

# EXPORT TODAY

AUSTRIAN INDUSTRY FOR INTERNATIONAL MARKETS

## AUSTRIA EVERYWHERE

Austrian technologies, solutions and quality excel far beyond the country's borders.



### »THE CAPITAL FOR QUALITY OF LIFE«

Vienna is the #1 in the "Quality of Living" ranking of the Mercer consulting firm – for the eighth consecutive time.

### »THE STRENGTH OF GLOBALISATION«

Austria ranks fourth in the latest Globalisation Index and is therefore one of the world's most globalised countries.

# Proven Quality - made in Austria



DOORS  
GATES  
FRAMES  
GLAZING



## SUPPORTING PILLAR OF AUSTRIA'S **PROSPERITY**

Austria's dynamic export driven economy has proven to be crucial for Austria's future growth and enabled sustainable prosperity throughout the last decade.



In today's globalised world, much of the attention has focused on emerging markets, as Austrian companies are benefiting from widening their pool of trading partners and the significant potential as they engage in long-lasting business relationships.

VICE-CHANCELLOR REINHOLD MITTERLEHNER  
FEDERAL MINISTER OF SCIENCE, RESEARCH AND ECONOMY



**F**or this reason, despite an ongoing global crisis and a challenging economic environment, Austrian export sales reached a new record level, amounting to 131.55 billion euros in 2015. The necessary impetus has been provided by the redirection of the „go international“ campaign led by the Federal Ministry of Economy and implemented by the Austrian Federal Economic Chamber. Export diversification is the key to our new strategy.

In today's globalised world, much of the attention has focused on emerging markets, as Austrian companies are benefiting from widening their pool of trading partners and the significant potential as they engage in long-lasting business relationships. It is precisely in these markets, where Austrian companies see plenty of opportunities due to an increasing demand for their valuable expertise,

state-of-the-art products and innovative technologies. This relates in particular to green products as well as knowledge-based services. Together with the commitment and experience of Austrian businesses and entrepreneurs and as the share of Austrian exports to non-European markets continues to grow, I am confident that our success story will be continued. ■

**Vice-Chancellor Reinhold Mitterlehner  
Federal Minister of Science, Research  
and Economy**

## 12

### ON COURSE WORLDWIDE

Domestic companies are consistently targeting world markets

## 18

### THE CAPITAL FOR QUALITY OF LIFE

When it comes to quality of life, Vienna remains firmly at the top

## 32

### A CORDIAL WELCOME

Austria hits a new record number of starting businesses

## 40

### THE STRENGTH OF GLOBALISATION

Austria is one of the most globalised countries worldwide

## 50

### SUSTAINABLE TECHNOLOGY

Austrian environmental technology industry is among the world's most innovative sectors

## 54

### WIND OF CHANGE

Austrian companies are among the top suppliers for the offshore wind power industry

## 60

### VISIONARY POWER

Patent applications at the European Patent Office (EPO) reached a new peak in 2015

## 70

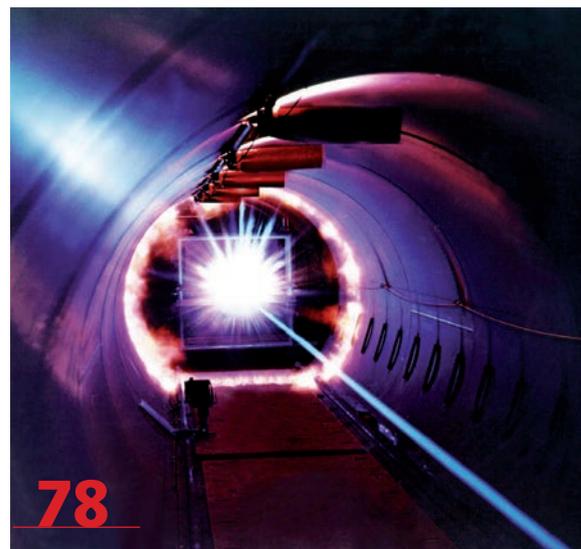
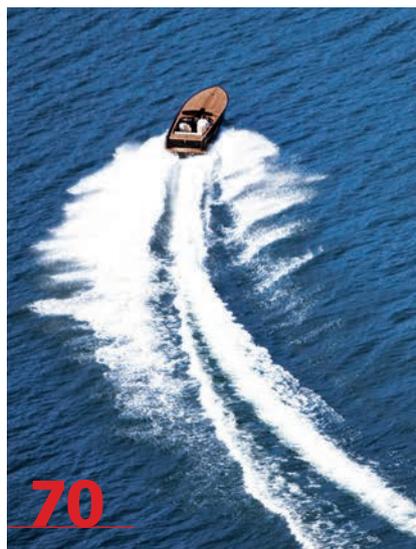
### EXPORT AHOY

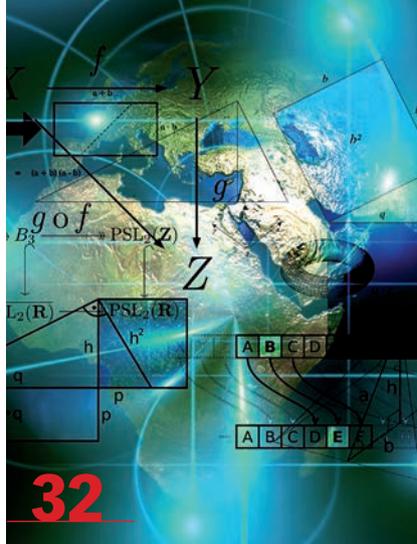
Austrian flagship companies are on a successful course in the US boats market

## 78

### A BRIGHT FUTURE

Austrian innovations are in high demand at the world's largest meeting of the photonics industry





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## DOMESTIC **FORCES**

From stimulating beverages to durable building materials, unique IT infrastructures, and many more: Austrian companies succeed on the world market with a wide range of extraordinary products and services. NEW BUSINESS asked selected global players to take the stage.



### **CONGRESS TECHNOLOGY**

**The performance of the Wi-Fi network at the Austria Center Vienna is one of a kind and won the 2016 Digital Infrastructure Awards.**

It is highly available throughout the entire building and its halls and can be used by 20,000 people simultaneously: The Austria Center Vienna won over the international expert jury with its innovative Wi-Fi network and prevailed against other congress houses from around the world. The extensive, highly available Wi-Fi network for 20,000 people or 35,000 simultaneous connections to all devices provides a unique IT infrastructure for event organisers. Another key feature of this network is its quick download rate. The team of Austria Center Vienna realised and operates this Wi-Fi network in collaboration with its cooperation partner H82. "One of the main reasons why we can pursue this IT strategy so consistently is that we have H82 on our side, who have been working with us for years. Being presented with the award is an encouraging validation of our joint efforts," says Susanne Baumann-Söllner, the Director of Austria Center Vienna.

[www.acv.at](http://www.acv.at), [www.h82.eu](http://www.h82.eu)



**DRIVING FORCE**

BRP-Rotax from Günskirchen in Upper Austria is specialised in developing and manufacturing innovative driving systems for products of the power sports sector. As a subsidiary of BRP Inc., the world market leader in development, production, sales, and marketing of motorised leisure vehicles, the company is responsible for the worldwide development and production of Rotax engines. 350 engine models for leisure products were developed and over 7 million engines were sold in the past 50 years. In 2015, the Rotax 1630 ACEA was brought to market - the most powerful engine the company ever developed.

[www.rotax.com](http://www.rotax.com)

**A COMPANY ON FIRE**

Rosenbauer manufactures internationally renowned firefighting equipment and has further solidified its market position in 2015. The company continues to grow and achieves record results in sales and profits. Rosenbauer's revenue reached impressive 865.4 million euros in the fiscal year of 2015 (2014: 813.8 million euros). This is an increase of 6% in comparison to the previous year. This growth is mainly attributed to North America's good economic situation and the strong US dollar. But Rosenbauer also increased its revenue in the Near and Middle East, even though some countries were hesitant to invest in 2015 due to low oil prices.

[www.rosenbauer.com](http://www.rosenbauer.com)



**INNOVATIVE PLASTICS SOLUTIONS**

Isosport is the world market leader in the plastics composite material sector for the ski and snowboard industry and a competent quality-supplier of technical foils, sandwich compound panels, fibre composite materials and tennis strings. The Isosport Group manufactures semi-finished products almost exclusively in continuous processes. Due to the company's history, which originated in ski and snowboard technology, the company can incorporate a vast range of technologies that can be hardly matched by any other company of the plastics processing industry.

[www.isosport.com](http://www.isosport.com)

**THE GREEN #1**

GREENoneTEC is the world's biggest manufacturer of thermal flat-collectors and produces more than 1.6 million sq m of collectors annually. With its eight highly automated and reliable robot-assembly lines, this world market leader provides product quality, excellent delivery performance and reliability. It is also certified in accordance with ISO 9001 and ISO 14001, and has 25 years of experience in the solar industry. Together with its clients, and in close collaboration with leading research institutes and universities, GREENoneTEC develops solutions with future-oriented technologies. The precious experience-based advantage that emerges from these global collaborations results in innovative products, new patents, and active support for the development of new norms, which in turn set technical standards.

[www.greenonetec.com](http://www.greenonetec.com)





### CANNED ENERGY

Inspired by functional beverages from the Far East, Dietrich Mateschitz founded Red Bull in the mid-1980's. He developed the product as well as its unique marketing concept and brought the Red Bull energy drink to the Austrian market on April 1st, 1987. This marked not only the introduction of an entirely new product but also the emergence of a completely new product category. Today, Red Bull is available in more than 169 countries and a total of more than 60 billion cans have already been consumed worldwide. Red Bull's future expansions focus on its core markets in Western Europe, the USA, the promising markets of the Far East as well as the further worldwide rollout of Red Bull editions. Despite the consistently difficult and insecure financial and global economic environment, Red Bull's growth and investment plans for the fiscal year of 2016 are very ambitious and bound to continue the company's positive development.

[www.redbull.com](http://www.redbull.com)



### CLEARLY THE BEST

Ovotherm from Lower Austria packages eggs from 65 countries and is therefore the world market leader when it comes to transparent egg containers. The company's revenue currently amounts to 35 million euros. Furthermore, Ovotherm was awarded with the "Green Star" in the production process category at the packaging convention "Impactk 2015" for its egg containers made of 100% recycled PET materials. A study regarding egg packaging conducted by a "think tank" confirms that packaging made of recycled PET is the most environmentally friendly. According to this study, all the egg packaging made of recycled PET materials that was produced in 2013 reduced greenhouse gas emissions equivalent of 10,870 tons of CO<sub>2</sub> - this is the equivalent of 48 million car-kilometres.

[www.ovotherm.com](http://www.ovotherm.com)

### FUTURE NEEDS PERFECTION

The TYROLIT Group is one of the worldwide leading manufacturers of bonded grinding, cut-off, sawing, drilling, and dressing tools. The company is also a system provider for tools and machines for the construction industry. This family-run company's secrets of success are its innovative capabilities combined with top-quality products and expert service. Many of today's international industries trust Tyrolean competence. TYROLIT develops customised tools and, in many cases, the company is already involved in the planning processes of its clients on site.

[www.tyrolit.com](http://www.tyrolit.com)



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**INNOVATION WITH PRECISION**

Pollmann is an internationally operating family-run company with over 120 years of experience, focusing on the automotive sector. Pollmann incorporates its motto "Innovation with Precision" into all areas, from concept designs to prototype manufacturing and serial production for its worldwide clients. Pollmann supports its clients globally with production sites in Europe, the USA, and China, and bring its own development and production know-how into play when and where it is needed. The product portfolio comprises sunroof kinematics and door locking systems as well as fittings for fuel pumps, components for electric steering systems, start-stop automatics, and transmission sensors. Components for heating systems and AC/DC converters of hybrid vehicles were added to the portfolio two years ago.

[www.pollmann.at](http://www.pollmann.at)



**SAFETY FIRST**

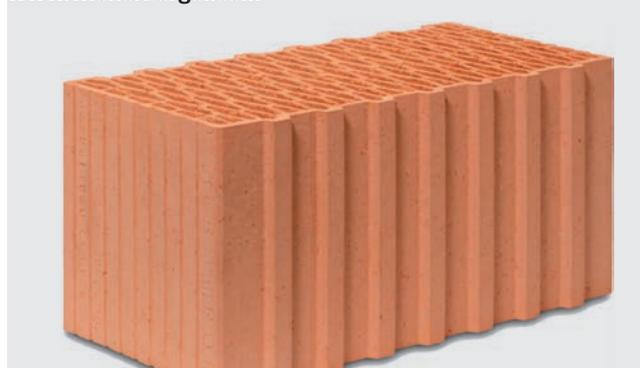
Frequentis AG is an international supplier of communication and information systems for control centres with safety-critical tasks. Such "control centre solutions" are developed by Frequentis for the business segments of air traffic management (civil and military air traffic safety, air defence) and public safety & transport (police, fire and rescue services, emergency medical services, vessel traffic and railways). With a market share of 30%, the Austrian-based company is world market leader for voice communication systems in air traffic management; additionally, it is world market leader in aeronautical information management.

[www.frequentis.com](http://www.frequentis.com)

**BRICK BY BRICK**

Founded as an Austrian brick manufacturer in 1819, Wienerberger has become an international construction material company in the 1980's, combining business areas such as "clay building materials" and "pipes & pavers". Its expansion's strategic milestones were the company's market entry in North America in 1999, the development of the roofing system division since 2003, and the complete takeover of the plastic pipe manufacturing company Pipelife in 2012. Today, Wienerberger has a broad industrial base, significant innovative strength as well as a strong corporate culture and is therefore excellently positioned to benefit from the market's recovery through organic growth. The Wienerberger Group is the world's leading brick manufacturer, with its 204 production sites in 30 countries.

[www.wienerberger.com](http://www.wienerberger.com)



**SUCCESS FROM ABOVE**

Diamond Airborne Sensing based in Wiener Neustadt enjoys a unique worldwide status as the leading provider of all-in-one sensor solutions delivered directly from the aircraft manufacturer. Diamond Airborne Sensing was founded in 2006, as a 100 percent subsidiary of Diamond Aircraft Industries, the worldwide 3rd biggest aircraft manufacturer in the general aviation sector. Diamond Airborne Sensing has been assigned the task of conceptualising the multi purpose platform (MPP) aircraft according to the demands of service providers.

[www.diamond-sensing.com](http://www.diamond-sensing.com)





Ergonomic picking at the multifunctional Pick-it-Easy work stations



Highest storage capacity and flexibility with the OSR Shuttle™

## Flexible shuttle solutions for industry

Würth and KNAPP share a long-term partnership and have jointly implemented numerous projects around the globe in the past years. At Würth Industrie Service GmbH & Co KG, KNAPP also demonstrated their solution competence for applications in industry.

A highly flexible OSR Shuttle™ system is perfectly in tune with the customer's needs. The free-moving Open Shuttles are also on the job. They handle transport orders with complete flexibility and autonomy. Performance and flexibility were paramount to the solution. Würth Industrie Service GmbH & Co. KG in Bad Mergentheim supplies industrial customers with modular logistics and procurement solutions for connection and fastening elements. The goods are delivered in small-load carriers, used by the end customer for stocking flow racks in assembly-line production. This Kanban principle sometimes makes it necessary to transport the goods in containers as bulk material, which requires extremely precise controls. The weight of most of the goods in the assortment poses a particular challenge, where trays with loads weighing up to 50kg need to be transported.

### Powerful system for industrial applications

KNAPP constructed an advanced OSR Shuttle™ to deal with the special demands of this sector. The highly dynamic system offers the highest storage capacity as well as flexibility, and fulfils all the requirements for an automated storage system: storage, consolidation, sequencing, dispatch buffering and picking. A large number of different containers, trays, cartons and carrier units can be handled. These are conveyed through the warehouse on KNAPP's high-performance conveyor system Streamline. In order to increase the performance of the existing warehouse, the OSR Shuttle™ system was expanded for a second time and com-

pleted in 2015. With the final expansion stage Würth has a total of 151.400 storage locations, which are managed by 240 shuttles.

### Ergonomics meets efficiency

Particular attention was given to the processing of heavy goods, to protect employees; therefore 20 multifunctional Pick-it-Easy work stations were integrated into the solution. The 12 work stations of the first phase were expanded with 8 additional work stations, which were put into operation in 2015. The work stations are identical, but have 5 different functions to fulfil: picking, checking, emptying and merging as well as tasks for incoming and outgoing goods. The ergonomic design of the work stations drastically reduces strenuous tasks such as lifting, bending and reaching.

### Flexible transport with Open Shuttles

Three Open Shuttles have been on the job at Bad Mergentheim since the second expansion. The driverless warehouse vehicles autonomously transport trays with articles from the goods-in area to an infeed point of the conveyor system. This is a great help for employees working at the goods-in bay, because they no longer need to manually transfer the containers to the conveyor system. The Open Shuttles independently plan their routes and avoid obstacles. In the goods-in area the paths for forklift trucks and employees must remain free, and therefore the Open Shuttles are an optimal alternative to a static conveyor system.

### QUERIES & CONTACT

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www.knapp.com





industry solutions

As easy  
as ABC.

## making complexity simple

Safe, flexible and simple. With Open Shuttles, KNAPP provides the ideal concept for processing complex transport orders within your warehouse. The integration of Open Shuttles into your system is as easy as ABC. This solution offers maximum flexibility at minimum effort.

At the same time, safety is of the utmost importance: the unique, dynamic and autonomous navigation technology quickly reacts to people and other obstacles. Planning alternative routes independently, the Open Shuttle will always safely and quickly find its way..

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www.knapp.com

**KNAPP**

## ON COURSE **WORLDWIDE**

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Domestic companies are consistently targeting world markets: From mining and food to high-tech and power supply – Austria’s diverse businesses are known to be internationally competitive and extremely innovative in a broad range of sectors.



**Austria's export**  
industry ensures growth,  
jobs, and the country's  
prosperity.



**Domestic companies** have yet to tap the full potential of markets with high economic growth.

Just as in 2015, all-time highs in merchandise exports will also be achieved in 2016 and 2017. Austria surpassed the 130-billion-euros mark for merchandise exports for the first time in the previous year.

According to forecasts of the Austrian Chamber of Commerce's ADVANTAGE AUSTRIA, merchandise exports will increase to 135 bn. euros this year and reach 140 bn. euros in 2017. This positive prognosis could be marred by several current crises, starting with conflict hot spots in the Near and Middle East, the subsequent refugee problem, in addition to the still existing reciprocal sanctions between the EU and Russia, as well as the current oil pricing policy. "But let's focus on the positive aspects: If we add the more than 50 bn. euros generated by Austrian service exports to the 130 bn. euros in merchandise exports, the total export volume amounts to 180 bn. euros. This total amount is the equivalent of all public sector budgets – from the federal government to provinces, municipalities, and social insurance agencies!" says Christoph Leitl, the President of the Austrian Chamber of Commerce,

#### **AUSTRIA'S FOREIGN TRADE IN 2015: IMPORTS AND EXPORTS AMOUNTED TO MORE THAN 130 BN. EUROS**

According to Statistik Austria's preliminary results for January to December 2015, the total value of imported goods of 133.00 bn. euros is 2.4 percent above the previous year's figure. Exported goods also showed an increase of 2.7 percent to 131.55 bn. euros. The trade deficit amounted to 1.45 bn. euros, after 1.74 bn. euros in 2014.

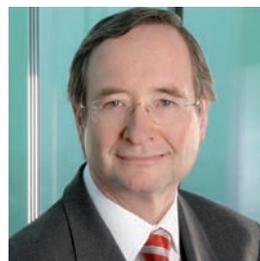
Compared to 2006 – the report year, in which the 100-billion-euro mark was surpassed for the first time in both directions – the Austrian foreign trade increased by over 25% (imports 2006: 104.20 bn. euros; exports 2006: 103.74 bn. euros). In the five-year comparison (2011 to 2015) imports increased by 1.5 percent and exports by 8.0 percent. Imports of goods settled at around 130 bn. euros from 2011 onwards (with the exception of 2014: 129.85 bn. euros), exports followed suit in 2015. About 70 percent of the Austrian foreign trade was conducted with member states of the European Union in 2015. The remaining 30 percent were conducted with third countries – this ratio was

still at 75:25 in 2006. Exports to other EU member states increased slightly above average levels in 2015, whereas exports to third countries remained below average levels. Austria imported 93.69 bn. euros (+1.3 percent) worth of goods from EU member states; imports from third countries increased by 5.2 percent to 39.32 bn. euros. The trade deficit with the European Union decreased by more than one third – from 4.30 bn. euros (2014) to 2.84 bn. euros. Austria exported more goods to third countries than it imported, resulting in a positive trade balance of 1.40 bn. euros.

#### **FOCUSING ON EXPORT MARKETS**

According to Walter Koren, Director General of ADVANTAGE AUSTRIA, Austria's export growth in 2015 is mainly due to booming markets "in the Far East as well as the Far West". On the one hand, exports strongly increased to the NAFTA region (USA, Mexico, Canada), on the other hand, Southeast Asian markets have become increasingly strong magnets for Austrian products.

One of these countries is India, from where Christoph Leitl only recently returned with a large business delegation. "India is the world's seventh biggest economy and the fastest growing emerging market worldwide. In the past ten years, India has moved up 10 ranks and is now among the Top 30 of Austria's most important target desti-



**>>** Exports continue to be our most important trump card for solid economic growth and are the main pillar of our prosperity.

CHRISTOPH LEITL, PRESIDENT OF THE AUSTRIAN CHAMBER OF COMMERCE (WKO)



**Great potential**

Most Austrian exports go to European markets. Overseas exports bear enormous potential for domestic companies.

nations for exports,” says Leitl. The increase in exports in 2015 amounted to 15 percent and 680 million euros. “This means that our exports to India have sextupled since 2000”, says Leitl. Over 500 Austrian companies are already represented in India, 130 of them with subsidiaries or representative offices.

Hot spots for export-oriented companies are now in Asia and America, in countries and regions, which have a better economic standing than Europe. Koren: “That is why we set the course of our export promotion programs for Austrian companies towards these markets. 50% of our events abroad already focus on markets





Robot Palletizer „Principal-R“ for fully automatic bag palletising



Three fully automatic bagging machines type „Principac“ for packaging rice into 10-50kg woven PP bags.



Fully automatic bagging machine „Certopac“ for packaging free flowing bulk materials.

## STATEC BINDER knows how to pack

STATEC BINDER GmbH, a specialist in packaging and palletising machines, is appreciated and in demand worldwide as a reliable partner who provides flexible solutions in the field of packaging and palletising of bulk goods.

The focus is clearly on innovation, high performance and quality. With the right mixture of experience, know-how and the entire supply chain within one company, high-performance machinery can be realised.

STATEC BINDER's machines provide quality-conscious packaging and palletising. They are particularly characterised by high operational safety and durability under extreme and demanding conditions.

### STATEC BINDER makes history

STATEC BINDER is located in Gleisdorf near Graz (Austria) and looks back on a long tradition. The company has successfully applied its expertise in packaging technology all over the world for more than 35 years. Due to its proven technologies, which are constantly developed and optimised, STATEC BINDER established itself at the industry's forefront with new, innovative packing concepts and has become the global market leader in high-performance open-mouth bag packaging. The name STATEC BINDER stands for absolute reliability combined with precision.

### Product variety of the highest quality

The know-how of STATEC BINDER is reflected in a wide range of packaging and palletising machines as well as complete systems – packaging, palletising, pallet securing and special accessory. All varieties of packaging systems are offered for polyethylene (PE), polypropylene

(PP) and paper bags with bag filling weights of 5 up to 50 kg. Starting with the open-mouth bagging systems PRINCIPAC, CERTOPAC, ACROPAC and CIRCUPAC all with high performance in a compact design.

These models can also be combined with the bag producing module SYSTEM-R for operating with woven PP reels. The high-speed FFS bagging machine SYSTEM-T for packaging from tubular PE-film and the vertical FFS bagging machine SYSTEM-F for operating with flat PE-foil complete the high-speed packaging machinery segment. Solid and reliable automatic high-level palletising systems and robot palletisers from the very latest state-of-the-art PRINCIPAL series round off STATEC BINDER's product portfolio.

STATEC BINDER develops, designs and produces all machines at its manufacturing plant, having been certified according to ISO 9001, in Gleisdorf, Austria. To date, more than 1,000 packing machines have already been supplied all over the globe and have been successfully installed to the fullest satisfaction of customers.

### Customers and references – versatile and trusting

STATEC BINDER's customer base ranges from small businesses to large corporations. Represented on all five continents, STATEC BINDER supplies a wide variety of industries. Whether petrochemical or chemical industry, animal feed production, agricultural business, foodstuffs, sugar or fertiliser industry.

### QUERIES & CONTACT

STATEC BINDER GmbH

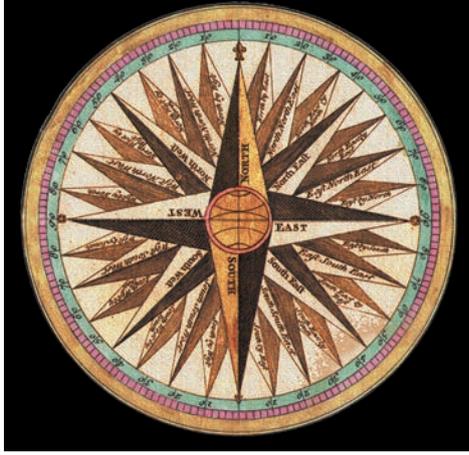
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### Today, Austrian

companies already stand for innovative and top-quality products, which are in high demand around the world.

→ outside of Europe. Additionally, half of our 100 foreign offices are located in overseas destinations.” The biggest export increases were also achieved with countries outside of Europe: led by Mexico (+28%), followed by the USA (17%), Turkey (16%), the U.A.E. (16%), and India (15%). These are then followed by the first European states, among which – according to Koren – “There are several which were very important for our good export performance in 2015.” For example, the Czech Republic and Poland in Central Eastern Europe, as well as Great Britain and Spain in the west. One of course has to mention the foreign trade development with Germany as well, as it is Austria’s most important foreign trade partner. After an intermediate stagnation in the first eleven months of 2015, exports increased again by 3.7%. The USA, Italy, Switzerland, France, the Czech Republic, Hungary, Great Britain, Poland, and China in tenth position all follow Germany in the top ranking of Austria’s most important foreign trade partners.

In 2014 Russia was in the 11th position, but it moved back to the 15th due to reciprocal sanctions.

### 14 EU COUNTRIES AND SIX THIRD COUNTRIES AMONG THE 20 MOST IMPORTANT PARTNER COUNTRIES

More than half of Austrian exports went to only 5 partner countries in 2015. Third countries like Switzerland, the United States and China were also among them. Austria’s 20 most important trade partners were responsible for 87.5% of all imports and 83.8% of all exports – among them are 14 EU states and 6 third countries. All of Austria’s neighbouring states, with the exception of Liechtenstein, were among these top 20 partner countries in both trade directions.

16 of the 20 import partners had positive developments – six were highly dynamic: The United States (+19.3%), Poland (+15.6%), Switzerland (13.0%), Turkey (+12.2%), China (+8.0%), and Japan (+7.4%). Hungary moved down two ranks to #9 in this ranking; France and the Netherlands were at #7 and #8 respectively (#8 and #9 in 2014). Poland (#10) and Slovakia (#11) switched positions, while Turkey moved up one position to #18. Romania made the jump into the top 20 (to #19). As in 2014, the Russian Federation remained at #13 (moving down from 2013’s #10).

The ranking of the top 20 export partners also presented a new picture. Apart from changes at #2 (USA) and #3 (Italy), the Russian Federation moved from #11 in 2014 to #16 (-38.1% to 1.98 bn. euros). As a direct result, Slovakia, Slovenia, Spain, the Netherlands, and Romania moved up between #11 and #15. Turkey and Japan switched positions at the lower end of this top 20 ranking.

The decrease in exports amounted to 40 percent. “The sanctions achieved nothing, they only caused damages on both sides. The politicians have to gradually get us out of this again. From an economic perspective, ending these sanctions is very important for Russia’s and Europe’s stability,” says Leitl.

### PROMISING INDUSTRIES

Over 80 percent of Austrian exports come from the four biggest groups in terms of value: “Machines and Vehicles” (+4.4% to 52.20 bn. euros), “Manufactured Goods” (+3.1% to 29.01 bn. euros), “Chemical Products” (+0.7% to 17.92 bn. euros), “Other Finished Goods” (+2.4% to 15.21 bn. euros). The traditionally most important product group of the Austrian foreign trade sector in 2015 was once again “Machines and Vehicles” with an import share of 34.1 percent and an export share of 39.7 percent. The increase of exports in this product group is mainly due to “Electric Machines and Devices” with +8.9%, “Machines (not otherwise specified)” (+7.0%) and “Road Vehicles” (+6.7%). The second most important product group “Manufactured Goods” had absolute increases in imports and exports of 0.86 bn. euros each. “Other Finished Goods” had the second biggest absolute increase in imports (+0.98 bn. euros), following “Machines and Vehicles” but still ahead of “Manufactured Goods”. The product group “Fuel and Energy” had the strongest decrease in imports with -2.58 bn. euros.

Exports of services will become increasingly important in the future. Koren: “Service exports currently amount to approximately 30 percent of exported goods and contribute significantly to this positive track record. We expect an increase in exported services of over 4% to 53 bn. euros.” The international demand for expert surveys in technical and creative sectors – logistics and construction services, engineering, software, architecture and design – is particularly promising.

In total, Austrian companies sell their products and services in 220 countries around the world. “We were able to increase the number of Austrian exporters from 12,500 to currently 55,000 with our export promotion initiatives. The goal for 2025 is to bring 100,000 Austrian companies to the international market,” says Leitl. ■



High pressure pool condenser



Transport of high pressure scrubber by plane



SBN workshop in Linz, Austria

## Equipment for fertiliser plants

Schoeller-Bleckman Nitec (SBN), a member of the Christof Group, has been manufacturing critical process equipment for ammonia and urea plants for now more than 40 years.

In this period, SBN has not only acquired an unmatched level of expertise, but has also been instrumental in the development of materials and fabrication techniques for the various types of equipment geared to support the nitrogen fertilizer industry in their strive for larger capacity and higher efficiency plants coupled with longer plant life time.

### Comprehensive product range

To provide the best possible service to customers, SBN has streamlined its operations and focusses on the fabrication of critical equipment for ammonia and urea plants.

For ammonia plants, SBN has been supplying a wide range of products including ammonia converter shells and converter internals, heat exchangers for the synthesis section as well as other areas of the plant including the reforming section.

SBN is a leading fabricator for high pressure components for urea plants and has been working with the leading process licensors in this segment for many years. Specifically HP strippers, HP carbamate condensers, HP scrubbers, pool condensers and pool reactors are among the products in this category. For urea reactors both multilayer and monowall design for the pressure bearing shells are part of SBN's engineering and fabrication spectrum.

SBN is particularly experienced in the processing of all urea grade corrosion resistant materials and primarily uses the superduplex grade Safurex® for its high pressure heat exchangers.

SBN is not only fabricating equipment for grassroot and operating plants but is also active in repairs and modifications to be carried out in-situ. A specially trained workforce is regularly performing re-tubing of heat exchangers and re-lining of urea reactors besides other types of repair work.

### Facilities

SBN features two manufacturing facilities, Ternitz and Linz. Both are equipped with state-of-the-art machinery and tools specifically designed for the fabrication of high pressure vessels and heat exchangers. While Ternitz is the main fabrication shop, final assembly of the very large and heavy equipment takes place in Linz, located directly on the river Danube. There is no limitation to the size and weight of reactors or heat exchangers to be shipped from this location.

SBN's mission is to serve its customers throughout the world with products and services meeting the highest quality standards.

### QUERIES & CONTACT

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# THE CAPITAL FOR **QUALITY OF LIFE**

When it comes to quality of life, Vienna remains firmly at the top. Once again, this city is the #1 in the “Quality of Living” ranking of the Mercer consulting firm – for the eighth consecutive time.



## **Visiting Vienna**

Vienna is a city with high quality of life, which is much appreciated by Vienna's many visitors.

In 2016 Vienna is once again at the top of the international city ranking that compares quality of life internationally. With Zurich at #2 and Munich at #4 there are two more European cities among the top 5. Auckland at #3 and Vancouver at #5 round out the top ranks. These

are the results of Mercer, the consulting firm that conducts this worldwide comparative study evaluating the quality of life of expatriates in 230 major cities. Baghdad is at the bottom of this worldwide list of major cities. To assess the quality of life of each city Mercer analyses 39 criteria, which play



**FACTS & FIGURES  
VIENNA 2015**

- Total area: 41,487 ha
- Construction areas: 35.6 %
- Green areas: 45.5 %
- Water areas: 4.6 %
- Traffic areas: 14.3 %
- Length of city boundary: 136.5 km
- Population: 1,797,337
- Men: 867,633
- Women: 929,704

**Tourism:**

- Total number of arrivals: 6,589,031
- Total number overnight stays: 14,328,261

Sources:  
Statistik Austria, MA 23,  
WienTourismus

a central role, for employees who are sent abroad. These characteristics include, among others, political, social, economic, and environmental aspects. Additional factors are health, educational, and transport offers as well as other public services. For its current study Mercer assessed the factor

“personal safety” separately for the first time because political and social stability have the biggest impact on the quality of life of employees who are sent abroad by their employers. Key criteria for the assessment are, for example, inner stability, crime rates, and the performance of law enforcement



### **Major attraction**

The baroque buildings of Schönbrunn Palace entice with magical park areas, the palm house, the Gloriette, and the world's oldest still existing zoo.

authorities. Expatriates feel the safest in Luxembourg, Bern, Helsinki, and Zurich. Vienna follows in this international ranking on a good 5th place. According to this ranking, Baghdad and Damascus are the world's least safe cities. "Safety aspects are the most important because many expats are accompanied by their families when they move

abroad," says Mercer expert Ulrike Hellenkamp. "Crime rates are comparably low in Austria, law enforcement is efficient, social and political conditions are stable. Therefore Vienna feels very safe and is at the top of the international ranking." Conversely, terrorism and social unrest lead to several European cities coming in much further



down the list, such as Paris (71), London (72), Madrid (84), and Athens (124).

#### **CHALLENGES FOR COMPANIES**

“Increased security risks at home and abroad, violent mass expulsions as well as social riots in important economic centres around the entire

world pose challenges for multinational companies when they analyse the safety and health of their employees working abroad,” says Ilya Bonic, Senior Partner and President Talent Management at Mercer. They need exact data and objective methods to assess the financial impact of lower living standards and personal security aspects in regard to



the remuneration of expats. The present study also enables companies to implement the appropriate security precautions for expats.

“It is a matter of course for most multinational companies to meet the requirements of expatriates and their families abroad as part of their staff

retention and recruiting measures,” says Slagin Parakatil, Principal at Mercer, responsible for the quality of life study. “Dealing with security and health concerns is very important, especially for employees who move with their families.” Companies must therefore take further expenses into



account, in addition to the usual safety measures and costs at foreign locations. For example, reasonably safe accommodations, in-house expat security programs, the provision of professional security experts and medical service providers as well as safety training and guarded offices.



### **Lifestyle steeped**

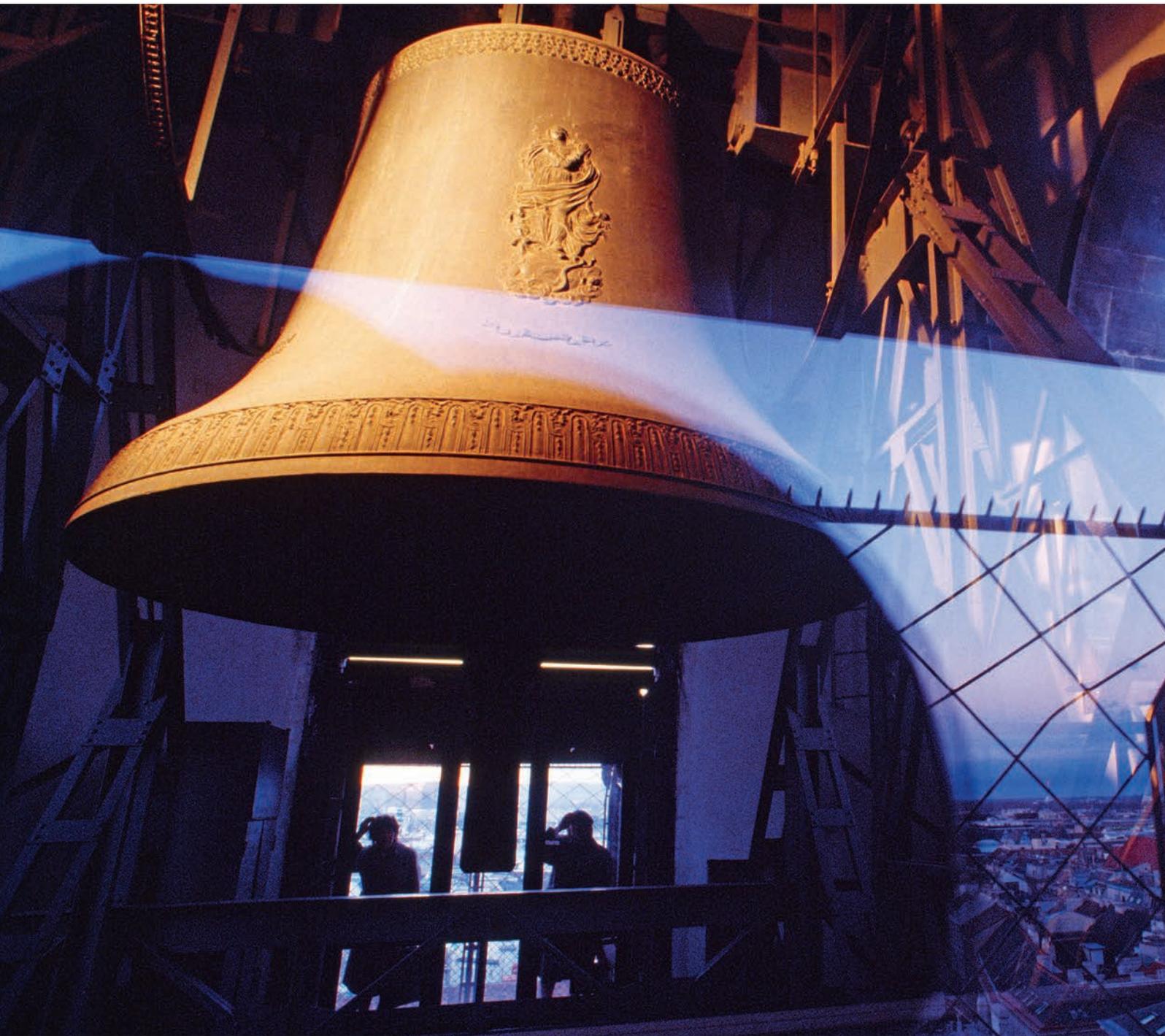
in tradition: Vienna is hip, Vienna is stylish, Vienna is modern, and breathes history.

### **HOW VIENNA'S COURSE CONVINCES INTERNATIONALLY**

In a first reaction, Vienna's Mayor Michael Häupl and Renate Brauner, Vienna's City Councillor for International Affairs, consider this ranking as an important statement in regard to comparisons to other international cities: "Vienna is a city like no other in the world when it comes to living in safety, with high social standards, affordable housing, great infrastructure, and an excellent cultural offer for all of our residents and guests. This is what Mercer and many other rankings confirm again and again. But it also shows that the Viennese are happy with their municipal services. To be the world capital for quality of life primarily means for us, as a dynamic city, that we will continue on our successful course to become an even more vibrant, liveable, and socially fair metropolis."

### **MEDIA RESPONSE TO THE MERCER STUDY**

There is no better place to live than Vienna – this conclusion grabs headlines around world. The Canadian "Montreal Gazette" summarises the sentiment in a nutshell with their headline: "Vienna, you rock". More comprehensive praise comes from the "Reuters" news agency: "Vienna's 1.7 million



residents benefit from its coffee house culture and the city's many museums, theatres, and operas. Rents and public transport in the city are cheap in comparison to other western capitals." The French daily newspaper "Le Figaro" and the Italian "La Repubblica" and "La Stampa" take the same line.

#### **A DECLARATION OF LOVE TO VIENNA FROM LONDON AND NEW YORK**

The British "Telegraph" praises Vienna's public transport, particularly the tram around the ring: "Not only the subway is great, which even reaches the outer districts, but also the red and white trams,



**Numerous studies** and rankings attest Vienna's excellent positioning in the global competition and its ideal conditions for further dynamic development.

which drive around the Ring. You can cross the city centre in half an hour", raves the Telegraph's author. "When it comes to affordable housing, Vienna is almost unique among metropolises", says the "Guardian" and highlights the longstanding tradition of the social democratic government in

regard to subsidised housing. The American "New York Times" also raves about the Vienna Opera, one-euro tickets for public transport, and subsidised housing.

#### **THE GERMAN "ZEIT" SAYS: "BYE BYE BERLIN"**

Vienna makes Berlin look old, according to Hamburg's "Die Zeit": "Forget the German capital and its pseudo-hipster district coffeehouses that charge you 3.80 euros for an Americano. There is a better Berlin." It says the food there "is delicious and affordable". Our German neighbours also appreciate that the public transport system works. And there is also praise for Vienna's universities and culture: "World renowned lecturers teach at the city's art schools. Its museums are among Eu-



**Vienna is green.**

To the tune of 51 percent. More than half of the city's area is reserved for green areas of all kinds. This makes Vienna Europe's greenest metropolis.





rope must-see sights.” “Die Zeit” even provides “A Taste of Vienna” with a video on their home page. The time-lapsed video was filmed with the city’s support and raked in massive “Likes” on social media platforms and was shared thousands of times.

### A MECCA FOR TOURISM

Austria’s capital positions itself successfully on the touristic world market with a winning mixture of imperial tradition and contemporary creativity. 14.3 overnight stays in 2015 brought Vienna the best tourism results in its history and surpassed the previous record of 2014 by 5.9 percent. Vienna is at #2 in the international ranking of congress destinations (2014 ranking of the International Congress and Convention Association, ICCA). Vienna owes its touristic attractiveness to the exciting link between imperial-nostalgic flair and a highly creative cultural scene, which provides the latest trends as well as the responsibly maintained rich heritage and charming traditions. The coexistence of traditional institutions like the coffeehouse and the “Heuriger” which emanate Vienna’s self-indulgent serenity, and the latest trends like internationally renowned events, ranging from the Life Ball to festivals for electronic music, convey a way of life that today’s tourists are looking for: A wide range of activities which let you choose between peace and quiet or action and stimulation whenever you feel like it.

### GLOBAL VIENNA

In many respects, Vienna is a highly visible and important international metropolis, with its radi-





**Quality of living**

According to the consulting firm Mercer, there is yet again no other city with a higher quality of living than Vienna.

ant power as a centre for culture and knowledge, a globally networked economy, its role as Europe’s central hub, as a city for international dialogue and a diverse population.

The basis for Vienna’s internationality is its cosmopolitan attitude, which is, in turn, based on its population’s multicultural composition. A walk across one of Vienna’s markets like “Naschmarkt” clearly shows this as well as traditional Viennese cuisine whose specialties originated from all countries of the former Danube Monarchy with deliciously prove the city’s cultural diversity.

People from 200 nations live in the DiverCity of Vienna today. Approximately one third of the Viennese were not born in Austria, 49% of the 1.8 million residents have “migrant backgrounds” and were therefore either not born in Austria or have at least one parent who was born abroad.

Non-Austrian nationals mainly come from Serbia and Montenegro (approx. 72,000 people), from Turkey (approx. 45,000), from Germany (approx. 40,000), and Poland (approx. 38,000). The United Nations selected Vienna as one of its four official seats and is represented by 15 organisations, including the Office of the High Commissioner for Refugees (UNHCR), the International Narcotics Control Board (INCB), and the International Money Laundering Information Network (IMOLIN). But also UNIDO (the United Nations Industrial Development Organisation), IAEA (International Atomic Energy Agency), OSCE (Organisation for Security and Cooperation in Europe), and OPEC (Organisation of the Petrol Exporting Countries), and many other international organisations are present in this city. International organisations in Vienna have over 5,000 employees.





Over 3,000 of Polytechnik's plants between 300 kW and 30 MW are currently in operation around the world.

## Energy generation with a future

Polytechnik is one of the world's most renowned suppliers of ventilation and combustion technology systems. The biomass specialist once again proved his expertise in the field of renewable energy sources with a Swiss flagship project.

Low fuel qualities of waste wood mixtures as well as strict emission limits of the Swiss Clean Air Act (LRV) posed massive challenges for the biomass heating plant of the "energy city" of Ilanz. For Polytechnik, however, this was an absolute competitive advantage. The Austrian biomass expert was able to meet the high requirements for air pollution control.

### Revolutionary combustor geometry

The entire process comprises plant engineering with hydraulic silo discharge and feeding into the combustion chamber, combustion technology with water-cooled feed grate firing and zone regulation for combustion air as well as an exhaust-heat thermal oil boiler with a sootblower to clean heating surfaces. The plant also includes the required flue gas cleaning system with a sleeve webbing filter and neutralisers to meet the stricter limits for solid and gaseous emissions of the Swiss Clean Air Act. The centrepiece of the biomass and wastewood furnace is its special combustor geometry for the optimisation of gas retention and consistent air staging while adding further recirculation gas to regulate the combustion chamber's temperature. Gas flow decreases in the secondary combustion chamber, practically burning off the exhaust gas's entire CO content as well as its solids.

### Continuous emission control

To facilitate emission control, gas quantities (EMI), which are permanently taken from exhaust pipes, are used to analyse and support combustion regulation as well as documentation for government authorities.

"The analysing system can provide emission data for authorities with hourly, daily, weekly and yearly averages. This system builds trust and promotes wood energy as part of the Swiss Resources and Energy Strategy 2035 with the clear goal to promote cleantech for a green economy," says Beat Huber, Managing Director of Swiss Polytechnik.

### All-round care

The plant is handled by ewz's trained personnel and supported by Polytechnik's process control engineering and its visualisation. With its new remote maintenance software, the boiler manufacturer ensures the plant operator's monitoring of individual conditions and helps him to constantly optimise customer-specific settings. Additionally, Polytechnik ensures the heating plant's smooth operations and availability for years to come with a special service hotline, which is available 24 hours a day and 365 days a year.

### QUERIES & CONTACT

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**POLYTECHNIK**  
Biomass Energy



Dust suppression systems

FTIR - exhaust analysing system

## Sales partners wanted

IAG is generally active in the manufacturing of special-purpose machinery for complex areas of application. Reliability and high quality have made the company a worldwide valued partner for customers in all industries.

### Engineering at the cutting edge

The competent and experienced team of IAG, currently comprising a staff of about 130, is able to meet the most exacting customer requirements and is consistently developing innovative customised solutions by employing the most advanced technologies. Profound expertise and a wealth of experience in general engineering as well as in electrical engineering and control technology enable the company to develop and realise highly complex solutions. A special strength is the creation of complete solutions from a single source, starting with the specification profile, through development and realization, and on to implementation on the customer's site, including service support.

The division special-purpose machinery mainly focuses on fully automatic machinery and systems for the manufacturing of brake

pads and has become the global market leader in this segment. The division test cell technology is one of the worldwide leading enterprises for exhaust gas analyzing systems for the development of engines and the related exhaust gas after treatment. Besides measuring systems, an extensive range of corresponding components like pressure governors and prefilters are part of the manufacturing program. The third division, which is busy in snowmaking, emission prevention, and fire department technology is engaged in the production of snow canons, snow rooms, wellness boxes, products for emission prevention and fire fighting. From snow safety solutions up to +35°C, snow for indoor and outdoor applications, test stands for R&D up to standard products, this division covers all customer needs with high end products.

### Sales partners welcome

For the further expansion of the worldwide market IAG is looking for further sales partners in the divisions test cell technology and dust prevention.

The sales partners for test cell technology must have long year experience in exhaust gas analysis and preferably solid contacts to the potential customers in the automotive industry as well as to the corresponding environment. Very important is a technical back-

ground, preferably with already existing resources concerning after sales service and maintenance for installed gas analysing systems. The sales partner for the topic dust prevention should have technical background and existing resources concerning after sales service and maintenance.

If you are interested in representing IAG in a certain market and fulfil the described preconditions, please address your email to Christian Cech: [c.cech@iag.at](mailto:c.cech@iag.at)

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# DISCOVER NEW HORIZONS.

Greiner focuses on globalization.

## A CORDIAL **WELCOME**

New record numbers of starting businesses in Austria: ABA-Invest in Austria supported 297 international investors in 2015 and achieved yet another record year – investments in Austria have increased by a third.

### **Internationally,**

Austria is considered a prime location for building business relationships with East and Southeast Europe. As a headquarters location with 362 headquarters, Austria is already miles ahead of its CEE location competitors Poland, Slovak Republic, Czech Republic, and Hungary.

In 2015, the investment promotion agency ABA-Invest in Austria, which reports directly to the Ministry of Economy, brought 297 new, international companies to Austria in collaboration with its regional subsidiaries. In 2014, there were 276 of them. “This is a positive development for Austria as a business location. We further improved our record for starting new busi-



#### RANKING OF PROVINCES

Most international companies moved yet again to the capital city of Vienna in 2015. Vienna's 150 new businesses are followed by 36 in Carinthia, 25 in Salzburg, and 20 in Tyrol. 18 of the company foundations supported by ABA and its regional subsidiaries are located in Lower Austria, 16 in Upper Austria, 16 in Styria, 9 in Vorarlberg, and 5 in Burgenland. One company has offices in several provinces.

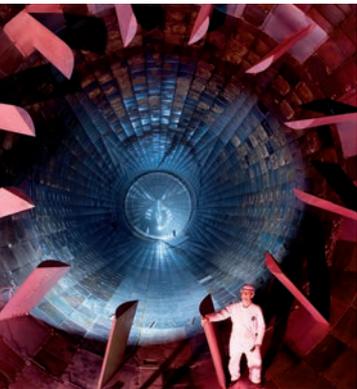
nesses with an increase of close to 8 percent,” says Reinhold Mitterlehner, ABA's owner representative and Federal Minister for Economy. “This increased confidence of international investors is a positive signal, but it should also motivate further reforms. We have to develop this business location continuously to ensure its international competitiveness for the future,” says Mitterlehner. Capital expenditures increased even more significantly than the number of new businesses, by 34 percent to 496 million euros. 2,613 new jobs were created (following 2,645 in the year before). “

Many of the companies moving here value Austria's position as a hub for Central, Southeast, and Eastern Europe, as well as its factors for long-term success, such as qualified specialists, our stability, and legal certainty, which is a particular strength in a difficult geopolitical environment,” explains Mitterlehner. “We strengthen purchasing power and consumption in Austria with tax reforms. Furthermore, we gradually lower ancillary wage costs by up to one billion euros per year and continually lessen as well as simplify bureaucracy,” says Mitterlehner about his current plans.

#### ABA'S RESULTS: GERMANY REMAINS AT NUMBER ONE – CONTINUALLY STRONG INTEREST FROM ITALY AS WELL AS CENTRAL, EASTERN, AND SOUTHEAST EUROPE

The most important investor country with 103 new businesses is Germany, with an increase of 17 percent. “Fortunately, there were several bigger investments among them again. Therefore the investment volume for these new businesses from Germany amounts to 343.4 million euros, which is a 25 percent increase from last year's 274.5 million,” says Managing Director René Siegl. Once again, Italy comes in second place in this investor ranking: A total of 42 Italian companies have moved to Austria with the support of ABA.





**Investors benefit**  
 from a broad range of  
 research grants, a busi-  
 ness-friendly tax system  
 and high productivity.

**VIENNA EXPANDS AUSTRIA’S RECORD  
 NUMBERS EVEN FURTHER**

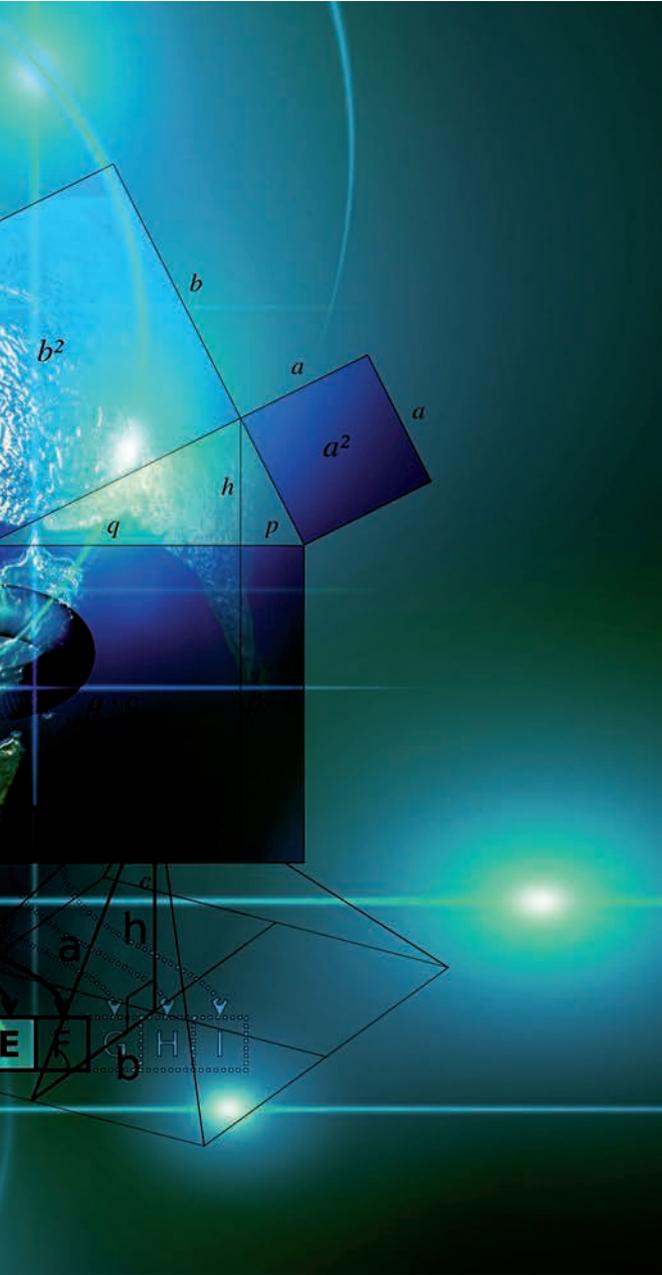
Vienna is becoming ever more attractive for inter-  
 national companies. The nation’s capital increased  
 its number of new international businesses for the  
 fourth time running.

The total number moved up to 175 from last year’s  
 159, which is an increase of more than 10 percent.  
 With this result, the Vienna Business Agency – in  
 collaboration with ABA, the federal investment  
 promotion company – had the best year since it  
 started its international activities. “This encoura-



#### **A lucrative location:**

For international investors it goes without saying that they utilise this business location's top know-how and quality, high-level technology, state-of-the-art infrastructures as well as its proximity to Southeast and Eastern Europe.



Austria's success as a business location. As the capital city, Vienna carries even more responsibility than the other provinces, and this positive trend shows that we assume this responsibility completely," says Renate Brauner, the City Councillor for Economy. When compared to the other provinces, Vienna attracted five times as many international companies than runner-up Carinthia, which reported 36 new companies according to the statistics of the Ministry of Economics, followed by Salzburg (25), Tyrol (20), and Lower Austria (18). These new businesses generate around 1,450 new jobs and investments of approximately 630 million euros. A closer look at the countries they originate from shows that Germany is once again in the lead with 49 new businesses. Companies from Hungary (18) and Italy (14) are particularly interested in Vienna as a business location. The Vienna Business Agency's international team presents Vienna as a business location all around the world to highlight the capital's advantages for companies. Additionally, the Vienna Business Agency is the first contact for companies and provides consulting services and assistance as well as individual solutions for launching businesses. Over the last year, they held presentations in 20 countries and 37 cities at a broad range of events. The team also represented Vienna at eight national and international trade fairs, including the World Investment Summit in Hainan (China), CeBIT in Hanover (Germany) as well as at the Mobile World Congress in Barcelona (Spain). "Bringing businesses to Austria is only the first step, however. Subsequently, we have to strongly support international companies in Vienna to establish them at this location and help them to fully realise their growth potential," says Gerhard Hirz, Managing Director of the Vienna Business Agency. Examples for this are companies such as Boehringer Ingelheim, Lukoil, Henkel as well as Huawei.

ging result validates our course for international positioning, but we also see it as our mission to further expand our special international activities for this business location. New international companies are important for Vienna. They strengthen the entire region and contribute significantly to



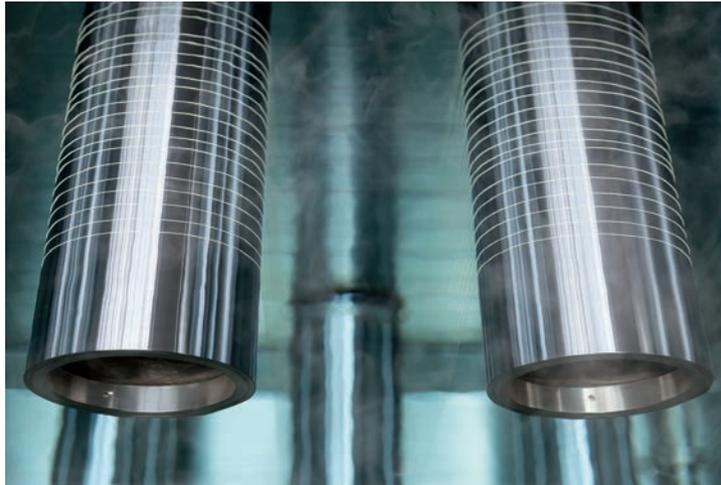
**Innovation is a**  
fundamental basis for  
internationally operating  
companies, as well as  
for Austria as a centre  
for knowledge and  
technology.

### **MULTINATIONAL COMPANIES INVEST MORE INTO RESEARCH AND DEVELOP- MENT IN AUSTRIA**

The increasing number of companies doing research and development in Austria is particularly encouraging. The Innovation Systems department of AIT (the Austrian Institute of Technology) recently published an updated country report regarding research investments of multinational companies in Austria as part of their study about the inter-

nationalisation of business investments in R&D and the analysis of their economic impact. “Companies do research not only in their home countries, but also in their foreign facilities at an increasing rate,” says project manager Bernhard Dachs about the results and further explains “Austria benefitted extraordinarily from this increasing internationalisation of research and development in the past decades.” By now, the investments of multinational, foreign-owned companies for





Polyimide hollow fibres on their way through the spinning bath.

## Investment in the future

Evonik, the creative industry group from Germany, is one of the world's leading companies for specialty chemicals. Its corporate strategy focuses on profitable growth and sustainable increase of enterprise value.

The group's activities focus on important mega-trends such as health, nutrition, resource efficiency as well as globalisation. Evonik benefits particularly from its innovative strength and integrated technology platforms.

### Expansion of the membrane business towards gas separation

Evonik is currently expanding into the promising membrane business. This is why the specialty chemicals company will further expand its Austrian site in Lenzing/Schörfling and double the existing production capacities for the SEPURAN® brand's hollow fibre modules. The membrane separates gases like methane, nitrogen, or hydrogen from gas mixtures particularly efficiently. Evonik invests a two-digit million euros amount into this facility. The production of additional membrane modules is scheduled to launch by the end of 2017. With this investment, Evonik also creates more than 30 new jobs in Schörfling.

### Promising growth market

Gas separation with membranes is a rather new technology in comparison to conventional methods like gas liquefaction. Experts predict stronger growth rates for gases from membrane-based separation processes due to their higher efficiency and lower costs in comparison to conventional gas separation methods. Nitrogen has the biggest market volume in the field of gas separation via membranes with more

than 40 percent.

The advantages of Evonik's membrane technology for gas separation are its precise separation of gases and increased productivity. Rettig says, "With our technology, our clients benefit from significantly improved energy efficiency and considerable cost savings. The new hollow fibre spinning plant will allow us to provide our clients with our innovative technology for efficient gas separation even more flexibly and quickly."

In Schörfling, Evonik has been producing gas separation modules especially for the biogas market as well as hydrogen and helium extraction. The new hollow fibre spinning plant will produce membrane modules particularly for the extraction of nitrogen. Polyimide, a high-performance plastic, is produced nearby in Lenzing, before it is spun and further processed in Schörfling. Lenzing's infrastructure will also be expanded.

### Resource-efficient developments

The SEPURAN® family of Evonik's resource efficiency segment comprises membranes for biogas treatment, nitrogen extraction as well as helium and hydrogen treatment. The company's department for high performance polymers has been developing and producing high-performance plastics in this segment for more than 50 years, which paved the way for resource-efficient new developments in a broad range of sectors.

### QUERIES & CONTACT

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### The industry's level

of productivity in Austria is traditionally high.

Austria's industry generated above-average growth in productivity over the past years.

One of the deciding factors for this trend was the country's highly motivated and qualified workforce.



→ research and development (R&D) in Austria constitute more than half of the corporate sector's R&D expenditures, which is an extremely high share by international standards. Only Ireland (71%), Belgium (66%), and Israel (65%) surpass Austria in this regard. Big countries like France (27%) and Germany (26%) but also Finland (14%) rank far behind Austria.

### HAVE WE OVERCOME THE NEGATIVE EFFECTS OF THE ECONOMIC CRISIS?

R&D activities of foreign companies had been a substantial driver for the domestic R&D quota since 1995. This momentum slowed down due to the economic crisis in 2008/09. R&D investments of foreign-controlled companies had been increasing consistently slower than those of domestic companies since 2009.

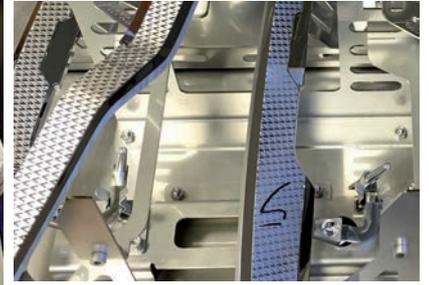
But this trend has clearly been reversed since 2011: Foreign multinational companies have invested substantially more into research and development in Austria again. Foreign companies increased their R&D investments in Austria from 1.6 bn. to more than 3.4 bn. euros between 2004 and 2013. But due to the crisis, the increase of R&D investments of foreign companies was significantly lower from 2007 to 2009 (+2.4%), compared to the years before 2007. Investments grew from 2009 to 2011 (+7.7%), but growth rates only reached pre-crisis levels again between 2011 and 2013 (+20.5%). "The development of the past years shows that Austria still holds its position as an attractive research location among its international competitors," says Bernhard Dachs.

### EXAMPLES OF COMPANIES, WHICH DECIDED TO COME TO AUSTRIA:

- The worldwide leading Japanese manufacturer of winding machines established its European headquarters Nittoku Europe as well as its production facility in Carinthia (St. Veit an der Glan). According to Nittoku, the main reason for this decision is the establishment of a regional headquarters as a solid foundation for the company's European business. Nittoku plans to further strengthen its local R&D activities in 2016.
- MIZUHO BANK, the third-largest Japanese bank, established its regional headquarters for Eastern Europe in Vienna in 2015.
- The Germany-based medical technology company piur imaging has been developing and researching 3D ultrasound diagnostics in Vienna since 2015.
- ROBO, a start-up company from Eastern Europe, develops the new Robo Wunderkind building blocks, which can be assembled into basic robots and programmed by children from 5 years onwards.

### NON-EUROPEAN COMPANIES ARE INTERESTED IN CONDUCTING R&D IN AUSTRIA

German and Swiss companies are still the most important foreign drivers of R&D in Austria. Their share amounts to 47% (Germany) and 11.7% (Switzerland) of all foreign R&D investments. But also non-European companies have established a strong R&D presence in Austria, led by US and Canadian companies with shares of 15.4% (USA) and 8.7% (Canada). A new investment group are companies from emerging markets. For example, Chinese companies spent 86 million euros on R&D in Austria in 2013.



MPH realises your ideas  
with top-quality materials.

## Metal in perfection

With over 50 years of experience in the metal industry MPH has the competence and know-how to provide innovative solutions for its clients in all areas of metal processing.

### Professionalism and sincerity

MPH is a network of employees, clients, suppliers, and friends. The subsequent result, the happiness and satisfaction of everybody involved, is the basis for organic and healthy growth. As a manufacturer and service provider in the metal technology industry, MPH supports clients from industry and trade as well as private clients with a sense for quality. The company combines the utmost professionalism and sincerity with the application of the latest technologies and personal contact management. Finding, developing, and realising new ideas constantly expands the company's know-how. MPH merges years of experience in metal processing with the latest innovations to realise its products with top-quality materials.

### Reliability and precision

This traditional Austrian company designs, develops, and manufactures metallisation and painting tools for PVD coating of plastic components for various tasks, particularly in the automotive sector, including surface treatments for the manufacturing of vehicle lightings. These are brackets for components, so-called satellites, where pre-defined areas are precisely coated with the intended surface material. Simple and quick loading and unloading as well as the component's secure hold are particularly important for this innovation pioneer.

### Traditional values and cutting edge technology

MPH develops CAD plans according to your requirements or works with your existing plans. MPH's engineers use the latest construction tools to develop your prototype, for which they work with your existing 3D data to keep the entire development process as short as possible. If needed, MPH can already incorporate its valuable experience in development during this phase to ensure cost-efficient production processes. The first prototypes can already be built with components from 3D printers. After the client's check and approval, these prototypes are mass-produced and delivered in time. Various mounting fixtures for surfaces that need to be applied by sputtering are also available.

### Perfect solutions have a long-standing tradition at MPH

MPH has 25 years of experience in this sector. Therefore the company can address specific requirements of individual production machines and develop improvements in the machinery and parts logistics sector. Due to its high expert-competence in this special field MPH also supplies manufacturers of the premium segment.

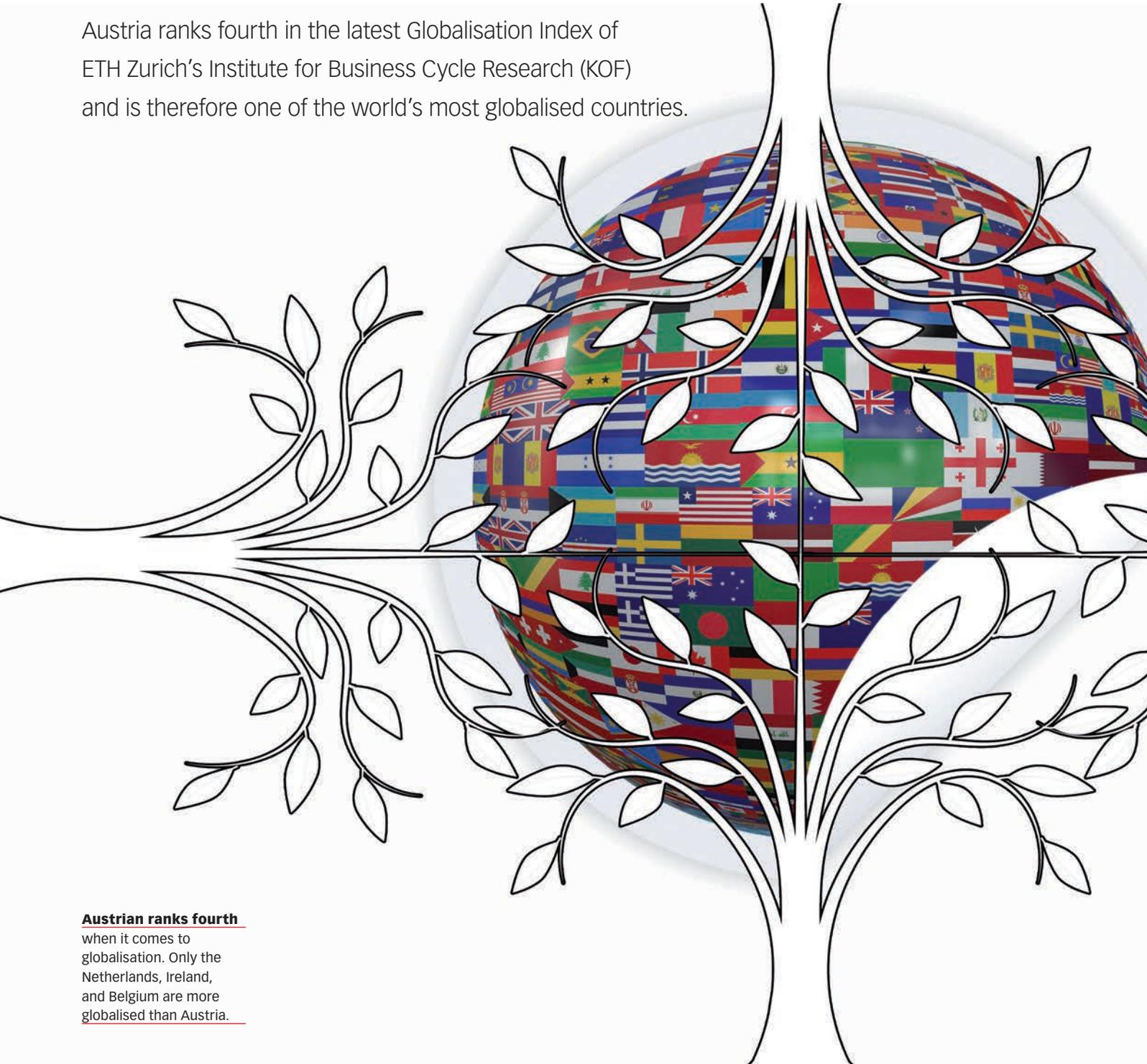
### QUERIES & CONTACT

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## THE STRENGTH OF **GLOBALISATION**

Austria ranks fourth in the latest Globalisation Index of ETH Zurich's Institute for Business Cycle Research (KOF) and is therefore one of the world's most globalised countries.



**Austrian ranks fourth**  
when it comes to  
globalisation. Only the  
Netherlands, Ireland,  
and Belgium are more  
globalised than Austria.



The Netherlands tops the ranking, closely followed by Ireland and Belgium. Therefore the first four ranks remain unchanged to the prior survey year. According to ETH, these four countries are so close together that the differences are hardly perceptible. Switzerland moved up two ranks to fifth position - one rank above Singapore, which moved down one rank. This index measures the strength of international trade, investment, and income streams in relation to gross domestic product as well as the impact of restrictions on trade and capital movements. The “social dimension” category comprises economic and cultural exchange in its broadest sense. It incorporates international communication including the Internet, TV, and newspapers but also the cultural proximity to the global mainstream based on the number of McDonald’s and Ikea stores or the export and import of books in relation to the GDP. Tourist flows and the number of foreign residents are also included. Social globalisation increased a little stronger in 2013 than in the years before. Austria, Singapore, and Switzerland are the top three in this category. When it comes to political integration Austria



#### WHAT DOES THE INDEX MEASURE?

Globalisation comprises worldwide interdependencies on many levels (e.g. economy, politics, culture, communication, etc.) and its various participants (states and institutions as well as societies and individuals). Main drivers of globalisation can be divided into three areas or dimensions, which the Globalisation Index takes into account to calculate its country ranking:

The economic dimension includes, among other things, steps to liberalise global trade and investment flows. The index measures trade volumes and foreign direct investments as well as protectionist tendencies, such as customs tariffs or restrictions on capital movements.

The social dimension takes several aspects into account, such as communication flows (via Internet, phone, newspapers), the relevance of tourism in the economy, as well as the share of residents born abroad.

The political dimension ultimately illustrates the political collaboration and legal communication - between countries and on an international level. It is measured by the number of embassies abroad, memberships in international organisations, the number of concluded international agreements and participations in existing UN missions.

**Winners of globalisation**

The time for building walls is over. As a small and open economy, Austria is one of the clear winners of globalisation.



ranks fourth. This is a remarkable position, considering the country's size, because it signals a certain political significance, as the foreign trade expert at the Institute for Business Cycle Research (KOF) Florian Hälig points out. It is measured by categories like the number of foreign embassies in a country, the number of international organisations of which the respective country is a member, the

number of UN peacekeeping missions the country took part in, and the number of bilateral and multilateral agreements concluded since 1945. Italy tops this list, followed by France and Belgium.

**THE ECONOMIC DIMENSION OF GLOBALISATION**

Small, open economies top the ranking when it



comes to the economic dimension of globalisation. Singapore stands out in particular in this regard, followed by small EU states like Luxembourg, Ireland, Malta, and Belgium. Austria only ranks 16th in this dimension, moving down to positions from last year's ranking. Compared to other countries in the EU and euro zone, Austria is only in 13th and 9th place, respectively.

### THE SOCIAL DIMENSION

When it comes to the social dimension, Austria ranks 4th, followed by Belgium and Switzerland. Cyprus, Ireland, and Singapore lead the field in this dimension.

Germany ranks 15th in regards to social globalisation. China is only at the 90th position in this ranking.



### **Breaking down borders**

Austria is particularly affected by the globalisation of the global economy and the increasing internationalisation of the competition. National and international borders become increasingly less important.

### **THE POLITICAL DIMENSION**

This is yet another dimension where Austria scored a top position, namely 5th place, following Italy, France, Belgium, and Spain. This position can be explained by Austria's strong commitment to the United Nations, diplomatic efforts and prioritisation as well as the fact that one of the UN's headquarters is based in Vienna.

### **FROM THE PERSPECTIVE OF THE WKO STAFF DEPARTMENT FOR ECONOMIC POLICY**

All in all, Austria's 4th position in the overall ranking is an encouraging result. As a small and open economy, Austria is a clear winner of globalisation – on an economic, social, and political level. How-

ever, Austria followed the (predominantly European) trend and had to accept minor losses in the economic dimension. Nevertheless, foreign trade and investments remain immensely important for small economies like Austria. They both create and ensure jobs and therefore contribute to the country's strength as a business location. Therefore the further strengthening of exports as well as the motivation and support of exporting companies are to be welcomed. The framework conditions for the social and political dimensions of globalisation are very encouraging, and they are perfectly positioned and incorporated into everyday life to ensure that Austria emerges as a clear winner of globalisation. ■



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In 2015 more than 4,400 employees in 29 production locations in 12 countries and on five continents generated a turnover of 643 million euros.

More information on [www.tyrolit.com](http://www.tyrolit.com)





## NEXT-GENERATION **RECYCLING**

Austria has been playing a leading role in the EU's recycling industry for many years. This is why other countries like to take a closer look at Austria when it comes to this issue.



Ten companies from the Green Tech Cluster lead the way to the future of recycling with their many world firsts. These were presented to an international audience from 59 countries at the world's biggest environmental technology trade fair, the IFAT in Munich, under the leadership of Christian Buchmann, Styria's Minister of Economy. The Styrians also seized this opportunity to do some significant networking with some of the worldwide biggest companies of the environmental technology sector.

### NEW STANDARDS FROM AUSTRIA

The technology leader Komptech introduced its visionary "Shredder of the Future" concept at IFAT. Graduates of the 'Industrial Design' program from the university of applied sciences Joanneum develop machines like "Atta" which collects and shreds waste materials in crisis areas, or "Caris" an autonomous demolition robot that shreds materials right away and on site. And there is the Topturn X 4.5, a manoeuvrable machine that can be quickly and easily put to work at smaller composting plants.

The innovative "Clarity" plant by Binder+Co, the world market leader in the field of glass sorting, combines two systems: The sensor-based belt sorter "Clarity 1000 VIS" separates different kinds of plastics which are defined by their colours, while "Clarity NIR/VIS" separates different kinds of plastics. Typical application areas for this system are in the electronic scrap or light shredder fractions sector of the car-recycling sector. From cars to clothes hangers and other items: They all consist of valuable metals, which can now – for the very first time - be sorted in their absolute purest forms with the world's first "XRF sorting machine" by REDWAVE. So far, XRF technology could only be used to separate glass or minerals but a new innovative development now separates non-ferrous metals as well. And this is how metals from domestic waste can now be used for top-quality products such as radiators and hydro-power turbines.

Another product innovation from the Green Tech Cluster was presented by the start-up "Perception Park". It visualises the chemical composition of materials with hyperspectral cameras to separate, for example, PVC and other plastics.



**Nobody likes waste** but we produce more and more of it every year. Even when waste is separated and most of it gets recycled, the absolute best waste concept still is to prevent waste entirely.

The "SEDA AutoFlattener" that uses ATM Recyclingsystems' know-how to deform old car bodies in only 50 seconds also impressed the fair's visitors. Machine and plant engineer Andritz MeWa presented his optimised key technologies: From its cross-flow shredder QZ to the Bio-QZ. Its product portfolio makes Andritz MeWa a specialist for complex solutions.

### A START-UP FROM GRAZ STIRS UP THE SCRAP METAL MARKET

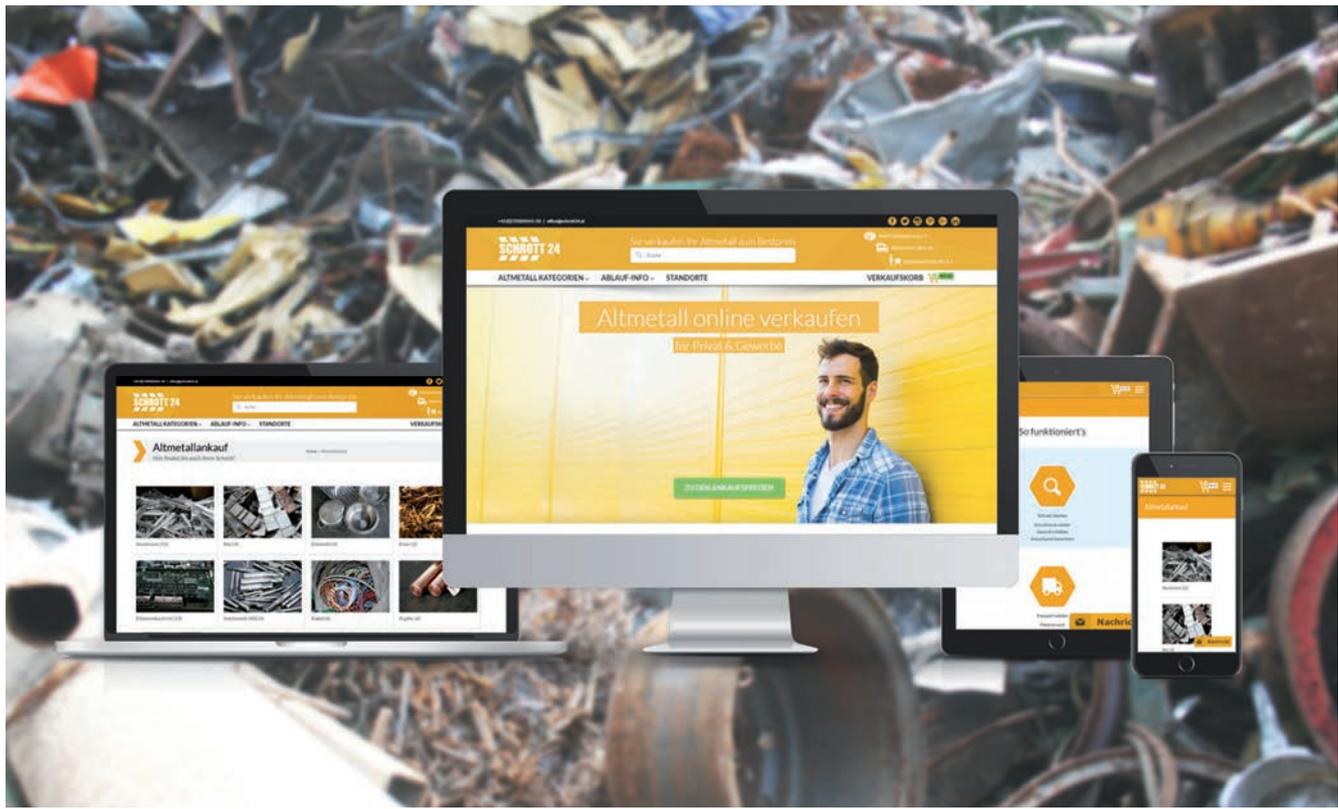
With its transparency and customer-oriented approach, Schrott24 makes selling scrap metal very easy and aims to catapult an old-fashioned industry into the digital age.

The platform [www.schrott24.at](http://www.schrott24.at) provides up-to-date purchase prices with best-price guarantees. You can choose whether you want to bring your scrap material to the scrap yard yourself, send them via parcel shipping, or if you want them to be picked up at your place. The big problem that Schrott24 wants to solve is market transparency.



Currently, one has to rely on offers from local scrap yards and there is no way to assess if their prices are fair. These prices cannot be accessed online and therefore the price one pays is solely based on one's own level of knowledge. Schrott24 solves

**Recyclable materials** are of higher quality because they can be turned into the same, similar, or even completely different products.



### Schrott24 provides

up-to-date purchase prices for scrap metal with best-price guarantees.

this problem with openness as well as best-price guarantees from certified recyclers.

Scrap prices are directly dependent on stock exchange prices and therefore prone to fluctuations. Schrott24 tackles this situation with transparency and helps its customers to find the right mo-

ment to sell with its so-called “price alarm”. Customers can log on to the website to find out when prices for different scrap materials increase or decrease significantly and react accordingly. Many kinds for scrap metal, from cables to electronic scrap and zinc, are available on Schrott24. At first you choose which kind of scrap material and enter how much you have. Afterwards you select your shipment option and then you get the guaranteed best price. “Schrott24 is aimed at private individuals as well as companies. We make the entire industry more transparent and accessible. The website is for anybody who wants to recycle scrap metal at the best-possible price,” says Jan Pannenbäcker, Managing Director of Schrott24. To provide this service they rely on certified local scrap yards, which now have access to bigger amounts with the Schrott24 marketplace and therefore benefit from this concept as well.

Schrott24 is currently looking for suitable strategic partners and investors to grow even faster. The concept has proved successful therefore the goal is to expand quickly. Jan Pannenbäcker: “99% of our customers are satisfied and that shows us that we are on the right track.”

### BEST PRACTICE FOR FRANCE

The hassle-free market opening for packaging recycling systems attracted quite some attention in Europe in 2015. Under the mediation of Altstoff Recycling Austria AG (ARA) and its French counterpart Eco Emballages, a delegation of the French senate visited Austria in April to learn from our domestic waste gathering system, which is considered a European best practice example. This visit focused on the market opening for packaging recycling systems in Austria, which came into force on January 1st, 2015 after intensive discussions and preparations and ultimately without affecting any separated waste collections. France is planning a similar step for 2017. Therefore the Austrian experiences were particularly valuable for the delegation. This is why the visitors from Paris met with ARA representatives, the Ministry of the Environment, the Chamber of Commerce, the Association of Towns and Communities as well as members of the parliamentary environmental committee. “Austria is a prime example for how the liberalisation for packaging recycling systems can work smoothly. The experiences Austria has made with it, are very valuable for us,” says Philippe-Loic Jacob, Chairman of the Board at Eco Emballages, about France’s interest in the matter.

The logo consists of the letters 'ATM' in a bold, white, sans-serif font, centered within a blue rectangular box with a slight gradient and a drop shadow.

**ATM**

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**RECYCLINGSYSTEMS**



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**our experience - your advantage**

**ATM Recyclingsystems GmbH**

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## SUSTAINABLE **TECHNOLOGY**

Today's Austrian environmental technology industry is among the world's most innovative sectors. Domestic companies are excellently positioned in the environmental and energy technology industry and distinguish themselves with top-quality products and system performances.



**The environmental** and energy technology industry contributes significantly to the Austrian export and location policy and consistently creates new jobs due to its above-average growth rates.



The development of technological innovations in this sector is a key factor for resource-efficient and recycling-oriented management. The Austrian environmental technology industry serves as a future model - creating jobs, strengthening Austria's competitive position, and contributing to this country's high living standard in the future.



Austria has a lot of know-how in regards to energy-efficient technologies. If they were used widely, they could drastically reduce energy requirements in this sector. Utilising clean energy technologies reduces greenhouse gas emission and supports local structures for energy supply. The transformation and structural changes of the entire energy system provide a vast field to apply the corresponding technologies. Austrian suppliers of environmental technologies can benefit from these developments because of their existing technological competences.

#### EXPORTS DRIVE GROWTH

Exports are driving the growth of the environmental technology and environmental services industry. In the mid-1990's, approximately 50% of all sales of Austrian environmental technologies were generated in foreign markets. Today, this share has increased to two thirds. These exports go primarily to the EU's 15 countries, but the "new" EU states as well as Southeast Asia have also become relevant export markets. Subsidiaries abroad strengthen foreign operations of Austrian companies. Almost every third company from the environmental technology sector has one of those branch offices, usually to coordinate sales activities on site. As a result of these consistent foreign operations, approximately 12% of the domestic environmental technology companies hold market leader positions in the EU-15 countries (resulting in a market share of over 30%). Internationally, it amounts to 6% of Austrian companies in this economic sector. Companies providing technologies for environmental monitoring, renewable energy technologies as well as measuring and control technologies have particularly high export quotas.

#### AN INNOVATIVE INDUSTRY

Investments in research and development are crucial factors for consistent growth, productivity, and prosperity. The Austrian environmental technology and service industry is characterised by its distinct innovative activities in this sector, par-

#### ENVIRONMENTAL INDUSTRY

According to the Environmental Goods and Services Sector (EGSS) concept developed by EUROSTAT, the environmental industry comprises activities to measure, avoid, reduce, limit, or repair environmental damages as well as a focus on preserving national resources and on integrated technologies. This includes environmentally friendly and less environmentally harmful technologies, procedures, and products, which decrease environmental risks and reduce environmental pollution to a minimum.





**In comparison with** goods manufacturing, the Austrian environmental technology industry has been growing at an above-average rate for almost 15 years.

ticularly in the energy technology sector. Companies producing material goods have average research intensities (share of research investments in sales revenues) of 2-3%. In the environmental technology sector, however, it amounts to approximately 6.5%. In many cases, innovations enabled domestic companies to solidify or strengthen their competitiveness.

International comparative studies show Austria's top position in the eco-innovation sector. The domestic environmental technology and service industry is among the best on the international market, particularly in areas such as innovation activities (high share of companies driving innovations in the environmental sector) and innovation output. For example, Austria is leading the way in the EU when it comes to environmental patents. The developments in areas such as passive house technology, waste management (recycling), and renewable energy technologies are particularly remarkable in regards to the domestic industry's research and innovation activities. But also areas like electro mobility and resource efficiency have significant potential for innovation.

Besides the domestic companies' innovative strength, government incentive programmes as well as legal requirements for the growth of the domestic environmental industry are also responsible for this development, which include the Green Electricity Act, the corporate environmental support programme, as well as funding opportunities of the Climate and Energy Fund and the Austrian Research Promotion Agency (FFG).

## THE CHAMBER OF COMMERCE'S SUSTAINABILITY TRAINING

Every two years, the Austrian Chamber of Commerce (WKO) assesses Austria's environmental situation in comparison to the other EU member states, based on 58 individual rankings of different indicators – including waste material and resources as well as energy, climate, water, air pollution control, mobility, biological diversity, and environmental management. The results for 2015 put Austria firmly on the winner's podium in an excellent third position.

Chamber of Commerce's expert Christoph Haller says, "Austria is very strong in many fields compared to other European countries. Austria's continuing success in this ranking is based on decades of high environmental standards and an environmental awareness that exceeds the European average in many areas, as well as the companies' high competence when it comes to environmental management and environmental technology. It is very encouraging that consistently decreasing environmental hazards while increasing production at the same time is becoming more and more normal for Austrian businesses."

Highlights are the assessments regarding corporate environmental management, the utilisation of renewable energy sources (Austria is among the European leaders in this sector), CO<sub>2</sub> emissions per GDP, air pollution control (amount of hazardous airborne emissions in relation to the GDP), the modal split in freight and passenger transports, as well as organic farming. ■



F.l.t.r.: Rockster crusher producing valuable final material, the patented Duplex System, headquarters in Ennsdorf/Lower Austria

## High-class recycling

Rockster Recycler represents revolutionary solutions for crushing & screening of any demolition debris, asphalt or natural stone.

Crushers made by Rockster Recycler are in operation around the world. Distribution partners and Rockster's own subsidiaries guarantee a high availability of experienced and reliable service technicians, who satisfy all service, maintenance and repair demands for Rockster machines.

### Development of compact crushing plants with emphasis on:

- Proper transport dimensions according to all authorization requirements
- Low transport weight
- Performance optimisation through the use of high-tech products and latest technology
- Modular construction method for the production of a variety of final fractions
- Optimisation of set-up times
- Innovative concepts like the patented DUPLEX system, patented double-functional return-/stockpile belt or the first hybrid impact crusher worldwide

### Revolutionary drive technology

Rockster developed a completely new impact crusher using a parallel-hybrid drive technology for saving fuel and increasing the performance remarkably. Any load peaks are cushioned by power caps, which buffer the energy. The diesel engine operates almost

constantly at optimal speed to drive the generator for the electric motor. The fuel consumption is reduced and maintenance costs are minimised. Due to the additional electric engine with 190kW, 30% of fuel can be saved while generating a 30% increase of performance.

### Flexibility and versatility

„In the conceptual design and development of our machines, we attach great importance to our customer's needs. We developed the hybrid crusher in close cooperation with a French customer and committed specialists from all over Europe. Our clients appreciate our flexibility, we meet individual needs and search for the optimal solution for every single project. Optimal transport dimensions and weight are also important criteria in this business. Despite compact construction, the crushing plants must maintain a high performance. Therefore we have chosen a drive concept that guarantees high power reserves and allows a vast increase in efficiency“, says Wolfgang Kormann, founder and CEO of Rockster Recycler.

### Save costs & protect the environment with Rockster

- Minimise transportation costs
- Protection of the environment through lower transport volumes
- Cost savings due to elimination of purchased materials
- Environmental conservation through protection of natural resources
- Immediate recycling of demolition waste

### QUERIES & CONTACT

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## WIND OF **CHANGE**

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The amount of energy generated by seaside wind farms increased by more than 100 percent, resulting in a total output of over 3,000 MW. Austrian companies are among the top suppliers for this industry. Every year, over 160 companies of the Austrian supply and service industry generate an export volume of more than 600 million euros.

**PALFINGER stands**  
for the world's most  
innovative, reliable, and  
efficient lifting solutions  
for utility vehicles and  
the maritime sector.



Even the emperor was already very fond of the high seas and sailed across the oceans with the Imperial and Royal Navy. There may be no Austrian emperor anymore today but the connection to the sea remains - at least in the offshore wind power industry where several Austrian companies play a significant role in the expansion of offshore wind power generation. A total amount of 18 billion euros was invested in the expansion of wind power plants in European seas. Even though Austria is a landlocked country in the heart of Europe, quite a few domestic companies firmly established themselves as suppliers for this industry. "Austria's access to the sea may have been a thing of the past for more than a hundred years but Austrian companies are still closely connected to the sea with their wind power technology," says Stefan Moidl, Managing Director of the Austrian Wind Energy Association.

#### A YOUNG CHAPTER IN THE HISTORY OF WIND POWER GENERATION

Generating wind energy at sea is a young chapter in the history of wind power production. The first seaside wind park in Denmark was only built in 1991, even though there were already several wind turbines installed around the world at this point, generating a total output of 2,500 MW. At this time, offshore wind turbines had a generating capacity of 0.45 MW. The eleven facilities of the Danish wind park in Vindeby generated 0.2 % of the world's wind-generated power.

#### OFFSHORE WIND POWER MADE IN AUSTRIA

The Geislinger company in Carinthia's Bad St. Leonhard and Hallwang near Salzburg manufactures couplings for the world's biggest wind turbines. Geislinger already delivers one coupling for offshore wind turbines every week. Wind power is therefore a significant contributor to this company's goal to become the world market leader for couplings. PALFINGER MARINE is another company located in Salzburg that delivered more than 280 cranes for offshore wind turbines in 2015.

"We had incoming orders for all our types of cranes in 2015, from nacelle to platform and substation



cranes. The biggest orders came from wind parks in Rampion (UK) with 116, and Race Bank (UK) with 93 electric platform cranes. Windpark Nordgründe (GER) ordered 18 hydraulic knuckle boom cranes; Nordsee One (GER) ordered 54 of them. We expect several follow-up orders for 2016 as well - we see a constant upward trend that should continue through 2016 and beyond," says Martin Zauner, Head of Wind Cranes at PALFINGER MARINE.

The Styrian transformer plant in Weiz is the market leader and exclusive manufacturer of transformers within the company for Siemens' turnkey wind parks, for onshore as well as offshore projects. The Styrian plant's transformers are used in every wind park that Siemens builds. The plant is the market leader in this industry with a market share of approximately 80 percent in the offshore wind park sector.

Weiz is Siemens' biggest site for the development and construction of transformers. Within the company, it is considered as a global competence centre for phase-shifting transformers and a single-source supplier for Siemens' wind parks around the world. There are currently around 1,200 employees and apprentices working at the plant. The orders that Siemens handles in Weiz also contribute significantly to local value creation. When Siemens develops and produces transformers in Weiz, up to 900 further companies all over Austria benefit from and contribute to their production.

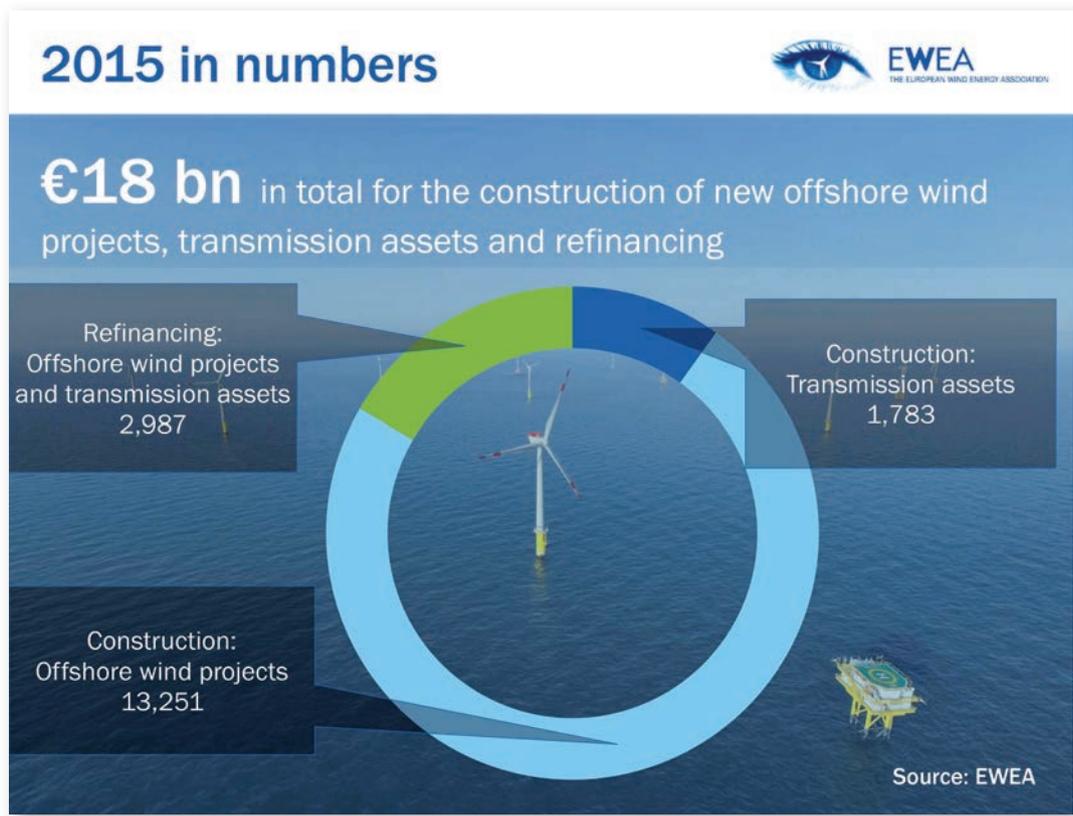


Austrian companies are vital suppliers for the sea-based wind power sector.

STEFAN MOIDL, MANAGING DIRECTOR OF THE AUSTRIAN WIND ENERGY ASSOCIATION

#### FACTS & FIGURES

754 wind turbines in 22 wind parks with a total output of 3,019 MW were built in European seas in 2015. This means that there are already 3,230 European offshore wind turbines in 82 wind parks with a total output of 11,027 MW. This amounts to approximately 8 % of Europe's total wind power capacity. All offshore wind turbines already generate enough power to cover 1.5 % of Europe's energy consumption.



**The offshore industry's** future lies in the development of technologies, the streamlining and standardising of processes, and the collaboration of companies.

### SUCCESSFUL PARTICIPATION OF AUSTRIAN COMPANIES IN THE WORLD'S BIGGEST OFFSHORE FAIR IN TEXAS

The world's biggest Offshore Technology Conference (OTC), with 2,600 exhibitors and 68,000 visitors, took place from 2nd to 5th May this year in the USA's oil metropolis Houston in the state of Texas, under the motto "Endless Innovation". The motor specialist ATB Austria Antriebstechnik and

offshore-crane expert Palfinger were present with their innovative and customised solutions. One of the highlights was Liebherr's presentation of the LiSIM crane simulator, which significantly increases safety and productivity on oil platforms with its intensive crane operator training. Market leader and cladding specialist Fronius attracted a lot of interest with its individual customer presentations of its innovative, remotely controlled CNC welding machine that cuts work costs in half. Hotwell benefits from the fact that small, cost-efficient companies prevail when oil prices are low – data, for example regarding the conditions of down holes, are analysed in Burgenland's Klingenbach. SCHIEBEL Antriebstechnik GesmbH's intelligent actuators for valve automation are used to transport oil and gas safely. Schiebel is the technology leader in the failsafe technology sector. Managing Director Klaus Schiebel came to the fair to expand his distributor network. Rope specialist Teufelberger presented its innovative ropes for offshore platforms and cranes. The Lenzing company came to the OTC to gauge interest in its 5-thousandths-of-a-millimetre backwash filter and find potential partners for this cost-saving niche product. ■

© Marine Palfinger, EWEA, Pixabay, IG Windkraft



KRAL AG supports its international clients from its headquarters in Lustenau.

## Innovation meets experience

The internationally renowned KRAL AG has been developing and producing pumps since 1950 and flowmeters since 1984. The company and its 250 employees consistently set new standards for the world market.

More than 30 years ago, KRAL AG achieved a particularly innovative breakthrough. Inspired by an external inventor's idea, which was originally patented in 1937, KRAL AG became the first company to produce a comprehensive product range of flowmeters based on the screw spindle principle. Until 1984, no company besides KRAL was able to put this idea into practice.

In 1999, KRAL proved its pioneering role once again by becoming the first producer of compact screw spindle pumps with hermetically sealed magnetic couplings at competitive prices. Industry 4.0 currently provides particularly exciting and new opportunities. Even though practically all market opportunities are yet to be explored, there are already ideas for a pump that can detect its own status and communicate it independently to the world. This means that unplanned downtimes could be prevented and the condition is monitored automatically by the pump.

### Proactive adaptability

Pumping and measuring liquids is harder than it may seem at first glance. The liquids' ingredients change, new production processes change their physical properties, and laws change economic frameworks. KRAL remains a reliable partner, especially in volatile environments because potential changes are closely monitored by experts who implement the necessary adaptations as quickly as possible. This level of

adaptability assures our clients that the pumps will also work with changed liquids.

### Precision for the highest standards

When it comes to saving resources and avoiding emissions, the amount of fuel that is fed into motor, burner or turbine is a decisive factor. KRAL adds electronic monitoring systems to mechanical flowmeters for its clients to measure fuel consumption.

The quality of the measured values is particularly important because they are transmitted to higher-level systems. These third party systems collect measurement data from a large number of measuring devices. Therefore it is only possible to arrive at an overall assessment if each individual measured value is as precise as possible. KRAL's volumeters are precision instruments which are ideally suited for these sophisticated tasks.

### Focusing on customer needs

With an export quota of approximately 97 percent the internationalisation is on a very high level. It is very important for this company to strongly support its sales partners. "With the appreciation we show our sales partners and clients by providing country-specific product properties, we motivate our partners, who are independent enterprises, to invest in their business with KRAL."

### QUERIES & CONTACT

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BVS Wassertechnik designs and manufactures individual plants, in which state-of-the-art water treatment processes ensure the constant supply of the required water quality and amount.

## Driving growth with water

The element of water is of central importance in every industry. Society and industries all around the world become increasingly aware of this resource's value.

This is why the water treatment business will never decline – quite the opposite! The demand for efficient water treatment is increasing globally.

### Success through expertise

BVS Wassertechnik has been dedicating its entrepreneurial ambitions to water as a resource for almost three years now. The company is located in Vienna and gathered years of experience under other company names since its history as a private company started at the end of the 70ies.

Particularly the market for industrial technology and laboratory water treatment was expanded significantly with the company's know-how, experience, and its former affiliation with the world's biggest water group, Veolia Water Technologies. Since the company's foundation, BVS planned and completed more than 600 turnkey-ready projects. The BVS's highlight of 2015 was its first increase in sales since its foundation in 2012. This trend already begins to emerge for 2016 as well.

### Water technology for industrial and pharmaceutical sectors

BVS designs and installs customised plants and also sells all products of the Veolia Water Technologies Group for all kinds of water and wastewater treatment. One of the company's key areas is industrial water treatment, including boiler feed water, for the metal processing industry as well as food and electronics industries.

Another key area is water treatment for the laboratory and pharmaceutical industry, which includes the production of ultra-pure water (aqua purificata) or WFI water (water for injection purposes). BVS reinforces its market presence in this sector, which already bore the first successes, also in the service and maintenance segment.

### A worldwide field of activity with a focus on CEE

BVS Wassertechnik operates worldwide for its Austrian clients. This means that water treatment solutions, which are bought by Austrian clients, can be installed worldwide. International groups are already among this water treatment specialist's renowned clients.

Exports are currently focused on CEE countries as well as the Baltic region and Scandinavia where BVS already had its first successes. BVS plants can also be found in France, Germany, Indonesia and the USA. In the context of the sales clauses of the former parent company Veolia, there are no limits to BVS's continuing internationalisation.

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Binder + Co, a major employer since 1894 with an international reputation, is a synonym for innovative processing of primary and secondary raw materials. Trend-setting, worldwide successfully used expertise, a highly qualified staff and cutting-edge technologies are our strength.

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- Processing technology
- Environmental technology
- Packaging technology

## VISIONARY **POWER**

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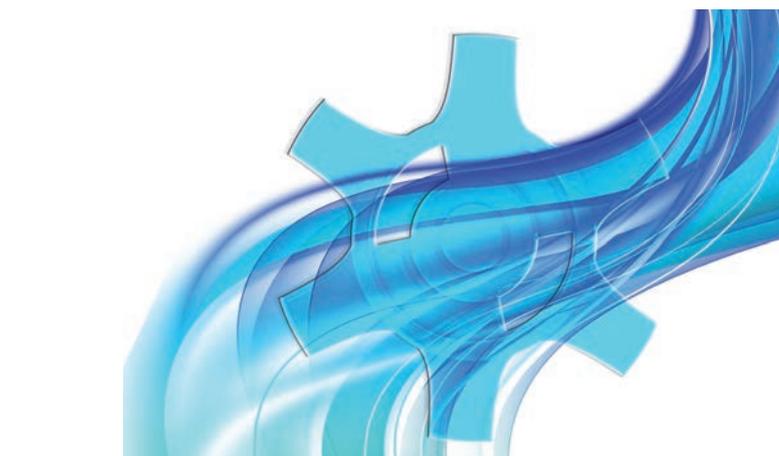
The demand for European patents is growing: Patent applications at the European Patent Office (EPO) reached a new peak in 2015 and increased by 1.6 percent to 279,000 (2014: 274,000). Austria achieved an increase of 1.4 percent.



The annual results for 2015 show that European patent applications (applications for which companies applied for a European patent at the EPO) have increased significantly: They reached the 160,000-mark (2014: 152,700, + 4.8 percent). The number of European patent applications from Austria increased by 1.4 percent to 1,992 (from 1,964 in 2014). This means that Austria is in 10th place in the European ranking and, just like last year, in 14th place worldwide. When it comes to the number of applications in relation to population sizes, Austria comes in at 7th place with 230 applications per million inhabitants, which is clearly an above-average result among the EU's 28 countries. Switzerland is in the lead in this ranking, followed by the Netherlands, Sweden, Finland, Denmark, and Germany. The total number of applications from EPO's member states in 2015 was virtually stable (+ 0.7 %), even though southern European countries like Italy, Spain, and Portugal were able to improve their numbers. On an international scale, companies from the USA and China grew particularly strongly.

“The strong increase of European patent applications once again illustrates Europe's role as an attractive technology market and innovation location for inventors from around the world,” says EPO's president Benoît Battistelli. “It also reflects companies' and inventors' interest in top-quality patent protection for the European market.”

Battistelli continues: “Despite the impressive increase of non-European applications, European companies confirmed their positive results with their patent applications in other regions as well. This highlights the innovative potential of the European economy.”



### PATENTS ARE CRUCIAL FOR ECONOMIC SUCCESS

Previous economic factors of success – raw materials, affordable transport routes, low labour costs – become increasingly less important. Know-how that can be produced like a product or service moves to the forefront. Therefore the issue of intellectual property becomes ever more important. Its protection is a location factor in highly developed national economies. The Austrian Institute of Economic Research came to the same conclusion. WIFO's latest numbers show that wealthy EU countries (measured by their GDP per capita) apply for significantly more patents than those with lower incomes per capita. Almost half of all Austrian applicants at the EPO patent their inventions at the Austrian patent office first. They benefit from the patent examiners' know-how and can therefore better assess their chances in Europe.

### MANY HEADS, ONE MISSION

With almost 10,000 applications and a five percent increase in innovations, the Austrian patent office reported an encouraging result for 2015. Gerald Klug, Minister of Technology, and Mariana Kaprova, President of the Patent Office, announced

**Patents protect** new technical solutions, which are based on inventive achievements and are industrially applicable.

It is important to me that companies of any size – from small start-ups to big industrial enterprises – can gain a foothold in new markets due to the individual consulting services of the Patent Office. Thereby the Patent Office becomes the gateway into the world.

GERALD KLUG, FEDERAL MINISTER FOR TRANSPORT, INNOVATION, AND TECHNOLOGY



**New structures for** research support and funding as well as new ways of cooperation in the research sector have significantly changed the Austrian research landscape and made it far more dynamic.

further improvements for Austrian innovators. “We will restructure the patent office and turn it into the central hub for Austrian innovations,” says Klug. The bmvit finances industry-related research with 500 million euros per year. “Knowledge and know-how are among the most important resources today. Therefore we support the creation of innovations as well as their best-possible protection. With these patents we protect Austrian innovations from copycats and counterfeiters,” says Klug. Internationality and the improvement of service quality are therefore particularly important for the patent office’s continuing reorientation. Mariana

Karepova, who has been president of the Austrian patent office since November of last year, and her institution provide quick and top-quality patent examinations: “Companies rely on us to assess their chances for patent protection quickly and reliably. This is decisive question for Austrian companies if they want to expand into new international markets.” One of the new services is that the patent office is now working with its clients in three languages: Patent applications can now be assessed directly in English and French as well, rendering German translations obsolete. Therefore companies save translation costs and get the





Ergonomics and mobility



Work simplification



Innovative, patented stairclimber technology

Manfred Winkler,  
Managing Director

## Boundless mobility

SANO Transportgeraete, a mechanical engineering company based in Upper Austria, established itself worldwide as an expert in stairclimber technology over its 25-year long history. The company is specialised in development and production of mobile electric stairclimbers for goods and people.

SANO Transportgeraete GmbH's goal is to expand the mobility of disabled people with technology and modern solutions as well as to make carrying loads easier. For years, the company has been on a successful course with its internationally known and multiple awards winning LIFTKAR series for people and goods. SANO's trademark is its stairclimber technology in top-quality machines.

The company focuses on product innovation as well as entering new, and expanding existing markets.

### LIFTKAR – time saving, efficient, and economic

Mobile stairclimbers distinguish themselves from other products like stair lifts, with their low own weight. Thus they are portable, easy to use and handle - the ideal solution to bring along on the go. Contrary to stationary stair lifts, the lightweight and compact devices can be packed into any car and brought along on journeys. They are mobile, battery-powered, electric stair climbing aids that can be used virtually anywhere. The multiple awards winning stair-climbing technology is developed on site. Both product ranges of stairclimbers are produced on the company's premises.

SANO Transportgeraete GmbH achieves an export ratio of more than 95 percent. Its products are exported to more than 50 countries. Together with the company's own two subsidiaries – SANO

Deutschland GmbH and SANO UK powered stairclimbers Ltd - as well as a comprehensive sales network, SANO Transportgeraete GmbH provides a worldwide sales and service network for its product - the LIFTKAR stairclimber.

### Focusing on people

The innovative company participates in several research projects, trains apprentices and emphasises top-quality, international job training and maintains partnerships with schools.

Managing Director Manfred Winkler emphasises that the company's economic success is predominantly based on collaboration - hearing the customers' requirements, understanding them and then providing innovative solutions. The committed and effective team of SANO Transportgeraete combines traditional craftsmanship with state-of-the-art technology – and this is reflected in the company's top-quality products.

*"With our devices we contribute significantly to the improvement of people's quality of life in the logistics sector.*

*We provide ergonomic solutions for the "last mile" of any transport route where people have to use lifting aids."*

**Managing Director Manfred Winkler**

### QUERIES & CONTACT

SANO Transportgeraete GmbH

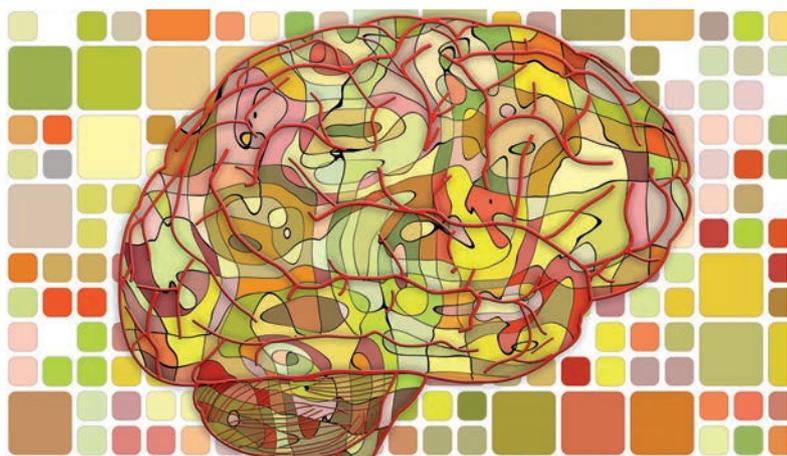
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**Research and**

development as well as its resulting innovations and patents are decisive drivers for Austria's economic growth.

→ required information even quicker. The Austrian patent office is also committed to close and global networking. Cooperation agreements with patent offices in important target markets for Austrian companies – like the USA or China – accelerate the patent approval process in these countries, and this is a decisive starting advantage in a new market.

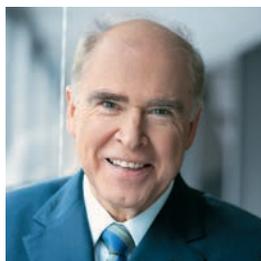
**AUSTRIA IN 2015 – A DETAILED OVERVIEW**

Once again, Upper Austria takes the pole position when it comes to inventiveness, with 621 applications at the Austrian patent office. Most applications come from the plastics processing and machines for plastics moulding sectors, with 18 patent applications from the Engel Austria company alone. But also other Upper Austrian companies like Fronius International, the technology leader in the arc-welding sector, value the patent office's expertise and apply for national patents at an increasing rate as well. Vienna comes in second place with 464 applications, particularly from sectors such as medicine, veterinary medicine, and hygiene as well as railway and bridge construction (Plasser & Theurer) and communications engineering. Styria's third place is due to AVL List, the com-

pany-ranking leader in the measuring and testing technology sector. This company applied for significantly more patents (439) than last year. 414 applications came from Vorarlberg, which is an increase of 100 compared to last year. Many came from the electrical engineering and lighting sector (Tridonic and Zumtobel). Lower Austria moved down to the fifth position despite an increasing number of applications, particularly from Zizala Lichtsysteme and its automotive headlights. Next up is Tyrol with 188 applications, for example from the gas engine and thermal power station sector (Jenbacher). Carinthia is also on the rise, overtaking Salzburg with 120 applications (from furniture and household technology sectors, among others). Salzburg's 109 applications come mainly from the sports equipment and gaming sector, which are a little less than last year. Burgenland is in a similar situation with its 26 applications, of which some are from the electrical engineering sector. If one considers the provinces' rate of invention per capita instead of the absolute number of registered innovations, the ranking looks very different. Vorarlberg took the lead in 2015 in this ranking with 108 applications per 100,000 inhabitants, followed by Upper Austria, Styria, Vienna, Tyrol, Lower Austria, Carinthia, Salzburg, and Burgenland.

**A SUCCESSFUL EXAMPLE OF AN AUSTRIAN PATENT SOLUTION FOR THE POOR SIGHTED EXPANDS ACROSS EUROPE**

Conventional glasses under ski goggles, or even more common, skiing without visual aids was the dangerous and unsafe compromise so far, with which many poor sighted had to live on the slopes. Christoph Rauter's SEHKRAFT Institut für Sport® developed a completely new solution for this problem. After the patenting process and a



» The Austrian Patent Office can keep up with worldwide developments and is therefore a relevant factor for the assessment and evaluation of patents. This is a competitive advantage for Austrian companies that facilitates the assessment and implementation of their international patent strategies.

HELMUT O. LIST, CHAIRMAN AND CEO AVL LIST GMBH



CTP air pollution control systems have proven themselves in a wide range of industries

## Pioneers of air purification

CTP air pollution control systems achieve close to zero emissions, and do so with unprecedented efficiency. Numerous international patents testify to the innovative strength of this company.

CTP designs and builds individual, highly efficient and economical air pollution control systems for industrial applications. The company provides air pollution control systems for the disposal of organic pollutants and specific inorganic compounds in exhaust air worldwide in all leading industries – ranging from electronic, chemical and petrochemical and pharmaceutical industries to aluminium plants, coating facilities and automobile manufacturers. Be it in metal, plastic, wood or food processing: CTP, who has recently been awarded with the Styrian country crest, sets new standards in air pollution control with its processes of oxidation, reduction, absorption, adsorption and filtration. More than 750 CTP references worldwide speak for themselves with currently 3.3 million operating hours per year.

### From Graz into the world...

CTP headquarters in Graz has about 80 employees. CTP has more than 40 locations on all continents. CTP's worldwide network includes subsidiaries in Korea, China, Spain, Sweden and the US as well as partners in many other countries such as in France, Australia, the Netherlands, Finland and South Africa. As Austria's # 1 supplier of integrated air pollution control solutions with an export rate of about 95 percent, CTP is part of a small group of global market leaders.

### Ecological and economical advantage

CTP systems bring emissions down close to zero at a minimised total

cost of ownership. Contaminants such as volatile organic compounds,  $\text{NH}_3$  or  $\text{NO}_x$  are primarily reduced by catalytic and thermal regenerative processes and converted into usable energy, which can be recycled into the production process.

CTP's diverse products range from turnkey installations to highly complex individual solutions adapted to specific production conditions – including systems designed for the removal of dangerous and toxic substances, systems designed for the disposal of ecologically harmful factors such as intense odor and systems designed for handling highly explosive, humid and corrosive or particle-loaded gases.

### More than 30 years of innovation

The great variety of industrial product innovations, changing regulations and particularly the increasing demand for even more efficient systems for the protection of the environment demand innovative solutions in air pollution control.

Founded in 1985, CTP places particular emphasis on research and development. Over the years, the company's R&D department has developed various innovative ideas, which have since been implemented in new technologies by experts in the fields of mechanical engineering, chemistry as well as process and electrical engineering. Today, various CTP inventions are considered technological trendsetters in industrial air pollution control. The wide variety of international patents highlights the pioneering achievements of CTP.

### QUERIES & CONTACT

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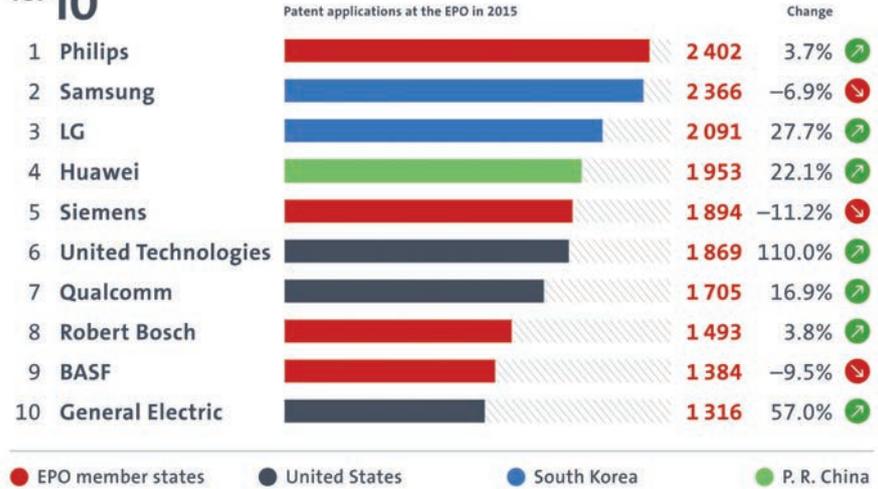
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Top Ten Liste 2015 der Anmelder  
**Top ten applicants in 2015**  
 Les 10 plus grands déposants 2015

**TOP 10**



**Four companies from**

Europe, three from the USA, two from Korea, and one from China made it into the top 10 of applications from EPO member states in 2015.

→ comprehensive test phase in Austria, he founded the international network for optical ski goggles just in time for the start of the season. More than 60 opticians from Switzerland, Germany, South Tyrol, and Austria are already members and provide SEHKRAFT's patented SK-x Technology®. This invention closes a big security gap in the winter sport segment while increasing its comfort and fun. There are approximately 50,000 skiing accidents every winter season in Austria alone; 35,000 happen in Switzerland and 42,000 in Germany. According to the German Ski Association, the majority of them (around 80 %) are caused by errors in perception.

Skiers quickly became safety-conscious with the broad introduction of ski helmets. Pointed slogans like "Those who have a brain protect it" and prominent accident victims with - at times - serious injuries established ski helmets as key components of today's skiing equipment within only a few years. Directly glazed optical ski goggles are the next logical step to meet the people's safety requirements," says Christoph Rauter happily. "We received only positive feedback for the SK-x Method® after the first season. All customers are happy and some have already ordered their second goggles from us that will be processed with this new method!"

**AUSTRIAN WINS EUROPEAN INVENTOR OF THE YEAR AWARD**

The European Inventor of the Year Award, which is donated by the European Patent Office and often called the "Oscars of the inventor scene", was presented last year to an international team of electrical engineers led by the Austrian Franz Amtmann. This group of inventors played a major role in the development of near field communication technology (NFC) and won over the jury in the "Industry" category. NFC facilitates contactless transmission of data across short distances and is most commonly used for cashless payments of smaller amounts with cashpoints or credit cards. The technology is based on the transmission of encrypted data and constitutes an improvement of the previous RFID technology (radio frequency identification). The applications for NFC are virtually endless. It is also used for access control in security zones or for warehouse logistics.

The European Inventor of the Year Award is presented annually in five categories: Industry, SME, Research, Non-European States, and Lifetime Achievement. An increasing number of Austrian inventors have been nominated for this award and were also among its winners. In 2013, the trophy was presented to the Blum company from Vorarlberg.



Wagner's quality performance and reliable services ensure their customers' satisfaction.

## The decisive added value

Attention to detail and the goal to develop and design top-quality products have accompanied WAGNER Maschinenbau GmbH for decades. Their clients benefit from a maximum of quality, performance, and reliability.

### Quality and value for generations

Gerhard Wagner founded this family-owned company in 1977. Right from the start of its award-winning success story, it has always been a reliable and competent partner for designing and manufacturing machines. A whole range of satisfied customers, renowned reference projects all over Europe and overseas, and especially the timely set and future-oriented focus on designing and manufacturing recycling machines paved the road to success for WAGNER Maschinenbau GmbH.

### Inspiring shredder technology

Customers who decide to work with Wagner's recycling machines can expect more: more efficiency, more productivity, and more service.

### ■ Single-shaft shredder

The WS model range is particularly characterised by its sophisticated construction and innovative design, which provide individually optimised solutions for efficient shredding – depending on the respective size and performance. These single-shaft shredders can handle a broad range of recycling materials, process granulate and can also be used for pre and secondary shredding, volume reduction, or in-house recycling. Components of renowned manufacturers as well as their high real net output ratio guarantee high quality standards.

### ■ Perforators

These perforators are used to perforate PET bottles and containers. With their compact design and simple yet robust construction these WAGNER machines are high-endurance tools. They are used in recycling as well as sorting facilities.

### ■ Tyre dismantler

The development of this type of machines shows the WAGNER team's uncomplicated and direct approach to solve a problem. Within a very short time WAGNER was able to provide a highly effective solution for its client's task. Besides a few minor alterations, the machine is still being built the same way. The WRD model range separates car tyres from rims.

### ■ Twin-shaft shredder

The latest masterpiece "made in Austria" is the WTS 500, a cost-efficient universal twin-shaft shredder, which distinguishes itself with its broad range of applications and its innovative technology. This new shredder proves right away that the development department thoroughly tackled the requirements of the recycling industry. The WTS is the logical response to the market's requirements – a new twin-shaft shredder with uncompromising quality and user friendliness.

### QUERIES & CONTACT

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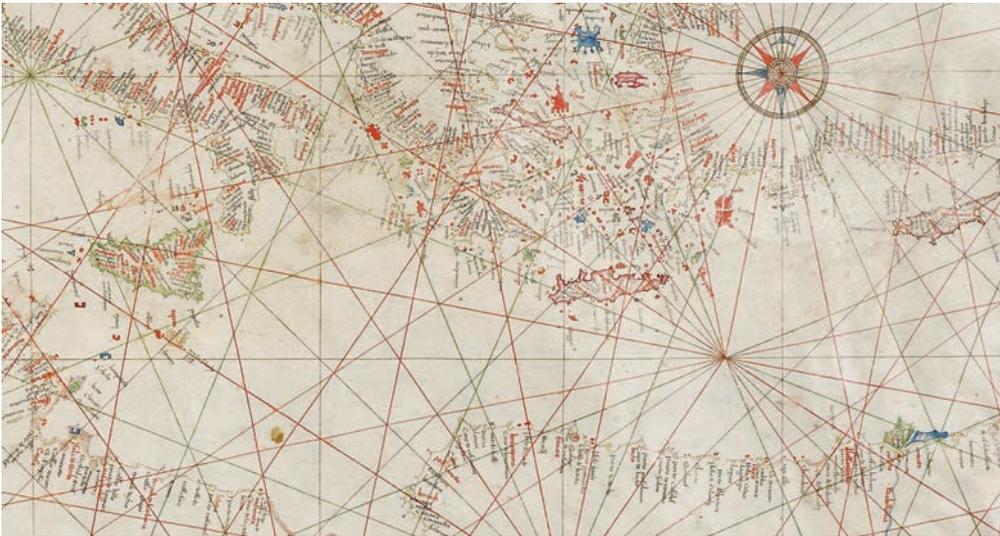
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## DIGITAL HERITAGE

In collaboration with internationally leading universities, the experts of the Austrian Institute of Technology (AIT) make good use of their know-how in the field of Internet technologies to make historical sources on the Internet easier accessible and easier to use.



**The digitisation of our cultural heritage:** A US innovation system buys know-how and Internet technologies from Austria.

The new online tools find digitized cultural assets – such as centuries-old maps or manuscripts – and supports researchers to efficiently digitise and publicise new materials on the Internet. It identifies location information in historical sources with digital processes – for example in Greek, Latin, and Arabic texts, medieval world maps, and Portolan nautical charts as well as early Chinese maps. Now, for the first time, content from maps and texts can be compared side by side by using digital cross-references to place names. Scientists can therefore track how place names, geography, and language changed as well as how and when geographic understanding developed in different traditions of knowledge over time.

The innovative technologies for data processing, annotation, and visualisation developed by AIT help project partners to work more efficiently and

generate information more quickly from historical sources. They can search and analyse extremely vast amounts of data in real time and therefore research complex correlations between records interactively.

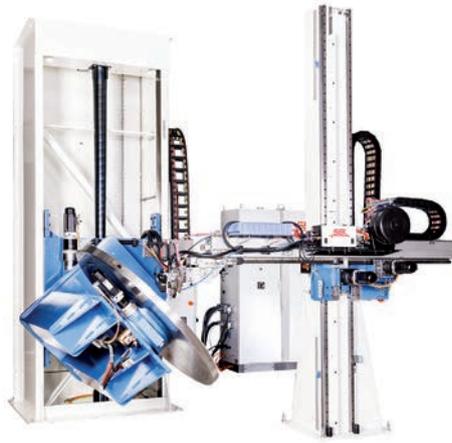
Several tools, which were developed during the “Pelagios” project, are already used by institutions and experts from 13 countries in 8 different languages. The next project phase of the Pelagios community will be expanded further in the next two years and the developed technologies will be advanced. Pelagios is funded by the American Andrew W. Mellon Foundation with a total amount of 1,264,000 US dollars.

### AUSTRIAN KNOW-HOW FOR ONLINE SEARCH ENGINE WITH COLLECTIVE INTELLIGENCE

AIT has gained an international reputation with its “Digital Insight” research team in the field of management of complex data volumes. The AIT led by Ross King works on solutions for open, simple, and intuitive access to large data banks consisting of image, audio, video, and text files. The digital technologies developed by AIT distinguish themselves with extremely intuitive interfaces and processing large and complex data volumes with a special method. Combined with special know-how in the field of historical data, AIT’s technologies support the work of experts in archives, libraries, and research institutions around the world. ■



Microplasma welding machine



Welding system for aircraft engines



Longitudinal seam welder

## Create. Enhance. Sustain.

SBI develops technical solutions for future requirements. Consistent innovation work, the best customer support, and top quality ensure their clients' satisfaction around the world.

SBI Produktion techn. Anlagen GmbH & Co KG was founded in 1999 with the goal to market innovative and efficient thickness control systems for the production of plastic foils. Only one year later, the first system was already successfully sold to a major Austrian company – that was the starting point of a consistently growing business unit. By now, SBI's thickness control devices and control systems are used around the world and are bought by OEMs as original machine equipment as well as by foil manufacturers to upgrade existing production systems.

### Ahead of its time:

#### Pioneering achievement in rapid prototyping

The year 2000 marked the launch of yet another key area for SBI – plasma-welding technology. The initial idea was to develop a suitable process for rapid prototyping of plastic tools, a process that is now commonly known as 3D printing, before SBI discovered plasma technology. An additional use emerged after numerous test series – using the focused plasma beam to spot-weld sheet metal. This was the starting point for further product development and the first spot-welding system was already sold in 2001.

SBI encountered wire-controlled generative manufacturing (formerly known as rapid prototyping) once again by accident almost ten years later. A European start-up company contacted SBI to optimise its plasma processes and make them more competitive. SBI then devel-

oped a special plasma process that quintuples previous process performances and has meanwhile been certified by Boeing as well. After years of development work, this process is now close to series production.

#### Product range for maximum customer benefits

Over time, SBI switched from apparatus engineering to system and mechanical engineering. SBI always makes sure that the entire know-how for the complete product range comes from a single source. This means that SBI provides all engineering services: apparatus engineering as well as developments in electrical engineering, software and electronics development. The goal is to achieve maximum customer benefits. Innovations can be used in several different product segments simultaneously due to the product portfolio's vast range.

The product range is divided into serial devices such as plasma and TIG power sources, longitudinal seam welding systems for pipeline and container construction as well as a wide range of customised solutions for various high-tech welding applications. Among SBI's customers are renowned companies of the automotive, oil, and gas industry.

The company's core business focuses on the aerospace sector. SBI's strengths for all of these tasks are the combination of welding technology with excellent automation technology as well as outstanding analysis and documentation tools.

#### QUERIES & CONTACT

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## EXPORT **AHOY**

Luxury is in high demand in the US boats market: Austrian flagship companies like Frauscher, Steyr Motors, and Teufelberger are on a successful course in the American market with their innovations.



**Teufelberger produces** steel cables, crane ropes, and forestry equipment as well as synthetic fibres and extruded products.

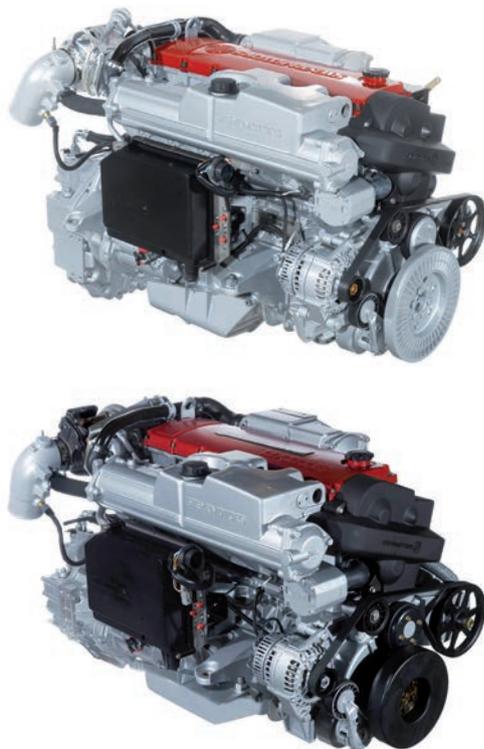
The American leisure boat market is a 35 billion dollar business that comprises the sales of boats, motors, and accessories. “This year’s boat fairs in Fort Lauderdale and Miami in Florida as well as the Boat Show in California’s L.A. were very lucrative for us,” says Rudolf Thaler, the Austrian Trade Commissioner in Los Angeles. The National Marine Manufacturers Association announced that the Miami International Boat Show 2016 was the best trade fair in years, with a 4 percent growth to more than 100,000 visitors and a 20 percent increase in sales for its exhibitors. The Miami boat event is one of the world’s biggest boat fairs, with 1,200 boats ashore and 400 more on the water. But also the L.A. Boat Show in early March had

11 percent more visitors than in the previous year. The mood at the fair was optimistic. In the light of the good start of 2016, due to low fuel prices, low interest rates, and new models, this year is expected to become better than the previous year. Luxury and ever-stronger outboard motors as well as customisation are in high demand. “The gateway to the competitive American boat market is innovation. This is how Austrian suppliers can get on the radars of renowned dealers. To sustainably work the market, it is a decisive factor for success to be at the important boat shows, either in person or with representatives,” says Thaler about the extremely positive situation. Several Austrian companies are already operating successfully in this sector.





**Steyr Motorentechnik** started marketing its own brand of boat motors internationally in 1995.



**MOTORIC POWERHOUSES**

STEYR MOTORS GmbH emerged from the previous STEYR Motorentechnik GmbH in 1996. The company is specialised in marine and special motors and began to build a sales network to establish itself on the challenging market for high-performance diesel motors.

STEYR MOTORS was the first company to introduce and serially-produce hybrid technology for diesel motors for marine applications. In 2008, Steyr Motors presented its first hybrid motor: The Steyr Hybrid Drive System (HDS) was developed in collaboration with the Dutch company Mastervolt. The Steyr Motors/Mastervolt collaboration leads the way in the diesel-electric hybrid drive system sector for sports and leisure boats.

STEYR MOTORS is represented at all major marine fairs that cover the segment of leisure and working boats up to 300 HP. Sometimes even as OEM, for example at the New Orleans Work Boat Show, the IBEX in Tampa (Florida), [→](#)



The Berndorf Band Group locations



Berndorf Band's factory premises

## Standing for efficient production

The Berndorf Band Group is an internationally operating full-range supplier of steel belts and steel belt systems. Besides its headquarter in Austria, the Group comprises seven subsidiaries and two partner companies worldwide.

Steel belts and steel belt systems from Berndorf Band Group are used for continuous production processes. Steel has many advantages compared to other materials: it is easier to clean, withstands the highest stresses and provides good thermal conductivity. Furthermore, these systems provide high precision regarding tracking characteristics and excellent flatness. Additionally they meet the highest surface requirements of steel belts.

### Partner network for individual requirements

Berndorf Band GmbH is a leading manufacturer of steel belts and headquarter of the Berndorf Band Group. The Group's main production, R&D Centre and training centre for service technicians and customers are located at this site. Berndorf Belt Technology USA, Berndorf Band Latinoamérica and Beijing Berndorf Technology Development have further facilities for the assembly of belts and act as the Group's sales and service bases.

Berndorf Band Engineering is a worldwide specialist for the optimisation of continuous production processes, which are mainly based on steel belts. Its core businesses are project planning, engineering, and the design of customer-specific processing systems for various industries, including double belt presses, casters, and various plant components.

Nippon Belting in Japan is particularly successful with its compact coolers, while Berndorf Steel Belt Systems in Korea manufactures casting machines for the production of artificial marble.

Partner companies SBS USA and SBS Italy (Steel Belt Systems) focus on steel belt coolers for chemicals and foods. The product range comprises in-house developed drop forming machines (Accudrop®, Rolldrop®) as well as the corresponding belt coolers and equipment.

By combining the different specialisations of each member, production processes can be designed and optimised for each client individually. This is why these companies do intensive research and development work and maintain close contacts to universities and research institutions.

### Product range

- Endless process belts made of high-tensile stainless steel, carbon steel or titanium
- Steel belt systems, double belt systems, belt tracking systems
- Casting machines for film, foil and membrane production

### Applications

- Baking and food industry
- Wood processing and laminate industry
- Chemical industry
- Films and foils
- Paper and pulp
- Automotive Testing
- Transports
- Rubber and plastic products

### QUERIES & CONTACT

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**Frauscher's**

award-winning boats and yachts are sold on all continents and in more than 20 countries.



→ and the Electric and Hybrid Show in Fort Lauderdale. “Last week, STEYR MOTORS won the US-A-Biz Award 2016, the so-called Oscar for outstanding performances of Austrian companies in the American market in the “spectacular” category, after winning against its strongest competitors and securing a U.S. Navy contract to equip a fleet of more than 400 patrol boards,” says Thaler. These high-tech motors that can be used with different fuels are also en vogue for commercial boats – especially hybrid motors.

**TOGETHER IN MOTION**

When Hans Teufelberger founded his hemp rope factory in 1790 he would never have dreamed that, two decades later, the name Teufelberger will stand for an internationally operating group with more than 800 employees. Throughout all this time, the TEUFELBERGER company, headquartered in Wels/Upper Austria, has remained family-run. TEUFELBERGER is an internationally successful

company that is specialised in the development and production of ropes. Today’s vast product portfolio comprises steel cables for cableways and cranes, ropes made of synthetic fibres for work safety and marine applications as well as plastic straps and baler twines.

Besides its headquarters in Wels, TEUFELBERGER also has further production sites in Austria, Czechia, and the USA and is represented through a close-knit worldwide network of sales partners. The market leader for Olympic sails is represented on the US market with two brands. The dominating Teufelberger brand is New England Ropes (NER), which is also the supplier of North America’s biggest retailer.

NER’s product portfolio is geared towards big cruising and racing yachts. FSE Robline, the second brand, focuses on ropes for dinghies and sports boats. The ropes for Grand Prix sailors are constantly refined. The ropes for dinghies combine perfect grip with buoyancy. →



DMH Dichtungs- und Maschinenhandel GmbH

## Development for generations

DMH Dichtungs- und Maschinenhandel GmbH developed a worldwide successful system for turning seals.

This traditional, family-owned company is constantly exploring the latest developments and has been working consistently on efficient system improvements for 20 years to stay ahead of the game and meet the increasing requirements of the international market.

### The decisive advantage

This Styrian innovation incubator's system for turning seals was originally developed to manufacture seals for repairs and maintenance. The production process has established itself internationally through consistent development of its materials and technologies. Changes and developments in the market made DMH a flexible platform for companies that focus on processing elastomers such as polyurethane and engineering plastics.

As a full-service provider, the company provides all-round support. Clients benefit from a software-supported system that produces seals as efficiently as possible, while the company's team of experts provides all materials, tools, and machines. Top-quality technologies combined with profound specialist know-how provide an individually optimised sealing manufacturing system for each client.

### Sustainable quality

Durability is one of the DMH system's foundations. These systems were developed 20 years ago but they are still fully functional. As a family-owned business that wants to create values for generations, preserving the environment and resources is a big priority. Therefore DMH does everything it can to save resources and energy, and constantly strives to sustainably shape its social environment.

### Innovative individuality

For every company that wants to succeed on the free market, it is important to focus on innovation. Trends and technologies of global players are under constant surveillance in order to find the missing puzzle pieces for revolutionary developments. Due to these evolutionary adaptations, the DMH system is still considered an innovation, even after 20 years.

### International services

The company is represented in virtually all countries of the world. Linguistic, cultural, and technical competences are particularly important. No distance is too far for DMH's committed service team when it comes to ensuring great support for its clients.

### QUERIES & CONTACT

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**DMH**  
SOLUTION FOR SEALS



**SUCCESS WITH TRADITION**

A lot happened since Engelbert Frauscher started to fulfil his life's dream in 1927. He built his significant life's work on innovative ideas, excellent craftsmanship, and passion for boat building.

Motor, electric, and sail yachts that elicit special emotions and are applauded internationally have been built by this company for three generations. Frauscher's boatyard just opened a new shipyard on a 35,000 sq m property in Ohlsdorf, Austria. Frauscher's universal focus is now supported by their sales site, which was opened in March 2012 at the elegant Port Adriano harbour on Mallorca where boats can be tested directly on the sea. Frauscher stands for virtuous design, impressive handling characteristics and outstanding quality. By now, these excellent boats are sold on all continents and in more than 20 countries.

The company planned to enter the highly competitive US market as soon as the company has established itself as the best brand in Europe, as this was assumed to be the only chance to reach top dealers. But this year in February, Frauscher started to collaborate closely with Miami Nautique International for its luxury yachts. This company was presented with the prestigious "Top 100 Dealer" award.

© Frauscher, Pixabay, Steyr Motors

# Georg Fischer Fittings

Georg Fischer Fittings has been manufacturing malleable cast iron threaded fittings for steel pipe connections for more than 100 years.

Malleable cast iron threaded fittings are synonymous with "GF Fittings". GF stands for Georg Fischer, the company that has innovated this product in Europe more than 150 years ago and has been the market and quality leader since then.

Today, Georg Fischer manufactures exclusively at its site in Traisen, Austria and supplies wholesalers in 34 countries from there. More than 50 million fittings "made in Austria" find their way to satisfied customers every year.

### Product portfolio for a broad range of applications

Malleable cast iron threaded fittings are manufactured in accordance with EN 10242 / ISO 49 standards and are used with EN 10255 / ISO 65 certified steel pipes in many different areas such as gas, water, pressurised air, fire extinguishing or heating systems.

The product portfolio comprises dimensions ranging from 1/8 to 4 inches and fittings, which are available with black or galvanised surfaces. The innovative PRIMOFIT compression fittings product range is manufactured at the same site with the same material. These com-

pression fittings connect steel pipes (3/8 to 4 inches) without any thread cutting on the pipes. Furthermore, these products can also be used as transition fittings to connect different pipe materials including PE and PE-Xa.

Besides the company's excellent delivery services, customers also appreciate several other services. These often-used added values include comprehensive technical consulting, planning tools for CAD, and videos about products and how they are installed.

### Innovative and sustainable

Environmental and employee protection are important issues for Georg Fischer Fittings in which the company invests consistently. Equally important are product innovations like the PRIMOFIT stainless compression fittings as well as production process innovations such as Europe's first 7-axis robot for load capacities up to 1,350kg.



Georg Fischer Fittings GmbH's company premises in Lower Austria.

© Georg Fischer Fittings GmbH



## High-quality malleable cast iron fittings and PRIMOFIT compression fittings

Georg Fischer Fittings GmbH in Traisen is a competence centre for manufacturing malleable cast iron pipe connections.

Georg Fischer Traisen is manufacturing and selling 53 million malleable cast iron fittings and PRIMOFIT compression fittings annually.

Quality and sustainability of a product innovation.

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## A BRIGHT **FUTURE**

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Photonics – a key technology of the 21<sup>st</sup> century: Austrian innovations are in high demand at the world's largest meeting of the photonics industry in San Francisco.



**The 3D displays'** basic technology was already invented by TriLite Technologies in 2011. Last year, three institutes of Vienna's University of Technology worked on the Trixels' controls and their connections. Today, this technology is already market-ready and we are currently looking all over the world for partners for mass production.

This year was already the second time that ADVANTAGE AUSTRIA was represented with an Austrian pavilion at the SPIE Photonics West (Feb. 16th - 18th in San Francisco/California), the world's biggest meeting of the optics, photonics, and laser industry. A total of more than 20,000 industry visitors and 1,300 exhibitors participated in this event. Visitors appreciated the open architecture of the Austrian stand - which was financed by the Austrian Economic Chamber and the Austrian Ministry of Economics as part of the go-international export initiative - as a networking platform. "The photonics industry is a very attractive field of activity for start-up companies because it drives innovation in a broad range of industries. This is why the fair's organisers pay particular attention to the integration of start-ups. Austrian start-ups should use this "wild card" opportunity and present themselves and their innovations in front of a top expert audience at the next Spie Photonics West," says Rudolf Thaler, the Austrian Trade Commissioner in Los Angeles.



### **The focus in photonics**

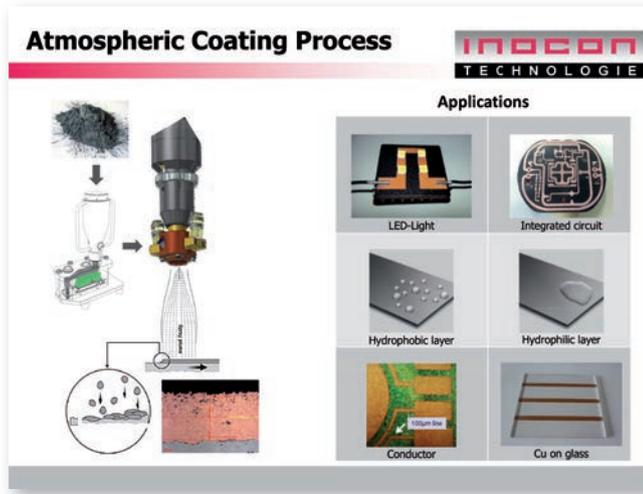
is on the production, control, measurement - and above all - the use of light in almost all socially and economically important areas.

### **STRONG AUSTRIAN INNOVATIONAL PRESENCE**

Many of the ten Austrian exhibitors at the Austrian pavilion are niche champions and their innovations were in high demand. Thaler: “These companies used the fair to launch their innovations, to analyse the market and competitors, for networking with potential partners, and to participate in the conference’s comprehensive program.”

- Bartenbach GmbH was looking to find which technologies could be interesting for light engineering in the future. The Tyrolean lighting specialist already collaborates with renowned American research institutions.
- Dr. Bohrer Lasertec GmbH is the world’s leading full-service partner for ultra high-speed laser engraving for the security and packaging printing industry as well as the automotive industry.
- JOANNEUM RESEARCH Forschungs GmbH presented research results according to the motto “Nano Goes Macro”, which in this case means the extensive application of nanotechnologies, for example for airplane surfaces and ships’ hulls. Further application areas are self-cleaning windows and plasters without adhesives.

- MONTFORT Laser GmbH introduced its customised laser systems.
- Photonic Optische Geräte GmbH & Co KG is a specialist for lighting technology for microscopy and endoscopy, and supplies several renowned microscope manufacturers.
- Wild GmbH is a specialised contract manufacturer for the optomechatronics sector.
- Photonics Austria presented the diversity of the photonics cluster at Austrian companies and research institutions.
- plasmO Industrietechnik GmbH is the world’s leader in process monitoring for laser welding. Its products measure the laser beam’s wavelength to deliver valuable information for industrial users.
- RIEGL Research Forschungsgesellschaft mbH, the world’s leading specialist for laser scanning systems, is looking for new products and manufacturers to complement its supply chain.
- Swarovski Optik KG presented customised solutions for the 3D laser scanning sector as well as industrial image processing and display projections.
- Trotec Produktions- und Vertriebs GmbH, the world’s market leader in the field of laser plotters, used the fair to network. →



Fritz Pesendorfer,  
Managing Director  
Inocon Technologie GmbH

## Innovative plasma technology

Plasma is not only used in Science Fiction or for flatscreen TVs but also for functional surface layers for everyday or industrial applications.

Inocon Technologie GmbH is highly experienced, successful, and has numerous patents for plasma hardening, plasma welding and brazing as well as plasma preheaters for the silicon industry.

### Competence through technological progress

A new kind of plasma coating technology further expands the company's competence in plasma technology. This is still a very young and little researched technology sector that works with the finest metallic powders and atmospheric vapours. Powder or vapour is fed into a plasma stream and applied as a functional layer.

In the course of this new technology development Inocon developed several coating heads as well as a new powder feed technology for the finest powders. Inocon's plasma technology with powders and vapours can be used to apply functional coatings, particularly on sensitive substrates. For example, conductor tracks made of copper or zinc can be applied on paper and practically all plastics without damaging the respective substrates. This is a remarkable property, considering the high melting points of powders.

Leading providers of mobile phone antennas and LED structures are currently testing this kind of conductor tracks. Further application areas are friction enhancing and wear-resistant coatings.

### A wide range of possible applications

The application of thin silicate and silicone films with vapours results in transparent layers which are only a few nanometres thick and can be used in many application areas. This method is mainly used to apply hydrophilic and hydrophobic layers, and add barrier, adhesion or anti-adhesion properties to paper, foils and virtually all other surfaces. Specific applications currently include coatings for glass and ceramics – for 6 to 7 times more adhesive properties, as well as anti-adhesion coatings for production rollers or biocide coatings for various applications (anti-fouling for roofs, facades and bodies of ships), and for the elimination of microbes in kitchen areas, hospitals, medical practices, public bathrooms, etc.

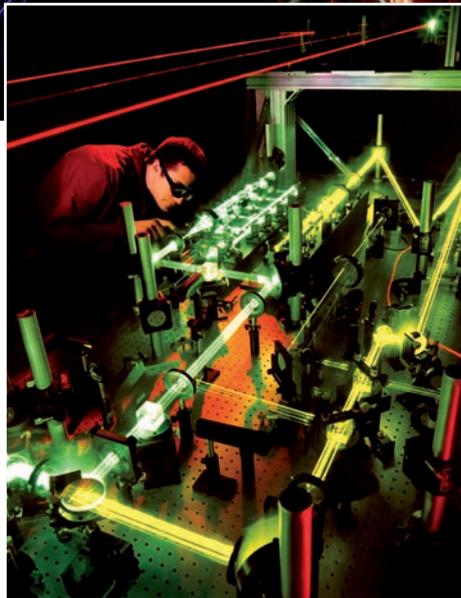
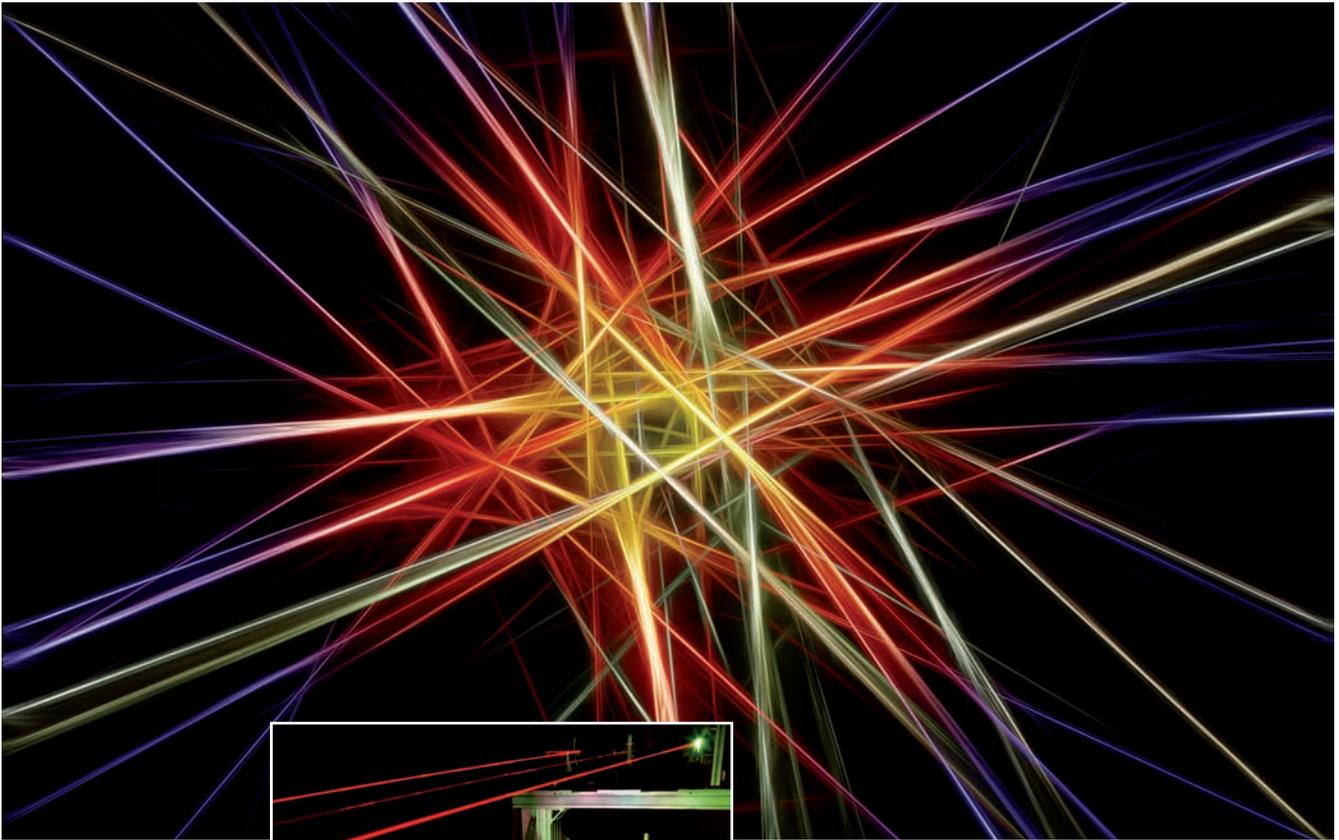
### Market leader in efficiency

Inocon's atmospheric plasma is by far the most efficient on the market to replace today's coatings made with PVD (physical vacuum-based vapour deposition), CVD (chemical vacuum-based vapour deposition) processes. These coatings require relatively low investments to achieve at least equivalent properties, and they can be integrated into automated processes. Using atmospheric pressure makes vacuum chambers obsolete. This results in shorter process times and allows the coating of larger workpieces as well.

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**LASER IGNITION SYSTEM FOR EUROPEAN SPACE VEHICLES**

Following successful bench testing, the Austrian CTR Carinthian Tech Research is working on a laser ignition system to be used in space, based on their HiPoLas® laser system.

Funded by the European Space Agency (ESA), the laser ignition system could be used in the Ariane 6 launch vehicle, which is currently being developed by the German-French company Airbus Safran Launchers. “For us, this is unique recognition of the research and development work we have been doing over the past few years. In close cooperation with our partners, we have adapted the HiPoLas® laser ignition system many times for various different piston engines for cars, to power turbines in planes and most recently for engines in satellites and launchers. The system has also successfully undergone extensive testing. We now intend to integrate the ignition system in a combustion chamber for cryogenic fuels and adapt it to the extreme demands required for its subsequent use in space,” says CTR project manager Gerhard Kroupa.



■ In-Vision was at the Texas Instrument stand as one of the DLP-chip user solution partners and presented industrial projection solutions.

**PHOTONIC SUCCESS STORIES “MADE IN AUSTRIA”**

Austria can look back on a huge number of various success stories in the photonics sector, ranging from small start-up companies to large projects.





PROBIG® realises innovative solutions for multifaceted requirements.

## Non-metallic scraping systems

PROBIG® has been developing, planning, and producing high-quality chain scrapers, DAF separators, and API scrapers made of high-tech plastics for decades, and thus became the pioneer of this technology.

This worldwide operating company is one of the international market leaders and one of the most innovative suppliers of non-metallic scraping systems for water and wastewater technologies. The application specialists of PROBIG® realise customised solutions for every project, which are extremely eco-friendly and energy efficient.

### ISO and TÜV certified

PROBIG® scraping systems meet the highest standards – as attested by numerous independent inspecting authorities and laboratories including TÜV, ISO 9001, ISO 14001 and OHSAS 18001. Permanent monitoring of production processes guarantees the excellent quality of all products. Comprehensive test series under real conditions and years of practical experience are the basis for perfect functions and top performances in daily operations.

### International companies choose the know-how of PROBIG®

From industrial companies such as Agrana, Bayer, Borealis, Daimler, Gazprom, Henkel, OMV, and Swarovski to municipal operators like the cities of Den Haag, Guadalajara, Gütersloh, Ljubljana, Rotterdam, Salzburg, San Remo, San Salvador, Santiago de Chile, São Paul, Singapore, Skopje, and many more: wastewater treatment and scraping systems by PROBIG® meet the individual requirements of respective customers worldwide. This is why many international companies choose the know-how of PROBIG®.

### New and existing plants

Besides planning and installing new systems, PROBIG® also has excellent know-how and much experience in retrofitting existing plants. Its special solutions range from high-load chains and chain scrapers for grit chambers to floating sludge scrapers with modular outlets, and many more. This is quality in a completely new dimension: These high-tech plastics were designed for use in wet-sludgy and chemically aggressive areas.

### Advantages

- ISO, ATEX, and TÜV certified
- Energy-efficient
- Simple maintenance
- 2 to 10 times more durable than metal
- Corrosion-resistant
- Low-noise
- Durable and reliable

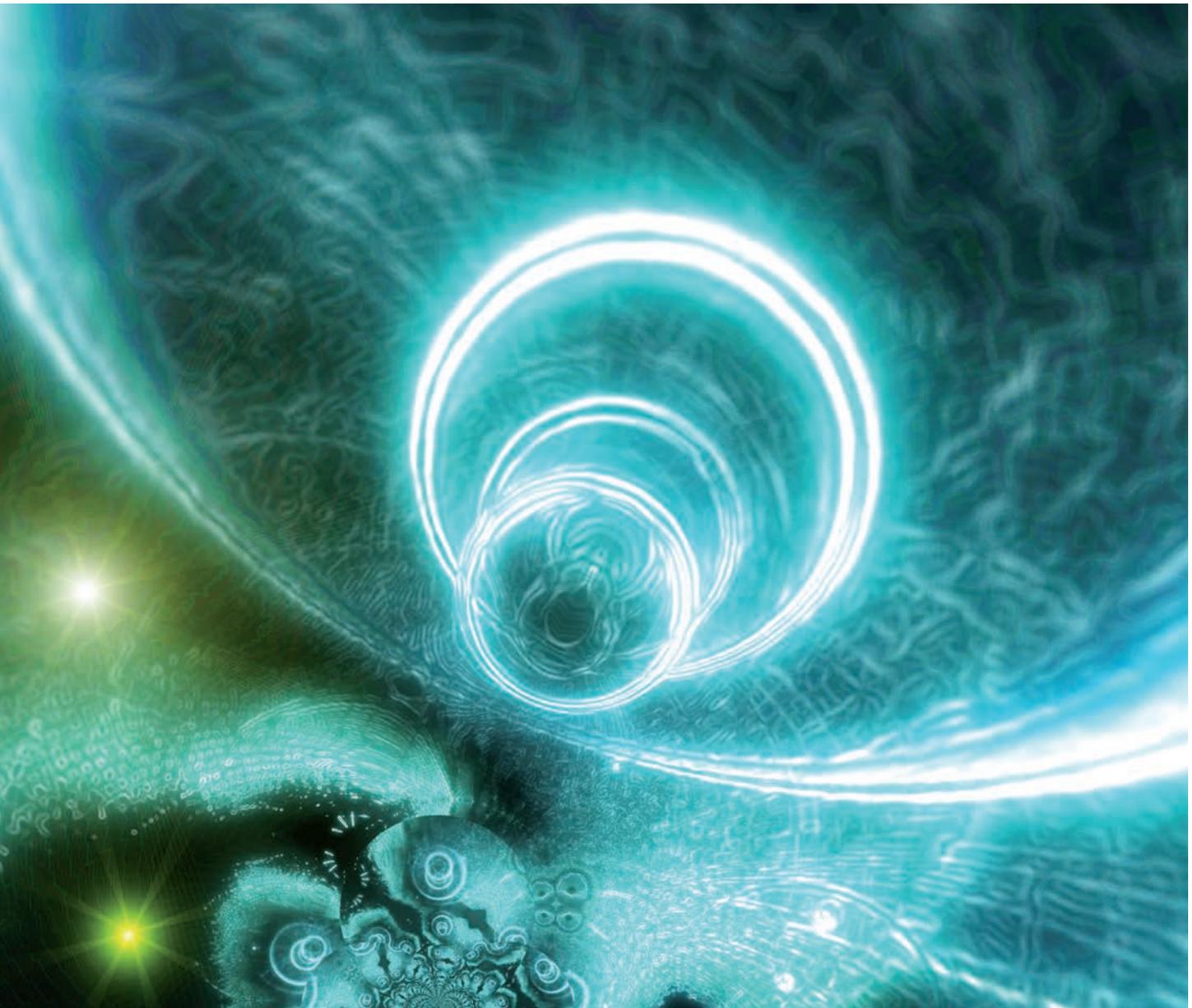
### We are looking for sales partners

PROBIG® is looking for sales representatives for the industrial sector who work on commission basis and have top contacts in the water and wastewater technology sector. Well-established plant manufacturers for the municipal sector who supply water treatment plants are always welcome.

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**PROBIG®**



**→ NEW LASER DISPLAY TECHNOLOGY  
ENABLING GLASSES-FREE 3D OUT-  
DOOR DISPLAYS**

TriLite Technologies, an image display company, develops technologies for glasses-free 3D screens for outdoor digital signage, as well as fully miniaturised RGB laser modules for pico projectors.

“We are taking the next step in the evolution of large scale outdoor digital signage screens by enabling viewers to see the screen’s images in 3D without having to wear 3D glasses,” stated Ferdinand Saint Julien, CEO of TriLite.

**LASERHYBRID BY FRONIUS**

Fronius LaserHybrid, Fronius’ laser MIG method, combines the advantages of MIG and laser welding methods, which are used on an industrial scale, without the respective disadvantages of these methods.

LaserHybrid welding combines laser and MSG welding processes, creating a new technique that unites the advantages of both processes. This technique is called “LaserHybrid” and is characterised by its good gap bridging between MIG and MAG welding as well as incorporating the **→**



Individual solutions, from laboratory analytics to the realisation of production plants.

# “we make biotechnology work”

VOGELBUSCH Biocommodities is a global technology and service provider for industrial bioprocess plants. Reference projects around the world are proof of cutting-edge technology and outstanding plant performance.

### Flexible solutions for individual requirements

Specialized in industrial biotechnology, VOGELBUSCH Biocommodities designs plants for sugar and starch processors and for the food and beverage industry. The company offers proprietary processes for the production of biocommodities such as alcohol (including bioethanol), yeast, vinegar, as well as glucose, dextrose, high fructose syrup, and citric acid.

Thanks to its extensive experience of microbial production techniques VOGELBUSCH is familiar with the various requirements for designing bioreactors. The company also offers a multitude of technical solutions for downstream processing of fermentation products, depending on the type of end product involved and the quality required.

### A long-standing tradition of solution orientation

The company was founded by Wilhelm Vogelbusch in 1921. His business philosophy centred on finding solutions to his clients' problems. An exceptionally gifted engineer, he rapidly made a name for himself by inventing improved evaporation, distillation and aeration equipment. He set new standards for yeast and alcohol production technology, and his many inventions won him a place in the history of chemical engineering and the textbooks read by generations of students.

### R&D for sustainable successes

VOGELBUSCH Biocommodities conducts applied research internally and in cooperation with universities. The focus is on the sustainable development of and innovation in fields of technology that are strategically important to the company, and the optimization thereof in the context of international competition. Besides continually optimizing existing technologies and investigations in the field of starch processing, current research activities include the work on VALOR+, a research project supported by the European Union under FP7 on the development of production technologies from second-generation raw materials.

### Austrian technology inspires the world

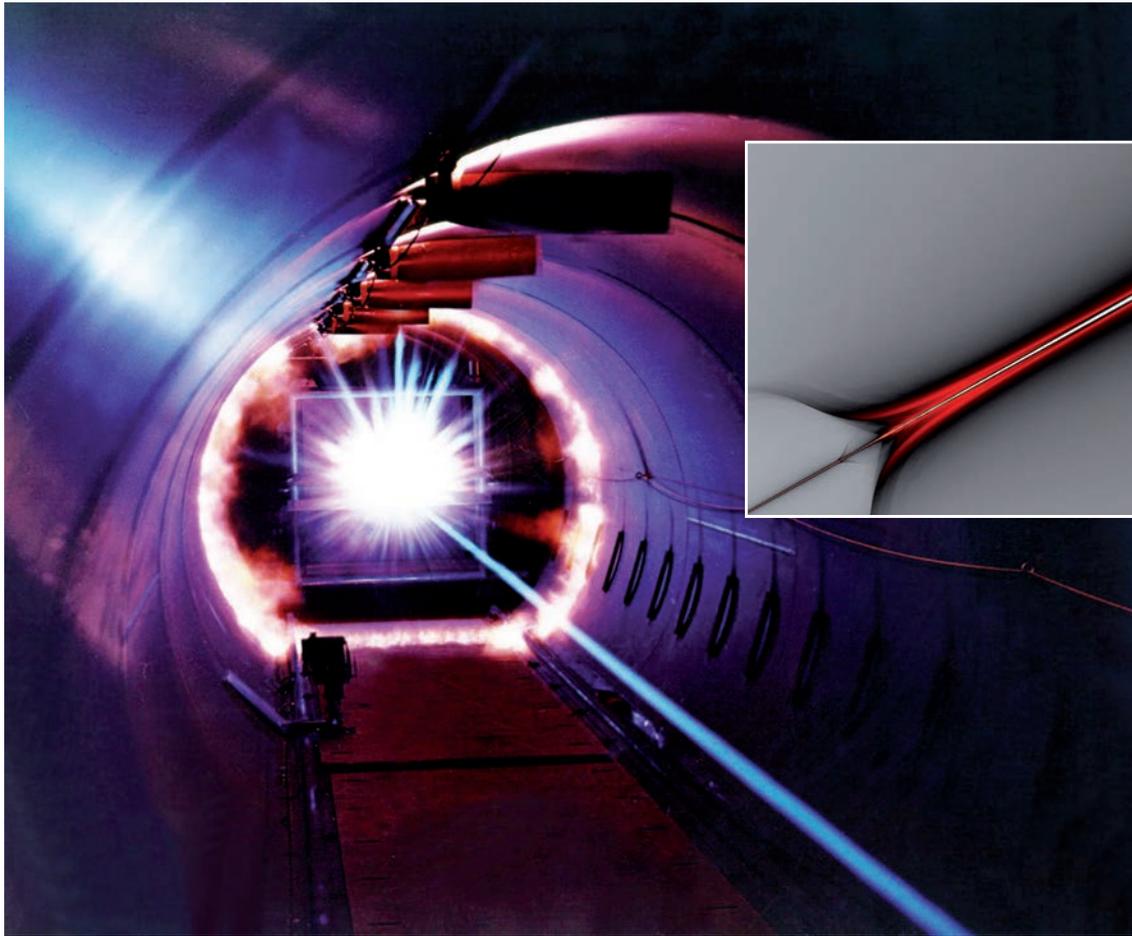
With the completion of the showcase Russian projects in the area of grain processing, VOGELBUSCH Biocommodities will be able to further foster its position in the field of plants to produce starch sugar and associated fermentation products. Interest continues to be expected in the grain-rich markets of the east, as well as in Asia and South America and, following the end of the sugar market regime, in Europe. Expansion and modernization projects for the alcohol and bioethanol industry will be starting points for acquisitions in Europe, Asia, South America, and southern Africa.

© VOGELBUSCH Biocommodities GmbH



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**Controlling and using** photons has become one of the most important innovation drivers for our modern society and economy. Today, photonics is a globally courted, highly dynamic world market with a sales volume of 250 bn. euros.

## PHOTONICS

Photonics is the technology of light. It is one of the key technologies of the 21st century and one of the key enabling technologies (KET) of the European Commission. Just like electrons in electronics, it is photons that are essential for numerous applications in photonics. The term photonics originated from optical data transmission sector, which originally owed much of its progress to the invention of the laser (1960) and fibre optic technology (1970). Today, photonics comprises disciplines and technologies that focus primarily on the use of light. This opens a wide field that needs to be defined further: Photonics deals with the generation, transmission, modification, intensification, and detection of light. Therefore the term is often used synonymously with optoelectronics or integrated optoelectronics. Today, however, the latter must be considered as a too narrow term, particularly in the light of the advancement of optical technologies in production processes. Without being entirely exhaustive, the field of photonics comprises the following segments:

- Wave and quantum optics
- Holography
- Interaction of light and matter
- Optical semiconductor properties (particularly in regard to photon detectors and photovoltaic elements)
- Optical wave guiding (e.g. glass fibres)
- Lasers
- Optical modulators and switches (directional couplers)
- Interferometers and frequency mixers

➔ advantages of laser welding – such as high energy density, which results in high welding penetration depths and/or high joining speeds. As soon as the laser beam hits the work piece's surface, it heats the respective area to evaporation temperature. This results in a vapour capillary with the desired effect of deep and narrow weld penetration. The requirements for expensive laser energy of the LaserHybrid process is almost exclusively limited to this so-called deep welding effect, which also allows users to join thicker metal sheets. All further energy requirements are covered by the cost-efficient MSG process, which provides better gap bridging with its consumable electrode and therefore delivers better tolerance compatibility. Both partial processes focus their energy on the same process zone, which significantly increases welding depths and welding speeds in comparison to the respective individual processes. ■

© TriLite Technologies, Pixabay • Source: Photonics Austria



DOMOFERM's steel doors are ideal fire protection closures for sophisticated objects.

## Fire protection par excellence

One of the most advanced production sites for steel frames and fire protection doors in Europe is located in Lower Austria's Gänserndorf. DOMOFERM established itself as the Austrian market leader with top-quality workmanship, sophisticated design and user-friendly functionalities.

In 1960, Walter Neumayer founded today's DOMOFERM group with a locksmith's shop and only three employees on an area of 200m<sup>2</sup>. Just three years later, they already manufactured innovative special frames on an area of 1,500m<sup>2</sup>. By the time the company's series production of fire-resistant doors started in 1965, DOMOFERM soon became one of the most innovative and modern manufacturers in the steel doors, steel frames, and fire-resistant doors sector. Furthermore DOMOFERM established itself as an international Player offering high quality solutions for sophisticated objects.

### Revolutionary fire protection

DOMOFERM revolutionised traditional fire-resistant doors with its "Baumeister" door system and the knock-in anchor. The "Baumeister" steel frame is designed for various wall systems. It can be installed in 2.5 hours to less than one hour, which is a big time and money saver in comparison to conventional systems. The "Carefree Installation" package is included with delivery and ensures that no further screws or accessories are needed.

### Focusing on quality and service

The DOMOFERM development department works consistently on innovations, smaller product improvements and developments as well as new equipment options for existing products. This year's top priority was the new POS concept that will be launched in Austria

first, before it will be taken to other countries as well. DOMOFERM'S key priority has always been its strong commitment to service. This priority will become even more important in the future. DOMOFERM improves its services in all areas with professional and competent consulting and to further reinforce its presence on the market. As the clear specialist for fire-resistant doors, DOMOFERM still has much growth potential. The company's goal is to introduce an increasing number of holistic concepts to its clients. These concepts will be more cost-efficient and make processing and planning even easier.

### Worldwide success stories

As market leader, DOMOFERM already has an eventful project history. These projects include the Mall of Split, Dalmatia's most modern shopping centre as well as Moscow's Mercury Tower, which was Europe's highest building at that time it was built. One of the more recent prestigious projects in Austria was the Vienna University of Economic Sciences.

*"We are and will be the specialist for fire protection and will successfully realise further special product concepts in the future. We have several new developments planned. For instance we will have something very exciting regarding surfaces in the next year. At this point, I can only tell that the prototypes are very promising."*

**Thomas Rathausky, head of export at DOMOFERM GMBH**

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## SMART AND **SECURE**

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In the highly competitive smartphone market, many manufacturers provide either better security or better performance. World market leader Samsung, however, delivers on both fronts and relies on products by Infineon Austria.



**The combination of**  
research & development  
with manufacturing at one  
site is a rare specialty.



The premium smartphone Galaxy S7 and the Galaxy A-products are equipped with the chip manufacturer's security and RF (high frequency) components. Low-noise preamplifiers (LNA), antenna tuners, and RF switches increase transmission rates and decrease energy consumption. Furthermore, embedded secure element chips (eSE) protect the

mobile devices' security-critical functions. They ensure the secure transmission of sensitive data for contactless payments, enable comfortable biometric authentication for the user as well as new electronic ticketing solutions. This embedded-secure-element is predominantly developed at Infineon's development centre in Graz. It is a contact-based, highly secure chip with a 1.5 MB memory, which is a very high memory capacity for a semiconductor in this segment.

#### **TAKING THE LEAD IN THE MOBILE PAYMENT SECTOR**

Embedded-secure-elements are becoming the standard solution for NFC applications (near field communication). Market researchers predict that the number of new smartphones with integrated NFC security elements will increase from currently 427 million to 1,620 million in 2020 (IHS, NFC Report 2015). Ease of use combined with security measures should increase the acceptance of mobile payment methods significantly.

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**Tomorrow's**  
technologies are  
created in Austria.

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**Every third smartphone** in the world has a microphone by Infineon.

**INNOVATIVE SOLUTIONS FOR GLOBAL CHALLENGES GENERATED SIGNIFICANT GROWTH IN 2015**

Infineon Austria generated 1,427.1 million euros in sales in 2015, surpassing the previous year's figure by 126.6 million euros or 10 percent respectively (revenue in 2014: 1,300.5 million euros).

This amount is a new record in the company's history. The results from normal business activities amounted to 152.1 million euros, an increase of 3 million or approximately 2 percent over the previous year (2014: 149.1 million euros). One of the main contributors to this increase in turnover was the positive market development in business segments for which Infineon Austria is globally responsible on behalf of the group. The development of the dollar exchange rate also contributed to past year's positive results. The result can be attributed to increased productivity combined with high production utilisation rates at the 



Facility for chassis components in Suzhou, China



Heat treatment of strut mounts and side rails for the Audi Q7



HOFMANN headquarters in Linz/Upper Austria

## Efficient heat treatment facilities

HOFMANN Wärmetechnik has a long-standing tradition in the plant-engineering-sector. Furnaces and facilities for virtually all heat treatment sectors have been designed and manufactured by this company for 70 years.

### A company with a long-standing tradition

HOFMANN Wärmetechnik was founded 1946 by Herbert Hofmann. In the year 1974, the company was taken over by Hermann Gründl and expanded at its site in Linz. Wolfgang Niederländer has been managing HOFMANN Wärmetechnik since 1999. In the past years, the company specialised in heat treatment of aluminium and steel components. The new company premises in Hellmonsödt were added in 1994 and provide enough room for further development steps. The main focus was based on designing facilities fulfilling all special customer demands.

Renowned companies from the automotive and aircraft industry, such as Audi, BMW, or Airbus as well as small and medium sized companies from the heat treatment sector are among the company's satisfied customers. Since the year 2008 HOFMANN Wärmetechnik got a stable growth in case of continuous heat treatment facilities for automotive industry fulfilling the treatment specification T5, T6, T7 & VW specification TL 117C.

### Flexible, innovative and international

Due to its decades of experience in heat treatment, this heat engineering specialist knows all possible difficulties and provides innovative solutions for a broad range of requirements. Today, HOFMANN Wärmetechnik's furnaces are well known for their reliability in over 40 countries.

The team of experts always strives to flexibly approach the client's individual requirements and find the best possible solutions in collaboration with the client.

### Made in Austria

HOFMANN Wärmetechnik's furnaces and facilities are exclusively designed and manufactured in Hellmonsödt / Austria to ensure that the entire know-how remains within the company and can therefore be used for its clients. If possible, those employees who built the respective facility and put it into operation do any needed maintenance work as well. This approach ensures the company's comprehensive and competent client support.

### References:

Audi  
BMW  
Airbus  
FLAMM Aerotec  
Otto Fuchs  
AMAG  
Nemak  
Aleris  
Georg Fischer  
MWS  
MAGNA  
Pilatus  
DGS  
RDW

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**Infineon Austria is** the world's first company to launch the series production of semiconductors with 300-millimetre thin-wafer technology. When it comes to "industry 4.0", Infineon takes the lead in Austria.

→ company's production site in Villach. "Our comprehensive competences in power electronics became a vital component of our success due to the globally strong demand for chips to increase energy efficiency for industry, vehicle, and consumer applications," says Sabine Herlitschka, chairwoman of Infineon Technologies Austria AG.

**AUSTRIAN KNOW-HOW AND CHIP TECHNOLOGY FROM GRAZ FOR BARCELONA'S PUBLIC TRANSPORT SYSTEM:**

Infineon's worldwide competence centre for contactless and security technologies is located in Graz. This centre's expertise is used for the further development of ticketing systems for public transport systems. CIPURSETM, the contactless security standard, is predominantly developed in Graz and is already used in major cities such as Sao Paolo (BRA), Perm (RUS), Budapest (HUN), and Medellin (COL). This contactless technology enables secure electronic transactions via chip cards or mobile devices. Since this year, Barcelona also uses the new electronic payment system "T-Mobilitat" on contactless security chips. Single tickets and tickets for 10 rides were replaced by chip-based tickets. This means that approximately five million residents have access to all of the city's public transport options, including "Metro Barcelona", busses, and other means of transport. In the long-term, the entire Catalan region will switch to contactless ticketing.

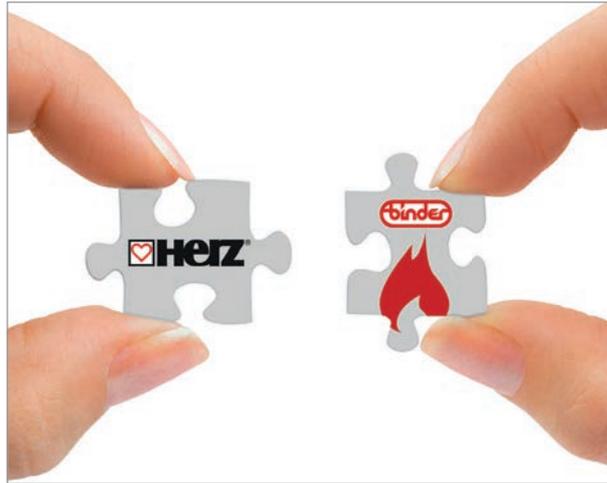
**AUSTRIA'S MOST EFFICIENT PRODUCTION PLANT IN 2015**

15.5 billion chips were produced in Villach in the 2015 fiscal year. The manufacturing plant in Villach is the Infineon group's competence centre for the production of power electronics. Innovative production methods like 300-mm thin-wafer technology were consistently developed to market maturity at this plant. The volume production of this new generation of semiconductors for automotive applications was launched in mid-2015. These new chips are the world's thinnest of their kind and contribute significantly to increased energy efficiency and therefore to the decrease of CO<sub>2</sub> emissions of vehicles.

© Infineon, Pixabay



The HERZ-Group: 8 sites in Austria, 14 in Europe; over 2,400 employees



## 120 years HERZ

In 1896 the families Gebauer and Lehrner bought a valves factory in Herzgasse in Vienna's district Favoriten. More than 120 years later the HERZ-Group is one of the most important international manufacturers of products for the entire heating and installation industry.

### Successful with biomass

"Environment-friendly heating systems with maximum comfort and the best user-friendliness" – this is HERZ Energietechnik's guiding principle. HERZ currently employs a staff of 358 in the energy technology sector in Burgenland and Styria and provides a complete range of renewable energy systems: Pellet and wood chip systems up to 1,500 kW (up to 4,500 kW in cascade operation), wood gasification boilers up to 40 kW and heat pumps up to 80 kW.

With its takeover of the renowned company BINDER GmbH in January 2015 HERZ has expanded its range of biomass plants from 4 up to 20,000 kW. That makes HERZ to an interesting partner for clients from the private sector as well as from trade and industry sectors.

Beside the conventional warm water systems there are also hot water and saturated steam systems, hot air (drying) systems, thermal oil systems as well as CHP systems in the program. Another specialty is the wide range of tried and tested special fuels, which can be used to heat BINDER Energietechnik's systems. These fuels range from corncobs to cherry stones and poultry manure.

### Innovation leads the way

Both companies' comprehensive know-how as well as their networks and close collaborations with research and education institutions form the basis for the consistent further development of the product range and the generation of new ideas. The R&D department in Pinkafeld convinces with the highest quality in the shortest development times.

### Rooted in Austria - at home around the world

The products of HERZ & BINDER are in high demand, even beyond Austria's borders: The export quota is over 75% and is not only limited to Europe. Proven Austrian quality and the innovative technologies of the products are highly appreciated in Canada, Japan, South Asia, as well as in South America. One of the best examples for this worldwide demand is the 9-MW steam boiler which was realised with the Chilean partner Energia del Sur in Uruguay. The system is approximately 10 metres high, 15 metres wide and weighs approximately 130 tons in total. This boiler was manufactured by BINDER in Bärnbach, Styria. For the shipment to South America the boiler was disassembled into its individual components. This components were transported with 15 containers to Uruguay.



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## EXPORTS BOOM IN THE **TRADE SECTOR**

According to a current survey of the Austrian Institute for SME Research, Austrian trade and craft businesses generated 7.8% of their annual sales abroad in 2015. Their export volume amounted to 6.5 bn. euros of the total sales volume of 82.9 bn. euros.

**The trade and craft** sector has a long-standing history in Austria. Its products and services are needed every day because the trade and craft sector's 90,000 companies ensure the country's high quality of life.

According to Walter Bornett, the Director of the Austrian Institute for SME Research, this is a very impressive export performance. But only a handful of companies generate these exports. Only 16% of all trade and craft businesses were operating internationally in 2015. Bornett believes that this shows that there is an enormous untapped potential. The domestic trade and crafts sector distinguishes itself with top-quality products and services that have, overall, very good chances on international markets. The way these opportunities are seized, however, can vary greatly and depends on the respective region and industry.

industry's companies, 17% of all carpentries, and 8% of all bakeries exported their goods.

The respective companies' sizes have a strong impact on the share of exporting companies and their export quotas. 37% of the bigger trade and craft businesses (with more than 20 employees) were export-oriented. Only 12% of smaller businesses (with less than 10 employees) exported their goods and services.

Even though products and services of many domestic small and micro businesses are more than suitable for export, these companies are often not confident enough or lack the necessary resources, says Walter Bornett. He recommends that companies, whose product or service portfolio is not yet attractive enough for international markets, should collaborate with innovation experts, for example from the network of Austrian Cooperative Research (ACR).

### **WE ARE SKILLS!**

"The trade and craft sector applauds and congratulates President Herk and his organisation team for their work on Graz's application for EuroSkills. It is a huge achievement that the European jobs championship will take place in Austria in 2020," says Renate Scheichelbauer-Schuster and continues "As Austria's biggest trainer of apprentices I am looking forward to us presenting the know-how of our apprentices as well as our training companies in our own country. We are leading the way when it comes to apprenticeship training and this is what we want to show." 42.2% of all apprentices - a total number of 46,365 young people - were trained in businesses of the trade and craft sector in 2015.

"We are Skills" should be taken literally and the next 4 years should be used intensively for apprenticeship training. ■

### **REGIONAL DEVELOPMENT**

Vorarlberg leads the ranking of Austrian provinces, where 34% of all companies generate sales with foreign customers. In Carinthia, on the other hand, only 8% of all companies operated internationally. Upper Austria's export quota of exporting companies amounted to 32.3%, but it only amounted to 18% in Styria. If one includes all trade and craft businesses (even those who do not export), Vorarl-

berg's average export quota was 16%, and Styria's was 4.2%.

An even broader range becomes visible when we look at individual industries. Approximately 67% of all mechatronics companies generated 36.6% of their sales abroad. Only 15% of the clothing in-



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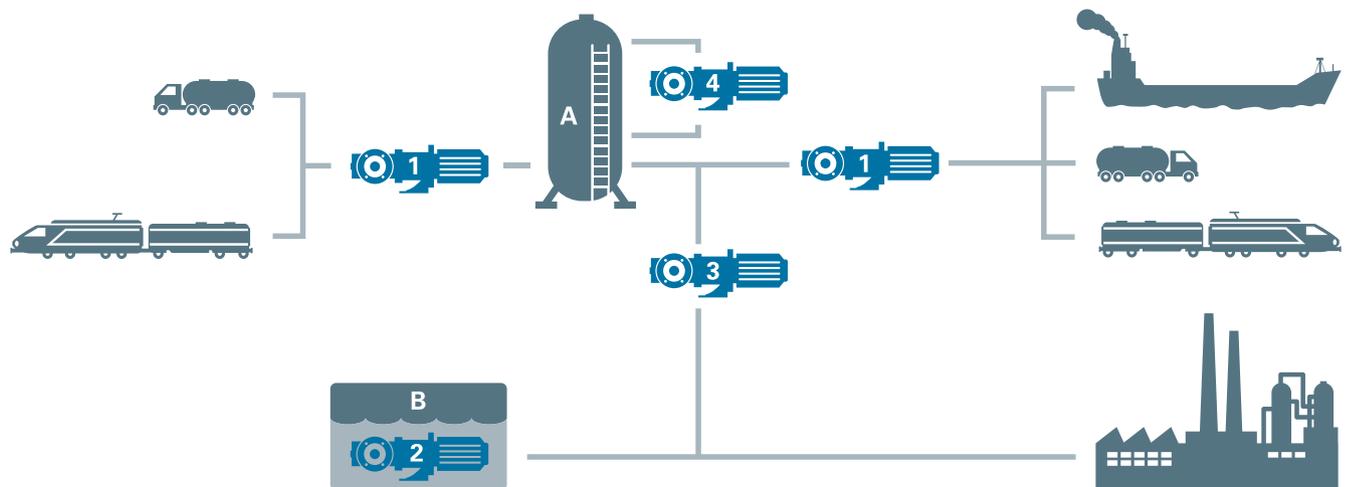
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