



Baden-Württemberg  
Ministry of Economic Affairs

# Hydropower, Wind Power, other Renewable Energies

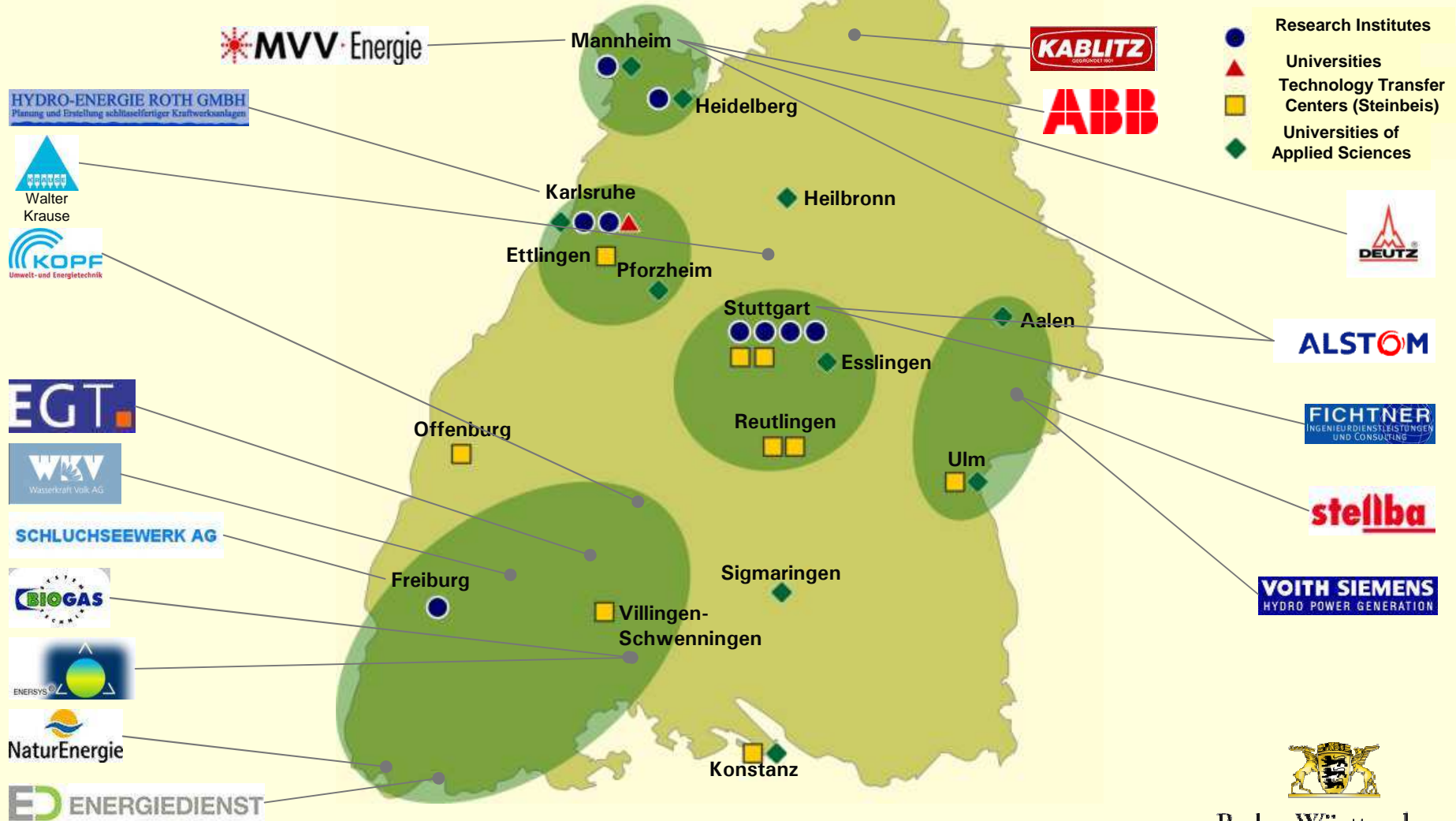
# Hydropower/wind power/other renewables – a high-growth cluster in Baden-Württemberg

- The wind-power industry is rapidly expanding. In fact, it has grown tenfold in Europe since the mid-nineties. Over this period, the number of employees in Germany in this industry has increased to over 45,000. With more than 51 percent of installed wind capacity, Germany is Europe's leading producer of wind energy.
- With water generating around 10 to 12 percent of the region's electricity, Baden-Württemberg leads the way in Germany when it comes to hydropower.
- Baden-Württemberg is a prime location for companies specializing in hydropower, wind power and other renewables:
  - Important hydropower firms, such as VA Tech Hydro, Voith Siemens Hydro Power Generation and Alstom Power Generation, are located in Baden-Württemberg.
  - Baden-Württemberg is home to ABB, the largest manufacturer of electrical equipment and generators for wind farms. The company has supplied electrical equipment for a quarter of the world's installed wind turbines. What's more, ABB has been involved in the planning and implementation of major wind-power projects across the globe.
- With the wide range of research facilities and universities, as well as the many technology-transfer centers (e.g. Steinbeis), Baden-Württemberg is an ideal location for renewable-energy players.



# Regional Centers of Hydropower, Wind Power and other Renewable Energies

(Relevant research institutes, universities and examples of important enterprises)



# Hydropower, Wind Power, other Renewable Energies – Selected Companies



**MVV Energie AG, Mannheim**

<http://www.mvv-energie-ag.de>



**Voith Siemens Hydro Power Generation, Heidenheim**

<http://www.voithsiemens.de>



**Kopf AG, Sulz am Neckar**

<http://www.kopf-ag.de>



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# Hydropower, Wind Power, other Renewable Energies – Selected Companies

The logo for Alstom, featuring the word "ALSTOM" in a bold, blue, sans-serif font. The letter "O" is stylized with a red circle around it.

**Alstom Power Generation AG, Mannheim**

<http://www.power.alstom.com>

The logo for ABB, consisting of the letters "ABB" in a bold, red, sans-serif font. The letters are stylized with a grid-like pattern.

**ABB AG, Mannheim**

<http://www.abb.com>



**Wasserkraft Volk AG, Gutach**

<http://www.wkv-ag.com>



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# Hydropower, Wind Power, other Renewable Energies – Selected Companies



**Energiedienst AG, Rheinfelden**

<http://www.energiedienst.de>



**NaturEnergie Aktiengesellschaft für Wasser- und Sonnenstrom, Grenzach-Wyhlen**

<http://www.naturenergie.de>

**SCHLUCHSEWERK AG**

**Schluchseewerk AG, Freiburg**

<http://www.schluchseewerk.de>



# Hydropower, Wind Power, other Renewable Energies – Selected Companies



**Fichtner GmbH & Co. KG, Stuttgart**

<http://www.fichtner.de>



**EGT Energie GmbH, Triberg**

<http://www.egt-triberg.de>



**ALSTOM Power Boiler GmbH, Stuttgart**

<http://www.power.alstom.com>



**WALTER KRAUSE GMBH, Walheim**

<http://www.walterkrause.de>



# Hydropower, Wind Power, other Renewable Energies – Selected Companies



**Richard Kablitz & Mitthof GmbH, Lauda-Königshofen**

<http://www.kablitz.de>



**ENERSYS Gesellschaft für Energiesysteme mbH, Donaueschingen**

<http://www.enersys.de>



**Hydro-Energie Roth GmbH, Karlsruhe**

<http://www.hydroenergie.de>



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# Hydropower, Wind Power, other Renewable Energies – Selected Companies



**Biogas System Technik Deutschland GmbH, Donaueschingen**

<http://www.bstbiogas.at>



**Deutz Power Systems GmbH, Mannheim**

<http://www.deutz.de>



**Stellba Hydro GmbH & Co. KG, Heidenheim**

<http://www.stellba.com>



# Hydropower, Wind Power, other Renewable Energies – Regional Centers - Selected Companies

**Mannheim:**

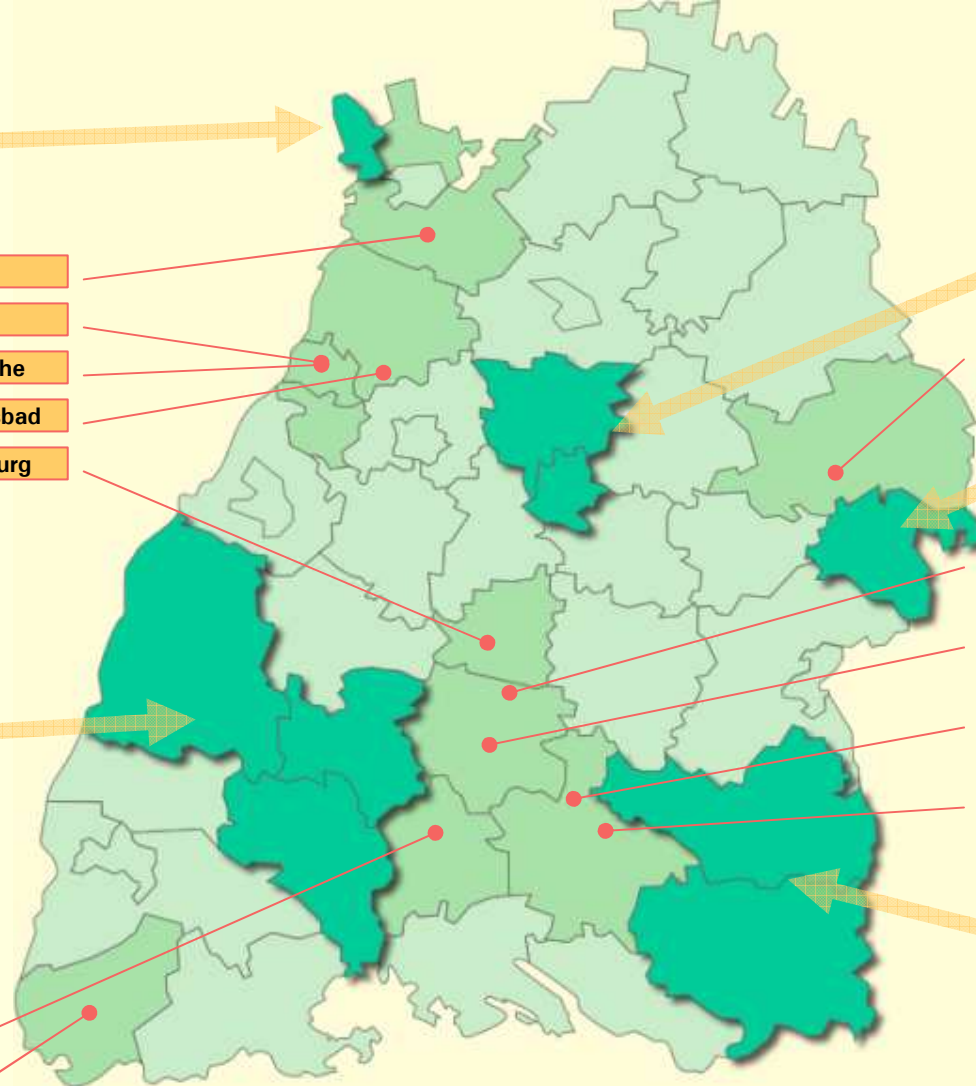


- EC Bioenergie GmbH, Heidelberg
- Hydrowatt GmbH, Karlsruhe
- Hydro Energie Roth GmbH, Karlsruhe
- Paradigma Ritter GmbH & Co., Karlsbad
- Hoval Deutschland GmbH, Rottenburg

**Ortenau-District, Rottweil, Schwarzwald-Baar-District:**



- Hengstler GmbH, Aldingen
- Energiedienst AG, Rheinfelden



**Stuttgart, Ludwigsburg:**



Gaugler & Lutz, Aalen

**Heidenheim:**




Elco Klöckner Heiztechnik GmbH, Hechingen

Heidemann Wasserkraftanlagen, Burladingen

Franz Eisele GmbH & Co. KG, Sigmaringen

Zollern Vertriebs- GmbH und Co. KG, Herberingen

**Biberach, Ravensburg:**




# Hydropower, Wind Power, other Renewable Energies – Regional Centers

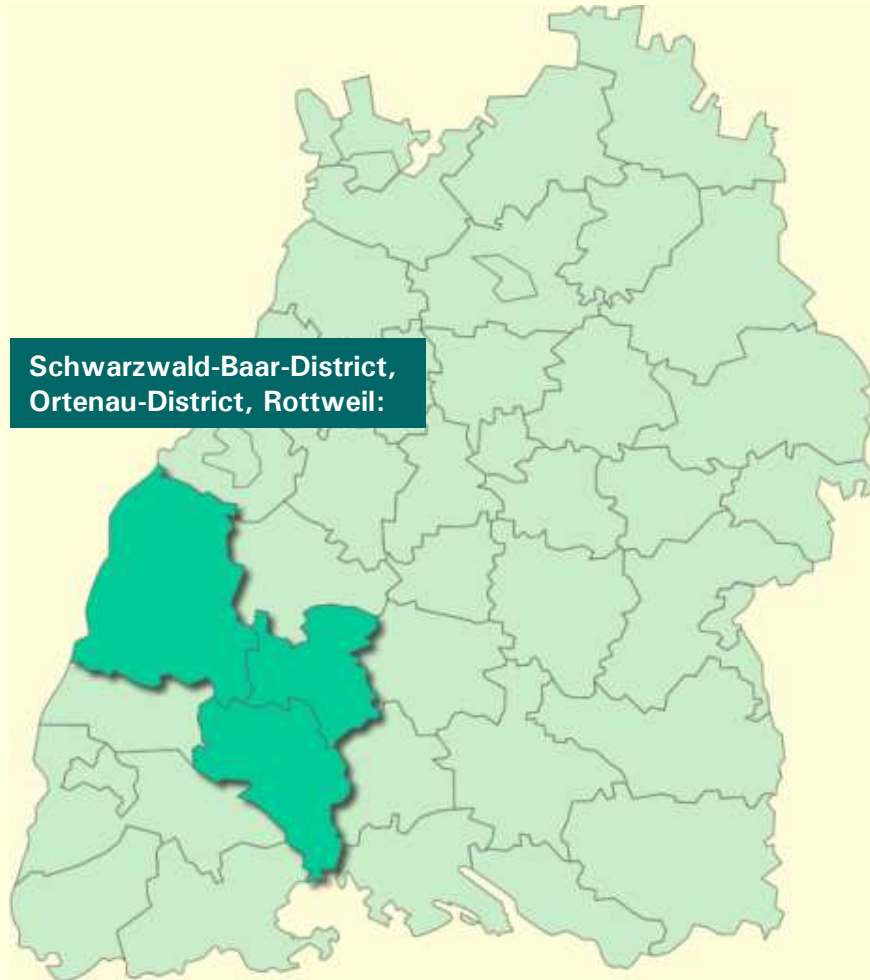


## **Stuttgart, Ludwigsburg:**

- Fichtner GmbH & Co. KG (Stuttgart)
- Alstom Power Boiler GmbH (Stuttgart)
- Sika GmbH (Stuttgart)
- Walter Krause GmbH (Walheim)
- Graner Kesselbau (Gerlingen)
- Bay Eurokessel GmbH (Freiberg am Neckar)
- KWA-Kraftwärmeeanlagen GmbH (Bietigheim-Bissingen)
- STZ Agrar-, Umwelt- und Energietechnik (Stuttgart)
- STZ Energie-, Gebäude- und Solartechnik (Stuttgart)
- Institut für Physikalische Elektronik (IPE), Uni Stuttgart
- Institut für Energiewirtschaft und rationelle  
Energieanwendungen (IER), Uni Stuttgart
- Institut für Kernenergetik und Energiesysteme (IKE), Uni  
Stuttgart



# Hydropower, Wind Power, other Renewable Energies – Regional Centers



**Schwarzwald-Baar-District,  
Ortenau-District, Rottweil:**

## **Schwarzwald-Baar-District, Ortenau-District, Rottweil:**

- Kopf AG (Sulz am Neckar)
- EGT Energie GmbH (Triburg)
- Fritz Kübler GmbH (Villingen-Schwenningen)
- Enersys Gesellschaft für Energiesysteme mbH (Donauessingen)
- Biogas System Technik-Deutschland GmbH (Donauessingen)
- Wasserwerk Volk AG (Gutach)
- Wiegert & Bähr Maschinenbau GmbH (Renchen)
- Maywind Windmesstechnik GbR (Lahr)



# Hydropower, Wind Power, other Renewable Energies – Research Institutes



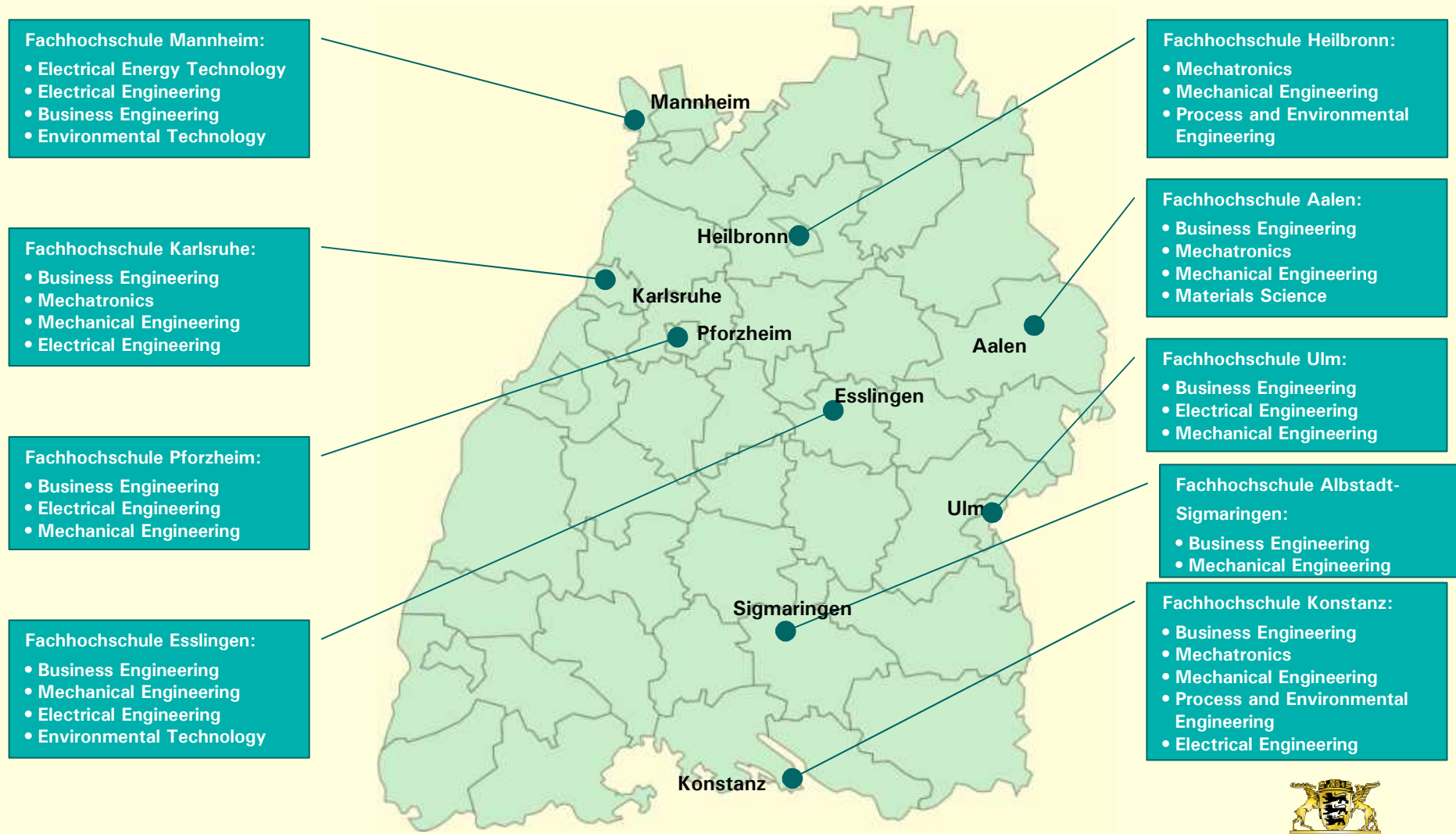
# Hydropower, Wind Power, other Renewable Energies – Relevant Study Courses (Universities)

## Universität Karlsruhe (TH):

- Business Engineering
- Mechanical Engineering
- Mechatronics
- Electrical Engineering



# Hydropower, Wind Power, other Renewable Energies – Relevant Study Courses (Universities of Applied Sciences/Fachhochschulen)



# Hydropower, Wind Power, other Renewable Energies – Steinbeis Technology Transfercenters (STZ)



# Hydropower, Wind Power, other Renewable Energies – Research



## **Fraunhofer Institute for Solar Energy Systems (ISE), Freiburg**

<http://www.ise.fhg.de>

With its 400 staff, the Fraunhofer ISE is Europe's largest solar research institute, with work ranging from research into the scientific-technical basis of the utilization of solar energy to the development of prototypes and the implementation of demonstration installations. The institute offers planning and consulting services, provides technical know-how and equipment for services.



## **Fraunhofer Institute for Systems and Innovation Research (ISI), Karlsruhe**

<http://www.isi.fhg.de>

With its research and consulting activities, the Fraunhofer-ISI is contributing to solving problems and to the necessary structural changes involved. The preconditions for this are holistic thinking and interdisciplinary and application-oriented research which are traditional strengths of the Institute. The ISI demonstrates the potentials of new technologies, their applications, markets, conditions for diffusion, opportunities and risks. It develops complex and systematic solutions as well as methods and information bases for strategic decision-making processes in industry, science and politics.



## **Centre for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW), Stuttgart**

<http://www.zsw.de>

The Centre for Solar Energy and Hydrogen Research works on the research and development of technologies for the environmentally friendly provision of power, heat and fuel, their realization in marketable products together with industry partners, as well as consulting for producers, users, political decision-makers and associations. Research focus is photovoltaic materials, batteries and fuel cells.



# Hydropower, Wind Power, other Renewable Energies – Research



## **Center for European Economic Research (ZEW), Mannheim**

<http://www.zew.de>

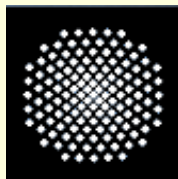
The ZEW is a non-profit economic research institute with the legal form of a limited liability company (GmbH). It was founded in 1990 on the initiative of the government of the federal state Baden-Württemberg, trade and industry, and the Mannheim University. The ZEW works in the field of user-related empirical economic research. In this context it particularly distinguished itself nationally and internationally by analysing internationally comparative issues in the European context and by compiling scientifically important data bases.



## **Forschungszentrum Karlsruhe**

<http://www.fzk.de>

Forschungszentrum Karlsruhe is one of the biggest science and engineering research institutions in Europe and funded jointly by the Federal Republic of Germany and the State of Baden-Wuerttemberg. Its research and development programs are of public interest and serve peaceful purposes exclusively. They concentrate on the five research areas of Structure of Matter, Earth and Environment, Health, Energy, and Key Technologies. In pursuing these research activities, the Forschungszentrum Karlsruhe cooperates with partners in science and industry. Furthermore, it operates large-scale facilities also for external users.



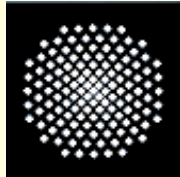
## **Institute for Energy Management and Rational Energy Applications (IER), University of Stuttgart**

<http://www.ier.uni-stuttgart.de>

The Institute for Energy Management and Rational Energy Applications (IER) focuses on research into: (1) the analysis and assessment of new energy technologies and energy systems, (2) technology assessment and environmental analysis, (3) development of models and decision support systems for energy economics and energy policy, (4) energy system analysis, (5) rational use of energy.



# Hydropower, Wind Power, other Renewable Energies – Research



## **Institute for Nuclear Energetics and Energy Systems (IKE), University of Stuttgart**

<http://www.ike.uni-stuttgart.de>

The Institute for Nuclear Energetics and Energy Systems (IKE), one of Stuttgart University's largest institutes, is integrated into the department of energy technology. Over the years, IKE's research activities have evolved beyond the sphere of nuclear technology and today focus on system and plant technology and thermofluid dynamics, reactor physics and applied radiation physics, nuclear installations and environmental protection technology, heating and air conditioning technology, solar thermal installations and hydrogen technology. The institute carries out both basic research and application research.



## **Institute for Sanitary Engineering, Water Quality and Solid Waste Management, University of Stuttgart**

<http://www.iswa.uni-stuttgart.de>

The Institute for Sanitary Engineering, Water Quality and Solid Waste Management was already dealing in the Fifties with problems of water quality, water supply, wastewater disposal and solid waste disposal, long before the investigation of environmental problems was common. The main objectives of the institute are teaching, research and the assistance of federal and state ministries and agencies, and of communities and industries in solving practical problems, for example by means of pilot plant experiments or by working out the basic data and concepts for the planning and design of plants.

