



* Austria's Leading Industrial Sectors:
Machinery, Electronics, Mechatronics

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Editorial

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Austria's Leading Industries

Machine manufacturing, electronics and the innovative mechatronics branch have achieved major successes in the world marketplace.

Mechanical engineering (machine manufacturing) and electronics are the two most important industrial sectors in Austria. More than one quarter of all industrial employees work in these branches. Outstanding know-how in the field of mechatronics has transformed Austria into one of the leading providers of special purpose machines in Europe.

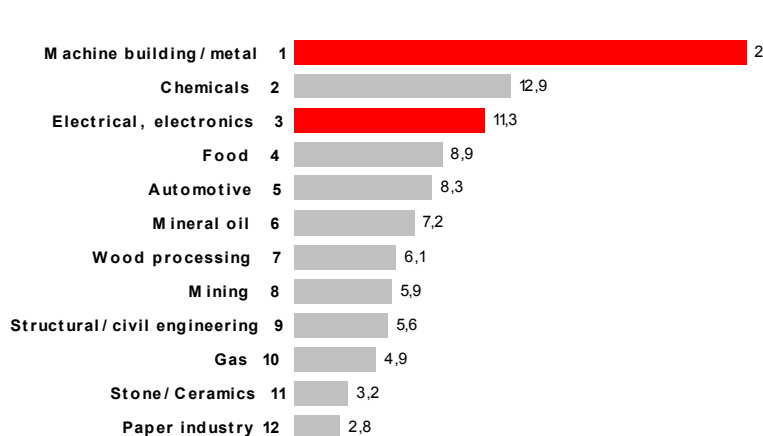
Healthy breeding ground for small and medium-sized enterprises. Prominent world market leaders such as Infineon, Siemens or Rosenbauer benefit from the expertise of highly-qualified employees and the exemplary partnership of companies and research institutions. This business environment comprises the ideal framework for the success of innovative, small and medium-sized enterprises, developing tailor-made, high-tech solutions for international niche markets.

Companies pay a corporate tax rate of 25 per cent in Austria, and nothing more. The research allowance of up to 35 per cent and an education allowance of 20 per cent are just two of the many incentives investors can take advantage of.

Austria is one of the world's most productive countries. Measured in relation to purchasing power, Austria's has one of the highest productivity rates. It is ranked eighth globally, ahead of top industrial powerhouses such as Germany, United Kingdom or Switzerland (World Competitiveness Yearbook 2010). This competitive advantage is complemented by low unit labor costs: between 1998 and 2008 unit labor costs fell by more than 9 percent in total.

Important industrial sectors

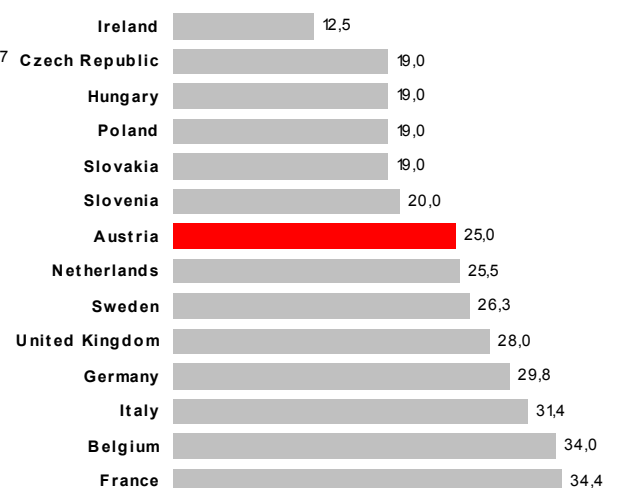
Number of employees 2009 (%)



Source: Austrian Federal Chamber of Commerce

Corporate Income Tax Rates*) 2010

Maximum taxation on profits, in per cent



Source: Pricewaterhouse Coopers

World Class Research and Education

Business and scientific communities work hand in hand

Austria's educational system is one of the best anywhere. Approximately two-thirds of adult Austrians have completed a secondary or higher education degree (OECD), one of the world's best track records. Austria is not only ranked first in the availability of highly-qualified employees, but third in terms of employee motivation (World Competitiveness Yearbook 2010).

Dual education system. One of Austria's specialties is the dual education system, a combination of theoretical and practical training practiced in apprenticeship programs and higher vocational schools. Curriculum and key courses of instruction are tailored to the needs of the business community. Companies such as Magna and Siemens professionally train apprentices and also offer the opportunity to complete an internship. It comes as no surprise that Austria is always ranked among the top five in world championship competitions in the field of mechatronics.

Centrope: cross-border business. The Viennese Mollardgasse vocational school trains skilled workers in mechatronics and electrotechnical systems. Identical courses of study are offered in the Centrope region, namely in Győr (Hungary), Brünn (Czech Republic) and Bratislava (Slovakia).

Research institutes supply know-how

Internationally recognized research and development institutes specializing in the fields of mechanical engineering, mechatronics and electrical engineering are located in the cities of Vienna, Linz and Graz. More than 60 university institutes and a series of research companies provide the entire spectrum of required services which companies expect in a thriving research environment, ranging from scientific know-how to the finished product. Some 6,600 graduates of science and engineering study programs are available to companies each year.

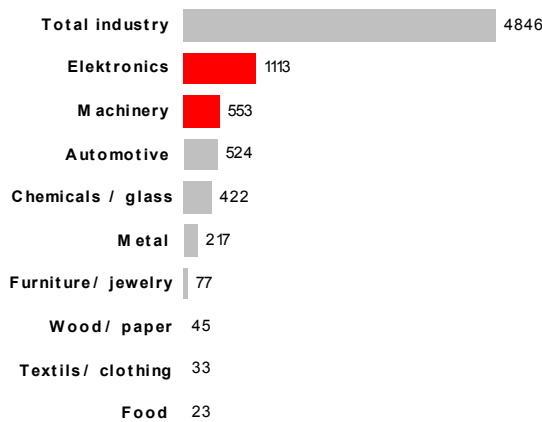


“Our Vienna facility is our motor of innovation in the company, and one of our growth drivers”.

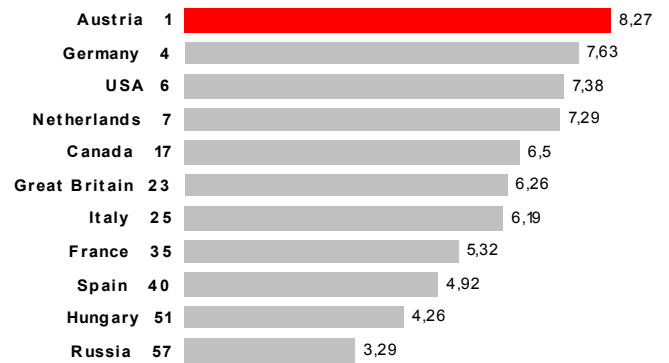
Top-notch research and educational institutes in the fields of mechanical engineering, electronics and mechatronics:

- Technical University of Vienna → www.tuwien.ac.at
- Technical University of Graz → www.tugraz.at
- Johannes Kepler University → www.mechatronik.uni-linz.ac.at
- Austrian Reserach Centers → www.arcs.ac.at
- Profactor → www.profactor.at
- Linz Center of Mechatronics → www.lcm.at
- voestalpine mechatronics → www.vatron.com
- Upper Austrian Research GmbH (UAR) → www.uar.at
- University of Innsbruck → www.uibk.ac.at/advancedmaterials
- Campus 02 → www.campus02.at
- University of Applied Sciences Campus Wien → www.fh-campuswien.ac.at
- FH Joanneum University of Applied Sciences → www.fh-joanneum.at
- Upper Austria University of Applied Sciences – Wels Campus → www.fh-wels.at
- Carinthia University of Applied Sciences → www.cti.ac.at
- University of Applied Sciences Technikum Wien → www.technikum-wien.at
- Vorarlberg University of Applied Sciences → www.fh-vorarlberg.ac.at
- University of Applied Sciences Wiener Neustadt → www.fh-wn.ac.at
- Interstate University of Applied Sciences Technology Buchs NTB → www.ntb.ch

R&D expenditures according to sector
In Millionen Euro, 2007



Productive & Efficiency
Business Efficiency



Source: World Competitiveness Yearbook 2010

Quelle: Statistics Austria

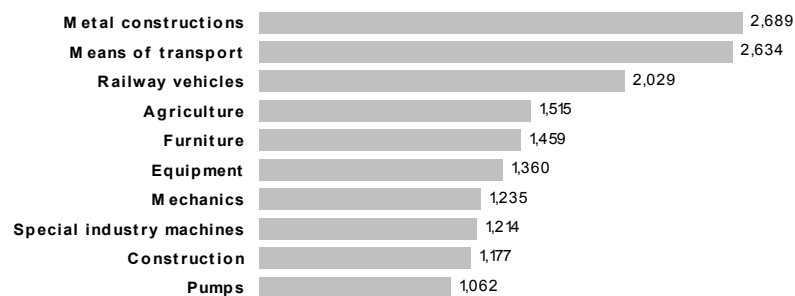
Mechanical Engineering: Tops in Austria

The mechanical and plant engineering along with the metal goods industry accounts for 22 percent of Austrian exports.

The mechanical and plant engineering and metal goods industry comprises one of the most important sectors of the Austrian economy. The production value of this industrial sector accounts for about 27 percent of the total production of physical goods, amounting to more than EUR 30 billion in the year 2009. Approximately 2,020 companies manufacture primarily for the global market. The mechanical engineering sector is one of the most attractive industries, with R&D expenditures of EUR 483 million annually.

The innovative and attractive industry sector mechanical and plant engineering employs a total of 154,000 people. Austrian firms are flexible specialists, offering tailor-made high tech solutions for international niche markets.

Top branches in the mechanical and plant engineering industries
Production sold 2009, in billion EUR



Source: Austrian Federal Chamber of Commerce

Core strengths:

- Special and custom machinery
- Boiler construction

Austria has a top market position in the field of special and custom machinery. Lego, which is one of the most popular toys in the world, is being produced with Austrian know-how. Engel, a major machine manufacturer, is the main supplier of machinery for Lego. The world's fastest paper packaging machine is produced in Austria by Voith. In addition to special and custom machinery, Austria has made a name for itself in the field of boiler construction.

Clusters and competence centers:

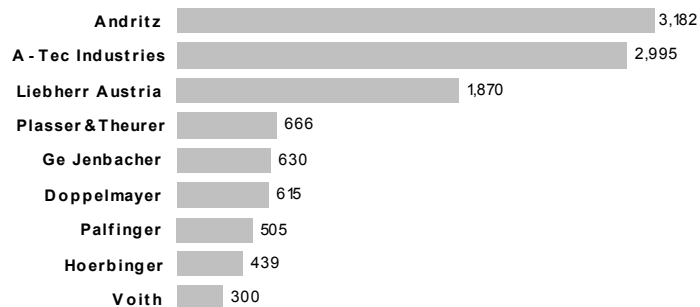
- Competence Network Future Vehicle Concepts: Future Internal Combustion Engine Concepts, c/o AVL List → www.k-net-kfz-vkm.com
- Austrian Center of Competence for Tribology → www.ac2t.at
- Materials Cluster → www.materialcluster.at
- Cluster Drive Technology → www.cdt.at
- Automobile Cluster → www.automobil-cluster.at



“The educational level in Austria is very high. As the custom tailor producing specialized machinery for the plastics industry, we rely on the potential of each and every employee. Austria provides all the preconditions required which enable us to offer high technical standards and reliability”.

Top companies in the machine industry

Net sales revenues 2009 (EUR m)



Source: Goldener Trend 2010

Electronics: Innovative Core Industry

Above-average investments in research and development

Export quota of 70 per cent. The electrical and electronics industry is the second largest industrial employer in Austria, boasting about 300 industrial companies and around 57,000 employees. The production value of this sector was close to EUR 10.9 billion in 2009. More than two-thirds of the products are exported. The branch is a pioneer in developing flexible working time models.

Many companies, from Alcatel and Hewlett Packard to Siemens and Sony, already take advantage of the numerous competitive advantages offered by Austria as a business location, and have set up their international R&D competence centers as well as production plants to manufacture quality products in Austria.

The Austrian province of Burgenland intends to strongly expand its work in the field of optoelectronics over the next years. Burgenland has already set up its own technology center in Jennersdorf, located in the south of the province. At present, three companies conduct research and work in daylight lighting systems, light emitting diodes (LEDs), and traffic lighting systems. The focus of the investment drive will be the promotion of optoelectronics research and development.

Two-thirds of all industrial R&D expenditures. The main reason for the impressive success of the electronics industry in Austria is the above-average investments devoted to research and development. The electrical and electronics industry accounts for 34 per cent of all R&D investments carried out by Austrian industry. Some 7,000 research and development specialists ensure that companies such as Alcatel or Infineon Austria have selected Austria as the strategic hub for their R&D activities.

Core strengths:

- Railway supply industry
- Semiconductor technology
- Power engineering

Clusters:

- ECHEM – Competence Center for Applied Electrochemistry → www.echem.at
- KAI - Competence Center for Automobile and Industrial Electronics → www.k-ai.at
- ec3 - Electronic Commerce Competence Center → www.ec3.at
- Kompetenzzentrum Licht (Competence Center for Light Systems) → www.k-licht.at
- KERP Center of Excellence, Electronics & Environment → www.kerp.at
- Micro Electronic Cluster → www.me2c.at
- Automobile Cluster → www.automobil-cluster.at
- Automotive Cluster Vienna Region → www.acvr.at
- Competence Center for Optoelectronics → www.tz-burgenland.at

Mechatronics at the Forefront

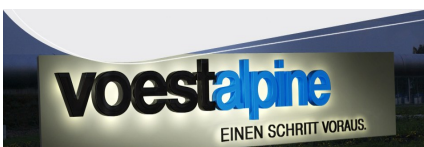
Future-oriented branch for intelligent products

The mechatronics branch – a fusion of machine construction, electronics and information technology – is a pulsating high-growth sector. Sooner or later, mechatronic systems will dominate engine management, safety and infotainment functions in automobiles. ABS (anti-lock brake system) is only one of many intelligent products encompassed in the field of mechatronics. However, mechatronics is not only an innovation driver in the automotive branch, but in many other industrial sectors as well. For example, mechatronic solutions have become indispensable to the consumer goods industry, and have been built into household devices or mobile telephones. In Austria, some 300 companies with 49,000 employees offering mechatronic systems achieved revenues exceeding EUR 9.6 billion in 2009.

Tops in Europe. Regardless of whether it involves medical devices, tools, wood processing machines or the automotive sector, Austria has developed an outstanding know-how in the production of custom and special purpose machinery. One key reason is the intensive cooperation which has evolved between the scientific and business communities in the field of mechatronics: approximately 200 to 300 R&D specialists are available to companies. The mechatronics study program offered by Johannes Kepler University in Linz is the most popular course of studies at the Faculty for Natural Sciences and Engineering.

Clusters and competence centers as a turbo drive:

- Mechatronics Cluster → www.mechatronik-cluster.at
- Mechatronic Tirol → www.mechatronik-tirol.com
- TechnoGate → www.technogate.at
- Industrial Competence Center for Mechatronics and Automation, Linz → www.ikma-linz.at
- Linz Center of Mechatronics → www.lcm.at
- VResearch Center for Tribotronics and Technical Logistics → www.v-research.at
- Mechatronics Development Center of the Mahle Group → www.mahle.com
- Materials Center Leoben → www.mcl.at



“One of our future priorities will continue to be ensuring the qualifications of employees. They represent our potential. The training center in Linz instructs 50 – 60 trainees on an ongoing basis, above all in the fields of mechatronics and electronics”.

SMEs Exploit Advantages

Multinationals such as Infineon, Voith and Liebherr bundle their know-how in Austria

In addition to numerous multinational companies, Austria is an ideal business location for small and mid-sized companies such as Felder, Durst, Mendel or Ratgeber.

Electronics

Infineon: Chips “Made in Villach” are used around the world

Infineon Austria, subsidiary of the Infineon Group, operates in the field of automotive and industrial electronics. The production of microchips takes place in Villach, the company's competence center for power semiconductors. Research and development centers are located in Villach, Graz, Klagenfurt and Linz. More than one-third of the employees, or 1,000 specialists working at the Development Centers in Villach and Graz, the associated company DICE in Linz and the subsidiary Infineon Technologies IT-Services GmbH in Klagenfurt carry out research and development work for Infineon. Infineon ranks among the most research-intensive companies in Austria. Its R&D expenditures totaled EUR 194.8 million in 2009, corresponding to 22 percent of revenues, up from 19 percent in the previous year.

→ www.infineon.at

Philips: Global competence center

The Dutch electronics multinational Philips has been manufacturing in Austria for 75 years, starting with radio tubes and loudspeakers. Today the company produces household appliances, lighting, consumer electronics and medical systems. In addition to the consumer lifestyle, healthcare and lighting sales units operating in Austria, the international headquarters for Philips Speech Processing and the Philips Consumer Lifestyle Innovation Center are located in Klagenfurt. Philips Speech Processing develops and produces innovative dictation and speech technologies, and is the worldwide market leader for analogue and digital dictation solutions. The Philips Consumer Lifestyle Innovation Center in Klagenfurt develops product innovations in the fields of body care, hair care, household, health and wellness for the global marketplace. Philips employs 650 people in Austria. Philips invested about EUR 28 million in its Austrian R&D activities in the year 2009. → www.philips.at

Sony DADC: Most productive factory

Europe's largest CD manufacturing plant with a total annual output of more than 610 million optical storage media is located in Salzburg. Each day, up to 6.4 million discs are exported to other European countries within a 24 hour period. The Austrian facility was ranked among the best in a comparative study evaluating productivity at 100 European CD production plants. 1,200 employees working in the two factories in Salzburg manufacture pre-recorded and recordable optical media, with a daily capacity of 200 different CDs and 50 DVD sides per day.

→ www.sonydadc.com

Mechanical engineering

Voith: R&D competence

Three divisions of the German Voith Group are represented at the St. Pölten facility: Voith Paper (paper technology), Voith Turbo (drive systems) and Voith Siemens Hydro Power Generation (power plant technology). Voith Paper St. Pölten is the worldwide competence center for cardboard and packing paper machines with responsibility for research, product development, design, sales, marketing and controlling in this field. In addition, the product center for rollers is located at the St. Pölten site. A large percentage of the rollers used by Voith Paper in its paper machines around the world are manufactured in St. Pölten. Voith Turbo manufactures wheelset and turbo gearboxes for rail vehicles and also supplies the Eastern European market. Moreover, the sales department for controllable drives of the Industry Division for parts of the Eastern European market is also located in St. Pölten.

→ www.sanktpoelten.voithturbo.com

Rosenbauer: A renowned brand

Rosenbauer is present everywhere and anywhere where fires arise. The Austrian company is one of the world's largest manufacturers of fire extinguishing systems and pumps.

Rosenbauer, ranked number two globally, delivers fire-service vehicles across the globe, including fire-fighting vehicles and equipment for Saudi Arabia or for the U.S. Army. One well-known example of Rosenbauer's product portfolio is the Panther, the most technologically advanced fire-fighting vehicle one can purchase on the world marketplace. → www.rosenbauer.at

Andritz: The global player

The Andritz Group in Graz is the largest machine construction company in Austria. The product line of this global player is quite extensive, encompassing the world's biggest sludge drying plant in Singapore as well as the second place prize granted to VA Tech Hydro at the European Business Awards for the Environment. The Andritz Group develops high tech production systems and industrial process solutions in the cellulose and paper, rolling mills and strip processing, environment and process business areas, as well as for feed, biofuel and hydro power. Andritz employs a workforce of about 13,700 people. → www.andritz.com

Engel: The most important machine supplier of Lego

For more than 25 years, the Austrian machine producer Engel has been the most important supplier of machinery to the toy manufacturer Lego, which is supplied with Engel machines around the world. The company specializes in constructing plastics machines as well as technological modules such as injection molding machines and automation tools, and employs 2,900 people. Engel is represented in more than 85 countries, with most employees in Austria involved in high value work. The productivity was raised about 30 percent due to the new technology center. → www.engelglobal.com

Mechatronics

Keba: Specialist for automation

The automatic cash machine on the corner may have been produced by Keba, the Austrian automation specialist. The company's specialties are industrial, banking and service automation, as well as control systems, electronics, information technology and mechatronics. Its key customers are financial institutions, service and lottery companies. For example, all lottery outlets are equipped with terminals provided by Keba. Keba invests about 20 per cent of its annual revenues in research and development, with a work force of 700 people. → www.keba.at

Allied Panels: Medical devices, supplier for General Electric

The Tyrolean company Allied Panels develops medical devices such as X-ray and ultrasound equipment, and serves as a supplier and provider of fully assembled devices to industrial giants such as General Electric, Siemens and Philips. This relatively young company was first established in the year 2000, and recently developed a revolutionary airport control system. Allied Panels has 120 employees working at its subsidiaries in the USA, Malaysia, and Belarus. → www.alliedpanels.com

Liebherr: Good climate when traveling

With its heating, ventilation and air conditioning systems, Liebherr Transportation Systems ensures a pleasant environment for passengers, whether on streetcars or on high-speed trains. Liebherr Transportation Systems, located in Lower Austria, specializes in climate control projects for railway vehicles such as streetcars, subway cars, public transportation systems, double-deck and high speed trains, integrating its broad-based experience in the aeronautics and rail traffic segments. The multinational German company Liebherr maintains five production locations in Austria, with 4,650 employees. → www.liebherr.com

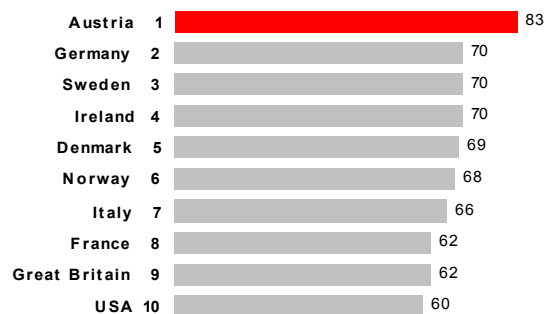
Salvagnini: Market leader manufactures in Austria

The Italian multinational mechatronics company Salvagnini, producer of sheet metal processing machines, recently assembled its 1000th machine at its Lower Austrian subsidiary. 290 people work at the firm’s Austrian facility. There are four global providers of automated sheet bending systems, for which Salvagnini has captured an 80 per cent market share. Among Salvagnini’s customers are the refrigeration and freezing equipment producer Liebherr, along with companies such as Novoferm, Forster and Zumtobel. → www.salvagnini.it

SKF: Development of Cluster Ball Bearings in Austria

The Swedish industrial group SKF is the world’s leading manufacturer of quality bearings, seals, mechatronics components and lubrication systems. The company produces cluster ball bearings and measuring devices in Austria. The Development Office in Steyr (DO Steyr) serves as one of the development centers for the global SKF Group for single row and double row angular cluster ball bearings, four point cluster ball bearings, high precision deep groove ball bearings and machinery specials, also as product solutions for other SKF facilities around the world. DC Ball Bearings is also the competence center for the ceramic material, coatings and sensor technologies. SKF has a work force of about 800 employees in Austria. → www.skf.at

Companies have come and stayed
(% of direct investments/after 3 years)



Source: OECD