



Mechanical Engineering in Baden-Württemberg

High-quality machines, first-class technologies and smart solutions for Industry 4.0 –
Baden-Württemberg is the centre of German mechanical engineering



Baden-Württemberg

Where ideas work.

Facts and figures about Baden-Württemberg

Outstanding innovations

Population

10.8 million – this corresponds to
13.2 % of the population of Germany

Gross domestic product

477 billion euros – this corresponds to 15.2 % of Germany's GDP
GDP per inhabitant: 43,700 euros (Germany: 37,997 euros)

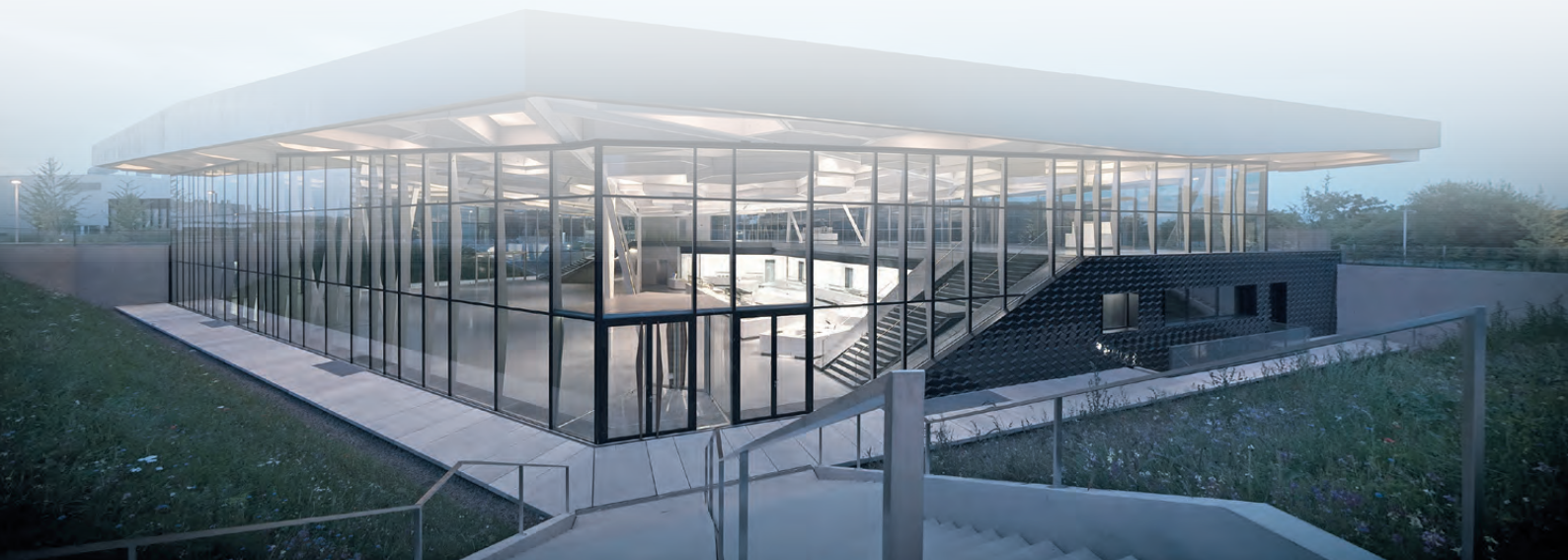
Export

Export volume: 192 billion euros
Export volume per inhabitant:
17,600 euros (Germany: 14,600 euros)
Export state No. 1 in Germany

Research & development

Research & development 2014: 4.9 % of GDP (Germany: 2.9 %)
Patents applied for per 100,000 inhabitants: 132 (highest in Germany)
Innovation region No. 1 in Europe

Baden-Württemberg is the 3rd largest state out of 16 in the Federal Republic of Germany;
figures for 2016 (date: June 2017)



Centre of German mechanical engineering

Technological leadership

Baden-Württemberg is the centre of German mechanical and plant engineering. Out of the 30 largest mechanical engineering companies in Germany, one third comes from the southwest. In addition to the big players in this industry, a large number of globally successful small and medium-sized enterprises are located in Baden-Württemberg. Many of these companies are world market leaders in their particular field of endeavour.

With over 308,000 employees, mechanical engineering is the largest industrial employer in Baden-Württemberg. In 2016, the sector had a turnover of 76.3 billion euros, just under one third of the turnover of the German mechanical engineering industry as a whole. Machines and technical

plants „made in Baden-Württemberg“ are in demand worldwide, whereby the state's overall export ratio is just under 70 %.

High-tech is a primary focus of mechanical engineering companies in Baden-Württemberg. They invest six per cent of their turnover in innovations, thus consolidating their position as a leader in cutting-edge technology. Another reason for the success of the industry is its abundance of well trained and highly motivated employees. In order to be able to comply with the highest technical standards, the mechanical engineering companies spend five per cent of their turnover on employee training and qualification.



Baden-Württemberg's pioneering role for Industry 4.0

Intelligent, efficient, flexible

Digitisation is changing our world – how we live, work and consume. Industrial production is likewise undergoing changes; it is becoming more flexible, more individual and, at the same time, more efficient. Due to IT networking, products and machines can exchange information autonomously and production can be controlled centrally and variably. All of this is being made possible by Industry 4.0.

With its strengths in mechanical engineering, the automotive industry and companies supplying equipment for industrial information and communications system, Baden-

Württemberg's economy is in a very good position to exploit the potential of Industry 4.0 and develop innovative solutions.

As a leading location for industry and innovation, Baden-Württemberg is pressing ahead with Industry 4.0 intensively. The initiative „Allianz Industrie 4.0“, which was started and is being sponsored by the state, is intended to bundle the various forms of competence and, in particular, to demonstrate the potential of Industry 4.0 for small and medium-sized companies in the industry.



Networks for innovation

Closely interlinked

No other region of the world provides such a strong concentration of innovative machine and plant manufacturers, highly efficient parts suppliers and excellent research and educational institutions. Another special feature of Baden-Württemberg is the close economic networking of companies in the production-engineering supply chain in addition to their geographical proximity to each other.

This close-meshed network of industry and science in the southwest is complemented by numerous clusters and effective state-wide networks. They are an active driving force for innovation, bundling diverse forms of competence and synergies in order to improve the international competitiveness of this branch of industry. The German Engineering Federation VDMA is the nodal point between the industry in Baden-Württemberg and nationwide activities.



Baden-Württemberg as a science location

Excellence in teaching and research

With more than 70 universities and over 100 non-university research institutions, Baden-Württemberg is one of the top science locations in Germany. Teaching and research are conducted on the very highest level in the southwest, a situation from which the mechanical engineering sector also profits.

In Baden-Württemberg, the mechanical engineering industry employs more than 55,000 engineers and depends on the availability of young highly educated and well trained specialists. The state's institutions of higher education offer many courses of study in the area of mechanical engineering

such as materials and production engineering, mechatronics, thermodynamics and robotics, thus ensuring a reliable supply of highly qualified engineers. Moreover, around 60 research institutions and facilities at universities in the state are concerned with future issues of mechanical and plant engineering. Their basic research and development of applications thus contribute to the industry's leadership in innovation. This intensive collaboration as well as the smooth transfer of knowledge between industry and science are important success factors of Baden-Württemberg's mechanical engineering companies.



Baden-Württemberg International

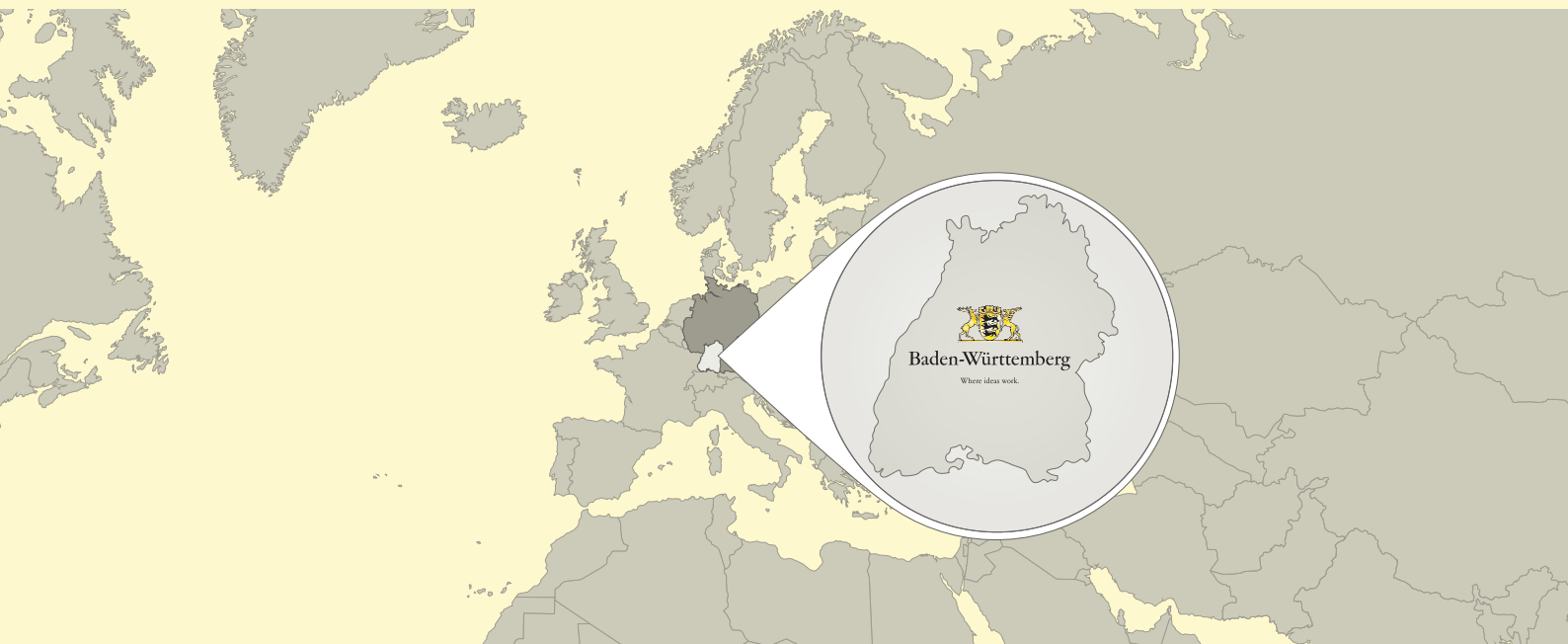
Your partner on the way to success

Baden-Württemberg International (bw-i) is Baden-Württemberg's centre of competence for the internationalisation of business and science. We lend support to Baden-Württemberg companies, clusters, universities and research institutions as well as to regions and municipalities, in all questions relating to internationalisation. For foreign investors, we serve as our state's central point of contact.

When looking to settle in a new region, companies are confronted with diverse questions and challenges. bw-i supports them in their projects – quickly, simply and competently. We provide information on Baden-Württemberg as a location, supply details regarding the general legal situation, identify suitable partners for business and research, assist in the search for a suitable site and stand by to help you in all phases of the planned settlement process.

For more information visit www.bw-invest.de/en.





Baden-Württemberg International

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