanatorium in Aalen or the WELEDA gardens of medical plants, for example, are being developed for the tourism industry.

Creative industries cluster

Target field 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, more than 150 between 2000 and 2009. The cluster's core industries are industrial and product design, communication and jewellery design.

CLI: Kreativwirtschaft 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.

Kreativwirtschaft Ostwürttemberg,
c/o Stadt Schwäbisch Gmünd

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

Logistics cluster

Target field of cluster policy: Logistics including intra-logistics

Ostwürttemberg's location with direct access to the North-South connection, motorway A7, and very close to the East-West connection, motorway A8, 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 3400 employees in total.

CLI: Logistik-Initiative Ostwürttemberg

Logistik-Initiative Ostwürttemberg links the regional companies, also state-wide, for generating cooperations and value-adding relationships and for boosting competitiveness. This cluster initiative works towards integration into the state-wide logistics cluster. A major catalyst for this is the Baden-Württemberg cooperative state university of Heidenheim that has developed a study programme specifically for this purpose, with focus on logistics information systems.

Logistik-Initiative Ostwürttemberg
c/o Landratsamt Heidenheim

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

Surface technology

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 the research institute for precious metal and metal chemistry (fem – Forschungsinstitut Edelmetalle & Metallchemie) and Aalen university, several training and educational institutions, institutes and organisations supporting surface technology, some even with supra-regional significance.

CLI: Netzwerk Oberflächentechnologie Region Ostwürttemberg (NORO e. V.)

Goal of this network founded by 31 members in 2009 is to advertise surface technology, to link its members and to initiate know-how and technology transfer. In addition, it initiates and coordinates cooperations along the value adding chain and research and development activities. Recruiting new members is a priority as well.

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.

NORO e. V.

Dr. Frank-Detlev Koppitz *Katharinenstraße 17* *73525 Schwäbisch Gmünd*	*Telephone: +49 7171 1006-25* *www.noro-ev.net*

Photonics cluster

Target field of cluster policy: Photonics

The regional photonics cluster with about 60 companies and more than 7000 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 as interim and end products in applications in production and measurement technology, in IT, electronics, biotechnology and life sciences.

CLI: Photonic Valley Ostwürttemberg

Photonic Valley Ostwürttemberg was initiated by Wirtschaftsförderungsgesellschaft mbH Region Ostwürttemberg (WiRO), as an impulse for 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 *Universitätspark 1* *73525 Schwäbisch Gmünd*	*Telephone: +49 7171 92753-21* *www.photonic-valley.de*

The state-wide network Photonics BW e. V., a competence network for optical technologies in Baden-Württemberg, is located in Oberkochen (see chapter 13: State-wide and cross-regional networks).

Chipping/metal working/founding cluster

Target field 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 future initiative 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 centre for optical technologies (Zentrum für Optische Technologien, ZOT), founding technology research centre (Gießerei Technologie Aalen – GTA)", institue of applied research (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.
Hochschule für Gestaltung Schwäbisch Gmünd	**University of Applied Sciences for Design** Education of communication, interaction and product designers.

Institution	Fields of activity
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.
Research and transfer institutions	**Forschungsinstitut Edelmetalle & Metallchemie (fem)** Research Institute for precious metals and metal chemistry 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 2,137 square kilometres, the region of Mittlerer Oberrhein is the smallest of the twelve regions of Baden-Württemberg areawise and 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[14]:

- Production sector: 33.9 % (State: 38.6 %)
- Services sector: 65.8 % (State: 61.0 %)
  - Trade: 13.6 % (State: 14.1 %)
  - Corporate service providers: 13.0 % (State: 10.5 %)
  - Transport: 4.2 % (State: 3.8 %)

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 is based on its outstanding research infrastructure, in particular institutions like the Karlsruhe Institute of Technology (KIT).

The dynamic index for innovations is slightly above average.

- Total index: 32.1 % (State: 35.5 %)
- Level index: 30.0 % (State: 35.1 %)
- Dynamic index: 38.3 % (State: 36.4 %)

14 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

The region's clusters and cluster initiatives

Automotive cluster

Target field 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 Karlsruhe Institute of Technology (KIT), the Fraunhofer institute of chemical technology (ICT), which is internationally recognised as a competence centre in the field of airbag technology, the Fraunhofer institute of information and data processing (IITB) or the research centre of informatics (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 stake-holders 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.

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: 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. The 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
c/o Fraunhofer Institut Chemische Technologie

Prof. Dr. Frank Henning *Joseph-von-Fraunhoferstraße 7* *76327 Pfinztal*	*Telephone: +49 721 4640-420* *Fax: +49 721 4640-111* *www.ict.fraunhofer.de*

Information technology/enterprise software cluster

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

The ICT[15] 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 „Netzwerk des Projekts IT2Rhine", 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.

The high-tech entrepreneurs network was founded as a private-public partnership in 1997; it is the longest-standing and with more than 800 companies the largest network of the ICT sector in Baden-Württemberg. The network's goal is the linking of regional stakeholders, transfer of business among its members and initiation of internal cooperations.

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)

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)
c/o Secorvo Security Consulting GmbH

Anja Rastetter/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.

15 ICT = Information and Communication Technology

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: Top cluster – Software-Cluster „Softwareinnovationen für das digitale Unternehmen"

The Software Cluster intends to enable the transformation of companies that used ICT as a tool only to support their traditional processes, into fully digital companies where ICT is the decisive catalyst for product and process innovation. In an industrial and service society, economy and wealth will depend on how well companies manage their positioning as digital companies. Only the common efforts of the Software-Cluster can lay the decisive and necessary foundations in this regard.
The Karlsruhe Cyberforum network is a partner of the information technology/enterprise software cluster which is part of the cross-border cluster with the same name that won an award in the second round of the top cluster competition of the Federal Ministry of Education and Research in 2010.

Software-Cluster „Softwareinnovationen für das digitale Unternehmen"
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*

nm 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 the Karlsruhe research centre, this region has evolved as the state's key centre in this field. Development cooperations between research and corporations from Karlsruhe and the surrounding area and from the neighbouring Rhein-Neckar region provide the basis for an excellent cluster quality, in the national and international arena. Recently, the nanotechnology network from the Rhein-Neckar metropolitan region and Karlsruhe Nanoforum have merged and become „nanoValley.eu".

CLI: NanoMat

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 through 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.

NanoMat, c/o Karlsruher Institut für Technologie

Dr. Regine Hedderich *Campus Nord* *Postfach 3640* *76021 Karlsruhe*	*Telephone: +49 7247 82-2630* *Fax: +49 7247 82-6420* *www.nanomat.de*

CLI: nanoValley.eu

The main tasks of this cluster initiative established in the TechnologieRegion Karlsruhe and the Rhein-Neckar metropolitan region in September 2009 are the inclusion of small and medium-sized enterprises in the knowledge and technology transfer between industrial companies and research institutions, the identification of application-related knowledge resources in research institutions and their transfer to companies and the initiation of partnerships (transfer forums) between public and corporate research. In addition, it intends to promote the international positioning and representation of nanoValley.eu and support its application as a European Technology 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.

nanoValley.eu *c/o Karlsruher Institut für Technologie KIT*	
Institut für Nanotechnologie *Dr. Sven Dierig* *Campus Nord* *Hermann von Helmholtz Platz 1* *76344 Eggenstein-Leopoldshafen*	*Telephone: +49 7247 82-8493* *Fax: +49 7247 82-6368* *www.nanovalley.eu*

Environmental technology cluster

Target field 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

EnergieEffizienz-Netzwerk 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. Progress is monitored on an annual basis and scientifically proven.

EnergieEffizienz-Netzwerk Karlsruhe *c/o Stadt Karlsruhe (Umwelt- und Arbeitsschutz)*	
Norbert Hacker/Daniel Hogenmüller *Marktgrafenstraße 14* *76131 Karlsruhe*	*Telephone: +49 721 133-3104* *Fax: +49 721 133-3109* *www.karlsruhe.de/rathaus/buergerdienste/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 / 0721 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 competence network "Funktionelle Nanostrukturen" in Baden-Württemberg and the nuclear technology research and training network "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 Karlsruhe research centre and Karlsruhe university have been merged effective as of 1 October 2009 to become the Karlsruhe Institute of Technology. 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 Karlsruhe research centre 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 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 of economics and technology
Transfer-oriented research institutes	**Institutes of Fraunhofer Gesellschaft** • Fraunhofer-Institut für Chemische Technologie – Chemical Technology • Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung – Optronics, System Technologies and Image Evaluation • System- und Innovationsforschung – System and Innovation Research **Other institutions** • Forschungszentrum Informatik (FZI) – Informatics 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 square kilometres. 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[16]:

- Production sector: 29.0 % (State: 38.6 %)
- Services sector: 70.6 % (State: 61.0 %)
  - Trade: 14.2 % (State: 14.1 %)
  - Corporate service providers: 14.2 % (State: 10.5 %)
  - Transport: 4.0 % (State: 3.8 %)

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.

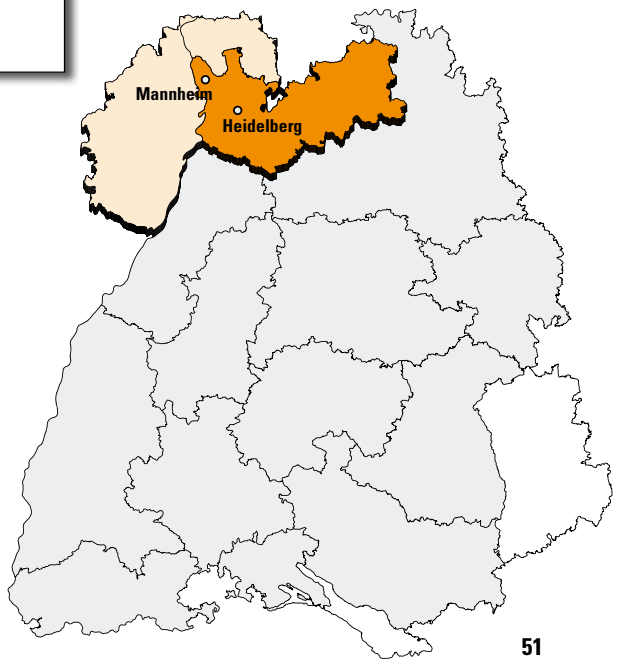
The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

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

Its innovation power ranks medium to top compared to other regions. The level reached and also the innovation dynamic are above average.

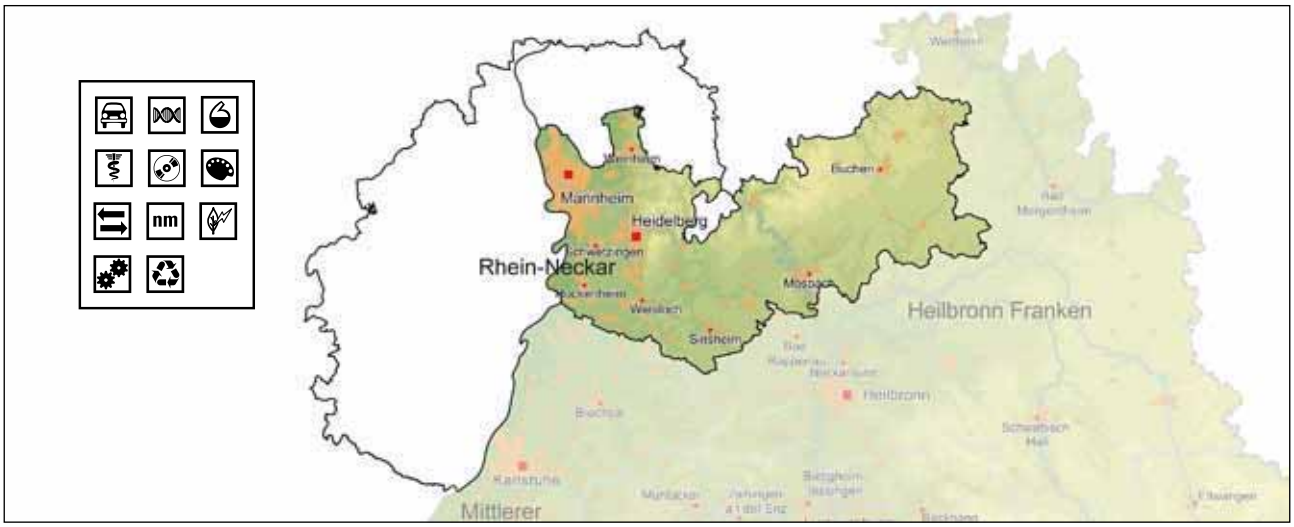
The region's innovation index is as follows:

- Total index: 36.2 % (State: 35.5 %)
- Level index: 35.8 % (State: 35.1 %)
- Dynamic index: 37.4 % (State: 36.4 %)



16 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

The region's clusters and cluster initiatives



Automotive cluster

Target field of cluster policy: Automotive

The cluster region hosts about 2700 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, rail cars, 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 supply enterprises 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 coordinator and moderator for the individual partners of the network.

Automotive-Cluster RheinMainNeckar,
c/o Industrie- und Handelskammer 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 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 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. Since June 2010, the cluster has been a member of BMW's initiative "competence networks in Germany". 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 field of cluster policy: Biotechnology

A nation-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: Top cluster – Biotechnologie-Cluster Rhein-Neckar (BioRN)

Goals of the BioRN cluster by 2013: Make 70 innovative medicinal products, diagnostic products and technology platforms and 20 new services ready for the industry, establish training facilities for managers for the biotech companies in the region, attract new companies and venture capital funds. By 2018, the BioRN cluster intends to create about 4000 new jobs and reach and maintain a leading position in Europe.

The cluster won the top cluster competition of the Federal Ministry of Education and Research in 2008.

BioRN Cluster – Der Biotechnologie Cluster Zellbasierte und Molekulare Medizin/Personalisierte Medizin in der Metropolregion Rhein-Neckar
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.de*

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 field 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 „Health regions of the future" of the Federal Ministry of Education and Research in May 2010.

CLI: MRN – Raum für Gesundheit GmbH

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 Rhein-Neckar metropolitan region, as an operative and neutral platform for the regional health initiatives.

MRN Raum für Gesundheit GmbH	
Andreas Fischer *Firmensitz: N7, 5-6* *68163 Mannheim*	*Telephone: +49 621 12987-33* *Fax: +49 621 12987-52* *www.m-r-n.com*

Information technology / enterprise software cluster

Target field 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: IT-Forum Rhein-Neckar e. V.

IT-Forum Rhein-Neckar e. V. is a network of companies and institutions of the media and IT industry in the Rhein-Neckar metropolitan region. IT-Forum's target of activities is to make the region a location with a sharp economic profile in the sector of media and IT services – for the benefit of all parties involved. The more than 80 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: Software-Cluster Rhein Main Neckar

The cluster initiative was formed through the merger of the two networks sw2.0 (enterprise software) and it4work, who have been active in this field for more than 15 years. This merger took place on 1 June 2009 following the granting of EC funds for a 3-year project that may be extended. Together, they intend to accelerate transfer of knowledge in the areas of research, development and qualification and to develop new cluster services and force international marketing.

Software-Cluster Rhein Main Neckar *c/o IHK Darmstadt Service GmbH*	
Jürgen Ackermann *Rheinstraße 89* *64295 Darmstadt*	*Telephone: +49 6151 871129* *Fax: +49 6151 871100129* *www.softwarecluster-rheinmainneckar.de*

Creative industries cluster

Target field 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 an 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 and internet video channelling, initiation of projects, cooperations, culture 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*

Logistics cluster

Target field 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.

Nanotechnology cluster

Target field 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 Karlsruhe institute of technology (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 environ-mental 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: Top 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 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 top 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 cluster Forum Organic Electronics won the first round of the top cluster competition of the Federal Ministry of Education and Research in 2008.

Spitzencluster Forum Organic Electronics
c/o InnovationLab GmbH

Bernhard Schweizer *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 field 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 this competence centre for modern production systems 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*

Environmental technology cluster

Target field 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 plants, 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: Cluster Energie & Umwelt

Increasing energy efficiency in the region, generating orders for the region and maintaining and creating jobs are the basic strategic goals of the energy and environment cluster "Energie & Umwelt Metropolre-

gion 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
c/o Metropolregion Rhein-Neckar GmbH

Bernd Kappenstein *N7, 5-6* *68161 Mannheim*	*Telephone: +49 621 6047-092* *Fax: +49 621 6047-077* *www.m-r-n.com*

CLI: Umweltkompetenzzentrum Rhein-Neckar e. V.
Located in the Rhein-Neckar metropolitan region, this network initiative founded in 2003 brings to-gether the stakeholders in the area of environmental and energy technology through events and project work and represents its competences through various marketing activities. UKOM is in charge of building corporate networks in the region. TP UmweltPark's head office is in Heidelberg.

Umweltkompetenzzentrum Rhein-Neckar e. V.

Stefan Zöllner *TP UmweltPark* *Wieblinger Weg 21* *69121 Heidelberg*	*Telephone: +49 6221 6505-875* *Fax: +49 6221 6506-895* *www.umweltkompetenz.org*

In addition, the Rhein-Neckar region hosts the office of the state-wide and cross-regional timber 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 spec-trum, 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

Institution	Fields of activity
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.
Fachhochschule Ludwigshafen (Rheinland-Pfalz)	**University of Applied Sciences** for business studies
Fachhochschule Worms (Rheinland-Pfalz)	**University of Applied Sciences** Economics, tourism and transport, computer science. Trans-fer through Zentrum für Technologietransfer und Telekom-munikation (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.
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

Nordschwarzwald

06

The region

The Nordschwarzwald region covers an area of approx. 2,339 square kilometres and has almost 600,000 inhabitants. The region encompasses the Enzkreis district, the regional centre of Pforzheim and the 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[17]:

- Production sector: 45.5 % (State: 38.6 %)
- Services sector: 54.2 % (State: 61.0 %)
  - Trade: 14.8 % (State: 14.1 %)
  - Corporate service providers: 6.5 % (State: 10.5 %)
  - Transport: 3.3 % (State: 3.8 %)

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 Pforz-heim being the centre of the German jewellery and clock industry represents its economic centre.

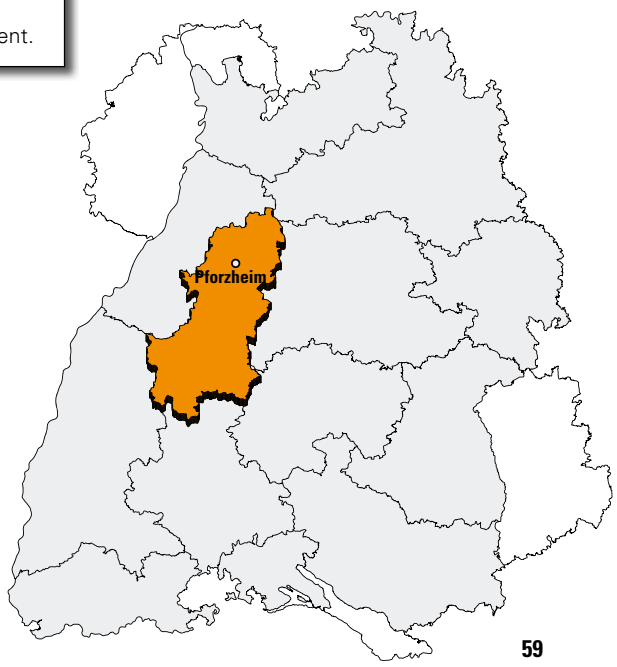
The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

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

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

The region's innovation index is as follows:

- Total index: 31.4 % (State: 35.5 %)
- Level index: 27.4 % (State: 35.1 %)
- Dynamic index: 43.4 % (State: 36.4 %)



17 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

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 fittings), surface processing and also the plastics cluster.

Health industry cluster

Target field 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 and allows the execution of 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: Cluster Gesundheit/Vital

In the context of the regional development programme LEADER+, the Nordschwarzwald chamber of commerce and industry (CCI) 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 Nordschwarzwald CCI offers special qualification programmes for employees and service providers in the health sector and links the more than 500 CCI member companies in the region with many other health institutions and supports the development of the health infrastructure together with regional partners.

Cluster Gesundheit/Vital
c/o Industrie-und Handelskammer Nordschwarzwald

Elke Schönborn *Marie-Curie-Str. 2* *72250 Freudenstadt*	*Telephone: +49 7441 860520* *Fax: +49 7441 86052-10* *www.nordschwarzwald.ihk24.de*

Creative industries cluster

Target field 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, encompasses design (jewellery design, industrial design, interior design), precious metal working, manufacture of jewellery, clocks and watches and precious metal recycling (refining).

CLI: Cluster für die Kreativwirtschaft

Almost 1500 companies from the region can be assigned to the creative industry who are supported by the cluster initiative founded in 2009. Goals of this cluster initiative are stronger networks between individual companies and institutions in Pforzheim and the region, 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).

Cluster für die Kreativwirtschaft, Wirtschaft und Stadtmarketing Pforzheim

Mirko Schwerdtfeger *Marktplatz 4* *75175 Pforzheim*	*Telephone: +49 7231 39-3730* *Fax: +49 7231 39-2595* *www.ws-pforzheim.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 INNONET Kunststoff entrepreneurs network links companies operating in the area of plastics technology and offers them a cooperation platform. Especially the area of plastics punching creates real innovations. This cross-industry network works towards finding new solutions together and for this coordinates many activities (workshops, shared stands at trade fairs, etc.). The network is a joint initiative of Technologiezentrum Horb and Wirtschaftsförderung Nordschwarzwald GmbH.

INNONET Kunststoff
Technologiezentrum Horb GmbH & Co. KG

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

Medical engineering cluster

Target field 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.

CLI: HOCHFORM – Dental- & Medizintechnik

This cross-regional cluster initiative links about 50 local stakeholders from the dental and medical industry operating mainly in the fields of medical device production, analytical systems for clinical diagnosis and in the areas of endoscopy, implantology, orthodontics and dental technology.

HOCHFORM – Dental- & Medizintechnik
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*

Metal processing cluster

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

The value adding chain is almost fully represented in the region, including all upstream and down-stream supply sectors: Material, machining and stamping, mechanical engineering and presses, tooling, refinement, quality assurance, organisation, process optimisation and worldwide logistics.

CLI: HOCHFORM – Metallverarbeitung

Approximately 250 companies from the metal working and precision technology industries are supported through various networking measures for gaining a competitive advantage. An important tool here is 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.

HOCHFORM – Metallverarbeitung
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 engineering, technical informatics, mechanical engineering, mechatronics, industrial engineering, endowed professorship for stamping technology. Business study programmes: Purchasing and logistics, international business, international marketing, advertising, tax and auditing, controlling, finances and accounting, business informatics. Study programmes in design: Industrial design, fashion, jewellery and everyday objects, visual communication, transportation design. Transfer through Schmucktechnologisches Institut, Erni-Bühler Foundation – institute of jewellery technology – 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.

Institution	Fields of activity
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 Environ-mental Academy Qualification and higher education in the field of industrial environmental protection (study programmes in environmental management, environmental specialist, waste management, water protection, immission control, 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** – CCI Tourism Academy 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 square kilometres and is part of the European Upper Rhine area. Approximately 1,044,700 people live in this region. 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[18]:

- Production sector: 34.3 % (State: 38.6 %)
- Services sector in total: 65.2 % (State: 61.0 %)
  - Trade: 15.7 % (State: 14.1 %)
  - Corporate service providers: 8.5 % (State: 10.5 %)
  - Transport: 4.0 % (State: 3.8 %)

The regional economy is characterised by a well-balanced variety of industries and small and medium-sized enterprises. Due to its vicinity to France, the regional cluster structure partly reaches beyond the state borders. In addition, a large number of regional and cross-border structural policy projects exist.

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;
- 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: 20.2 % (State: 35.5 %)
- Level index: 16.6 % (State: 35.1 %)
- Dynamic index: 31.0 % (State: 36.4 %)

18 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

The region's clusters and cluster initiatives

Biotechnology cluster

Target field 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*	*Tel.: 0761 3881-833* *Fax: +49 761 2020-474* *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.

Holzkette Schwarzwald e. V. meaning Black Forest timber association 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.

Anette Pfaff *Glottertalstraße 20* *79274 St. Märgen*	*Telephone: +49 7669 9399-801* *Fax: +49 7669 9211-26* *www.holzkette.de*

Health industry cluster

Target field 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.

Information technology/enterprise software cluster

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

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

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.

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 Southern Upper Rhine region 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*

Microsystem technology cluster

Target field 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 (Institute of Mikrosystem Technology). 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 science applications and measurement and control technology.

CLI: Forum Angewandte Mikrosystemtechnik (FAM)

This forum evolved in 2000 and is associated with the Institute of Microsystem Technology (IMTEK); it is an initiative mainly targeting companies from the measuring and control industry. The forum's main intentions are promoting the work of IMTEK, expanding R&D activities and speeding up technology transfer from science to industry and also recruitment of talent.

Forum Angewandte Mikrosystemtechnik (FAM)

Dieter Schaudel *Georges-Köhler-Allee 103* *79110 Freiburg*	*Telephone: +49 761 203-7455* *Fax: +49 761 203-7442* *www.imtek.de/fam*

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 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 897598-75* *Fax: +49 761 897598-78* *www.mstbw.de*

CLI: Top cluster – MicroTEC Südwest

MicroTEC Südwest is located in one of the strongest economic and science regions in Europe - where Germany, France and Switzerland meet. About one out of seven patents in the field of microsystem technology is registered by a person or company involved in MicroTEC Südwest. This is where you can see the greatest concentration of top research in microsystem technology.

MicroTEC Südwest won the top cluster competition of the Federal Ministry of Education and Research in 2010.

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

Peter Josef Jeuk *Emmy-Noether-Straße 2* *79110 Freiburg*	*Telephone: +49 761 897598-75* *Fax: +49 761 897598-78* *www.mstbw.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 field 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 development and design methodology to staff qualification, training and quality assurance.

Environmental technology cluster

Target field 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: Regional Cluster Freiburg Green City – Umwelt- und Solarwirtschaft

This network initiated in 2009 is to intensify networking among the regional participants, companies and institutions in the fields of solar and renewable energies, energy efficiency, sustainable planning and construction, mobility and environmental technology, it is to promote knowledge and technology transfer and to boost popularity of the solar and environmental region of Freiburg and the cluster members through furthering the Green City brand.

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).

Regional Cluster Freiburg Green City – Umwelt- und Solarwirtschaft
c/o FWTM GmbH & Co. KG

Uwe Ladenburger *Rathausgasse 33* *79098 Freiburg*	*Telephone: +49 761 3881-879* *Fax: +49 761 37003* *www.greencity-cluster.de*

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*

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, intelligent embedded microsystems, medicine, molecular medicine, microsystems engineering, pharmacy, physics, environmental sciences, forestry, forestry and environmental sciences, dental medicine and European 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 institute of applied research and five companies from 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 the forestry and timber industry, in particular for forest management. **Other institutions** • 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 • Max-Planck-Institut für Immunbiologie – Immunobiology

Schwarzwald-Baar-Heuberg

08

The region

The Schwarzwald-Baar-Heuberg region encompasses a territory of 2,529 square kilometres 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 in location marketing 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[19]:

- Production sector: 53.3 % (State: 38.6 %)
- Services sector in total: 46.5 % (State: 61.0 %)
  - Trade: 12.2 % (State: 14.1 %)
  - Corporate service providers: 6.1 % (State: 10.5 %)
  - Transport: 3.2 % (State: 3.8 %)

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 with production of metal products and mechanical engineering;
- Production of electrical equipment; and
- Production of data processing equipment 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: 30.4 % (State: 35.5 %)
- Level index: 31.3 % (State: 35.1 %)
- Dynamic index: 27.6 % (State: 36.4 %)

19 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

The region's clusters and cluster initiatives

Automotive cluster

Target field of cluster policy: Automotive

The Schwarzwald-Baar-Heuberg region is home to about 1000 enterprises belonging to the automotive innovation cluster. A specialty 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: Auto-mobil

Alternative drive technologies must be made marketable as soon as possible to create a „lead market for clean mobility". With this in mind, the network „Auto der Zukunft – Car of the future" was created which is to bundle competences as a regional supplier network so that these suppliers will master the crisis much better. Its first practical network project is the pressure-wave engine project. This cooperation project will link enterprises so that they can develop in common new solutions for preventing emissions and an economic and efficient motor.

Auto-mobil, c/o IMDAHL Strategie + Kommunikation

Angela Imdahl *Hochturmgasse 17* *78628 Rottweil*	*Telephone: +49 741 1755534* *www.auto-der-zukunft.de*

CLI: GVD Gemeinnützige Vereinigung der Drehteilehersteller e. V.

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.	
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.

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 light weight construction Kompetenzzentrum Leichtbau, 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.	
c/o 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.

Target fields of cluster policy: Automotive, information technology/enterprise software and media, culture and creative industries

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/microsystems technology

Target fields of cluster policy: Health industry, medical engineering, microsystems 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 3000 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 microsystems 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 field 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 1000 health service providers and about 1000 tourism locations, hotels and restaurants belong to this regional cluster and complement the health industry 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: Gesundheitsnetzwerk Schwarzwald-Baar

The Gesundheitsnetzwerk 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
Geschäftsstelle im Landratsamt Schwarzwald-Baar-Kreis
- Gesundheitsamt -

Michaela Schmidt *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 supply 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 field 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 microsystem engineering skills are required. Added to this is the need for specific IT and software expertise. Alongside human medicine, this cluster now also includes 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 locations in Tübingen and Tuttlingen (Neuhausen ob Eck) and has more than 70 members, of which 70% are enterprises.

Kompetenzzentrum Minimal Invasive Medizin + Technik Tübingen – Tuttlingen (MITT) e. V.	
Dr. Theophil Rieger *Gewerbepark Take-off 3* *78579 Neuhausen ob Eck*	*Telephone: +49 7467 910-785* *www.mittev.de*

CLI: MedicalMountains

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 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 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.

MedicalMountains	
Egon Warfia *Romäusring 4* *78050 Villingen-Schwenningen*	*Telephone: +49 7721 922-181* *Fax: +49 7721 922-182* *www.medicalmountains.de*

Measurement and control cluster

Target fields of cluster policy: Microsystems 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 particularly 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 microsystems 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 record mediums, video production, musical instrument trade, music events and radio broadcasting.

Production technology cluster

Target field 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 5000 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, InnovationsAgentur 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.
c/o 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

Innovations are an opportunity for the employment market and may be start 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 improving the regional innovation climate but also attracts experts and cooperation potential to the region.

INNOVATIONSNETZWERK Gewinnerregion

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 of applied research and by twelve companies of the Steinbeis organisation.
Staatliche Musikhochschule Trossingen	**University institute of Music** An internationally recognised university institute whose origins lie in the cluster of manufacturers of musical instruments of different kind.

Institution	Fields of activity
International Business School Tuttlingen	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.

Hochrhein-Bodensee

09

The region

The Hochrhein-Bodensee region with the districts of Lörrach, Waldshut and Constance spans a territory of approx. 2,756 square kilometres 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. 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[20]:

- Production sector: 39.0 % (State: 38.6 %)
- Services sector: 60.4 % (State: 61.0 %)
  - Trade: 15.7 % (State: 14.1 %)
  - Corporate service providers: 7.7 % (State: 10.5 %)
  - Transport: 3.8 % (State: 3.8 %)

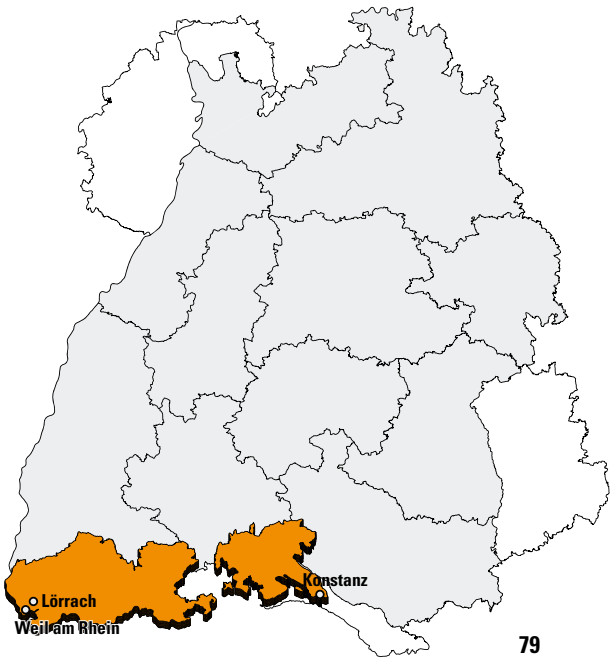
The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

- Metal industry with mechanical engineering, metal production and metal working and production of metal goods; and
- Food industry including production of food and animal feed.

Compared to other regions, innovation power of the Hochrhein-Bodensee region ranks in the lower middle. Nevertheless, an innovation dynamic slightly above average has developed in the region.

The region's innovation index is as follows:

- Total index: 29.3 % (State: 35.5 %)
- Level index: 26.0 % (State: 35.1 %)
- Dynamic index: 39.0 % (State: 36.4 %)



20 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

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 already over 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 field 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

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
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 field 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 pharma 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.

BioLAGO e. V. is a cross-border network for life sciences and biotechnology around Lake Constance. As a platform, the organisation brings together more than 70 companies and research institutions located in the German, Swiss and Austrian Lake Constance area, operating in the key areas of medicine / medical engineering, pharmaceuticals, diagnostic, chemical industry, environmental engineering and food industry. Goals of this cluster initiative are the transfer between science, business and politics, establishment of an innovative, financially strong branch of industry within the regional economy, based on modern biosciences, in the three countries around Lake Constance, and positioning well the region's life science industry on an international scale for future competitiveness of the region. BioLAGO e. V. is part of Clusterinitiative Bodensee[21].

BioLAGO e. V.

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 field 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 microsystem technologies are being applied in the companies operating in this sector.

21 Note: Contact for Clusterinitiative Bodensee (Lake Constance cluster initiative): Thorsten Leupold (see contact for packaging technology cluster for the Hochrhein-Bodensee region).

CLI: metrologienet

The initiative's spatial cluster radius is targeted at the tri-national region. Its goal is to link the companies and research institutions in this region for higher regional value adding.

metrologienet
c/o Wirtschaftsregion Südwest GmbH

Dr. Alexander Graf
Marie-Curie-Str. 8
79539 Lörrach

Telephone: +49 7621 5500 150
Fax: +49 7621 5500 155
www.wsw.eu

Nanotechnology cluster

Target field 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 Euregion Bodensee) in the subject areas of physics, chemistry, material science and process technology become the nucleus of cross-border transfer from basic 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 Zentrum für angewandte Photonik (CAP), the chambers of commerce and industry's Industriearbeitskreis Nano, and the Verein für Mikro- und Nanotechnologie (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 craftsmen (for example, conference „Craft meets Nano") transfer the research activities. Nano-Zentrum Euregio Bodensee is part of Clusterinitiative Bodensee.

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 field of cluster policy: Satellite navigation

The European satellite system Galileo is planned to start operation 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 „Anwendungsbezogene Satellitennavigation und mobile IT" includes outstanding companies leading the global markets and renowned research institutions.

The main office of the state-wide active network „Forum für anwendungsbezogene Satellitennavigation und mobile IT Baden-Württemberg e. V." is located in Constance. The companies and research institutions are greatly involved in the innovation activities of state-wide networks (see chapter 13: State-wide and cross-regional networks.

Environmental technology cluster

Target field 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

Netzwerk Umwelttechnologie 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, the network is to boost regional value adding and employment. Netzwerk Umwelttechnologie is part of Clusterinitiative Bodensee.

Netzwerk Umwelttechnologie Bodensee
Bodensee Standort Marketing GmbH (BSM)

Barbara Giehmann *Benediktinerplatz 1* *78467 Konstanz*	*Telephone: +49 7531 800-1145* *Fax: +49 7531 800-1146* *www.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 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), 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 / Nordschweiz

It is an international network (Germany and Switzerland) aiming towards strengthening companies in this sector of economy and the relevant employment market in the Western part of the Lake Constance region. 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 established for strengthening innovation capability. Cluster Verpackungstechnologie Bodensee / Nordschweiz is part of Clusterinitiative Bodensee.

Cluster Verpackungstechnologie Bodensee / Nordschweiz
c/o Bodensee Standort Marketing GmbH

Thorsten Leupold *Benediktinerplatz 1* *78467 Konstanz*	*Telephone: +49 7531 800-1140* *Fax: +49 7531 800-1146* *www.bodenseeland.info*

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** 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 business 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 für Kurzzeitdynamik (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 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 square kilometres; it is home to about 670,000 inhabitants. The region includes the districts of Reutlingen, Tübingen and Zollernablkreis. 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: 41.4 % (State: 38.6 %)
- Services sector: 58.2 % (State: 61.0 %)
  - Trade: 14.8 % (State: 14.1 %)
  - Corporate service providers: 6.6 % (State: 10.5 %)
  - Transport: 3.1 % (State: 3.8 %)

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

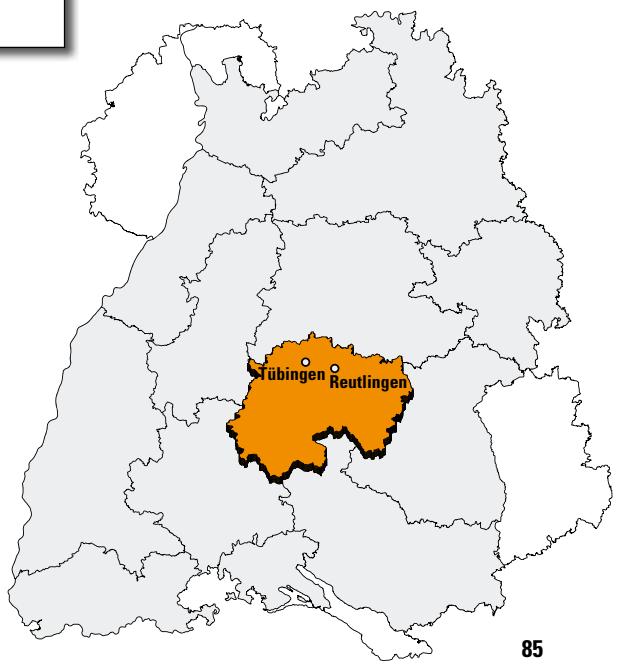
- Metal industry with mechanical engineering and production of metal products and
- Textile sector inlcuding garment production.

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:

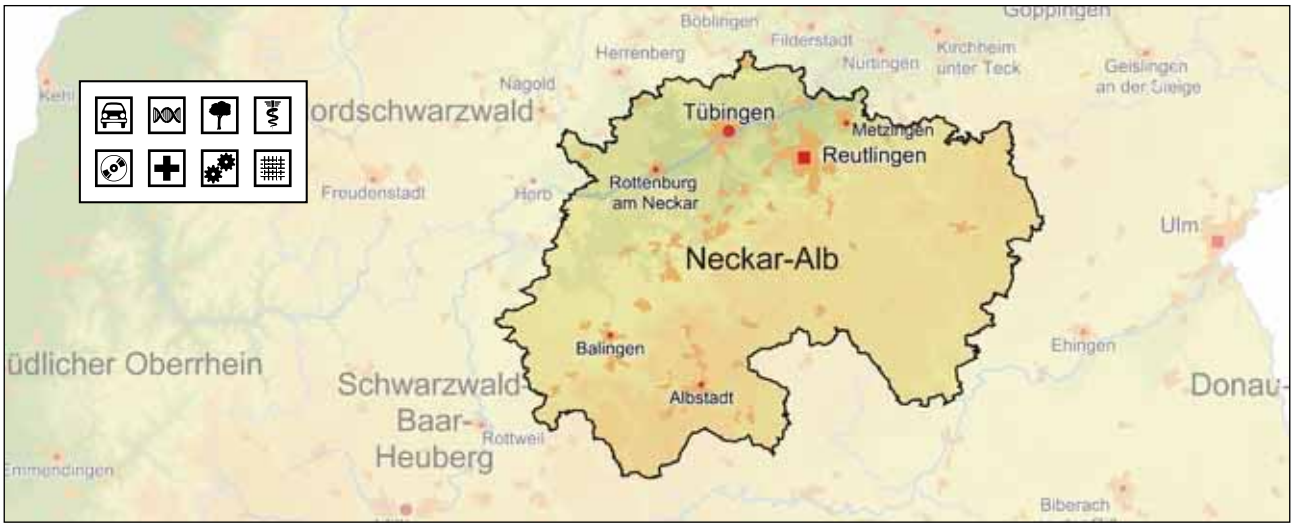
- Total index: 31.2 % (State: 35.5 %)
- Level index: 28.0 % (State: 35.1 %)
- Dynamic index: 40.7 % (State: 36.4 %)

In addition, the Neckar-Alb region is closely linked to the Stuttgart region. 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. 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. Five universities provide for an intense transfer of knowledge. Its highly diversified economic structure contributes to the clusters' networking activities beyond regional borders.



22 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

The region's clusters and cluster initiatives



Automotive cluster

Target field 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

IHK-Netzwerk Automotive 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 40 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
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 field 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, by some companies who have been involved in the Experimental-OP project since 2006. Since then, the cluster initiative has grown constantly. It is the group's goal to realise customised and certified health care facilities world-wide and to provide for appropriate qualification of the future staff in parallel. Experimental-OP is the common platform for matching products and services and for training personnel; it also serves as a known „lighthouse" internationally.

Cluster Innovative Hospital
c/o wwH-c GmbH

Dr. Ulrich Matern *Ernst-Simon-Str. 16* *72072 Tübingen*	*Tel: 07071 97732-12* *Fax: +49 7071 97732-29* *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"

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"

More than 1000 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"
Arbeitskreis „Holz als Werkstoff"
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 field 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 even today. 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

This 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
c/o IHK Reutlingen

Lars Christiansen *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 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
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 field 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 locally evolved competence in the field of precision mechanics.

CLI: 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, it resulted in the competence network Medical Valley Hechingen. The network includes 34 companies from the medical engineering industry, suppliers and service providers, Tübingen university, the NMI (Institute of science and medicine at Tübingen university) and BioRegio STERN Management GmbH.

Medical Valley Hechingen Akademie e. V., Stadt Hechingen
Wirtschaftsförderung und Koordination des Kompetenznetzwerks Medical Valley Hechingen

Marktplatz 2 *72379 Hechingen*	*Telephone: +49 7471 940-127* *Fax: +49 7471 940-160* *www.medical-vally-hechingen.de*

CLI: Medizintechnik 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.

Medizintechnik Neckar-Alb
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 field 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: Produktions- und Automatisierungstechnik 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 new corporate-research-based projects.

Produktions- und Automatisierungstechnik Neckar-Alb
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 and 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: Textilcluster Neckar-Alb

The roughly 220 enterprises settling in this region mainly operate in the fields of textile and clothing, knitted fabric production, technical textiles, textile machine engineering, and production of chemical aids and needles. The initiative was founded for strengthening and globalising the Neckar-Alb location.

Textilcluster Neckar-Alb, c/o IHK Reutlingen

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

Cluster-relevant universities, research and transfer institutions

Institution	Fields of activity
Tübingen University	**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.

Institution	Fields of activity
Hochschule Reutlingen	**University of Applied Sciences** Computer science, production management, international business administration, applied chemistry, technology, textile and design. Transfer through two institutes of 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 institute of applied research (IAF).
University of Applied Forest Sciences 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 Network.
Research and transfer institutions	**Naturwissenschaftliches und Medizinisches Institut (NMI) at the university of Tübingen in Reutlingen – Natural Science and Medecine** The NMI conducts industry-related contract research and development where bioscience and material science meet. **Lederinstitut Gerberschule Reutlingen e. V. – Leather** Lederinstitut Gerberschule Reutlingen is the only institute of leather technology in Germany. **Other institutions:** • Max-Planck-Institut für Biologie - Biology • Max-Planck-Institut für biologische Kybernetik – Biological Cybernetics • Friedrich-Miescher-Laboratorium for biological workgroups at Max-Planck-Gesellschaft • In addition, there are the German institutes of textile and fibre research (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 square kilometres. 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 is more production-based. Therefore, its share of the entire services sector, also of corporate services, is below state average.

In detail[23]:

- Production sector: 43.2 % (State: 38.6 %)
- Services sector: 56.4 % (State: 61.0 %)
  - Trade: 14.1 % (State: 14.1 %)
  - Corporate service providers: 8.7 % (State: 10.5 %)
  - Transport: 4.4 % (State: 3.8 %)

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.

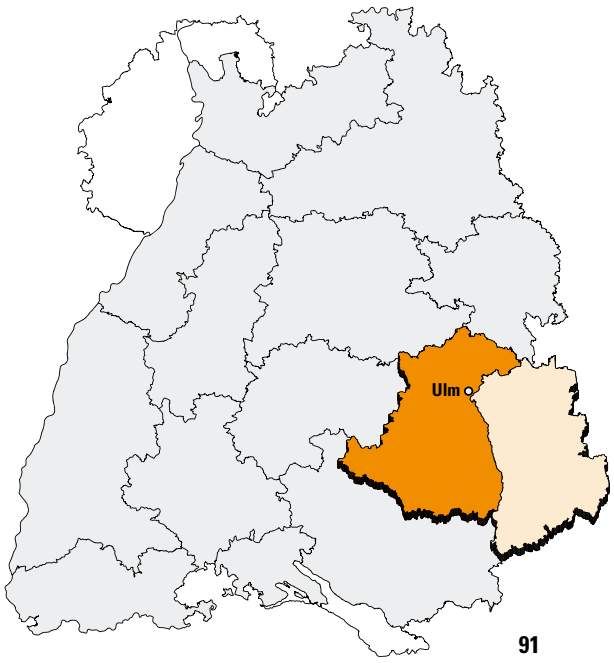
The most important industries (by number of employees subject to social insurance contributions, without trade, construction and public sector) include:

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

Its innovation power ranks top compared to other regions. This is due to the above-average innovation level and the above-average dynamic in innovation activities.

The innovation index is as follows:

- Total index: 39.6 % (State: 35.5 %)
- Level index: 37.9 % (State: 35.1 %)
- Dynamic index: 44.7 % (State: 36.4 %)



23 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

The region's clusters and cluster initiatives

Automotive cluster

Target field 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 parts of the related commercial vehicle production value-adding chain are represented in this region: From Tier 1-3[24] commercial vehicle manufacturers to the relevant engineering service providers. Alongside the unique concentration of six OEMs[25] covering the various partial segments of the commercial vehicle industry, the regional universities with their special automotive competence centres are also worth mentioning.

CLI: Nutzfahrzeuge Schwaben (CNS) e. V.

The cluster initiative Nutzfahrzeuge Schwaben (CNS) e. V. comprises a total of 36 member companies and six 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 noticable competitive advantage.

Nutzfahrzeuge Schwaben (CNS) e. V.

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

Biotechnology cluster

Target field 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

24 Tier = category. In the automotive industry, direct suppliers of car manufacturers are categorised as Tier 1 suppliers. Tier 2 suppliers supply Tier 1 suppliers and so on.
25 OEM = Original Equipment Manufacturer

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.

Maike Rochon *Olgastraße 97-101* *89073 Ulm*	*Telephone: +49 731 173-224* *Fax: +49 731 173-5224* *www.biopharmaxx.de*

Health industry cluster

Target field 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 field 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[26] 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 is is also characterised by a strong dynamic. In the form of the Ulm Logistics Day, a central platform has already been created for the exchange of knowledge.

Production technology cluster

Target field 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.

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

CLI: Netzwerk in der Maschinenbaubranche

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
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, dental medicine 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 Technolgy 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 square kilometres 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[27]:

- Production sector: 43.6 % (State: 38.6 %)
- Services sector: 55.6 % (State: 61.1 %)
  - Trade: 13.2 % (State: 14.1 %)
  - Corporate service providers: 7.0 % (State: 10.5 %)
  - Transport: 3.2 % (State: 3.8 %)

A strong industrial centre is located in the area along the Schussental, in the urban agglomeration of Friedrichshafen, Ravensburg and Weingarten. The rural areas of the region are also home to a number of significant industrial enterprises. 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; and
- Production of electrical equipment

Its innovation power ranks in the upper middle compared to other regions. This is mainly due to the innovation level the region has reached so far.

The innovation index is as follows:

- Total index: 35.5 % (State: 35.5 %)
- Level index: 35.2 % (State: 35.1 %)
- Dynamic index: 36.2 % (State: 36.4 %)

27 Note: Percentage of employees subject to social insurance contributions of all employees subject to social insurance contributions in 2009.

The region's clusters and cluster initiatives

Automotive cluster

Target field 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 which are integrated into the networks operating on a state level: automotive-bw 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 as well as the geographical concentration justify the definition of a separate cluster in this field.

Health industry cluster

Target field 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 field 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 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

Wirtschaftsförderung Bodenseekreis currently plans the development of a regional cluster initiative with focus on the aerospace industry, with the name „bodenseeairea". This cluster initiative intends to link research institutions, universities and the many enterprises more closely to better utilise the great innovention potential of the individual stakeholders.

bodenseeairea
c/o Wirtschaftsförderung Bodenseekreis GmbH

Heiligenbreite 34
88662 Überlingen

Telephone: +49 7551 947 19-37
Fax: +49 7551 947 19-39
www.bodensee-airea.de

Production technology cluster

Target field 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.

This is a network for production technology that was initiated by the Bodensee-Oberschwaben chamber of commerce and industry in 2001 targeting the common handling of jobs in the area of engineering and production, as system suppliers. Up to this day, the network consists of eleven partner enterprises with 600 employees altogether.

Virtuelle Fabrik Baden-Württemberg e. V.
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	**Private 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, and information technology), media and communication design, business informatics, aerospace technology.
Research and transfer institutions, Isny	**Naturwissenschaftlich-Technische Akademie (NTA) Prof. Dr. Grübler gGmbH – Staatlich anerkannte Fachhochschule und Berufskolleg** Studiengänge Pharmazeutische Chemie, Physikalische Elektronik, Physik-Ingenieurwesen und die Schwerpunktfächer Molekulare Biotechnologie, Lebensmittelchemie sowie Nano- und Lasertechnologie.

State-wide and cross-regional networks

13

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.

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

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 of Economics 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*

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 BW 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 bodies 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*

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 Ministry of 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 agency e-mobil BW GmbH.

autoland-bw
c/o Wirtschaftsministerium Baden-Württemberg

Dr. Markus Decker *Theodor-Heuss-Straße 4* *70174 Stuttgart*	*Telephone: +49 711 123-2430* *Fax: +49 711 123-2145* *www.autoland-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 Baden-Württemberg. With its workgroups bwcon: ITK network, bwcon: Kreativ and bwcon: Health Care, bwcon provides a unique basis for cross-industry utilisation of technology and interdisciplinary cooperation in Baden-Württemberg. With bwcon: Network for Business Excellence and its renowned Hightech Award CyberOne and the comprehensive consulting and coaching programme Coach&Connect plus+, the network promotes young and growing enterprises.

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

Bernd Hertl *Breitscheidstraße 4* *70174 Stuttgart*	*Telephone: +49 711 90715-503* *Fax: +49 711 90715-550* *www.bwcon.de*

BIOPRO Baden-Württemberg GmbH

Since 2003, BIOPRO Baden-Württemberg GmbH, as an innovation society operating state-wide, 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.
BIOPRO Baden-Württemberg GmbH's responsibility as a central contact point is to demonstrate the strengths of the leading biotechnolgy location in the national and international arena and to develop the location for the future. Specifically designed promotional measures help secure jobs and know-how in the state and transfer innovative research to the industry.

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)

Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW) was founded in 2007, by merging the former competence centre for fuel cell technology and the Baden-Württemberg research alliance; currently, it represents the interests of 70 members from industrial enterprises, research institutions and administration. Its purpose is the promotion of developments 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.

Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW)

Sabine Sadjak *Pfaffenwaldring 10* *70569 Stuttgart*	*Telephone: +49 711 685-63334* *Fax: +49 711 685-63559* *www.bba-bw.de*

Cluster Forst und Holz Baden-Württemberg

The **forest 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 "Forst und Holz Baden-Württemberg", networking and cooperation between companies and of companies with research institutions is to be supported, to increase the industry's competitiveness.

Cluster Forst und Holz Baden-Württemberg

Uwe Andrè Kohler *Hackländerstraße 43* *70184 Stuttgart*	*Telephone: +49 711 23996-64* *Fax: +49 711 23996-60* *www.cluster-forstholz-bw.de*

e-mobil BW

Consequent interdisciplinary networking between vehicle development, energy technologies and new ITC applications in the cluster drive innovations along the entire electro-mobile process chain and especially SMEs are strongly involved. Goal of this cluster initiative is to develop, produce and implement the most attractive solutions for electro-mobilty in Baden-Württemberg, making Germany the leading country here.

e-mobil BW
c/o e-mobil BW GmbH

Franz Loogen *Leuschnerstraße 45* *70176 Stuttgart*	*Telephone: +49 711 892386-0* *Fax: +49 711 892386-49* *www.e-mobilbw.de*

Forum Luft- und Raumfahrt Baden-Württemberg e. V.

Forum Luft- und Raumfahrt Baden-Württemberg e. V. (LR BW) and its members represent the link between industry, science and political decision-makers and all other relevant groups in society. **Aerospace** forum LR BW's goals are to bundle the industry's activities, develop technology further in cooperations between companies, service providers, institutions and science and translate them into innovative projects.

Forum Luft- und Raumfahrt Baden-Württemberg e. V.
c/o LVI Beratungs- und Service GmbH

Wolfgang Wolf *Gerhard-Koch-Straße 2-4* *73760 Ostfildern*	*Telephone: +49 711 327325-33* *Fax: +49 711 327325-69* *www.lrbw.de*

Forum für anwendungsbezogene Satellitennavigation und mobile IT Baden-Württemberg e. V. (Forum SatNav MIT BW e. V.)

End of 2008, the association Forum SatNav MIT BW e. V. evolved from the SatNav initiative of the Baden-Württemberg Ministry of Economics. Its goal is to establish topics of **satellite navigation and mobile IT** in technology-driven Baden-Württemberg and to make it available to a wider range of corporate and science organisations. About 30 members from industry (large corporations and SMEs), science and research and also regional business promoting organisations have joined forces. Supporting SMEs with infrastructure projects and through business promoters is a declared priority of this association. It contributes to bundling and linking its members to realise innovative applications, services and products. In addition, it represents the interests of its members towards the state and federal government and internationally.

Forum für anwendungsbezogene Satellitennavigation und mobile IT Baden-Württemberg e. V. (Forum SatNav MIT BW)

Stefan Hellfeld *Untere Laube 24* *78462 Konstanz*	*Telephone: +49 721 9654 644* *www.galileo-bw.de*

Intralogistik Netzwerk BW e. V.

This state-wide intra-logistic network intends to position on a global scale and expand the intra-logistics location Baden-Württemberg. Through its members, the network represents about 60,000 employees and 2,000 trainees and sales of about Euro 8 billions, of which 7% are invested in research and development on average. All levels of the intra-logistic value adding and innovation chain are represented within the network.
Goals of the network are the promotion of innovations, exchange of industry-specific experiences, and driving training and development.

Intralogistik-Netzwerk in Baden-Württemberg e. V.

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

Kompetenznetz Biomimetik

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. Biomimetic (bionics) involves research and systematic translation of design principles and problem solving strategies in nature into technical applications.

Kompetenznetz Biomimetik
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

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
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*

Kompetenznetzwerk Mechatronik 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 Mechatronik 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*

Kraftwerke für das 21. Jahrhundert (KW 21)

This network of **„power stations for 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 für das 21. Jahrhundert (KW 21)
c/o DLR Stuttgart

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

MFG Baden-Württemberg mbH – State innovation agency for IT and media

As an innovation agency for IT and media, MFG Baden-Württemberg mbH has strengthened Baden Württemberg's position as an IT, media and creative location since 1995. It links the creative industry and ITC sector with the technology sectors in Baden-Württemberg and with 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 Baden-Württemberg mbH – Innovationsagentur des Landes für IT und Medien

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 897598-75* *Fax: +49 761 897598-78* *www.mstbw.de*

Netzwerk Holzindustrie Baden-Württemberg e. V.

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 Economics of Baden-Württemberg.

Netzwerk Holzindustrie Baden-Württemberg e. V.
c/o Duale Hochschule Baden-Württemberg Mosbach

Prof. Dr. Simon Möhringer / Prof. Dr. Klaus Pfuhl *Lohrtalweg 10* *74821 Mosbach*	*Telephone: +49 6261 939-474* *Fax: +49 6261 939-544* *www.netzwerk-holzindustrie.de*

Photonics BW e. V.

In July 2000, under the motto of "Strengthen your strengths" the non-profit organisation Photonics BW e. V. was founded for promoting optical technologies in Baden-Württemberg. In the following years, from 2001 to 2009, and with the support of the Federal Ministry of Education and Research, Photonics BW has become the competence network for optical technologies in Baden-Württemberg. Today, Photonics BW has 55 members from industry, SMEs, start-ups, research as well as banks and consultancies.

Photonics BW e. V. – Kompetenznetz für Optische Technologien in Baden-Württemberg

Dr.-Ing. Andreas Ehrhardt *Carl-Zeiss-Straße 1* *73447 Oberkochen*	*Telephone: +49 7364 203415* *Fax: +49 7364 204903* *www.photonicsbw.de*

Plattform Umwelttechnik

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
c/o LVI Beratungs- und Service GmbH

Wolfgang Wolf *Gerhard-Koch-Straße 2-4* *73760 Ostfildern*	*Telephone: +49 711 327325-33* *Fax: +49 711 327325-69* *www.enviro-company-guide.com*

Südwestdeutscher Forschungs- und Lehrverbund Kerntechnik

Goal of this **Southwestern research and education organisation for nuclear technology** is the cooperation of its members. In a common work programme, current activities in nuclear research and education have been listed and future priorities defined and coordinated.

Südwestdeutscher Forschungs- und Lehrverbund Kerntechnik
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*

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 exists a globally leading research and development cluster in the area of visual computing. The visual computing cluster 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*

Institutions supporting clusters and cluster initiatives

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Baden-Württemberg International (bw-i)
Services and offers for internationalisation of clusters:

- Embedding 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*	
Markus von Gemmingen-Hornberg *Haus der Wirtschaft* *Willi-Bleicher-Straße 19* *70174 Stuttgart*	*Telephone: +49 711 22787-942* *Fax: +49 711 22787-96* *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 Hoeptner *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. Heinz Trasch *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, together with chambers of crafts, trade associations and guilds in the region, chambers of foreign trade, various economy promoting institutions in the cities and districs of the regions and the abvoe 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 participates as an associated partner in some of the network's activities. Flanders participates in the activities of the economic workgroup of the Four Motors network.

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 initiated the Cluster Dialogue of Four Motors for Europe in 2007. 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 stakeholder, cluster manager, 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. The clusters existing in the regions and their associated cluster initiatives, feature great diversification and dynamic development. From the presentation of the clusters and cluster initiatives, the following aspects can be derived:

- 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 between these regional clusters.
- The dominant industry relevant for all twelve regions is the Automotive target field where regional clusters have been identified in ten 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 a singular occurrence 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.
- 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 Top 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 singular 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 regional clusters exists.

16 Conclusion: Characterisation of regional clusters

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 approach 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 any 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 object of the central corporations, which 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 that 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, which means if there will actually be a win-win situation where each partner and the network will benefit from the situation.

Finally, 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	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.
Fastening technology	The development and manufacture of measurement and control systems, devices and apparatuses form the main focus of the measurement and control cluster, whose products rely increasingly on mechatronic or microsystems technology components.
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.
Precision engineering, microengineering	A line of development in the field of miniaturisation towards microsystems technology starts with precision engineered components and 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.
Plastics technology and plastics processing	Plastics processing forms the focus 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 scopes and sizes. 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.
Measuring and control technology	The development and manufacture of measurement and control systems, devices and apparatuses form the main focus of the measurement and control cluster, whose products rely increasingly on mechatronic or microsystems technology components.

Cluster name	Profile
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.
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.
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 are 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	❖	❖	❖	❖	❖			❖	❖	❖	❖	❖
Fastening technology		❖										
Biotechnology	❖				❖		❖		❖	❖	❖	
Chemicals					❖							
Energy		❖										
Precision engineering and micro-engineering								❖				
Finance	❖											
Forestry and timber			❖			❖	❖			❖		
Health industry	❖	❖	❖		❖		❖	❖		❖	❖	❖
Information technology / enterprise software	❖			❖	❖		❖			❖		
Creative industries	❖		❖		❖	❖	❖					
Plastics technology and plastics processing		❖				❖		❖				
Lab glass		❖										
Logistics	❖		❖		❖							
Aerospace												❖
Ventilation technology		❖				❖		❖		❖		
Medical engineering						❖		❖		❖		

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
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									❖			
Textiles and clothing										❖		
Environmental technology	❖	❖							❖			
Packaging technology	❖	❖							❖			
Knowledge industry including business-related services		❖										
Chipping/metal working/ founding			❖									

Overview 3: Contact data of main contacts in the twelve regions

Region	Contact	Institution	Telephone	E-mail address	Postal address
Stuttgart	Stephanie Fleischmann	Wirtschaftsförderung Region Stuttgart	+49 711 22835-26	stephanie.fleischmann@region-stuttgart.de	Friedrichstraße 10 70174 Stuttgart
Heilbronn-Franken	Steffen Schoch	Wirtschaftsregion Heilbronn-Franken GmbH	+49 7131 7669-860	s.schoch@heilbronn-franken.de	Weipertstraße 8-10 74+49 76 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	Claudia Stöhrle	Wirtschaftsförderung Nordschwarz-wald GmbH	+49 7231 154-3693	stoehrle@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	Dr. Alexander Graf	Wirtschaftregion Südwest GmbH	+49 7621 5500-150	Alexander.graf@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 89+49 73 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 platform	Contact	Telephone	Postal address	Website
AFBW – Allianz Faserbasierte Werkstoffe Baden-Württemberg e. V.	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
automotive-bw	Dr. Albrecht Fridrich	+49 711 22998-0	Königstraße 49, 70173 Stuttgart	www.automotive-bw.de
autoland-bw	Dr. Markus Decker	+49 711 123-2430	Theodor-Heuss-Straße 4 70174 Stuttgart	www.autoland-bw.de
Baden-Württemberg Connected e. V.	Bernd Hertl	+49 711 90715-503	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
Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW)	Sabine Sadjak	+49 711 685-63334	Pfaffenwaldring 10, 70569 Stuttgart	www.bba-bw.de
Cluster Forst und Holz Baden-Württemberg	Uwe André Kohler	+49 711 23996-64	Hackländerstraße 43, 70184 Stuttgart	www.cluster-forstholz-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.	Wolfgang Wolf	+49 711 327325-33	Gerhard-Koch-Straße 2-4 73760 Ostfildern	www.lrbw.de
Forum für anwendungsbezogene Satellitennavigation und mobile IT Baden-Württemberg e. V.	Stefan Hellfeld	+49 721 9654-644	Untere Laube 24 78462 Konstanz	www.galileo-bw.de
Intralogistik-Netzwerk in Baden-Württemberg e. V.	Dieter Tietz	+49 711 78237-173	Industriestraße 25, 70565 Stuttgart	www.intralogistik-bw.de
Kompetenznetz Biomimetik	Prof. Dr. Thomas Speck	+49 761 203-2803	Schänzlestraße 1, 79104 Freiburg	www.kompetenznetz-biomimetik.de
Kompetenznetz „Funktionelle Nanostrukturen" in Baden-Württemberg	Prof. Dr. Thomas Schimmel	+49 721 608-3570	Wolfgang-Gaede-Straße 1 76131 Karlsruhe	www.nanonetz-bw.de
Kompetenznetzwerk Mechatronik BW e. V.	Volker Schiek	+49 7161 965950-0	Manfred-Wörner-Straße 115 73037 Göppingen	www.mechatronik-ev.de
MFG Baden-Württemberg GmbH – Medienentwicklung – Filmförderung	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 897598-75	Emmy-Noether-Straße 2 79110 Freiburg (i. B.)	www.mstbw.de
Netzwerk Holzindustrie Baden-Württemberg e. V.	Prof. Dr. Simon Möhringer	+49 6261 939-474	Lohrtalweg 10, 74821 Mosbach	www.netzwerk-holzindustrie.de
Photonics BW e. V. – Kompetenznetz für Optische Technologien in Baden-Württemberg	Dr.-Ing. Andreas Ehrhardt	+49 7364 203415	Carl-Zeiss-Straße 1 73447 Oberkochen	www.photonicsbw.de
Plattform Umwelttechnik	Wolfgang Wolf	+49 711 327325-33	Gerhard-Koch-Straße 2-4 73760 Ostfildern	www.enviro-company-guide.com
Südwestdeutscher Forschungs- und Lehrverbund Kerntechnik	Dr.-Ing. Joachim Uwe Knebel	+49 7247 82-5510	Hermann-von-Helmholtz Platz 1 76344 Eggenstein-Leopoldshafen	www.kit.edu
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

Overview 5: Website addresses of regional cluster and network initiatives

Region	Regional cluster	Name of cluster initiative	Website
Stuttgart	**Automotive**	**Clusterinitiative Automotive Region Stuttgart (CARS)**	www.cars.region-stuttgart.de
	Biotechnology	**BioRegio STERN Management GmbH**	www.bioregio-stern.de
		Kompetenznetz Medtech & Biotech	www.bioregio-stern.de
	Finance	**Stuttgart Financial**	www.stuttgart-financial.de
	Health industry	**Clusterinitiative 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
	Information technolo-gy / enterprise software	**Kompetenzzentrum KTMC Telematik, Mobile Computing, Customer Care e. V.**	www.ktmc.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
	Creative industries	**Animation Media Cluster Region Stuttgart**	www.amcrs.de
		Film Commission Region Stuttgart	www.film.region-stuttgart.de
		mediafaktur filder e. V.	www.mediafaktur-filder.de
		MedienInitiative Region Stuttgart	www.medien.region-stuttgart.de
		Musikwirtschaft und –vermarktung (Popbüro Region Stuttgart)	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
	Production technology	**Clusterinitiative Maschinenbau Region Stuttgart**	www.wrs.region-stuttgart.de
		Kompetenznetzwerk Mechatronik BW e. V.	www.mechatronik-ev.de
		MANUFUTURE-BW e. V.	www.manufuture-bw.de
	Radiofrequency identification	**RFID-Netzwerk Region Stuttgart**	www.stuttgart.ihk.de

Region	Regional cluster	Name of cluster initiative	Website
Stuttgart	**Satellite communication**	**DeSK – Deutsches Zentrum für Satelliten-Kommunikation**	www.desk-backnang.de
	Environmental technology	**Brennstoffzellen- und Batterie-Allianz Baden-Württemberg (BBA-BW)**	www.bba-bw.de
		Clusterinitiative Clean Tech	www.zukunftsenergien.region-stuttgart.de
		ENERGETIKOM e. V. – Energiekompetenz und Ökodesign e.V.	www.energetikom.de
		Kompetenzzentrum Umwelttechnik – KURS	www.kurs-net.de
	Packaging technology	**Packaging Excellence Region Stuttgart e. V.**	www.packaging-excellence.de
Heilbronn-Franken	**Automotive**	**Automotive-Dialog**	www.automotive-region.de
	Energy	**energieZentrum – Energieagentur des Landeskreises Schwäbisch Hall**	www.energie-zentrum.com
	Health industry	**Gesundheits-Dialog**	www.gesundheits-region.de
	Plastics technology and plastics processing	**Kunststoff-Dialog**	www.kunststoff-region.de
	Paper processing	**IHK-Chefarbeitskreis „Druck, Verpackung und Papier“**	www.heilbronn.ihk.de
	Environmental technology	**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 Heilbronn-Franken**	www.controlling-dialog.de
Ostwürttemberg	**Automotive**	**Automotive-Initiative Ostwürttemberg**	www.ostwuerttemberg.de/automotive
	Forestry and timber	**Cluster-Initiative Forst und Holz Ostwürttemberg**	www.ostwuerttemberg.de/holz
	Creative industries	**Kreativwirtschaft Ostwürttemberg**	www.schwaebisch-gmuend.de
	Logistics	**Logistik-Initiative Ostwürttemberg**	www.landkreis-heidenheim.de
	Surface technology	**Netzwerk Oberflächentechnologie Region Ostwürttemberg (NORO e. V.)**	www.noro-ev.net
	Photonics	**Photonic Valley Ostwürttemberg**	www.photonic-valley.de
Mittlerer Oberrhein	**Automotive**	**Automotive Engineering Network Südwest**	www.ae-network.de
			www.ict.fraunhofer.de

Region	Regional cluster	Name of cluster initiative	Website
Mittlerer Oberrhein	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
	Nanotechnology	NanoMat	www.nanomat.de
		nanoValley.eu	www.nanovalley.eu
	Environmental technology	EnergieEffizienz-Netzwerk Karlsruhe	www.karlsruhe.de/rathaus/buergerdienste/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	Spitzencluster – Der Biotechnologie-Cluster Rhein-Neckar (BioRN)	www.biorn.de
	Health industry	MRN Raum für Gesundheit GmbH	www.m-r-n.com
	Information technology/enterprise software	IT-Forum Rhein-Neckar e. V.	www.itforum.de
		Software-Cluster Rhein Main Neckar	www.softwarecluster-rheinmainneckar.de
	Creative industries	FilmCommission Metropolregion Rhein-Neckar	www.filmcommission-mrn.com
	Organic electronics	Spitzencluster – Forum Organic Electronics	www.forumoe.de
	Production technology	Automatisierungsregion Rhein Main Neckar	www.automatisierungsregion.de
		Kompetenzzentrum Moderne Produktionssysteme (KMP)	www.kmp.hs-mannheim.de
	Environmental technology	Bioenergie-Region Hohenlohe-Odenwald-Tauber GmbH	www.bioenergie-hot.de
		Cluster Energie & Umwelt	www.m-r-n.com
		Umweltkompetenzzentrum Rhein-Neckar e. V.	www.umweltkompetenz.org
Nordschwarzwald	Health industry	Cluster Gesundheit/Vital	www.nordschwarzwald.ihk24.de
	Creative industries	Cluster für die Kreativwirtschaft	www.ws-pforzheim.de
	Plastics processing	INNONET Kunststoff	www.innonet-kunststoff.de

Region	Regional cluster	Name of cluster initiative	Website
Nordschwarzwald	Medical engineering	HOCHFORM – Dental- & Medizintechnik	www.pforzheim-in-hochform.de
	Metal processing	HOCHFORM – Metallverarbeitung	www.pforzheim-in-hochform.de
Südlicher Oberrhein	Biotechnology	BioRegio Freiburg / BioValley Plattform Deutschland	www.bioregion-freiburg.de www.biovalley.com
	Forestry and timber	Holzkette Schwarzwald e. V.	www.holzkette.de
	Information technology / enterprise software	Software-Forum Oberrhein	www.software-forum-oberrhein.de
	Creative industries	medien forum freiburg e. V.	www.mff.net
	Microsystems technology	Forum Angewandte Mikrosystemtechnik (FAM)	www.imtek.de/fam
		microtec REGION FREIBURG	www.mstbw.de
		Spitzencluster – MicroTEC Südwest	www.mstbw.de
	Environmental technology	Regional Cluster Freiburg Green City – Umwelt- und Solarwirtschaft	www.greencity-cluster.de
		SolarRegion Freiburg	www.solarregion.freiburg.de
Schwarzwald-Baar-Heuberg	Automotive	Auto-mobil	www.auto-der-zukunft.de
		GVD Gemeinnützige Vereinigung der Drehteilehersteller e. V.	www.gvd.de
		Kompetenzzentrum Leichtbau der InnovationsAgentur Rottweil e. V.	www.innovationsagentur-rw.de
		Virtual Dimension Center – Technologiezentrum St. Georgen w. V.	www.vdc-tz-stgeorgen.de
	Precision engineering / microengineering / microsystems 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	www.medicalmountains.de
	Production technology	InnovationsAgentur Rottweil e. V.	www.innovationsagentur-rw.de
			www.standortoffensive.de

Region	Regional cluster	Name of cluster initiative	Website
Hochrhein-Bodensee	Aluminium processing	Aluminiumforum Hochrhein	www.aluminiumforum-hochrhein.de
	Automotive	Wirtschaftsregion Südwest automotiveforum	www.wsw.eu
	Biotechnology	BioLAGO e. V.	www.biolago.org
	Measuring and control technology	metrologienet	www.wsw.eu
	Nanotechnology	Nano-Zentrum Euregio Bodensee	www.neb-konstanz.de
	Environmental technology	Netzwerk Umwelttechnologie Bodensee	www.www.umweltnetzwerk.net
	Packaging technology	Cluster Verpackungstechnologie Bodensee / Nordschweiz	www.bodenseeland.info
Neckar-Alb	Automotive	IHK-Netzwerk Automotive	www.netzwerk-automotive.de
	Biotechnology	Cluster Innovative Hospital	www.innovative-hospital.de
	Forestry and timber	Arbeitskreis „Holz als Brennstoff“ Arbeitskreis „Holz als Werkstoff“	www.reutlingen.ihk.de
	Health industry	IHK-Netzwerk Gesundheit, Ernährung, Sport	www.reutlingen.ihk.de
	Information technolo-gy / enterprise software	Netzwerk ITK & Multimedia	www.breitbandforum-neckaralb.de
	Medical engineering	Medical Valley Hechingen Akademie	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	Textilcluster Neckar-Alb	www.expertenforum-textil.de
Donau-Iller	Automotive	Nutzfahrzeuge Schwaben (CNS) e. V.	www.cns-ulm.com
	Biotechnology	BioPharMaXX	www.biopharmaxx.de
	Production technology	Netzwerk in der Maschinenbaubranche	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	Katalonien	Flandern	Lombardei	Rhône-Alpes	Wales	Zürich
Classical Sectors Klassische Branchen							
Agriculture & Food Landwirtschaft und Ernährung		X	X	X	X	X	
Automotive Automotive	X	X	X	X	X	X	X
Aerospace Luft- und Raumfahrt	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) are of rather little importance for the cluster landscape or less formalised.

	Baden-Württemberg	Katalonien	Flandern	Lombardei	Rhône-Alpes	Wales	Zürich
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 Mechatronik	X		X		X		
Micro- & Nanotechnologies & Embedded Systems Mikro- und Nanotechnologien & Eingebette 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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www.wm.baden-wuerttemberg.de

Editorial office
Wirtschaftsministerium Baden-Württemberg
Ref. 22 Clusterpolitik
Telephone +49 711 / 123 - 23 83
E-Mail: cluster@wm.bwl.de

For the Ministry of Economics
Created by
VDI/VDE Innovation + Technik GmbH
Dipl. Pol. Claudia Martina Buhl (Project management)
Steinplatz 1
10623 Berlin
Telephone +49 30 / 31 00 78 - 278
www.vdivde-it.de

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Wolfgang Krentz
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MINISTRY OF ECONOMICS

Baden-Württemberg Ministry of Economics • Theodor-Heuss-Str. 4 • 70174 Stuttgart
Tel. +49 711 123- 0 • Telefax +49 711 123- 21 26 • e-mail poststelle@wm.bwl.de