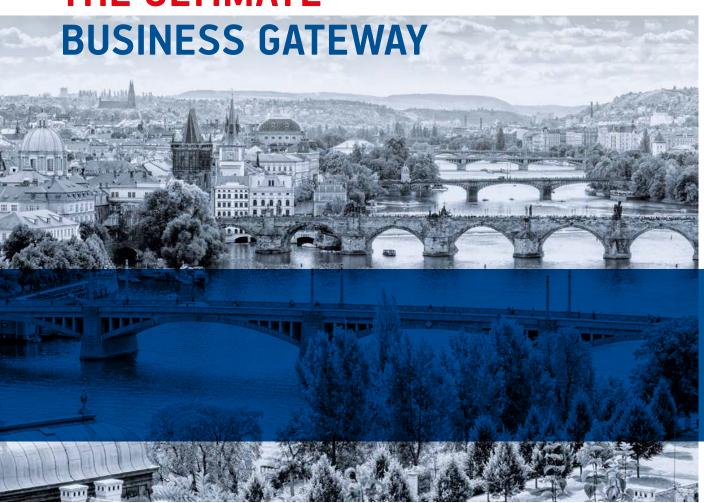
# CZECH REPUBLIC THE ULTIMATE







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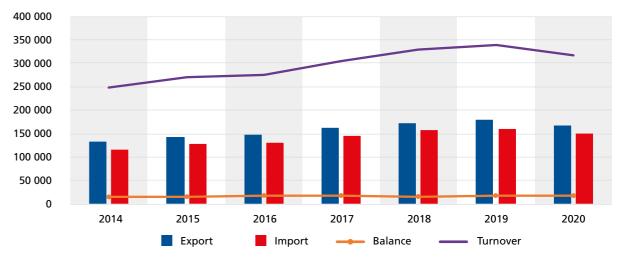
### MAIN ECONOMIC INDICATORS

Indicator	2014	2015	2016	2017	2018	2019	2020
Real GDP growth %	2.3	5.4	2.5	5.2	3.2	3	-5.8
Real GDP growth % EU 27	2	2.3	2	2.8	2.1	1.8	-5.9
Real GDP per capita (EUR)	15,480	16,290	16,670	17,490	17,990	18,460	17,340
Total unemployment rate %	6.1	5.1	4.0	2.9	2.2	2	2.6
Total unemployment rate % EU 27	10.8	10	9.1	8.1	7.2	6.7	7.1
Inflation rate (%, r/r, average), HICP	0.4	0.3	0.6	2.4	2	2.6	3.3
CZK/EUR (average)	27,533	27,283	27,030	26,330	25,643	25,672	26,44
CZK/USD (average)	20,746	24,600	24,432	23,382	21,735	22,934	23,196
GDP per capita (current Int\$) PPP	32,504	33,909	36,101	38,842	41,148	43,316	42,049
GDP per capita (current Int\$) PPP, OECD avg.	39,295	40,459	41,883	43,479	45,219	46,426	44,823
GDP per capita (current Int\$) PPP, EU avg.	37,382	38,567	40,560	42,474	44,129	46,659	44,766

Source: The Czech Statistical Office/EUROSTAT, The Czech National Bank, The World Bank

### FOREIGN TRADE OF THE CZECH REPUBLIC

Cross-border movements of goods of the Czech Republic between 2014–2020 in mil. EUR



Source: The Czech Statistical Office, Cross-border movements of goods

# Main countries of Czech exports in 2020 – TOP 10

Germany 33%

Slovakia 8%

Poland 6%

France 5%

Austria 4%

Netherlands 4%

United Kingdom 4%

Italy 4%

Hungary 3%

Spain 2%

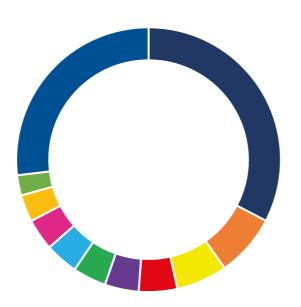
Others 27%

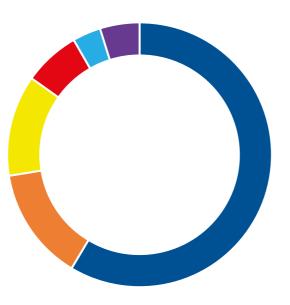
Source: The Czech Statistical Office, Cross-border movements of goods

# Commodity structure of Czech exports in 2020 – TOP 5 (SITC 1)

- Machinery and transport equipment 59%
- Manufactured goods classified chiefly by material (manufactures of iron, steel and other metals rubber, non-metallic mineral goods, textile yarn, fabrics 14%
- Miscellaneous manufactured articles
  (articles of apparel and clothing accessories,
  professional, scientific and controlling instruments,
  furniture, footwear, toys, articles of plastics) 12%
- Chemicals and related products 7%
- Food and live animals 3%
- Others 5%

Source: The Czech Statistical Office, Cross-border movements of goods





# BUSINESSINFO.CZ OFFERS VALUABLE INFORMATION FROM PROVEN SOURCES APPROVED BY EXPERTS:

FIND MORE INFORMATION AT

WWW.BUSINESSINFO.CZ/BUSINESS-GUIDE

companies but also gives them access to current investment opportunities and much more.

BusinessInfo.cz is a partner of the Single Digital Gateway project: your gateway to public administration services, assistance and legislation in the Czech Republic. Single Digital Gateway (SDG) is a European Union project

aimed at creating a European-wide electronic point of access that will help to quide citizens and businesses

to information, administrative procedures and assistance services necessary for their activities within the EU. BusinessInfo.cz not only provides all the information relevant for business in the Czech Republic online to foreign

- how to start a business in the Czech Republic
- how to acquire a stake in a company
- how to find a business partner for expanding or establishing a new company in the CR
- how the tax system is set up in the Czech Republic
- what the investment climate is like here
- what current investment opportunities there are and much more
- useful links and institutions in the Czech Republic

On BusinessInfo.cz, entrepreneurs will find detailed instructions on how to set up trade for more than 180 business activities in various fields, with a particular focus on the provision of services within the EU. The instructions describe the procedure for obtaining the necessary authorisation for conducting business activities, including forms and applications.



The portal has been set up by the CzechTrade Agency. The project is coordinated by the Ministry of Industry and Trade.

Štěpánská 567/15, 120 00 Prague 2 Czech Republic info@businessinfo.cz www.businessinfo.cz/business-guide

# FAMOUS CZECH INVENTIONS, DISCOVERIES AND INNOVATIONS

#### LIGHTNING CONDUCTOR

It was invented by Prokop Diviš who devoted himself to the idea of manufacturing a machine that would harness accumulated electric charge from storm clouds. The first earth-connected lightning conductor in the world was made by Diviš in the garden of Přímětice near Znojmo.

#### **PILSNER**

It is a bottom-fermented pale lager beer made according to the recipe of the city of Pilsen. It differs from other beers primarily thanks to a more pronounced hoppy flavour. The first beer of this kind was invented in 1839 by Josef Groll, a brewer of the Citizen's Brewery in Pilsen.

#### **SUGAR CUBE**

The first sugar cube in the world was invented by Jakub Kryštof Rad who was the director of the Sugar Refinery in Dačice; it was 1841 when he invented the sugar cube presser. Mass production started in 1843 when the patent was approved and the licence was granted for sugar cube production.

#### **SCREW-PROPELLER**

The screw-propeller was invented by the Czech constructor Josef Ludvík František Ressel who was awarded a patent for this invention in 1827. He designed the screw-propeller's optimal shape and placed it horizontally under the stern in front of the rudder; therefore, the screw-propeller could be used both on the sea and on rivers. This invention substituted the previous paddle mechanism used in ship propulsion.





Rad's factory created perfectly portioned units of sugar by pressing the loaf sugar into a 400-slot mould and letting it dry overnight.

#### **KAPLAN TURBINE**

Professor Viktor Kaplan invented a water turbine with adjustable circulating blades in 1913. It is used in particular in places where it is impossible to ensure permanent flow or drift. Big Kaplan turbines are individually designed for each spot for operation with the highest possible efficiency (usually more than 90%). Kaplan turbines are widely used in water power plants worldwide.

#### **CLASSIFICATION OF FOUR BLOOD-GROUPS**

The four blood-groups were first identified by the Czech physician, neurologist and psychiatrist Jan Janský in 1907. He did not label them with today's designations (A, B, AB and 0) but assigned them Roman numerals (I., II., III. and IV.). The classification of blood-groups in the system AB0 started to be used in the 1930s.



The blood group system should be taken into consideration during a blood transfusion with the 0 blood type being the most common globally.



#### **CONTACT LENSES**

They were invented by the Czech chemist Otto Wichterle in 1961. He built his first "lense machine" from parts of a Merkur building kit and a bicycle dynamo. A year later he manufactured around 5,000 lenses. In 1965 an American company called the National Patent Development Corporation bought the licence for contact lens production. Nowadays, contact lenses are used by millions of people all around the world.

#### **BLADELESS TURBINE**

One of the most recent Czech inventions is the bladeless (rolling) turbine. The creator is Associate Professor Miroslav Sedláček from the Czech Technical University (ČVUT), who received a nomination for the European Inventor Award 2016 in the "Research" category for his invention. The turbine has many advantages. The most important one is the fact that it can handle different gradients. (It can function with a gradient of 5 meters as well as one of 20 meters and more.) Turbine construction is very simple, and efficiency is around 40–70%. Thanks to this invention, half of the potential hydro-energy that remains untapped until now could be harnessed.

#### NANOSPIDER™

This is a unique technology that makes possible the industrial production of unwoven textiles, nanofibres (textiles with a diameter 20–500 nm). It is a technology that was created thanks to the cooperation of Professor Jirsák's team and the engineer Mareš. Nanofibres may be used for filtering in many sectors, such as medicine, the car industry, energy industry, building industry, cosmetics, environmental protection, etc. Nano-fibres are globally recognised as materials of the third millennium.

#### **CZECH TRANSPLANTATION MEDICINE**

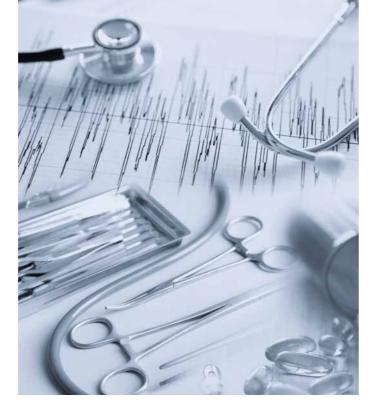
Czech surgeons are at the top of European transplantation medicine. The first successful transplantation was performed by the oculist Eduard Konrad Zirm in 1905 in Olomouc when he made a successful transplantation of eye corneas. Bohdan Pomahač is currently a well-known Czech plastic surgeon who specialises in face transplantation. With his team he performed the first complete face transplant in the United States; this surgery was simultaneously the third complete face transplant in the world.

#### AIR-TICKET BROWSER KIWI.COM (FORMERLY SKYPICKER.COM)

The founder of Skypicker is Oliver Dlouhý. Unlike other browsers, it is unique in using its own algorithm, which enables users to find more convenient combinations of complicated flights from often low-cost airlines that do not cooperate together. Moreover, and in contrast with its competitors, it focuses on foreign customers. The company is labelled as a Czech miracle – within three years of its existence it has grown from scratch to a global company whose revenue can be already measured in billions of crowns.

#### **GLASS NAIL FILE**

In 1997 the Czech company Blažek Glass invented the world's first glass nail file. Currently, the company exports these files around the globe. Customers of Blažek Glass include the most notable cosmetic companies.





Glass for the nail file is made using the traditional methods of Bohemian glaziers, which gives the nail file a unique wear resistance.

#### **COMPUTER PROGRAM TO HELP PEOPLE WITH VOICE LOSS**

Czech scientists have developed a computer program that gives people back their voice. The project was supported by the Technology Agency of the Czech Republic; cooperating on the project were scientists from the NTIS Research Center of the Faculty of Applied Sciences of the UWB, employees of the CertiCon and SpeechTecha software companies, and staff at the Department of Otorhinolaryngology and Head and Neck Surgery of the First Faculty of Medicine, Charles University in Prague, as well as at the Motol University Hospital. The program is intended to help, for example, cancer patients who have to have their vocal cords removed. The application allows their voice to be recorded and saved before the medical intervention. The patient's voice is automatically saved and a data file is created which can then be used on a computer, mobile phone, or tablet, which then communicates using the application. A text is written onto the device and the program will read it in the person's own voice



The patient must record at least 500 sentences for the reconstruction to be successful.



#### **POLAROGRAPHY**

In 1922, Jaroslav Heyrovský invented polarography. It is a method that involves the measurement of the electric current that passes through a mercury droplet and the solution into which the mercury drips. This method can be used to obtain valuable information about the type and amount of substances that the solution contains. The result is used in chemical analysis and basic physicochemical research. Heyrovský, together with Japanese scientist and collaborator Masuzo Shikata, constructed a polarograph to speed up the recording of values. He won the Nobel Prize in Chemistry in 1959 for this discovery and development of the analytical polarographic method.

# BROAD SELECTION OF PRODUCERS FROM VARIOUS BRANCHES OF INDUSTRY

- Innovative companies with unique products
- High quality production at competitive prices
- Experienced exporters with good references
- Skilled labor force
- Flexibility and financial stability
- Strategic geographical location
- Long-term industrial tradition

#### Branches of industry

#### **CAR INDUSTRY**

The Czech car industry is among the most developed branches in the region of Central and Eastern Europe. More than 1.15 million road vehicles were manufactured in 2020 in the Czech Republic. Three producers – ŠKODA AUTO (65.02 %), HMMC (20.71 %) and TPCA Czech (14.27%) - contribute a significant share to the overall production of cars. The car industry also represents a significant portion of the industrial production of the Czech Republic, accounting for almost a guarter of it as well as the same share of exports, too. 2020 was also exceptional due to the production of buses, of which more than 5,070 were manufactured. The largest bus producers are IVECO Czech Republic and SOR Libchavy. Domestic production of electric vehicles is also starting up significantly, with its share in total production currently approaching 10%. There is also development in the field of hydrogen technology, which is focused on applications in energy and transport. Ecological TriHyBus and hydrogen filling stations have been tested on urban transport.

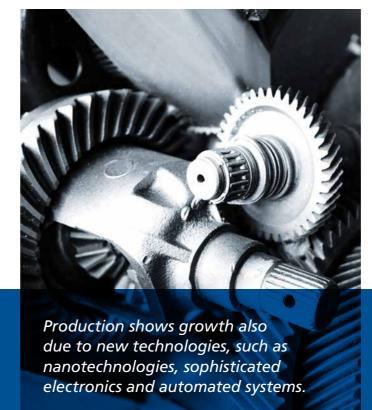
#### **AVIATION INDUSTRY**

The aviation industry of the Czech Republic focuses on two main activities. First of all, there is the production of complete aircrafts, including smaller aircrafts for local and regional transport, training and light combat aircrafts, sport and agriculture aircrafts, ultralight aircrafts and gliders. AERO Vodochody AEROSPACE, ZLIN AIRCRAFT and Aircraft Industries are among the main producers in this category. The Czech Republic is a world-class producer of ultralight aircrafts and 7th biggest producer of aircrafts and aircraft parts in the world. Manufacturers include companies such as TL-ULTRALIGHT. ATEC and JMB Aircraft. The second segment of the aviation industry is the production of components for large transport and military aircrafts and helicopters. Czech companies supply their compounds to global aircraft producers, such as Airbus, Boeing, Embraer, Bombardier and the helicopter producer Sikorsky. Other subcontracts are transferred to producers of military aircrafts, CASA and Eurofighter. Czech companies also rank among the world leaders in aircraft safety systems - i. e. STRATOS 07 and GALAXY HOLDING.



#### **ENGINEERING INDUSTRY**

Engineering forms the backbone of the Czech economy, and its manufacturing base is made up of about 70,000 companies (including metal production, foundry, electronics, machinery, production of motor vehicles and other means of transport). These companies are especially involved in the field of energy engineering, transport engineering, production of machining and shaping tools, metallurgy and production of structures and metal components. Czech engineering companies supply complete industrial equipment – i.e. turbines, machining and shaping tools, air-conditioning equipment, building machines, agriculture machines and food processing machines. ŠKODA TRANSPORTATION (transport engineering), VÍTKOVICE BONATRANS GROUP, ČKD BLANSKO HOLDING, TOS Varnsdorf, TAJMAC-ZPS, TŘINECKÉ ŽELEZÁRNY, První brněnská strojírna. Wikov Industry and others are among the most significant Czech producers. Most of the Czech engineering companies export 80-90% of its engineering production, especially to EU countries, whereas its presence has also been consolidated in the Asian and Latin American markets.





#### **ENVIRONMENTAL TECHNOLOGIES**

The environmental technological industry has been on the rise in the Czech Republic from a long-term perspective and these modern approaches mean plenty of opportunities for Czech industry. A number of companies are involved in these sectors domestically, and on the global level, where they offer interesting solutions. In the sector of green technologies, for instance, TEDOM is involved in manufacturing biogas stations; hydroelectric plants CINK Hydro – Energy and water management alliance CWA. Furthermore, companies such as SIAG CZ (machining for wind farms, production of towers for wind turbines), Smart Heating Technology (fully automated biomass boiler), Step TRUTNOV (boilers for straw burning), IWET (mobile water treatment system), Association of Industrial Plants Suppliers (SDIC) and others are involved in this field.

#### **MEDICAL EQUIPMENT**

Nowadays, the export of medical equipment from the Czech Republic has been marked by significant growth. Czech companies receive comprehensive professional orders. This sector has a high share of innovations, and many companies from this sector finance their own research and development, cooperating with scientific institutions and universities. The most significant companies in this sector include LINET, BMT Medical Technology, TSE, Meomed, Ella – CS, etc. Furthermore, when talking about new technologies, we can name Nanovia and Nanopharma, producers of nanofibers for medical purposes. The Czech Republic is also a significant producer of electron microscopes.

#### **ELECTRONICS AND ELECTRICAL ENGINEERING**

The electrical industry is one of the crucial sectors in the manufacturing industry due to the high added value of products that fall into the category of high and medium technology. In particular electrical engineering (electric engines, generators, transformers, electric switchgear systems and switch aggregates, cables and insulated wires) are produced by the electrical industry. Computer and office technology, consumer electronics, hardware and automated electronics and medical and optical equipment rank among other sectors of electrical industry production. ABB (electric installation), Siemens (electric engines), Meomed (medical equipment), Meoptaoptika (optical, optomechanical and optoelectric systems) are among the most significant producers in this sector.

#### **CHEMICAL AND PHARMACEUTICAL INDUSTRY**

The chemical industry of the Czech Republic is among its main industrial branches. Chemical industry products are supplied to other affiliated sectors, such as the automotive, construction, electronic, food-processing, textile industries and others. SPOLCHEMIE, Lovochemie (producer of fertilisers), SPOLANA and Synthesia (production of plastic materials and inorganic substances), PRECHEZA, Continental Barum, GUMOTEX are among to the most significant producers in this sector. For instance, FATRA is engaged in production of plastic materials, and SILON produces polyester fibres.



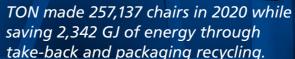


GUMOTEX also made special floats from Hypalon to help Czech yachtsmen to cross the Atlantic on an ultra-light catamaran.

#### GLASS AND CERAMIC INDUSTRY

The Czech ceramic industry has achieved an excellent reputation in the whole world thanks to its unique and topquality hand-crafted production. The glass and ceramic industry is represented by roughly 108 companies (with over 50 employees) and more than 20,300 employees (2020) working in this sector. Revenue in this sector reached over 45.62 billion CZK in 2020, in which flat glass represents 38%. AGC Automotive Czech produces and sells about 25 million car windscreens per year and is thus one of the largest and most comprehensive manufacturers in Europe. AGC Flat Glass Czech (flat glass); O-I Manufacturing Czech Republic; VETROPACK MORAVIA GLASS (container glassware); SAINT-GOBAIN ADFORS CZ (fiberglass), KAVALIERGLASS (technical, laboratory and drinking glassware) are among the most significant producers in this sector. PRECIOSA and LASVIT are dedicated, for example, to the production of chandeliers, Crystal BOHEMIA and MOSER focus on drinking glasses. The companies PAS Jablonec (Jablonex jewellery) and PRECIOSA BEAUTY are famous in the jewellery sector. The most significant porcelain producers are the companies Thun 1794, Český porcelán, G.Benedikt Karlovy Vary and manufactory Rudolf Kämpf, Main producers of ceramics are KERAMO Kožlany, Keramika Krumvíř, KERAMIA. LAUFEN CZ and Ideal Standard focused on technical and medical ceramics.







#### **FURNITURE INDUSTRY**

The Czech furniture industry benefits from the sustainability of basic material – blanks, chipboards, veneers, squared timber etc. The crown in this sector is curved-wood furniture and also design features such as forging, clips and lockers. The sector has recorded an unprecedented growth in recent years, mainly due to exports. Metal furniture, medical furniture and upholstered furniture are exported most of all. These are in particular products with high added value. Furniture producers often cooperate with designers and the design studios. TON (curvedwood furniture), which supplies furniture to cafés, restaurants and hotels worldwide, is one of the most notable companies in the sector. Designed upholstered furniture is produced for example by Polstrin design, MMinterier. Outdoor furniture is produced by the company TODUS, which cooperates with top-notch designers in the development of new products and supplies its products to imminent hotels.

#### **BUILDING INDUSTRY**

The building industry is one of the most important pillars of the Czech economy. It represents about 7% of the gross value added (GVA) of the total Czech economy. A wide range of diverse materials, products and technologies are used in the building industry. These include, for example, fasteners, insulating materials, ceramic tiles, roofing, structural frames, building chemicals, floors, windows, doors, shading techniques, building machines and many others. Czech companies involved in this sector manufacture globally competitive products. KM-Beta (roofing production), CONTIMADE (site barracks), KOMA MODULAR (residential, sanitary and low-energy modules), MATEICIUC (profiles, slats, tubes, plastic tubes), ISOTRA (shading equipment), LASSELSBERGER (ceramic tiles), LB Cemix (production of dry mortar and plaster mixes and stucco) and others are among the most significant producers in this sector.

#### **ICT SECTOR**

Nowadays, information technologies have a decisive impact on the economy and society as a whole. The Czech Republic has become a very desirable and sought after spot for foreign investors in this sector, especially for their development centres and IT services outsourcing. Global companies like Microsoft, DHL, SAP, ORACLE, IBM, Skype or Hewlett-Packard are among the most significant investors. Czech software companies AVAST Software (antivirus programs), Bohemia Interactive (PC games) and Y-SOFT (unique press solutions), ZONER Software (SSL certificates), Safetica (software that prevents sensitive company data from leaking) are world famous. The Czech Internet browser Seznam.cz is also very famous; it is the only browser from countries using the Roman alphabet that can compete with Google.





being functionable in 45 languages.

#### **INDUSTRIAL DESIGN**

The Czech Republic has many very talented designers who succeed both at home and abroad. Among these are Jiří Pelcl, Rony Plesl, Jan Kaplický, Lucie Koldova or Bořek Šípek. There is also a growing number of companies that make an effort to strengthen their competitiveness through design and cooperate with a designer to discover a new inspirational view into both the existing and latest production. Meanwhile in the past, design used to be linked with the fashion industry and luxury goods. Nowadays, it asserts itself increasingly in all branches of industry, including engineering. Many Czech companies, by far not only the large ones, have adopted cooperation with a designer into their business and marketing strategies. For instance, companies like TON, LASVIT, Preciosa, brands BOMMA and Brokis succeed in the sector of interior design. Due to their design, producers of town furniture mmcité or sanitary beds by LINET are successful all over the world as well. The quality of Czech industrial design is recognised by the Red Dot Award or Good Design for many of Czech products.

#### **FOOD INDUSTRY**

Basic subsectors of the food industry in the Czech Republic include processing and preservation of meat and meat products (AGROFERT, Kostelecké uzeniny, RABBIT Trhový Štěpánov,



In 1868, Heinrich Mattoni started bottling mineral water in glass bottles with a red eagle label, which has remained the symbol of Mattoni to this day.



Krahulík – Masozávod Krahulčí, Váhala etc.), processing of fruits and vegetables (Hamé, Efko, Alibona, etc.), production of dairy products (MADETA, OLMA, Mlékárna Hlinsko, etc.) and the production of mill and starch products (PENAM, Krnovská Škrobárna, Amylon, GoodMills Česko, etc.). In the field of beverages the main sectors are brewing (Plzeňský Prazdroj, Pivovary Staropramen, Budějovický Budvar, Pivovar Svijany, Rodinný pivovar Bernard, etc.), production of mineral water and soft drinks MATTONI 1873 (Poděbradka, Hanácká kyselka, Mattoni, Magnesia, etc.), BOHEMIA HEALING MARIENBAD WATERS; distilleries (Jan Becher – Karlovarská Becherovka, RUDOLF JELÍNEK, STOCK PLZEŇ - BOŽKOV, etc.) and viticulture (BOHEMIA SEKT, ZNOVÍN ZNOJMO, CHÂTEAU VALTICE – Vinné sklepy Valtice, VINSELEKT MICHLOVSKÝ, etc.).

Take the companies listed in this brochure as a sample listing, which will help you to formulate a better picture of the specific field.

### **NEW TECHNOLOGIES**

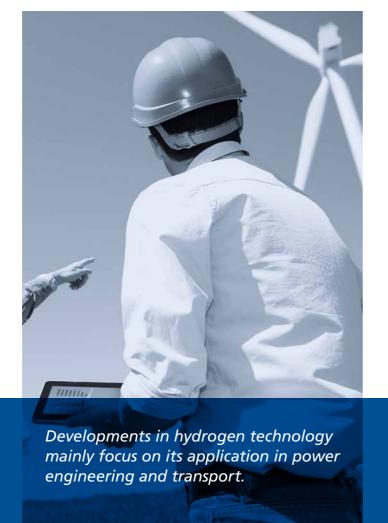
#### **CYBERSECURITY**

This is a field in which a number of successful companies operate, keeping pace with the world's top companies. In the Czech Republic, research and development in the field of cybersecurity is mainly concentrated around universities and their spinoff companies. Typically, these include the Czech Technical University in Prague (Faculty of Electrical Engineering), Brno University of Technology (Faculty of information Technology), Charles University (Faculty of Mathematics and Physics) and Masaryk University (Faculty of Informatics). The products of Czech companies are fully comparable with foreign competitors in their categories. This is demonstrated, for example, by the recent acquisition of the originally Czech company Flowmon by the American company Kemp Technologies or the earlier acquisition of Cognitive Security by Cisco Systems. Other Czech companies operating in the cybersecurity field include Netcope, GREYCORTEX, Logmanager, ELISA, ADDNET, Bulletproof AI and ThreatMark.

#### **HYDROGEN TECHNOLOGY**

Hydrogen is one way that can help achieve climate neutrality. Where batteries are not enough, hydrogen is stepping in as a more economically viable energy carrier. In July 2021, the Czech government approved the Czech Republic's Hydrogen Strategy which has the strategic objectives of reducing greenhouse gas emissions and promoting economic growth. The Czech Republic has a good development base in this area. In the domestic energy sector, mainly pilot projects will be launched by 2030. They envisage blending hydrogen with natural gas, the construction of electrolysers producing green hydrogen for other industrial processes or the construction of filling stations; there should be 80 of these stations on Czech roads by 2030. Together with 22 other EU countries, the Czech Republic has joined the "Manifesto to develop a European Hydrogen Technologies and Systems" value chain





(December 2020). Countries that have signed the Manifesto recognise the importance of international cooperation within the EU in building research and manufacturing competencies in hydrogen technologies, securing large-scale infrastructure projects to produce and distribute hydrogen, and supporting the production of challenging hydrogen equipment and components. The EU has the ambition to become a global leader in hydrogen use. In line with the Paris Agreement, hydrogen is one of the important tools to achieve the goals set in the areas of energy and climate.

The Czech Republic plans to participate in the European IPCEI on hydrogen with several projects. These include the development and production of innovative, technology-intensive components and products in the field of hydrogen technology. Other projects cover different ways of hydrogen production, distribution and use in road and rail transport, as well as the construction of emission-free urban districts using hydrogen technologies for housing, transport, work and leisure. Hydrogen technologies are the focus of the ÚVJ ŘEŽ. Škoda Transportation is working on a hydrogen mass transit programme. Lean Cat is manufacturing components and testing fuel cells. Kolibrik produces test components for hydrogen cells. The company DEVINN is concentrating on hydrogen charging stations.



#### **ELECTROMOBILITY**

In 2020, the number of registered passenger electric vehicles in the Czech Republic increased by almost 90%, to 7,103 vehicles. With the addition of plug-in hybrids, there are nearly 10,000 vehicles with external charging. Of the vehicles monitored under the National Action Plan for Clean Mobility, the greatest interest has been in cars with external charging this year. While as recently as 2018 and 2019, the number of electric cars was increasing at a rate of 50 new ones per month, in 2020 (the first ten months), the growth was three times faster. According to ČEZ's forecast (based on research), 56% of people in the Czech Republic are interested in an electric car – specifically more than half of the population wants to buy an electric car within ten years.

The Czech Republic produces electric bicycles, electric motorbikes, electric buses and trolleybuses. In addition, there is a relatively strong base in charging systems and energy storage. Charging stations are produced by Olife Energy, VOLTDRIVE, EV Expert, EnergyCloud, DEL and OIG Power, to name a few. Municipal electric vehicles are produced by Enviel, TPC Industry and ZEBRA GROUP. Electric bicycles are produced by APACHE, CRUSSIS, LEADER FOX, Lectron, Lovelec and others.

Electric motorcycles are produced by Kuberg and Czech Electric Motorcycles. SOR Libchavy, IVECO and ŠKODA TRANSPORTATION focus on the production of electric buses. There are currently 1,400 charging points in the Czech Republic, according to the European Automotive Industry Association ACEA, which is only 0.5% of the total number of charging points in the EU. However, there are plans to expand the network, with 2,000 charging stations to be established by the end of next year. In total, there are around 12,500 M1 electric vehicles registered in the Czech Republic.

#### **NANOTECHNOLOGY**

The Czech Republic is among the cradles of modern nanotechnology. Currently, the Czech Republic is the world leader in the research and development and in the industrial production of nanofibers. Dynamic growth of the industry, together with excellent results in the area of both research and business are related to the revolutionary patent of a machine for nanofiber production. Since then, the Czech Republic has constantly been coming up with innovations in the field of nanotechnologies and creating next generations of nanofiber structures.

There are many top scientific and research institutions in the Czech Republic cooperating with commercial companies in the area of nanotechnology. They offer them complete service from counselling to solving particular research tasks. Nanotechnology can be used in a wide range of sectors from biomedicine to technical sectors. According to some research companies, the global market for nanotechnology could grow between 2021–2026 at a compound annual growth rate (CAGR) of 35.5%. Therefore, we expect an other rapid rise in nanotechnology applications in everyday life, from nanocosmetics offering miraculous wrinkle removal to industry 4.0, where nanotechnology will play a key role.

Companies from the field are brought together in the Association of the Nanotechnology Industry of the Czech Republic (www.nanoasociace.cz/clenove) and in the Cluster Nanoprogress (www.nanoprogress.eu/cz/clenove)





Czech nanotech success is based on high-level research, its connection with business and fast application of the innovations in practice.

# THE PERFECT WAY TO FIND YOUR BUSINESS PARTNERS

### CZECHTRADE NETWORK SERVICES ACROSS 50 OFFICES WORLDWIDE

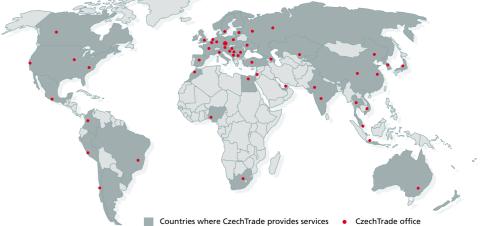
CzechTrade is a governmental trade promotion agency of the Czech Republic established by the Ministry of Industry and Trade. Its main objective is to develop international trade and cooperation between businesses in the Czech Republic and around the world. Wherever in the world you are, the agency is your official contact partner in the search for qualified Czech-based manufacturers and service providers.

- More than 20 years of professional partnership
- Free, mainly customised services
- 50 offices operating worldwide
- Excellent overview of Czech manufacturers and their production potential

### CONNECTING CZECH BUSINESSES WITH BUSINESSES AROUND THE WORLD VIA

- Czech Business Partner Search
- Sourcing Days
- Trade Shows
- Private Showcases
- Networking Events





novations in practice.

#### **CZECH BUSINESS PARTNER SEARCH**

If you are looking for a partner to assist you with production or you need a service provider, you can approach our experts with your specific request. CzechTrade will gladly help you to get in touch with the relevant Czech companies.

- Personal consultation with our representative abroad: www.czechtradeoffices.com/en/czechtrade-worldwide
- Online form: www.czechtradeoffices.com/en/services/ czech-business-partner-search

#### **SOURCING DAYS / Tailored events according to your needs**

Specify your product/services requirements, define the qualifications required for your potential products and services supplier, and we will arrange one-to-one meetings followed by company visits in the Czech Republic. This service saves you time:

- Precise knowledge of Czech manufacturers and their production potential
- Custom market screening we identify potential suppliers according to your requirements
- Suppliers shortlist after reviewing each applicant's profile, you can select the companies you wish to meet
- All-inclusive package from providing meeting rooms to accompanying you to companies premises, we cover it all.

#### **CZECH EXPORTERS DIRECTORY**

Official online database of Czech exporters and the simplest tool to help you find potential business partners in the Czech Republic: http://exporters.czechtrade.cz

#### **BUSINESSINFO.CZ**

The official business portal help foreign businesses navigate the Czech business environment. Current information on its website about the conditions for business, investment and trade opportunities: www.businessinfo.cz/business-quide



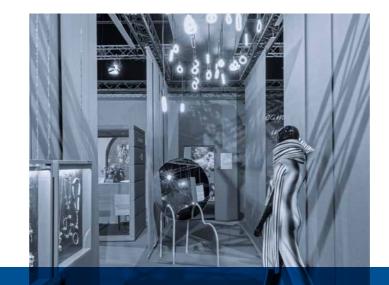


Meet your business partner at Networking Event, Sourcing Day, Trade Show or other event organised by CzechTrade.

# DESIGN CENTER CZECHTRADE

The Design Centre CzechTrade enables companies and designers to establish themselves abroad, whether by gaining foreign business partners, training companies in design and creative industries or promoting Czech industrial design at prestigious events, design exhibitions and festivals abroad. Involving professional designers in the development or innovation of products increases their value. It strengthens the competitiveness of Czech manufacturing companies when expanding into foreign markets.

 connecting the creative and commercial spheres aiming at international cooperation:
 www.czechtrade.cz/design-centrum-czechtrade



Design Centre CzechTrade is a member of The Bureau of European Design Associations (BEDA).

# **DESIGN**CENTER CZECHTRADE

- national platform for state support of design and coordinator for design
- information, advisory and subsidy services within the cultural and creative sector
- individual cooperation with a designer of your choice from the Designers Database
- professional training in design management
- implementation in cooperation with the Ministry of Industry and Trade of the Czech Republic

#### **DESIGNERS DATABASE CZECHTRADE**

The online database provides contacts to professional industrial and product designers from European Union countries. The directory is open to industrial, product, interior and graphic designers, architects and digital communication specialists. The database offers the possibility of publishing the profile of a designer or studio free of charge: www.designers-database.eu







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