

Czech Republic

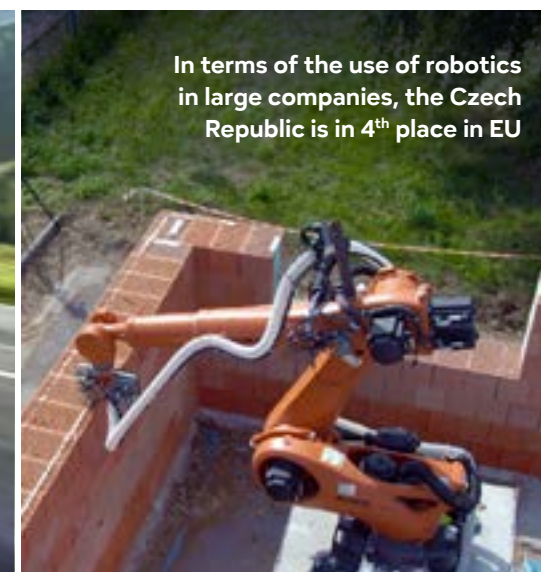
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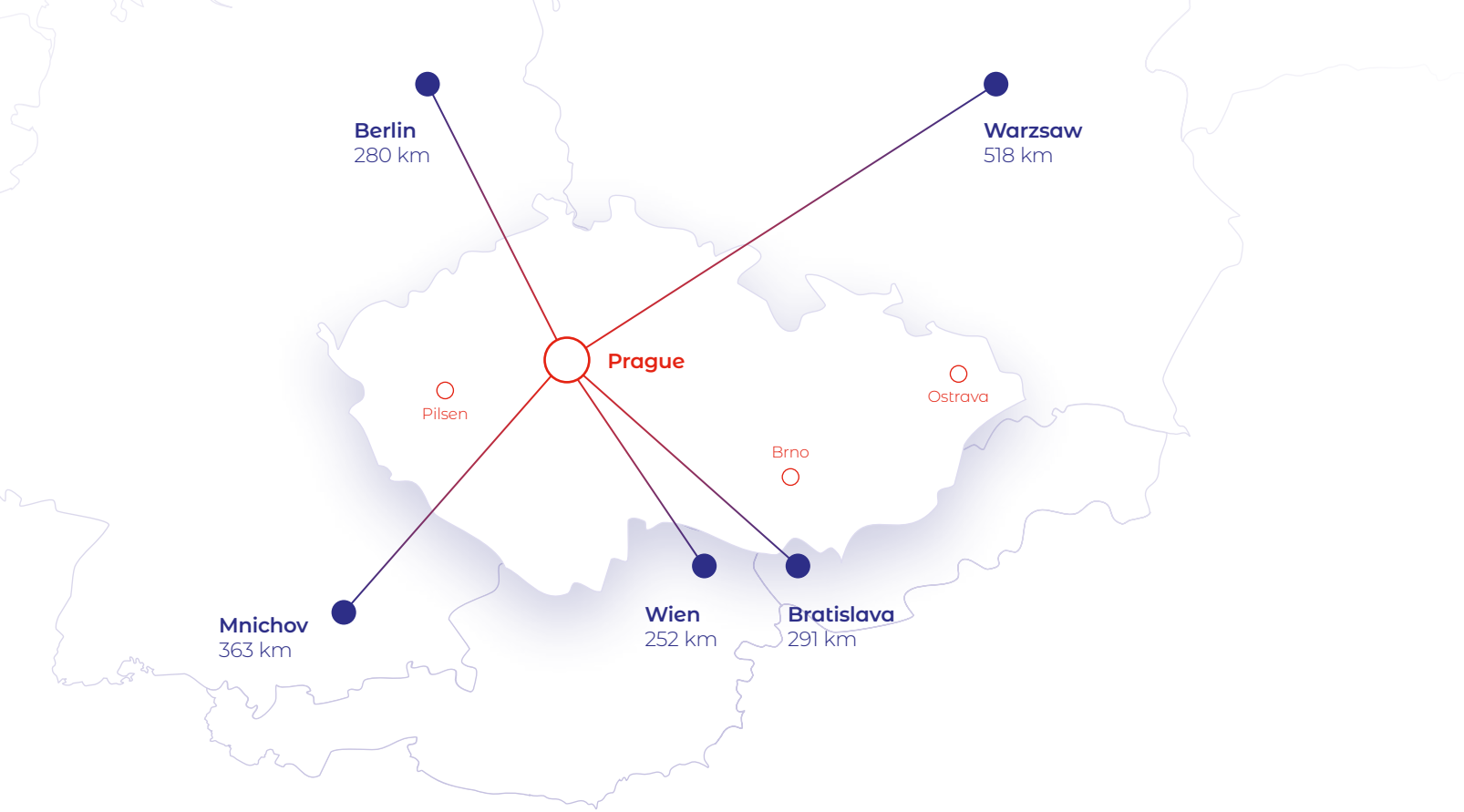


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General information

Area 78,871 km²	Official language Czech	Time zone GMT+1, Summer GMT+2
Population 10.8 million	Neighbouring countries Germany, Poland, Slovakia, Austria	Political arrangements: a parliamentary republic with a multiple party system
Capital Prague (1.36 m inhabitants)	Currency Czech crown, CZK	Administrative divisions The Czech Republic is divided into 14 regions
Other large cities Brno (396,101 inhabitants), Ostrava (316,149 inhabitants), Pilsen (201,517 inhabitants),	VAT standard rate 21%, reduced rate 12 % (from January 2024)	

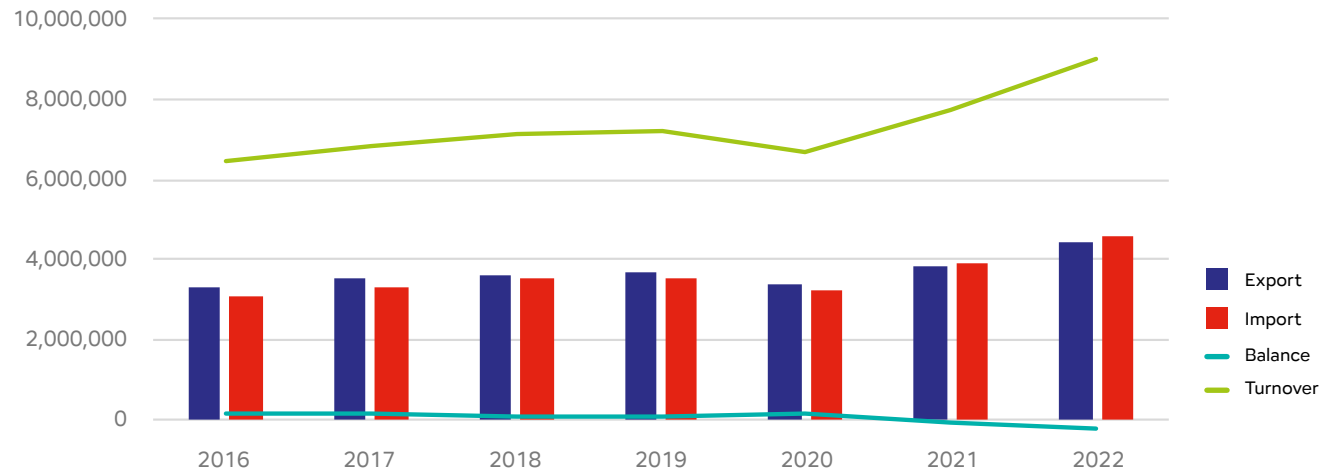
Main Economic Indicators

Indicator	2017	2018	2019	2020	2021	2022
Real GDP growth %	5.2	3.2	3	-5.5	3.6	2.4
Real GDP growth % EU 27	2.8	2.1	1.8	-5.6	6.0	3.4
Real GDP per capita (EUR)	17,490	17,990	18,460	17,400	18,020	18,460
Total unemployment rate %	2.9	2.2	2	2.6	2.8	2.2
Total unemployment rate % EU 27	8.3	7.4	6.8	7.2	7.1	6.2
Inflation rate (% , r/r, average, HICP)	2.4	2	2.6	3.3	3.3	14.8
CZK/EUR (average)	26.330	25.643	25.672	26.444	25.645	24.565
CZK/USD (average)	23.382	21.735	22.934	23.196	21.682	23.360
GDP per capita (current prices, USD) PPP	38,842	41,157	44,223	42,817	44,813	49,122
GDP per capita (current prices, USD) PPP, OECD avg.	43,515	45,196	46,666	45,367	49,215	54,053
GDP per capita (current prices, USD) PPP, EU avg.	42,692	44,673	47,448	45,843	49,303	54,474

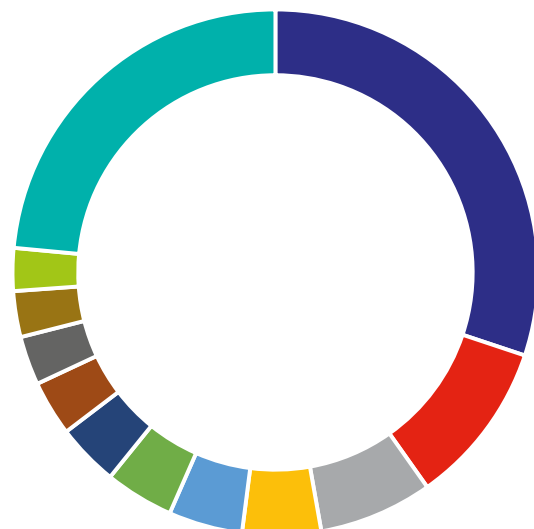
Source: The Czech Statistical Office/EUROSTAT, The Czech National Bank, OECD

Foreign trade of the Czech Republic

International trade in goods (change of ownership) in millions of CZK



Source: The Czech Statistical Office, International Trade in goods (change of ownership)

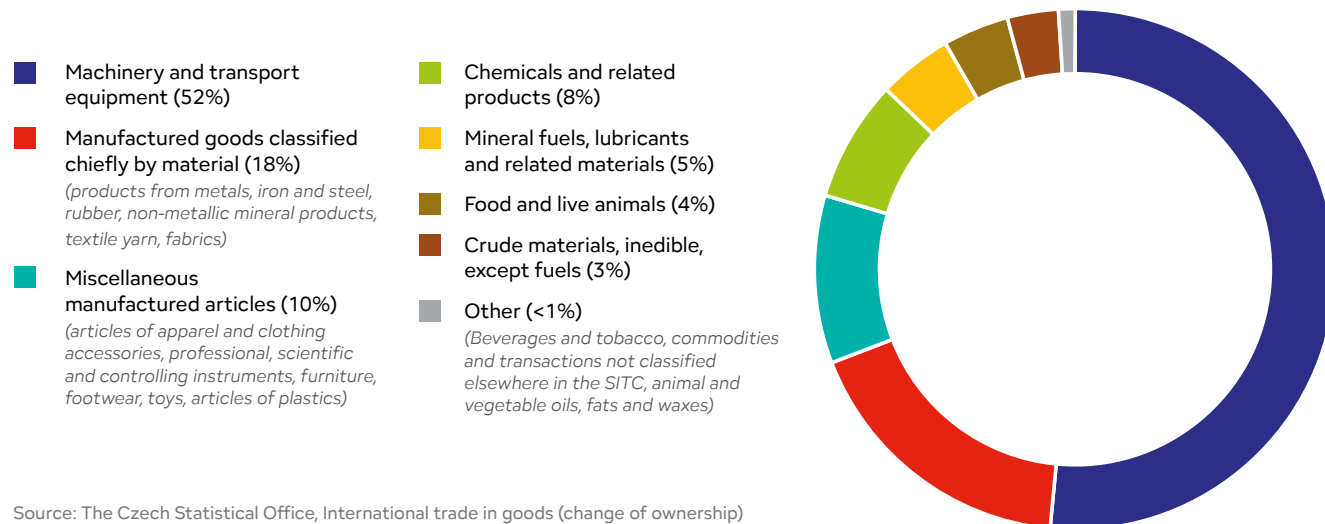


Czech Exports of goods Main countries in 2022

Germany 30%	United Kingdom 4%
Slovakia 10%	Netherlands 3%
Poland 7%	Hungary 3%
France 5%	Spain 3%
Austria 5%	United States 3%
Italy 4%	Others 23%

Source: The Czech Statistical Office, International trade in goods (change of ownership)

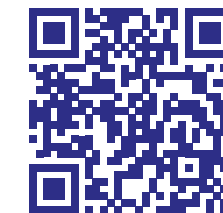
Commodity structure of Czech exports in 2022 – Top 5 (SITC 1)



Source: The Czech Statistical Office, International trade in goods (change of ownership)

Business INFO.cz

RELIABLE INFORMATION FOR BUSINESS



www.businessinfo.cz/en

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 guide citizens and businesses to information, administrative procedures and assistance services necessary for their activities within the EU. BusinessInfo.cz not only provides online to foreign companies all the information relevant for business in the Czech Republic but also gives them access to current investment opportunities and much more.

Businessinfo.cz offers valuable information from proven sources approved by experts:

- 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

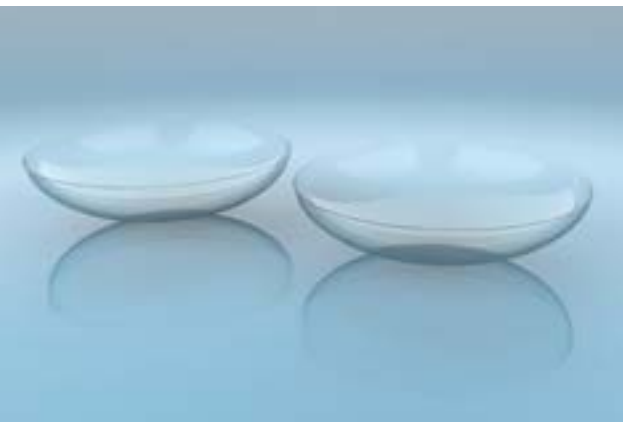
The portal has been set up by the CzechTrade Agency. The project is coordinated by the Ministry of Industry and Trade. Štěpánská 567/15, 120 00 Prague 2, Czech Republic info@businessinfo.cz



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.



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.



Sugar cube

The first sugar cube in the world was invented in 1841 by Jakub Kryštof Rad, who was the director of the sugar refinery in Dačice 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.



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.



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.

Blood group classification

The four blood group 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 O) but assigned them Roman numerals (I, II, III and IV). The classification of blood groups in the system ABO started to be used in the 1930s.

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.

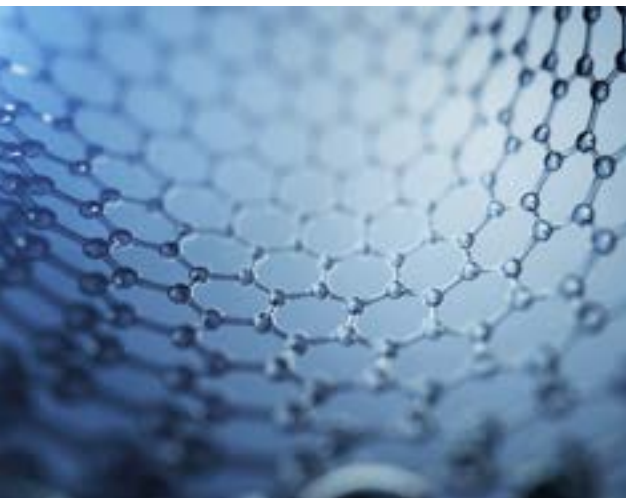
Bladeless turbine – PROTUR*

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 that it can handle different gradients. (It can function with a gradient of 5 metres as well as one of 20 metres and more.) Turbine construction is very simple, and efficiency is around 40–70%. Thanks to this invention, half of the potential hydropower that remains untapped until now could be harnessed.

* Precession Rolling Turbine

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. Nanofibres are globally recognised as materials of the third millennium.



Czech transplant medicine

Czech surgeons are at the top of European transplant medicine. The first successful transplant was performed by the oculist Eduard Konrad Zirm in 1905 in Olomouc when he performed a successful transplantation of eye corneas. Bohdan Pomahač is currently a well-known Czech plastic surgeon who specialises in face transplants. 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.



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 that can then be used on a computer, mobile phone or tablet. It then communicates using the application. A text is written onto the device and the program will read it in the person's own voice.



Pealock

Electronic locks that warn the owners of theft or tampering of their equipment – skis, scooters, strollers, bicycles thanks to a motion sensor and an integrated alarm. Besides the alarm, the lock sends a notification to a mobile phone via Bluetooth and, in case of a longer distance, switches to GSM mode and calls the owner. The smart lock is made of durable thermoplastic elastomer with steel cables and a wire that leads to the electronics, making it difficult to break it. The product won the prestigious Red Dot Award for design in 2020.

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.

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.

Branches of industry

Car industry

The Czech automotive industry accounts for 37% of the manufacturing industry and employs around 500,000 employees including indirect jobs. 1.25 million road vehicles were produced in 2022, representing a year-on-year increase of 9.4%. Also, the number of exported road vehicles increased from the 1.025 million in 2021 to over 1.15 million road vehicles in 2022. The year 2022 was exceptional for the production of motorcycles as 1,624 were manufactured, seeing a 57% increase compared to 2021. Production of passenger vehicles once again accounted for the majority of motor vehicles produced as Škoda Auto retained the largest

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

share of production in the Czech Republic with almost 57%, followed by Hyundai and Toyota. The Czech Republic ranked 3rd in passenger vehicle production just behind Germany and Spain in 2022 in EU. Over 87,000 battery-powered vehicles and almost 48,000 plug-in hybrids were produced, accounting for a total of 11% of the passenger vehicle production in the Czech Republic in 2022. Additionally, almost 60 electric buses were produced in 2022. The main bus producers are SOR Libchavy and IVECO Czech Republic.



Aviation industry

The aviation industry in the Czech Republic has built a respected position in the international field and celebrates its successes across various categories. The aviation industry focuses on two main segments. The first one 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, Primoco UAV, Skylander Aircraft, Evektor-Aerotechnik and Aircraft Industries are among the main producers in this category. The Czech Republic is a world-class producer of ultralight aircrafts and aerospace components worldwide and is among nine countries that are able to produce an aircraft completely in their own territory. The second segment is the production of components for large transport and military aircrafts and helicopters. Czech companies, such as Aeroprofil or Letov, supply their compounds to global aircraft

producers, such as Airbus, Boeing, Embraer, Bombardier and the helicopter producer Sikorsky. Other subcontracts lead 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.

*The Czech Republic offers **broad selection** of producers from various branches of industry*



Engineering industry

The engineering manufacture base is made up of about 70,000 companies (including electronics and electrical equipment, machinery, production of motor vehicles and other means of transport, etc). These companies are specifically involved in the field of energy engineering, transport engineering, production of machining and shaping tools 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, food processing machines and machines in healthcare, chemical and textile industry. Sector strengthens

the cooperation with technical universities and benefits from using new technologies – nanotechnologies, sophisticated electronics, mechatronics and robotics. Among the most significant Czech producers are ŠKODA TRANSPORTATION (transport engineering), VÍTKOVICE (energetics), BONATRANS GROUP (wheelsets solutions), TAJMAC-ZPS (high-performance machines). TOS Varnsdorf is the world's leading company in developing and producing machine tools. Czech production of machine tools per capita ranked as the 8th highest in the world in 2022.

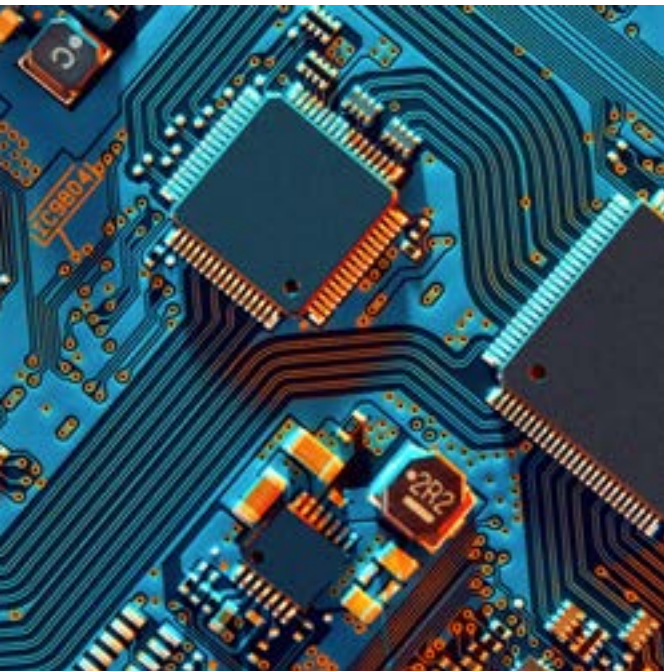
Environmental technologies

The environmental technology industry has been on the rise in the Czech Republic for a long time, 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 intriguing solutions. In the sector of green technologies. For instance, TEDOM is involved in manufacturing biogas stations; companies CINK Hydro-Energy and Mavel deal with equipment for hydroelectric power plants. Water purity is a very important topic and many Czech companies offers technologies for cleaning all kinds of water. The Czech Water Alliance brings together Czech companies that operate in the field of exporting services and technologies in water management. 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), Association of Industrial Plants Suppliers (SDIC) and others are involved in this field. The sector of waste processing, recycling and sustainability has great potential and Czech companies also provide professional assistance, expertise and technology in this branch.

Medical equipment

Nowadays, the manufacture and export of medical technology and equipment has strong potential in the Czech Republic. This sector has a high share of innovations, and many companies from this sector finance their own research and development, cooperating with scientific institutions. Therefore, many Czech companies have developed new solutions and innovative products. The most significant companies in this sector include LINET (hospital beds), BMT Medical Technology (sterilising devices), ELLa-CS (biodegradable stents), MEDIN (medical instruments for surgery). Top medical beds from LINET featured in the American series *House of Cards* or in the Bond film *Casino Royale*, among others. Among new technologies, we can list Nanovia and Nanopharma, producers of nanofibres for medical purposes. PARDAM NANO4FIBERS produces reusable nanofibre masks.





Electronics and electrical engineering

The electrical engineering 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 sectors. The companies operating in this sector try to develop and make accessible transformational digital technologies as Blockchain, artificial intelligence or industrial application of 5G networks.

In particular electrical engineering (electric engines, generators, transformers, electric switchgear systems, 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.

Building Industry

The building industry represents about 6% 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, the mining sector of building materials – crushed stone, limestone, granite, kaolin, sand, clay or river gravel. Other products used in the building industry are 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. KMBeta (roofing production), Wienerberger (building materials), Moravia Containers (modular systems), 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.



Chemical, pharmaceutical and plastic industry

The chemical industry products are supplied to other affiliated sectors, such as the automotive, construction, electronics, food-processing, textile industries and others. SPOLCHEMIE (producer of synthetic resin), Lovochemie (fertilisers), SPOLANA (plastic materials and inorganic substances) and Synthesia (pigments and dyes, nitrocellulose and organic chemistry), BorsodChem MCHZ (organic substances) and Lučební závody Draslovka a.s. Kolín (synthetic hydrogen cyanide) are among the most significant producers in this sector. FATRA is engaged in production of plastic materials, SILON produces technical compounds and GUMOTEX is a renowned producer of rubber and plastic products. The pharmaceutical industry is dominated by ZENTIVA, Bioveta (veterinary medication), Teva Czech Industries (generic medication) and VÚAB Pharma.



ICT sector

The Czech ICT sector employed 186 thousands people in 2021, and sector sales reached 950 billion crowns. The ICT sector is highly focused on research and development that plays an important role in the 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 CORPORATION (unique press solutions), ZONER (SSL certificates), Safetica (software that prevents sensitive company data from leaking) are world famous. The Czech internet browser Seznam.cz is also very well-known.

Glass and ceramic industry

The Czech Republic is unique in the field of glassmaking as all glassmaking techniques have been preserved here. The glass and ceramic industry is represented by roughly 108 companies (with over 50 employees) and more than 20,000 employees (2022). Flat glass remained at the forefront of this industry, covering 37% of the sales. AGC Flat Glass Czech (flat glass), VETROPACK MORAVIA GLASS (container glassware); SAINT-GOBAIN ADFORS CZ (fibreglass), KAVALIERGLASS (technical, laboratory and drinking glassware) still remain the most significant producers in this sector. PRECIOSA – LUSTRY and LASVIT focus on the production of chandeliers and their glass installations can be found in the most luxurious hotels, palaces, airports, museums and luxury yachts in the world. Crystal BOHEMIA and MOSER focus on drinking glasses. The companies PAS Jablonec (Jablonec jewellery) and PRECIOSA BEAUTY are famous in the jewellery sector. Handmade production of Christmas tree decorations from blown glass beads was included in 2020 on the Representative List of the Intangible Cultural Heritage of Humanity. Czech glassmakers are also making a name for themselves in Hollywood, and Czech glass has made it into movie blockbusters. An example is the company KLIMCHI, whose hobnail jug Rosalin glitters in the movie *Barbie*. Another story of an amazing project for a Hollywood film is the glass sculptures for the American film *Glass Onion: a Knives Out Mystery* by PAČINEK GLASS. These projects are proof of the high-end artistic processing and design that the Czech glassworks offer. The most significant porcelain producers are the companies Thun 1794, Český porcelán and G. Benedikt Karlovy Vary. Main producers of ceramics are Keramika Krumvíř, KERAMO Kožlany, KERAMIA. LAUFEN CZ and Ideal Standard focused on technical and medical ceramics.



Industrial design

The Czech Republic has many very talented designers who are successful 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 Czech products.

Food industry and beverages

The main segment of the food industry in the Czech Republic is processing and preservation of meat and meat products (Maso uzeniny Polička, Kostecké uzeniny, RABBIT Trhový Štěpánov, Krahulík – Masozávod Krahulčí, Váhala, Vodňanská drůbež, Drůbežářský závod Klatovy, etc.), and this segment accounts for about 23% of the food industry according to sales share in 2021. Other important segments include dairy products (MADETA, OLMA, Mlékárna Hlinsko etc.), mill and starch products (PENAM, Amylon, GoodMills Česko etc.), processing of fruits and vegetables (Hamé, Efko CZ, Alibona, ESSA etc.). In the field of beverages the main segments are brewers (Plzeňský Prazdroj, Pivovary Staropramen, Budweiser 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.)



Furniture industry

The Czech furniture industry benefits from the sustainability of the basic material – blanks, chipboards, veneer or squared timber. An important element in this sector is curved-wood furniture, which opened the door to new functional and aesthetic possibilities, as well as design features such as forging and clips. Furniture producers often cooperate with designers and design studios. TON (curved wooden furniture), which supplies furniture to cafés, restaurants and hotels worldwide, is one of the most notable companies in the sector. Office furniture is represented by the companies for example HON and SilentLab, which came up with an original concept of cube design office spaces to provide acoustic comfort and visual separation. Dřevodílo Rousínov supplies wooden interior furniture to the private and commercial sectors. Designed upholstered furniture is produced for example by Polstrin design and Mminterier. Outdoor furniture is produced for example by the company TODUS as well as UNIKOV, which have a portfolio including metal outdoor furniture.

New technologies



Cybersecurity

The cybersecurity sector in the Czech Republic has a lot to offer and is a field in which a number of successful companies operate. TeskaLabs is one of the top providers in the field of cybersecurity in the Czech Republic due to its own development of a unique complex system solution and a high-quality consulting service. Other successful and growing Czech companies include Avast Software s.r.o, Flowmon Networks a.s, Netcope, GREYCORTX, ELISA, and FIDES Trade. Universities in the Czech Republic such as the Czech Technical University in Prague, Brno University of Technology, Charles University, and Masaryk University help with the development of cybersecurity through a direct partnership with NÚKIB, which is the National Office for Cyber and Information Security.



Hydrogen technology

The interest of companies and institutions in hydrogen technologies has increased rapidly. The number of members of the Czech Technological Hydrogen Platform increased by a third just over the past 6 months. This platform also known as HYTEP celebrated its 15th anniversary in 2022. It has developed from a small platform made up of a few companies and universities to a full-blown platform that now has over 60 members. Interest in developing the hydrogen economy is increasing year by year as Czech companies have begun to perceive hydrogen as one of the possible paths to the future. Orlen Unipetrol announced that the company plans on having 28 hydrogen fueling pumps in the Czech Republic by 2030, clearly indicating the

Developments in hydrogen technology mainly focus on its application in power engineering and transport.

expectation of the rising interest in hydrogen. The Czech Republic also expects around 50 thousand hydrogen cars to be on the road by 2030. The introduction of hydrogen will allow the Czech Republic to achieve its energy independence goals faster along with fulfilling parts of the European Green Deal. Czech companies are beginning to excel on this market as well. The transportation of hydrogen in gaseous form can be ensured by Vítkovice Cylinders, which specialise in the development of pressure cylinders, stationary and transport tanks of all categories. The use of hydrogen in transport has been showcased by Škoda Electric, which had a working prototype of a hydrogen bus in 2010. In the Czech Republic, the production of grey hydrogen is currently predominant mainly within the chemical industry, with Orlen Unipetrol from Litvínov and Spolchemii from Ústí nad Labem taking charge in production. However, Spolchemii signed a contract with ČEZ ESCO for the supply of emission-free electricity and hydrogen can now be classified as low-emission. Furthermore, a number of entities are planning the production of green hydrogen in the Czech Republic – Sev.en Energy, C-Energy Planá, Teplárny Brno, Veolia, Solar Global, FOR H2Energy, and ČEZ.

Electromobility

Electromobility is developing rapidly, and the Czech Republic is making sure that it grasps all of the opportunities that are available in this sector. The Electromobile Platform was created by entities from the automotive, energy and academic sector. They are represented by Škoda Auto, ČEZ, PRE, E. ON and ČVUT. These entities have created this Electromobile. The platform was established to solve and develop charging infrastructure, availability of vehicles, innovation and education, electromobility ecosystem and cooperation. The number of charging stations for electric cars in the Czech Republic increased by more than 30 per cent last year and reached 1,364 stations and 2,643 plug-in points in 2022. The number of registred electric cars increased to 16 thousand. According to official estimates, there could be up to a quarter of a million electric vehicles on the road by 2030. In addition to numerous new projects which are constantly being developed in this sector, the Ministry of Transport of the Czech Republic has stated their intention to invest up to 6 billion CZK into the fast-charging port infrastructure.

3D printing

In the Czech Republic, 7% of companies with 10 or more employees used 3D printing in 2021. Most of these technologies are used in the manufacturing industry, especially in the production of computers, electronic and optical devices and in the automotive industry. Outside of the manufacturing industry, 3D printing is often used in research and development. In terms of company size, 3D printing is mainly applied by large companies – a third of large companies have printed 3D objects. In an international comparison (for 2019), Czech companies were above the EU average in the use of 3D printing. The Czech Republic ranked 5th in the EU. If the ranking of countries was based only on large companies, Czech companies would rank first in the EU.

In the next 5 years, Škoda Auto will also invest 138 billion CZK into electromobility while introducing 3 new models for e-cars by 2026. The Czech Republic also 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.



Nanotechnology

The Czech Republic is one of the world's leaders in various nanotechnological sectors ranging from scientific instrumentation, optics, through biotechnology to environmental applications, the energy sector and beyond. The reason for the global success of the Czech Republic in the nanotechnological sector is a linkage of Czech top research centers with the business community and the rapid application of innovations in practice. Other reason for success in nanotechnology are devices working with focused beams of particles that help nanoscience - these are mainly electron microscopes. Currenty, a third of electron microscopes in all laboratories in the world come from Brno, where three large microscope manufacturers operate. The Czech Republic is also a proud holder of the world patent for a machine for the industrial production of nanofibres.

As a result of this, the Czech Republic is among the first countries to transfer nanotechnology from scientific laboratories to industry. However, the Czech Republic doesn't just focus on the production of nanofibres. Among the innovations of Czech Nano companies are nanooptics, nano 3D printing and circular nanocosmetics. Lately the development focuses on a biodegradable nanomembrane. The Czech Republic keeps developing in the field of nanotechnology, largely due to the top scientific and also research institutions which include prestigious schools like the Technical University in Liberec but also in Prague. These institutions allow the development of bright minds and further develop the connection between research institutions and commercial companies in the area of nanotechnology.



Robotics in the Czech Republic

While 6% of companies with 10 or more employees in the Czech Republic use robotics, industrial or service robots mainly in large companies with more than 250 employees comprise the dominant usage, where 36% of them employ robotics (2022). Industrial robots are used to a greater extent, with less call for service robots, which primarily have a role in, for example, assembly, cleaning or warehouse activities and in delivery services. In the industrial sector, manufacturing is the most active user of robotics, where 64% of companies with more than 250 employees use robotics. Robots are mostly used in automotive manufacturing; in the chemical industry along with the pharmaceutical and plastics industries; and in the metallurgical industry. In terms of using robots, Czech companies were at the EU average in international comparisons. Regarding comparisons among large companies with more than 250 employees using robotics, the Czech Republic ranked 4th behind Slovenia, Croatia and Denmark. When looking at the application of only industrial robots in large companies, the Czech Republic is above the EU average – in 2nd place.

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

The perfect way to find your business partners

CzechTrade network services across 54 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 25 years of professional partnership
- Free, mainly customised services
- 54 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

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 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



Online form

Czech Exporters Directory



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

Businessinfo.cz

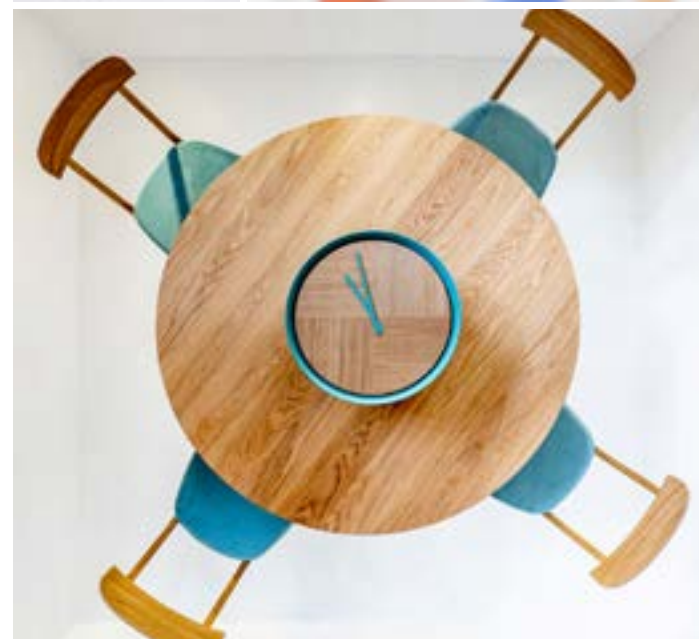


The official business portal help foreign businesses navigate the Czech business environment. Current information on its website about the conditions for business, investment and trade opportunities.



CzechTrade Design Center

The Design Center 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/sluzby/design-centrum-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 Designers Database CzechTrade is one of the Design Center CzechTrade activities. Its main aims are to effectively connect the creative and commercial spheres and to promote design as a driving force of diversity and competitiveness. Last but not least, this project focuses on providing helpful information and assisting companies and professionals in navigating the landscape of cultural and creative industries with international cooperation as the main goal. All of the above is being executed while adhering to governmental strategies and in cooperation with the Ministry of Industry and Trade of the Czech Republic.

www.designers-database.eu



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





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Connecting Czech
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www.czechtradeoffices.com