

# Mobility in Austria

Where innovation moves mountains



# The Ecosystem

Austria: Business location with the best head start for your business

Companies, initiatives, and research centres form a stable network for complementary expertise and joint projects (selection):

## Research Landscape

- > A2LT – Austrian Advanced Lightweight Technology
- > AIRlabs Austria
- > AIT – Austrian Institute of Technology
- > ALP.LAB
- > Audi.JKU Deep Learning Centre
- > Digitrans
- > LEC – Large Engines Competence Centre
- > Virtual Vehicle

## Clusters

- > AC Styria
- > aeronautics.at
- > ATC - Austrian Technology Corporation
- > ATTC - Austrian Traffic Telematics Cluster
- > Automotive Cluster (AC) of Business Upper Austria
- > Research Cluster Railway Systems

## Educational Landscape

- |  |   |   |
|--|---|---|
| <b>Universities of Applied Sciences (FH)</b> <ul style="list-style-type: none"> <li>&gt; FH Joanneum: Institute of Automotive Engineering</li> <li>&gt; FH Upper Austria: Automotive Mechatronics &amp; Management / Automotive Computing</li> <li>&gt; FH Wiener Neustadt: Aerospace Engineering</li> </ul> | <b>Universities</b> <ul style="list-style-type: none"> <li>&gt; Graz University of Technology: Automation and Control, Automotive Engineering</li> <li>&gt; University of Klagenfurt – Faculty of Technical Sciences: Network and Autonomous Systems, Smart Systems Technologies</li> <li>&gt; Vienna University of Technology: Visual Computing, Automotive Industry</li> <li>&gt; Johannes Kepler University Linz: Artificial Intelligence, Autonomous Systems</li> </ul> | <b>Higher Technical Institutes (HTL)</b> <ul style="list-style-type: none"> <li>&gt; HTL Mödling: Mechanical Engineering, Automotive Engineering</li> <li>&gt; HTL Kapfenberg: Aviation</li> <li>&gt; HTL Eisenstadt: Aeronautics</li> <li>&gt; HTL Donaustadt: Avionics</li> </ul> |
|  | <b>Vocational Training / Apprenticeship</b> <ul style="list-style-type: none"> <li>&gt; Motor vehicle technician</li> <li>&gt; Motor vehicle body and construction mechanic</li> <li>&gt; Motor vehicle mechatronics technician</li> </ul>  |   |

## Companies



# Austria is a mover – on the road, by rail and in the air

## Austria's Mobility Industry at a Glance

As a dynamic business and industrial location in the heart of Europe, Austria serves as a business interface linking East and West. Therefore, it comes as no surprise that Austria has assumed a leading position in the three principal areas of mobility:

- Automobile industry
- Rail transport
- Aviation

Austria stands out thanks to its high quality of life and economic stability. The focus is on the green transformation, especially in the field of green mobility. The use of public transportation is above average, and the population displays a high level of acceptance for environmental issues. This development is supported by research and technical innovations.

#2 globally	R&D expenditure in the public sector
3.26%	Austria's R&D/GDP ratio
#1 in Europe	Intellectual property
#5	Attracting and retaining talents
#2	Apprenticeship training

Source: WIPO, Statistics Austria, European Innovation Scoreboard 2024, IMD Yearbook 2024

## Tops in Research Promotion

The attractive conditions and research funding make Austria a pacesetter for mobility. Austria has the third highest R&D ratio in the EU. Ideal conditions for future-oriented investments have led to an average of € 1 billion being invested in R&D in the automotive industry alone over the last three years.

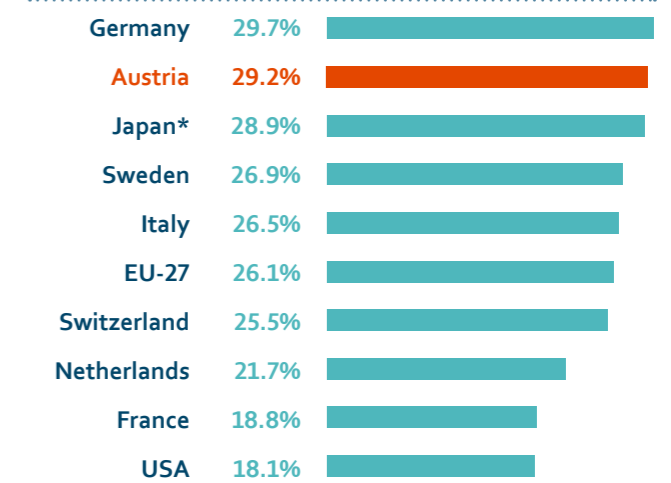


## Education and Talents

Austria considers itself to be a land of education and offers forward-looking perspectives to young people. About one third of the more than 390,000 students in Austria conclude their studies in the MINT (mathematics, IT, natural science, and technology) subjects, the second highest in the EU. New programmes of study in areas such as artificial intelligence, autonomous systems, bioinformatics, cyber security, data science and power electronics expand possibilities. A large offering in the fields of electronics, automation, aeronautics, vehicle engineering and computer science is available at 22 public and 17 private universities and 21 universities of applied sciences. Austria boasts a dual education system when it comes to vocational training and its higher technical institutes. This application-oriented education is unique in Europe, and features a technical and commercial focus on a pioneering spirit in research and teamwork. The availability of talents in Austria is also due to the commitment of companies. According to the IMD World Competitiveness Yearbook, Austria is rated first in the world with regards to employee training. In turn, employees show their gratitude by displaying an exceptionally high level of loyalty to their employers. The average length of service with a company is an impressive ten years.

## Austria as an Industrialised Country

Many people first associate Austria with tourism, but in fact it is an industrialised nation. The manufacturing sector accounts for close to 30% of its GDP, putting it on an equal footing with Germany and Japan.



Source: OECD, share of industry including energy and construction in relation to GDP 2022, \*2021

# Automobile Industry

Austria is an international player, producing and supplying vehicles, vehicle parts and technologies.

There is hardly a single automobile anywhere in the world that comes off the production line without components that are "made in Austria." The automotive industry in Austria offers its customers a top-notch performance in areas such as chassis construction, electronics, engines, and service.

1.8 million	Engines and transmissions produced yearly
€ 18.6 billion	Production value
38,000	Number of employees
€ 831 million	R&D expenditures
84 %	Export ratio

Source: Austrian Vehicle Industry Association, Statistical Yearbook 2023

Austria is an important driver of innovative mobility concepts, especially in the key area of autonomous driving. Numerous companies develop and test the transport solutions of tomorrow here. The proving grounds for automated driving offered by Digitrans and ALP.Lab are among Europe's most multifaceted testing areas in this field.

## Research Promotion

This success is no coincidence. A business-friendly environment lures investors, for example as reflected in the reduction of the corporate income tax to 23% as of 2024. Moreover, Austria features an attractive funding policy compared to many other countries. It pays a research premium of 14% of all R&D expenditures to companies engaged in research. This not only applies to in-house research costs for which the research premium is uncapped but also to contract research with a total volume of up to € 1 million p.a. Furthermore, the Austrian Research Promotion Agency FFG covers 50% of the project costs for research-intensive projects of innovative companies and up to 70% for startups.

One good example of networked research is MEDUSA, a project implemented by the Austrian Institute of Technology (AIT). In this case, AIT researchers collaborate with AVL List, EnerCharge, Infineon Technologies Austria and Xelectrix Power to develop a high-performance charging infrastructure in the multimewatt range for heavy-duty vehicles, buses, and trucks in order to further advance the decarbonisation of traffic.

### Did you know this?

Kreisel Electric, one of Austria's e-mobility pioneers, was founded by three brothers in a small village in Upper Austria.

### The proof

Operating under the brothers' last name, Kreisel Electric has been developing a state-of-the-art battery technology for high-performance applications in sports cars, double-decker buses and speedboats since 2014. In 2022, the American multinational John Deere acquired a majority stake in the company.

*// The Austrian business location is characterised by the availability of highly qualified, motivated and loyal talents. In 2023, we registered an enormous rise in the number of new apprentices. We increased our available trainee positions by 40% compared to the previous year, thus resolutely continuing our strong training programme. //*

Klaus von Moltke, CEO BMW Group Plant Steyr

# Success Stories

From a test laboratory to the most versatile proving ground, Austria's automobile industry is engaged in research, development, and production. In this way, know-how and products emerge for the global market – in the centre of Europe, and with strong neighbourly relations and good transport links.

## 1 Alveri

The world's first mobile and fully autonomous loading robot comes from Austria. The Ried-based startup Alveri developed the self-propelled "Charbo" platform with a robotic arm in cooperation with Arti Robots and the Graz University of Technology. It autonomously approaches the electric-powered vehicle requiring charging and locks onto the charging jock for the charging process.

## 3 BMW Group

The BMW Group Plant Steyr is unique in the world thanks to its combination of engine production and research. In the coming years, BMW will invest € 1 billion to develop and manufacture its new generation of e-drives in Austria. The planned production capacity amounts to more than 600,000 electric units annually.

## GERMANY



## 14 ZKW Group

Headquartered in Wieselburg, Lower Austria, ZKW shapes the world's automobile industry in its role as a specialist for innovative premium lighting systems and electronics.

## CZECH REPUBLIC



## 2 AVL List

With more than 11,000 employees, AVL is the world's largest independent company for the development, simulation, and testing technology for the automobile and other industries.

## POLAND



## 4 Bosch Austria

Bosch has been operating in Austria since the year 1899. The international competence centres for Bosch Mobility Solutions are in Vienna, Linz and Hallein.

## 15 TTTech Auto

TTTech was founded in 1998 as a spin-off of the Vienna University of Technology. The company specializes in secure software and hardware platforms for automated driving. MotionWise, the flagship product of TTTech Auto, offers a unique integration and real-time orchestration of applications as well as global scheduling features and tools.

## SLOVAKIA



## 5 Ease-Link

Ease-Link has developed "Matrix Charging<sup>®</sup>," the first automated conductive charging technology.

## 6 eCAIMAN

AIT Austrian Institute of Technology coordinates the eCAIMAN research project aiming to develop a lithium-ion battery to be manufactured in Europe with at least a 20% higher energy density.

## HUNGARY



## 7 EYYES

EYYES develops modular, scalable, intelligent, and safety-critical Artificial Intelligence products for applications in mobility and industry.

## 8 Kontrol

As a European deep-tech company, Kontrol is a leader in the field of automated mobility with respect to compliance with rules and regulations.

## SLOVENIA



## 11 Pierer Mobility (KTM)

A leading European producer of powered two-wheelers and a manufacturer of high-end components marketed under the WP brand.

## 10 Miba

Miba's powder metal parts, engine and industrial bearings, friction linings, power electronics components, coatings and e-mobility components can be found across the globe in vehicles, ships, aircraft, construction and agricultural machinery, wind power plants and electricity grids.

## 9 Magna Steyr Fahrzeugtechnik

A leading Austrian Canadian automobile component supplier. The Jaguar E-PACE celebrated its debut in the complete vehicle manufacturing facilities in Graz in 2017 and the 500,000th Mercedes G-Class vehicle left the assembly lines in 2023. A fully electric version is in its final development stage.

## ITALY



## FRANCE



## ABA simply gets it done.

Aim to implement your business idea in Austria?  
We will guide you through the startup process – step by step.

## Did you know this?

50% of all BMW vehicles around the world are equipped with an engine from Steyr.

## The proof

Since its founding in 1979, the BMW Group Plant Steyr has evolved into the company's largest engine factory anywhere and the diesel competence centre for the entire BMW Group.

**// Austria is a dreamland for entrepreneurs featuring an extremely strong infrastructure, optimal links to international transport networks and a very good educational system. There is hardly any other country in Europe which provides more support for startups. Austria also makes extensive funding available to support research. In particular, the research premium, in which the Austrian government assumes 14% of research costs, is an effective instrument with which Austria stands out in a European comparison. //**

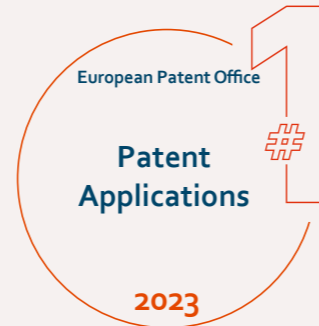
Georg Kopetz, CEO of TTTech Group

# Rail Traffic

When it comes to innovations and products in the rail industry, there's no getting around the key role played by Austria.

Austria is one of the world's leading countries when it comes to railway traffic and features a modern rail network. If one took all the trains which are operated in Austria every day, they would encircle the entire globe every two hours. The contribution of the Austrian Federal Railway (ÖBB) alone reduces annual CO<sub>2</sub> emissions equivalent to the reforestation of the federal province of Vorarlberg.

Today, 2-3% of all registered, rail-related patents around the world and every second track superstructure patent originated in Austria.



€ 2.7 billion	annual gross value added
28,000	Number of direct, indirect, and induced jobs
No. 1 worldwide	in exports per capita

Source: Austrian Rail Report 2023

Companies in Austria's rail industry rank among the most innovative anywhere in the world. Their product range encompasses the entire spectrum, from railway carriages, tracks, safety and control technology to metro systems and high-speed trains.

Austria also underlines its claim of excellence in research and development when it comes to rail traffic. The Graz University of Technology has put a new research initiative – the "Railway Systems" research cluster - on track in collaboration with ÖBB, Siemens, voestalpine and Virtual Vehicle. This interdisciplinary research cluster is active in the fields of rail vehicle technology, railway infrastructure and rail operations.

## Success Stories

### ALSTOM

ALSTOM is an international rail vehicle manufacturer and a specialist for trams and light rail vehicles at its facility in Vienna. With a tradition dating back almost 200 years, the company produces up to 100 trams and light rail vehicles p.a.

### Knorr-Bremse

Within the Knorr-Bremse Group, Knorr-Bremse GmbH in Austria concentrates on the development of magnetic track breaks, eddy current brakes, flange devices, windscreen wiper and washing systems and sanding system for rail vehicles.

### Liebherr Transportation Systems

At its site in Korneuburg, Liebherr develops all kinds of heating, ventilation, and air conditioning systems for rail vehicles, and can rely on its extensive experience in the development and manufacturing of these technologies.

### Plasser & Theurer

The world market leader for track construction machines. The firm's main plant is located in Linz and supplies its products to more than 100 countries. Plasser & Theurer accounts for about 6% of the total exports of Austria's mechanical engineering industry.

### Siemens Mobility

Siemens coordinates its global business for subway/metro trains streetcars, passenger cars, fully automated people movers (VAL) and charging infrastructure for e-powered buses from Vienna.

### Stadler

Founded in Zurich in 1942, Stadler established its own facility in Vienna in 2022 to serve as a regional hub for sales, engineering, approval, and service, both for projects in Austria as well as internationally for the Stadler Group.



# Aviation

Since its very beginnings, the aviation technology sector in Austria has undergone a rapid development and is an important economic factor today.

Austria has been designing and building motorised aircraft for more than 100 years. In 1909, the Austrian Igo Etrich developed the so-called "Etrich Taube" airplane, laying the groundwork for further developments and innovations.

Austria's aviation industry is well positioned for the future thanks to its research-intensive areas and service providers for supply, maintenance, and repair. Austria is a technology driver for aviation manufacturing processes and an internationally sought-after partner in the production of aerospace components and fibre reinforced plastics. Austria also enjoys a similarly good reputation around the world with respect to its testing infrastructure for drones. The competencies are being continually expanded based on targeted research and development work.

€ 3.14 billion	Annual revenue
> 15,000	Employees
25%	R&D as % of revenue

Source: Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, 2022

About € 400 million have been invested in the individual areas since the 2000s to put aviation on an even broader footing.

More than 260 Austrian organisations operate in eleven different segments of the aviation sector:

- Aircraft engines
- Air traffic infrastructure and control
- Cockpit equipment and aircraft electronics
- Aircraft structures and components
- Materials and production technologies
- Aircraft
- Cabin interiors and furnishings
- Basic systems
- Airport infrastructure
- Ground supporting and testing equipment
- Training devices

## VOESTALPINE

A globally leading steel and technology group and a top partner for the aviation industry thanks to its product and system solutions.

## TTTech Aerospace

Develops software and electrical systems solutions for aviation applications embedded into a broad range of on-board systems.

## RO-RA Aviation Systems

RO-RA manufactures tension and compression rods for various applications in aircraft cabins as well as high-precision components used for engines and wing elements.

## Success Stories

### AMAG

Produces primary aluminium as well as cast and rolled products for aircraft. The components are transformed into high quality end products for the aerospace industry.

### bionic surface

bionic surface technologies is a globally operating research and development company specialising in the development and optimisation of surface textures as well as the testing and evaluation of these.

### Frequentis

Frequentis is a global supplier of communication and information systems for control centres with safety-critical tasks. Such "control centre solutions" are developed by Frequentis for civil and military air traffic control and air defence as well as for the police, fire brigades, ambulance services, railways, and shipping.



### Pankl Aerospace

A global leader in the development and manufacture of complex flight safety propulsion systems and components for the aerospace industry.

### Lufthansa Technik/ Inairvation

A top provider of maintenance, repair, overhaul, and modification services for civil aircraft. Lufthansa Technik has international licenses for maintenance, construction, and production.

### FACC

FACC is a globally leading aerospace company in the design, development, and manufacture of advanced components for aircraft.

### Diamond Aircraft

One of the leading aircraft manufacturers in general aviation. Founded in 1981, Diamond Aircraft has achieved numerous milestones in the field of aviation.

### EHang/FACC

Together with its strategic partner EHang, FACC is a pioneer in the field of urban air mobility. The autonomous aerial vehicle EHang 216 produced by FACC completed its initial test flight under the supervision of Austro Control and was granted an experimental flight permit by Austrian authorities.

### AIRlabs Austria

Test environment for various technology and innovation maturity levels: engineering and simulation, climatic wind and icing tunnels, indoor hangars, and critical infrastructures.

### Lakeside Labs

Featuring an area of 150 m<sup>2</sup> (at a height of ten metres), it is one of the largest drone halls for research and test applications. Companies such as Amazon and Ehang are already developing their autonomous drones in Austria.

## ABA simply gets it done.

Looking for the right site in Austria? We will find a suitable place for you to enjoy living and working.

## Did you know this?

There are more than 5,500 aircraft "made in Austria" which are in operation across the globe.

## The proof

Diamond Aircraft ranks among the leading aircraft producers in general aviation and is headquartered in Austria.



Your easy access to Austria

## INVEST in AUSTRIA

We are there to provide help and support when foreign companies want to set up business operations in Austria or expand existing facilities.

## WORK in AUSTRIA

Austrian companies offer many attractive jobs for international skilled workers. We are the advisory centre for both sides.

## FILM in AUSTRIA

Tom Cruise climbs down a rope from the Vienna State Opera and James Bond flies across Tyrol. We work "behind the scenes" so that the world sees these images.

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