

Doing Business in the Czech Republic

2019





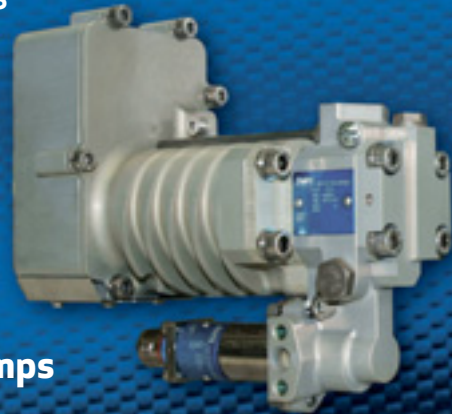
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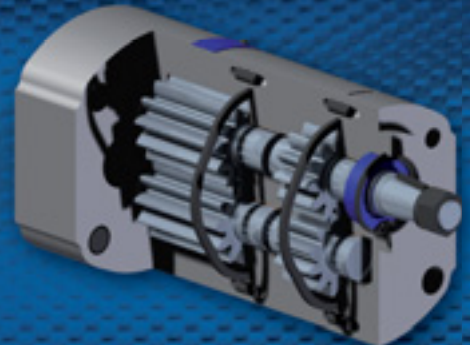


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DOING BUSINESS IN THE CZECH REPUBLIC 2019



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Ministry of Industry and Trade
Ministry of Regional Development
Czech Trade Promotion Agency/CzechTrade
Czech Export Bank
Export Guarantee and Insurance Corporation, a.s.
Czech Tourist Authority – CzechTourism
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Kroměříž – Flower Garden

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Ministry of Foreign Affairs
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Ministry of Foreign Affairs



MINISTRY OF
INDUSTRY AND TRADE

Ministry of Industry and Trade



MINISTRY
OF REGIONAL
DEVELOPMENT CZ

Ministry of Regional Development



CzechTrade
CZECH TRADE PROMOTION AGENCY

Czech Trade Promotion Agency/CzechTrade



CZECH EXPORT BANK
ČESKÁ EXPORTNÍ BANKA

Czech Export Bank



EGAP

Export Guarantee and Insurance Corporation, a.s.

CzechTourism

Czech Tourism Authority – CzechTourism



ICC
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INTERNATIONAL
CHAMBER OF COMMERCE
The world business organization

International Chamber of Commerce/ICC



SP
CONFEDERATION OF INDUSTRY
OF THE CZECH REPUBLIC

Confederation of Industry of the Czech Republic



CNB
CZECH
NATIONAL BANK

Czech National Bank



enterprise
europe
network



CENTRE FOR REGIONAL DEVELOPMENT
OF THE CZECH REPUBLIC

Centre for Regional Development of the Czech Republic
– Enterprise Europe Network



CZECH CENTRES
ČESKÁ CENTRA

Czech Centres



CZECH
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OF COMMERCE

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Confederation of Employers' and Entrepreneurs' Associations
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The Czech Republic is one of the most dynamic economies in the EU. In 2017, the Czech economy showed a robust 4.3 per cent growth and reached the peak of the economic cycle. In the 3rd quarter of 2018, gross domestic product rose by a solid 2.4% year on year, according to the Czech Statistical Office. This favourable trend is also expected to continue in the remaining part of 2018 and in 2019, although probably at a slower rate (in 2018 GDP is estimated to grow by 3% and in 2019 by 2.9%).

In 2018, economic growth was driven by investment, stimulated by financial means drawn from the EU structural and investment funds and the need for the private sector to innovate its technological capabilities in response to the imbalance in the labour market.

The revival of investment activity was boosted mainly by the growth of private investment, prompted by the labour shortage, low interest rates and modernisation investment in industry. In 2019, the position of economic growth leader will once again be taken over by household consumption, reflecting the massive growth of wages combined with an extremely low unemployment rate and a substantial increase in old-age pensions.

Going hand in hand with economic growth was the growing demand for labour.

Economic activity in the 15- to 64-year age group was 76.2%. The unemployment rate continued to decline; in mid-2018 it dropped to the extremely low value of 2.3%, the lowest in comparison with the other EU states. In mid-2018, the number

of vacancies, showing the unsatisfied demand for labour, reached 300 000 and exceeded the number of job-seekers for the first time in the modern history of the independent Czech Republic.

The growth of the Czech economy is becoming reflected in the economy of the government institutions sector, which is expected to show a 1.6 per cent GDP surplus in 2018. In 2019, the surplus is expected to move to approx. 1% of GDP. In the 2nd quarter of 2018, the consolidated debt of the government institutions sector was reduced from 39.5% of GDP to 35.3% of GDP – in absolute figures, from CZK 1 923 billion to CZK 1 828 billion. At the end of 2019, a further decline in this relative amount to 31.9% of GDP is expected.

The Czech economy is strongly export-oriented. In 2017, exports amounted to CZK 4 244 billion. Between January and September 2018, the balance of trade surplus amounted to CZK 296 billion. Since the beginning of the year, exports have risen by 1.6% and imports by 3.6% year on year.

The government's aim is to increase the competitiveness of the Czech economy, maintain economic growth and improve the business environment. We support the favourable investment-oriented climate with higher state capital spending. As at 31 October 2018, this year's capital expenses amounted to CZK 79.5 billion, a CZK 28.0 billion (54.2%) growth year on year. For the year 2019, the expenses are planned to amount to CZK 122.2 billion, CZK 32.1 billion more than in 2018. This includes an increase in both the finance drawn from EU funds and, especially, the budget, where CZK 21.9 billion more (altogether CZK 79.6 billion), will be made available in comparison with this year. The sum earmarked for research, development and innovation in 2019 comprises expenses to the total value of CZK 42.1 billion, CZK 1.5 billion (i.e. 3.7%) more than in 2018.

Many of the commitments contained in the Government Statement have already been implemented. These include, for example, a system of support for young people aged under 36 years and a massive rail fare reduction for seniors and students. The Government approved a draft amendment to the Investment Incentives Act, giving preference to more demanding investment projects with higher value added, aimed at raising the innovative potential of the Czech economy. It also got through the Amendment to Act No. 416 on the accelerated construction of the transport, water and energy infrastructure, which deals with the preliminary tenure problem, aimed at speeding up the construction of important projects by several years. In August, the Ministry of Regional Development informed the Government about the completed recodification of the Czech Construction Law, comprising a survey of the main steps towards simplifying the authorisation procedure in construction, by radically changing the system. The Government has also prepared a programme, called Construction, the purpose of which is to support and speed up rental apartment construction. The State Housing Development Fund has created a new project, the Housing Estate Regeneration Programme with Public Space Cultivation, using the combined grant and credit financing system. The Government is also preparing a grant programme for the utilisation of brownfields. Another project the Government is preparing is the National Investment Plan, which comprises 17 000 projects worth CZK 3.45 trillion spread over the 2019 to 2030 period. The Government has approved a tax package, comprising measures against tax evasion, especially targeted at big corporations. It focuses on the development of the digital economy. It has appointed a digitalisation official, provided for the use of identity cards with chip and created the Citizen Portal. The Government has approved the Digital Czech Republic project, which combines three concepts: The Czech Republic in Digital Europe; Digital Public Administrations, and Digital Economy and Society.

Good news for businessmen is that we are thinking of the future and are now already preparing for taking over the presidency of the EU. On 10 July 2018, the Government gave its approval to starting preparations for the historically second presidency of the Czech Republic in the Council of the European Union. We want to be seen more in the EU and, together with our V4 partners, we shall pursue our common interests with greater emphasis.

ANDREJ BABIŠ

Prime Minister of the Government of the Czech Republic



CZECH REPUBLIC
- ECONOMIC POLICY



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USEFUL INFORMATION

State Symbols of the Czech Republic

Large State
Coat of Arms



State Flag



The Czech Republic is a landlocked state situated in Central Europe, neighbouring on Germany, Austria, Slovakia, and Poland.

BASIC DATA

Population	10 652 812 (1. Q. 2019)
Area	78 864 sq.km
Capital	Praha (Prague)
State system	Republic
Language	Czech
Highest elevation	Sněžka (Snow Mountain), 1603 metres above sea level
Time zone	Central European Time GMT + 1, Summer Time GMT + 2
Currency	1 koruna česká/ Czech crown (Kč/CZK) = 100 hellers EUR 1 = CZK 25.64 (average, 2018) USD 1 = CZK 21.74 (average, 2018)
Internet domain name:	.cz

MEMBERSHIP

The Czech Republic is a member of the European Union, the United Nations, NATO, WTO, the International Monetary Fund, the International Bank for Reconstruction and Development, the European Bank for Reconstruction and Development, the OECD, and many other organisations.

For additional practical information on the conditions of transport to the Czech Republic and stay in the CR, see www.czech.cz

TWELVE CZECH UNESCO WORLD HERITAGE ITEMS

The UNESCO World Heritage List includes the following cities and sites: Prague, Český Krumlov, Kutná Hora, the Litomyšl Chateau, Telč, the Lednice-Valtice area, Zelená Hora – the Church of St John of Nepomuk (in Žďár nad Sázavou), Holašovice, Kroměříž (Chateau and Gardens), the Holy Trinity Column in Olomouc, the Tugendhat Villa in Brno (architect Ludwig Mies van der Rohe), the Basilica of St Procopius and the Jewish Cemetery in Třebíč. Intangible UNESCO monuments: Slovácko Verbuňk (Slovácko Verbuňk belongs to male saltation dances. It is an impromptu dance, which is not bound by exact choreography rules), Lent (Descriptions of Shrovetide processions and masks in the Hlinsko Region have been documented since the 19th century), Falconry (Falconry is one of the oldest relationships between man and predator, which has lasted for more than 4 000 years. It is the traditional activity of hunting using trained birds of prey in a natural environment), Kings' Ride (The Ride of the Kings is a folk tradition of yet unknown origin, mostly associated with the traditional Christian holiday). More information at www.unesco-czech.cz.

NOTABLE PERSONALITIES

Czechs are described as a very cultured nation that has given the world a number of prominent figures. The most significant rulers and heads of state have included Emperor Charles IV and the Presidents T. G. Masaryk and Václav Havel. Figures of world renown include the scientists Jaroslav Heyrovský (Nobel Laureate in Chemistry), Otto Wichterle, a Czech chemist who invented contact lenses, and Antonín Holý, who discovered a drug treatment for AIDS. World renown was also gained by the entrepreneur Tomáš Baťa, as well as by Madeleine Albright, former US Secretary of State. The list of famous people in the cultural sphere includes the composers Smetana, Janáček, Dvořák, and Martinů, the writers Franz Kafka, Karel Čapek, Jaroslav Seifert (Nobel Laureate), Jaroslav Hašek, Bohumil Hrabal, and Milan Kundera. Winners of the American Academy Award are Czech film directors Miloš Forman (born in the Czech Republic), Jiří Menzel, and Jan Svěrák. Others worthy of mention are the artists František Kupka, Alfons Mucha, and the unique-style photographer Jan Saudek. Famous Czech-born sports people are, for example, Emil Zátopek, Věra Čáslavská, Martina Navrátilová, Jaromír Jágr, Petr Čech, and Petra Kvitová.



PRACTICAL INFORMATION

Country dialling code: +(420).

Details on telephone numbers are available on the websites www.zlatestranky.cz

Licences for **Mobile telephone network** covering the territory of the Czech Republic have been granted to a couple of companies: for example O2 Czech Republic, a.s., T-Mobile Czech Republic a.s., Vodafone Czech Republic a.s. The most widely used credit cards in the Czech Republic are: Eurocard/Mastercard and Visa.

INTEREST RATES ON THE WAY UP

With inflation hovering slightly above the CNB 2% inflation target and well performing economy, the CNB has continued in raising its policy interest rates in 2018. The outlook for next two years expects solid economic growth accompanied with a rapid wage growth and historically low unemployment. Koruna exchange rate has weakened somewhat during 2018, mainly due to adverse global sentiment. The latest (November 2018) forecast is for renewed koruna appreciation in 2019, which will be supported by the rise in interest rates towards their long-run neutral level. However, outlook for the Czech economy is nowadays accompanied with notable uncertainties, the growth in protectionist measures in global trade, and Brexit-related events being the most spelled ones.

THE GROWTH OF THE CZECH ECONOMY HAS SLOWED DOWN

Czech economic growth slowed below 3% in the middle of 2018. Growth in fixed investment and household consumption slackened but remained robust. Real government consumption growth also declined being still quite solid. The high stock of inventories has been shrinking since the start of the year, most probably in line with the business cycle. Buoyant growth in import-intensive private investment and increasing household consumption resulted in a negative contribution of net exports. Despite a slight slowdown, household consumption remains key driver of economic growth, supported by rapid dynamics of wages and salaries. The unemployment rate has declined well below 3% and remains lowest among EU countries.

INFLATION AT 2% OR SLIGHTLY ABOVE

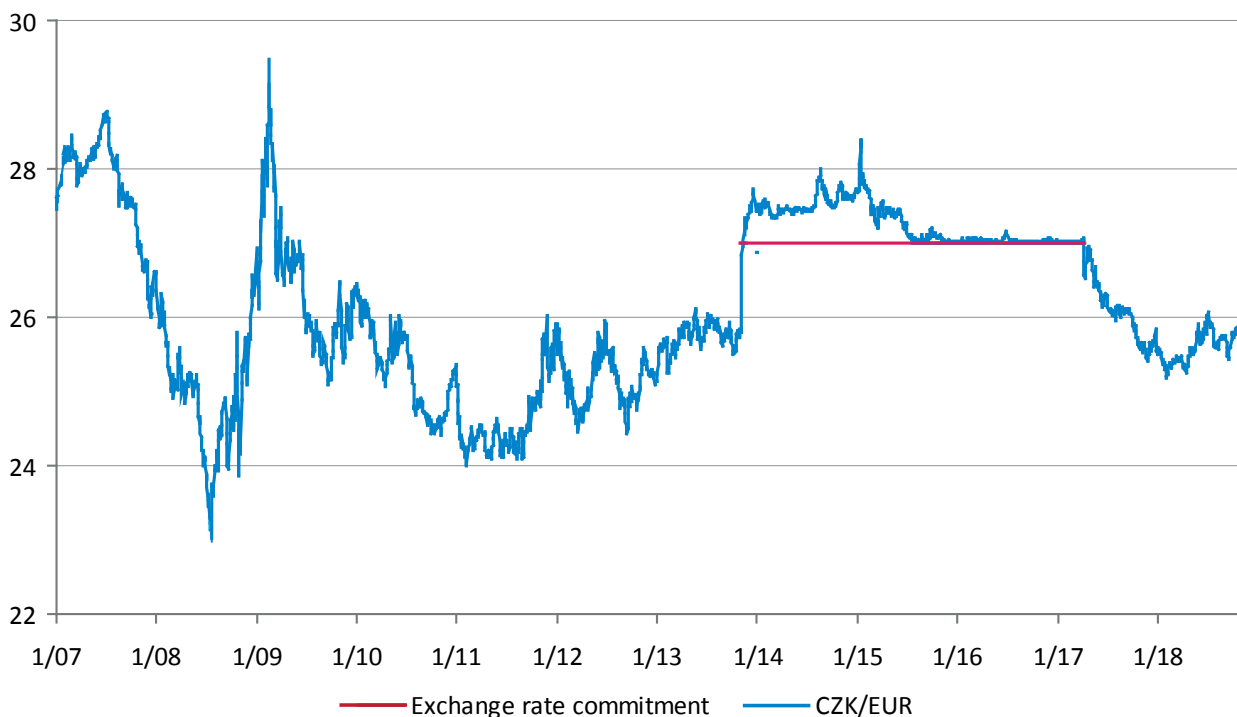
Inflation returned to the 2% target in December 2016 and has been within the upper half of its tolerance band for the most time since then. In the second half of 2018, inflation edged up owing to a rise in core inflation and faster growth in administered prices amid still high fuel price growth. By contrast, growth in food prices slowed

considerably. The overall fundamental inflation pressures in the domestic economy remain strong, owing mainly to the buoyant wage growth and continued growth of the real economy. Also import prices act inflationary, reflecting rapid growth in foreign prices as well as the koruna's depreciation.

WEAKENING KORUNA

Gradual appreciation of the koruna against the euro after lifting the exchange rate commitment in spring 2017 had lost momentum one year later and the koruna has started to weaken since February 2018. However, this was chiefly the result of a change in sentiment towards foreign exchange markets and a related outflow of short-term

EXCHANGE RATE COMMITMENT (IN %)



Source: Czech National Bank



capital from such countries. Positive interest rate differential and continued real convergence of the Czech economy connected with labour productivity catch-up are expected to renew gradual koruna appreciation in 2019.

THE CNB CONTINUED TO RAISE ITS KEY POLICY RATE

Favourable inflation outlook, as well as a solid economic performance and rapidly growing wages, paved the way for further interest rates hikes. During 2018, the key policy rate was raised in five steps by 1.25 percentage point to 1.75 %. The pace of interest rates hikes was faster than expected by previous CNB's forecasts as well as by the markets. The reason was that the weakened koruna exchange rate called for higher interest rates in order to deliver monetary tightening, which was necessary for keeping inflation close to the target. This is a favourable development, as interest rates definitely departed from levels close to zero, reducing the risk of reaching the zero-lower bound in a foreseeable future.

HIGHER INTEREST RATES SUPPORT FINANCIAL STABILITY

Higher interest rates also contribute to counter the risk of overheating the

housing and mortgage market, albeit the CNB is using primarily its macro-prudential tools to mitigate the financial stability risks, including recommendations on LTV (loan-to-value), DTI (debt-to-income) or DSTI (debt service-to-income). These recommendations were significantly tightened in the course of 2018, which has contributed to avert the risk of vicious spiral between rising property prices and excessive provision of mortgages.

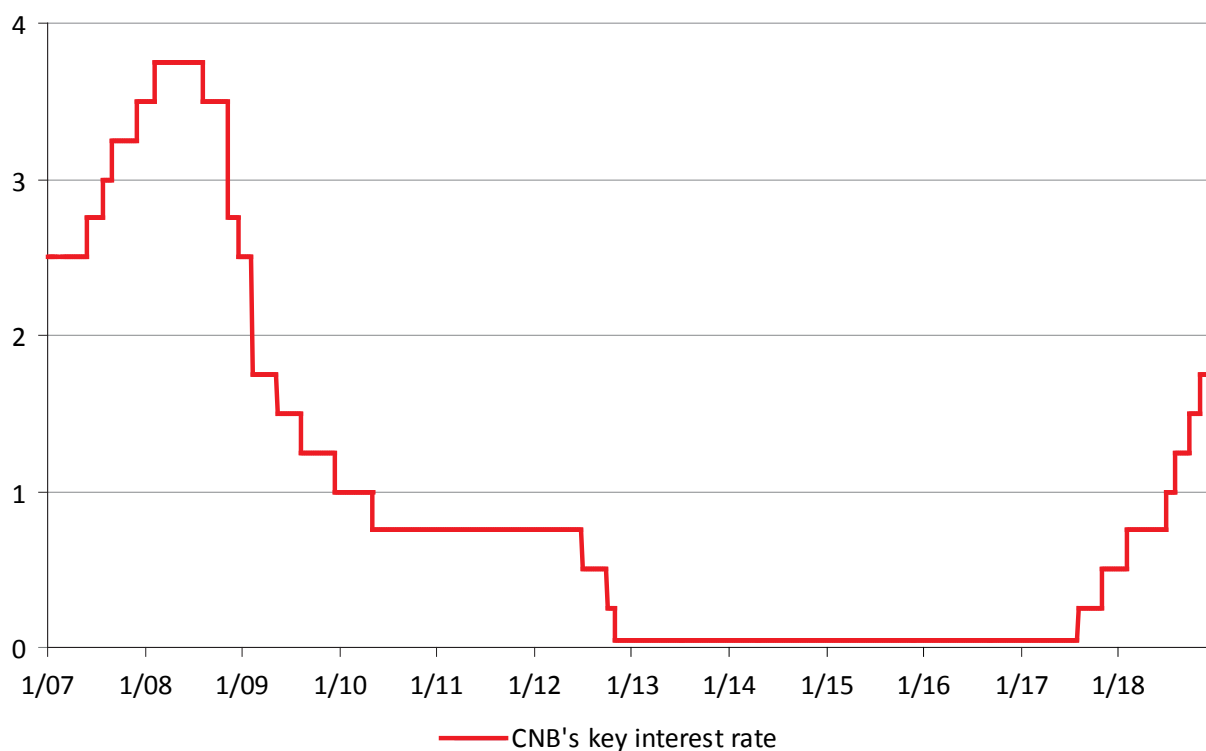
SOLID ECONOMIC GROWTH AHEAD

According to the latest CNB's forecast (published in Inflation Report IV/2018 in early November), the economic growth will slow down, but it will on average exceed 3 % in 2019 and 2020. The increase in domestic economic activity will be driven mainly by the growth in household consumption, reflecting buoyant growth in household income and optimistic expectations. Rising demand and increasingly distinct labour shortages are motivating domestic firms to invest, which is helping to improve labour efficiency. Public investment expenditure will also grow further as a result of higher drawdown of EU funds. Fiscal policy will also contribute to domestic demand growth this year and the next via a significant rise in public sector pay, pensions, and social benefits. The economy will also benefit from continued, albeit slowing, demand growth in the Czech Republic's main trading partner countries. As the unemployment rate is at record low, there is little room for it to decrease further. This will lead to slower employment growth and continued high – albeit moderating – wage growth.

INFLATION WILL BE CLOSE TO THE 2 % TARGET

Inflation is expected to increase slightly in late 2018 and early 2019. In the subsequent period, however, the overall inflation pressures will ease owing to growth in interest rates, renewed appreciation of the koruna and a gradual slowdown in wage growth. Inflation will therefore approach the CNB's 2 % target in late 2019/early 2020 and stay at the target during the rest of 2020.

CNB'S KEY INTEREST RATE (IN %)



Source: Czech National Bank

THE FORECAST IS FOR FURTHER INTEREST RATE HIKES

The November forecast is for a continued rise in interest rates towards their long-run neutral level. The expected rate increase at the start of the forecast is mainly a response to depreciation of the koruna, which leads to a renewed inflationary effect of import prices. Pronounced inflation pressures from the domestic economy act in the same direction. The assumed subsequent broad stability of rates in 2019 is a result of the forecasted appreciation of the koruna amid continuing very easy monetary policy in the euro area. A broadly stable koruna exchange rate combined with a tightening of policy by the ECB will then create room for further gradual growth in domestic rates in 2020. Interest rates will converge towards their assumed long-run neutral level (i.e. 3 % for the 3M PRIBOR) from below at the end of 2020.

NOTABLE RISKS AND UNCERTAINTIES

The main risk of the forecast is connected with a possibly longer duration of negative sentiment on global markets, which would result in weaker-than-predicted koruna exchange rate. This could lead to faster and smoother growth in interest rates than in the forecast. Growth in protectionist measures in global trade and the manner of the exit of the United Kingdom from the European Union remain sources of external uncertainty. They have been joined recently by uncertainty related to the approval of Italy's state budget. The future path of world oil prices, which have recently been very volatile, is also uncertain.

KORUNA CELEBRATES ITS 100TH ANNIVERSARY

The Czech National Bank in 2019 celebrates the 100th anniversary of the introduction of the Czechoslovak currency – koruna. To mark this special occasion, the CNB has prepared a set of events and activities to commemorate the creation of the currency and to publicise the work and role of the central bank. These events include

school competitions, publication of a book covering the rich Czech monetary history, opening the exhibition at Prague Castle and numerous emissions of commemorative coins, and also first Czech commemorative banknote. The CNB Open Day will take place in September 2019.

PETR KRÁL

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Czech National Bank
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www.cnb.cz

This article was written in early December 2018. Updated forecasts of the CNB are available at www.cnb.cz.

EXPORTERS ARE HOLDING THEIR GROUND DESPITE GROWING PROTECTIONISM

In 2018, the growth of the Czech economy slowed down by a large margin in comparison with 2017. As an economy based on industry and exports, it had to face a host of uncertainties in the external environment, and to its credit it must be said that it has stood the test well. The total volume of exports rose again to reach a historic high, despite the growing protectionist measures and uncertainties on the European continent, ranging from Brexit to German, French, Italian, and Turkish politics. Strong domestic consumer and investment demand led to an even faster growth in imports, which in turn resulted in the lowering of the 2018 balance of trade surplus.

From today's point of view, the growth of the Czech economy in 2017, by 4.5% in real terms, must be seen as a success. Since last year it has been clear that the Czech economy has hit the limits of its production possibilities, especially in the face of the strong foreign demand, which would need raising production and exports. Such demand, however, is hard to satisfy as the country's production capacity is already fully utilised. The average quarter-to-quarter growth is about 0.6%, which shows that the year-on-year growth rate is noticeably slowing down. The growth dynamics culminated in the third quarter of last year, when the economy grew by 5.1%. In the first three months of 2018, real GDP showed a 4.1% growth, while in the second quarter the growth was only 2.4%, the same as in the third quarter. Therefore, our growth estimate for the year 2018 is 2.8%.

THE MAIN ROLE IS PLAYED BY INVESTMENT; THE CONTRIBUTION OF NET EXPORTS IS SIGNIFICANTLY NEGATIVE

The country's economic activity continues to be pushed by domestic demand. The contribution of net exports to growth is even showing negative values. In addition to the partial slowing down of foreign demand, this is mainly due to the massive growth of imports, especially as regards the dynamic growth of imports for financially demanding investment projects, but is also due to private consumption. Investments, however, are becoming an important factor contributing to the growth of the Czech economy, auguring well for the growth of the country's economic potential in future. Only investments leading in the

final analysis to higher productivity will ensure the future growth of competitive production. While in 2016 investments dropped by 3.3%, last year they rose by 3.7%. In the first nine months of 2018, they showed an average growth by more than 9%. The greatest credit for this growth is due to private investments, mainly on the part of enterprises, as a reaction to the continuing strong demand in a situation dominated by labour shortage and increasing wage costs. This leads to growing investment in machinery and equipment. The public sector, however, is also contributing to the growth of investment, especially as regards investment in the infrastructure supported with money drawn from EU funds in the current programming period. Investment in housing and other construction on the part of the state and households is also increasing.



BUILDING SECTOR IS BOOMING, INDUSTRY HAS HIT ITS LIMITS

High investment activity, including construction, is boosting the performance of the building sector. In 2017, building production increased by 3.6%, and statistics for 2018 are showing a massive acceleration, indicating a nearly two-digit growth rate.

Unlike construction, industrial production in 2018 showed a significant slowdown. Following a 7% increase in 2017, one year later the growth rate was nearly 50% less. The automotive sector, the motor force of industry and export, has lost its growth momentum. The reason is that some manufacturers have hit the limits of their



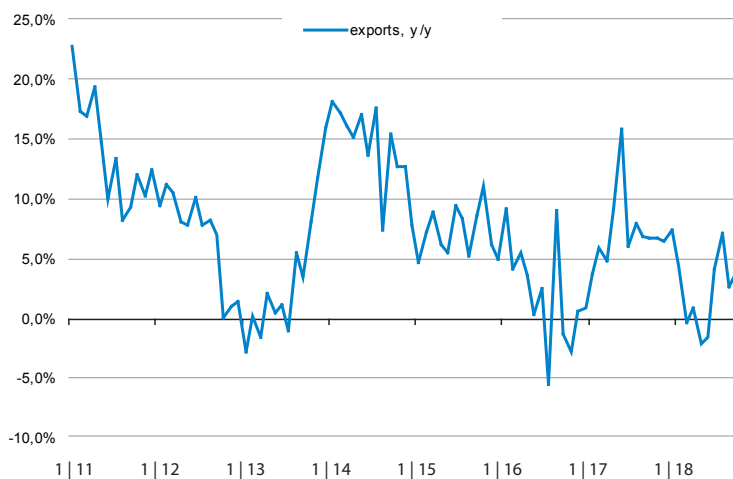
production capacity and are desperately trying to find additional labour force. They are investing large sums of money to raise their productivity, but this is a rather long-term run and one of the main reasons why industrial production is slowing down its growth. To ease the situation, manufacturers are considering a change of their production structure, moving from goods with lower value added to high value added products.

THE ECONOMY IS DESPERATELY SHORT OF LABOUR

The Czech economy has been growing continuously since mid-2013 and so has the number of new jobs. The result is that today the number of vacancies is higher than the total number of job seekers. Coming close to a mere 2 %, the unemployment rate in the Czech Republic is the lowest of the entire European Union. The excess of demand for labour over its supply results in pressures on wages. Adding to this are two-digit wage increases in the public sector, which in turn pushes up the level of minimum and guaranteed

wages. In real terms, the rate of wage growth is the fastest for the past 15 years. Since productivity is lagging behind, the increases naturally have a negative effect on the competitiveness of Czech exports in foreign markets. As the tension in the labour market is determined to a considerable extent by the unfavourable demographic trend, with the growing proportion of the aging population, the situation cannot be expected to change dramatically in coming years.

YEAR-ON-YEAR GROWTH IN EXPORTS



CONSUMER OPTIMISM HAS A FIRM BASIS

While for employers wages are a cost item to which they must react by investment and raising their productivity in order to remain competitive and make a profit, for households it is an important source of their disposable income. Obviously, the combination of the record-high employment rate and growing wages is leading to record high values of consumer optimism in this country. It is therefore no wonder that households are more willing to spend. But not thoughtlessly. After all, consumers are aware of the uncertainties in the world. Even so, household consumption continues to be an important contribution to the growth of the Czech economy and stands behind the continuing growth of imports.

INFLATION IN THE UPPER PART OF THE TOLERANCE ZONE

The strong domestic demand logically leads to the growth of prices. After the weaker beginning of the year 2018, when inflation held at slightly below the two-per cent inflation target, in mid-2018, with the assistance of the weaker crown and growing oil and food prices, it rose to over 2.5 %. All the main consumer price components worked in the pro-inflationary direction: core inflation was boosted, food prices increased and so did the prices of fuels. In June, the growth of regulated prices accelerated in connection with the increase in electricity prices.

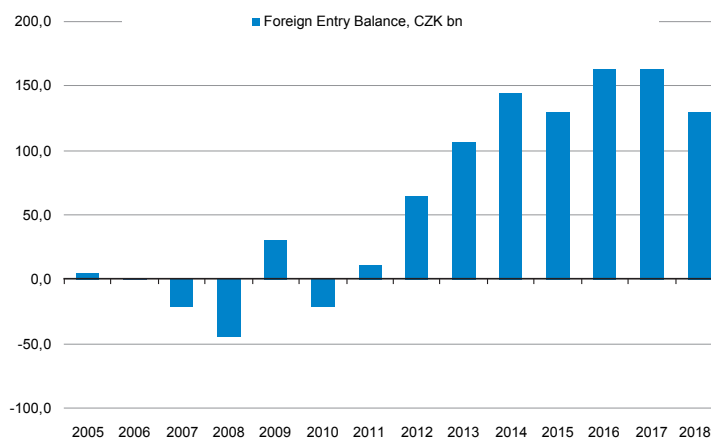
NET EXPORTS ARE AGAIN EXPECTED TO CONTRIBUTE TO GDP GROWTH IN 2019

While in 2018 net exports made a negative contribution to the country's economic growth and lowered the balance of trade surplus, the year 2019 is expected to reverse the situation, where exports will once again make a favourable contribution to the budget. External demand is expected to rise, mainly thanks to the better condition of Germany, this country's important trade partner. On the other hand, lower interest in investment caused by the lower profitability of Czech corporations is expected to lead to slower growth in imports. In spite of this, the 2019 overall balance of trade surplus may even challenge the Czech Republic's historically highest performance figures.

MONETARY CONDITIONS RETURNING TO NORMAL

The robust inflationary development and the relatively good condition of the real economy made it possible for the Czech National Bank (CNB) also in 2018 to continue returning its monetary policy back to normal. After the February raising of the rates, the feeling was that the Bank council would wait for any further increase until the end of the year. The weak crown and accelerating inflation, however, prompted the Bank to raise the rates already at the end of June. However, the crown failed to respond in a meaning-

YEAR-ON-YEAR GROWTH IN EXPORTS




ful way to this, showing that currently it was more sensitive to global developments than to the situation at home. This finding made it possible for CNB to continue raising the rates to neutral levels. In the second half of 2018, CNB took this step three times.

Although the economy as a whole is expected to slow down its growth slightly (to an expected 2.7%) in 2019, the inflation pressures will remain strong because of increasing unit labour costs, and the Central Bank will continue raising the interest rates to a neutral level. During the second half of 2019, the CNB key rate will probably reach 2.5%. The crown should return to the appreciation trajectory and lower volatility. This, however, would require at least a partial calming down of global political uncertainties, because, due to the continuing strong position of foreign investors, the crown remains vulnerable to external shocks. Therefore, no strengthening of the crown below the 25 CZK/EUR level can obviously be expected in 2019. Nevertheless, although monetary conditions will worsen for Czech exporters, this development will by no means be fatal.

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- Empalme 280 MW, CCPP, Mexico – under execution
- Zarqa 182 MW, CCPP, Jordan – under execution
- Red Dragon 354 MW, FPP, Chile – under execution
- Salalah 2x90 MW, CCPP, Oman – under execution
- Värö 64 MW, industry – biomass, Sweden
- Gummidipoondi 181 MW, FPP, India
- Dorad 2x140 MW, CCPP, Israel
- Salmisaari 175 MW, HPP – Non OEM modernization, Finland
- Stendal 46 MW, industry – biomass, Germany



ENERGY INDUSTRY— ONE OF THE MOST IMPORTANT SECTORS IN THE CR

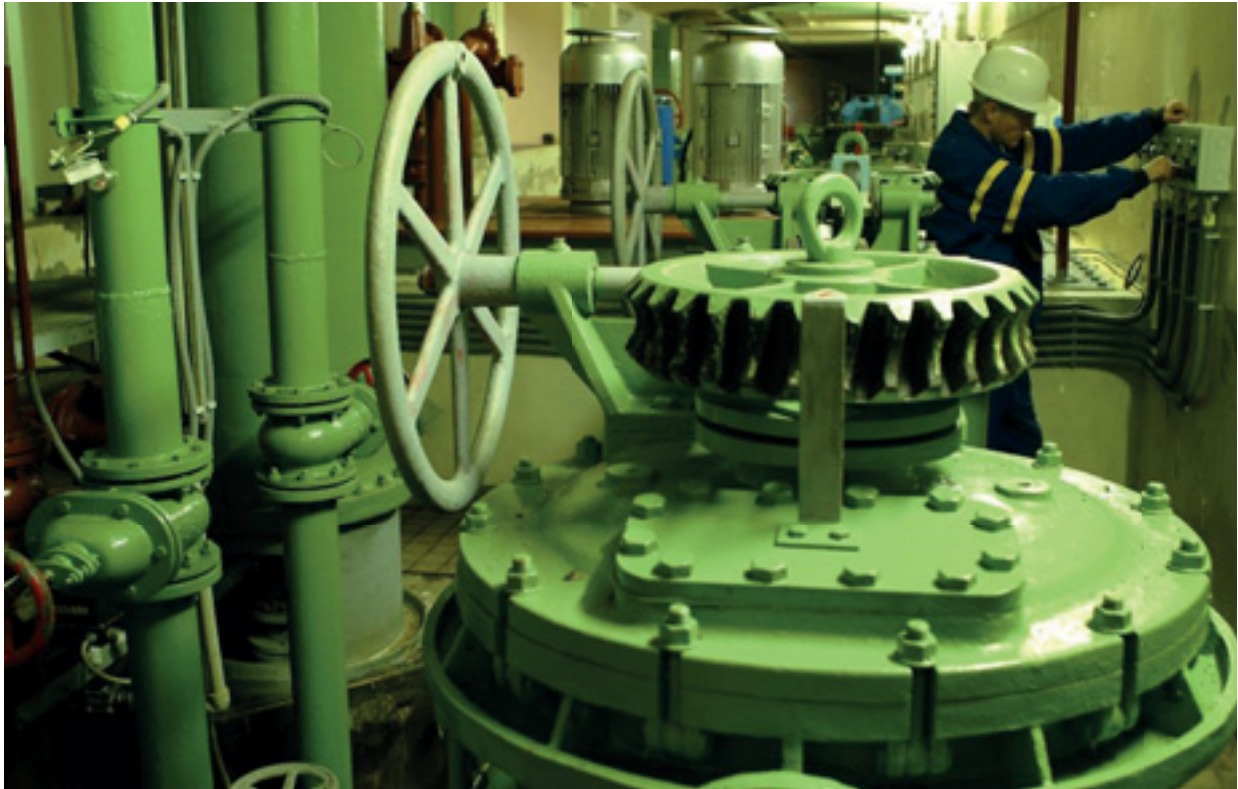
The energy industry is one of the most important sectors in the Czech Republic. Traditionally, we are very strong in the area of engineering and the manufacture of power generating facilities, which the industry can build and operate efficiently, including nuclear power sources.

The Czech Republic is self-sufficient in electricity production, based predominantly on domestic brown coal deposits and nuclear power sources. On the other hand, natural gas and oil are imported from politically unstable countries, which may endanger safe and reliable supplies in future. The adequate capacity of national and international transmission facilities creates prerequisites for international trade in electricity. The energy sector is a stable branch in the Czech Republic, which attracts foreign investors and creates good prerequisites for the further development of Czech industry. Since the beginning of the millennium, the Czech energy sector has undergone a number of important changes. As the volume of electricity generated from coal has declined, while the importance of other sources has increased, the energy mix, too, underwent a change, in addition to changes that occurred in the electricity and natural gas markets following their liberalisation. In 2017, domestic electricity consumption reached the highest level since 1981. Domestic (gross) consumption amounted to 73.8 TWh, 1.9 % more than in the preceding year. The nearly two per cent growth in consumption reflects primarily the economic development. Another important indicator shows that the decline in electricity production in previous years was halted. Total (gross) electricity production reached the 87 TWh level, 4.5 % more than in 2016. The growth was mainly the responsibility of the nuclear power stations (+17.6 %), while the greatest fall was shown by black coal burning power stations (-22 %). For several years running, renewable sources have been holding a 13 per cent share of gross electricity consumption. Last year renewable sources covered 11 % of gross electricity production. Combined electricity and heat production in 2017 accounted for 11.8 % of electricity production and for 66% of heat generation. In the gas industry, too, electricity con-

sumption increased year on year, by 3.3 % to 8.53 billion cu.m. On the whole, the Czech Republic imported 35 billion cu.m of natural gas, 99 % of which was physically imported via neighbouring Germany. Natural gas was mostly used for electricity production. In 2017 electricity production accounted for more than 6 % of gas consumption. Also interesting is the proportion of renewable sources in the heating industry. Taken together, biomass and biogas plus other sources supplied 14 % of the total volume of heat. This shows that renewable sources do not play a role in electricity production alone. The Czech Republic has witnessed another surge, which took place in the shade of the solar boom, and that is the massive construction of agricultural

KEY ACTORS IN THE ELECTRICITY AND GAS MARKETS IN THE CZECH REPUBLIC

The most significant player in the Czech market is the ČEZ Group, currently figuring among the ten most important players in the European market. ČEZ is a vertically integrated company, operating in the area of coal mining, conventional and renewable energy sources production, trading, electricity and gas sale, electricity distribution, energy services, and telecommunications. The ČEZ Group has the capacity to flexibly react to changes in the energy sector which, according to EBITDA, ranks it alongside the best energy companies in Europe. The second most important actor in the Czech market is Innogy Energie (formally the RWE Group), which concerns itself with gas transmission, distribution and sale, and energy services. Other important players in the Czech market include the E.ON Group, selling and distributing electricity and gas and providing energy services. The group's portfolio also comprises smaller manufacturing facilities. Another company with a similar structure is Pražská energetika, operating on the territory of the capital city of Prague, which also invests in renewable energy sources outside its own distribution area. The Veolia Energie Group in the CR, too, is one of the largest producers and suppliers of heating, cooling, electricity, and other energy commodities. At the same time it is a European leader in providing energy services for cities, villages and their inhabitants, healthcare facilities, schools, industrial enterprises, public institutions and clients in the tertiary sector. Bohemia Energy controls about three per cent of the electricity and natural gas markets and is still growing thanks to the acquisition of its weaker rivals. In 2016 alone it took over Right Power clients and bought the companies Europe Easy Energy and X Energie. Each of them had dozens of thousands of supply points in the retail segment. In 2016, Amper Market came close to gaining a two-per cent share of the electricity market, although it entered the market only in 2011, later than its main rival. It specialises in the purchase of renewable source electricity and its resale to end users. There are also a number of alternative electricity and gas suppliers and energy service providers in the Czech Republic. Energy services are another step towards broadening the activities of vertically integrated companies and a segment with great potential for future development.



biogas stations. Their accurate number is 695, according to the OTE Electricity Market Operator.

FROM COAL TO NUCLEAR ENERGY, GAS AND RES

The Czech power industry is still dominated by coal resources. Traditionally, the largest proportion of energy is generated by brown coal-powered power stations, the second largest electric power source in terms of output in the Czech Republic are Temelín and Dukovany nuclear power stations. In 2017, Dukovany and Temelín delivered more

than 28 terawatt hours of electricity to the grid, 4 TWh more than in 2016. At the end of 2017, Dukovany nuclear power station obtained the required permits for long-term operation. Its production will start growing already in 2018. In spite of special checks and modifications of the equipment needed in connection with the renewal of the permits at Dukovany, the total output of both Czech nuclear power stations taken together is the fifth best since the year 2000, when the first block at Temelín was put into operation. Temelín nuclear power station, the larger of the two, has been the subject of much discussion from the outset. Now the power station is approximately in the middle of its planned service life and is most likely to stay in operation longer than the planned 30 years. The decision on the construction of the nuclear power station in the Temelín locality was made in 1980. Its planned capacity at that time was four VVER 1000 blocks. Actual construction started in February 1987, but after 1989 the project was reviewed and the new plan was to build only two blocks. Trial operation of the first block started on 10 June 2002 and one year later, on 18 April 2003, trial testing began on the second block. The whole power station was put into commercial operation in 2002-2003. During the next ten years the power station was modernised and in September 2013 its

TRADING AT PRAGUE ENERGY EXCHANGE IS TEARING RECORDS

After joining the German EEX group, the PXE Prague Energy Exchange in 2017 experienced a record year, when a total of 48.1 terawatt hours of electricity was traded there, 50 % more than in 2016. This volume accounts for approximately four-fifths of Czech electricity consumption. Higher amounts were traded by new businessmen who already had experience with trading at EEX and who, thanks to the inclusion of Prague products in the EEX system also gained access to electricity selling and buying in the Czech Republic, Slovakia, Hungary, and Romania. Altogether 39 new market participants traded Prague Exchange products. In 2017, PXE, for the first time ever, traded more electricity with delivery in Hungary (20 billion kWh) than with delivery in the Czech Republic (less than 17 billion kWh). The Romanian and Slovak markets mediated trading to the amount of five billion kWh each. The latest new activity of PXE is the mediation of electricity and gas purchases for final clients. In practice this usually involves the ministries, regional and local authorities, public enterprises, and hospitals. Private firms use this mode of energy purchase only exceptionally. Here PXE meets with the Kladno ČMKBK exchange, which has been the dominant figure in this market on a long-term basis. In 2017, 6 875 contracts for the delivery of 6 108 million megawatt hours (MWh) of electricity and natural gas for final consumers worth CZK 3.986 billion were made at ČMKBK. In financial terms, the balance grew by 11.4 % and the volume of traded energies for the fourth time exceeded the 6 million MWh mark.

output was raised to 2 x 10⁵⁵ MWe, an increase of 600 000 MWh. In September 2014, the output of the first block was raised again, to up to 1078 MWe. The current energy mix is more diverse. The Czech Republic also has the wind, biogas, the Sun and biomass. This diversification ensures greater energy safety. Over the past one hundred years the installed output of power stations located in what is today the Czech Republic increased 28-fold and production as much as 80-fold, while the population remained at approximately the same level.

OPENING UP OF THE ELECTRICITY AND NATURAL GAS MARKETS

Until recently, electricity and natural gas consumers could not choose their supplier. A change occurred in 2002, when the electricity market started opening up. The first group to be allowed to change their supplier was large consumers purchasing electricity in the order of dozens and later units of GWh a year. Czech households had this possibility opened up only at the beginning of 2006. The turn for natural gas consumers came three years later, on 1 January 2005, when large consumers with an annual consumption of more than 15 million cu.m could choose their supplier. In the second phase, from 1 January 2006 on, the market opened up to all other consumers excluding households, which had to wait until 1 January 2007. This practically consummated the market liberalisation process. Electricity and gas end users, however, began to use their right to change their suppliers more widely only in the years 2009 and 2010, when the number of consumers changing their suppliers of both commodities exceeded the 100 000 mark.

PHOTOVOLTAIC BOOM

In support of the EU renewable energy policy, the Czech Republic pledged to cover 13% of its final gross energy consumption with renewable energy sources by 2020. As renewable energy production is not cost effective for the time being, a subsidy system had to be introduced.

For photovoltaic power stations, however, the system was designed inadequately and its application led to an enormous expansion of solar power stations. The solar boom in the Czech Republic was triggered in 2008 by the fixing of excessively high purchasing prices of electricity generated by photovoltaic power stations and the

DYNAMIC RESEARCH PROJECTS IN POWER ENGINEERING

The Czech power engineering industry does not mean the mere operation of power stations, coal mining or photovoltaics. In addition to all this, the Czech Republic has a number of interesting programmes and research projects it can be proud of. Řež Research Centre: the construction of the SUSEN infrastructure project is completed and research is continuing. The extensive research base for nuclear technologies in Řež near Prague and in Plzeň is already in operation. The SUSEN workplace in Plzeň focuses on the research of nuclear fusion, materials, diagnostics and testing for the purposes of the power industry. In Plzeň, the researchers will be testing panels for direct contact with plasmas of temperatures of as much as a million degrees. The reactor is currently being built in France. The electron gun nicknamed Helca is globally unique. Among other assignments it will be used, for example, for testing turbine blades, boiler pipes, and thermal shields for spaceship return modules. Another device installed in the experimental hall is the model of a part of the ITER international fusion reactor, scale 1:1. Scientists will use it to develop the processes for repairing, welding, cutting and testing special tools, including robots, which the technicians will optimise. Their experience will be used by ITER specialists in Cadarache, France, where an experimental fusion reactor is being built. Another important device is a helium experimental loop, used in the development of the high temperature helium cooled reactor Allegro. An important part of the SUSEN project in Plzeň are the non-destructive defectoscopy laboratories. The material research laboratories verify the firmness, resistance, and service life of metals and welds.

Another experiment, where the nuclear research institute in Řež collaborates with 23 scientific workplaces, is testing the possibility of keeping highly toxic molten fuel inside a crashed reactor. In a unique experiment scientists will test how to prevent the molten mass from damaging the walls of the reactor vessel in case of a total nuclear breakdown and contaminating of the power plant. The last time the fuel, including the inside reactor equipment, leaked out of the reactor was in Fukushima, Japan, in 2011. With the help of a financial contribution from the EU Horizon 2020 research programme a precise copy of a part of the VVER 1000 – type reactor of Russian design has been built at Řež worth CZK 42 million. This is the most widely used type of reactor in the world. There are 31 such reactors in operation, including the two in the Czech Republic. The equipment, except the shape of the reactor pressure vessel, also copies its surroundings. This will make it possible to faithfully simulate how to let cooling water into the space between the vessel and the outside concrete shaft, which will take the heat away and keep the pressure vessel undamaged.

Broader contexts of “pure” energy generation are being sought by the Advanced Photovoltaics Centre being built in Prague, in addition to seeking ways of raising the efficiency of solar panels. At the birth of this ambitious centre were graduates from the nuclear engineering, civil engineering, and electrical engineering faculties of the Czech Technical University in Prague. The Centre brings together all aspects of photovoltaics from theoretical physics, which will help raise the efficiency of solar cells, to technological problems, the testing and diagnostics of solar panels and their integration in the structures of buildings.

A unique scientific and research geothermal energy centre, the only one in the Czech Republic, will be built in Litoměřice, on the site of the former King George’s barracks, which is now being cleared for construction. The next stage of the project will use geothermal energy for heating buildings by deep drilling. In the future, the city is planning to use geothermal energy as an environmentally friendly source of heat. The project will use the existing two kilometre deep exploration well, to which two seismicity monitoring wells will be added. The actual heat will be pumped from a well four to five kilometres deep, to which two more will be added. The geothermal energy thus obtained could in future serve to heat the entire city of Litoměřice. The heat would be transferred to the existing distribution system. Environmentally, this would be a much friendlier system than the use of conventional sources and would also be much cheaper.



impossibility of their meaningful reduction in the following years, which would necessarily have led to cost reduction.

TERMINATION OF URANIUM MINING IN THE CZECH REPUBLIC

Uranium mining had a long history on the territory of today's Czech Republic, going back to the 16th century. Its greatest boom, however, came in the period after the Second World War, with the development of the nuclear energy industry and especially the worldwide massive nuclear arms production prompting world demand for uranium. During the second half of the 20th century Czechoslovakia became a uranium powerhouse. The importance of Czech uranium is shown by the fact that despite its small size this country ranked among the world's ten largest uranium producers. By 2007, more than 110 000 tonnes of uranium was extracted from Bohemia's mines. Until the end of 2016 the Czech Republic was the only country in Central Europe extracting uranium. The last uranium mine in the Czech Republic to terminate commercial extraction of the precious mineral was Rožná Mine.

ENERGY ENGINEERING

Czech energy engineering is currently showing a slowdown caused primarily by low electricity prices, which in turn led to a halt in new power plant construction. A herald of a brighter tomorrow is seen in the rapid development of know-how and extensive production capacity, traditions and a good name in the world. Especially strong instances of this can be found in the East European countries, the former Soviet Union and in the Middle East, where Czech companies were successful suppliers in the past. A solution is to offer new products and establish a footing in new markets. One of the big firms holding a prominent position in this field is Vítkovice Machinery Group comprising thirty firms concerned with the preparation of large investment projects.

Another important player is Doosan Škoda Power, s.r.o., a member of Doosan Heavy Industries, based in Plzeň, with a centenary long tradition in turbine manufacture, which also makes turbo generators, heat exchangers and engine rooms, using its own development and product testing. Also well known is Modřany Power, a.s., an impor-

tant manufacturer of piping systems for the energy industry, which it exports to some 40 countries the world over. It also supplies parts for the gas industry, petrochemistry, and construction. The following are some examples of its successful projects: Cramlington, co-generation biomass power plant in Northumberland, North Anglia; pre-fabrication of the piping system for Red Dragon 375 MW thermal power plant in Chile, Škoda Praha, Sigma Group, a.s., Mpower Engineering, a.s., G-Team a.s. Ekol s.r.o., Enkom a.s., and Mavel a.s. in the Czech Republic.

ENERGY STABILITY IN THE CZECH REPUBLIC AND ATTRACTIVENESS FOR FOREIGN INVESTORS

From the foreign investors' point of view, the Czech Republic is very attractive as regards the energy sector, both from the point of view of legislation and future development. More investment can be expected to go into production facilities, cross-border installations and protection against electricity spilling across the border, especially from Germany, investment in the infrastructure in the area of distribution and the completion of the backbone gas pipeline running from north to south. The parameters of the updated State Energy Concept and the draft to regulate the pipeline system create good conditions for ensuring a reasonable payback period for the capital invested.

CZECH ENGINEERING HAS A RICH HISTORY

Engineering forms one of the pillars of Czech industry. In terms of total revenue, engineering is the country's largest industrial sector.

As regards goods exports, engineering products are the source of the largest proportion of total value added created in the country. General engineering (manufacture of machinery and equipment) employs nearly 115 000 highly skilled people, who are the most valued asset of the entire sector. In the framework of Czech industry, general engineering is one of the most important employers. Its production base, which is the guarantee of continuous improvement and enlargement of the product portfolio, is formed by more than 6 700 companies manufacturing a wide range of products, including turbines, transport equipment, machinery for agriculture and the food industry, air conditioning equipment, building machines and machine tools. Engineering is also a traditionally important export branch with 80–90 % of its output going to foreign countries. Its products are among the best-selling Czech goods competing successfully on the world's most discerning markets. Thanks to the comparative advantages which the Czech Republic offers, including an adequate supply of skilled labour, the engineering sector has attracted important foreign investors to the country, such as Siemens, Doosan, Mazak, Bosch, ABB, Ingersoll Rand and many others.

An important sector of the Czech manufacturing industry is the manufacture of CZ-NACE 28 category machines and equipment. This comprises a very broad range of equipment used for processing materials mechanically or thermally, or carrying out production processes on materials (e.g. manipulation, spraying, weighing, packing), including the production of their mechanical components producing or using force. It also comprises specially made parts for those machines and equipment. The sector further includes fixed, moving, and manually operated equipment, regardless of whether it is intended for industry, crafts, construction and agriculture, or household use. The sector also comprises the manufacture of special equipment for personal or cargo transport. It accounts for approx. 8 % of

the revenue derived from own products and services of the manufacturing industry. The dominant category within the sector is large and medium-sized enterprises. Large enterprises accounted for 56 % of the revenue, 52 % of value added and 48 % of employed persons. The shares of medium-sized enterprises were from 31 to 36 %.

One of the important sectors of Czech general engineering is energy engineering, which is experiencing a period of prosperity thanks to a growing global demand for energy. Energy engineering comprises the manufacture and delivery of equipment for various general engineering sectors, ranging from the manufacture of turbines, fixtures, compressors and pumps, to lifting and handling equipment. The affiliation of Czech energy equipment manufacturers with supranational companies often opens up the way for them to gain foreign contracts. At the same time, a number of purely Czech companies are successful exporters of energy equipment, thanks to their long tradition and favourable references.

The manufacture of industrial cooling and air-conditioning equipment is another group with good prospects, as the refrigeration sector impacts practically all branches of human activities, including the safety and quality of foods in the supply chain from the harvest to the consumer; air-conditioning of buildings, pharmaceutical production and healthcare, and the low temperature and gas liquefaction and cooling equipment used in all sectors of industry. The tradition and current high standards of machine tool production, which form an indispensable part of the sector, augurs well for the further successful development of this group.

FUTURE OF MACHINE TOOL AND FORMING MACHINE SECTOR

The machine tool and forming machine sector is the cornerstone of the entire Czech engineering industry. Its development is essential for the promotion of other engineering branches and consequently the entire industry. Its characteristic features are high technical standards and a high level of technological advancement. The basic requirements placed on machine tools are precision, productivity, safety, and reliability. In the area of electronics, drives, mechatronics and technology management software, Czech machine tools are at the absolutely highest level. Practically all Czech manufacturers use the same components for their products as their rivals and can connect the machines they manufacture to the Industry 4.0 communication structures. Although new technologies are being introduced gradually, additive production, machining and forming will long continue to be used as basic technologies in engineering.

OUTPUT OF MACHINE TOOLS AND FORMING MACHINES IN 2017

In 2017, production in the sector declined by 4.7 % and export by approximately 3.5 %. The main causes of the decline were problems in the eastern markets, especially the continuing unfavourable situation in Russia, and the stagnant demand in European markets, especially in Germany, which is the Czech Republic's main export territory. As a result, the CR dropped to 17th position on the world scale of machine tool and forming machine manufacturers. The Czech Republic's main export territories are Germany (31 %), China (approx. 9 %) and Slovakia (7.7 %), followed by Russia, Poland, the USA and Italy. At the moment, export to Germany is showing a slightly upward trend, but sales to the Russian Federation are further falling in conse-



quence of the continuing sanctions and the general economic situation in Russia. In comparison with 2014, this is a decline of approximately 60 %. After a massive fall of exports to China in 2016, the year 2017 showed a moderate growth. The efforts to strengthen the position in other markets are most gratifying. In 2017, exports to Slovakia and Poland increased. The domestic market is naturally very important for most Czech manufacturers, who are taking full advantage of its competitive advantages. Czech manufacturers have a share of approx. 30 % of the domestic market. In export, the CR is at a comparable level with, for example, Austria or France. In the framework of the CECIMO member states, the Czech Republic holds 8th position. With regard to export commodities, leading items are grinders, followed by lathes, machining centres, and milling machines. The main sectors purchasing engineering technologies are the automotive industry and its subcontractors, manufacturers of tools and moulds, and the defence, aviation, and energy industries.

INNOVATION IN THE MACHINE TOOL AND FORMING MACHINE SECTOR

The high standard of Czech machine tools and forming machines is largely due to the innovative activities of most manufacturers, such as the companies TOS VARNSDORF, KOVOSVIT MAS, TAJMAC – ZPS, TOSHULIN, TOS Kuřim, and FERMAT. The basis is their own construction and development facilities, supported by collaboration with higher-learning institutions, such as the Research Centre of Manufacturing Technology (RCMT) attached to Prague Technical University, and independent research workplaces, e.g. VÚTS Liberec, a.s., and manufacturers and suppliers of electronic and mechatronic components, tools and robots. It is gratifying that, besides continuously improving their current machine tool concepts, Czech manufacturers are also keeping pace with regard to new technologies. For example, in 2018, KOVOSVIT MAS presented its first hybrid machine enabling the combination of conventional machining with additive technologies. One of the main limiting factors in the development of the sector is the inadequate supply of accomplished graduates of technical and vocational schools. Although the situation has somewhat improved, enterprises are obliged to seek their own ways of finding skilled workers. The Secondary Technical School founded by TOS VARNSDORF in 2016 is a unique example to be followed by other companies. For the time being, most firms rely on cooperation with regular vocational schools and apprentice training centres.

MORE INFORMATION:

Association of Engineering Technology www.sst.cz

AGRICULTURAL ENGINEERING IS USING UP-TO-DATE TECHNOLOGY

Agricultural machines are among traditional Czech export commodities. The character of the machines has radically changed over the past 30 years, with the agricultural machinery sector of today comparing well with the technologically most demanding industries, by the use of modern materials and even space technologies. Sophisticated production is a common feature in Czech factories, with firms promptly meeting demand, introducing new models and high-quality processing, all at competitive prices, even in foreign markets.

There are some 100 agricultural and forestry machine manufacturers in the Czech Republic. The Agricultural and Forestry Machinery Association A.ZeT has 43 members, including all the major domestic producers and both the country's agricultural universities, plus the Agricultural Research Institute. The total output of the member firms is worth around CZK 20 billion (approximately EUR 750 million), which accounts for 80 % of total production in the Czech Republic. Total Czech agricultural and forestry machinery exports are worth CZK 17.4 billion (approx. EUR 660 million). Of this amount, the export by A.ZeT members accounts for 85 %. Agricultural machinery manufacturers employ an estimated 10 000 people, about one-third of the number the sector employed 20 years ago.

STABLE SALE OF UNIVERSAL TRACTORS

The sale of universal tractors is stable, according to long-term statistics, which show that, since the beginning of this decade, approx. 2 200 tractors have been sold each year. With regard to the sale of combine harvesters, the capacity of the Czech market is estimated at some 170 machines. Their sale, however, fluctuates year-on-year. In 2017, which was more or less an average year, altogether 2 247 tractors and 162 combine harvesters were sold. The quality of Czech products compares well with European standards, as is illustrated by the large number of Czech-made machines ploughing and tilling the fields and harvesting grain in a number of European countries, which were developed and made in Czech factories and for commercial reasons are flying the colours of the manufacturers' foreign trade partners.

SUCCESS OF CZECH FIRMS WITHIN THE SECTOR IN FOREIGN MARKETS

The largest trade partners of Czech manufacturers are firms in neighbouring Germany, Austria, and Slovakia, followed by France and Poland. Here, much depends on the actual products. For example, the Czech-made Zetor tractor is traditionally much in demand in Poland, Scandinavia, and the Balkan States. The manufacturers are rediscovering their partners in the countries of the former Soviet Union – Russia, Ukraine, the Baltic States, and also in the new EU countries – Romania and Bulgaria. The most important Czech export items are fodder crop and culm crop harvesting machines, which comprise all mowing and cutting machines, including grass mowers, raking machines, tedders, etc. These machines account for 40 % of total agricultural machinery exports. Tractors take a share of 22 %, the same as soil preparation and soil treatment machines.

Important Czech exporters are FARMET at Česká Skalice in East Bohemia and BEDNAR FMT Praha, followed by OPaLL AGRI Dolní Životice and SMS CZ Rokycany, all manufacturing soil treatment machinery, AGRIO MZS Křemže, known for its sprayers, and ZDT Nové Veselí exporting trailers and semi-trailers. Other export articles include mowing machines, front loaders, manure spreaders and the full range of small agricultural machinery, including tools. Special machines, such as stump cutters and oleaginous seed processing refineries, are also much in demand. Specialising in stable machinery manufacture are the firms FARMTEC Jistebnice, BAUER TECHNICS Tábor, and AGE České Meziříčí. Zetor tractors are experiencing a comeback to the largest world markets. Zetor company exports 90 % of its output and the rest is sold at home. The latest tractors feature a new design, created in cooperation with the renowned design company Pininfarina, which expresses the strength and durability of ZETOR machines combined with an attractive appearance. The new design is being applied to all the Zetor model series.

DEVELOPMENT IN AGRICULTURAL AND FORESTRY MACHINERY PRODUCTION

Czech firms are becoming increasingly involved in international trade. The import of foreign machines grew at



practically the same rate until 2008 as did Czech machinery exports. Like domestic sales, foreign trade, too, plunged by approximately 30 % in 2009 and 2010, in comparison with previous years. In 2011, foreign trade experienced a revival and this trend also continued in the following years. The 2017 agricultural machinery trade turnover amounted to over CZK 35 billion, while exports and imports remain at approximately the same level (CZK 17.4 billion and CZK 18.0 billion, respectively). In other words, the volume of import is comparable with that of export expressed in Czech crowns.

STRONG TRENDS AND EXPECTATIONS

A relative advantage of Czech agri-engineering is the structure of the manufacturing firms. The majority of them are small and medium-sized enterprises, capable of flexibly responding to demand, and which can turn out machines precisely according to the specific requirements and wishes of customers, even in serial production. Agricultural machinery reflects the requirements of farmers for higher efficiency and better quality of work operations. From precision farming, whose beginnings date back to the mid-1990s, agri-engineering has advanced to what is called smart farming. Similar rhetoric as that used in industry is beginning to find its use in the sector, where we speak of agri-technics 4.0, which means using ICT not only in machines as such and interlinking and connecting them to the smart data network using accurate navigation systems, for example in tractors and self-propelled machines, but also monitoring and controlling separate working systems. In all these aspects, Czech manufacturers are competitive even in international comparisons.

MORE INFORMATION:

Agricultural and Forestry Machinery Association www.zetis.cz



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AUTOMOTIVE INDUSTRY IN THE CZECH REPUBLIC

Thanks to its long industrial tradition and the ability to compete successfully at the global level, the Czech Republic boasts one of the greatest concentrations of automobile production, design, research and development worldwide. In 2017, altogether 1.4 million cars were made in the Czech Republic according to the AutoSAP Association of the Automotive Industry. This means that the Czech Republic is the fifth largest manufacturer of motor vehicles in Europe and the largest car maker in Central and Eastern Europe. The Czech automotive industry employs more than 150 000 people and accounts for more than 20 % of Czech industrial production and for more than 20 % of total Czech exports. More than one-half of the world's top 100 tier-one suppliers for the automotive industry are based in the Czech Republic, which underlines its long-term orientation on quality.

In 2017, the Czech automotive industry achieved outstanding results, which makes it largely responsible for the growth of the Czech economy as a whole. 2017 is also the year marking a number of historic records in car making, thus creating the basis for the continuation of this trend also in the year 2018.

In 2017, historically the best year for final stage producers, the Czech Republic maintained its position as Europe's and the world's number one in per capita bus production and second position in per capita car manufacture worldwide. The Czech Republic occupies 5th place in Europe and 17th place in the world in the manufacture of motor vehicles. Supplier firms, too, take credit for the growth of the Czech automotive industry in 2017. The favourable development of this segment of the Czech automotive industry is best shown by the growth of its revenue, which rose by 3.4 % year on year. Suppliers are among the largest AutoSAP exporters. Czech car part manufacturers account for more than 42 % of Czech automotive industry exports.

ECONOMIC RESULTS IN THE FIRST HALF OF 2018

In the first six months of 2018, AutoSAP's member firms turned out more than three-quarter million cars. Their production rose by 0.3 % to 758 475 cars. ŠKODA AUTO, the largest of them, continued to follow its growth trend. Its revenue rose by 5.1 % to EUR 9.161 billion, for the first time surmounting the EUR nine billion mark in the first six months of the year. Between January and June this year, its car deliveries to customers rose by 11.6 % to a new record high of 652 700 cars. TPCA in Kolín increased its production by 1.8 % to 110 094 cars, while Hyun-



dai in Nošovice showed a decline of 9.3 % to 171 250 cars, because of planned temporary shutdowns at the beginning of the year. Bus production increased by 2.5 % to 2 375, of which Iveco increased production by 2.6 % to 2 121 vehicles; SOR showed a growth of more than 6 % to 236 vehicles. Truck production declined by 44.5 % to 431. Avia, after renewing production, manufactured 29 trucks in the first half of the year. The orders for trucks and buses came from the company sector, of which, unlike car manufacture, a characteristic feature is great short-term volatility. Motorcycle production dropped by 14 % to 746 motorcycles, turned out by Jawa Moto in Týnec.

THE YEAR 2017 AS SEEN BY AUTOSAP MEMBER FIRMS

- The firms' revenue in 2017 rose by more than 7 % and their exports by more than 6 %
- Altogether 1.4 million motor vehicles rolled off the lines
- The number of employees increased by nearly 6 %, to 126 000
- The average wage rose by more than 7 % to CZK 37 400

THE YEAR 2017 AS SEEN BY AUTOSAP MEMBER FIRMS

- The revenue of final stage manufacturers in 2017 rose by 10 %, the same as their exports
- The manufacture of road vehicles increased by 5.1 % year on year to 1 446 543
- Car manufacture in 2017 rose by 5.2 % to 1 413 881
- A massive increase was shown by truck manufacture, which increased by 11.7 % to 1 481
- Bus manufacture grew by 5.5 % to 4 631
- The production of motorcycles increased by 8.4 % to 1 331
- The production of trailers and semi-trailers increased by 2.1 % to 25 219

CHEMICALS, PHARMACEUTICALS, AND PLASTICS – PRODUCTS OF THE MOST ADVANCED CZECH ECONOMIC SECTORS

Chemical production is one of the most advanced and the fastest developing industrial sector, which holds an important position in the economy of the Czech Republic. The chemical industry has undergone a number of structural changes over the past 25 years, and at all times has maintained its important economic position. Chemical products are used in all sectors of the economy and the chemical sector is tightly linked with other branches of the manufacturing industry, such as plastics and rubber production, the textile and electronic industries, construction, the pulp and paper industry, the automotive industry, and other sectors which it supplies with important input raw materials.

In 2017, the performance of the chemical industry had a favourable effect on the country's domestic economy and foreign trade, which boosted the revenue of most chemical companies in the Czech Republic. Last year, all the three aggregations showed a fairly good growth in revenue, which ranged from under five per cent in section CZ Nace 20 – chemical industry – to more than eight per cent in CZ Nace 1 – pharmaceutical industry. Section CZ Nace 22 – rubber and plastics industry, too, was doing very well, benefiting from the continuing boom in some related sectors, especially in the automotive industry. In this sector, revenue rose by 6.3% year on year.

FAVOURABLE DEVELOPMENT OF THE SECTOR

In the chemical industry, the dominant group is 20.1 – manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary form (basic petrochemical industry, manufacture of inorganic and organic chemicals and polymers). This group includes ten of the largest chemical enterprises in the Czech Republic. In second place is group 20.5 – manufacture of explosives, detonators,

glues, aromatic essential oils, chemically transformed oils and fats, methyl-esters of fatty acids for motor drives, powders and pastes used in soldering and welding, auxiliary preparations for metal coating, additional cement preparations, active coal, lubricating oil additives, vulcanisation accelerators, catalysts, engine anti-knock preparations, defrosters, gearbox liquids and a number of other chemical products. Placed third is group 20.4 – soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations. The section is dominated by large enterprises, which in 2017 accounted for 67% of total revenue, 63% of value added and 54% of the total number of employees.

The pharmaceutical industry is one of the hi-tech manufacturing sectors and the most demanding as regards research and development, with large financial sums being invested in the development of new pharmaceuticals each year (usually 15-20 per cent of the annual revenue). Its production portfolio is very wide and consists of original drugs protected by patent and generic medications, whose patent protection has expired. In this country, due to high costs, the major manufacturers concentrate primarily on generics, where the Czech Republic is ranked among the world's top producers.

The Czech plastics industry has experienced a massive development in the past few years and its position within the manufacturing industry is strengthening. As a result of its tight links to the automotive, electrotechnical, packing and building industries, all items within the section CZ-NACE 22 have been growing in the past few years.





The prospects of this industrial sector lie in its good raw material base and supplier links with follow-up industries. The main commodity types within this industrial sector include: polyethylene (PE), polypropylene (PP), polyvinylchloride (PVC), and polystyrenes (PS/ EPS). Most of the manufacturing enterprises are part of supranational concerns. In general, the economic results of the chemical industry in 2017 can be summed up as follows: most industrial and financial indicators showed a growth in value in comparison with 2016. The number of workers in the different branches of the chemical industry under review rose by 3.8 % (+4 692), mainly due to the high increase in the rubber and plastics industry (+3 914 people); - chemical export grew by more than 7% in comparison with 2016, to CZK 424.8 billion, while import increased by a mere 4.3 % to CZK 568.3 billion. Due to this development, after years of growth, the strongly unfavourable balance of trade in chemical products has declined by CZK 4.4 billion to CZK -143.5 billion. In 2017, export accounted for 85.3 % of total revenue of the big chemistry sector – export perform-

ance – in comparison with 84.4 % in 2016. The highest export performance was shown by section CZ Nace 21 (178.1%) and the lowest in CZ Nace 22 (68.2%). A very favourable development in 2017 was shown by the accounting value added financial indicator, whose value in big chemistry rose by more than 14 % year on year to CZK 151.3 billion. An increase was recorded by all sectors, the most by CZ Nace 20 (+42.7%), mainly thanks to higher revenue in the chemical industry. Considering the aforementioned facts, the overall development of the sector can be valued very positively, with expectations that the results in 2018 will also be shown in black figures.

CHEMICAL FIRMS SECTOR DRIVEN BY INNOVATION

The Czech chemical industry has managed to cope successfully with the aftermath of the financial crisis in past years. The industry has optimised its product portfolios, made the necessary process and organisational changes and gathered impetus to swiftly respond to the newly arising opportunities in the world. SPOLCHEMIE – Spolek pro chemickou a hutní výrobu – a major Czech manufacturer of artificial resins, has started production in its new membrane electrolysis plant. This most up-to-date technology meets the legislative requirements of the European Union, in advance of their introduction. A unique feature of the new technology is that it makes it possible to manufacture simultaneously potassium hydroxide (SPOLCHEMIE is its only producer in Central and Eastern Europe) and sodium hydroxide. The company is one of the largest exporters in the Ústí Region and in the entire Czech Republic and has been a key European chemical industry player for more than 160 years. Unipetrol started the construction of a new polyethylene unit in Záluží. It is the largest investment project in the history of the Czech petrochemical industry. It will be put into

operation in spring 2019. Unipetrol is the most important refinery and petrochemical group in the Czech Republic and one of the main players in Central Europe. In the Czech Republic, it is the largest oil processing works and one of the most important plastics manufacturers. It owns a network of petrol stations operating under the Benzina trademark. In 2017, Spolana, a.s., Neratovice, closed down its obsolete amalgam electrolysis plant and started manufacturing PVC without the use of mercury. Spolana is the only manufacturer of PVC and caprolactam in the Czech Republic. It also makes high-quality industrial fertilisers and supplies inorganic compounds and other chemical products. Precheza, a.s., a major European manufacturer of high-quality titanium white and other inorganic pigments, is one of three titanium white manufacturers in the CEFTA countries. Titanium white is the company's core production and commercial article. Its sale accounts for about 86% of the company's total turnover. More than 90% of its sales is exported. Sythomer a.s. Sokolov has enlarged its production of acrylic acid and other chemicals. The company specialises in the production of acrylic acid and its esters, acrylic polymers. Its core products are acrylic monomers (70% of total revenue). Its main customers for acrylic monomers are manufacturers of dies and paints, building materials, flocculants, detergents, and super absorbents. A smaller proportion of its products goes into the fibre and plastics industry. DEZA, a.s. has modernised its hydrogenation refining plant. DEZA is the only company in Central Europe to process crude benzole and raw tar. SILON, s.r.o., is one of the five largest manufacturers of PES staple yarn and semi-finished products thereof. Half of its output goes into the automotive industry. Annually, the firm processes one billion PET bottles, which it imports from all over Europe. Half of its output is fibres and the other part, compounds, materials for further processing. Most of its products are exported to more than 30 countries.



PHARMACEUTICS – SHIFT TO GENERIC DRUGS

The Czech pharmaceutical sector comprises about 80 companies, most of them with foreign participation, according to the State Institute for Drug Control. These companies include Sanofi, Teva, Roche, Novartis, Baxter, Pfizer, Merck & Co., Janssen, GlaxoSmith-Kline, Takeda, and AbbVie. Innovative drug manufacturers are also present on the Czech market, but their activities are limited. The Czech Republic has become a discerning market in recent years. The

impact of recession in the Eurozone and the harmonisation of healthcare expenses with affordability are putting the actors in the market under considerable pressure. Owing to the high cost of innovative and patented medicines, the sale has shifted to generic drugs. Teva Czech Industries s.r.o., formerly known as Galena, is an important pharmaceutical manufacturer with a very long history. Its broad portfolio comprises generic medicinal products, especially antiasthmatics, cytostatics, immunosuppressives, hypolipidemics, antihypertensives, etc. – in the form of tablets, capsules and liquids, and over-the-counter medicines, active pharmaceutical ingredients (API), and plant extracts. The French pharmaceutical firm of Sanofi has opened the sale of its European generics division, Zentiva, by turning it into an independent company. Zentiva is based in Prague. It operates in more than 50 markets and has a strong position in Eastern Europe, especially in the Czech Republic, Slovakia, and Romania.

PLASTICS – STABLE SECTOR

The economic indicators of this segment of industry show that it is one of the most steadily developing manufacturing sections in the area of plastics production. The Czech plastics sector has built the position for itself of being one of the most important actors.

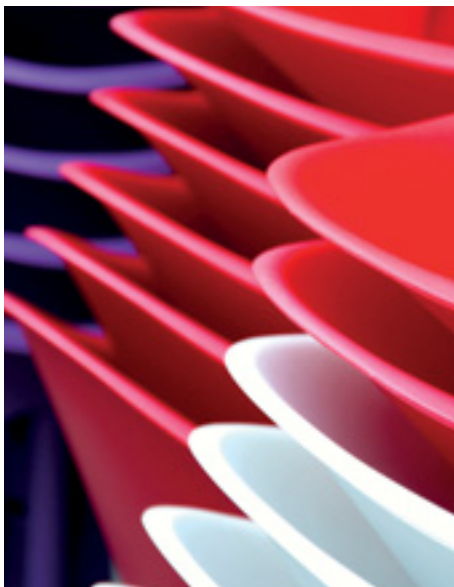
Major companies operating in the segment include Saar Gummi Czech, s.r.o. (SGC), one of the European leaders in car seal production, which is investing in the construction of its fifth new hall and the extension of production. It wants to use the new manufacturing facilities to make car seals for the new Škoda Octavia and Volkswagen Golf models, whose production will start in 2019. The company is one of the key manufacturers in the Saar Gummi group, owned by the Swiss CQLT concern since 2011.

In 2018, Continental Barum, s.r.o. opened a new production hall fitted with top Third Millennium Technologies equipment. The firm's core programme is tyre production and the production of car tyre moulds. It is one of the first manufacturers in the Czech Republic to make parts of steel moulds using 3D printing.

Fatra, a.s., a major Czech plastics processing firm (PVC, PE and PET) uses high-tech plastics processing



technologies in its production centres in Napajedla and Chropyně. Fatra, a.s. is also known as a manufacturer of the legendary inflatable toys designed by popular artists. The first Nexen Tire plant outside the Asian continent, Nexen Tire Europe, will soon open in the Czech Republic. It is located in the Triangle Industrial Park in North Bohemia near Žatec and will start operation in the first half of 2019. The factory will have its own research and development department. At first it will be testing products and later its activities will be extended to include the research of materials.



CHALLENGES FACING THE SECTOR

The Czech chemical industry has been globalised for quite some time already and is being increasingly controlled by automated systems. Industry 4.0 can be used as another opportunity to increase its competitiveness and productivity, and to raise the proportion of skilled work, including related activities (e.g. logistics) and the safety of chemical processes. It is important to collaborate, at the national as well as European level, in creating suitable conditions – the legal framework, regulation, standardisation, and cybernetic safety. The key objects of further development include additive production, sensors, and advanced technologies. Massive investment in science, research and innovation and the introduction of a foreseeable, less complicated regulatory system will be of key importance for the further development of Czech chemical industry. Also important for future development will be the terms and conditions of greenhouse gas emission trading. Here, it is necessary to ensure innovative human resources as a condition and motor force for Industry 4.0 and the support of education as an active instrument for using new opportunities.

The pharmaceutical industry is a sector with the highest proportion of investment in research and development derived from net revenue. Pharmaceutical firms invest nearly two billion crowns in the Czech Republic each year. Experts are agreed that in this respect the Czech Republic is drawing benefit from its geographic position in the heart of Europe, the forthcoming approach of physicians to clinical studies, the systematic keeping of healthcare documentation, and relatively low costs.

The Czech plastics industry sector has for years been an important booster of Czech economy and the manufacturing industry, mainly thanks to its close links to big clients, especially the automotive, electronic, and packing industries and construction, as well as other sectors. This industry is considered a forward-looking and dynamic sector of Czech economy, despite some of its less technologically advanced activities and branches (dominance of commodity plastics over engineering) in the European and global context.



We know
everything
about boron
chemistry

THE MAIN CLASSES OF OUR BORON COMPOUNDS:

- Carborane Clusters
- Borate and Carborate Clusters
- Borohydrides and Borodeuterides
- Borane Complexes
- Borazines
- Decaborane Cluster
- Boronic esters and acids
- COSANes

THE MAIN FIELDS OF USE OF OUR BORON COMPOUNDS:

- Boron Neutron Capture Therapy
- Semiconductor Industry
- Hydrogen Storage
- Electrolytes and Electrodes
- Anticorrosive Surface
- Extraction of ^{137}Cs and ^{90}Sr

KATCHEM - RESEARCH, DEVELOPMENT & PRODUCTION IN CHEMISTRY

Katchem spol. s r.o. is a modern, innovative company with a great potential. We develop new chemical technologies with a wide range of applications, based on our own research. Our work consists of laboratory synthesis and pilot plant production of customised chemicals. By transferring laboratory syntheses to pilot scale, we can explore and increase the potential uses of a wide range of products suitable for industrial or research purposes. Katchem production includes more than 200 borane products.

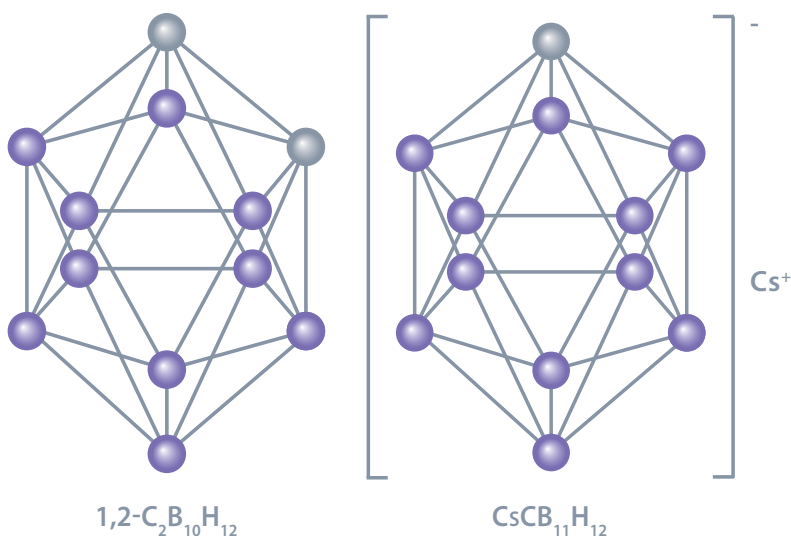
For several decades, Katchem spol. s r.o. has been devoted to research and the production of substances based on hydrides of boron. These substances have a wide range of applications in various fields, e.g. the chemical, electrochemical, and energy industries, as well as in medicine.

These compounds can be used as precursors for the formation of very hard layers based on boron nitrides, and also as substances that are used as a very stable extraction of the reagent in the processing of the irradiated elements from nuclear power plants. The

company has made substances such as BPA (bornofenylalanin) or BSH ($B_{12}H_{11}SH$)Na₂, which are used in medicine in the treatment of complicated malignant tumors (BNCT method), substances used for the doping of semiconducting substrates, or substances which can be used in the technologies of highly effective Li-batteries and energy storage.



Photo: pixabay.com



The company is largely dedicated to the tailored synthesis of these substances, especially for university and research laboratories worldwide. These substances are supplied mainly to frontier research laboratories in the EU, the USA, and Japan.

One of the most important activities of Katchem is the research, manufacturing, and sale of the original initiators for anionic polymerisation of lactams. The most successful product of this category is "DILACTAMATE-Katchem". Its use is widespread not only in EU countries, but also in Asia, America, and Africa.

CZECH MEDICAL AND SANITARY WARE CONQUERS THE WORLD

The manufacture of medical and sanitary devices has a long and very successful tradition in the Czech Republic. This is evidenced by the large number of Czech international patents and innovative products, such as polarographs, contact lenses and biodegradable stents.

The Czech Republic can pride itself on the high quality of the final products it exports, such as medical beds, chairs, and other medical devices and implants. One of the world's largest production lines making high-standard hospital beds is to be found in the Czech Republic. Global success is also recorded by a Czech microscope manufacturer. Owing to the small size of the Czech domestic market, most healthcare product manufacturers have had to seek outlets for their products in other countries and have therefore become strongly export-oriented. This applies especially to products coming under the CZ-NACE 32.5 group (manufacture of medical and dental instruments and supplies), which accounts for more than 27% of the foreign trade turnover of the section.

The portfolio of medical devices is most wide-ranging. It comprises some 500 000 items, from dressing material to orthopaedic implants and cardio stimulators. The firms often do their own research and innovate their products, which leads to great technical improvements and innovative products allowing the use of new methods of treatment. The manufacturers of medical devices are aware that practical medicine cannot do without technical means. Physicians themselves say that progress in medicine requires innovation and the use of special devices, such as imaging systems, devices and instruments for microsurgery and computing. That is why manufacturers increasingly focus on new technologies, such as nanotechnology and microsystems, for the building of instruments, equipment for the minimisation of invasive methods, information technologies, urgent medicine, cardiosurgery, and other sectors of modern medicine. To attain these objectives, firms collaborate with university research workplaces and medical specialists and hospitals.

EMPHASIS ON QUALITY

Many of the successful Czech exporters are members of the Association of Manufacturers and Suppliers of Medical Devices. The members of the Association collaborate with a number of research laboratories of Czech universities, for example, the Czech Technical University in Prague, the Technical University in Brno, Tomáš Baťa University in Zlín, and Masaryk University in Brno. This testifies to the care which Czech manufacturers give to the quality, technical standards, and competitiveness of their products. The members of the Association of Manufacturers and Suppliers of Medical Devices (AVDZ) employ nearly 9 000 people. Their annual turnover amounts to CZK 19 billion. They export more than 40% of their output, and some of them even more than 80%. Another organisation is CzechMed, the Czech Association of Manufacturers and Suppliers of Medical Devices, which is also a member of the European association representing the medical technology industry, MedTech Europe, as well as CZEDMA, the Czech Association of In Vitro Diagnostic Medical Manufacturers and Suppliers. Export trade in medical devices is showing a favourable balance. Linet is the leading supplier of healthcare and nursing care products. The firm bought a majority share in the Borcad Medical Company, whereby it enlarged its range of beds, to which it added maternity and gynaecological beds and dialysis chairs. For example, in March 2018, Linet turned out 7 000 beds and mattresses. Much in demand were beds of the highest category designed for intensive care. The firm exports its products to all parts of the world. Its clients are, for example, firms in the UK, Romania and Indonesia, in addition to the Czech Republic. Linet is not the only Czech firm which is doing well in foreign markets. These firms are mostly companies whose production is closely linked with



Photo: LINET archives



VUP Medical, a.s. is a Czech manufacturer of **knitted vascular prostheses, hernia meshes** and other implantable and non-implantable medical devices.

The company participates in the continuous **innovation and development** of new medical devices in cooperation with leading Czech universities and surgeons. This has helped to rank the company among world's leading manufacturers of special implantable and non-implantable medical devices with excellent reputation for **more than 60 years**.

The whole production process is ensured by an internal team of professionals with own and unique production technologies. The products of VUP Medical are distributed in the local market and in more than 30 countries around the world.



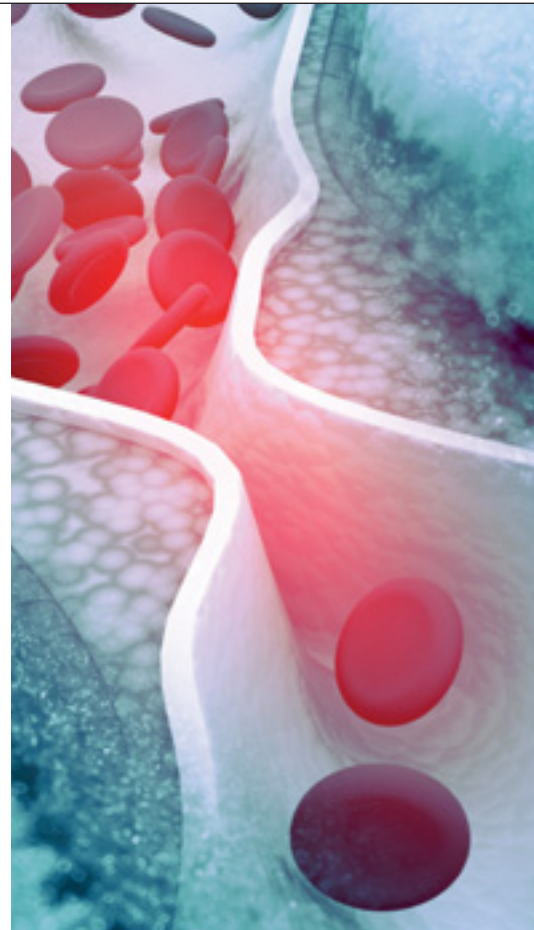
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their own development, which indicates the way of winning over rival firms. For example, Ella-CS has developed and is manufacturing degradable reinforcement supports for the digestive tract. On the basis of its own development, BMT Brno supplies a wide range of steam, hot-air, and chemical sterilisers, laboratory driers and incubators. ING corporation devotes itself to the development, manufacture, and sale in the area of orthotics and prosthetics. BTL develops and manufactures devices for physical therapy, such as electrotherapy and ultrasound examination, lasers, magnetotherapy and lymph drainage devices and other products. Ego Zlín is an important manufacturer and supplier of complete biological protection systems, logistic and decontamination systems and devices for urgent medicine and long-term care. MZ Liberec designs, manufactures, and installs medicinal and technical gas distribution systems and equipment for operating theatres.

THE FUTURE OF THE SECTOR

To find new markets and trade partners in other countries and to strengthen col-

laboration with them, the firms participate in foreign trade fairs with state participation. Their traditional and regular venues are the fairs Medical Düsseldorf and Arab Health in Dubai. Small manufacturers of medical devices also use various programmes supporting participation in international trade fairs, such as the NOVUM programme. A very popular form of support among medical device manufacturers in recent years have been the PROPED economic diplomacy projects of the Ministry of Foreign Affairs. The export of medical devices is subject to a number of specific and demanding conditions, from the need to have highly skilled and trained distributors of their products, who have the capability of communicating with local healthcare establishments, to obtaining the required certificates in the country concerned, which is often a rather complicated and expensive process. Well-targeted projects can help promote exports even under these demanding conditions. Today, a number of our firms have affiliations in other countries, through which they foster their exports. In the past few years, some of the firms have succeeded in making deliveries of investment units, such as hospitals and other healthcare facilities. In this area, they use the services of the Czech Export Guarantee and Insurance Corporation (EGAP) and the Czech Export Bank.(CEB). Currently, the most important field of collaboration with the Ministry of Industry and Trade (MIT) is legislation concerning healthcare devices, where MIT acts as a supervisory and control body. In 2017, after about eight years of debate, new regulations were adopted, which introduce stricter conditions for both manufacturers and notified persons, to control whether the manufacturing processes, on the part of medical device manufacturers, comply with the regulations, after which a certificate is issued to this effect to the manufacturer. No manufacturer may place their products on the market without such a certificate.

SUCCESSFUL DEVELOPMENT OF RAIL TRANSPORT

The present successful development of rail transport has been enabled thanks to more than 200 years of traditional development of the Czech railway industry. The former ČKD and ŠKODA plants, together with a range of other manufacturers, have always been at the top of their professions. The quality of their products can be shown through the large export.

This long-standing tradition is successfully linked to the present representatives of the Czech railway industry, who do not rely only on tradition but invest significantly in the development of new products, in the purchase of high technologies and renewal of production areas. This technological innovation is a necessity to ensure the competitiveness of this industrial branch.

ACRI has been representing the Czech rail manufacturing industry since 1995.

ACRI represents the joint interests of the railway supply industry on behalf of Czech institutions, rail operators, rail infrastructure managers and, via its membership in UNIFE, also on behalf of EU institutions. ACRI is the unique Centre of Technical Standardisation acting in the railway sector, involved in the transfer of European technical standards to the Czech national standards system.

The Association represents 50 Czech companies, significant manufacturers and suppliers of products and services for rail transport. It represents engineering, design, manufacture, maintenance and refurbishment of rolling stock, infrastructure, signalling, and other services. ACRI members currently employ more than 21 000 people in the Czech Republic and their annual turnover is more than 3.5 EUR billion, of which exports account for more than 56 %.

Our vision: The Czech Railway Industry – a profit-making, flexible, and highly technically developed sector with many years' tradition, actively participating in employment, economic growth, and development of the transport system in the Czech Republic and worldwide.

CZECH RAILWAY INDUSTRY – SUCCESS STORIES

■ ROLLING STOCK

ŠKODA TRANSPORTATION offers the solution for the production and development of low-floor trams, trolleybuses and hybrid vehicles for ecological urban public transport. The company is also focused on the production of locomotives and trains of various concepts.

Škoda Transportation focuses on the improvement and prediction of critical properties for future products, such as noise resistance, safety of traction drives, electromagnetic and thermal calculations, and the subsequent optimisation of engines. Results of the research are products with pivoting bogies which have low-energy electric wheel drives, thus reducing the maintenance costs of vehicles and infrastructure. Škoda has a technology workplace for the development of synchronous motors with permanent magnets – which are a vital part of the traction drive of the ForCity Alfa tram. These motors are world leaders and enable the construction of low-bed pivoting bogies with a direct drive (without a gearbox). Each traction motor is individually controlled from its own inverter, and this allows the movements to be individually controlled for each wheel. Each traction container is designed for one traction bogie and represents the total utilisation of current high-performance electronics. By means of quick communication, it is possible to optimise passes through a curve and achieve increased safety when driving through a curve.

A series of technologically innovative products is gradually coming into serial production. The main innovations in this direction

include a traction drive for a three-system Emil Zátopek locomotive, which places extraordinary demands on power electronics. Traction converters must adapt to the three-power systems. The most difficult part of the research concerns electromagnetic compatibility and the suppression of interference of the railway interlocking system in all countries where this vehicle is to be operated.

CZ LOKO is a reliable partner for railway transporters in terms of construction, modernisation, repairs and maintenance of diesel locomotives and special railway vehicles.

■ SIGNALLING

AŽD Praha company is a significant manufacturer and supplier of signalling, telecommunication, information, and automation technologies. It is mainly focused on the rail and road transport field, including telematics and other technologies.

■ COMPONENTS

GHH-BONATRANS – premium supplier of railway wheelsets and their parts. This is a company with a history of more than 200 years, with delivery footprints in more than 80 countries worldwide. It represents an impressive part of the history of wheelset design and manufacture. Generations of true experts continuously contribute to the evolution of the wheelset. Respecting the past but looking ahead, the pioneers of wheelset manufacture produce premium solutions for the railways of the world.

The development and manufacture of brake systems for metro vehicles has been a major part of **DAKO-CZ** activities.

PARS KOMPONENTY has extensive experience in the manufacture of automatic plug doors, electric sliding doors, swing doors for drivers and inter-vehicle wing doors, in addition to tilting and fixed windows for subways and suburban trains, offering high-technology products for the most demanding



clients and railway applications. **ŠKODA ELECTRIC** offers development, production, and integration of the propulsion and control systems for various rail vehicles i.e. Metros, locomotives, EMUs, low-floor trams, trolleybuses, and battery vehicles for environmentally friendly public transport. Škoda Electric also has experience with PMSM motors, SiC semiconductors, TCMS and system integration, so is a reliable partner and technology leader in the field of the propulsion system for rail vehicles. **AMiT** is a supplier of industrial electronics and reliable solutions for public and mass transportation, industrial automation and building automation. AMiT Transportation is among the most important players in Central Europe in the field of the development and production of control systems for transportation, mainly for railways and rolling stock.

PROSPECTS FOR THE CZECH RAILWAY INDUSTRY

The Czech railway industry has tremendous potential. Investment in this sector will have a multiple effect on

domestic economic development. Specifically, it will have a favourable impact on employment, will improve the quality of transport services and lead to a higher culture of travel, while also raising the export performance of enterprises. In general, Czech railways will require considerable investments in the next few years to attain the desired standards. In particular, this means investment in the development of railway infrastructure, in addition to the completion of the railway corridors and the modernisation of key railway junctions. We must also not forget about regional railway lines. To be competitive, we must fit the main corridors with the ERTMS/ETCS European train control system, modernise freight corridors passing through the Czech Republic, harmonise the costs of all types of transport, invest in the modernisation and purchase of new carriages and, last but not least, start preparations for the construction of high-speed lines that will make the conventional lines available for freight transport.

MARIE VOPÁLENSKÁ
Association of Czech Railway Industry
E-mail: vopalenska@acri.cz

PROMISING SECTORS WITH A HIGH ADDED VALUE

- tradition of Czech industrial manufacture lasting more than 200 years
- the densest railway network in Europe
- every 6th Czech commutes to work by train (CER Yearbook)
- the railway is a meaningful, ecological, and economic alternative to road transport

TOP QUALITY AND EXQUISITE DESIGN OF BOHEMIA GLASS AND CERAMICS

Glass- and ceramics-making is a traditional sector of the Czech manufacturing industry. And it is doing well. Over the past five years, the revenue of glassmaking firms rose by 20 %, to CZK 45.26 billion in 2017. Firms are investing in the modernisation of production and the development and manufacture of higher value-added products. This sector is facing keen global competition, which Czech firms are dealing with successfully with the high quality, innovative and exquisite design and originality of their products.

In 2017, revenue from the sale of own products and services amounted to CZK 50.8 billion, 4.4 % more than in 2016 and CZK 1 billion more than in 2008, when the economic crisis began. Currently the sector employs 24 000 people. Further increase in the firms' production is impeded by labour shortage, a problem also worrying other sectors of industry and services in the Czech Republic. Average wages in 2018 amounted to CZK 28 593 per month (in some manufacturing sectors up to CZK 35 000). In 2018, wages within the sector were massively increased. The development of the sector is strongly influenced by the global economic and political situation. Most of the Czech glass and ceramics output (80-90 %) is exported, 70 % of which go to EU countries. In 2017, the volume of total exports increased by 5.2 % in comparison with 2016, to CZK 48.8 billion. Most firms making utility glass, costume jewellery, porcelain and ceramics export their products to more than 80 countries worldwide, while seeking ever new markets and strengthening their position in the existing ones.

ECONOMIC RESULTS FOR 2017:

- 10 firms manufacturing glass and glass products
- 33 firms manufacturing ceramics and porcelain
- Average registered number of workers: 23 500
- Revenue from the sale of own products and services: CZK 50.8 billion
- Total exports: CZK 48.8 billion
- 70 % of exports go to EU states

FLAT GLASS

The only manufacturer of large-size flat glass sheets in the Czech Republic is AGC Flat Glass Czech, a.s., a member of the AGC Group based in Teplice. This company is currently the largest manufacturer of flat glass and its applications in Central and Eastern Europe.

PACKING GLASS

Packing glass production comprises beverage bottles and canned glass made for the food industry (beer, wine, liqueurs, non-alcoholic beverages, mineral waters, fruit juice, etc.) and glass containers for products of the chemical, pharmaceutical, and cosmetics industries. The dominant manufacturers of packing glass in the Czech Republic are the companies of O-I Manufacturing Czech Republic, a.s. with the sales company, O-I Sales and Distribution Czech Republic, s.r.o., and Dubí u Teplic, which are members of the Owens-Illinois (USA) supranational group, and VETROPACK MORAVIA GLASS, a.s., Kyjov, part of the Vetropack Holding AG group. Other packing glass manufacturers in the Czech Republic are SKLÁRNÝ MORAVIA, a.s., Úsobrno and STÖLZLE – UNION, s.r.o., Heřmanova Huť.

GLASS FIBRES AND PRODUCTS THEREOF

The only manufacturer of textile glass fibres and products thereof in the Czech Republic is Saint-Gobain ADFORS CZ, s.r.o., Litomyšl. The company manufactures primary glass fibres and glass products for composite materials, such as glass fibre yarns, glass fibre roving (long filament) for cutting, weaving and winding, and drawn profiles reinforced by glass fibres, cut glass fibre strands and mats. Glass fibres are also used to make a number of different types of technical fabrics, grid glass fibre fabrics, glass fibre wallpaper and non-woven fabrics. The only Czech manufacturer of thermal and sound insulation materials using glass fibres in the form of mats and boards (coming under the ROTAFLEX Super trademark) is Union Lesní Brána, a.s. in Dubí u Teplic. Insulation material, based on glass wool in the form of boards and rolls, is made by KNAUF INSULATION, spol. s.r.o., in Krupka u Teplic.

UTILITY GLASS

There is a number of smaller firms making a wide range of glass products, such as Crystalex CZ, s.r.o., Crystal Bohemia, a.s. KavalierGlass, s.r.o., and Crystalite Bohemia, s.r.o., decorated by paint and pen-and-ink drawing, high enamel and engraving, handmade utility glass, historical replicas and metallurgical glass, e.g. AJETO, s.r.o., Lindava, Rückl CRYSTAL, a.s., Nižbor Blažek Glass, s.r.o., Poděbrady, CAESAR CRYSTAL BOHEMIAE, a.s., Světlá nad Sázavou, SKLÁRNA SLAVIA, s.r.o., Nový Bor, Královská Huť, s.r.o., Doksy, EGERMANN, s.r.o., Nový Bor, and JADI, s.r.o., Jablonec nad Nisou. Pressed and blown decorated drinking glass is made by Sklárna Heřmanova Huť, a.s., while exclusive, handmade utility glass is produced by Moser, a.s., Karlovy Vary.



MERRY CRYSTALS



- The Merry Crystals company offers traditional handmade Bohemian crystal in quality 24 % PbO Titanium. In conjunction with this new proprietary technology and the skills of our glassmakers, decorators, cutters and engravers, we can reach a unique optical quality in our products.
- Our new 2019 collection introduces wholly new colour shades in unique shapes and novel decorations, which combine a deep cut with a precise graver skill. There is also designed a new engraved gold collection.
- We are inspired by the history which is presented in a new lite modern design.
- We offer a wide range of a luxurious utility crystal products – the whole range of tableware like wine sets, whisky sets, aperitif sets, bowls, vases, doses. Everything is available in clear crystal, also in violet and pink shades or in engraved gold workmanship.
- We work with designers to create and produce luxurious lights, crystal sculptures, sport trophies and designed domestic crystal products.

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OTHER KINDS OF GLASS

The range of this category of glass made in the Czech Republic is very wide. It comprises technical and laboratory glass, technical balls, industrial glass appliances, protective welding glass and optical glass, in addition to the production of glass building blocks, costume jewellery, semi-finished products, and lighting glass. The dominant Czech manufacturer of technical and laboratory glass, tubes and apparatus made of borosilicate glass, is KavalierGlass, a.s. (formerly Sklárny Kavalier, a.s.), Sázava. Technical and laboratory glass is also made by TECHNOSKLO, s.r.o., Držkov, EXATHERM, s.r.o., Železný Brod (glass thermometers and hydrometers), Vitrum, spol. s r.o., Sklárna Janov, and other smaller firms. The best-known optical glass manufacturers are, for example, EcoGlass, s.r.o., Jablonec nad Nisou, which is concerned with the production of precision pressed optical glass components for electro-optical instruments, and BOHEMIA OPTIK, s.r.o., Mařenice u České Lípy, a manufacturer of optical components and systems.

FURNACES, MACHINERY AND EQUIPMENT, AND TECHNICAL SERVICES FOR THE GLASS INDUSTRY.

At present, there are about 40 to 50 independent firms in the Czech Republic which manufacture and supply furnaces, machinery and equipment, glass moulds and instruments used for the production of glass, and firms providing services, projection, and other technical and consulting work for this sector. These firms are of different sizes and have different production programmes. Companies pursuing independent production and commercial activities exceeding the bounds of the Czech Republic include manufacturers of machinery and equipment, such as Sklostroj Turnov CZ, s.r.o. making machines and equipment for automatic packing glass production, SKLOPAN LIBEREC, a.s., which specialises in the construction of machines for flat glass working, SKLÁŘSKÉ STROJE Znojmo, s.r.o., supplying various glassmaking machines, and TRIM, s.r.o., Turnov, a specialist in the manufacture of machines for glass fibre production and processing.

RAW MATERIALS FOR THE GLASS INDUSTRY

The long tradition of glassmaking and its development in the Czech Republic is based, besides other factors, on the sufficient supply of raw materials, i.e. sand, kaolin, feldspar, and silica. The high quality glass sands with an extremely high SiO₂ content are excellent materials for the glassmaking industry and for various other uses in different sectors. The sands are supplied in either wet or dry form. In the Czech Republic, these sands are mined and supplied by Provodínské písky, a.s., Provodín, and Sklopísek Střeleč, a.s., Mladějov v Čechách. Kaolin mining and dressing is the core programme of the companies



of LB MINERALS, s.r.o., Sedlecký kaolin, a.s., Božičany, and Kaolin Hlubany, a.s., Podbořany. In addition to kaolin mining and dressing, LB MINERALS, s.r.o., is also concerned with feldspar mining and dressing.

AUTOMATION ON THE RISE

The Czech glassmaking industry is a sector with the highest degree of automation. In the past few years, it has increasingly been incorporating robots in its production lines. The industrial sector with the highest level of automation is packing glass production. "The human hand first touches our products practically no sooner than when they are used, and our plan is also to introduce robots in other manufacturing sections. In our plant in Kyjov, for example, we are using a greasing robot," says Milan Kucharčík, Member of the Board of Vetropack Moravia Glass, the Czech Republic's number two in the packing glass manufacturing sector. The robot has replaced a mechanic, whose job was bottle mould greasing. Vetropack is currently working on the robotisation and digitalisation of administration work and processes.

In 2014, AGC Flat Glass Czech invested CZK 1 billion in the installation of the globally most advanced glassmaking technology. In its processing plant in Teplice, in the first phase of the modernisation programme, it installed a new hardening furnace and other equipment for the follow-up processing of glass worth CZK 155 million. In 2018, Preciosa Group launched the production of Vinolok glass bottle stoppers in its new manufacturing plant. The stoppers are a replacement for cork and plastic wine and liqueur bottle closures. The Vinolok stopper is a typical product with greater value added. Thanks to the new product, the firm expects its revenue to more than double within five years in comparison with last year's figures.

Another firm which bets on specialised production is EcoGlass, a manufacturer of optical elements for lighting appliances. Its glass lenses and parts are used in airport navigation systems, luxury car headlights, and concentration solar power plants.

INNOVATION AND ORIGINALITY OF CZECH MANUFACTURERS

The firm Lasvit, founded by Leon



NEWTE®

The sophisticated appliance for the automatic measuring of the flat stress within the glass sheet.

The Stresster 6 presents an up-to-date appliance for the automatic measuring of the flat stress within the glass sheets. This measuring allows determining of the curve of the flat stress and temperature in relation to the width of the glass sample. The sample to be measured is one glass sheet intended for measuring; this one is obtained from the production line and chilled to the ambient temperature. The glass sheet is positioned below the stress measuring appliance and aligned into the position for measuring. The flat stress and temperature are measured in a number of points across the width of glass sample. The stress vector being measured has the orientation of the glass-flow on the production line. The stress measuring appliance is designed for the glass samples having maximum length of 7000 mm and width from 1200 mm to 5600 mm, with the thickness from 1,6 mm to 12 mm. The Stresster 6 provides for very accurate measuring of the stress with guaranteed repeatability, even for the patterned glass or wire-armoured glass. The appliance may be regularly calibrated, and it is always possible to create an appropriate Report on calibration.

The optical system proceeds across the glass sample's width and the values of temperature and stress are scanned in preset distances. When scanning the stress within the glass sample, no darkening of the room is necessary and both the operator and appliance operates under normal working conditions. After the scanning of the temperature and stress values has been completed, the measured values are displayed and recorded both numerically and graphically.

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Jakimič in 2007, specialises in the manufacture and installation of lighting fixtures, glass artworks, art elements and objects. Its collections, winners of a number of prizes, have made a breakthrough in the world of design and revived the famous Czech glassmaking tradition. The company's aspirations are to create exquisite lighting fixtures and glass objects for a discerning clientele all over the world. Lasvit has added new freshness to its products and started a new era of Czech glassmaking. For example, in 2018 LASVIT scored success with its exposition at the Week of Design Exhibition in Milan, where it won the main prize, the Milano Design Award. According to the Jury, the exposition "rendered the best interpretation of current design and presented the conceptual vision of the future." Original glass installations and sculptures bearing the Lasvit trademark are to be seen in public places and spaces of prestigious hotel chains and business complexes (e.g. The Ritz-Carlton Residences in Singapore, Hyatt Capital Gate in Abu Dhabi, The Shangri-La

Bosphorus in Istanbul, Four Seasons in Moscow, Quadrio in Prague, Sake No Hana Restaurant in London, The New York Palace Hotel, etc.), as well as in luxury and private residences all over the world.

One of the best known designers in the Czech Republic is Rony Plesl, famous for his innovative glass design and interesting stone sculptures, as well as interior designs and drawings. Currently Plesl's attention is focused on uranium glass, the production of which has been suspended in most European glassworks. His works are to be found all over the world, including, for example at Walt Disney World, where many glass sculptures by Rony Plesl are installed, and in Hamburg, Germany, where a glass tower designed by Plesl is to be seen.

Martin Janecký is a real master of glass art. No one else in the world has created such amazing glass sculptures as he has. He is what we could call a glassmaker-cum-sculptor. He needs no moulds to make the wonderful objects – he simply shapes the blown-out glowing matter by hand. He is represented by one of the most prestigious galleries in the USA and his works are gems in Elton John's collection.

Bomma is really one of the few glassworks in operation, if not the only one, which came into being in the Czech Republic after 1989. It was built at Světlá nad Sázavou and at that time employed workers from a nearby glassworks, which had closed down after a century-long glassmaking history. Bomma opened in June 2012 as a manufacturer of modern crystal drinking and decorative glass with robotic decor, designed for it by famous artists, such as Arik Levy, Maxim Velčovský, Olgoj Chorchoj, Rony Plesl, Jiří Pelcl, and František Vizner, and studios such as Koncern and DeForm. A few years ago, the glassworks started the production of lighting fixtures.

COMPETITIVENESS OF CZECH FOOD INDUSTRY

Food production is a traditional manufacturing sector of Czech industry of strategic importance. Its importance is augmented by the fact that its products provide livelihood for the population. Great emphasis is placed on the required quality and quantity and, in the basic foods category, also on self-sufficiency.

The decisive part of production, especially as regards the leading and larger firms, is based on industrial processing using digitalisation and robotisation. These companies are predominantly owned by foreign capital. Some of the smaller companies still rely on craft production and place their products on local markets. Most sales of the bigger companies are realised through retail chains. Food is sold either over the counter, or it can be ordered from e-shops; the latter choice is becoming increasingly popular and is linked with the logistic system using modern warehousing systems.

DEVELOPMENT OF THE SECTOR

The supply of food is extremely wide-ranging, from fresh foods with a short shelf life to durable products. Also in supply are eco- and farm products. Food production is divided according to the way the agrarian raw materials are processed, so that the structure of the CZ-NACE 10 section is relatively complicated. The basic division is into vegetable and animal production. The development of the sector depends primarily on the situation in the key sections. Animal production includes meat processing and preserving and the manufacture of meat products, the assortment of which is continuously expanding, with its durability being extended. Over the years, meat production has been showing a declining trend. This concerns beef, the production of which, together with veal, amounted to 67 714 tonnes in 2017, 5.9 % less than in the previous year. Therefore, the demand had to be compensated for by import. The main type of meat, pork, which is a traditional meat used in Czech cuisine and the prevailing kind of meat contained in meat products, in 2017 amounted to 211 001 tonnes, 4.2 % less year on year. That is why the authorities concerned decided to support the restructuring of meat production and strengthen its competitiveness. The support is targeted especially at pig rearing, from both national and EU resources. This signifies investment in technologies and the improvement of animals' living conditions. Poultry meat and other kinds of meat are becoming increasingly popular. In 2017, its production slightly



increased, to 158 906 tonnes (+1.5 %). Mutton and rabbit meat are less popular and their production is relatively low. Consumers prefer fresh meat, as shown by a recent survey. Milk and dairy produce production fluctuates from year to year, mainly due to the excessive piling of these products and changes in consumer preferences. The dairy sector in the Czech Republic, which is relatively closely linked with the world market, has experienced a complicated period recently. The situation in the milk market, including cream and butter, has become stabilised to a certain extent. A key group dependent on vegetable agrarian production is that comprising bakeries, confectioneries, and other flour product manufacturers. Bakery production belongs to the fast-moving goods category and bread and bakery production to the everyday consumption goods category. The nutritive value of these products is linked with their roughage content. The current structure of bakery production, including bread, is very broad. Its production is declining, the same as the production of other bakery products. The current trend is the growing proportion of packed goods in this group, which of course has an impact on the costs. The above-mentioned group forms an important base for all sizes of enterprises with more than 40 % of units within the sector scattered all over the Czech Republic. With its 30 % share of the total number of people working in this section, the group is an important employer. This proportion, however, is declining on a long-term basis and is showing a shortage of apprentices, a trend which also applies to other food industry sectors. Other groups mentioned above, although not of key importance, are a utility value, playing an important role in the food market.

PROSPECTS OF THE SECTOR

Food production is a relatively large section consisting of a number of branches related to agriculture. Its key



role rests primarily in the production and supply of foods intended to feed the population. Foodstuff is supplied mainly to the domestic market, but the export of some of it is also important. The food marking system makes it possible for consumers to see what food they are buying. Under Czech legislation, food products must feature information about the origin of the foods and when they can use the “Czech Food” label. Certain high-quality foods are entitled to use the KLASA national label, while local specialties may use the Regional Food label. As a means of protection, Czech and EU foods of extraordinary quality may use a special trademark – protected designation of origin, protected geographical indication, or guaranteed traditional specialty indication. The latest Czech product to have won this indication is “Prague Ham”. The prospects of the section should be based on the main strategic priorities, specifically higher self-sufficiency, greater competitiveness and efficiency of food production, food safety and consumer protection. For the Czech Republic, a country with an open economy, it would be desirable to strengthen the

ties of manufacturers with the local farming sector. As regards sustainable development, this will require a friendlier approach to the environment, which also involves Industry 4.0 issues and the need to reduce energy intensiveness and the creation of intelligent food industry logistics. With the oncoming digitalisation, firms will be able to react more promptly to the changing demand for food, both as regards mass production and local artisan firms.

EXAMPLES OF SUCCESSFUL SECTORS IN THE FOOD INDUSTRY

■ The Popularity of Czech Lager Is also Growing in Other Countries

Brewing is a traditional sector of the Czech economy. The best visible asset of the Czech brewing business is employment generated by the breweries and the amount of taxes returned to the state budget. Breweries pay considerable sums of money into the budget, which amount to approx. CZK 12 billion each year. The overall economic significance of this sector exceeds its limits and extends into areas such as agriculture, logistics, and water supply engineering, as well as catering, retail sale, and public administration. Beer production also supports suppliers in the area of all its inputs, and is itself an important purchaser of products supplied by Czech farmers. Our sector also plays an important role in providing work opportunities: 1 position in the brewing industry creates 1 job on the part of the supplier; 4.5 jobs in catering, 3 in retail trade and 2.3 jobs in other related sectors. Czech breweries are currently experiencing a great season, as the foreign interest in Czech beer increases. Looking at this year’s January to August statistics in 2018, we can be optimistic seeing that the beer output has increased by 2 % year on year. The main trend is the continuing popularity of the lagers. On the other hand, the difference between the quantity of the beer consumed in Czech pubs and restaurants and that consumed at home once again increased at the expense of the former. The Czech Beer and Malt Association



estimates that, at the end of the year 2018, the proportion may be 37 to 63 percent in favour of packed beer consumption. At the end of year 2017, the proportion was 38 to 62 percent.

The popularity of Czech lager is growing not only at home, but also in other countries, where its consumption increased by 17%, practically the most of all the beer categories. Czech lager of the Pilsner type has an exceptional property, which no other beer in the world can boast, and that is its high drinkability, confirmed by a number of research studies. Beer exports are increasing in all their forms and, as a result, the number of pubs in foreign countries serving Czech-type beer keeps growing. This trend is following two directions which often overlap. The first is that domestic breweries are expanding with their brand pubs to foreign countries, often in the form of franchises or some other kind of collaboration with pub managers. The other trend which is spreading from the Czech Republic to other European countries, is tank beer.

The interest of brewers to export Czech beer is growing from year to year. From January to August year 2018, beer exports increased by 16% year on year. We export to 26 EU countries. Our traditionally largest clients are our neighbours, i.e. Slovakia, Germany and Poland. In addition, we export beer to another 68 states outside the EU. The largest importer among them is Russia, followed by the Republic of Korea, the USA, Serbia and Canada.

■ Czech Wines and Sparkling Wines have a Well Deserved Place in the World Market

In Bohemia, viniculture has a history of more than 1 000 years and in Moravia its history goes back nearly two millennia. The production potential of vineyards in the Czech Republic is 19 633.45 ha, while the actual cultivated surface area is 17 198.05 ha. The Czech Republic has two wine-growing regions – Moravia and Bohemia – which are divided into six sub-regions. These comprise 384 wine-growing communities cultivating 17 678 hectares of land with 1 278 vineyards and some 18 000 vintners. Most of the vineyards, about 96% of them, are to be found in Moravia, the remaining 4% are situated in Bohemia. Sixty-nine per cent of the total vineyard

area is planted with white varieties. There are around 850 registered vintners, ranging from large firms down to small family units and thousands of small private vintners.

Wine production in the Czech Republic is dominated by white wines (Müller Thurgau, Veltlíner Green, Welsh Riesling varieties), because the alternation of cold nights and warm days during harvesting leads to the creation of very interesting aromatic substances in those wines. Although the surface area of our vineyards is relatively small in comparison with foreign regions, the array of the wine flavours is surprisingly wide, mainly due to the specific climatic conditions and subsoils in the regions. For example, the Mikulov vineyards produce perhaps the best Welsh Riesling, while the Bzenec area is known for its unique Rhine Riesling. Aromatic red wines, such as Tramín, Pálava and Moravian Muscat, are also doing well and are frequently praised by foreign sommeliers. They especially appreciate their lightness and good drinking properties, which is a rare feature of southern red wines. Worth mentioning are red wines from the Velké Bílovice wine-growing community. Although wine exports are growing, it must be pointed out that the size of these exports is limited by the country's production potential. Wine grow-

ers lack the motivation to export – all wines produced in the Czech Republic are easily sold at home. As regards wine export, most of the wines are exported to neighbouring Slovakia. In the past few years, however, growing interest in importing Czech and Moravian wines has been shown by China. The potential of the Chinese market is tempting for many vintners worldwide, as wine has become increasingly popular in China in recent years.

There is a countless number of foreign competitions where at least one Czech wine has won a medal, which is very pleasing for us. This year, for example, our wine producers scored great success at Vinalies Internationales in Paris, when they carried away 16 Gold and 22 Silver Medals. Also worth mentioning is the International Wine Challenge in London and contests focusing on just one wine style. Our wines have won awards, for example, at the Mondial du Rosé World Championship in Cannes and the Champagne and Sparkling Wine World Championships. As can be seen, our still and sparkling wines occupy a well deserved place in the world market, increasingly winning the hearts of international sommeliers. This supports the claim that Moravian and Czech



wine producers are doing their work well.

The wine tourism phenomenon has also reached the Czech Republic, and has become increasingly popular over the past few years. Spending a holiday in South Moravia is the dream of all wine lovers. Wine tourism reveals how wine growers maintain contact and support each other. Instead of rivalry and competitive in-fighting, the prevailing spirit is mutual collaboration and assistance. This is shown, for example, by the large number of local vintners' associations and cooperating communities working together to prepare unique entertainment for Czech and foreign tourists. The opening of wine cellars in different communities is worth mentioning, where special programmes and of course tasting of the best local wines are arranged for visitors. The tradition was initiated by Velké Bílovice, where the "From Wine Cellar to Wine Cellar" event attracts tens of thousands of visitors each year. Grape harvest festivals are also popular, held at the end of August or in the course of September, at a time when harvesting is in full swing. However, visitors will find entertainment not only during special events. There is a dense network of cycle paths in South Moravia, which lead along the vineyards, with many wine cellars open all the year round, inviting visitors to inspect their production facilities. There is a large number of other events available to visitors. Wine tourism is linked with yet other services, such as top-standard gastronomy and authentic accommodation in the vineyards.

■ Organic Food Is Gaining in Popularity

Food with the "Bio" label is becoming increasingly popular in the Czech Republic and the organic food market is steadily growing. Currently, organics account for less than one per cent of the total amount of consumed food. The total organic food trade turnover of Czech firms is growing each year. And so is Czech organic food export. The average annual consumption of these foods has increased to a level worth CZK 250 per head of the population. In terms of long-time development, this means a most significant and most distinctive growth of the market. We export most to EU countries, specifically Germany.

Ecological farming covers the rearing of 17% of cattle (in the category of cattle excluding market milk production, however, it covers more than 50% of animals), 46% of sheep, 35% of goats and 22% of horses. The surface area of ecologically farmed soil is growing on a long-term basis. In 2017, this area accounted for 12.37% of the total surface area of agricultural land. The Czech Republic is among the world's 20 countries with the largest surface area of land cultivated by environmentally friendly methods. It is mainly due to the structure of Czech ecological farming. Most of the land worked by this system is pastureland. And animals live on it. That is why people began to develop ecological farming there, and this has not changed. Because of the large extent of mountainous areas, we also have a high percentage of land cultivated by the ecological farming system. Currently, this system is also spreading to cover orchards and arable land, which is very gratifying. The Czech Republic was strongly represented at the Fair held in Nuremberg in February 2018, which was the 99th annual event. The Czech Republic participated in it for the eleventh time and was presented there at a stand of Czech firms under the aegis of the Czech Ministry of Agriculture.

OPPORTUNITIES AND RISKS IN BUILDING INDUSTRY

The building industry will also continue to grow in 2019; its growth, however, will be about half the 2018 growth rate. In 2018 (end of November) the building industry showed a 10.4 per cent growth, which indicates that the year-on-year growth rate could be the highest since 2001.

In 2019, the growth of the building industry will be hindered primarily by lack of labour force. Building firms complain of a shortage of labour, which prevents them from meeting the demand for construction work. Productivity in construction is growing slowly, and although the number of workers in the sector moving in the grey zone has nearly doubled in comparison with 2008, it still is not enough to satisfy current and expected demand. At the end of last September, there were 374 100 people working in construction according to the Czech Statistical Office, about 10 per cent less than in September of the pre-crisis year 2008.



As a result of the excess of demand over supply, the prices of construction work will continue to increase. Prices are to be expected to grow in building construction and potentially civil engineering, where construction will focus on transport projects. On the other

TOTAL BUILDING PRODUCTION IN 2018 (YEAR-ON-YEAR INDEX – CONSTANT PRICES)

January	February	March	April	May	June
133.6	109.4	99.3	107.7	110.1	107.5
July	August	September	October	November	December
115.8	111.9	112.4	110.4	100	103.9

hand, housing construction is growing at a slower rate, especially in Prague, where the housing situation is substantially below real needs. In September 2018, the average number of completed apartments in the Czech Republic was 8.6 per cent lower than in 2017. The number of apartments under construction rose to 2 611, but only 2 357 of them were completed. In addition, the trend in the past three years has been towards building smaller developer projects, according to an analysis of the Prague Development Planning Institute. In 2016, the average number of apartments per project was 115, while one year later the number dropped to 112 apartments and in 2018 one project comprised only 99 apartments on an average. Here, it has to be pointed out that this is an average which is being strongly augmented by the inclusion of 10 large structures comprising from 300 to 470 apartments, which account for more than one-third of the current volume of construction in Prague. In September 2018, there were 3 114 vacant apartments available, which is only one-fourth of the total number of the 12 502 units comprised in the analysis, to be completed by 2021. The average floor surface of a vacant new apartment is 80 sq.m.

A vacant new apartment in Prague costs CZK 7 977 859 on an average, which is CZK 97 216 per square metre of floor surface. In September 2018, the prices of new flats were 11 per cent up year on year. Although the growth rate is slowing down, the current price level in the residential market is completely out of the reach of the financial capacity of most of the population. The main reasons of the high demand for housing are economic growth and the favourable situation in Prague labour market, population growth, low interest rates and, last but not least, the high level of in-



vestment demand, to which supply is unable to respond.

PUBLIC PROCUREMENT

Invitations to tender for building work contracts worth CZK 101.0 billion were published in the period from January to August 2018. The increase in the value by 47.8 per cent was caused mainly by a PPP project on the D4 motorway. The value and the number of construction work contracts concluded increased by 44.6 per cent and 14.7 per cent, respectively. Altogether 1 112 regular contract notices were issued, 6.6 per cent less than in the previous year. The overall expected value of the contract notices was CZK 101.0 billion, a 47.8 per cent increase year on year. This increase was due to the large number of contracts worth more than CZK 1 billion published by the Ministry of Transport in May 2018, which also included the PPP pilot project on the D4 motorway worth nearly CZK 25 billion. The plan is being considered also to use the PPP method in the project to complete the construction of the D6 and D35 motorways. Using the model of analysis

only involving contracts worth less than CZK 1 billion, the year-on-year growth in the value of the contract notices concluded would be 23.6 per cent higher.

Progress has been made in the construction of motorways and first-class roads with 183 kilometres of new sections being under construction. Within five years, for example, a new section will open to traffic on the D1 motorway near Přerov, the section of the Prague-Brno motorway will be completed, the section of the south Bohemia D3 motorway near České Budějovice will be extended and more sections will open on the Karlovy Vary D6 motorway. Smaller projects will also be important, such as city bypasses, not to forget the feasibility study of the Prague-Dresden high-speed railway track to be completed this year and the modernisation of the Brno-Kolín and the Ústí nad Labem-Cheb railway tracks.

CONSTRUCTION 4.0

Construction and innovation? In addition, in the Czech Republic building information modelling, or management (BIM), meaning digital modelling of structures, is a common topic. Skanska is the leader in the process of introducing the BIM method in all phases of the construction cycle of projects in civil and transport engineering in the Czech Republic and Slovakia. The firm supports data digitalisation and the replacement of the paper form of documents in all stages, from construction to the administration of structures. Builders in the Czech Republic have several years' experience with the BIM method, which they have used on already completed projects or those currently under construction. Skanska, in addition, has experience in the use of cloud storage, satellite guiding of machines, drones, 3D simulation and 3D spectacles, making virtual inspections of structures possible.

DEFENCE INDUSTRY IN THE CZECH REPUBLIC

Looking back in history, we see that the defence industry has deep roots in what is today the Czech Republic, a fact which may greatly benefit current players in the market. This country has ranked among the world's arms manufacturing states since ancient times due to its industrial base. Although today Czech enterprises are represented in the global supply chain mostly in a subcontractor position, their role is by no means negligible and their reputation is growing each year. This situation is also partly due to the participation of the Czech Army in foreign missions.

Although in 2017, for the first time after seven years of growth, Czech military material export declined, arms manufacturers still sold technical equipment, ammunition, electronic devices and services worth about CZK 15 billion (CZK 3.5 billion less than in the preceding year), according to the Czech Defence and Security Industry Association. One reason of the decline is that no major delivery took place in that year as compared with 2016, when five L-159 aircraft were delivered to the Iraqi Army. Therefore, Czech arms manufacturers are not worried about the future, although their portion of the growing volume of global defence expenses is smaller than before. The Czech arms industry is largely driven by arms developed many years ago, while innovative products, which are selling well also in the discerning western markets, remain the domain of smaller firms and account for only a small proportion of Czech arms production.

WHAT IS THE SITUATION REGARDING EXPORT?

In the past decade, the Czech Republic has been exporting its helicopters, aircraft, armoured vehicles, tanks, self-propelled howitzers and other heavy-duty military equipment mostly to African, Asian, and South American countries. This equipment, together with components, spare parts and services, accounts for about 60 per cent of Czech military material exports on a long-term basis. As regards aircraft, the main export items are the L-159 aeroplanes, which the state purchased in the 1990s and later tried to sell. The sale was effected in 2014, when Iraq decided to buy 12 aircraft for approx. CZK 4 billion. In the same year, another 21 L-159 aircraft were purchased by the private American firm, Draken International, which uses them for training army pilots as objects simulating enemy planes. ZLIN AIRCRAFT, an important representative of the Czech and international aviation industry, is one of the oldest brands of aircraft worldwide. Currently the firm, which specialises in the manufacture of training and multipurpose ZLIN aircraft, used especially by flying schools and serving military and special purposes, is fully stabilised and self-supporting and meets all civilian and military aviation quality standards. Along with aeroplanes, the company also manufactures components and spare parts for a wide number of aircraft.

PRESTIGIOUS PROJECT

Part of the Czechoslovak Group holding is RETIA, a firm concerned with the manufacture and development of top electronic systems, radars and detection, recording and identification equipment for customers all over the world. RETIA has unique experience of working on NATO's prestigious Alliance Ground Surveillance (AGS) project. The firm's contribution was part of a large whole, developed, produced, and supplied by several mobile MGEC workplaces equipped with electronic systems, which serve AGS system operators for monitoring and evaluating data from unmanned aircraft.

Another firm, Inflatech in Děčín, supplies NATO states with misleading targets, such as inflated imitations of tanks used in western countries for training ground attack aircraft pilots. Such imitations appear to pilots like real tanks, not only in the visual spectrum, but also with regard to thermal and radar detection.

The aviation engineering product category also comprises the manufacture of components – for example, Aero Vodochody supplies parts for the Brazilian KC-390 transport aircraft and provides the repair and servicing of Russian helicopters. Aero's current strategy is based not only on production, but also on the maximum use of own research and development. The firm works on projects using its own research and development. It collaborates with the Canadian manufacturer, Bombardier, for which it makes leading edges of wings, and with the Brazilian Embraer Company, with which it works on the development and manufacture of KC-390 military transport aircraft. Aero carries on its activities in the "helicopter business", which at one time used to be its dominant production programme. It will continue making cockpits for Black Hawk military helicopters manufactured by Sikorsky, today part of Lockheed Martin, one of the largest global security and aerospace companies.

ERA, an important aircraft engineering company based in Pardubice, supplies its radiolocation systems to 65 countries worldwide. Its technology, originally serving military purposes and today coming under the Vera trademark, is a follow-up of the former Tamara, Ramona, and Kopáč radiolocation systems. It is generally known for its capability to perceive all aircraft appearing in the sky, including the American Stealth "invisible" aircraft, and is finding ever more frequent



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civilian use in various sectors of industry. Unlike active radar, the passive radiolocation systems do not send out any signals themselves, but have the capacity to receive electromagnetic signals from aircraft, ships, and ground vehicles. For example, they can detect automobiles appearing on airfields and thus prevent their potential collision with aeroplanes in poor visibility conditions.

LEADER IN THE CZECH MILITARY EQUIPMENT MARKET

In ground engineering, the dominant player is the CZECHOSLOVAK GROUP. The portfolio of this holding comprises, for example, the manufacturer of Tatra trucks and the trading company, Excalibur Army. EXCALIBUR ARMY, belonging to the CZECHOSLOVAK GROUP's industrial holding, is the leader in the Czech military equipment market. Its history dates back to 1995. At present, it focuses on research and development, production, service, repairs and modernisation, including key upgrades of military wheeled and tracked land platforms, and on the sale of military vehicles and land systems, spare parts, and military equipment. The company has production capacities for producing heavy off-road wheeled chassis, electronics, ammunition, special containers, and armoured vehicles. EXCALIBUR ARMY owns several production and storage facilities across the Czech Republic and is thus an important Czech employer.

It cooperates with a number of companies apart from the defence and security industry, and is a member of the Defence and Security Industry Association of the Czech Republic. It has customers around the world and collaborates with renowned global manufacturers, such as General Dynamics European Land Systems. At present, the main part of the company's portfolio is producing armoured vehicles, artillery systems, and engineering land systems. The company's latest projects include Patriot 4x4 APC modular patrol armoured vehicles for the armed and security forces, as well as civilian components, RM-70 Vampire self-propelled rocket launchers mounted on Tatra chassis, AM-50 EX and AM-70 EX bridge vehicles mounted on Tatra chassis, as well as the modernisation of self-propelled howitzers of the DANA M2 standards.

Photo: pixabay.com



HOW TO DO BUSINESS IN THE CZECH REPUBLIC

FORMS OF BUSINESS ACTIVITIES IN THE CZECH REPUBLIC

Czech or foreign natural persons or legal entities can perform business activity in the Czech Republic if they comply with the Czech law. The condition is generally the issuance of a Czech trade licence regulated by the Trade Licensing Act or another specific permit regulated by a number of specific acts, depending on the type of business activity. The exception from this condition applies to entrepreneurs from another EU member state in case of temporary provision of services based on trade licenses issued in such member state.

NATURAL PERSONS AS ENTREPRENEURS

A natural person or entrepreneur is, according to Czech law, a person who conducts business on the grounds of a trade licence, a person who conducts business using a special licence, or a person who practises agriculture and is registered according to a special regulation. Citizens of other countries are allowed to conduct business in the Czech Republic under exactly the same conditions and to the same extent as Czech citizens, unless the law says otherwise. For this purpose, the term foreign person applies to a natural person whose permanent residence is outside of the Czech Republic. Therefore, it is permanent residence, and not citizenship, that is decisive here. Visa are required in certain cases.

CONDUCTING BUSINESS WITH A TRADE LICENCE

According to the Trade Licensing Act (Act No. 455/1991 Coll.), the business activity is conducted systematically, individually, using one's own name, on one's own responsibility, with a view to make profit and under the conditions laid down under this law. The different professions requiring a trade licence are listed in appendices 1- 4 of the Trade Licensing Act. The Trade Licensing Act differentiates between notifiable trades, where

the licence is granted once the agreed conditions are met and the Trade Office is notified, and concessionary trades, which require state permission – i.e. the granting of a concession; this is not accorded automatically. Notifiable trades are further divided into skilled, restricted and free trades. Every natural person who is considering pursuing a trade must meet a set of general conditions, including being 18 years old and above, having legal capacity and being a person of good character. In the case of restricted, skilled and concessionary trades, a natural person is additionally obliged to meet special conditions – a professional qualification or other competence as defined by the law for each profession. In case of non-compliance with these special conditions, a natural person is obliged to conduct a trade through the intermediary of a responsible representative, who is obliged to meet both the general and the special conditions pertaining to the given type of trade. Access to the Trade Register is free and available online at www.rzp.cz.

CONDUCTING BUSINESS USING A SPECIAL LICENCE

The different business objects for the given category are the professions listed in Section 3 of the Trade Licensing Act, and which are exempt from its provisions. First and foremost, this applies to professional services (doctors, advocates, expert witnesses, auditors, tax advisers, dentists, etc.). Conditions for each of these professions are specifically defined by separate laws.

PRACTICE OF AGRICULTURE

The third type of natural persons encompasses persons who practise agriculture and who are registered under a special regulation – the Agriculture Act (Act No. 252/1997 Coll.).



Agriculture includes forestry and water resource management. An agricultural entrepreneur is any person who practises agriculture for profit and meets the agreed conditions, including being at least 18 years of age, having legal capacity and Czech or EU citizenship - all other natural persons need permanent residence in the Czech Republic and a certification of a basic knowledge of the Czech language.

LEGAL ENTITIES

The Act on Business Corporations recognises the following types of business entities:

- limited liability companies
- joint-stock companies
- general partnerships
- limited partnerships
- co-operatives
- Societas Europaea (European companies)
- European Economic Interest Grouping (EEIG).

The Czech Civil Code recognises also other forms of legal entities, such as trust and associations, which can also

perform business activity, but this should not be the main purpose of their existence.

A Czech legal entity is an entity that has its registered office in the Czech Republic. Commercial companies are formed in two stages. The first stage involves founding the company and the second stage involves establishing it as a legal person, as of the date of its entry in the Commercial Register. The Commercial Register is maintained by the courts. Only after registration in the Commercial Register the company is entitled to commence its business activity in the Czech Republic. Access to the Commercial Register is free and available online at www.justice.cz.

BRANCH OFFICE

A branch office is merely an organisational unit of the founding company and it is not regarded as a separate legal entity and does not have its own legal capacity. It is an entity legally dependent on its head office, although it has an independent management and their own accounts. The branch office must be registered in the Commercial Register and the founder must appoint a director of the branch office who acts on behalf of the founding company, but this is only in relation to matters concerning the branch office.

In case of commencement of any business activity in the Czech Republic (i.e., continuous business activity carried out independently and aimed at generating a profit) it is important to ensure, that the respective trade licenses or other permits in the Czech Republic are obtained and registration with the Czech Commercial Register is performed.

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INCORPORATING A LIMITED LIABILITY COMPANY

The limited liability company is the most common form of business corporation in the Czech Republic. How to establish such company?

A limited liability company is established by a Memorandum of Association, which is signed by all the founders, i.e. the future shareholders or just one future shareholder. In both cases, it is essential that it is executed in a form of notarial deed of a Czech notary. The notary fee usually does not exceed CZK 5 000 (EUR 195) and is depending on the amount of the registered capital. In case of basic Memorandum of Association which contains only the mandatory provisions required by the Civil Code and Business Corporations Act and if all contributions to the registered capital will be monetary and registration of the company to the Commercial Register will be performed by the notary, the notary fee was decreased to CZK 2 000 (EUR 78).

The founding deed must contain basic information about the company, e.g. the business name, registered address, identification of the shareholders, types of business interests (shares) held by each shareholder and specification of rights and obligations attached to such business interests (assuming various types of business interests are allowed), list of the company's business activities, number of executives and how they will act on behalf of the company, amount of registered capital, amount of contribution of each shareholder to the company's registered capital, identification of the initial executives and appointment of contribution administrator.

The business name must not be interchangeable with any already existing name of another company registered in the Commercial Register. This is why the business name being considered by the founders should be checked out in this regard in advance at the website www.justice.cz. If the company's business name contains the name of a living natural person, the founders must obtain the consent of such person.

OBTAINING A BUSINESS LICENCE

Once the founding deed has been drawn up, the initial executives need to obtain the trade license at the Trade License Office unless the company's business activity includes only management of own property, letting of the real estate, residential units and non-residential units or a special permit is required. The administration fee for obtaining the trade license at the Trade License Office amounts to CZK 1 000 (EUR 38).

BUSINESS INTERESTS

The founding deed of the limited liability company may allow formation of various types of business interests (shares) held by shareholders of the company. Furthermore, the business interest of the shareholder could be represented by a common certificate issued as registered security. Shareholders of the limited liability company can own more than one business interest in the company.

REGISTERED CAPITAL AND PAYMENT OF CONTRIBUTIONS INTO THE REGISTERED CAPITAL

The minimum requirement for the registered capital of the limited liability company is CZK 1. However, it is recommended that founders agree on a higher amount of the company's registered capital than the minimum amount.

A shareholder's contribution into the registered capital is either in monetary or in-kind form, whereas all contributions of founders are administered by the contribution administrator, who is usually one of the founders. Monetary contributions are deposited to a special bank account established for this purpose. The in-kind contributions must be appraised in the expert's opinion drafted by the expert chosen by the founders from the official list of experts. Before submitting the application for the entry of the company into the Commercial Register, any in-kind contribution must be fully paid up, while at least contribution premium (if any) and 30 % of each monetary contribution must be paid.

ENTRY OF THE COMPANY INTO THE COMMERCIAL REGISTER

The application for the entry of the company into the Commercial Register has to be submitted either by all executives of the company on the prescribed form with their officially verified signatures or the registration can be performed through the notary, who can register the company into the Commercial Register directly. The application must be submitted to the competent court depending on the location of the company's registered office within 6 months from the foundation of the company; otherwise the founding deed is considered as withdrawn. The founding deed may stipulate another period.

The registration court fee amounts to CZK 6 000 (EUR 232). The fee amounts only to CZK 2 700 (EUR 105), if the registration is performed by the notary on the basis on the notarial deed which would contain only mandatory provisions and all contributions to the registered capital of the Company would be monetary, the registration of the company is for free.

Irrespective whether the application is submitted by the company's executives or through the notary, the following documents must usually be presented:

- a notarial deed containing the founding deed,
- a trade licence or licence for other type of business activity,
- a deed attesting the legal basis for use of the premises at which the company's registered office is situated, e.g. a written consent of the owner (such consent may not be older than 3 months and signatures on the document must be legally certified), together with the decision of the company's statutory body on the company's registered office location,
- a document attesting the fulfilment of the obligation to pay prescribed contributions into the registered capital. This fact could be proved by a declaration of the contribution administrator and confirmation from the bank that the relevant monetary sums have been credited to the bank account of the company,
- documents attesting the fact that persons who are to be registered as members of the company's bodies satisfy the requirements set forth by law, i.e. that they are at least 18 years old, have legal capacity, are without a criminal record related to the business, and that there are no impediments to their operating of a trade in

accordance with the Trades Licensing Act and other legal regulations (such as an affidavit concerning such facts and an extract from the criminal record or equivalent document issued by the relevant authority of the EU Member State in which they were last residents in the case of citizens from another than EU Member State)

- the consent of the person being registered to their registration in the Commercial Register.

The necessary forms for entering the company into the Commercial Register can be found in Czech on the website of the Czech Ministry of Justice <https://or.justice.cz/ias/iform/index.html?o>. Documents presented to the Commercial Register must be in Czech, including all their attachments; any deeds in a foreign language must have a legally certified translation unless it is drawn up in one of the official languages of the European Union (in that case, a simple translation is sufficient). For certain types of foreign deeds (e.g. an extract from a criminal register or commercial register) a special form of higher authentication is required, one that certifies the authenticity of the issuing authority, generally identified as an apostille or 'super-legalisation', depending on whether the country issuing the deed is a signatory to the so-called Hague Apostille Convention.

The statutory deadline for registration of the company is five working days from the submission of the application. If, within this period, the court does not register the company or requests additional documents from the applicants, the company is considered as registered. The notary can register the company into the Commercial Register almost immediately.

In order to submit an application to the Commercial Register or Trade Register, it is not mandatory to be represented by a lawyer. Nonetheless, with respect to fulfilment of formal requirements, we recommend that an attorney-at-law is engaged.

The average amount of time needed to establish a limited-liability company in the Czech Republic is approximately 19 days but registration within a couple of days is also possible.

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INCORPORATING A JOINT-STOCK COMPANY

The joint-stock company is the second most common form of business corporations in the Czech Republic. How to establish such company?

A joint-stock company is established at least by one founder on the basis of Articles of Association, which are executed in the form of notarial deed of a Czech notary and signed by all the founders. The notary fee usually does not exceed CZK 16 000 (EUR 620) and is depending on the amount of the registered capital. The founding deed must contain basic information about the joint-stock company, such as business name, registered address, list of the company's business activities, number of shares and their nominal value, specification of shares and whether the company issues registered shares or bearer shares, amount of the registered capital, number of votes attached to an individual share, total number of votes in the company and estimation of costs related to the establishment of the company. The business name must not be interchangeable with any already existing name of another company registered in the Commercial Register. This is why the business name being considered by the founders should be checked out in this regard in advance at the website www.justice.cz.

OBTAINING A BUSINESS LICENSE

After the founding deed has been executed, the members of the company's statutory body need to obtain the trade license at the Trade License Office unless the company's business activity includes only management of own property, letting of real estate, residential units and non-residential units or a special permit is required. The administration fee for obtaining the trade license at the Trade License Office amounts to CZK 1 000 (EUR 38).

CORPORATE GOVERNANCE

The founders could choose between the monistic and dualistic model of corporate governance. In case of the former, the company establishes a Board of Directors and a Supervisory Board. The Board of Directors is in charge of the management of the company's business. The Supervisory Board supervises the exercising powers by the Board of Directors.

In case of the latter, the company has only an Administrative Board that determines the basic orientation of the management of the company's business and supervises its proper execution. The Administrative Board elects a statutory director, who is responsible for the management of the company's business. The chairman of the Administrative Board could also be the company's statutory director. All the above-mentioned company's bodies can have only one member.

SHARES

There are two types of shares in the joint-stock company, i.e. shares with no special rights (ordinary shares) and shares with special rights (such as different or fixed profit shares or different vote weightings shares). The so-called no par value shares are shares that have nominal value.

REGISTERED CAPITAL AND PAYMENT OF CONTRIBUTIONS INTO THE REGISTERED CAPITAL

The minimum amount of the registered capital of the joint-stock company is CZK 2 000 000 (EUR 77 000).

A shareholder's contribution into the company's registered capital may take either monetary or in-kind form, whereas all contributions are administered by contribution administrator, who is usually one of the founders. Monetary contributions are deposited to a special bank account identified in the Articles of Association. The value of in-kind contributions is determined by the expert chosen by the founders from the official list of experts.

Before submitting the application for registration of the company into the Commercial Register, each founder must pay up at least the share premium and all the founders must further pay up in aggregate at least 30 % of the nominal value of the subscribed shares. All in-kind contributions must be fully paid.



ENTRY OF THE COMPANY INTO THE COMMERCIAL REGISTER

The application for entry of the company into the Commercial Register could be either submitted by all the members of the company's statutory body on the prescribed form with their officially verified signatures or the registration can be performed through the notary, who can register the company into the Commercial Register directly. The application must be submitted to the competent court depending on the location of

the company's registered office within 6 months from the foundation of the company; otherwise the founding deed is considered as withdrawn. The founding deed may stipulate another period.

The registration court fee equals to the amount of CZK 12 000 (EUR 465). The fee amounts to CZK 8 000 (EUR 310) only if the registration is performed by the notary.

Irrespective whether the application is submitted by the company's members of the statutory body or through the notary, the following documents must usually be presented:

- a notarial deed containing the founding deed,
- a trade licence or licence for other type of business activity,
- a deed attesting the legal basis for the use of the premises at which the company's registered office is situated, e.g. a written consent of the owner (such consent may not be older than 3 months and signatures on the document must be legally certified), together with a decision of the company's statutory body on the company's registered office location,
- a document attesting the fulfilment of the obligation to pay at least statutory minimum contributions into the registered capital. This fact could be proved by a declaration of the contribution administrator and confirmation from the bank that the relevant monetary sums have been credited to the bank account of the company,
- documents attesting the fact that persons who are to be registered as members of the company's bodies satisfy the requirements set forth by law, i.e. that they are at least 18 years old, have legal capacity, are without a criminal record related to the business, and that there are no impediments to their operating of a trade in accordance with the Trades Licensing Act and other legal regulations (such as an affidavit concerning such facts and an extract from the criminal record or equivalent document issued by the relevant authority of the EU Member State in which they were last residents in the case of citizens from another than EU Member State)
- the consent of the person being registered to their registration in the Commercial Register (members of the company's statutory body),
- the decision on the appointment of the chairman of the Board of Directors, chairman of the Supervisory Board, chairman of the Administration Board or statutory director, if applicable.

The necessary forms for entering the company into the Commercial Register can be found in Czech on the website of the Czech Ministry of Justice

<https://or.justice.cz/ias/iform/index.html?o>. Documents presented to the Commercial Register must be in Czech, including all their attachments; any deeds in a foreign language must have a legally certified translation unless it is drawn up in one of the official languages of the European Union (in that case a simple translation is sufficient). For certain types of foreign deeds (e.g. an extract from a criminal register or commercial register), a special form of higher authentication is required, one that certifies the authenticity of the issuing authority, generally identified as an apostille or 'super-legalisation', depending on whether the country issuing the deed is a signatory to the so-called Hague Apostille Convention.

The statutory deadline for registration of the company is five working days from the submission of the application. If, within this period, the court does not register the company or request additional documents from the applicants, the company is considered as registered. The notary can register the company into the Commercial Register almost immediately. In order to submit an application to the Commercial Register or Trade Register, it is not mandatory to be represented by a lawyer. Nonetheless, with respect to fulfilment of formal requirements, we recommend that an attorney-at-law be engaged.

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STEPS FOR ACQUIRING A CZECH TRADE LICENCE

Trades are divided under the Czech Trades Licensing Act (Act No. 455/1991 Coll.) into notifiable trades, which can be obtained based on notification, and concession trades, which can only be pursued on the basis of a special business licence – a concession. Notifiable trades are categorised into three further groups: vocational, professional and unqualified.

Notifiable trades are characterised by the fact that the authorisation to trade becomes valid immediately at the very moment of notification (not later when the trade licence is issued).

To illustrate the various types of trade, here are a few examples. Trades categorised as vocational include carpentry, bakery and confectionary, bricklaying and plastering, brewing, etc. Professional trades include activities such as providing or brokering consumer credit, work as an optician, or animals trading.

In order to acquire the concession for concessionary trades, it is necessary to demonstrate the relevant professional eligibility and in some cases to also meet some additional requirements.

Trades that require concessions include operating a travel agency, road freight transport, or a security firm employed to protect other people's property.

Those interested in a licence for a notifiable trade can obtain one by notifying the trade, while applicants for a concession can submit their application at one of the general Trade Offices – central registration points, by means of gov-



ernment administration contact points (Czech-Point) or do so electronically using the Trade Register web system. Trades are notified and applications for concessions are submitted using a standard registration form. Forms can be obtained at any trade office, and in most cases are freely available at the Ministry of Industry and Trade website <http://www.mpo.cz/dokument77388.html> for natural persons and <http://www.mpo.cz/dokument77394.html> for companies (forms must be completed in Czech).

GENERAL CONDITIONS FOR PURSUING A TRADE

The general conditions applying to a natural person pursuing a trade are: to have reached the age of 18 years, to have full legal capacity and a clean criminal record. According to the Act, a person with a clean criminal record is someone who has not been finally convicted of intentionally committing a criminal act, if it was committed in connection with business activities, or with the business object for which they are applying or notifying, unless they are now considered as not having been convicted of such offence.

PROFESSIONAL ELIGIBILITY

Alongside the form, in the case of a professional or vocational trade or concession, the notifier or applicant must submit a document attesting its professional eligibility for the relevant trade, or of the appointed responsible representative, together with his/her

signed declaration that he/she consents to the appointment. The signature on the declaration must be officially certified. If documents are in a foreign language, they must be translated into Czech by a sworn translator (a list can be found at [http://datalot.justice.cz/justice/rep-znatl.nsf/\\$\\$SearchForm?OpenForm](http://datalot.justice.cz/justice/rep-znatl.nsf/$$SearchForm?OpenForm)), with the exception of documents submitted by nationals of EU Members States or by a legal entity with its registered office, central administration or principal place of business activities in an EU Member State, unless there are doubts as to the translation's correctness.

OTHER TERMS AND CONDITIONS

Further, a document attesting the legal basis for use of the premises on which the trader has located its place of business (e.g. a lease contract) must be submitted, and also a receipt for payment of the administrative fee, which is 1 000 CZK (EUR 40) for a notifiable trade (if multiple trades are notified simultaneously the fee is charged only once) must be submitted. Foreign natural persons, except for nationals of EU Member States or of a State Party to the Agreement on the European Economic Area, or of the Swiss Confederation, must attach to their notification of a trade or concession application a document corroborating that they have been granted a visa to stay longer than 90 days or have had their long-term residency permit. A foreign natural person must further provide an extract from the criminal register or equivalent document issued by the relevant court or state authority of the country of which the individual is a national; the extract must not be more than three months old.

The Trade Office is obliged to make the entry into the Trade Register within 5 business days of receiving the notification and issue the entrepreneur an extract if the notifier meets the conditions set out in the Trades Licensing Act. Where concessions are concerned, the Trade Office shall decide the matter within 30 days of receiving the application, provided that all of the relevant particulars are met. Subsequently, within 5 business days of the decision granting the concession having come into effect, an entry is made in the Trade Register and an extract is issued to the entrepreneur.

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MAIN CHANGES IN CZECH LEGISLATION ON DOING BUSINESS IN THE CR IN 2019

A number of changes are under preparation for the year 2019, while the state will continue its policy of strict control to ensure the due performance of existing obligations. Corporate compliance will therefore assume special importance in 2019.

CHANGES IN NATIONAL ROAD TRANSPORT RULES

As from 1 January 2019, the rules comprised in the Convention on the Contract for the International Carriage of Goods by Road (CMR Convention) will also apply to national transportation, which up to now has been governed by the Czech Civil Code. The new regulation, however, will not apply to transport contracts already concluded. Important changes will concern the owners of consignments being transported, where, among other things, the amount of the carrier's substitute obligation changes in the event of the consignment being lost or destroyed. According to the Civil Code, in the case of the consignment being lost or destroyed, the carrier is obliged to compensate for the real value of the goods which the consignment was worth at the time of takeover. At the same time, under Art. 23 of the CMR Convention, the carrier's responsibility is limited to a max. of 8.33 SDR per kilogram of gross weight of the consignment, which corresponds to the current XDR rate of approx. CZK 260 for 1 kg of gross weight.

For the carrier, this means lower risk and reduced responsibility. For the owner of the consignment, this means either the necessity to cover the goods being transported by property insurance (cargo insurance), which is the only possibility of covering the full value for the owner of the consignment, or to regulate the carrier's responsibility by contract covering the full value of the goods under Art. 24 of the CMR Convention.

CZECH PERSONAL DATA PROCESSING ACT

The General Data Protection Regulation (GDPR), which became effective on 25 May 2018, provoked widespread reaction in the Czech Republic. The panic among businessmen, however, is slowly dying down, and the Czech Personal Data Protection Office itself points to instances of excessive requesting under GDPR, which may in itself be unlawful. In 2019, the Office is planning to increase the number of active controls of the observance of obligations ensuing from GDPR. The Office, however, gives the assurance that the aim of the controls is not to impose excessive fines, but to ensure remediation and raise awareness of the need to ensure personal data protection. The existing Personal Data Protection Act, which is nearly 18 years old, is to be substituted by new legislation. The new Act has been debated by Czech Parliament since the end of March 2018, but has not as yet been passed because of a number of draft amendments. Its passage is expected in 2019. After that, it will be necessary to repeatedly examine whether the obligations concerning personal data protection in the Czech Republic are being duly fulfilled.

CZECH INSOLVENCY ACT

In October 2018, the Czech Parliament passed an important amendment to the Czech Insolvency Act, which changes the conditions governing the debt relief institute and provides for the broader elektronisation of insolvency proceedings. Under current legislation, the condition for obtaining debt relief is the repayment of at least 30 % of liabilities within a period of five

years. By obtaining debt relief, the debtor is relieved of the obligation to pay the remaining part of his/her liabilities, while the creditor will lose the full value of his/her receivables. Obtaining debt relief is only possible in the case of the person concerned having sufficient assets or sufficient income. A proportion of debtors, however, is unable to fulfil these conditions and ends up in a debt trap.

Just as under current legislation, the Draft Amendment provides for a five-year debt relief period, during which the debtor must repay at least 30 % of his/her liabilities, but the conditions have changed. The new provision is that the debtor would not be obliged at the beginning of the insolvency proceedings to prove, for the purpose of obtaining the debt relief, that he/she is able to repay 30 % of his/her debt within five years, but only that he/she has sufficient income to pay the Insolvency Administrator's remuneration and to pay at least the same amount to his/her creditors. Another change concerns the situation in which the debtor has not repaid the required 30 % of his/her liabilities after the lapse of five years. The new provision is that the fate of the debtor would be in the hands of the court, which would judge whether the debtor had exerted sufficient effort to repay his/her liabilities. Should the court come to the conclusion that he had, the debtor would be freed of his/her obligation to repay the rest of his/her liabilities, even though the essential condition, i.e. the obligation to repay 30 % of his/her liabilities, has not been met. The new provision is that it would be made possible to apply the accelerated debt relief proceedings institute, where the debtor would be obliged to repay at least 60 % of his/her liabilities within three years.

LABOUR CODE AMENDMENT

Two Labour Code amendments are planned for the year 2019. The first amendment provides for the cancel-



lation of the “waiting time” institute, during which the employee temporarily incapacitated to work for health reasons is not paid wage or salary compensation. Simultaneously, the amount of the health insurance premium paid by the employer should be reduced. The other Labour Code amendment provides for the introduction of the shared workplace institute, a new method of calculating the length of regular vacation, the registration of the length of years worked in the case of contracts for work performed outside regular employment, regulation of the delivery of important documents to employees, and the shortening to one month of the time during which the employee may be assigned to work for another employer.

CORPORATE COMPLIANCE AND IMPOSITION OF SANCTIONS

Czech Registration Courts and Tax Offices have started stricter controls of how trading corporations and cooperatives meet their obligations. In 2018, they opened a number of proceedings in which the payers were threatened with the imposition of pecuniary fines of up to CZK 100 000, or fines up to the amount of 3 % of their gross assets, and even company liquidation. Obligations and sanctions may be imposed under the provisions of the Accounting

Act, the Registration Act, and the Business Corporations Act. One of the most frequently checked obligations is the due deposition of the following documents in the Collection of Deeds kept by the Registration Court: annual statements, regular, extraordinary and consolidated financial statements, unless they are part of the annual statement, if the duty of their deposition in the collection of deeds is regulated by the Personal Income Tax Act and if their keeping is required by other legislation, the division of profit proposal or the settlement of the loss and their final form, unless this is part of the financial statement, and the auditor’s report on the verification of the financial statement. These documents should be filed in the collection of deeds after their creation, provided the financial statement was made and approved within six months of the end of the accounting period.

Starting on 1 January 2019, all companies will be required to include in their new registration the data concerning the real owner of the juristic persons and trust funds. As from the new year, this entry will be subject to an administration fee of CZK 1000. The form can be filled in electronically on the websites of the Ministry of Justice <https://issm.justice.cz/podani-navrhu/formular; annexes> may also be attached in electronic form.

A number of companies have not as yet updated their Deed of Association or their statutes in accordance with current legislation and the data entered in the Companies Register do not correspond to reality. If a company does not have its headquarters at the address stated in the Companies Register, or if the names of the members of its statutory body, or the main subject of its business are not entered correctly, in an extreme case, the company may be faced with liquidation ordered by the court.

The year 2019 will signify new obligations and especially those of the stricter control of their observance.

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LEASE OF BUSINESS PREMISES

The New Czech Civil Code regulates the lease of premises for business purposes, even in relation to lease agreements entered into prior to this date. Compared to general types of property leases, lease of business premises has several specific features. Landlords, property developers and their tenants who are leasing business premises in the Czech Republic should certainly be aware of them.

REQUIREMENTS OF A LEASE CONTRACT

The essential requirement of a lease contract is now simply an agreement concerning the object of the lease and the amount of rent. The purpose of the lease no longer needs to be specified in the contract. If, however, the object of the lease will not be used at least predominantly for the operation of business, then no specific conditions shall apply. Neither is it required to have the object of lease approved by the occupancy permit for the contract to be valid. The regulation of leases in the Czech Civil Code is not mandatory. Parties therefore have the opportunity to manage their mutual rights and obligations according to their own specific requirements and needs. The lease contract does not need to be renegotiated and rewritten due to the adoption of the new legislation, although in practice the parties prefer this option to exclude application of certain newly introduced provisions of the Czech Civil Code.

TERMINATING THE LEASE OF BUSINESS PREMISES

Unless the contracting parties agree otherwise, the notice period for a lease with an indefinite term is six months, and three months for a fixed term lease. The notice on a fixed term contract must state the reason for terminating the lease, otherwise the notice is not valid. Unless the parties set out other reasons, tenants are entitled to give notice on a fixed term lease before the lease has expired, inter alia if (i) they have lost the capacity to carry out the activity for which the business premises were intended, (ii) the leased premises have ceased, for objective reasons, to be eligible for carrying out the activity for which they were intended, and the landlord does not provide the tenant with equivalent alternative premises, (iii) the landlord has grossly breached his obligations in respect of the tenant, and (v) the circumstances on the basis of which the parties concluded the lease agreement have changed to such an extent that it would be unreasonable to require the tenant to continue the lease.

The landlord is entitled to give notice on a fixed term lease contract, inter alia if: (i) the real estate in which the business premises are located is to be demolished or rebuilt in such a way that prevents the leased premises from being used any further, provided that the landlord did not and could not have predicted such situation when entering into the contract, or (ii) the tenant has grossly breached his obligations in respect of the landlord (e.g. the tenant is more than

1 month in delay with the payment of rent or services connected with the use of the business premises), (iii) the tenant is convicted of an intentional criminal act committed against the landlord, a member of his family, or a person who lives in the building in which the business premises are located, or against another person's property situated in such building, (iv) the business premises need to be vacated due to a reason of public interest protection, or (v) some other similarly serious reason exists. The lease agreement passes over to the new owner in case of the sale of the premises. If the new owner had no reasonable cause to doubt that he was buying the premises free of any lease, he is entitled to terminate the lease within three months after he became or must have become aware that the premises are leased and who the tenant is. Objections can be raised against a termination notice. Objections must be made in writing and notified within one month of the relevant party having received the notice. If the notice is not withdrawn by the terminating party within one month from the delivery of the objections, the party who has raised the objections may ask the court to examine the legitimacy of the notice within the period of another two months. If, however, the tenant vacates the business premises in accordance with the notice, then such notice shall be regarded valid and as having been accepted by him without objections. In particular cases termination without the notice period is possible; by the landlord in cases of particularly serious breaches of the lease agreement by the tenant, by the tenant if the landlord fails to provide the tenant with sufficient protection against claims of a third party, who asserts the right of ownership or another right in a thing or claims that the premises be surrendered or vacated. Nevertheless, the breach has to be specified in the notice and a possibility to remedy the breach before the notice has to be given.



SIGNS REGULATION

The tenant is entitled to furnish, to the appropriate extent, the real estate in which the object of the lease is located with various types signage, provided the landlord has given his consent. The landlord may only withhold his consent for serious reasons. If the tenant requests the landlord in writing to be given such consent and the landlord does not respond within 1 month, it shall be taken that consent has been given. On the other hand, a failure to obtain the consent constitutes a gross breach of the lease agreement by the tenant.

COMPENSATION FOR TAKING OVER A CUSTOMER BASE

One entirely new legal mechanism is the payment of compensation for taking over a customer base, i.e. a group of customers who were regular clients of the tenant, provided that such base was created by the tenant himself. The tenant is entitled to compensation for the take-over of a customer base in cases where the lease is terminated by notice of the landlord and at the same time the customer base is taken over by the landlord or a new tenant. However, the tenant will not be entitled to compensation for the takeover of a customer base if the landlord has given a notice to the tenant for the reason of the tenant's gross breach of obligations.

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INVESTMENT INCENTIVES IN 2019

Companies introducing new or expanding the current production may apply for a tax holiday under some conditions. This could significantly change with the Investment Incentives Act amendment in 2019, since the criteria for granting incentives should be stricter. How do the rules and conditions look like? How could be the situation in 2019 like?

FORMS OF INVESTMENT INCENTIVES AND SUPPORTED ACTIVITIES

Currently, the available forms of investment incentives are income tax relief, cash grant for new job creation and employee training, and support for strategic investment activities. Beside this, the incentive in the form of an exemption from real property tax in concessional industrial zones have been introduced by the Ministry of Industry and Trade. Moreover, there is also an opportunity to draw cash grant on the territory of these zones for creating new jobs in the amount of CZK 300,000 per new job created.

Within the manufacturing projects, there are three types of supported activities defined, i.e. expansion of production by increasing production capacity, diversification of production and a fundamental change to the overall production process. Investment incentives can also be requested for projects involving construction or expansion of centres for shared services, data centres, and customer support centres.

SELECTED CONDITIONS

The general conditions which must be currently met in order to qualify for the

incentive are different, based on the type of the supported activity. Among others, for the manufacturing projects following general conditions apply:

- At least 20 new jobs must be created that are related to the investment project
- Investment of at least CZK 100 million and at least half of the investment must be spent on acquisition of new machinery equipment
- The company cannot start any work on the project prior the submission of the application
- Limitations for projects of relocation (i.e. transfer of the same or similar activity if the product or service in the initial and in the aided establishments serves at least partly the same purposes, the same type of customers and jobs are lost in the same or similar activity in the EEA)
- Fulfilment of the conditions until 3 years from granting of investment incentives

The conditions in the case of technological centres and strategic service centres differ based on the type of the centre. Basically, there is always a minimum amount of new jobs (20–500) to be created and in the case of technological centres the minimum amount of CZK 10 million to be invested.

STATE AID LEVEL

The general level of public support is 25 % of eligible costs. Financial support for the creation of new jobs and for employee training or re-training in the regions with the unemployment rate higher than 25 % is as follows:

- Financial support for creation of new jobs of CZK 100 000–300 000, depending on the region
 - Financial support for training and staff retraining of 25 %–50 % of training costs depending on the region
- Financial support for the acquisition of tangible and intangible assets

for strategic investment (500 new jobs created and investment of at least CZK 500 million in manufacturing industry; 100 new jobs created and investment of at least CZK 200 million for technology center) is in the amount of 10-12.5 % of the eligible costs.

There is also one important rule related to the accumulation of support in the three-year period preceding the filling of the investment incentive application. Large investment projects over EUR 100 million need to be granted an individual exemption from the restriction to receive state aid by the European Commission. The process of approving such an investment project is administratively and time demanding.

SITUATION IN 2019

There is an amendment of the investment incentives act planned for 2019. Exact timing is not yet known, but it is expected that the new law will come into force during the second quarter of 2019. Following discussions regarding the future of investment incentives, the government plans to use this important investment tool to respond to the actual needs and priorities of the Czech Republic and focus on projects with a higher added value. In fact, however, the government's amendment primarily introduces stricter criteria for granting investment incentives, possibly resulting in a drastic decline in the number of supported projects.

The government's role in approving investment incentives will strengthen significantly. Until now, the government has only approved strategic investment projects; from now on, it will approve all projects. This should help the government direct the provision of aid in line with its priorities and the needs of the state at the time. On the other hand, however, this may result in an outflow of some projects, as the decisions will have to be made under time pressure. Under the existing wording of the law, it was relatively easy to outline the investment incentive amount and conditions beforehand. Investors could therefore make decisions regarding the placement of their investments based on relatively reliable information. The approval itself was more or less an administrative matter if conditions for

How can I find out whether I can qualify for incentives for investments in production?

If you plan to invest at least CZK 100 million (in some regions only CZK 50 million) in establishment of production or in expansion of current production, and at least half of the investment will be spent on acquisition of new machinery equipment and at least 20 new jobs will be created, all of it within three years, you can obtain investment incentives in the form of a ten-year tax relief.

In selected Czech regions, there is also an opportunity to receive cash grant of up to CZK 300 000 per created new job or support for training and re-qualification.

There is a basic condition that all investment projects are environment friendly.

I don't manufacture, but I am involved in development or strategic services. How can I receive an investment incentive?

In the case of technology centres, the basic condition for the acquisition of an investment incentive is that at least 20 new jobs are created and at least CZK 10 million is invested, of which CZK 5 million must be spent on new machinery equipment.

When the conditions specified above have been fulfilled, it will again be possible to draw a tax relief and in selected regions also cash grant for new job creation and employee training and re-qualification.

granting aid were met and all necessary documentation was provided.

Once the amendment has been passed, investors will only gain a reasonable level of assurance that an investment incentive will be granted after it has been approved by the government, which can be expected within 2-3 months after formal application has been submitted. Moreover, the criteria for assessing projects might not be known in advance. In addition to the usual qualification criteria, other facts, such as to what extent an investment will help increase the competitiveness of the Czech Republic and what benefits will be generated for the region and the state, will be taken into account. The subjective evaluation and, especially, a time delay of up to several months compared with the current situation will cause uncertainty that may be unacceptable for some investors.

MAJOR CHANGES PROPOSED BY THE DRAFT AMENDMENT ARE AS FOLLOWS:

- Investment incentives will only be provided in respect of investment projects that help increase the competitiveness of the Czech Republic and promote its economic development. The law directly stipulates the applicant's duty to calculate expected benefits for the region and the state and give appropriate reasons.
- Certain criteria for obtaining investment incentives will not be determined by law but by a government decree, which will help flexibly respond to current economic developments.
- The duty to create at least 20 new job opportunities, which in fact disallows the provision of investment incentives to the automation of existing productions in the manufacturing industry, will be excluded from the law.

New criteria should apply to projects whose applications for investment incentives will be filed after the amendment's effective date.

Given the above, it is recommended that investors evaluate the risks arising from the amendment and consider applying for investment incentives before the amendment becomes effective.

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CZECH ACT ON PUBLIC PROCUREMENT HAS BEEN EFFECTIVE FOR 2 YEARS

The Czech Public Procurement Act (the “PPA”, the “Act”) came into effect on 1 October 2016. This Act implemented the European public procurement directives of 2014 and the main goal of such implementation in the Czech Republic was to make public procurement more transparent and free of overwhelming bureaucracy, as well as making it more flexible by enabling the contracting authorities to adapt the procurement to their individual needs. This article offers a closer look at some of the innovations introduced by the current Act, which contributes to the fulfilment of the aforementioned goals.

I. ELECTRONIC PUBLIC PROCUREMENT ONLY

In light of the aim of diminishing the administrative burden and enhancing transparency, the PPA pushes for mandatory e-procurement, which requires the procurement proceedings to be fully electronic. Unless the Act expressly allows for deviation (usually for security or technical reasons), the entire awarding procedure must be conducted electronically.

The electronic conclusion of public procurement procedures has been mandatory since 18 April 2017 for tenders operated by the following contracting authorities: the Czech Republic (the state as a contracting authority, e.g. ministries), the Czech National Bank, and the central purchasing bodies. For all other contracting entities (cities, bodies governed by public law, etc.) e-public procurement has been mandatory from 18 October 2018.

E-procurement legislation applies to all forms of written communication between contracting authorities and bidders. Coverage starts with the publication of the tender notice and tender documentation and ends with the procedure itself, namely with either (i) the cancellation of the tender procedure, or (ii) the conclusion of the contract (which need not happen electronically). During the tender procedure, the contracting authority cannot generally ask for the originals of any documents, apart from those specified in the Public Procurement Act. Before the execution of a public contract, the winner of a public tender must submit originals or certified copies in electronic form. If a self-declaration (or other signed document) is to be submitted as an original, it must bear a certified e-signature or have a special electronic conversion clause attached (in which case the document would be regarded as a certified photocopy).

II. RELAXED REQUIREMENTS FOR EVIDENCING FULFILMENT OF SELECTION CRITERIA

Procedurally, it is now possible for bidders to submit documentation proving and verifying fulfilment of selection criteria in plain copies. Additionally, such documents may be substituted by an affidavit (unless expressly excluded by the contracting authority). Further, the European Single Procurement Document (the “ESPD”) as a self-declaration form can substitute documents necessary to prove qualification of the bidders. As stated above, the winning bidder must present originals or certified copies of the documents before the signing of a public contract.

III. BROADER RIGHT TO EXCLUDE A BIDDER

Contracting authorities now may exclude a bidder with whom the contracting authority has had a bad experience in previous procurement procedures if the contracting authority proves that the bidder concerned has committed serious or persistent misconduct in the past 3 years in fulfilling an earlier contractual relationship with the contracting authority, which led to premature termination of the procurement contract, compensation for damages, or other comparable sanctions.





IV. AMENDMENTS TO CONCLUDED PUBLIC CONTRACTS

Following the public procurement directives, the Czech PPA implements the case law of the Court of Justice of the EU (C-454/06 *Presstext*) and allows concluded contracts to be amended where such modification is not considered fundamental or substantial. The contracting authority may implement non-fundamental modifications by a simple agreement with the current supplier without having to carry out a new procurement procedure. This also applies to additional works, services or supplies under the conditions below.

The PPA defines as fundamental, changes to the obligations arising from the existing contract that would:

- allow other bidders to participate during the original procurement procedure;
- change the economic balance of the contractual obligation in favour of the selected bidder, or
- lead to a substantial extension to the scope of the performance of the public contract.

The PPA does not consider the following amendments to be fundamental:

- changes stipulated in the original contract and the tender documents;
- de minimis changes below the threshold for public contracts (10-15 % of the value of the original public contract);
- additional works, services or supplies which are necessary or were not foreseeable, a change of the supplier is not possible, and whose value will not exceed 50 % of the original contract;
- substitution of one or more items in the list of construction works under certain conditions.

A change of supplier is considered a fundamental change; however, the PPA allows such a change under specific circumstances (such as anticipation of such change in the contract and tender documents or legal succession). The contracting authority is always obliged to act effectively and efficiently when amending public contracts after they have been awarded. Any changes to the existing contracts are, of course, possible if the

above conditions have been met and, at the same time, if the supplier agrees with such amendments.

V. CONCLUSION

The current PPA offers a modern approach towards public procurement administration in many ways. Abandoning the rigid formalistic approach and allowing for a certain amount of flexibility bears the promise of more effective management of public funds. Some critics warn against giving contracting authorities a wide discretion or point out that the EU derived rules are not detailed enough to serve the contracting authorities as a fully-fledged manual. By providing wide discretion to the contracting authorities, the new rules naturally place increased requirements on the expertise and cautiousness of the contracting authorities. Only time and practise will show whether the steps which the lawmakers have chosen to take, in order to achieve the desired transparency and efficiency, were in the right direction.

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IV.

FINANCE

BANKING SECTOR: STABILITY, DYNAMISM

Domestic banks operated in an environment of accelerating economic growth both in 2017 and 2018, but also of intensifying regulatory requirements of the Central Bank aimed at maintaining macrofinancial stability, and in a highly competitive environment. The GDP growth, following a temporary slowdown in the previous year, reached 4.6 %, without posing any greater threat to macroeconomic or financial stability. In 2017, for the first time in history, the Czech Republic ranked among the top ten major business partners of Germany as the most important European economy. Indicators of business and consumer confidence remained at high levels.

The Central Bank ended its exchange rate commitment smoothly and without shocks at the beginning of April 2017; the exchange rate, after the correction of the initial fluctuation, strengthened from 27 to around CZK 25.50 / EUR by the end of the year. In addition, there were two increases in monetary policy interest rates in 2017, followed by five more in 2018 and bringing the repo rate to 1.75 % as of 2 November 2018.

The banking sector has continued to deliver a high degree of stability. Its aggregate capitalisation exceeds the regulatory capital requirements by about 3 %, with almost the totality (97 %) of the capital being made up of the highest quality Tier 1 capital.

BANKING SECTOR: BASIC OVERVIEW

By the end of 2017, a total of 47 entities possessed a banking licence. The structure of the banking sector consists of 4 large banks, 5 medium-sized banks, 9 small banks, 24 branches of foreign banks and 5 building societies. 38 entities are under the control of foreign owners, 14 of which are banks and 24 are branches. Domestic owners control 9 banks, two of which are banks with state participation. Towards the end of 2017, the total value of the banking sector's assets amounted to CZK 7 009.6 billion, which is a year-on-year increase of unusually high 17.6 %. To match up the situation mechanically with the previous period, when the 2016/2015 year-on-year increase

reached the already high 9 %, would be misleading. A substantial part of the growth of banks' assets occurred during the first quarter of 2017, in a period of increasing expectations that the CNB would end its exchange rate commitment which had been lasting for the fourth year. The banking sector's assets thus represented almost 140 % of GDP at the end of the year.

Compared to the previous year, net profit for the year 2017 increased slightly to approximately CZK 75.9 billion. Return on equity reached 15.6 % and return on assets amounted to 1.09 %.

LENDING AND DEPOSITS

The healthy banking sector managed to boost economic growth also through the supply of loans in 2017, under the tightening regulation and increasing competition not only among banks,

MAIN INDICATORS OF LOAN DEVELOPMENTS IN 2017

	Absolute amounts (CZK billion)	Year-on-year change (%)
Total volume of loans (as at 31 Dec 2017)	3085.5	4.6
Population – loans (households, residents)	1437.0	8.0
Housing loans	1114.8	5.8
Consumer loans	198.5	7.1
Non-financial corporations (residents) – loans	1022.0	4.7
New loans (2017)		
Population, housing, consumption, other	512.2	5.0
– Of which: housing loans	346.4	2.0
– Of which: consumer loans	118.1	12.8
Non-financial companies	457.9	-10.3

Source: CNB, ARAD



but also, to an increasing extent, from Fintech companies.

By the end of 2017, the volume of bank loans in the Czech economy grew by 4.6 %, amounting to CZK 3085.5 billion.



At the end of the year, households drew CZK 1437 billion in loans, i.e. 8 % more than a year earlier; loans to the corporate sector amounted to CZK 1022 billion, with a year-on-year increase of 4.7 %. Enterprises drew new loans in the amount of CZK 457.9 billion during the year, representing a year-on-year decrease of 10.3 % compared to the previous year. The year 2017 apparently showed not only the tendency of enterprises to invest primarily from retained profits of the previous period, but also a tendency to wait for new EU grant calls to be made. The impact of European grant programmes has thus been quite fatal not only in terms of the investment cycle, but also to bank lending.

Overall, by the end of 2017, the volume of deposits stood at CZK 4169.1 billion and exceeded the volume of loans by approximately 35 %. The excess of deposits compared to loans has traditionally been generated by the household sector, where households have deposited 65 % more funds on deposits with domestic banks compared to the funds they drew from loans. In the corporate sector, the volume of deposits and loans is approximately balanced.

By the end of 2017, households had deposited CZK 2 370.2 billion in banks, i.e. 7.3 % more than last year. More than 75 % of the savings have been deposited on demand deposits. By contrast, the volume of fixed term deposits at the end of the year fell by 8 %, to CZK 550.4 billion. Like in 2016 and with interest rates still being low, people preferred the immediate availability of deposited funds, among other things, for a partial financing of investments in their own housing. One of the major advantages of the domestic banking sector has been a low ratio of non-performing loans: its value, according to the methodology used by the European Banking Authority (EBA), compared to the previous year, dropped at the end of 2017 to 1.6 % and was thus the fifth lowest among EU Member States, while the coverage ratio of NPLs by allowances was 62 %, the third highest. The good quality of domestic loans is thus the main reason for the profitability of the Czech banking sector, even under many challenges.



OVERVIEW OF BANKS AND FOREIGN BANK AFFILIATIONS OPERATING IN THE CZECH REPUBLIC (IN ALPHABETICAL ORDER)

Banks and foreign bank affiliations	www – address
Air Bank a.s.	www.airbank.cz
Bank Gutmann Aktiengesellschaft, pobočka Česká republika	www.gutmann.at
Bank of China (Hungary) Close Ltd. Prague branch, odštěpný závod	www.bankofchina.com
Banka CREDITAS a.s.	www.creditas.cz
BNP Paribas Fortis SA/NV, pobočka Česká republika	www.bnpparibas.cz
BNP Paribas Personal Finance SA, odštěpný závod	www.bnpparibas-pf.com
BNP Paribas S.A., pobočka Česká republika	www.bnpparibas.com
Citibank Europe plc, organizační složka	www.citibank.cz
COMMERZBANK Aktiengesellschaft, pobočka Praha	www.commerzbank.cz
Česká exportní banka, a.s.	www.ceb.cz
Česká spořitelna, a.s.	www.csas.cz
Českomoravská stavební spořitelna, a.s.	www.cmss.cz
Českomoravská záruční a rozvojová banka, a.s.	www.cmzrb.cz
Československá obchodní banka, a. s.	www.csob.cz
Deutsche Bank Aktiengesellschaft Filiale Prag, organizační složka	www.deutsche-bank.cz
Equa bank a.s.	www.equabank.cz
Expobank CZ a.s.	www.expobank.cz
Fio banka, a.s.	www.fio.cz
HSBC Bank plc - pobočka Praha	www.about.hsbc.cz/hsbc-in-czech
HSBC France – pobočka Praha	www.about.hsbc.cz/hsbc-in-czech
Hypoteční banka, a.s.	www.hypotecnibanka.cz
Industrial and Commercial Bank of China Limited, Prague Branch, odštěpný závod	www.icbc-ltd.com
ING Bank N.V.	www.ingbank.cz
J & T BANKA, a.s.	www.jtbank.cz
Komerční banka, a.s.	www.kb.cz
mBank S.A., organizační složka	www.mbank.cz
Modrá pyramida stavební spořitelna, a.s.	www.modrapyramida.cz
MONETA Money Bank, a.s.	www.moneta.cz
MUFG Bank (Europe) N.V. Prague Branch	www.bk.mufg.jp/global
Oberbank AG pobočka Česká republika	www.oberbank.cz
PKO BP S.A., Czech Branch	www.pkobp.pl/pkobppl-en/international-banking/czech-branch-praha/
Poštová banka, a.s., pobočka Česká republika	www.pabk.sk
PPF banka a.s.	www.ppfbanka.cz
PRIVAT BANK der Raiffeisenlandesbank Oberösterreich Aktiengesellschaft, pobočka Česká republika	www.privatbank.at
Privatbanka a.s., pobočka Česká republika	www.privatbanka.cz
Raiffeisen stavební spořitelna a.s.	www.rsts.cz
Raiffeisenbank a.s.	www.rb.cz
Saxo Bank A/S, organizační složka	www.home.saxo/cs-cz
Sberbank CZ, a.s.	www.sberbankcz.cz
Stavební spořitelna České spořitelny, a.s.	www.burinka.cz
Sumitomo Mitsui Banking Corporation Europe Limited, Prague Branch	www.smbc.co.jp
UniCredit Bank Czech Republic and Slovakia, a.s.	www.unicreditbank.cz
Volksbank Raiffeisenbank Nordoberpfalz eG pobočka Cheb	www.vr-nopf.de
Všeobecná úverová banka a.s., pobočka Praha	www.vub.cz
Waldviertler Sparkasse Bank AG	www.wspk.cz
Western Union International Bank GmbH, organizační složka	www.westernunionbank.com/de/home
Wüstenrot - stavební spořitelna a.s.	www.wuestenrot.cz
Wüstenrot hypoteční banka a.s.	www.wuestenrot.cz

Source : Czech National Bank

Valid as of 1. 11. 2018

DEVELOPMENTS IN 2018

In January 2018, a new Act on Payment Systems came into force, which transposed the rules of the EU Directive known as “PSD 2”, into Czech Law. The objective is to strengthen the functioning of the single market in payment services, increase competition and consumer protection in this area, respond to technological progress, and extend innovative payment methods related to it. In connection with that, local banks, members of the Czech Banking Association, have developed a common Czech Open Banking Standard, which provides a foundation for rules of communication among the subjects of payment services in the Czech Republic.

In 2018, regulation in the area of macroprudential policies got stricter. As of August, the countercyclical buffer rate was doubled from the 2017 level, and another 1.25 % increase has been announced by the Central Bank as at 1 January 2019. Moreover, as of October 2018, the Central Bank extended its recommendation on values of indicators for the regulation of the mortgage loans market from one (LTV) to three (LTV, DTI and DSTI).

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TAX CHANGES AFFECTING BUSINESSMEN

As tax legislation in the Czech Republic is an area of frequent changes, we would like to use this opportunity to inform you about some of them, especially those which came into force in 2018. We focus on three areas: changes in the area of VAT, changes in personal income taxation, and Income Tax changes.

CHANGES IN THE AREA OF VAT

1. Taxpayer Limit and Tax Rates

The maximum limit for income, on the basis of which maximum expenditures are calculated, shall return to their 2017 level, i.e. from CZK 1 million, valid in 2018, to CZK 2 million (for 12 subsequent calendar months).

2. Cancellation of Special Regulation for Companies (former associations) without Legal Personality

As from 1 January 2019, individual members of an association without legal personality may no longer apply VAT according to the old rules. This means that the transition period allowed for adaptation to the new rules has ended. Conceptionally, the entire regulation for persons doing business in association with other persons under a contract in the area of VAT registration, which until now has been the responsibility of a single entrusted person, is cancelled. As from 1 January 2019, each partner without exception will be obliged to act in all matters concerning VAT independently and be guided by the following rules:

- for the purpose of the company turnover and the follow-up filing of the application for VAT registration, each partner shall monitor their own turnover separately;
- for VAT purposes, each partner shall keep a record of all his payments made and received;
- in his Tax Return, his summary

report and the control report, each partner shall state all data concerning his payments made and received;

- each payer shall issue a tax document at the delivery of goods and services,
- for the purpose of the cancellation of VAT registration, each partner shall proceed in the same way as other payers.

3. Changes in Value Added Tax Legislation for 2019

A number of changes are prepared in the VAT Act for 2019. Prepared alterations are following:

CONSIDERATION

Certain basic terms mentioned in Section 4 are newly defined, for example the term “consideration”, which will be provided in direct relationship with fulfilment, so as to emphasise the undeniable existence of an unequivocal and direct link between fulfilment and counter-fulfilment (consideration).

FULFILMENT PROVIDED

In order to unify the terminology and to mutually link up the terms in the Value Added Tax Act, a general term, “fulfilment provided” has been introduced. The term “fulfilment provided” comprises the delivery of goods or the provision of services by the person obliged to pay consideration tax, disregarding the place of fulfilment.

EXERTION OF NECESSARY EFFORT TO DELIVER THE TAX DOCUMENT

Besides the duty to make out a tax document, the payer shall also be obliged to exert the necessary effort to have it delivered within a defined period of time, i.e. usually within 15 days of the taxable fulfilment. In case of doubt as to whether the payer is fulfilling this obligation, the Tax Administrator will be entitled to impose a special recording duty upon him.

ADDITIONAL TAX RETURN

If a situation arises where it is established that the payer will be required to file an additional Tax Return, he will be obliged to do so before the end of the specific month, provided the information requiring the payer to make out an additional Tax Return is received before

the 15th day of that calendar month. If the information is delivered after the 15th day of the calendar month, the payer shall be obliged to file an additional Tax Return not later than the 15th day of the following calendar month. The same terms also apply to the duty to pay the amount of the additional Tax Return.

BARTER TRADE VAT AND FULFILMENT IMPLEMENTED BY VIRTUAL CURRENCY

In both these cases (barter settlement or payment of the full amount or its part in virtual currency), the amendment provides for the determination of the tax base as the usual price of the fulfilment.

VAT ON IMPORTED GOODS

In the case of the obligation arising to submit a VAT Return for imported goods to a person other than their owner, VAT on those goods shall be returned at their handover within the framework of the Czech Republic, based on their current purchase price. This rule applies each time until the moment the goods have been delivered to the recipient by their real owner.

CLAIMING VAT FROM FOREIGN PERSONS

The amendment specifies situations where foreign persons, not only those from the EU, but also from third countries, may claim domestic VAT either by deduction or using the tax refund mechanism, in some cases depending on the state in which they are obliged to file the tax refund application.

CHANGES IN PERSONAL INCOME TAXATION

Here we would like to mention the main changes concerning the taxation of natural persons.

1. Raising the Tax Relief for the Second and Subsequent Child

For the whole of 2018, the tax relief for the first child will be increased.

Amount of the annual tax relief for 2018:

- CZK 15 204 (CZK 1117 per month) for the first child,
- CZK 19 404 /1617 per month) for the second child – without change,
- 24 204 (CZK 2017 per month) for the third and subsequent child – without change

2. Supergross Wage

The package of taxation changes for 2019 originally provided for the cancellation of the employee income taxation method, using the supergross wage taxation system and the introduction of the progressive personal income tax rate of up to 24 %. For the time being, this draft amendment has been omitted. However, the introduction of the said change some time later is expected, but without affecting the year 2019.

INCOME TAX CHANGES INTRODUCED IN 2018

1. Limitation of flat-rate expenses

As from 2018, the maximum amount of expenses the payer will be allowed to deduct from the calculated tax base has been limited. At the same time, however, the payer will be able to claim a tax reduction for his/her spouse and his/her child, even if he/she uses the flat-rate taxation system.

Flat-rate Expenses in 2018:

- flat rate of 80 % (agriculture, craft trade) – maximum expense of CZK 800 000,
- flat rate of 60 % (other trades except craft trade) – maximum expense of CZK 600 000,
- flat rate of 40 % (other trades) – maximum expense of CZK 400 000,
- flat rate of 30 % (income from commercial property renting under Section 7, income from rent under Section 9) – maximum expense CZK 300 000.

These expenses correspond to an income of CZK 1 000 000. In the case of the payer having a higher income, he may deduct flat-rate expenses only to the level of the amounts mentioned above.

2. Excessive Borrowing Expenses

As from 2019, the deductibility of borrowing expenses will be restricted. An excessive borrowing expense is an expense incurred to attain, ensure and maintain taxable income after the deduction of taxable borrowing income in the tax period concerned.

The payer's income will thus be raised by the positive difference between excessive borrowing expenses and the limit of recognisable borrowing expenses, which is the higher of the amounts:

- 30 % of the juristic person's taxable income before interest, tax and depreciation.

- CZK 80 000 000.

Excessive borrowing expenses include mainly:

- interest on all borrowings and credits
- interest on leasing instalments
- interest comprised in the purchasing price of assets
- exchange rate differences related to financing

The restriction of the deductibility of excessive borrowing expenses will be applicable to all debt instruments, disregarding the date of their creation.

3. Small-scale Employment

In the case of income derived from small-scale employment (for example, agreements to perform work) not exceeding CZK 2 500 per month will be subject to Withdrawal Tax.

The same will apply to agreements to complete a job not exceeding CZK 10 000. Income taxable by Withdrawal Tax will not have to be stated in the Tax Return.

4. Restriction of the Child Tax Bonus

To qualify for the child tax bonus, the payer must have an income amounting to at least six-fold the minimum wage. As from 2018, income derived from capital property and income derived from rent are not included in the sum needed for the creation of entitlement to a tax bonus. To qualify for the tax bonus, the payer must have income of at least six-fold the minimum wage derived from dependent activity or income from self-employment.

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ENTREPRENEURSHIP OF FOREIGN ENTITIES & ITS TAXATION IN THE CZECH REPUBLIC

Entities that are not tax residents of the Czech Republic may become liable to income tax according to the Income Tax Act No. 586/1992 Coll., as amended, if they receive income derived from the territory of the Czech Republic. Although the basic level of taxation of this income is relatively low (corporate income tax 19 %, natural persons 15 %), it may become a fundamental complication for their business activities. It is essential to realise the fact that, in some cases, income tax of tax non-residents is withheld in a form of withholding tax from gross revenues (at the rate of 5 % or 15 %) and not from profit. Withholding tax rate of 35 % is also applicable for taxpayers who are not EU members or taxpayers from a country that has not signed Double Tax Treaties with the Czech Republic.

Although the Czech Republic as a member of OECD has signed many international bilateral double tax treaties regarding the avoidance of double taxation – currently with 88 states – these agreements mostly modify the rate of the withholding taxes, but the principle of withholding tax by retention tax from the whole income instead of profit taxation is a basic complication. Under these conditions, it is appropriate to consider founding a subsidiary or branch used for doing business in the Czech Republic.

I. TYPES OF INCOME TAXED BY WITHHOLDING TAX

Among revenues of tax non-residents derived from the territory of the Czech Republic, on which 15 % withholding tax is levied (unless reduced/eliminated by a double tax treaty or unless a permanent establishment is created), may be included e.g.:

Revenues from:

- services (except realisation of building site or construction or installation or assembly project) rendered on the territory of the Czech Republic;
- consulting, management and brokerage and similar professional activities provided on the territory of the Czech Republic;
- independent personal services rendered on the Czech territory;
- income of artistes and athletes for their performance in the Czech Republic.

Payments from Czech tax residents (or from permanent establishments of non-residents) for:

- industrial and cultural royalties, including payments of any kind received as a consideration for the

use of any industrial, commercial or scientific equipment, except of financial leases;

- director's fees;
- contractual penalties from business obligations;
- dividends;
- other income derived from a capital asset interest.

Revenues of tax non-residents obtained from the territory of the Czech Republic on which 5 % withholding tax is imposed are rentals from financial lease. We have to note that the Czech Republic has a broad system of capital gains (realised on sale of shares) tax exemption valid for Czech non-transparent companies with shares in Czech/EU non-transparent subsidiaries and for EU non-transparent companies with shares in Czech subsidiaries. The conditions are, in particular, that at least a 10 % share is held for at least a 12-month period (even sale of shares in a third-country subsidiary may qualify under certain additional conditions).

II. TYPES OF NON-RESIDENTS' INCOMES TAXED BY TAX IMPOSED ON PROFITS

Besides income liable to withholding tax types of income derived by non-residents from the territory of the Czech Republic, incomes exist which are subject to the standard 19/15 % Czech corporate income tax



applied on profit. For these types of income, a standard income tax return shall be submitted (once a year until 1 April of the following year, or until 1 July of the following year if the tax return is prepared by a tax advisor/attorney at law on the basis of Power of Attorney) and the tax base consists of profit adjusted for attributable and deductible items. These revenues are typically represented by revenues from real estate or permanent establishment.

Permanent Establishment

Permanent establishment in the Czech Republic arises as a result of a fixed place of business, of a building site or construction or installation or assembly project carried out by a tax non-resident which has existed for more than six months within any twelve-month period, from the performance of professional services and of other activities of an independent character in the Czech Republic, if such activities are carried out on the territory of the Czech Republic for more than six months within any twelve-month period. Also, a dependent agent with authority to negotiate/conclude contracts in the Czech Republic binding on the non-resident may trigger a permanent establishment of this non-resident. These basic definitions of permanent establishment can be altered by wording of the relevant treaty on avoidance of double taxation.

III. TAXATION OF PARTNERSHIP INCOME

Czech general commercial partnerships (v.o.s.) and limited partnerships (k.s.) are regarded as tax transparent entities for the purpose of corporate income tax (the latter only with respect to the general partner(s)). The profits of a general commercial partnership are not subject to taxation at the v.o.s. level, but at the level of its partners. In a limited partnership, profits are divided into a part for the general partners (subject to taxation at the level of partners) and a part for limited partners, which is subject to taxation at the limited partnership level. The latter part, minus corporate income tax, is divided between limited partners in the form of dividends; dividends are generally liable to a withholding tax of 15 %. The income of v.o.s. partners or k.s. general partners or members of a civil association (without legal capacity) who are not Czech tax residents from participation in v.o.s. or k.s. or association and from loans

granted to v.o.s. and k.s. is regarded as income derived through a Czech permanent establishment, taxable at the standard income tax rate (19 % for legal entities).

Carrying tax losses forward

As of 2004, tax losses suffered in a tax period can be carried forward in the next five tax periods. Carrying losses backward, however, is not possible. There are restrictions on the deductibility of tax losses (shown in previous tax periods) which may result from a fundamental change in the composition of owners of the company concerned, or from its merger. As a rule, beginning from tax periods commenced in 2011, the tax administrator is entitled to check tax returns and assess tax liability in retrospect within three years from the end of the deadline for filing the tax return for the controlled tax period. But this is the minimum term, which can be prolonged. Considering the complexity of this problematic volume of judicature and statements of the Ministry of Finance of the Czech Republic, we recommend always using the professional assistance of a tax advisor in identifying the possibility of the formation of the tax duty from revenues derived from the territory of the Czech Republic.

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EMPLOYEES – TAXATION, SOCIAL SECURITY, AND HEALTH INSURANCE

The extent of individual's taxation in the Czech Republic depends on individual's tax residency status. Czech tax residents are subject to tax on their worldwide income. Czech tax non-residents are subject to tax on Czech-source income only. Tax non-residents are taxed in the same way as residents on their Czech-source income, except for certain types of income.

Czech source income is, for instance, income for work performed in the territory of the Czech Republic, rental income from real estates located in the Czech Republic, etc.

In addition, Czech tax non-residents may not qualify for certain tax deductible items and tax reliefs.

The term "tax resident" includes any person residing in the Czech Republic for at least 183 days within a calendar year (continuously or over several periods) or having a residence (permanent home)¹ in the Czech Republic.

If an individual is treated as a tax resident in the Czech Republic and, at the same time in another country, the final tax residency status is to be determined in accordance with the applicable double tax treaty. Czech Republic concluded double tax treaties with nearly all European countries and majority of other developed countries.

If there is no double tax treaty in place between the Czech Republic and the other country, double taxation may arise.

INCOME SUBJECT TO TAX

Employment income includes salaries, wages, bonuses, other compensation of a similar nature, and most benefits in kind². Employment income also includes fees paid to directors and shareholders of private limited companies and to limited partners of limited partnerships for work performed for the company or partnership.

On the other hand, travel reimbursement within the Czech labour law statutory limits and various other qualified benefits, such as luncheon vouchers, cultural and social fund benefits, temporary accommodation of up to CZK 3 500 per month (approx. EUR 135) and private life insurance or supplementary pension insurance premiums annually of up to CZK 50 000 (approx. EUR 1 931) may be exempt from taxation if further conditions are met.

The tax base for employment income equals the sum of the gross income of the employee and the employer's portion of mandatory Czech social security and health insurance contributions³. For employees who are not subject to the Czech social security and/or health insurance system, the tax base for employment income equals the sum of gross income of the employee and the employer's portion of deemed mandatory Czech social security and/or health insurance contributions. No expenses may be deducted from employment income.

TAX-DEDUCTIBLE ITEMS

The tax base from employment as described above is to be consolidated with all other partial tax bases (i.e. partial tax base from self-employment and business income, from rent, investment income or from other income). The overall tax base can be lowered by tax deductible items such as gifts to charities and other organisations for qualified purposes, mortgage interests, and contributions towards individual's private life insurance or supplementary pension insurance.

TAX RATE

The employee's tax liability is computed from the tax base reduced by the above tax base deductions, using the 15% tax rate.



In case the gross income of the employee exceeds annual maximum assessment base for social security contributions, solidarity surcharge tax of 7% should be applied on employment income exceeding the limit⁴.

For non-residents from countries outside the European economic area with no treaty on exchange of tax related information with the Czech Republic in place, income from dividends, capital gains, interest, royalties and remuneration to members of statutory bodies is subject to 35% withholding tax rate.

TAX ALLOWANCES

Tax payer may lower the annual tax liability through deduction of tax reliefs. The below tax reliefs, except for the personal tax relief, are available for tax residents and in general, also for Czech tax non-residents who qualify as residents of other member states of the European Union or of the European economic area and their Czech-source income accounts for at least 90% of their total annual income.

The annual personal tax relief is CZK 24 840 (approx. EUR 959). In addition, tax relief of CZK 24 840 is granted for a spouse living in the same household with the taxpayer, unless the spouse's annual income exceeds CZK 68 000 (approx. EUR 2 627).

Additional personal tax relief of CZK 2 520 (approx. EUR 97) is granted for partially disabled persons and of CZK 5 040 (approx. EUR 195) for fully disabled persons. Tax relief of CZK 4 020 (approx. EUR 155) is granted to tax payers who are full-time students up to the age of 26 and tax relief of CZK 15 204 (approx. EUR 587) is granted for the first, CZK 19 404 (approx. EUR 750) for the second and CZK 24 204 (approx. EUR 935) for the third and each other dependent child. In addition, parents may apply for tax relief for children visiting the kindergarten of CZK 12 200 (approx. EUR 471)

per annum. In case of the taxpayer's tax liability having been fully covered by tax reliefs, the child tax relief can also be used as a child tax bonus. In this case, the tax bonus increases the employee's net salary or is paid to the tax payer by the tax authorities.

Taxpayers can also claim proportionate amounts of tax reliefs, with the exception of the taxpayer allowance, if the applicable conditions are met for a part of the year only.

TAX COLLECTION

The employer is obliged to operate monthly payroll to calculate monthly payroll tax withholding and remit the payroll tax withholding to the tax authorities.

If the tax payer has only one employer at each time during the year, does not receive other income above CZK 6 000 (approx. EUR 232) (apart from income that is subject to the final withholding tax, e.g. interests and dividends from the Czech companies) and the individual's employment income is lower than the threshold for solidarity tax 1 438 992 p.a. (for 2018), the tax payer is not obliged to file annual tax return.

Consequently, the tax payer may ask the employer to perform annual tax reconciliation to apply tax base deductions or tax reliefs that cannot be applied within the monthly payroll (simplified annual tax filing).

In other cases, the tax payer is obliged to file annual tax return.

The tax return for the respective tax period (calendar year for personal income tax) must be filed with the tax authorities by 1 April of the following year. The filing deadline may be extended until 1 July if the tax payer grants a power of attorney to a certified Czech tax adviser, or on the basis of a special application. Another extension of the tax return filing deadline until 1 November of the following year is available if the tax payer has income from abroad.

SOCIAL SECURITY AND HEALTHCARE INSURANCE PREMIUMS

Employment income is subject to social security and healthcare insurance premiums.

The assessment base for premium computation is derived from the employment income, where the assessment base is the sum of the income subject to personal income tax.

The premium consists of a part to be paid by the employer and of a part to be paid by the employee. The payer of the premium is the employer, who withholds the premium from the employee's monthly income. The employer pays both these parts to the social security and healthcare insurance authorities. The employer pays 25 % of the assessment base as a social security premium and 9 % of the assessment base as a healthcare insurance premium; 6.5 % of their assessment base for social security and 4.5 % for healthcare insurance are withheld from employees, members of statutory bodies, and executives.

A maximum annual assessment base⁵ is set for social security premiums. There is no maximum premium set for healthcare insurance contributions. For employees changing employment in the course of the calendar year, or working for several employers simultaneously, the maximum assessment base for social security premiums is calculated for each employer separately. If the amount of the employee's social security premium exceeds the annual maximum, the employee may claim the return of the surplus after the end of the year. No premium overpayment arises to the employer. Employees coming from another EU country, or a country with which the Czech Republic has a bilateral treaty in the area of social security and/or healthcare insurance, may apply for an exemption

from premium payment in the Czech Republic. On the basis of such an exemption, employees are not required to contribute to the social security and/or healthcare insurance systems in the Czech Republic, but remain covered by their home social security and healthcare insurance systems.

As a member state of the European Union, the Czech Republic is bound by the EU social security regulations (currently applicable to all member states of the European economic area and Switzerland) and other EU law. In addition, to prevent double social security contributions and to assure benefit coverage, the Czech Republic has entered into social security agreements with several non-EU jurisdictions, including Australia, Canada, India, Japan, Korea (South), the Russian Federation, or the United States.

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¹ Residence (permanent home) is a place where the payer has a permanent residence, i.e. an apartment which is available to him/her at all times, whether owned by him/her, or rented, and where the payer intends to be staying (depending on his/her personal and family situation). The apartment may be rented to another person, but only in a form enabling the payer its use according to his/her needs.

² Or in connection with a previous, current or future performance of dependent activity, regardless of whether the activity is carried out for the payer of the income or not.

³ In general, 34 % of income up to the amount of the social security premium from the maximum assessment base and 9 % above this maximum assessment base.

⁴ In force as of 1 January 2013 going forward. Only gross income above CZK 1 438 992 (approx. EUR 55 581) in 2018 is subject to the solidarity surcharge tax of 7 %. The amount for 2019 will likely be CZK 1 569 552 but this is yet to be confirmed by the authorities.

⁵ For healthcare insurance premium, as of 1 January 2013, the annual ceiling is no longer applicable. For social security premiums, the annual ceiling amounts to 48-fold average wages; in 2018 it is CZK 1 438 992 (approx. EUR 55 581). For 2019, the annual social security ceiling will likely be CZK 1 569 552 but this is yet to be confirmed by the authorities.



REGIONS



Prague – Hradčany

PRAGUE REGION

Prague is one of the most attractive and successful regions in Central Europe. It represents a relatively dynamically developing and successful region, repeatedly ranked by Eurostat among the ten wealthiest regions in the European Union (measured by gross domestic product per inhabitant). In terms of the number of inhabitants, it is the 15th largest city in the EU, and, regarding area, Prague ranks among medium-sized cities in the EU, with an area of 496 sq. km.

Prague is an important cultural and artistic hub, its centre with an area of 1 106 hectares is included in the UNESCO Cultural Heritage List, which makes the city one of the most sought-after tourist destinations in the EU.

ECONOMIC POTENTIAL

From the economic point of view, Prague has an exceptional position in the framework of the Czech Republic. In addition to all the main state administration authorities, most financial institutions and foreign firms have their seats there. All this has an essential influence on Prague's economy, which creates about one-quarter of the national gross domestic product on a long-term basis. The tertiary sector (services) in the capital accounts for more than 80 % of added value. Prague is the hub of all the country's motorway routes and is also an important international railway junction. Prague Main Railway Station has undergone a total reconstruction, which was completed in 2011. Passenger and air freight transport is operated in Prague mainly at Václav Havel Airport.

In 2017, the airport processed 15 415 001 passengers, 17% more than in 2016. Altogether 148 283 take-offs and landings were recorded in that year. This reaffirms its status as one of the fastest growing airports in its category in Europe (10-25 million passengers processed per year). The number of passengers cleared by Václav Havel Praha Airport is showing a two-digit increase, for the first time in its history. This repeated increase is due to the arrival of new air carriers, the opening of new lines and raising the capacity of existing lines. In 2017, 16 new destinations were added to the existing ones. In two more cases, new lines were opened to new airports in already existing destinations (London/City and London/Southend). In 2017, 69 regular carriers operated their flights to 163 destinations. Most passengers travelled

from Prague to other European cities and on to Africa. The number of flights to destinations in Africa increased by 66 % year on year, mainly due to greater interest in trips to holiday destinations in the north of the continent. The most frequent flights were to the UK (to 15 different destinations, with a 6.61 per cent increase in the number of passengers processed). Coming next was Italy (+29.60 %), followed by Germany (+8.10 %), Russia (+24.56 %), and France (+9.02 %). Traditionally the most frequented destination was London, where flights from Prague were directed, for the first time, to all six of London's international airports. The next most frequented destinations were Paris, Moscow, Amsterdam, and Frankfurt. The real leader with regard to the number of

Statistical Data

Population	31. 9. 2018	1 304 773
Gross wage	1.-3. Q. 2018	CZK 39 371 (approx. EUR 1 535)
Unemployment	30. 11. 2018	1.92 %

Source: Czech Statistical Office

passengers processed in year-on-year comparison was Milan, Bergamo, followed by Hurghada, Moscow, Rome, Ciampino, and Marsa Alam.

The Czech capital of Prague also scored success in international comparisons. In 2017, for example, it occupied eighth position on the ladder of the most popular congress destinations prepared each year by the International Congress and Convention Association (ICCA). Prague improved its rankings by three positions in comparison with 2016 and came to figure among the world's TOP 10 congress destinations, which include cities such as Barcelona, Paris, Vienna, London, and Singapore. In 2017, 4 127 conferences took place in the Czech capital, one-third of all events organised in the Czech Republic in that year, according to the Czech Statistical Office. The conferences held in Prague were attended by more than half a million delegates. According to Prague Convention Bureau's long-term statistics based on data supplied by its members, Prague is showing a stable proportion between international (49.2% in 2017) and local (50.8%) events. The highest number of foreign delegates coming to Prague in 2017 were participants from the USA, the UK, Germany, Switzerland, and France. The most frequent subjects debated at the meetings in Prague concerned Pharmacy, Industry, and Trade. Regarding the number of events, small corporate meetings, attended by between 10 and 149 delegates, prevailed over events organised by large associations. Altogether 50 congresses attended by more than 1 000 participants each took place in Prague in 2017. With an 80 per cent occupancy of hotels in 2017, Prague held fifth place among markets with the highest occupancy rate in Europe. At the same time, it is the 10th largest hotel market in Europe with more than 35 000 rooms, which in 2017 provided overnight stays to more than 18 million persons.

INVESTMENT

In 2017, CzechInvest mediated 10 investment projects for Prague, worth an aggregate of CZK 1 076 million, which have created or will create 885 jobs. The fastest growing is the corporate service sector, which in Prague grew by 20% year on year, and the same growth is also expected in 2019, according to an ABSL survey. Prague service centres currently employ some 50 000 experts.

Many of them come from other countries, attracted by several projects. In Germany and the UK, they are addressed by the Czech Your Talent project, in France by Czech Emploi. Investors prefer coming to Prague in spite of higher costs in comparison with the rest of the Czech Republic, mainly because of its perfect infrastructure, availability of modern office space, several universities and a high quality of life. "Prague is an ideal location for international service centres. It offers excellent transport connections to all parts of the world, a high quality infrastructure and a very good quality of life. Besides investors it attracts all sorts of specialists, not only from different parts of the Czech Republic, but also from abroad," says Jonathan Appleton, Director of ABSL Association. Prague is his choice, in spite of higher costs in comparison with the rest of the country. For example, in comparison with Brno, rentals in Prague are up to 30% higher and wage costs by as much as 24%. The difference in relation to Ostrava is even greater. The Corporate Service Centre in Prague offers a number of qualified positions in the areas of Finance, Information Technologies, Logistics, and Personal Services. Wages within the sector often exceed the average. In the second quarter of 2018, average wages in Prague amounted to CZK 39 688 per month, according to the Czech Statistical Office. The initial salary of a graduate starting in the financial services sector is CZK 30 000 per month; a position with a five-year experience in the IT sector earns CZK 50 000 per month and a Head of Human Resources official can earn up to CZK 87 000 per month. The Centre does not offer career opportunities only to experts with experience, but also to new graduates. For example, the growing Johnson & Johnson multinational corporate service centre employs more than 800 people, 38 per cent of whom are foreigners from 26 countries worldwide. Prague has great potential, even in the area of office space. According to JLL, there are some 3 358 000 sq. metres of office space available in Prague, with rentals about EUR 20-21 per sq. metre per month. In Prague's outskirts, however, the cost can be only EUR 13.50/sq.m/month. In terms of standards and rentals, Prague offers better terms than other Central European capitals such as Vienna, Warsaw, and Budapest. At the moment, there are about 200 000 sq. metres of vacant office space and 335 000 more sq. metres are expected to be completed in 2019. Corporate services together with IT firms are among the largest renters.

Prague is also focused on innovation projects, such as:

INOVACENTRUM ČVUT

Innovacentrum is a part of Czech Technical University (ČVUT) in Prague, the aim of which is to support technology transfer, promote cooperation between ČVUT and industry, and mediate the transfer of new technologies into practice. Innovacentrum ČVUT, with its Business Innovation Centre (BIC) statute, is a member of the European Business Network (EBN). More at www.inovacentrum.cvut.cz.

VZLÚ PRAGUE SCIENTIFIC AND TECHNICAL PARK

The VZLÚ Scientific and Technical Park in Prague focuses on the development of the aviation, space, defence and safety industries and the transfer of research and development results to practice; its services could be found useful by companies concerned with transport vehicles, power engineering, and construction. More at www.vzlu.cz/cz/spolecnost/vedeckotechnicky-park-vzlu-praha/vedeckotechnicky-park-vzlu-praha

INNOVATION BIOMEDICAL CENTRE ÚEM AV ČR

This is a business incubator for innovation firms concerned with biomedical sciences, and a centre for the support of the competitiveness of start-up firms concerned with Biomedicine. More at bioinova.avcr.cz/o-nas/ibc.html.



Prague – Letná Park

USEFUL CONTACTS:

Prague City Council – www.magistrat.praha.eu

Portal of the Capital City of Prague – www.praha.eu

Tourist Portal of the Capital City of Prague – www.praguewelcomes.cz

Economic Chamber of the Capital City of Prague – www.hkp.cz

PRAGUE SPACE INCUBATOR

Several start-ups moved into Prague's space incubator in 2017, where they will develop their projects. They include, for example, the development of racing and trekking bicycle frames, digitalisation of aeronautical data, tourist mobile applications, management of African agriculture and an X-ray device for verifying the authenticity of works of art. In summer 2018, more firms arrived to pursue their activities in the incubator. Their specialisation is the development of a system for private flight booking and management operated by small and medium companies, droning for industrial purposes and electrical drives for high-altitude pseudo-satellites. The new arrivals include the firms: Strafos, Aleego and ZetJet Technologies; the Swiss firm ZetJet Technologies is the first foreign participant; it will also collaborate with the Czech Technical University. The company is developing electric drive units for high-altitude pseudo-satellites and drones. ZetJet Technologies uses a special technology which meaningfully reduces fuel or electricity consumption needed for flying the aircraft. During the day, pseudo-satellites, whose cost is about 10 to 20 % of the cost of a satellite, use solar energy as a fuel and, during the night, the energy collected in batteries. "ZetJet Technologies has chosen the Czech Republic for its incubation because of its traditionally strong aerospace sector. In addition, the Czech Technical University in Prague is the only university in Europe which can offer the efficient assistance with their project," says Marek Aldorf, Head of ESA B IC Prague section of CzechInvest Agency. The Czech firm Strafos is developing a smart booking and management system for private flights run by small and medium-sized operators. Its modern cloud platform uses satellite technology which shows the crew, the aircraft operator and the airport service the aircraft location and its condition data in real time wherever the plane may find itself, even in places not covered by ground receivers. It can also calculate all costs and optimise the time and flight route of the plane, minimising empty flyovers. There is to date no such system for small and medium

operators. On an online platform of the Aleego company, customers, especially industrial firms, can reserve UAV drones for taking photographs. This technology has become increasingly popular in recent years, especially thanks to the incomparably lower costs and shorter delivery terms in comparison with conventional aerial photographs. The system being developed will process the data collected during the flight to create a clear report that will be passed on to the customer.

EDUCATION

Prague is an important centre of science, research and education, a city in which one-third of the country's public universities and one-half of private institutions of higher learning are concentrated. There are five large prestigious public universities in the territory of Prague – Charles University, the Czech Technical University, the Institute of Chemical Technology, the University of Economics, the Czech University of Life Sciences – and 22 private universities. The Academy of Sciences and its institutes also have their seats and main activities in Prague, which makes the city a centre of education with an importance reaching beyond the borders of the Czech Republic. There are more than 33 higher learning institutions in Prague, where more than 130 000 students have received education in all types of studies. This is 37.4 % of all the university students in the Czech Republic. The number of foreign nationals, too, is rising.

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CENTRAL BOHEMIA REGION

With its geographic position in the central part of the Czech Republic, the Central Bohemia Region forms a ring around the territory of the capital city of Prague, which is its only internal border. A specific feature of the Region within the regional system is the fact that, within its centre, it encloses the capital, which is a separate region. The Central Bohemia Region does not contain its regional city and the Region's administrative centre does not lie within the territory of the Region. Together with the capital of Prague, the Region forms a natural agglomeration linked together economically, historically, and culturally.

The Region is divided into 12 districts with 10 district towns. The largest in area is the District of Příbram (15 % of the regional area), and the smallest is Prague-West (5 % of the regional surface area). There is a large number of historically valuable monuments and sights and several protected landscape areas within the territory of the Central Bohemia Region. The greatest concentration of historical monuments can be found at Kutná Hora (St. Barbara Cathedral, the Italian Court, Hrádek, housing the Museum of Mining, the Ossuary, entered in the UNESCO World Cultural Heritage List). Kolín is another town, besides Kutná Hora, figuring in the Czech list of urban historical reservations in Central Bohemia. The most famous castles in the Region are Karlštejn and Točnick (Beroun District, Křivoklát (Rakovník District), Český Šternberk (Benešov District) and Kokořín (Mělník District).

ECONOMIC POTENTIAL

Developed agricultural and industrial production is characteristic of the Region. Agricultural production benefits from the excellent natural conditions of the Region's north-eastern part. The Region is especially successful in plant production, including the growing of wheat, barley, sugar beet, and, in suburban areas, the cultivation of fruit, vegetables and flowers. Machine building, chemical, and food-processing are pivotal industries. Besides traditional fields, new and demanding fields and services are being successfully developed. The most important industries in the Region are engineering, the chemical industry, and food processing. The Škoda Auto factory has become an enterprise of nationwide significance. Other industries in the Region are glass and ceramics production and printing. The previously traditional sectors of coal mining, steel production, and the leather industry are on the decline. The intensity of economic activities is heavily influenced by the Region's location and easy access to main transport corridors. In the Central Bohemia Region, this is especially true of places in the vicinity of the capital with connections to main roads, especially the highways. Water is another mode of transport: some three-quarters of the Labe-Vltava waterway passes through the Region's territory and is used for both domestic and international transport.

INVESTMENT

The Region offers a wide range of investment opportunities. Industrial parks make it possible for investors to realise their new projects in either vacant or partly occupied parks. There are several industrial parks in the Central Bohemia Region. A quarter of these occupy large areas of over 100 hectares, whereas the remaining parks consist of smaller surface areas. The parks in this Region are more densely occupied than in the rest of the country, as a result of the economic influence of Prague, the great density of transport networks, and a well-developed technical infrastructure, plus the population density. In 2017, the Region attracted investments worth CZK 10 525.58 million in 11 investment projects, mediated by the CzechInvest Agency, which helped to create 924 jobs. A strong position in the Central Bohemia Region is held by the automotive sector, owing to the presence of two major car manufacturers, Škoda

Auto and TPCA. Investors in Central Bohemia have launched large projects. An important investor in the Region is LEGO Production s.r.o., which employs about 2 500 workers in its plant on the outskirts of Kladno. There, the company manufactures mainly decorations and assembles LEGO elements. Its other programmes include large-volume packing, and the research and development of decoration and packaging technologies. Its distribution centre is located in Jirny. LEGO production, s.r.o. has been in the Czech Republic since 2000. Its factory is based in the Kladno-South Industrial Park. In September 2015, the warehouse of the American Amazon online shopping site started full operations in Dobrovíz near Prague. The hall in Dobrovíz is the largest detached industrial building to be constructed in the Czech Republic after 1989. Its special features are that it is fully air-conditioned and very well thermally insulated. It covers an area of 95 000 sq. metres. In 2017 Praha Vaccines announced its plan to invest CZK 2.5 billion in the extension of its plant in Říčany for the production of vaccines against infectious diseases, especially cerebral palsy. Another large investment was announced by La Lorraine, which is planning to invest in the extension of its frozen bakery plant in Kladno. La Lorraine is a leading producer and distributor of frozen bakery products to retail traders and restaurants. It has been holding its leading position in the Czech market since 1998. Its annual output of bakery products is more than 23 tonnes. The company employs more than 300 people and, through the intermediary of its business team, distributors and affiliations, operates in more than eight European countries. The industrial zone at Mladá Boleslav covers a surface area of 75 000 square metres. Besides the Škoda Auto car factory, the international company, Faurecia, one of the world's largest



Dobříš

USEFUL CONTACTS:

Central Bohemia Regional Office – www.kr-stredocesky.cz

Central Bohemia Region – European Office – www.stredocech-eu.cz/

Central Bohemian Regional Chamber of Commerce – www.khkstrednicechy.cz

suppliers for the automotive industry, is another major company to have its manufacturing plant located in Mladá Boleslav Industrial Park. Eaton company, which is concerned with the control, use, and administration of hazardous energy, in 2015 enlarged its European Innovation Centre – the new building is part of the scientific and technical park in Roztoky near Prague, a global research centre carrying out innovation work for Europe, the Middle East, and Africa. In the Innovation Centre, on a surface area of 650 sq. m, is where top research is carried out, focusing on the development of new-generation energy systems that will make possible the more efficient, safer, and sustainable management and use of electric, hydraulic, and mechanical energy. Another company expanding its activities is Mars Wrigley Confectionery based in Benešov, Central Bohemia. In 2018, the factory celebrated the 20th anniversary of its existence. In 2019, it will expand its premises with the addition

of another production hall, which will make it possible to increase the output of its Skittles candies. The production will be highly automated and will support the growth of the trademark in future so as to become a global benchmarker for the firm’s new factories. Thanks to the new hall and its production lines and the high degree of automation, the firm will be able to double the volume of production with the same number of its current staff of 500 workers. Nippon Paint Automotive Coatings (Czech) s.r.o, the Japanese manufacturer of paints for the automotive industry, which in 2018 started the construction of a factory in Ovčáry Industrial Park in Kolín, will invest nearly CZK 240 million in this project. When completed, the factory will create 22 new jobs and will be the firm’s main supplier for the European market. With its help, the firm wants to expand and strengthen its activities in Europe. One of its customers will be the Toyota Peugeot Citroën Automobile (TPCA) car factory, which is located in the same industrial park as Nippon Paint.

Many investment parks benefit from favourable locations near international highways and main roads. These parks include, for example, Průhonice and Čestlice-Nupaky Industrial Parks (both near the D1, which connects Prague and Brno), Rudná-Nučice (near the D5, which runs from Prague through Plzeň to Germany) and Hostivice-Jeneč and Tuchlovice. Many parks have been established in the vicinity of larger towns such as Kladno, Slaný, Kutná Hora, Příbram, Nymburk, and Rakovník. GE Aviation Czech is seriously interested in starting the production and development of turboprop engines somewhere in Central Bohemia. In June 2018, the firm signed an agreement with the regional authorities stating their common interest in finding a suitable locality for the firm’s new global engine centre. It is actually the prolongation of previous cooperation agreements. The current Memorandum is valid until 2020. General Electric has already prepared a list of several localities suitable for its activities, which it is now evaluating in detail with the assistance of the regional authorities and the Government-run CzechInvest Business and Investment Promotion Agency. As a part of the project, at the inception of which was the signing of an investment contract with the Czech government in October 2016, it is building

Statistical Data

Population	31. 9. 2018	1 365 302
Gross wage	1.-3. Q. 2018	CZK 31 890 (approx. EUR 1 244)
Unemployment	30. 11. 2018	2.46 %

Source: Czech Statistical Office

supplier and partnership links. The new central plant for turboprop engines will also participate in the development of the new GE Catalyst turboprop engine model and thereby secure the manufacture of components and assembly of the engines and their testing, as well as servicing and customer support.

An important part of the efforts to raise the competitiveness of the Central Bohemia Region is research, development, innovation and technological development. The creation of conditions for the development of the innovative potential and a knowledge-oriented economy is one of the top priorities of the Central Bohemia Region. The following are some Centres and Parks active in this area:

- Dobříš Centre for Applied Research – www.cavd.cz
- Business Incubator in Nymburk – www.inkubator-nymburk.eu/
- Science and Technology Park in Řež – www.ujv.cz/
- VYRTYCH-Technologický park a Inkubátor- www.vyrtych-tpi.cz/
- Milovice Scientific and Technical Park – www.vtpmilovice.eu/

Technopark Kralupy, a part of the Chemical Technology University in Prague, opened in June 2015. Its laboratories will employ research teams composed of scientific workers and talented students of the University and will offer enterprises qualified services in the area of development and innovation, materials testing and analyses. The laboratories will employ a research staff of 20 scientific workers and dozens of visiting students. Technopark Kralupy focuses on construction chemistry and related branches, especially materials research. It is a respected workplace for specialists engaged in the area of aluminosilicate, refractory, and ceramic materials applications. They participate in the BioMates project financed from the EU Horizon 2020 General Research and Innovation Programme. This is concerned with the processing of non-food biomass into chemical intermediate products, usable in conventional crude oil processing. In addition, the Technopark collaborates with a number of commercial enterprises, especially within the EU, within the framework of contract-based research. The most important enterprises and institutions include Škoda Auto a.s., Sultrade, Institute de la Corrosion (France), Fireclay, Continental, ArcelorMittal, and Voestalpine Stahl GmbH (Austria).

A large scientific project located in the Region is the Biotechnological and Biomedical Centre of the Academy of Sciences and Charles University at Vestec (BIOCEV). Its full operations started in June 2016. The achievements of its scientific teams include the development of a unique vaccine for the treatment of infectious diseases, the historically first documentation of tooth development, which may aid in the treatment of cancer, and the revolutionary discovery of an organism without mitochondria, referred to as the “powerhouses of the cells”. By 2020, the Centre will be employing some 400 scientific workers plus 200 students attending Master’s and Doctoral degree courses. Currently the Centre has 56 research groups, working on 5 synergic programmes concerned with the detailed analysis of organisms at molecular level.



Karlštejn

Their findings will be used in applied research and the development of new methods of treatment for serious health problems. The final results of BIOCEV’s research work include, for example, accurately targeted drugs and protein and tissue engineering therapies.

An important project to be located in the Central Bohemia Region (at Dolní Břežany) is the ELI (Extreme Light Infrastructure) superlaser project to be put into operation later this year. This is the largest scientific and research project in this country’s history, whereby scientists from all over the world will examine the simulation of processes taking place within the stars, study the history of the Universe, work on the development of new techniques for medical visualisation, develop new methods and study possibilities of cheaper and more non-invasive cancer treatment. In 2018, the unique L3-HAPLS laser system, developed for ELI Beamlines by the American Lawrence Livermore National Laboratory (LLNL), was ceremonially launched. On the basis of its evaluation by an international scientific control group, the L3-HAPLS system was found to be fully functional and ready for integration with experimental systems and for the first experiments. This laser system is a new generation of diode-pumped high energy power laser systems. As a unique system worldwide, it is built exclusively on high performance semi-conductor laser diodes and, due to the new technologies using diode light delivering 10 pulses per second, it is several times more efficient than systems installed anywhere else in the world. Laser L3 will serve in many areas of basic and applied research. Its most important applications include the compact laser-induced acceleration of particles for new medical methods and the generation of shortwave X-ray radiation for microscopy with high spatial and temporal resolution for material and medical research.

EDUCATION

The Region is home to the Faculty of Biomedical Engineering of the Czech Technical University (CTU) in Kladno. There are also private universities – the ŠKODA AUTO, a.s. University in Mladá Boleslav, and Academia Rerum Civilium - Vysoká škola politických a společenských věd, s.r.o. (ARC – VŠPSV, College of Political and Social Sciences) in Kolín.

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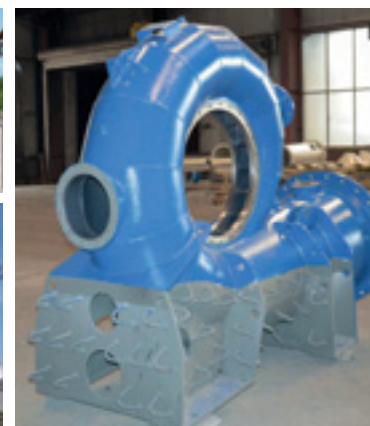
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PLZEŇ REGION

The Plzeň Region is the Czech Republic's third largest region in terms of area. Since its origin Plzeň (Pilsen), a city founded in 1295 by order of King Wenceslas II of Bohemia at the confluence of the Radbuza, Mže, Úhlava, and Úslava Rivers, has been the natural centre of the Region. The industrial and technological development of Plzeň started in the middle of the 19th century, and step by step it became one of the most important cities in the country. At present, Plzeň is the fourth largest Czech city. It has 167 000 inhabitants, more than 30 % of the population of the Plzeň Region.

Besides Plzeň, the function of district centres is performed by the towns of Klatovy, Domažlice, Tachov, and Rokycany. Given the low population density, also smaller towns, such as Sušice, Stříbro, Plasy, Kralovice, Horšovský Týn, Přeštice, and Nepomuk play an important role.

ECONOMIC POTENTIAL

The most important economic sector of the Plzeň Region is the manufacturing industry. Traditional industrial branches include engineering focused on the power industry and transport systems. Other prominent sectors are the production of components for automobiles, mechanical and electrical engineering, electronics, plastics, and food industries (mainly beer brewing and wine and spirits production). The Region also supports investment in strategic services (high-tech services, research and development). Important food manufacturing enterprises in the Plzeň Region include: Plzeňský prazdroj a.s. (Pilsner Urquell), founded in 1843, the largest Czech beer exporter, which exports its products to nearly 50 countries worldwide and is a part of the SAB-Miller plc. international group, the world's second largest brewing company; Stock Plzeň a.s., traditional spirits manufacturer, currently the largest manufacturer of spirits in the Czech Republic; Bohemia Sekt Českomoravská vinařská a.s. in Starý Plzenec, an important wine producer. The important industrial sectors of the Region include mechanical engineering, which is mainly associated with the name of Škoda. Its main product range is equipment for classic and nuclear power plants and petrochemical industries, metallurgical works and forged products, heavy machine tools, equipment for rolling mills, equipment for sugar cane processing, hydraulic and vulcanising presses, gearboxes, rail transport vehicles, trolleybuses, complete electric drives, turbines for combined gas and steam cycles and extraction steam turbines. Škoda Plzeň also conduct their own research and business activities. Doosan Škoda Power is a member of the Korean group of Doosan, an important global manufacturer of equipment for thermal power stations, especially steam turbines, whose manufacture in Plzeň has a tradition of more than 110 years. The firm is an important and responsible employer in the Region. Other important industrial enterprises with a major effect on the Region's economy are: DIOSS Nýřany a.s., specialising in metal sheet and pipe products, Okula Nýrsko a.s., focused mainly on plastic materials processing, and LASSELSBERGER, s.r.o, which represents the ceramics industry, and is formed by the companies of Chlumčanské keramické závody, Keramika Horní Bříza, Rako Rakovnik, Cemix Čebín, and Calofrig Borovany. Regional development also benefits from cooperation with neighbouring Bavaria within the Euroregions. Taking advantage of the support for European Cross-border Cooperation Programmes in the Plzeň Region are the Districts of Domažlice and Klatovy in the Bohemian Forest Euroregion, and the District of Tachov in the Egrensis Euroregion. Cross-border cooperation between Bohemia and Bavaria is developing continuously and its importance is gaining momentum.

INVESTMENT

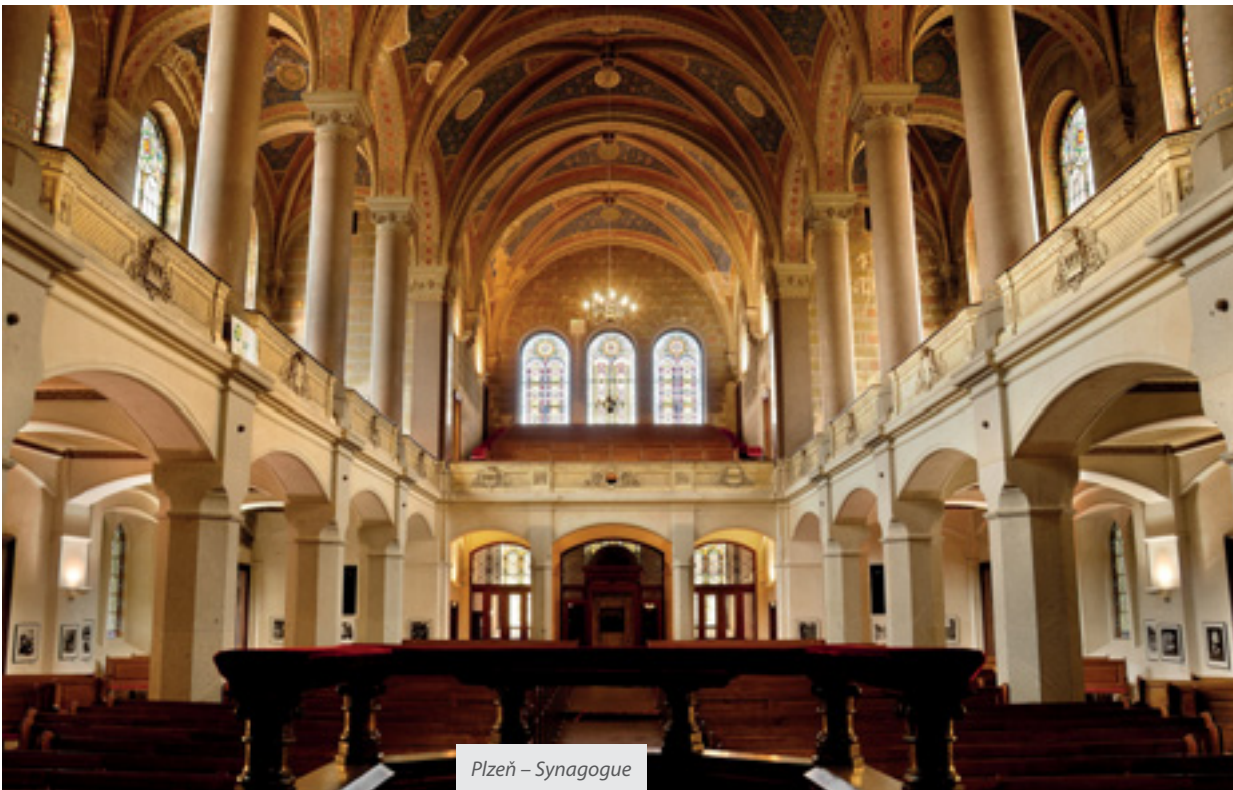
Demand for industrial and logistic real property in the Plzeň Region is at about the same high level as in Prague and its environs. The Plzeň Region has long been a much sought after locality, attracting especially German companies. Thanks to its good quality transport infrastructure and a sufficient supply of skilled labour, the Region has become an industrial base especially for German car factories. A large part of the demand for industrial and logistic real estate comes from e-commerce firms, besides the automotive industry. E-shop operators find West Bohemia advantageous, mainly for its suitable geographical position at the crossroads of European distribution channels. Investors wishing to start or enlarge production prefer to locate their businesses in industrial parks along the D5 motorway, where they find sufficient vacant surfaces. These surfaces are mainly used for the location of warehouses, manufacturing enterprises, development centres and logistic service facilities. Industrial parks play a key role in programmes to attract foreign investors to Plzeň and the Plzeň Region.

Borská Pole Industrial Park in Plzeň has become a model of successful industrial parks in the Czech Republic. The arrival of new investors helps to create a favourable climate for increasing employment in the Region. Similar projects are also being developed in other regional centres, such as Stříbro, Klatovy, Domažlice, Tachov, and Rokycany. Borská

Statistical Data

Population	31. 9. 2018	583 686
Gross wage	1.-3. Q. 2018	CZK 29 998 (approx. EUR 1 170)
Unemployment	30. 11. 2018	1.86 %

Source: Czech Statistical Office



Plzeň – Synagogue

USEFUL CONTACTS

Plzeň Region Portal – Regional Office – www.kr-plzensky.cz

Municipality of the City of Plzeň – www.plzen.eu

BIC Plzeň – Business and Innovation Centre – www.bic.cz

Chamber of Commerce of the Plzeň Region – www.hkplzen.cz

Regional Development Agency of the Plzeň Region – www.rra-pk.cz

CzechInvest, Regional Office for the Plzeň Region – www.czechinvest.org

Pole Industrial Park covers a surface area of 105 ha. In 2018 it hosted 42 companies, which created 8 640 new jobs. Approximately one-third of the firms are fully Czech-owned. The rest are foreign companies, mainly German and Japanese firms. Most investments go into the automotive industry, the manufacture of precision engineering products, air-conditioning systems, the manufacture of moulds and plastic prototypes, and into research and development.

Another industrial park is CTPark Plzeň, covering an area of 30 ha. It is situated west of Plzeň Borská Pole Park and is easily accessible from the D5 motorway and by individual passenger and public transport from the city centre. CTPark is a leading project in the Region, oriented towards hi-tech companies. It locates modern logistic centres and rental halls for light industry production, services and trading. There are also warehousing companies and domestic and international freight haulage and distribution firms, including MD Electronic, Sumisho Global Logistic Europe GmbH, PPL, DHL, Asteelflash Plzeň s.r.o. and Exova s.r.o. At the end of 2015, Hisense Czech s.r.o. opened its division there for the manufacture of smart television sets, household appliances and other mobile and communication equipment. This is one of the largest Chinese consumer goods manufacturers. Currently, 36 companies employing 3 255 workers are located in the Park.

A modern office compound, the Avalon Business Centre, opened in the central part of Plzeň, on the site of the former Typos printing works. The administration and business centre, covering a surface area of 0.595 ha, offers modern working conditions for companies of different sizes. Avalon's current renters include, for example, Sony DADC, Openmatics s.r.o., ABB s.r.o., Provident Financial s.r.o., Sanaplasma and Swiss Life Select Česká republika s.r.o. The investor of the project is Expandia a.s. The compound houses 14 companies, which employ some 850 people.

Another important project is the Plzeň Scientific and Technical Park, which is a key development project initiated and realised by Plzeň city authorities. The main objective of the Park is to support applied research and the practical application of new inventions. It is located in Plzeň Borská Pole Industrial Park. Its main renters are firms concerned with higher value added production projects. The Park offers more than 10 000 sq. m of office, semi-production, and laboratory space. In 2018, it housed 44 firms and institutions employing 348 people.

The CTPark Bor is situated 51 km from Plzeň and 10 km from the border with Germany, in close proximity to the D5 motorway. The Park, covering an area of 292 000 sq. metres, is the second largest industrial park intended for rent in the Czech Republic and one of the largest logistic and manufacturing parks in this country. CTP Invest spol. s r.o., which is the owner of the Park, has built seven huge rental halls there. With its location near the border with the Federal Republic of Germany and the ample supply of labour, the Park is attractive to both logistic and manufacturing companies. Its renters include, for example, the firms of Bridgestone, Schenker, Fujitrans, and Hellmann. The companies employ some 2 090 people.

Pilsen Region – the region of the industrial future

Education, innovation and enterprise are the main foundations for the Pilsen Region to be competitive.

The Pilsen Region is a university region, with the University of West Bohemia playing a crucial role. More than 11,000 students at nine faculties study technical, medical, art and humanities-based fields. The university is outstanding for its range of courses in mathematics, mechanics, electronics, and software and application automation and development. The Faculty of Art and Design is very popular among foreign students. Also in Pilsen is one of the campuses of the prestigious Charles University, where 2,500 students study medicine. Techmania Science Center popularizes science and fosters interest in science and technology, welcoming over 200,000 visitors annually – mostly young people. The region's technically-focused research centres, which primarily specialize in mechanical engineering, new material development, nanotechnology, electrical engineering, electronics and ICT, have also achieved notable success. The region also has excellent medical research, including clinical and general medicine and medical engineering; scientists have

made significant advances in the field of organ replacement and regeneration. Mutual collaboration between technical faculties at the University of West Bohemia and medical domains at the Faculty of Medicine in Pilsen has brought outstanding results; one example is devices for monitoring very young patients with Crohn's Disease, a chronic inflammation of the digestive tract.

The area around Pilsen is known for its strong technical skills, which is historically rooted primarily in the Škoda brand. Turbine development and manufacturing at Doosan, the leading partner in the Flexturbine project, which the EC has listed as an energy research priority in the Horizon 2020 programme, is yet another unequalled example. Škoda Electric provides the world with top-of-the-line traction motors and trolleybuses, and Škoda Transportation is a leading European manufacturer of train and tram carriages that successfully serve the Czech capital of Prague as well as other major cities. Businesses in the Pilsen Region are also shaping the latest trends in

mobility. For example, the world's leading carmakers are working with local companies MB Tech and ZF Engineering, which are developing systems for self-driving cars, e-mobility, and vehicle safety and efficiency. The industrial region sees its future in automation and robotization. Like Aimtec, a Pilsen-based SW producer that has earned global renown as a smart manufacturing and logistics system developer. The Science and Technology Park in Pilsen, which offers space for innovative companies, together with Business Innovation Center Plzeň, a member of the Enterprise Europe Network, successfully forge collaborative relationships between business and research. The Science and Technology Park in Pilsen, which offers space for innovative companies, together with Business Innovation Center Plzeň, a member of the Enterprise Europe Network, help to forge successful corporate-academic partnerships.

*Josef Bernard
President of the Pilsen Region*





Domažlice

In 2017, the Region attracted investments worth CZK 3 189.51 million in 6 investment projects mediated by the CzechInvest Agency, which helped to create 745 jobs.

EDUCATION

A great advantage of the Plzeň Region is the ample supply of skilled labour. The Region offers a wide range of secondary institutions in the branches of electrical, mechanical and civil engineering, as well as in transport. Another source of the qualified workforce is the University of



West Bohemia in Plzeň (UWB – ZČU in Czech). The University seeks collaboration with the business sector and targets the specialisations of its branches of study to meet the demands of the labour market. UWB has nine faculties (e.g. Mechanical and Electrical Engineering, Economics, Applied Sciences). In 2016, the University opened a new institution, the Regional Innovation Centre for Electrical Engineering (RICE). Its labo-

ratories are equipped with state-of-the-art devices and unique technologies. Despite its short existence, RICE can pride itself on a number of achievements. For example, in 2018 RICE signed a mutual cooperation contract with Eaton Corporation, one of the global industrial leaders. The objective of this important contract is to support and strengthen the research and educational activities of both partners on a long-term basis, especially in the areas of power electronics, electrical drives, and intelligent industrial systems. “The partnership between RICE and Eaton will enable us to develop and place on the market completely new technologies, especially as regards new generation means of transport and high-tech energy devices, based on the knowledge of RICE experts, mainly in the areas of power electronics and electrical drives of the highest world standards,” said Ramanath Ramakrishnan, CTO and Executive Vice-President of Eaton Corporation. In addition to the modern laboratories of the Faculty of Electrical Engineering and its unique know-how, Eaton sees in it a guarantee of the high degree of expertise of the students turned out by the university. The signing of the contract is therefore expected to help to promote the educational activities and development of the Electrical Engineering Faculty of Plzeň’s university. Other RICE activities in collaboration with Czech firms include the development of smart protective devices, such as the warning vest with active light signalling using solar energy, light-up LED gloves and shoes preventing step tension. The devices help to increase the safety of workers in construction, the energy industry and other sectors. For example, as regards the vests, the main innovative element is the use of flexible photovoltaic panels placed in the rear part of the garment, recharged by the accumulator feeding the lighting system. The supply of energy from the photovoltaic cells is provided by an intelligent energy harvesting system, which prolongs the operating time of the vest. The idea to create a smart vest has been inspired by RICE experts and the Applycon Company. “In its development, we wanted to make wider use of the optic fibres than just using their lighting effect and integrated a smart device in the vest in the form of the energy-harvesting system, receiving energy from photovoltaic cells. The vest is also provided with automatic light switching,” says Applycon’s executive, Milan Baxa. “An important safety function is distress condition signalling,” he adds. Information of danger can be conveyed by pressing the button on the control unit in the vest pocket. Information of a distress condition is signalled by a flashing light, which is convenient, for example, in a noisy environment. “Ensuring safety by means of active light has become a global trend, promoted by important firms with a worldwide scope of operation,” says Milan Baxa. This type of active technology can also be used on other kinds of clothing, including fashion articles. This experience has also been developed by RICE scientists, who have cooperated with the French modern fashion designer firm of Elisabeth de Senneville, which has used active light elements with resonance and solar recharging on its clothing.

SOUTH BOHEMIA REGION

The Region of South Bohemia used to be seen as an agricultural area with developed fish farming and forestry. Industrial development oriented towards manufacturing activities only started to appear in the Region during the 20th century.

With its 10 057 sq. km, the Region takes up 12.8 % of the entire Czech Republic. More than 7 000 ponds, the overall surface area of which today comprises over 30 000 hectares, were built within the Region's territory in the past. A significant part of the Region's border is formed by the state border with Austria and Germany (total length of 323 km). The Region's border character provides opportunities for efficient cross-border cooperation in the area of manufacture, as well as in the area of services, together with the development of the tourist trade, which utilises the overall attractiveness, unspoiled nature and many cultural monuments of the Region. The Region is an important tourist and recreational area, attracting visitors who come to see its many beauty spots, unspoiled countryside dotted with ponds (Rožmberk, Svět) and to experience the unique atmosphere of its historical towns (České Budějovice, Tábor, Jindřichův Hradec, Český Krumlov, Prachatice, Písek). Exceptional natural wonders can be seen in the Šumava National Park, where the greatest attractions are Boubín and Žofín virgin forests. Those seeking recreation will appreciate stays in the vicinity of Lipno Dam and on the banks of the Vltava River. Of the Region's seven districts, the District of České Budějovice, which is home to almost 30 % of the Region's inhabitants, has the highest population density. This is mostly due to the concentration of population in the city of České Budějovice itself, which has around 95 000 residents.

ECONOMIC POTENTIAL

The Region of South Bohemia is not an area rich in raw materials. Most importantly, there are almost no sources of power-producing raw materials. However, the expansive forests are an important natural treasure, especially the Bohemian Forest and forests in the Novohradské hory Mountains. The forests are mostly coniferous, spruce and pine. The greatest wealth of raw materials comprises deposits of sands and sandy gravels, brick clay, aggregate, and glass sands. Other important raw materials include peat and, in some locations, also

limestone, diatomite, and graphite. There is a number of educational and scientific research institutions in the South Bohemia Region. The most important include the University of South Bohemia in České Budějovice, which comprises a public university-type institution. The Region has always had the character of a recreational area, rather than an industrially developed one. The efforts to preserve the natural environment are reflected in the establishment of the Šumava National Park. In agriculture, crop farming is mostly oriented towards cereals, oil crops, and fodder crops. Animal breeding is dominated by cattle and pig farming. The Region has a long tradition of fish farming. The overall surface area of ponds used for fish farming is approximately 25 000 ha. The ponds supply more than half of the overall fish production in the Czech Republic. The Region also has a significant share in the farming of aquatic poultry (ducks and geese). Industrial production is mainly concentrated in the vicinity of České Budějovice, with significant portions of industry also in the Districts of Tábor and Strakonice. However, the Region is not a crucial industrial area for the Czech Republic. The manufacturing industry is the most prominent and, within it, the manufacture of motor vehicles (excluding motorcycles), trailers and semi-trailers, and food production. The Region's construction firms specialise in new buildings, reconstruction and modernisation. South Bohemia is easily accessible from the northern and eastern parts of the Czech Republic and from neighbouring Austria by the E55 motorway (Prague-České Budějovice-Linz), to which local roads are linked. International railway lines pass through České Budějovice;



Třeboň

Statistical Data

Population	31. 9. 2018	641 528
Gross wage	1.-3. Q. 2018	CZK 28 165 (approx. EUR 1 098)
Unemployment	30. 11. 2018	2.00 %

Source: Czech Statistical Office



Tábor

Veselí nad Lužnicí is an important railway junction. An international airport is located at a distance of approximately 6 kilometres from České Budějovice. In mid-2015, work began on its modernisation, with the aim of transforming it into an airport offering the full range of services for charter, tourist, business, international, and national cargo transport. The airport is expected to become an international public airport in 2020. Currently, the airport operator only holds a licence for non-public international flights, allowing it to receive and handle only medium-sized aircraft with a wingspan of under 36 metres (more at www.airport-cb-cz). Linz, Upper Austria, is the nearest public international civilian airport.

The exhibition grounds in České Budějovice host various kinds of exhibitions throughout the year. The international “Bread Basket” agricultural fair and the “HOBBY” exhibition are the most popular. Many types of cross-border collaborations have developed in recent years. One of these is the Šumava/Bayerischer Wald/Mühlviertel Euroregion, which covers an area of 16 000 sq. km with 1.3 million people. The Euroregion associates 111 Upper Austrian, 107 Bavarian, and 95 Czech municipalities (of which 56 municipalities are from the South Bohemia Region).

USEFUL CONTACTS

South Bohemian Regional Authority – www.kraj-jihocesky.cz

South Bohemian Chamber of Commerce – www.jhk.cz

South Bohemian Agency for the Support of Innovation Businesses – www.jaip.cz

University of South Bohemia – www.jcu.cz

City Authority of České Budějovice – www.c-budejovice.cz

The objective of the South Bohemian Agency for Support to Innovative Enterprising is to support innovative projects in the South Bohemia Region, i.e. the application of research results in practice and support of enterprises pursuing these activities. An important project is the administration of the information portal concerning Czech biotechnologies Gate2biotech (www.gate2biotech.cz/) and the operation of the South Bohemian Scientific and Technical Park.

The South Bohemian Scientific and Technical Park, opened in 2014, offers equipped offices and laboratories, including laboratory instruments, technological halls, lecture and conference rooms and other facilities. It also invites competitions for the best business project – in 2018, for example, the competition was won by BCF with its Virtual Lab start-up project, which assists managers with their problems in public speaking. The gadgets used are a pair of black glasses and two controls. The programme can transfer the person virtually to a small conference room or a theatre hall for 160 people, simulate the public’s attention and the traffic noises distracting the audience. It offers shy people the opportunity to practise their performance prior to appearing before the public.

Temelín is a community in South Bohemia, where the Czech Republic’s largest electricity supplier, Temelín Nuclear Power Station, covering one-fifth of domestic electricity consumption, is located. It was put into operation in December 2000. The electricity generated by the power station would be sufficient to cover the electricity consumption of Czech

households for a duration of 13 months, that of South Bohemian households for 13.5 years and the consumption of the South Bohemia Region as a whole for 5 years. In 2017, the power station generated 16.48 terawatt hours (TWh) of electricity. This is the highest annual output, which surpassed the power plant's 2012 record by 1.18 TWh.

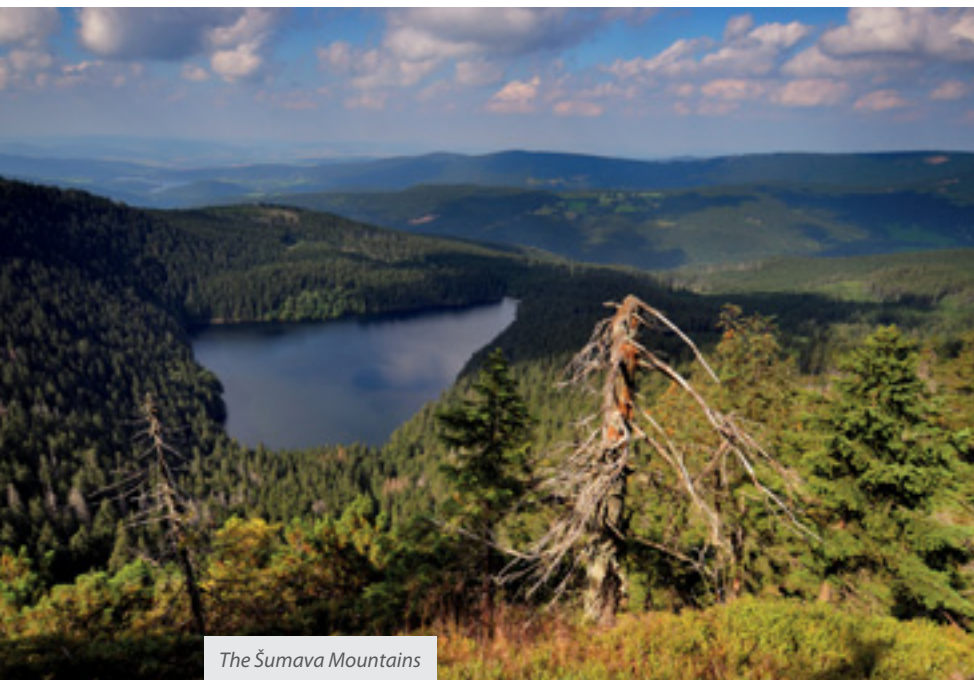
INVESTMENT

In 2017, the Region attracted investments worth CZK 354.14 million with 2 investment projects, mediated by the CzechInvest Agency, which helped to create 40 jobs. The Region has several industrial parks (locations at <http://invest.kraj-jihocesky.cz>) and cluster initiatives. One of the largest and most attractive industrial parks in the Region is Písek-Čížovská Industrial Park. With its surface area of 50 ha, this is the second-largest park in the Region and one with the best links to the motorway system. The largest park, with a surface area of nearly 62 ha, is Domoradice-Český Krumlov Industrial Park. Smaller industrial parks in the Region can be found in other towns – České Budějovice, Milevsko, Protivín, Soběslav, Strakonice, Třeboň, Jindřichův Hradec, and Nové Hrady. In 2016, Yanfeng Automotive Interiors (YFAI) announced their plans to build a new plant in Planá nad Lužnicí in the Tábor District. The company, making plastic and rubber products for the automotive industry, enlarged the manufacture of systems for automobile interiors in Planá nad Lužnicí and at the same time built a Lighthouse Centre for Europe and Africa. The Yanfeng Automotive Interiors Group is a leading world supplier of dashboards and interior parts. It has more than 110 development and production centres in 18 countries, where it employs approx. 33 000 people. In the Czech Republic, it manufactures mainly plastic and rubber products for domestic and other European automobile manufacturers. The supranational group, Johnson Controls, one of whose members is Yanfeng Czechia Automotive Interior Systems, has four manufacturing plants in the Czech Republic. Currently the company has about 1 540 employees. The 2016 Investor of the Year in the Production and Technology Centre category is Robert Bosch, spol. s r.o. in the South Bohemia Region. Robert Bosch, the German manufacturer of automobile parts, is enlarging its research and testing centre and its manufacturing plant in České Budějovice. The investment is focused on the building of development facilities and technologies for the manufacture of new products. One of the most important products for the plant in České Budějovice is the DNOX

system, which reduces nitrogen oxide emissions and is part of diesel engines. It accounts for one-half of the turnover of the plant in České Budějovice. Besides the development centre, the company also invests in machinery and technologies. In 2018, Carpaterra investment group announced its plan to enlarge its heating plant in Planá nad Lužnicí and build a large-capacity electricity battery storage facility on the site. Another energy investor in the area, after the E.ON and Solar Global energy groups, is C-Energy Planá, in which Carpaterra has an interest. The investor is planning to build a battery storage facility with an output of 4 megawatt and usable capacity of 2.5 megawatt hours. The capacity of the new facility will be more than twice that of the E.ON and Solar Global plants. C-Energy wants to cover a part of the construction costs with a subsidy from EU funds, specifically the Enterprise and Innovation Operational Programme.

EDUCATION

With more than 11 000 students, the University of South Bohemia in České Budějovice (founded in 1991) is the largest educational and scientific institution in the Region (by national comparisons, it is a medium-sized university). The University offers a wide range of study courses run by eight faculties – Economics, Philosophy, Education, Science, Fish Husbandry and Protection of Waters, Theology, Agriculture, and Health and Social Studies. The University participates in a number of international research projects. For example, its scientific workers helped to develop a method making it possible to accurately assess and evaluate data concerning biodiversity. The method will assist ecology specialists in finding answers to queries, e.g. how the functioning of ecosystems is influenced by the current loss of natural diversity. The University of European and Regional Studies, the first and largest private higher learning institution in the South Bohemia Region, specialises in the education and training of workers in public administration and its institutions and organisational units. The Institute of Technology and Economics in České Budějovice and the Department of Management and Economy of Prague Technical University in Jindřichův Hradec are no less important educational institutions in the South Bohemia Region.



The Šumava Mountains

Photo: CzechTourism archives, Pavel Ourědník



The Region of South Bohemia

www.kraj-jihocesky.cz

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KARLOVY VARY REGION

The Karlovy Vary Region is one of the smallest regions of the Czech Republic in both area and population. Its geographic position, distant from the centre, makes it a periphery. However, thanks to this, the Region is open to foreign countries, especially Germany. The Karlovy Vary Region thus records the second highest number of resident or employed foreigners after Prague.

The Region is formed by three Districts – those of Cheb, Karlovy Vary, and Sokolov. The Karlovy Vary Region is mainly famous for its spa industry. It is not only the region of the Czech Republic's best-known spa, Karlovy Vary, but also of Mariánské Lázně, Františkovy Lázně, Lázně Kynžvart, and Jáchymov spas. In addition to the springs of curative water, the Region is also rich in natural mineral waters, with Mattoni the best-known of these. In addition, Karlovy Vary is also famous for its Becherovka herbal liqueur and the art of the glass-makers of Moser company. The town of Chodov has achieved fame for its rose porcelain, which is exported throughout the world.

USEFUL CONTACTS

Karlovy Vary Regional Authority – www.kr-karlovarsky.cz

Regional Chamber of Commerce for the Poohří Area – www.rhkpoohri.cz

Internet portal for investors in the Region of Karlovy Vary –

www.karlovyvary-region.eu

District Chamber of Commerce in Cheb – support for entrepreneurial activities – www.ohkcheb.cz

City Authority of Karlovy Vary – www.mmkv.cz

ECONOMIC POTENTIAL

The structure of the Region's economy is very diverse. A number of branches are traditional in the Karlovy Vary Region (production of porcelain, glass and ceramics, textile and clothing industry, car-making industry, production of food and beverages, engineering and metal production, chemical industry, and mining of minerals). The Region is also renowned for its long-standing and rich industrial tradition documented since the Middle Ages, among other things, for the existing mining of diverse raw materials (e.g. tin, silver, kaolin, brown coal), the oldest porcelain factory in Bohemia was established in 1792, chemical and textile production started during the times of the Austro-Hungarian Monarchy, etc. The

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best-known of the traditional industrial areas of the Karlovy Vary Region is the Sokolov District, with such important sectors as the energy industry and extraction of coal used for power generation, chemical and engineering industries, textile and clothing industry, and building material production. The territory of the Sokolov District is undergoing a gradual economic restructuring towards new industrial sectors (electrical engineering and electronics), and the environmentally-friendly use of energy sources. The transformation of the Sokolov District is represented by extensive favourable changes related to landscape renewal within the liquidation of the effects of brown coal mining in used-up locations (e.g. recultivation and revitalisation of the landscape

Statistical Data		
Population	31. 9. 2018	294 821
Gross wage	1.-3. Q. 2018	CZK 27 437 (approx. EUR 1 070)
Unemployment	30. 11. 2018	2.68 %

Source: Czech Statistical Office

with lakes of sizes in the order of tens and hundreds of hectares, golf courses, parks, sites for housing, leisure and new business activities). The manufacturing industry has a long-standing tradition in the area of the town of Ostrov (mechanical and electrical engineering and woodworking industries), the Cheb area (engineering, musical instruments production, production of ceramic and building materials), and the Aš area (textile and clothing industry, engineering). The plastic materials industry is a new development here. The area of Kraslice is well-known for its manufacture of musical instruments, e.g. the Amati and Strunal brands, and for engineering and textile industries. The Karlovy Vary Region has the only public civilian international airport in the Czech Republic west of Prague. The airport, situated 4.5 km from Karlovy Vary, has undergone extensive reconstruction and modernisation in recent years. The purpose of the modernisation was to raise its technical level to standards usual for airports of this category and to increase its capacity, including preparations for the operation and handling of passengers travelling within the Schengen Area, because passport control and customs checks of passengers are performed at the airport. In 2017, Karlovy Vary airport handled 20 034 terminal passengers, whose flights started or ended in Karlovy Vary. This signifies a 3.9 % increase in comparison with the previous year. The new charter lines to Israel and Uzbekistan thus fully compensated for the continuing decline in the number of passengers travelling on lines from the Russian Federation as a result of the lowering of the number of Czech Airlines flights to Moscow in the course of the year. In 2017, the offer was broadened by the addition of flights from new destinations, mainly charter flights from Tel Aviv and Tashkent. In 2018, one of the most demanded Russian carriers, the "POBEDA" (continued on page 98)



USEFUL CONTACTS

Živý kraj – Destination agency for the Karlovy Vary Region – www.zivykraj.cz
Závodní 379/84a, 360 06 Karlovy Vary – Dvory, Czech Republic – info@zivykraj.cz

KARLOVY VARY REGION

The Most Famous Czech Spas

The Region of Karlovy Vary lies in the westernmost part of the Czech Republic at the border with Germany. When it comes to size, it belongs among the smallest of all Czech regions, but when it comes to historical monuments, exceptional experiences and natural wealth, it ranks among the most beautiful and the most tourist attractive regions.

HISTORY

In the Middle Ages, small settlements began to appear in the Krušné hory (Ore Mountains) and silver, later other ores were mined in their vicinity. At the end of the 19th century, mining operations in the surroundings of the town of Jáchymov were literally put on the map thanks to the discovery of the radioactive element of radium in the uraninite from the local mines by Marie Curie-Sklodowska. Likewise, rich deposits of kaolin triggered the foundation of prominent porcelain factories. Other premium local produce that has gained world reputation includes glass made by Moser Glassworks or Becherovka herbal liqueur from Karlovy Vary. For more than 650 years, the Region has been inherently tied to spa treatment, which utilises local natural resources, such as thermal and cold mineral springs, mud, peat, and gas.

SPA & WELLNESS

The renown of the Region of Karlovy Vary has always been closely bound up with balneology. Not only the best known Czech spa of Karlovy Vary is located on its territory, but also other significant spa towns, i.e. Mariánské Lázně, Františkovy Lázně, Lázně Kynžvart and Jáchymov. The spa resorts and hotels offer its guests a wide variety of wellness stays and spa programmes that are based on the tradition of exploiting natural healing resources. Their favourable effects have been verified by centuries of experience, as well as by modern scientific methods.

HISTORICAL MONUMENTS

You may find a vast number of notable architectural sites and monu-

ments on the territory of the Region of Karlovy Vary. The most significant ones include Bečov Castle and Chateau with the unique Reliquary of Saint Maurus, the spa colonnades in Karlovy Vary, Mariánské Lázně and Františkovy Lázně, Loket Castle, the Premonstratensian Monastery in Teplá, Cheb Castle – the only imperial palace in the country, and many more.

ACTIVE HOLIDAY

Tourist resorts in the Krušné hory Mountains and many sports areas and complexes throughout the region allow you to spend your holiday actively in any part of the year. The most popular winter resorts are Boží Dar and nearby Klínovec, as they offer a great variety of downhill courses, cross-country skiing trails and snowparks. In addition, hundreds of kilometres of tourist paths and cycle paths are available to hikers and bikers in the remaining seasons of the year. Golfers will undoubtedly enjoy 10 golf courses and several indoor golf centres. Those keen on tennis, water tourism or climbing will also have a great time.



Karlovy Vary Region

A Region of World famous spas



Františkovy Lázně

low-cost airline, opened flights from Moscow (Vnukovo Airport) to Karlovy Vary, making this West Bohemian city POBEDA's first destination in the Czech Republic.

Tourism continues to be one of the most important sectors in the Karlovy Vary Region. This Region is currently the fourth most visited among the 14 regions, into which the Czech Republic is divided. The average length of time spent by guests in the Region is nearly five days. The greatest growth was recorded by domestic visitors, but the number of foreign tourists increased as well. In the first four months of 2018, the Karlovy Vary Region was visited by nearly one-quarter million people. In the whole of 2017, the number of visitors totalled 1 058 000. The overwhelming majority of foreign visitors (most of them coming from Germany, Russia, and China) arrive for treatment. For Czech clients, the greatest attraction is leisure time activities in the nearby Ore Mountains.

INVESTMENT

The Region offers a number of industrial parks and zones. For example, Aš Industrial Park, on the territory of the town of Aš (13 090 inhabitants) is a 'greenfield' project. The land, with a total area of 108 hectares, is designated for sale or lease to companies which will engage in economic activities here in the areas of light industry, trade and crafts, without any negative effect on the environment. The town of Aš and its surroundings is a traditional area for the textile industry. But there are also several major enterprises concerned with engineering production. The town is situated on the border with Germany (Aš–Selb border crossing). The Region's advantage is a low-cost and experienced workforce, especially in mechanical and electrical engineering and textile production, in addition to having a good knowl-

edge of the German language.

The 35-hectare Cheb Industrial Park is situated on the eastern edge of the town of Cheb, near a high-speed bypass, a mere 8 km from the Pomezí/Schirnding border crossing to Germany. The plots, owned by the Cheb municipality, are designated for the siting of production facilities, logistics centres and commercial or service buildings, preferably for investors who will ensure production with a higher value added. Cheb Industrial Park is rated as the best in Central Europe by the experts who compared industrial parks across Central Europe as part of the CIJ Awards 2017 competition. Cheb gained the Best Industrial Park rating, thanks to investments by the Accolade financial group in industrial rental buildings for DHL, BWI, and Tchibo companies. In 2018, Mitsubishi announced its plan to start manufacturing tyres in one of Cheb's new industrial parks. Important progress has also been made on the way towards the realisation of another project, the construction by BMW Group of its Future Mobility Development Centre in the Czech Re-



vehicles. The new testing centre will occupy a surface area of approximately 500 hectares in the Karlovy Vary Region north of Sokolov. Staré Sedlo Industrial Park is situated near Sokolov (24 177 inhabitants) and Staré Sedlo (820 inhabitants). The Industrial Park, with a total area of 124 hectares, is ready for use in terms of planning documents. Given the good transport links, the area is designed as a site of strategic importance for the Karlovy Vary Region. The town of Sokolov is situated in the central part of the Sokolov basin, at the foot of the Krušné hory Mountains. The brown coal reserves of nationwide significance, and the related power production, make the Sokolov District a major energy hub of the national and international transmission systems. The town is situated on the R/6 high-speed road, on the international Nuremberg-Cheb-Sokolov-Karlovy Vary-Prague international route. An important role is also played by the Cheb-Karlovy Vary-Ústí nad Labem regional railway. There are a number of secondary vocational schools in the town, focused on mechanical engineering and the building industry. At the end of 2014, three new surfaces suitable for industrial construction were added to existing investment opportunities in the Karlovy Vary Region:

- Panattoni Park AŠ – located in the close vicinity of the German A93 motorway, not far from Saxon and Bavarian car factories. Owing to this fact and thanks to the good supply of skilled employees, AŠ is an ideal location for suppliers to Germany.
- Skalná – a locality suitable for investment construction in the area of industrial and small-scale production, within easy reach of existing engineering networks. The local authority is open to further investment and cooperation with the business sector.
- The BSS Industrial Park of Báňská stavební společnost s.r.o., covering an area of 14.3 ha, is situated right in the city of Sokolov in Chebská Street linking Sokolov with Dolní Rychnov. The compound comprises administration buildings, halls and warehouses. It can be reached by local roads, with a link to the R6 Cheb-Karlovy Vary road. The Park has its own railway siding. It is suitable for public utilities, industrial production, or as a logistics centre, etc.

In 2018, the Czech Accolade investment group announced it was making preparations to build a business park in Otovice near

public. A significant step forward was the signing, in 2018, of a cooperation agreement between the Czech Government and BMW Group on preparations to build the new testing centre. The centre will be one of the company's main testing and development centres. Its specialisation will be the development of systems for future autonomous

Františkovy Lázně





Bečov nad Teplou – St. Maurus reliquary

Karlovy Vary, which will become one of the most modern parks of its kind not only in the Czech Republic, but also in the European context. “The centre will be illuminated by LED lamps, but thanks to the large number of roof windows, ample natural light will be let into the interior. The walls will be thermally insulated and a number of other technologies and construction elements will be part of the centre that will ensure significant energy savings. They will be designed so as to meet the requirements of the Very Good certification degree,” said Milan Kratina, Executive Director and co-owner of Accolade. The basic parameters are the following: the project will be a modern plot covering a surface area of 31 000 square metres designed for business purposes, mainly internet trading, with ample selling and distribution space.

EDUCATION

The Region is home to a number of secondary-level vocational schools, which have been focused for decades on education in local traditional sectors and branches, often specific to the Karlovy Vary Region. In cooperation with the Sokolov Municipality and the Karlovy Vary Region, the College of Information Management, Business Administration and Law offers studies in Applied Informatics and Management Economics in Sokolov. The town also hosts the Faculty of Mechanical Engineering – an establishment of the University of West Bohemia in Plzeň. The Czech University of Life Sciences – namely the Faculty of Environmental Science and the Faculty of Economics and Management – has a distance learning centre in Karlovy Vary. For the time being, the only school in the Region also offering follow-up Master’s degree studies is the private University of Finance and Administration in Karlovy Vary, opened in 2017. In 2018, the 3rd Medical Faculty of Prague’s Charles University opened Bachelor’s degree courses in Physiotherapy in Karlovy Vary.



Bečov nad Teplou

Photo: CzechTourism archives, Ladislav Renner, Dagmar Veselková



Litoměřice

ÚSTÍ NAD LABEM REGION

The Ústí nad Labem Region, one of the Czech Republic's most industrialised areas, has been the country's main energy supplier for years. After the phasing out of intensive coal mining in the 1990s and the revitalisation of the countryside, the Region is regaining its reputation as an area of European significance with unique natural resources. Its efforts to improve the environment still further and to revitalise vast new areas are continuing.

The city of Ústí nad Labem, a transport junction of national and international significance, where important European roads, railway lines and waterways cross, is the centre of the Region. The Ústí nad Labem Region is divided into seven districts (Děčín, Chomutov, Litoměřice, Louny, Most, Teplice, and Ústí nad Labem). In addition, there are four areas in the Region which differ from each other significantly. One of these is the area in the foothills of the Ore Mountains with strongly developed industry, comprising the Districts of Chomutov, Most, Teplice and a part of Ústí nad Labem. The dominant industries here are power generation, coal mining, engineering, the chemical industry, and glassmaking. The Ústí nad Labem Region has a number of attractive localities for tourists. The development of tourism is one of the Region's priorities. The best-known natural attractions of the Region include the Bohemian Switzerland National Park, covering an area of 7 900 ha, established in 2000, the Bohemian Highlands, and the Labe Sandstones

protected landscape areas, a part of the Kokořín area, and the Lužické hory, the lovely pathway along the Labe with Porta Bohemica, the Tiská Walls rock formations, and many others.

ECONOMIC POTENTIAL

The area extending around Litoměřice and Louny is known for hop cultivation and vegetable growing. The Labe and Ohře valleys are famous fruit-growing areas, known as the "Garden of Bohemia". The grape varieties grown around Litoměřice are also renowned. In recent years, another area, that around Most, has become a well-known vine-growing district, where vines are cultivated especially on post-mining recultivated land. The Krušné hory Mountains area is a sparsely populated, mountainous landscape with limited economic activities. The last area to be mentioned is that around Děčín, which has no heavy industry and no agriculture (its northern part around Šluknov is too far from the centre of the Region, not easily accessible, and is a typical periphery area). The Region's traditional industries are engineering and the chemical industry. Besides the Region's typical engineering centres (Děčín, Ústí nad Labem, Roudnice nad Labem, Louny, Klášterec nad Ohří, Varnsdorf), engineering enterprises have settled in practically every new industrial park, which has resulted in a marked growth in employment in the sector. The chemical industry, too, has a long tradition in the Region. There are many good reasons for its location here: sufficient supply of water from the Labe River, which at the same time provides good transport opportunities, the vicinity of the North Bohemia brown coal mines (manufacture of liquid fuels from brown coal was the original production programme of the chemical factory at Záluží near Litvínov), and a good market for its products (fertilisers from Lovochemie in Lovosice supplied to the surrounding farming areas). An important institution in the Ústí nad Labem Region is its Innovation Centre, whose objective is to help to promote the Region's positive transformation and its competitiveness by supporting innovation and enterprise, including social innovations. The Regional Innovation Centre was established jointly by the Ústí nad Labem regional authorities, the Jan Evangelista Purkyně University in Ústí nad Labem, and the Ústí nad Labem Regional Chamber of Commerce. The philosophy of the Centre is based on efforts to link together existing facilities and actors, and to seek

Statistical Data

Population	31. 9. 2018	820 434
Gross wage	1.-3. Q. 2018	CZK 28 805 (approx. EUR 1 123)
Unemployment	30. 11. 2018	4.29 %

Source: Czech Statistical Office

complementarity and synergy. The Centre is not a research organisation; its role is to create opportunities for collaboration and to support research, development and innovation activities. Its most important project currently on hand is its Smart Accelerator.

INVESTMENT

The Ústí nad Labem Region holds great allure to foreign investors as a region with a lot to offer to investors, including strategic industrial parks (SIP). One of these is Joseph SIP, located in Havraň, Most District, some 8 km from the town of Most with its population of 67 500. It covers an area of 196 ha. The companies located in Joseph SIP and pursuing business activities there are, for example, Nemač Czech Republic, s.r.o. and AFSI Europe, s.r.o. The Triangle Strategic Industrial Park is located in an area whose boundaries overlap three Districts – Chomutov, Most, and Louny. The locality adjoins the Prague-Chomutov-Hora Sv. Šebestiána/ Reitzenhain, Germany expressway, which crosses the I/27 Most-Žatec-Plzeň road. Altogether 11 companies operated in the Park in 2018, employing about 4 000 people. The largest of them in terms of the number of employees is Yanfeng, followed by Grammer and Gestamp. Nexen, with its 400 workers, ranks fourth. Another investor, ZF Chassis Systems Žatec, entered the Park in 2018. It rented a part of the new hall belonging to the CTP Property IX developer company in the southern section of the Park. ZF Chassis has its parent company base in Friedrichshafen, Germany. Its core business is the development and manufacture of innovative drives and undercarriages and active and passive safety technologies for the automotive industry. About 250 new jobs will be created in a new hall opened in the Triangle Industrial Park in Žatec in the autumn of 2018 by the Korean company Kiswire, which manufactures steel tyre cords. It will be the company's second hall to make steel wire and cords in the Industrial Park, as the capacity of the first, which has been in operation in the Park since 2017, was no longer sufficient.

This former military airport hosts a number of investors, for example Solar Turbines EAME s.r.o., which specialises in turbine repair and revision, Gestamp Louny s.r.o., and Hitachi Automotive Systems Czech s.r.o., manufacturing components for the automotive industry. In 2014, the Korean Nexen Company announced its plans to place a huge investment project – a car tyre manufacturing plant – in the Czech Republic, specifically in the Triangle Industrial Park, on an area of approximately 70 ha. Other investors coming to the Ústí Region are the British firm, Regeneris, which repairs electronics, and the Japanese manufacturer of rubber parts, Fukoku. Regeneris will rent 3 000 sq. m of surface area in the CTPark Teplice, where a high-tech Repair Centre is being built. CTPark Teplice consists of three industrial halls. The total utility area of all the buildings taken together is 35 400 sq. m. The space is suitable for warehousing, logistics, light manufacturing and assembly.

In October 2016, the American company, SSI Technologies, world leader in the manufacture of ultrasound sensors for the automotive industry, opened its new manufacturing plant in the Region. This is the company's first manufacturing plant to be located in Europe. The firm chose the Ústí Region and the locality of Přestanov for its activities because of its close proximity to the frontier with Germany and connection to the main transport routes and the airport.

Other industrial parks are to be found in Kadaň, Chomutov, Rumburk, and Klášterec nad Ohří. In 2018, BENTELEER opened a new plant in

Klášterec nad Ohří. The company's fifth manufacturing plant in the Czech Republic started operation at the end of 2017 and was ceremonially opened in 2018. The plant in Klášterec is concerned with the hot forming of steel parts, platinum cutting, welding and laser cutting for its key customers Volvo, BMW, ŠKODA Auto, and Daimler. In Klášterec, BENTELEER employs more than 300 people. CzechInvest Agency assisted BENTELEER with the choice of the locality and in negotiations with the local authorities and in consultations on possible financial support. For its investment project worth CZK 2.5 billion, BENTELEER will be able to draw investment incentives to the amount of CZK 480 million.

Another foreign investor, the Japanese HI-LEX Corporation, came to the Region in 2017. The Corporation, manufacturing parts for transport vehicles, building and industrial machines, as well as household appliances, founded the company HI-LEX Czech, s.r.o. This company will manufacture door systems for cars.

EDUCATION

Ústí nad Labem is also an important centre of tertiary education, led by Jan Evangelista Purkyně University (UJEP). One of the undeniable assets of the University is that it is a classic type of university, with both traditional university faculties, such as the Faculties of Philosophy, Natural Science, Pedagogics, and Socio-Economics, and non-traditional, but very much needed faculties, such as the Faculty of the Environment, Faculty of Production Technologies and Management, Faculty of Arts and Design, and the Institute of Healthcare Studies. Hundreds of foreign students come to Ústí nad Labem each year to study at J. E. Purkyně University. Students come from various countries, but most of them, on a long-term basis, come from the Russian Federation and Turkey. Another higher learning institution at which university education can be obtained in the Region is the College of Applied Psychology, Ltd., in Terezín. The Region also hosts detached workplaces of other public universities. For example, branches of the Transport Faculty and the Faculty of Nuclear and Physical Engineering of the Czech Technical University are located in Děčín, and branches of the Faculty of Chemical Technology of the Institute of Chemical Technology and the Faculty of Mining and Geology of the Mining University are located in Most.

USEFUL CONTACTS

Ústí nad Labem Regional Authority – www.kr-ustecky.cz

North Bohemian Association of Communities – www.seso.cz

Regional Development Agency of the Ústí nad Labem Region – www.rra.cz

Czech North – www.usteckonadlani.cz

ÚSTÍ REGION supports regional SME's

EU projects implementation:

- INTERREG EUROPE PROGRAMME, SIE project – SME Internationalisation Exchange



- INTERREG EUROPE PROGRAMME, PURE COSMOS project – Public Authorities Role enhancing Competitiveness SME's



- CENTRAL EUROPE PROGRAMME, ECOS4IN project – Cross-border Ecosystem for Industry 4.0



Strategic Industrial Zone TRIANGLE



www.kr-ustecky.cz



Liberec

LIBEREC REGION

The Liberec Region, situated at the northern tip of the Czech Republic and bounded by a 20-km-long stretch of frontier with Germany and a 130-km stretch with Poland, has easy access to the large industrial and administrative centres, Prague and Dresden, Germany, with developing links to the main European transport lines of Berlin-Prague-Vienna (Multimodal Corridor IV) and Leipzig-Dresden-Wroclaw (Multimodal Corridor IIIA).

The large number of historical buildings and other sights, as well as cultural institutions, are witness to the Region's rich cultural and historical tradition. Institutions of regional importance include a number of museums and galleries in different parts of the Region. With respect to the glassmaking and fashion jewellery production in the area, tourists are invited to visit glassmaking museums in Nový Bor, Kamenický Šenov, and Železný Brod, and the Museum of Glassmaking and Costume Jewellery in Jablonec nad Nisou. The Bohemian Paradise District Museum in Turnov houses its own collections, covering the areas of Geology, Mineralogy, and Goldsmithery and Jewellery, which are unique, not only on the national, but also the pan-European level. There are two spa resorts in the Region: Libverda and Kunratice. Besides cultural and historical sights, visitors can admire the natural beauties of the Region – its exceptional countryside and rock formations. From the natural science point of view, the Liberec Region is important for its great variety of natural ecosystems, a high concentration of protected areas and rare localities of great botanical and zoological importance. There is one National Park in the Region (Krkonoše National Park), as well as five Protected Landscape Areas (Bohemian Highlands, Jizerské hory Mountains, Lužické hory Mountains, Bohemian Paradise, Kokořín), seven National Nature Reserves, eight National Natural Monuments, 35 Nature Reserves, and 56 Natural Monuments.

ECONOMIC POTENTIAL

The diversity and natural character of the Liberec Region are characteristics influencing business activities. Great population density in the centres of industry, hilly terrain and restrictive environmental limits do not allow for the development of new large-size areas. The driving force in the Region is the automotive industry, both as regards the actual manufacture of separate parts, such as brakes, undercarriage parts,

seats or buffers, and the manufacture of moulds, tools and whole production lines. The most important firms include Adient Czech Republic (car seat covers), Magna Exteriors (buffer production), DENSO MANUFACTURING CZECH (production of air conditioning units), Fehrer Bohemia (manufacture of side parts and seats), Benteler ČR (manufacture of undercarriages and safety elements) and TRW Automotive Czech (manufacture of car brakes). From the historical point of view, the traditional sectors in the Region are glassmaking and the textile industry. Both sectors have undergone a period of slowdown. Nevertheless, two world renowned glassmakers (PRECIOSA, LASVIT) and two textile machine manufacturers (ELMARCO and the Textile Machines Research Institute Liberec – VÚTS) located there, continue their successful existence.

The greatest concentration of business activities and foreign capital can be found in Liberec and its environs, especially in the sites of traditional industrial production. The development of various forms of collaboration between business firms and their link-ups with



Jizerské hory Mountains

research and development facilities is of great importance for the strengthening of economic competitiveness. There are various professional associations operating in the Region, as well as clusters, as geographically close groups of linked-up enterprises, contractors, service providers and professionally related institutions, brought together by common and complementary interests. These include, for example, the CLUTEX “Technical Textiles” cluster, and the Czech Membrane Platform, o.s., based in Česká Lípa, associating experts and institutions focusing on the research, development, realisation and use of membrane operations in technological processes. Scientific and technical parks are centres where research and development projects can best be developed. The Textile Machinery Research and Development Institute (VÚTS, a.s.) in Liberec has opened an Innovation and Technological Centre and, in 2012, started the construction of a scientific and technical park in Dubá and a membrane innovation centre of the company, MemBrain s.r.o., at Stráž pod Ralskem. The most important projects realised in the Liberec Region include projects for the development of a new research and innovation infrastructure supported by EU funding (The Institute for Nanomaterials, Advanced Technology and Innovation, The Research, Development, and Tuition Centre for Advanced Technologies, and The Engineering Research Centre Liberec). Scientists of the Technical University Liberec devote much of their time to linking research with practice. For ex-

USEFUL CONTACTS:

Liberec Region – www.kraj-lbc.cz

Liberec Regional Office – www.liberec.cz

Liberec Regional Chamber of Commerce – www.khkliberec.cz

Technická univerzita Liberec (Liberec Technical University) – www.tul.cz

ample, physicians in Liberec are the first in the world to test cutaneous covering based on nanofibers – the medical material Nanotardis for the treatment of wounds was developed by researchers in Liberec. The research is unique in that nanotechnologies have not as yet been tested on patients anywhere else in the world. The University’s Faculty of Textiles is working on the development of another nanofibre material intended for medical purposes. The material is designed to help patients who have undergone surgery of the intestines. Its effect is that it prevents the contents of the intestines from seeping through into the abdominal cavity after surgery. The danger is that such seepage may develop infection in the body and cause post-surgical complications. In 6-22 % of cases, this leads to the patient’s death. The special material has two layers. While the hydrophylic nanolayer adheres to the wound, covers it up and speeds up healing, the upper layer is hydrophobic and isolates the site operated on from the abdominal cavity environment. This also prevents adhesions. Liberec University is collaborating with the Biomedical Centre in Plzeň on this research project. For the time being, the covering is only being tested on animals. The first business incubator, Lipo.ink, opened in the Region at the turn of the years 2017 and 2018. Its objective is to support not only novice businessmen, but also well-established firms.

INVESTMENT

In 2017, CzechInvest mediated four investment projects to be located in the Region, to the total value of more than CZK 4 232.68 million. When completed, they will create 944 new jobs. There are eight industrial parks in the Liberec Region, with a total surface area of more than 450 hectares, according to the Centre for Regional Development of the Czech Republic. The parks are located in the vicinity of or directly on the territory of Liberec, Nový Bor, Hrádek nad Nisou, Turnov, Ralsko, and Stráž pod Ralskem. Most of these are utilised by investors. The majority of enterprises located here are in some way linked with the automotive industry. The largest investors include the Japanese manufacturer of air conditioning units, Denso Manufacturing, which



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invested approximately three billion Czech crowns in the Liberec compound. In 2015, Denso Manufacturing Czech decided to invest nearly CZK 400 million in the enlargement of its plant in Liberec, as its current manufacturing capacity is no longer sufficient to meet growing demand. By enlarging the hall, the firm will be able to adapt the manufacturing surface so as to ensure a continuous and efficient flow of material and information. The Denso Manufacturing plant in Liberec is the largest employer in Liberec South Industrial Park. Other two large companies – Ontex, an important manufacturer of hygienic products, and SFS intec., manufacturing connecting materials – have chosen Vesecko Industrial Park near Turnov. One of the largest investment projects mediated in the Region by CzechInvest Agency has settled in Hrádek nad Nisou Industrial Park: Drylock Technologies, specialising in the manufacture of disposable hygienic items, which employs some 200 people. The aim of the regional authorities is not only to attract investors to existing industrial parks, but also to make use of the local brownfields for their business activities. The investment in Devro, amounting to nearly CZK 1.527 billion, is among the ten largest investment projects in the entire Czech Republic. The firm is planning to enlarge the production of collagen sausage skins for the food industry and to employ an additional 120 new workers. The firm based in Jilemnice is part of the Devro supranational group with its headquarters in Scotland. Devro is one of the largest employers in the Liberec Region, investing hundreds of millions of crowns in modernisation and new technologies each year. Liberec is preparing the construction of new industrial parks, as the existing South and North Parks are already fully occupied. According to the new development plan, more factory halls could



Bohemian Paradise – Hrubá Skála

be built, for example in Machnín, near the Makro shopping centre, or between the airport and the foundry in Ostašov. Up to 200 new jobs could be created there in future. The land, covering a surface area of seven hectares, has already been purchased by TI Automotive, which is planning to build a European technical centre there for the development of fuel systems for the automotive industry, including parts for electric cars. In addition to the development centre, the company wants to build a facility there to enlarge its current production capacity. The company has a plant in the North Industrial Park.

EDUCATION

A typical feature of the Liberec Region is the large number of secondary art schools of supraregional significance located here. These are mainly secondary schools of Applied Arts, specifically schools of Glassmaking and Costume Jewellery. Higher learning is represented by Liberec Technical University, which runs 110 study programmes with more than 200 branches of study. In 2017, its enrolment was nearly 8 000 students. The study programmes have Bachelor's, Master's, and Doctoral degree accreditation. Most of them are attendance or combined courses; some programmes are accredited for tuition in the English language. For example, in 2014 the Medical Studies Institute enlarged its Master's degree studies with the addition of Biomedical Engineering courses.

Statistical Data

Population	31. 9. 2018	420 153
Gross wage	1.-3. Q. 2018	CZK 29 078 (approx. EUR 1 134)
Unemployment	30. 11. 2018	2.95 %

Source: Czech Statistical Office



Hradec Králové

HRADEC KRÁLOVÉ REGION

The Hradec Králové Region is situated in North-East Bohemia. More than one-third of its boundary, a stretch of about 208 km, forms the Czech Republic's state frontier with Poland. The Region consists of five districts – Hradec Králové, Jičín, Náchod, Rychnov nad Kněžnou, and Trutnov.

As regards the number and importance of natural assets, the Region is one of the richest in the Czech Republic. Many areas and localities are extremely valuable and there is a large number of protected areas. From the point of view of areas of natural beauty, the most valuable are the Krkonoše National Park and the Orlické hory Mountains, Broumov and Bohemian Paradise Protected Landscape Areas. The rich and varied natural and cultural wealth of the Hradec Králové Region, its attractive natural localities and the well-preserved environment are good prerequisites for the development of tourism. Especially attractive areas are those with a high natural potential, areas boasting a rich cultural heritage of historical sites, as well as several renowned spa resorts.

To meet the requirements of the massive development of cyclotourism and its rising popularity in recent years, new cycle trails of regional and supraregional importance are being built and marked. Hiking trails, too, have a long tradition in most areas of the Hradec Králové Region. The Region also boasts several spa resorts, the most popular of which is Janské Lázně, known for the treatment of diseases and disorders of the nervous system, the motor system, and skin diseases. The spa town is also a well-known winter sport resort.

ECONOMIC POTENTIAL

The Hradec Králové Region can be characterised as being an agricultural and industrial area with well-developed tourism. Industry is primarily concentrated in towns, while agricultural production thrives on the land bordering the Labe River. From the sectoral point of view, employment is high in branches such as car making, manufacture of electrical equipment, engineering, textile production, healthcare, and the rubber and plastics sector. The main export items are products of the automotive and engineering industries and electrotechnical components. Exports are dominated by motor vehicle components and cars, which account for more than one-quarter of total exports. More than 3 % of total regional exports is accounted for by rotating electrical machines and

parts thereof, ferrous products, circuit switching and breaking devices, pumps, cisterns, textiles, and rubber products. Sectors with the highest sums spent on research and development in the Region include Information Technologies (software development) and architectonic and engineering activities (development and construction of components for the automotive and engineering industries, development and supply of technological wholes for the chemical industry, power engineering, coke production, and food processing), which together account for more than 30 % of the expenses. This is followed by the manufacture of components and accessories for motor vehicles and their engines (especially braking and windshield wiping systems), research and development in the area of natural and technical sciences (breeding, textile materials, and biotechnologies), manufacture of other special purpose machines (printing machines, mining and building machines, machinery for pharmaceutical and food processing plants, and power generating equipment), manufacture of rubber products, medical devices, and other items. There are several clusters operating in the Region. The IT cluster in Hradec Králové focuses on the use of new infor-

mation and communication technologies in the development of products manufactured by the cluster members, distributed backups, automatic control of the development of information systems, information systems' safety and the housing server. The Hradec Králové TECHNOLOGICAL CENTRE participates in the realisation of projects financed from EU funds, the aim of which is to raise the level of education and competitiveness in the Region and, in particular, to facilitate students' entry into professional life. Within the framework of these projects, the Technological Centre cooperates with recognised research and educational institutions in the Czech Republic (Hradec Králové University, Masaryk University, the Association of Scientific and Technical Parks). Various projects are realised in the Technological Centre, such as the Pixcoll service whose founder, Jiří Novotný, has created a globally targeted internet project focused on micro photo banks, which directly connect the seller and the buyer of photographs, the Keylog Company, based on the smart city concept using intelligent modern cycle stands that are energy-independent and minimise potential theft, the company of HEDR Moravia with a platform for web and e-shop development and the System4M software company.

INVESTMENT

In 2017, the Region attracted investments worth CZK 1 959 million in 5 investment projects mediated by the CzechInvest Agency, which helped to create 361 jobs. There is a number of industrial parks in the Region – for example in Kvasiny (Rychnov nad Kněžnou District) and Vrchlabí (Trutnov District). Kvasiny is located 20 km from the Polish border, near Škoda production plant. The regional capital, Hradec Králové, is just 40 km away, with good access to a skilled and available labour pool. The Park is located on Route 14 towards the Polish border at Náchod, with easy access to the E67 pan-European route.

Further development is expected of Kvasiny Industrial Park, where Škoda Auto has its manufacturing plant. The foundations of an exemplary success story were laid 25 years ago. The partnership between the Volkswagen Group and Škoda Auto began on 16 April 1991. From that point on, the traditional Czech brand evolved from being a regional market leader to an internationally successful vehicle manufacturer. In 2017, Škoda placed 1.2 million cars in world markets. Volkswagen is also planning to move the manufacture of its Passat family cars to Kvasiny. The transfer will be completed by 2023, when Passat cars will be manufactured in Kvasiny alongside the Škoda Superb and Kodiaq models. In 2015, ABB company opened a new manufacturing plant in the industrial park in Trutnov, which significantly increased the company's production capacity and supported growth in the area of power network automation. The company also wants to strengthen its Engineering

USEFUL CONTACTS:

Regional Office of the Hradec Králové Region - www.kr-kralovehradecky.cz

Hradec Králové Technological Centre - www.tchk.cz

University of Hradec Králové - www.uhk.cz

Regional Development Agency of the Hradec Králové Region - www.cep-rra.cz

Regional Chamber of Commerce – North-East Bohemia - www.rhkhradec.cz

Hradec Králové City Authority - www.hradeckralove.org

Glacensis Euroregion - www.euro-glacensis.cz





Broumov

Centre which, among other issues, is concerned with the development of applications for intelligent networks and cybernetic safety. In 2017, Peugeot company completed the construction of its new plant in Vamberk, where it will manufacture modern technical chains using new technologies. After its enlargement, the company will employ about 500 people. The Region also supports research and development. For example, Orbis Avia, together with the Prague-based Aeronautical Research and Testing Institute, have won the tender for a project to ensure services in the area of aircraft engine testing. Although the firm's headquarters are in Prague, its technical facilities are located in a modern hangar at Hradec Králové Airport. In Hradec Králové, the firm is building its laboratories and test rooms for the research and testing of new Catalyst engines, previously labelled ATP (GE Aviation). The company will invest millions of crowns in the construction of facilities for turboprop engine testing. The testing of the engines, on which Orbis Avia collaborates with the Czech Technical University and the Aeronautical Research and Testing Institute (VZLÚ), is the company's new activity. Its management and employees are people with great professional experience in the area of aircraft engines, which they can now put to good use.

EDUCATION

The core programme of the Pharmaceutical Faculty of Charles University in Hradec Králové is the research and development of new drugs, drug forms, drug delivery systems, Biomedicine (Centre for the Study of Drugs and Other Biologically Active Substances from the Perspective of the Prevention and Treatment of Important Lifestyle Diseases, Centre for the Study of Toxic and Protective Effects of Drugs on the Cardiovascular System, Centre of Drug-Dietary Supplements' Interactions and Nutrigenetics), Clinical Pharmaceutics and Pharmacoepidemiology. The Faculty carries out contract research and development for firms and research organisations, e.g. of new drugs and drug forms. It has applied for several patents in collaboration with firms and research organisations. In its research activities, Hradec Králové Medical Faculty collaborates with the Faculty of Informatics and Management (e.g. ICT application in industry/clever networks in power engineering/ multi-agent systems) and the relatively young Faculty of Natural Sciences

Statistical Data		
Population	31. 9. 2018	550 812
Gross wage	1.-3. Q. 2018	CZK 28 866 (approx. EUR 1 128)
Unemployment	30. 11. 2018	2.05 %

Source: Czech Statistical Office

Rychnov nad Kněžnou



(e.g. Applied Mathematical Physics, Sensors, Human Body Behaviour Scanning – cooperation with LINET, IKEM –, Organic and Analytical Chemistry). The Medical Faculty of Charles University in Hradec Králové pursues a wide range of research activities, from basic research to practical research, for example in the area of civilisation diseases affecting the cardiovascular and gastrointestinal systems. The Faculty's research team comprises several hundred scientific workers and more than 250 doctoral students.

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PARDUBICE REGION

The Pardubice Region is located in the eastern part of Bohemia, and, together with the regions of Hradec Králové and Liberec, forms the North-East Cohesion Region (NUTS 2). A part of the Region's north-eastern border also forms the border between the Czech Republic and Poland. The land area of 4 519 sq. km (5.7 % of the area of the CR) makes the Pardubice Region the fifth smallest region in the country.

The Pardubice Region consists of four districts – Chrudim, Pardubice, Svitavy, and Ústí nad Orlicí.

The Region is characterised by its diversity of natural conditions, population density and industrial and agricultural production. Future development of the Pardubice Region will benefit from the Region's advantageous location, which is good for transport links. There are 542 km of railway tracks in the Region, the most important railway hubs including the towns of Pardubice and Česká Třebová, which form a part of the international railway corridor, Berlin-Prague-Brno-Vienna. Pardubice Airport, which serves both military and civilian air traffic, is key to the regional air transport. In 2017, Pardubice Airport reversed the unfavourable trend of the falling number of passengers cleared, when it processed 88 490 passengers, 180 per cent more than the previous year. Besides the Russian travel offices operating flights from Pardubice to St. Petersburg, Samara, Yekaterinburg, Ufa and Kazan, the positive results are partly due to the continuously fully occupied line operated by Ryanair to London and to the Red Wings airline with its flights to Moscow.

The Pardubice Region has many prerequisites for the development of the tourist trade. The Region comprises beautiful landscape of both flat and mountainous character, a favourable climate and many opportunities for swimming, water sports, walking tours, cycling, and winter sports. Attractive tourist locations include the northern and eastern parts of the Ústí nad Orlicí District – the foothills of the Orlické hory Mountains, Buková hora Ski Region, and Sněžník Dolní Morava Ski Resort. Agrotourism, especially with an emphasis on traditional horse breeding, is developing throughout the entire Region (in the foothill areas). Every year, many visitors come to see the national stud farm in Kladrubby nad Labem. Besides regular tours, the stud farm also organises various events for horse lovers. Tourist highlights in the Svitavy District include Svojanov Castle and Litomyšl Château, which has been on the UNESCO World Cultural Heritage List since 1999. The Pardubice racetrack, where the Velká Pardubická Steeplechase takes place, is the Region's most famous sporting venue. In addition, the Region is the leader in many other sports.

ECONOMIC POTENTIAL

The Region's economy mainly depends on general engineering and electronics. The following industries are also represented: chemical, textile, clothing, leather manufacturing, and food-processing. However, the chemical industry, which has the highest share in national production, is the most important. The Region also has a tradition in the area of electrotechnical and electronic industries, linked with the Tesla trademark, on which a number of other companies also build. These companies have benefited primarily from the existing research and development base and skilled labour. Industry in the Pardubice Region is broadly diversified. In addition to the IVECO bus manufacturers, the automotive sector also plays an important role. Other important employers include AVX Czech Republic in Lanškroun (electrical engineering), Iveco Czech Republic in Vysoké Mýto, Synthesia Pardubice (chemical industry), Saint-Gobain Adfords CZ in Litomyšl (glassmaking), Rieter CZ in Ústí nad Orlicí (manufacture of textile machines and a sub-supplier to the automotive industry), OEZ in Letohrad (electrical

engineering), KIEKERT-CS Pardubice with its centre of operations in Přelouč (automotive industry), Panasonic Mobile & Automotive Systems Pardubice (manufacturer of mobile phones and audio-visual equipment), Automotive Safety Components International in Jevíčko (sub-supplier to the automotive industry), and REHAU, s.r.o., in Moravská Třebová (automotive and plastics industries). Enterprises with well-known names include Paramo in Pardubice, Eta in Hlinsko, and Korado in Česká Třebová.

Among the innovative companies with a global range of operations, the best known are the biotechnological company Contipro, manufacturers of pursuit systems and radars (ERA a.s., RETIA, ELDIS Pardubice), and firms engaged in the area of explosives (Explosia, OZM Research). Start-ups with an ambition to set foot in world markets are usually firms engaged in the area of information technologies. In addition, there are hundreds of small and medium-sized enterprises and individual businessmen in the Region operating in production and services.

Clusters play an important role in the development of modern technologies and in improving competitiveness. The Region comprises approximately 20 industrial zones. Businesses can make use of 'brownfields', i.e. space that has lost its original economic use. Brownfields tend to be large premises in bigger towns (most of them are available in Pardubice). The largest brownfields in the Region are usually former military areas.

INVESTMENT

The Pardubice Region was ranked the best region among 468 rival localities in Eastern Europe in the European Cities and Regions of the Future 2014/2015 survey. This ranking was due especially to the number of important projects realised here recently, such as the campus and the overall



Pardubice – Pernštýnské náměstí Square

development of Pardubice University, and the linking of Pardubice regional city to the D11 motorway by a four-lane trunk road, as well as its offer of industrial parks. For example, Pardubice City Industrial Park is situated on the western outskirts of Pardubice, some 6 kilometres from the city centre. It lies in the cadastre of Staré Čívce village between the I/2 highway leading to Kolín and Prague and the Prague-Pardubice railway line, which is a part of the Berlin-Prague-Vienna international high-speed rail corridor. The first large project in the Park was an investment by Panasonic Automotive Systems Czech. The Park is home to Pardubice Scientific and Technological Park. A great advantage of Pardubice Industrial Park is its situation on the outskirts of the regional city, which provides a good social, cultural, and sporting background for its 90 000 inhabitants. There is a good supply of skilled labour, especially in the area of science and research. The Swiss company of Ronal CR is another car-making firm which has settled in Pardubice Industrial Park. It came to Pardubice in 2004. Its core business is the manufacture, research, development, and sale of components for cars, specifically aluminium wheels. Its exclusive clients are manufacturers of renowned car makes such as Audi, Ford, Chrysler, Opel, Porsche, Saab,

USEFUL CONTACTS

Regional Authority of the Pardubice Region – www.pardubickykraj.cz

University of Pardubice – www.upce.cz

Regional Chamber of Commerce of the Pardubice Region – www.khkpce.cz

City Authority of Pardubice – www.pardubice.eu

Regional Development Agency for the Pardubice Region – www.rrapk.cz

Škoda, Volkswagen and many others. The construction of the production compound on a 10-hectare plot began in December 2004 and serial production started two years later, in 2006.

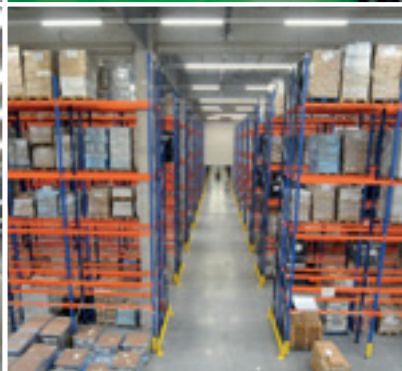
One of the companies with its manufacturing plant in Černá za Bory Industrial Park is FOXCONN CZ, s.r.o., Pardubice, which specialises in the manufacture of computer technology. In 2016, Foxconn Global Services Division (FGSD) announced the launch of a new business line – a new Mobile Repair Centre in Pardubice for the regions of Europe, the Middle East, and Africa. The FGSD investment creates up to 250 new jobs in Pardubice and expands the company's competencies into a fresh, lucrative area of business: mobile phone full lifecycle management.

Through its Foxconn 4Tech Division, Foxconn has started the real testing of artificial intelligence in production processes. Its objective is not only to save costs, but also to open up new working positions for Industry 4.0 experts. The Foxconn 4Tech Division is planning to integrate artificial intelligence elements in its factory in Pardubice. There, on the basis of specific processes, it is planning to develop solutions for the automation of manufacturing processes, advanced company software and primarily the Internet of Things (IoT), on which it has been working for a long time.

In 2017, another new foreign investor arrived in Pardubice: the Japanese firm of Central Glass, which chose this locality for its subsidiary in order to be closer to its customers in the Czech Republic and in other European markets. The choice fell on Pardubice because of its easy accessibility, suitable location in the Sementin Zone Industrial Park, and the tradition of the chemical industry, which this regional

Proman s.r.o. was established in 1994, in Chrudim. For the whole of its existence it has been a purely Czech company. From the very beginning its specialisation has been the supply of a full range of racking systems. For its clients the company designs racking systems according to their demands, ensures their realisation and provides a warranty and post-warranty service.

The firm has its affiliations in Slovakia, Poland, Croatia, Bulgaria, Romania and Hungary. Its products, however, can also be found in Serbia, Bosnia and Herzegovina, Albania, Germany, Austria and Ukraine. The company operates in about 20 European countries. Its products comprise all types of racking systems:



■ pallet racks

- conventional stationary
- drive-in and drive-through racks
- gravitation
- mobile

■ shelving racks

- conventional stationary
- gravitation
- mobile
- multilevel construction

■ cantilever racks

- stationary
- mobile

■ cantilever racks

■ automated shuttle systems



The above systems can be supplemented according to the client's requirements and in accordance with the type of material to be stored.

One of the categories supplied is a mobile shelving rack suitable for archives, libraries, hospitals, museums, etc. The deliveries designed for museums in particular are widely diversified to meet the requirements of the different objects to be stored. Therefore, the deliveries include not only shelving racks, but also different types of accessories.

The multilevel construction is fixed on a chassis, which can be operated by hand or by electric motor.

A limiting condition for the installation of these systems is the access into the space where the shelves are to be installed. If the user has suitable space for the installation of mobile shelves, the following can be a solution:

■ Rails – always hot dip galvanised

- rails laid on an existing floor
- rails laid on a false floor covered with chipboard and PVC
- rails laid on the upper floor layers and a concreted over

■ Chassis – always painted with komaxit

Welded steel construction, usually divided. Inside the construction are metal beams connected by a continuous bar for driving the wheel. A chain drive installed in front under the cover transmits the driving force to the wheels. The operator uses a control wheel. Each control wheel has a fail-safe device against the spontaneous travel of the racks. The actual storage racks are anchored into the chassis.

■ These racks can be supplemented with additional elements, such as

- drawers
- pull-out shelves
- systems for suspension board storage
- folding tables at the front of the shelves
- chassis locks
- sealing elements (rubber, brushes)

Most of these elements are manufactured in the Czech Republic according to our documentation, so that we are in a position to meet even the most intricate requirements of the system users.

centre can boast. This is quite a new investment project in the lithium batteries area, through which Central Glass is entering the Czech and the European markets. Synthesia company, too, welcomes this arrival. Central Glass concentrates on the production of electrolytes for electric car batteries. Another reason why the Japanese company chose Pardubice for the location of its factory is the potential possibility of collaboration with the local university and a secondary chemical school. Under a collaboration contract, the firm will offer an additional 40 to 50 new jobs. The planned annual production of the new factory is some 20 000 metric tonnes. Together with the planned production in Pardubice, the annual output of Central Glass worldwide will be 50 000 metric tonnes of electrolyte. In addition, the Pardubice factory will be the first such plant in Europe to manufacture large quantities of electro-

lyte for lithium electric car accumulators. The arrival of Central Glass is clear evidence of the fact that Pardubice is an important locality for investors. The new investor could also be an important factor in the area of education.

EDUCATION

Pardubice University, the only university in the Region, is 69 years old. With regard to student numbers, with its 8 000 students, the University is ranked as a middle-sized university in the Czech Republic. The University consists of seven faculties: Faculty of Chemical Technology, Faculty of Economics and Administration, Jan Perner Transport Faculty, Faculty of Arts and Philosophy, Faculty of Restoration, Faculty of Health Studies, Faculty of Electrical Engineering and Informatics. Students can choose from different Bachelor's, follow-up Master's and Doctoral degree programmes in the following fields:

- Natural and Technical Sciences focused on Chemistry, Chemical Technology, Biotechnology and Biochemistry, Electrical Engineering, Informatics, Transport and Communication Technologies, and Material Engineering;
- Social Sciences focused on Economics and Administration, Philology, History, Philosophy, and Sociology;
- Health Sciences, including inter-disciplinary programmes;
- Arts in the field of historical preservation, art restoration, conservation techniques and technologies.

The University offers more than 60 study programmes with almost 130 study specialisations. All are designed in accordance with the Bologna Declaration and modern trends in higher education. Most Bachelor's study courses offer follow-up Master's programmes. Full-time and part-time studies are available. Apart from teaching, the University of Pardubice is also renowned for its numerous scientific and research activities, which contribute to excellent national and international reputation. The numerous specialised departments and other organisations, institutions and associations which operate at the university all contribute to this fact.

Statistical Data		
Population	31. 9. 2018	519 878
Gross wage	1.-3. Q. 2018	CZK 27 958 (approx. EUR 1 092)
Unemployment	30. 11. 2018	1.82%

Source: Czech Statistical Office



Kunětická hora Castle

VYSOČINA REGION

The Vysočina Region has an advantageous central location not only within the Czech Republic, but also in the whole of Europe. The D1 motorway, the E59 road and the Vysočina railway corridor offer the opportunity to reach important European transport hubs and major cities quickly. The closest airport, Brno-Tuřany, can be reached by car from most of the towns in the Region in one to two hours, and Václav Havel Airport Prague can be reached in two hours. Vienna International Airport is 2.5 hours away. The territory of the Vysočina Region is administratively divided into five districts.

The Region is characterised by its rugged terrain, high altitude, and low population density. The Region is attractive because of its comparatively low levels of air pollution and relatively healthy forests. The Vysočina Region also offers many fine opportunities for summer and winter stays, as well as the possibility of visiting a number of valuable historical and cultural monuments. There are three UNESCO monuments in the Vysočina Region. They are the historical centre of Telč, the Pilgrimage Church of St. John of Nepomuk on Zelená hora near Žďár nad Sázavou, and the Jewish Quarter with Cemetery and Basilica of St. Procopius in Třebíč. Besides urban tourism, the future of tourism in the Region will undoubtedly rest on various forms of tranquil, environmentally-friendly stays. This is supported by a dense network of tourist trails (approx. 2 900 km), the development of bicycle routes and the gradually emerging agrofarms providing accommodation.

ECONOMIC POTENTIAL

The Vysočina Region traditionally holds a dominant position in potato growing. As in previous years, in 2016, too, the Region accounted for more than one-third of the total potato production in the Czech Republic. The Region also holds first position in the harvesting of fodder crops cultivated on arable land and in maize production (17 % of national output). With regard to livestock production, the Vysočina Region specialises in cattle and pig rearing.

As concerns economic growth, the Region's most important economic sector is industry. In the past few years, industrial production in the Region has been very dynamic and has favourably influenced the entire regional economy. Much credit for this is due to the intensive development of industrial parks along the D1 motorway (Jihlava, Humpolec, Velké Meziříčí), which was followed by massive direct foreign investment in industrial output in the Region. In 2016, 139 industrial enterprises with 100 and more employees had their seats in the Vysočina Region, which accounted for 6.0 % of the national output. These industrial enterprises employed 49 835 people, which is 6.0 % of the country's total employment. Altogether 432 600 people over 15 years of age lived in the Vysočina Region in 2016, according to the Czech Statistical Office. The workforce consisted of 250 800 people, i.e. 58.0 % of the Region's total number of inhabitants aged 15 and more years. Of this number, 242 900 people were employed (56.2 % of inhabitants aged 15 and more years). The primary sector (agriculture, forestry, fisheries) has an exceptional position in the Vysočina Region, showing the highest proportion of employed people in inter-regional comparisons on a long-term basis.

The most important industrial sectors in the Vysočina Region are metalworking, engineering and the automotive industry, specifically the manufacture of car components. The leading industrial enterprise in the Vysočina Region is Bosch Diesel, which manufactures diesel fuel injection pumps for the automotive industry. It is the largest employer in the Region. Recently it started pilot projects for interlinked industrial solutions in areas such as real time monitoring, 3D printing, and data

retrieval. Bosch operates all three levels of interconnection: sensors, software, and services. The company is striving for the transformation of business models, mobility and technologies focused on IoT and artificial intelligence. Another important engineering enterprise in the Region is Motorpal Jihlava, which has a similar production programme to Bosch Diesel. The largest clothing manufacturing enterprise in the Region is the traditional underwear manufacturing firm, PLEAS Havlíčkův Brod, owned by the international SCHIESSER GROUP AG based in Switzerland. An important industrial employer in the Havlíčkův Brod District is Futaba Czech, the supplier of components for the automotive industry, which started production in the Havlíčkův Brod-Baštinov locality in 2005. The construction of this plant on a greenfield site was the first investment project of the Japanese concern in continental Europe. Another foreign investor to locate a plant in the Region, specifically in the Pelhřimov District, is Valeo Compressor Europe – an important employer in the Region – manufacturing compressors for car air-conditioning units. Its customers include leading global car manufacturers (Renault, PSA Peugeot Citroën, Mercedes, Toyota, Volvo, Nissan and others). Engineering is represented in the Pelhřimov District by the traditional manufacturer of agricultural machinery, AGROSTROJ Pelhřimov. In recent years, the firm has significantly broadened its production range and increased its output. ŽĎAS company is a prominent industrial enterprise in

Statistical Data

Population	31. 9. 2018	509 265
Gross wage	1.-3. Q. 2018	CZK 28 723 (approx. EUR 1 120)
Unemployment	30. 11. 2018	2.63 %

Source: Czech Statistical Office



Zelená hora – Žďár nad Sázavou

USEFUL CONTACTS:

Vysočina Regional Office – www.kr-vysocina.cz

Jihlava Municipal Council – www.jihlava.cz

Regional Chamber of Commerce – www.hkjihlava.cz

Vysočina Regional Development Agency – www.rrav.cz

the Žďár District. It is one of the most advanced Czech engineering firms. For more than 65 years, it has been a modern and reliable manufacturer of forming machines, rolled products processing machines, metallurgical products, and pressing tools. Its production halls are fitted with high-quality machines for heavy- and light-duty machining, assembly, and product testing. The firm supplies its products to nearly 50 countries worldwide. In August 2016, it became a shareholder in CEFC China, one of the largest Chinese private firms. The Vysočina Region has the vastest timber reserves in the Czech Republic, with a well-developed woodworking industry. The most important enterprises in this area are Stora Enso, Kronospan, and Sapeli – the largest and historically the oldest door manufacturer in the Czech Republic. DDL – Dřevozpracující družstvo cooperative – is another large firm operating in the timber production and wood-processing sector, with

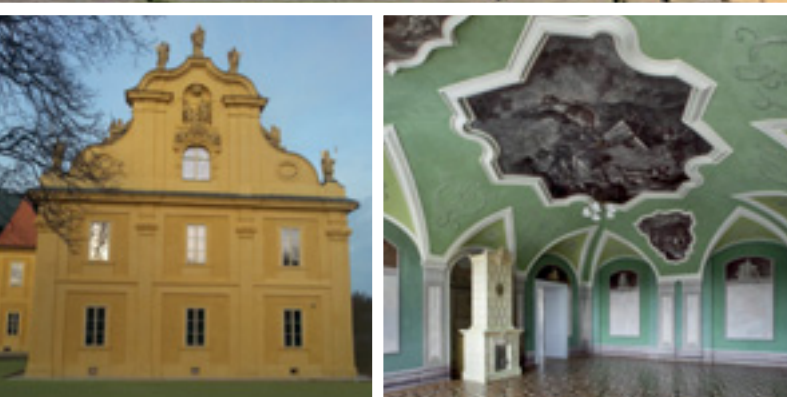
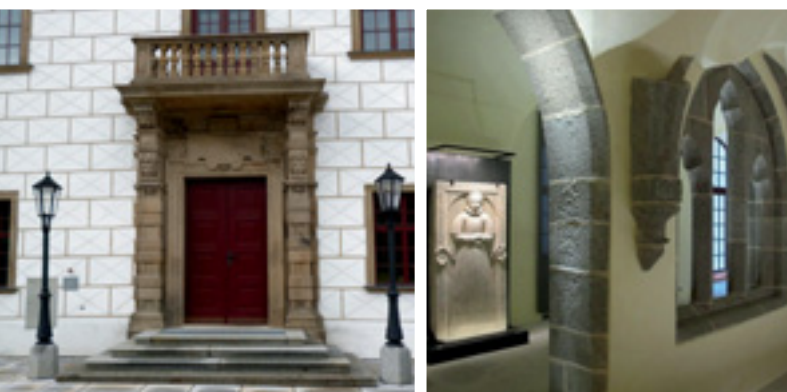
Bohemia Machine at Světlá nad Sázavou, the cradle of original Bohemian cut crystal glass. It is a recognised manufacturer and supplier of high-quality glassmaking machines, to which it has recently added the manufacture of luxury modern-style crystal products under the BOMMA trademark.

Another interesting project undertaken by Nuvia in Třebíč is an order for the modernisation of four nuclear power stations in Ukraine. The project will be realised in conjunction with the company's Ukrainian partners for the Ukrainian enterprise, NAEK Energoatom. The modernisation will involve the key safety systems of the power stations, including reactors, turbines, and back-up diesel generators. Nuvia gained the order after winning an international tender as the tenderer best meeting the technical conditions. Also important was the company's stability and, not lastly, the price.

INVESTMENT

In 2017, CzechInvest mediated five investment projects to be located in the Region, to the total value of more than CZK 3 122.57 million. When completed, they will create 474 new jobs. The Region has several industrial zones. One of these, Jihlava Industrial Park, is situated in the northern part of the city of Jihlava, in the close vicinity of the D1 motorway, linking up with the city's industrial agglomeration, in which important firms such as Bosch Diesel, Automotive Lighting, and Kronospan have their manufacturing facilities. Žďár nad Sázavou-Jamská Industrial Park lies on the south-eastern outskirts of

a 60-year tradition in sawn wood and wood-based panel manufacture. The glass industry is a traditional manufacturing branch in the Region, represented by smaller export-oriented firms such as CRYSTALITE BOHEMIA s.r.o. Another manufacturing firm is



We Build What Imports to You

From the inception of its existence STARKON a.s. has concerned itself with the preparation and realisation of structures and their reconstruction especially in the area of historical and ecclesiastical buildings.

We have realised a number of interesting contracts, for example the reconstruction of Telč Chateau, the reconstruction of the Church of the Holy Spirit and the Church of the Name of Jesus in Telč, the reconstruction of Lanner's house, the Třebíč Chateau, Roštejn Castle and the Archive in Jihlava, the construction of the Cascade and the Na Dolině apartment houses and several monasteries – Kostelní Vydří, Dačice and Nová Říše and many other very interesting structures.

The greatest difference as regards the reconstruction of historical buildings in comparison with conventional structures is in the approach to them, where in the case of the former a very sensitive approach and respect of the history of those places in general are needed. It is important to feel the spirit of the locations and be aware that over the centuries those places were sometimes the scene of very agitated lives of people, to realise that whole generations were living there before us and generations more will be living there also after us.

The most complicated contracts we can be proud of having realised are the following:
the Trapist Monastery in Nový Dvůr,
the reconstruction of Teplá Monastery,
the Holy Mountain Monastery and site of pilgrimage near Příbram,
the reconstruction of Dolní Břežany castle into a hotel with garden.

There are significant results to be seen behind our firm, with awards being accorded to it, including the Structure of the Year award in several regions of the Czech Republic, not a common achievement construction firms can boast.

STARKON a.s.

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the city, linked to important road and railway lines. The firms based there include Vamafil spol. s r.o. – technical yarns; Cooper s.r.o. – automotive industry; MteZ s.r.o. – model equipment; Unipres s.r.o. – printing, and Mibilbox s.r.o. – automotive industry. Bystřice nad Pernštejnem Industrial Park is situated on the south-western outskirts of the town of Bystřice nad Perštejnem (10 000 inhabitants) in close proximity to the railway station. The Pelhřimov District also has a number of industrial parks. Among them, the CTPark Invest in Humpolec has a strategic position beside the D1 motorway linking Prague and Brno. One of the important manufacturers sited there is Valeo Compressor Europe, which manufactures compressors for air-conditioning units in passenger cars.

With regard to new investors, another Asian industrial actor is planning to start a factory near Jihlava, its first plant outside of Asia and the USA. The investor is the Taiwan firm Lemtech, which manufactures metal parts for the electronic and automotive industries. Another new factory making car parts was opened in the Region at Bystřice nad Pernštejnem by Cooper-Standard. The factory will start supplying components for prestigious international car factories at the end of October 2017 and will employ up to 450 people. Huhtamaki Czech Republic, a company making flexible packaging laminate, has announced its plan to enlarge its plant at Příbyslavice near Třebíč. It will build a new manufacturing hall fitted with modern technology to make egg packaging. The project will cost CZK 805 million and will employ 45 people. The firm obtained an investment incentive for their five-year project.

EDUCATION

Two universities (The College of Polytechnics Jihlava /VŠPJ/ and the West Moravia University in Třebíč) have their seats in the Vysočina Region. Some courses are offered in foreign languages (English or German). Exchange



Jihlava

students from partner universities attending within the Erasmus+ programme can choose from courses taught in English. Currently, about 2 000 full-time and part-time students are enrolled in programmes there. Some detached workplaces of other universities also offer the attendance form of study for the Bachelor's Degree, such as the Czech Agricultural University Prague – workplace Czech Agricultural Academy in Humpolec, Horse Breeding (three years) – and the University of Chemical Technology (Conservation, Restoration of Works of Art) in Světlá nad Sázavou.



Brno

SOUTH MORAVIA REGION

South Moravia ranks among the regions with major economic potential. The created gross domestic product of the Region accounts for one-tenth of the Czech Republic's gross domestic product, its area taking up 9 % of the CR territory. The Region's territory is divided into seven districts (Blansko, Brno-City, Brno-Country, Břeclav, Hodonín, Vyškov, and Znojmo).

The natural catchment hub of the whole of South Moravia is the Regional Capital of Brno, situated at the confluence of the Svatka and Svitava Rivers. The city with an important regional position, at the junction of motorways in the directions of Prague, Vienna, Bratislava, and Olomouc, is the centre of traditional international exhibitions and trade fairs, which underscore its status as a busy international commercial hub. Two sites in the Region's territory are included in the UNESCO World Cultural Heritage List. The most significant is the Lednice-Valtice complex, as an example of an area of forests, meadows and lakes, splendidly complemented with romantic structures of churches and gazebos, and primarily the Lednice and Valtice Chateaux. The other unique phenomenon is the modernist architecture of Brno of the period between the two World Wars, represented by the singular Functionalist project of a family villa by the German architect Ludwig Mies van der Rohe, who designed this house at the request of the couple, Greta and Fritz Tugendhat, in 1928. Important areas of the South Moravia Region also include two UNESCO-listed biosphere reserves, namely Lower Moravia and the White Carpathian Mountains. The eventful history of the South Moravia Region is documented by the local archaeological sites, chateaux, castle ruins, churches, and synagogues.

ECONOMIC POTENTIAL

The South Moravia Region is noted for its great economic potential. Its created gross domestic product accounts for 10.9 % of the national gross domestic product. The most important role in the economy is played by the engineering industry. The centres of the engineering industry are Brno, Blansko, Kuřim, Boskovice, and Břeclav. The electrical engineering industry has a tradition of more than 100 years in the Region,

Statistical Data

Population	31. 9. 2018	1 185 889
Gross wage	1.-3. Q. 2018	CZK 30 099 (approx. EUR 1 173)
Unemployment	30. 11. 2018	3.52 %

Source: Czech Statistical Office

and is now developing in new industrial agglomerations on the outskirts of Brno, Blansko, Vyškov, etc. The food industry is based mainly in the south and east of the Region, in Znojmo, Břeclav, and Mikulov, where large agrarian enterprises linked to the local farm production are situated, such as fruit and vegetable canning companies. The northern and eastern parts of the Region are well-known for firms processing meat and manufacturing meat products and other foods from grain. There are four large breweries in the Region (Brno-Starobrna, Černá Hora, Vyškov, and Znojmo-Hostan) and numerous wine producers (Znojmo, Valdice, Čejkovice, Velké Pavlovice). The chemical and pharmaceutical industries in the Region are concentrated mainly in Brno and on the lower reaches of the Morava River, e.g. in Hodonín. South Moravia is another region that is becoming a technological incubator, which has an excellent rail and road infrastructure and a university background. Another asset of the Region is that global partners have entered many local firms. One of these is Kordárna, leading European manufacturer of cord fabrics for the rubber industry and technical fabrics for transport convey-

ers. The company's cord fabrics, accounting for approximately 75% of its output, are exported to more than 15 countries in Europe, North and South America, and Asia. In mid-2018 the firm passed into the hands of Thai Indorama Ventures Group, a global player in the area of the petrochemical industry.

Interesting projects of the year 2018 included the first two start-ups, which entered into the Brno branch of the space incubator run by the ESA BIC Prague European Space Agency. Both are working with satellite data and will be able to use the know-how possessed by the European Space Agency (ESA) for the next two years. The start-ups will be located in the South Moravia Innovation Centre. – The World from Space firm processes satellite data from the Sentinel satellites under the European Copernicus Programme. Information concerning the current condition and changes in the areas of vegetation, infrastructure and economic activities help its clients, towns, regions, and farmers to better react to periods of drought and introduce measures that will assist them in protecting themselves better. – The MapTiler project of the OctoGEO firm is an alternative to Google Maps. It offers maps based on open data and open-source software, which can be adjusted for own use. They do not contain advertisements, respect the privacy of end users and work also within the closed environment of firms, or completely off-line.

INVESTMENT

In 2017, CzechInvest Agency mediated CZK 3 707.8 million worth of investments by 15 investors in the South Moravia Region. Support was obtained, for example, by Deutsche Telekom Services Europe, which in 2017 created a Shared Services Centre and more than 560 jobs. Another investment project was the support accorded to Honeywell, which is concerned with aviation technologies and supplies its products to other branches of industry. Other recipients of support were Infosys, the company's Shared Services Centre, which provides its clients with

Slavkov



Unshaped refractory materials

- Dry castable mixes
- Ramming mixes
- Taphole mass
- Refractory mastics and mortars

Pre-dried castable shapes

- According to customers' demands

Production for:

Metallurgy
Foundries
Aluminium industry
Boilers and incinerators
Cement plants
Ceramic industry
Chemical industry
Glass industry
Stove-fitting





Moravský Krumlov

IT services, and the Thermo Fisher Scientific firm, manufacturing electron microscopes.

The most important service centre of the South Moravia Region is undoubtedly the City of Brno. More than 70 % of its workforce employed in various service sectors, as well as its significant knowledge potential (the highest share of university graduates in the Czech Republic, availability of workforce with foreign language capabilities, etc.) rank the city among the most competitive locations not only within the Czech Republic but also within the Central European region. The city owes this reputation to the strong inflow of foreign investments, such as IBM and Siemens, both having their software design centres here, and companies such as Honeywell (Global Design Center, automation and control solutions), Red Hat Czech (software development), FEI (electron microscopes), BMT (medical technology) with their research and development centres in Brno. Altogether, there are more than 20 development centres established by multinational companies in the Region. An important player in the service industries in Brno is the Brno Exhibitions (Veletrhy Brno; BVV) – the largest

USEFUL CONTACTS:

South Moravia Regional Development Agency – www.rrajm.cz
Brno Regional Chamber of Commerce – www.ohkbrno.cz
South Moravia Innovation Centre – www.jic.cz
South Moravia Regional Office – www.kr-jihomoravsky.cz
Veletrhy Brno, a.s. – www.bvv.cz
Brno Business and Innovation Centre – www.bicbrno.cz
Technology Park Brno – www.technologypark.cz
Brno University of Technology – www.vutbr.cz
Representation of the South Moravia Region to EU – southern-moravia.eu
South Moravia Tourist Authority – www.jizni-morava.cz

company specialised in fairs and exhibitions in Central Europe makes Brno an important centre of international trade. Major companies have established their shared service centres, customer support centres, and research centres here, such as: Vodafone, SolarWinds Czech, Lufthansa, Infosys BPO, PPG Industries, and Zebra Technologies.

EDUCATION

The role of the South Moravian capital city is further strengthened by Brno's important position in higher education – with 6 public and 7 private universities comprising 30 faculties, Brno is the second largest centre of higher education in the Czech Republic. Moreover, having more than 70 000 university students, Brno has the highest ratio of university students to the total number of residents.

Example of learning institutions in Brno: Janáček Academy of Music and Performing Arts, Mendel University in Brno, University of Defence, Veterinary and Pharmaceutical University Brno, and Brno University of Technology (VUT). The City of Brno in particular stands out for its support of Science and Research, especially as regards IT, earning it the nickname of the “Czech Silicon Valley”. In 2019, Brno



The **Vinařství Malánik-Osička s.r.o.** winery in Mikulčice is a small family firm with a tradition dating back to 1960 specialising in vine-growing and the production of quality attributive wines.

In winemaking we are guided by the motto:

“EACH WINE REFLECTS ITS MAKER’S CHARACTER MIRRORING HIS ART, SKILL, INDUSTRY AND PERSEVERANCE. EACH WINE HAS IN IT THE VINEGROWER’S WRINKLES AND SMILES, JOYS AND SORROWS, HIS SUCCESSES AND FAILURES. LET US PRAISE WINE AND RENDER IT THE SERVICE OF HOMAGE DUE TO IT.”



Great emphasis is placed on the quality of the wine grapes grown and processed. Vinegrowing is an art which respects current trends in cultivating the vineyard surfaces and in wine production, in compliance with environmental requirements. Smaller hectare yields and cautious handling of the raw material make it possible to produce high quality wines with a strong and pure variety character. A specialty is the processing of self-grown grapes immediately after the harvest. Also represented are attributive wines – from late harvested types to selections from cibebas and ice wines.



The vineyards are situated on a plateau slightly slanting southward to south-east. The plateau is formed by subsoil with a clayish layer one meter below the surface and by alumina sandy soil producing the best-quality varieties, such as Rhein riesling, Chardonnay, Aurelius and Ruland blue. The clayish layer holds the water and lightens the soil over it allowing the grapes to ripen properly and gain full aromatic tones.



Contact:

Vinařství Malánik-Osička, s.r.o.; Mikulčice 261; 696 19; +420 723 330 082;
info@vinarstvimalanik.cz
<http://www.vinarstvimalanik.cz/e-shop/>

www.vinarstvimalanik.cz



Valtice Chateau

University of Technology (VUT) will mark 120 years of its existence. For years, this institution has been figuring high in the best world universities' rankings, prepared each year by Quac-



Brno-Spielberk Office Centre

Photo: CzechTourism archives

quarelli Symonds Limited.

The South Moravian region is turning into a central European biotech hub. The current initiative – a biotech innovation cluster – is based on the campus of Masaryk University (www.muni.cz) and will serve the fields of Medicine, Chemistry and Biology. The university has integrated laboratories for biomedical and environmental technologies and a large research and teaching hospital.

Brno is also the seat of the Centre of Scientific Excellence (CEITEC) in the area of Life Sciences, Advanced Materials and Technologies. This is a joint venture of Brno's six most important universities and institutions of higher learning, supported by the South Moravia Region and the City of Brno, specifically Masaryk University, Brno University of Technology, Mendel University in Brno, the Veterinary and Pharmaceutical University Brno, the Veterinary Medicine Research Institute and the Institute of Physics of Materials, Czech Academy of Sciences. One of the projects where remarkable results have been achieved is its research programme, undertaken jointly with Sweden's Karolinska Institutet, concerned with the development and formation of the vertebrate face differentiation. The results of this long-term collaboration have been published in the prestigious *eLife* magazine. In another study, scientists unveiled the structure and activities of bee viruses. They were the first to describe the viruses down to the level of atoms and to monitor the changes taking place in the structure of viruses while infecting the cells.

Another project is the International Clinical Research Centre (ICRC) of St. Anne's University Hospital Brno, which represents a new generation research centre focused on cardiovascular and neurological diseases.

ZLÍN REGION

The Zlín Region, with its long industrial tradition, is linked with the name of Tomáš Baťa, a businessman who in the first half of the 20th century turned Zlín into a shoemaking empire. Still today, the Zlín Region is one of the most industrialised parts of the Czech Republic, at the same time boasting a healthy environment, a good prerequisite for the development of tourism.

The Zlín Region is situated in the eastern part of the Czech Republic, stretching along the border with the Slovak Republic. Even though it is one of the Czech Republic's three smallest regions (with a surface area of 3 964 sq. km.), it is quite unique among other Czech regions with its charming diversity of landscape, folklore, historical and technical sights. No other tourist area can simultaneously offer visitors mountains, garden architecture, spas with healing mineral springs, vineyards, remnants of the Great Moravian Empire, numerous monuments and historically valuable buildings, and unique modern Functionalist architecture. Its three ethnographic entities – the fertile Haná, hospitable Slovácko, and distinctive Valašsko – add to the originality of the Region. The beautiful Podzámecká and Květná Gardens and the Archbishopric Chateau in Kroměříž are world renowned, being on the UNESCO List of World Cultural Heritage Sites. The statutory City of Zlín is the natural industrial, business, and cultural centre of the whole of South-East Moravia. As a Garden City set harmoniously in a natural environment, it is a unique example of Functionalist and 20th-century urban architecture, the heritage of Tomáš Baťa. The city is linked with the existence of film studios, whose importance was enhanced by the success of animated films produced here in the latter half of the 20th century. Each year, the city is the venue for the International Film Festival for Children and Youth and the Barum Czech Rally motoring competition. An important aspect of Zlín are its cultural and educational endeavours. The materialisation of these endeavours are the Cultural and University Centre, built between 2006 and 2011 to the design of Eva Jiřičná, and the 14|15 Bata Institute – newly reconstructed factory buildings, which were opened in 2013 as a new venue for the Regional Art Gallery, the Museum of South-East Moravia, and the Regional Library.

ECONOMIC POTENTIAL

The Zlín Region has always been looked upon as an economically strong area with a high concentration of industrial enterprises. The emergence and development of a large part of the industrial manufacturing plants are linked with the name of Tomáš Baťa. In the past, the main manufacturing sector was the footwear industry, with other Source: Czech Statistical Office allied sectors, such as the rubber industry and engineering developing in parallel with it. The Region is also known for its aircraft industry and allied branches. These activities were traditionally primarily linked with Zlín, the centre of the Region, and its hinterland. In the course of time, other strong economic centres emerged in the Region, such as Vsetín, Uherské Hradiště, Kroměříž, Valašské Meziříčí, Rožnov pod Radhoštěm and Uherský Brod. The current industrial potential of the Region is based on the existence of the original key manufacturing enterprises and foreign investors in industry. The most important among these are suppliers for the automotive industry e.g. rubber manufacturing companies (producing mainly car tyres), plastics companies (producing plastics and composite parts of vehicles), machinery, industrial forging and chemical companies (producing specialised parts for the safety of passengers). Another important branch is the aircraft industry, represented by prominent Czech aircraft manufacturers and their suppliers, compa-

nies focused on electronics (R&D and production of semiconductors, photovoltaic systems, and intelligent control systems), precision machinery (vertical and horizontal machining centres, special tooling for machine production), electrical and mechanical engineering (generators, motors and their components), production of weapons, initiation systems for blasting operations, as well as furniture manufacture. In the past few years, intensive development has been witnessed by the ICT sector, mainly in the field of safety (development of anti-terrorist safety systems, electronic transaction technologies and road traffic technologies). The Zlín Region offers skilled and flexible labour at very reasonable wage costs. The economic activity rate is 59.2 % and GDP per capita (in PPS- purchasing power standards) in the Zlín Region reaches 76.1 % of the EU-28 average, with the Region holding 6th position among the 14 Czech Republic regions.

INVESTMENT

The most important foreign investors in the Zlín Region (according to the number of employees) are the companies of Continental AG from Germany and ON Semiconductor from the USA. In addition, there are numerous successful foreign industrially-oriented investors from Germany, Japan, the USA, the Netherlands, Spain, the UK, France, Canada and other countries. One also finds significant investments in the Zlín Region by local companies, mostly oriented towards R&D and innovation of their products. Potential investors are able to find suitable plots for their

Statistical Data

Population	31. 9. 2018	582 860
Gross wage	1.-3. Q. 2018	CZK 27 581 (approx. EUR 1 075)
Unemployment	30. 11. 2018	2.33 %

Source: Czech Statistical Office



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- ◀ Advanced polymer composite systems (Multifunctional nanomaterials, Systems with sensory properties, Composites with electric and magnetic properties, Biocomposite systems)
- ◀ Holder of important international patent “Device and method for producing UV radiation” (EP3168860A1)

 **CEBIA-Tech**
The Centre for Security, Information
and Advanced Technologies

Centre of security, information and advanced technologies (CEBIA-Tech) – Holder of the EU Commission prestigious HR Award

- ◀ Alternative energy sources (advanced waste processing technologies, bio fuels, holder of Rolex Award and Czech Head Award)
- ◀ Applied informatics (grid computing and application of artificial intelligence methods, intelligent production systems, intelligent buildings)
- ◀ Security technologies (embedded systems, development of small mobile data and telecommunication networks for fast-deployment units; development of a dangerous substances detection and analysis system with the use of THz frequencies; development of technical processes for the protection of electronic systems against interference by external and internal electromagnetic fields)
- ◀ Holder of an important international patent, “Method for biodiesel production from fats and oils” (EP2238224B1)

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RESEARCH
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- ◀ Management and Economics
- ◀ Finance
- ◀ Multimedia and Design



www.utb.cz



Zlín

USEFUL CONTACTS:

Zlín Region – www.kr-zlinsky.cz

City of Zlín – www.zlin.eu

Regional Chamber of Commerce of the Zlín Region – www.khkzlin.cz

Technology Innovation Centre Ltd. – www.ticzlin.cz/en

Tomáš Baťa University in Zlín – www.utb.cz

Holešov Strategic Industrial Zone – www.zonaholesov.cz

investment projects in a couple of industrial parks or in the database of mapped suitable brownfields in the Zlín Region. The most important development area is Holešov Strategic Industrial Park, where the construction of infrastructure started in 2008. The chosen area to the south of the town of Holešov fulfils all the conditions for successful projects, positively influencing the future growth of the regional economy as well as that of the whole of the Czech Republic. With its 360 hectares, Holešov Strategic Industrial Park is one of the largest prepared development areas in the Czech Republic. Investors can choose plots ranging from 0.5 to 100 hectares in size and may take advantage of perfect access to the Czech and European highway networks. There are a few public airports, including international airports, in close proximity to Holešov as well. The area has all the necessary technical infrastructure, with the backbone transport communications of the Industrial Park being connected with the regional transport network. The area is flat with good conditions for the establishment of basic structures. The competitive advantage of this locality is the industrial tradition of the Region and the Progress Technology Park situated in the heart of the area. This Technology Park significantly broadens the possibilities for investors, mainly those innovation-oriented or start-up companies for which the purchase of a plot and the construction of premises could be a distinctive barrier to starting a new business. Such companies may find their new address as well as the required services in the Technology Park.

EDUCATION

As the majority of population in the Zlín Region is employed in industry, the proportion of qualified secondary educated people in

the population in the Region reaches 70.2 %. The Region offers a network of technically-oriented secondary and vocational schools, collaborating with regional companies. The proportion of the population with tertiary (university) education is 16.1 %, with a slight increase annually. The important institution which significantly contributes to this number is the local Tomáš Baťa University in Zlín. With about 9 200 students, the University ranks among the medium-sized Czech universities. Tomáš Baťa University has six faculties – the Faculty of Technology, Faculty of Management and Economics, Faculty of Multimedia Communications, Faculty of Applied Informatics, Faculty of Humanities, and Faculty of Logistics and Crisis Management. The University is a member of a number of international organisations. In addition, it is one of the most prominent centres of research in the Czech Republic and, in many respects, also abroad. An excellent reputation for research by the University has mainly been acquired with outputs in the area of Polymer Engineering, Chemistry, and Automation and Technology Process Control. The University continues to strengthen its position in applied research with the development of new units where excellent research is concentrated (Centre of Polymer Systems and Centre for Security, Information and Advanced Technologies – CEBIA TECH).

OLOMOUC REGION

The Olomouc Region stretches along the Morava River. The Region itself consists of five districts: Jeseník, Olomouc, Prostějov, Přerov, and Šumperk. The Region's administrative centre is the city of Olomouc, situated 275 km from the capital, Prague. The Olomouc Region has a rich cultural tradition and is an important tourist centre with a large number of historical sites and unique natural features.

The Region is known for its attractive countryside, with a large number of historical sights. One of the most popular places in 2014 was the Zoo on Svatý kopeček (Holy Hill), which was visited by nearly 357 000 people. The ten most visited places and attractions in the Region included the Flora Olomouc Exhibition Grounds, the Aquapark and the National History and Geography Museum in Olomouc, Bouzov Castle, Olomouc Museum of Modern Art, Helfštýn Castle, Olomouc Archdiocesan Museum, Šternberk Castle, and the Handmade Paper Mill and Paper Museum at Velké Losiny. The regional city of Olomouc is most visited by tourists, with the second most valuable historical city reserve in the country, comprising a vast compound of historical buildings and architectural monuments situated on the well-preserved grounds of the medieval city.

ECONOMIC POTENTIAL

The Olomouc Region has a favourable business environment, based on a strong industrial tradition, with a wide range of well developed sectors and branches and a good supply of skilled labour. All these create good conditions for the pursuit of many types of business activities. Especially good conditions for industrial activities exist in what is called the local Business Triangle, formed by the cities of Olomouc, Prostějov, and Přerov and their environments. An advantage is their relative closeness – the distance between them being approx. 20 km. The Region's other tradition is the processing of metals, which used to be

mined there in the past. Over the years, metallurgy became a basis for the development of metalworking and engineering production. After 1989, most of the local manufacturing plants were taken over by foreign investors, who modernised them and incorporated them in their portfolios. The largest companies in this area are Miele technika s.r.o. (white goods), Edwards (pumps and vacuum systems), SSI Schäfer (logistic and warehousing systems) Honeywell Aerospace (aircraft engine parts) and MUBEA (suspension and lightening of vehicle bodies). Electrical engineering has become an especially rapidly growing industry in recent years. Other fast-growing sectors are optics and precision mechanics, which include both traditional and new firms. The most important among these are HELLA AUTOTECHNIK (headlights), Siemens (electric motors and drives), Meopta (optical instruments), and EPCOS (magnetic parts). The food industry also holds an important position in the Region, where agricultural production plays a significant role in the economy. The largest companies located in the Region are SOUFFLET AGRO (cereal products), Nestlé Česko (sweets), OLMA (dairy produce), MJM Litovel (cereals), and ORRERO (cheeses). The textile and clothing industry, the Region's traditional sector, maintains its position as an important manufacturer and supplier. Other traditional sectors are construction and building materials production based on the supply of local materials. Other large firms located in the Region include ŽPSV (concrete sleepers), Saint-Gobain Construction Products (insulating and building materials), Cement Hranice (cement and building mixtures), and TONDACH (roofing).

Zdeněk Zapletal's company, Laski, is one of the world's leading manufacturers of municipal technology equipment. Another firm, based in Zábřeh, the innovative manufacturer of Sulko windows, has gained renown in prestigious markets in Germany and Switzerland.

The Region is also very attractive for tourists. More than 658 000 people visited the Olomouc Region in 2017, ten per cent more than in the preceding year. They spent a record 2 030 618 nights in the Region. Most of them were domestic tourists, but the number of visitors from Poland, Germany, and Slovakia increased and so did the number of guests from Russia, China, and South Korea. Both foreign and local tourists like spending time in the Region's spa resorts. The number of nights spent by guests there is nearing the number of stays tourists spent in Karlovy Vary, the Czech Republic's most visited spa resort. The greatest attractions were the Flora Olomouc Exhibition events, but tourists also enjoyed visiting the Zoo in Olomouc and its Aquapark, as well as Bouzov, Helfštýn, and Šternberk Castles, Olomouc Natural Science Museum and the Handmade Paper Mill and Paper Museum in Velké Losiny. The list of the most visited tourist destinations in the Region also includes the Modern Art Museum in Olomouc and the Na Pomezí karst caves.

INVESTMENT

The Olomouc Region offers potential investors a number of industrial parks, as well as modern office space. Olomouc-Hněvotín Technological Park provides investors with 950 000 square metres (95 ha) of development surfaces, designed for the location of investment projects,

Statistical Data

Population	31. 9. 2018	632 521
Gross wage	1.-3. Q. 2018	CZK 27 976 (approx. EUR 1 093)
Unemployment	30. 11. 2018	2.99 %

Source: Czech Statistical Office



Olomouc

USEFUL CONTACTS:

Olomouc Regional Office – www.kr-olomoucky.cz

Olomouc land price maps and other information for businessmen, including information about industrial parks – www.olomoucko.cz

Science and Technology Park, Palacký University, including information about the Business Incubator – www.vtpup.cz

Czech Nanotechnology Cluster – www.nanoklastr.cz

mainly in the area of pure innovative technologies, the manufacturing industry and light production, strategic services, shared services, administration, warehousing, and storage surfaces. The Science and Technology Park of Palacký University in Olomouc has been renting offices and manufacturing spaces and providing consulting services since 2000, making it possible for its clients to use the instruments and know-how of Palacký University under advantageous conditions. The large industrial park in Hranice near Přerov, where LG Philips Display used to manufacture its conventional television screens, now houses a number of firms, such as Etimex, Henniges Automotive, Medi-Globe, DAS, and Rolled Alloys. There are several industrial parks in the Region open to investors and businessmen, among others, in the towns of Šumperk, Jeseník, Šternberk, and Zábřeh. An advantage of these localities is the possibility of having the space adjusted to the specific needs of investors. Šlechtitelů, one of the parks which is already serving its clients, is situated on the southern outskirts of Olomouc. In 2018, the P3 Olomouc Industrial Park welcomed a new renter, the Austrian furniture company of Möbelix, which opened a warehouse in

the Park. Möbelix is another company to have opened a warehouse in the Park occupying a surface area of 2 100 sq. m, after the Dutch logistic company Raben Logistic, which has enlarged its warehousing facilities in Olomouc recently. This adds to the bright pattern of renters who are running their businesses in P3 Olomouc. Another retailer and e-commerce operator in the Park is Kaufland, which further enlarged its storage capacity last October, in addition to Activa, V-podlahy, and Trost, which has a shop in the Park selling car accessories. Other logistic companies besides Raben to rent plots in the Park are PPL, which has a parcel shop there, and the global logistic giant, DHL, which uses a space there as its terminal. Last but not least, the company of Erreka Plast has a rented plot in P3 Park in Olomouc, and manufactures plastic lorry components directly within the Park. P3 Olomouc is popular with renters mainly thanks to its good connection to the city centre and the D35 motorway.



who we are

Strategically located at Ptení, surrounded by the renowned lush forests of northern and central Moravia, Javorice a.s. is one of the largest modern sawmilling companies in the Czech Republic where state of the art manufacturing capabilities have been satisfying customer requirements for more than 40 years.

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The Jeseníky Mountains

There are good conditions for the development of services in the centre of the Region, where new strategic centres (BSS centres) are coming into being. The ABSL survey shows that Olomouc will play a key role in the development of the company service sector in the Czech Republic. This is mainly due to the strategic position of the city in the centre of Moravia, its excellent transport connections with important domestic and international business centres, the good availability of office space totalling 77 000 sq. m, and a highly skilled and educated workforce. There are more than 15 international company service centres in Olomouc, which employ some 5 000 people. This sector is one of the most important employers in the Olomouc Region. As the company service sector is showing dynamic growth on the national scale, it is to be expected that similar expansion will also take place in and around Olomouc, both regarding the enlargement of the existing centres and the emergence of new ones. ABSL reports that many new investors are showing interest in the Region. A great potential for investors is based on the workforce recruited from among the graduates of Palacký University in Olomouc, which turns out some 2 000 young people each year. The number of these graduates, with good foreign language skills, is a very important factor for company service centres seeking new employees. It is estimated that in 2017 this sector will expand by about 16 % in the Olomouc Region. Investors will also appreciate the lower costs in the Region. For example, in comparison with Prague, they will be spending less, not only on rent and utilities, but also on wages and salaries.

To help to raise competitiveness, support innovation and stimulate demand for the results of scientific and research work and their commercialisation, an institution – the Science and Technology Park – has been established at Palacký University in Olomouc (VTP UP). The Park celebrated its 10th anniversary in 2017. Part of the Park is the Technology Transfer Centre, whose task it is to promote the commercialisation of the University's scientific research and to provide patent services. Another workplace is the Technological Centre with laboratories of the Applied Research Centre. There are several projects in the Olomouc Region whose task it is to support scientific research in the Region.

One such example is BIOMEDREG – Biomedicine for Regional Development and Human Resources (the project is concerned with the

biomedical research of tumours and infectious diseases). On the basis of the research results, the Centre develops new medications and outlines individual therapy for patients. (More at www.biomedreg.eu). One of the tasks of Haná Regional Centre for Biotechnological and Agricultural Research is to transfer advanced plant biotechnologies to enterprises in the Region. As a part of this vast project, new facilities destined for scientific research will be built on a surface area of more than 7 000 square metres. (More at www.cr-hana.eu).

RCPTM – The Regional Advanced Technology and Materials Centre – supports the start-up of new firms using sophisticated technologies and applied physical, optical, and chemical research, with a special focus on nanotechnologies.

EDUCATION

There are three universities in the Olomouc Region. Palacký University in Olomouc, with an enrolment of 22 000, has eight faculties: Theology, Philosophy, Law, Medicine and Dentistry, Education, Science, Physical Culture, and Health Science. The Medical Faculty is linked with Olomouc University Hospital, one of the ten largest hospitals in the Czech Republic. The remaining two universities are the Moravian University, with 700 students oriented towards Economy and Management, and the College of Logistics, with 900 students focusing on Transport and Logistics.

MORAVIA – SILESIA REGION

The Region's border characteristics provide opportunities for efficient cooperation in the manufacturing sector, infrastructural development, cultural and educational activities, and especially in the area of tourism. For this purpose, four Euroregions are currently active in the Region – Praděd, Beskydy, Silesia, and Cieszyn Silesia.

The Region has an area of 5 427 sq. km and consists of six former districts (from the West: Bruntál, Opava, Nový Jičín, Ostrava-Town, Karviná, and Frýdek-Místek). The Moravia-Silesia Region is the third most populous of the Czech Republic's 14 regions. In addition, nearly 60 % of its inhabitants live in towns with a population of more than 20 000, which is quite exceptional in comparison with all the other regions. This concentration may be one of the necessities of its survival – in spite of great shifts in the labour market, more than one-third of the employed people work in industrial enterprises, many of which have closed down, but many others have come into being. The regional city of Ostrava is considered as the Region's commercial and cultural centre. It has large shopping and exhibition centres, luxury hotels, pleasant cafés and theatres. The tourist trade also benefits from the extensive network of cycling tracks through the interesting surroundings. The Region's traditional cultural centres are Ostrava, Opava, and the Těšín District, with the important Polish minority in Český Těšín. The internationally renowned Janáček Philharmonic Orchestra is based in Ostrava. The Region is characterised by its conditions for industrial tourism (Tatra Technical Museum in Kopřivnice, Museum of Wagon-Making in Studénka, Museum of Mining in Ostrava-Petřkovice, Dolní Vítkovice, National Cultural Heritage Site of Michal Coal Mine). The Region's spa industry is based on utilising the curative effects of the iodine-bromine water in the Darkov Spa and Rehabilitation Centre. A new spa sanatorium with architecturally interesting buildings has been operating in Klimkovice since the beginning of the 1990s. Watersport fans enjoy boating down the Moravice and Odra Rivers, and those who prefer recreation on the water's edge, visit the Žermanice and Těrlicko dams, or, less frequently, the dam in Slezská Harta. There are golf courses of various levels of difficulty in the Region, starting with courses featuring short holes, all the way

to courses where championship tournaments are played. Whatever the course, you will always be playing in beautiful natural surroundings with the magical backdrops of the Beskydy Mountains or historical castles. The courses at Čeladná, Ostravice, Šilheřovice, Kravaře, and Ropice have won the favour of many local and foreign players.

ECONOMIC POTENTIAL

The Region has been one of the most important industrial regions in Central Europe since the 19th century. However, the orientation of its economic activities – the industrial structure – causes considerable problems in the restructuring of this Region and in attempts at dealing with social problems, especially with those related to the unemployment rate. The natural environment has improved significantly since the beginning of the 1990s, thanks to the decrease in industrial production, the use of technologies friendlier to the environment and significant investments in environmental measures. More than a half of the Region's area is occupied by agricultural land, and another part of over 35 % is taken up by forests (especially in the mountainous areas of the Jeseníky and the Beskydy). Besides natural wonders, the Region has rich deposits of raw materials – mainly a crucial domestic deposit of hard coal – and deposits of natural gas, as well as other raw



The Beskydy Mountains

USEFUL CONTACTS:

Moravia-Silesia Regional Authority – www.kr-moravskoslezsky.cz

Ostrava City Authority – www.ostrava.cz

The Regional Council of the Moravia-Silesia Cohesion Region – www.rr-moravskoslezsko.cz

Ostrava Science and Technology Park – www.vtpo.cz

Chamber of Commerce of the Moravia-Silesia Region – www.khkmsk.cz



Ostrava

materials, such as limestone, granite, marble, slate, gypsum, sandy gravels, sands and brick clays. Since 1989, the Region's economy has basically changed. New sectors came into being, such as the automotive industry, biotechnology, information and communication technologies, electrical engineering, and the pure technologies sector within power engineering. The number of scientific and research workplaces, too, is increasing, with a corresponding increase in the number of expert workers. There are many successful firms based in the Region. The ambition of the regional authorities and other institutions is to build a highly prestigious and modern engineering base in the Moravia-Silesia Region that will be prepared, as regards human resources, new technologies and innovations, for the creation of chains in the area of strategic projects for the engineering and power industries, transport and construction on the global scale. For example, the national engineering cluster is concerned with collaboration in international partner networks and it also supports the preparation of joint international R & D projects in the framework of the CORNET, HORIZON 2020, and INTERREG V-A programmes. There are also other possibilities, specifically for innovation. In Bohumín, for example, a plant is under construction for frying oil processing and turning it into a unique bio-plastic material. In the process, bacteria consume the used frying oil and turn it into a bio polymer used as a raw material for the production of a unique bio-plastic material. After being used, this material will easily disintegrate in water or the soil into water and carbon dioxide. Waste will thus be turned into a valuable material which, in addition, will not be harmful to the environment. This Czech technology, called Hydral, has been developed by the company Nafigate in conjunction with the Technical University in Brno, the University of Technology in Prague and other academic institutions.

This technology could help to solve the worldwide problem of liquidating the growing amounts of used frying oil. In 2018, Porsche Engineering opened a new research and development centre in Ostrava. In its new branch in Ostrava, this provider of engineering services is investing in the technically demanding area of mobility of the future. The projects of the new research and development centre are in line with the new trends in the automobile industry, such as electro-mobility, autonomous ride and smart mobility. "Today, the automobile industry is faced with great technological challenges," says Dirk Lappe, Managing Director of Porsche Engineering Group GmbH and Chairman of the Board of Porsche Engineering Services, s.r.o. "Porsche Engineering

Statistical Data		
Population	31. 9. 2018	1 203 872
Gross wage	1.-3. Q. 2018	CZK 28 137 (approx. EUR 1 097)
Unemployment	30. 11. 2018	4.35 %

Source: Czech Statistical Office

Photo: CzechTourism archives, UPVISION



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Beskydy

stands in the centre of these changes. With our new branch in Ostrava and with highly skilled engineers from this region, we want to help promote progress in the automotive industry.”

“Our new colleagues in Ostrava will be working on a number of interesting projects,” Professor Miloš Polášek, Managing Director of Porsche Engineering s.r.o. adds. “An example is a completely new project linked with infrastructure for the fast charging of electric vehicles of the future. Our development engineers are using the most advanced technologies, such as complex simulations, the most up-to-date digital development and prototype production methods.”

Fifty specialists will be working in the Ostrava branch by the end of 2020. The Research and Development Centre employs software specialists in particular. As the new branch of Porsche Engineering is situated at the crossroads between the Czech Republic, Slovakia, and Poland, Porsche Engineering offers an opportunity to engineers from all these three countries. Another reason for the construction of the branch in Ostrava is the vicinity of several technical universities in the Czech Republic and neighbouring countries. Cooperation with universities has been a pillar of the Porsche Engineering growth strategies, both as regards recruitment and development.

INVESTMENT

The Region has a number of industrial parks. Two of the most successful are the industrial park in Karviná-Nové Pole and in Kopřivnice, which together host the greatest number of investors. In Karviná-Nové Pole Park, only a few areas remain vacant for investors.

The first investor to settle in the Park was the company of Graddo in 2000, which pursued its business in rented halls. A great impetus to the development of the industrial park was given by the arrival of the Japanese company, Shimano. After 2001, more investors began coming to the industrial park. The most important of them was the Swedish company, Mölnlycke Health Care. The latest investor coming to the Park was the Czech firm of ROBE lighting, manufacturer of light projectors. Currently ROBE lighting is based in Valašské Meziříčí, where it employs some 560 people. In 2018, its new manufacturing plant in Karviná created 100 new jobs.

These locations also have the appearance of prosperous industrial parks. Another important industrial park is in Ostrava-Hrabová. The largest project, which was tied to the interest of a strategic investor operating in the automotive industry, was the preparation of a strategic industrial park at Nošovice. The surface area of the Park, limited by the zoning plan, is 260 ha. The Industrial Park was prepared for the investment project of the Hyundai motor company. The investors in

the Industrial Park are Hyundai Motor Manufacturing Czech s.r.o., Logistics Park Nošovice a.s., Mobis Automotive Czech, HYSCO CZECH, s.r.o., Hyundai Dymos Czech, s.r.o., and Glovis Czech Republic s.r.o. Ostrava-Mošnov Strategic Industrial Park is another unique investment opportunity for investors. Its advantage is not only a strategic position in the vicinity of Ostrava International Airport, but also easy access to the trunk road and railway systems. The surface area of the Industrial Park is 200 ha. In 2015, The Czech government approved the award of a subsidy for the construction of the Nad Barborou Industrial Park. It is a brownfield in the location of a former coal mine between the towns of Havířov, Karviná, and Orlová.

There are several firms in the Region, concerned with research and development. One of them is Varroc Lighting Systems. This global development Centre of Excellence is located in Nový Jičín and was opened in October 2016. It has special electronic laboratories with testing facilities, whereby the firm is responding to the growing need for electronic products in connection with the increase in car manufacture. In March 2017, A123 Systems, a manufacturer of advanced lithium-ion batteries, opened a new manufacturing hall in Ostrava. It is the company's first manufacturing plant to be located in Europe. The plant, situated in the Ostrava-Hrabová Industrial Park, will be making more than 600 000 automobile batteries per year, intended for the European market. In future, the company is planning to employ some 150 people, mainly skilled technicians and engineers. A123 Systems makes new starting battery platforms, which offer environmentally friendlier systems than conventional lead batteries, lower fuel consumption and consequently lower emissions. The firm also operates manufacturing plants in China and the United States.

EDUCATION

The Region prides itself on its very good educational opportunities. There are six universities in the Region (Mining University–Technical University Ostrava, Ostrava University, Silesian University in Opava, Ostrava Business School and the Social-Administrative College, University of Social and Administrative Affairs, Institute of Lifelong Learning in Havířov). The enrolment is more than 40 000 students.

Longevity of cast-iron boilers and radiators with environmental friendly approach

The long-standing tradition of Viadrus company dates back to 1888 and our experience in the foundry industry together with modern technologies provides the guarantee of a thorough processing, reliability, high quality warranty and lifetime of products of the VIADRUS brand. Our production is covered by the quality system EN ISO 9001 and ISO 14001. The cast iron solid fuel boilers, gas and oil boilers with cast-iron heat exchanger are the core products offered by VIADRUS.

The **cast-iron solid fuel boilers** with manual operation have been serving as a reliable source of cheap heat for several decades almost all over the world. The solid fuel boilers with automatic operation constitute a very modern and comfortable way of utilisation of resources of fossil fuels. The VIADRUS brand offers also boilers for combined operation, biomass boilers and boilers that are subject to the strict environmental standards. The range of gas boilers includes floor-standing, wall-hung and high efficient condensing boilers. The cast-iron OEM heat exchangers and commercial castings made of grey iron, heat / wear-resistant steel, brass or bronze constitute a significant part of our production.

At the same time VIADRUS is one of the leading manufacturers of **cast-iron radiators** in classical, modern, and retro design. On top of that, we are able to deliver **"turnkey" castings production** according to the customer's drawings, supplied castings samples or supplied model devices.

VIADRUS boilers and radiators belong to the best selling products of the heating industry in Central Europe. They are successfully sold in more than 40 countries in the world and our aim is to increase the number of markets. We believe that the high quality of workmanship, long service life, favourable price of our products, and good commercial conditions can be beneficial for our partners and customers.

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cast-iron radiators



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Ministry of Foreign Affairs
of the Czech Republic

MINISTRY OF FOREIGN AFFAIRS

The Ministry of Foreign Affairs is a central body of the state administration of the Czech Republic responsible for formulating foreign policy and protecting the rights and interests of the Czech Republic and its citizens abroad. Its competence is defined in § 6 of Act No. 2/1969 Coll.

The Ministry of Foreign Affairs also operates diplomatic missions of the Czech Republic abroad, including embassies, consulates and delegations to international organisations. Mainly through this network the Czech Republic promotes its economic and commercial interests abroad and enhances the general awareness of the production and investment potential of the Czech economy.

Ministerstvo zahraničních věcí

Loretánské náměstí 5, 118 00 Praha 1

Phone: +420 224 181 111

Fax: +420 224 182 048

E-mail: epodatelna@mzv.cz

Detailed information about the Ministry of Foreign Affairs of the Czech Republic and its role in economic diplomacy and export-promoting activities is available at the following website: www.mzv.cz



MINISTRY OF INDUSTRY AND TRADE
OF THE CZECH REPUBLIC

MINISTRY OF INDUSTRY AND TRADE

The Ministry of Industry and Trade is a central body of state administration for the economic and commercial policy, the affairs of small and medium-sized enterprises and trades, the energy and raw material policy of the state, and coordination of the Czech Republic's foreign trade policy in relation to the different countries and in support of export. Organisations directly managed by the Ministry of Industry and Trade: the Czech Trade Inspection, the Assay Office, the Office for Technical Standardisation, Metrology, and State Quality Control, the State Energy Inspection, the Czech Office for Weapons and Ammunition Testing, the Investment and Business Development Agency CzechInvest, the Czech Trade Promotion Agency CzechTrade, the Czech Metrology Institute, the State Research Institute for Material, the Ministry of Industry and Trade Services Administration.

Ministerstvo průmyslu a obchodu

Na Františku 32, 110 15 Praha 1

Phone: +420 224 851 111

Fax: +420 224 811 089

Politických vězňů 20, 112 49 Praha 1

Phone: +420 224 851 111

Fax: +420 224 221 575

E-mail: posta@mpo.cz

More information at: www.mpo.cz



MINISTRY
OF REGIONAL
DEVELOPMENT CZ

MINISTRY OF REGIONAL DEVELOPMENT

The Ministry of Regional Development is a central government authority of the Czech Republic in the matters of regional and housing policy, development of dwelling and housing stock, letting of flats and non-residential premises, spatial planning, building rules, expropriation, investment policy, tourism, undertaking. It plays an important role within the state administration through the extent of its powers, competences and liabilities for the management of financial means.

The Ministry also implements the regional and structural policy of the European Union, the so-called policy of economic and social cohesion. With the assistance of funding, it stimulates the development of weaker regions so that they do not lag behind the European average. These objectives are fulfilled in practice with help from structural funds. The Ministry of Regional Development also plays the role of the National Coordination Authority (NCO) for the utilisation of financial resources from the European Union (EU) funds. The National Coordination Authority provides a single framework for all operational programmes in the Czech Republic financed from Structural Funds and the Cohesion Fund. The management of the different operational programmes is the sphere of authority of the relevant ministries. Apart from its national coordination role, the Ministry of Regional Development also functions in some programmes as the direct governing body responsible for their successful drawing.

Ministerstvo pro místní rozvoj

Staroměstské náměstí 6, 110 15 Praha 1
Phone: +420 224 861 111
Fax: +420 224 861 333
E-mail: posta@mmr.cz

More information at: www.mmr.cz



CZECH TRADE PROMOTION AGENCY / CZECHTRADE

CzechTrade is a governmental business agency of the Czech Republic established by the Ministry of Industry and Trade. Its main objective is to develop international trade and cooperation between Czech and foreign entities. Wherever in the world you are, the Agency is your offi-

cial contact partner when looking for qualified Czech-based manufacturers and service providers.

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

Connecting Czech & world businesses via

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

CZECH BUSINESS PARTNER SEARCH

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

- Personal consultation & fillable on-line form at <http://www.czechtradeoffices.com/en/services/czech-business-partner-search>
- List of relevant Czech companies and facilitation of access to selected ones

SOURCING DAYS

Tailored event according to your needs

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

- Precise knowledge of Czech manufacturers and their production potential
- Bespoke market screening - we identify potential suppliers as per your requirements
- Suppliers shortlist - after reviewing each applicant's profile we select 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 on-line database of Czech exporters and the easiest tool to help you to find potential business partners in the Czech Republic.
<http://exporters.czechtrade.cz/en>

WWW.BUSINESSINFO.CZ/EN

The official business portal that is here to help foreign businesses to navigate the Czech business environment. Current information on its website on the conditions for doing business and on investment and trade opportunities.

Czech Trade Promotion Agency / CzechTrade (Central Office)

Dittrichova 21, 128 01 Praha 2
Green line: +420 224 907 820
E-mail: info@czechtrade.cz

Information and contacts for individual foreign offices can be found at: www.czechtrade.eu



CZECH EXPORT BANK

Czech Export Bank provides export-related financial services. The bank has twenty-year experience in supporting large export transactions conducted by Czech exporters, as well as export contracts for smaller projects and sub-deliveries. Today, the majority of the bank's products are offered under favourable conditions to foreign buyers – partners of Czech exporters, who thus find Czech goods and services attractive not only in terms of their price and quality.

The bank focuses on offering a comprehensive range of products for the financing of exports. In addition to the financing of exports of goods and services, Czech Export Bank has recently progressed to see its role in the financing of construction works, especially infrastructure projects abroad. Furthermore, the bank offers a range of structured and project-financing models. Czech investors are provided with favourable financing for their plans to build new production capacities abroad or for their plans to invest capital into foreign companies. Czech Export Bank has significantly expanded its services of financing the export-related activities of small- and medium-sized enterprises.

Česká exportní banka, a.s.

Vodičkova 34, 111 21 Praha 1
Phone: +420 222 841 100
Fax: +420 224 226 162
E-mail: ceb@ceb.cz

More information at: www.ceb.cz



EXPORT GUARANTEE AND INSURANCE CORPORATION (EGAP)

The Export Guarantee and Insurance Corporation (EGAP) is a specialised state-owned credit insurance company focused on the insurance of territorial and non-marketable commercial risks connected with the exports of goods, services, and investments from the Czech Republic. It insures export credits, pre-export credits, investments abroad and credits for their financing, manufacturing risks, and bonds issued by banks, and thus covers a broad range of risks which exporters encounter in the preparation and realisation of export contracts. The corporation provides services to all Czech exporters and investors abroad irrespective of their size, legal form, volume of export, and the extent of investment. EGAP activities play the role of Export Credit Agency (ECA), which is guided by OECD and EU rules that restrict state support for exports only to products and territories in which commercial entities do not operate, i.e. primarily to medium- and long-term export credits and to risk-involving territories. These rules ensure that exporters from the different countries do not compete due to the extent of state support, but exclusively in the quality and prices of goods and services.

Exportní garanční a pojišťovací společnost, a.s.

Vodičkova 34/701, 111 21 Praha 1
Phone: +420 222 841 111
Fax: +420 222 844 100
E-mail: info@egap.cz

More information at: www.egap.cz

CzechTourism

CZECH TOURISM AUTHORITY – CZECHTOURISM

The Czech Tourism Authority – CzechTourism is an allowance organization of the Ministry of Regional Development and its goal is the successful presentation of the Czech Republic on the domestic and foreign markets. It uses its central office in the Czech Republic for that as well as its network of foreign offices both in other European countries, including Germany, the UK, and Spain and in non-European countries, such as China, Brazil, and the United States.

The basic objective of the network of foreign CzechTourism representative agencies is to promote the Czech Republic in the respective markets, build brand awareness of destinations and stimulate the volume of arrivals of foreign visitors to the Czech Republic. CzechTourism Agency branches offer a wide range of promotional activities. Their basic tools include campaigns (on-line, print, and outdoor), press and excursion tours, road shows, participation in trade fairs, promotional events, organising presentations and workshops, collaboration with foreign and Czech entities and establishing and developing contacts with strategic partners. The main vision of the CzechTourism Agency is shaping a new perception of the Czech Republic. It is precisely a change in the perception of tourism by the residents themselves and increasing their brand loyalty to the “Czech Republic” in the context of domestic and incoming tourism that is one of the fundamental objectives of the Agency for the coming period.

CzechTourism promotes the Czech Republic brand on the domestic and foreign market on several levels. It participates in dozens of domestic and foreign tourism fairs and publishes sets of publications, brochures and maps in several languages attracting visitors to the Czech regions. An important element of promoting the Czech Republic abroad is to introduce tourism potential through press and excursion tours, i.e. trips to the Czech Republic designated for foreign journalists and tour operators. Another agenda is to support major domestic events of both local and international character.

The promotion of the Czech Republic in the field of congress and incentive tourism on the domestic and foreign market is the mission of the Czech Convention Bureau, closely cooperating with the various regional offices, covering the work of the regions, thus contributing to maximising the utilisation of all the congress potential that the Czech Republic has to offer.

Czech Tourism Authority – CzechTourism

Vinohradská 46, P. O. BOX 32, 120 41 Praha 2
Phone: +420 221 580 111
E-mail: info@czechtourism.cz

More information at: <https://czechtourism.com/>



INTERNATIONAL CHAMBER OF COMMERCE/ICC

ICC is – and has been throughout its long existence – a steadfast rallying point for those who believe, like our founders, that strengthening commercial ties among nations is not only good for business, but also for global living standards and for peace. ICC was founded in 1919 in Paris. Today, ICC represents 6.5 million companies and associations in more than 130 countries and transmits their interests to high official representatives including the UN, EU, WTO, OECD, and G20, where ICC has been granted the highest level consultative status.

Prestige

Being an ICC member is a question of prestige.

Principles

ICC creates rules and principles that are fully respected and used in everyday business and have become one of the most important pillars of international trade.

Partnership

ICC provides a large portfolio of services fundamental for foreign trade, such as educational and advisory services, as well as creating opportunities for establishing partnership with foreign business partners.

ICC Czech Republic was founded in 1999. The main aim of ICC Czech Republic is to assist Czech companies and other businesses to integrate into world events through this prestigious world organisation.

Territorial workshops

Main aim of these workshops is to support the efficiency of Czech economic diplomacy under the presence of Czech ambassadors to introduce trade and investment opportunities to Czech exporters, to help to diversify Czech export to perspective markets and to help to establish useful business contacts. In the period of 2017/ 2018, these workshops were focused on e.g.: Greece, Thailand, Nigeria, Albania, Belarus, Latvia, Ukraine, Iceland, the USA, Cuba, Kuwait and Qatar, Macedonia, Romania, Ireland and many others.

Seminars, professional courses

Our extensive range of educational programmes is targeted at specific topics associated with conducting international trade. Lecturers include experts and professionals with long-time experience or managers working in the given field – Incoterms 2010, Bank guarantees and experience with URDG 758, Documentary Credits and Standbys – International Standard Banking Practice and Practices in the USA, Terms of international sale contract in foreign trade.

National Committee of International Chamber of Commerce in the Czech Republic

Florentinum, Na Florenci 15, 110 00 Praha 1
Phone: +420 257 217 744
E-mail: icc@icc-cr.cz

More information at: www.icc-cr.cz



CONFEDERATION OF INDUSTRY
OF THE CZECH REPUBLIC

CONFEDERATION OF INDUSTRY OF THE CZECH REPUBLIC

We unite the leading companies and industry associations in the Czech Republic. We advocate the common interests of our members. We influence the economic, social, and environmental policies in the Czech Republic. We improve business conditions. We promote international trade and investment.

WE ARE

- The largest and most influential independent organisation of employers and entrepreneurs in the Czech Republic
- A representative of the Czech Republic's leading companies, representing a crucial part of the industry – especially the automotive, electronics, chemical, and mechanical engineering sectors, the power industry, transportation, ICT sectors and many others
- A volunteer organisation, independent of the government, political parties, and trade unions
- A respected social partner and a participant in the European social dialogue

WE REPRESENT

- 11 000+ companies – our members employ more than 1.3 million people
- 32 industry federations and associations from key areas of the Czech economy
- Over 135 significant individual member companies

OUR PRIORITIES

- Supporting industry as the main pillar of the Czech economy
- Strengthening the significance of research, development and innovation in industry
- Continuing development in technical education and expanding the technically skilled labour force
- Creating a business friendly environment for entrepreneurs and international investors
- Advancing international trade and exports
- Improving the transport infrastructure
- Furthering the digitalisation of the economy and e-Government
- Writing and agreeing on a stable, enforceable and predictable legislative framework

INTERNATIONAL TRADE PROMOTION

- We organise international conferences attended by heads of states and governments
- We organise international business and trade missions
- We cooperate with partner confederations and business chambers worldwide
- We coordinate incoming business and trade missions

- We represent our members at international trade fairs
- We organise conferences, seminars and workshops promoting export

Svaz průmyslu a dopravy České republiky

Freyova 948/11, 190 05 Praha 9

Phone: +420 225 279 111

E-mail: spcr@spcr.cz

More information about the Confederation of Industry and about professional associations can be found at:

www.spcr.cz



CZECH NATIONAL BANK

The Czech National Bank is the central bank of the Czech Republic and the supervisor of the Czech financial market. The primary objective of the CNB is to maintain price stability. Achieving and maintaining price stability, i.e. creating a low-inflation environment in the economy, is the central bank's ongoing contribution to the creation of conditions for sustainable economic growth. Central bank independence is a prerequisite for effective monetary instruments conducive to price stability. In addition, the CNB fosters financial stability and sees to the sound operation of the financial system in the Czech Republic. To this end, the CNB sets macroprudential policy by identifying risks jeopardising the stability of the financial system and contributing to its resilience. Without prejudice to its primary objective, the CNB also supports the general economic policies of the government and the general economic policies in the European Union. In accordance with its primary objective, the CNB sets monetary policy. It also issues banknotes and coins and manages and oversees the circulation of currency, the payment system, and settlement between banks. It also performs supervision of the banking sector, the capital market, the insurance industry, pension funds, credit unions, electronic money institutions and bureaux de change. Since 1 December 2016, the CNB has also been the supervisor of non-bank credit providers. In order to undertake its tasks, the CNB processes and generates statistical information. As a central bank, the CNB provides banking services to the state and the public sector. It maintains the accounts of persons and organisations connected to the state budget. By agreement with the Ministry of Finance pursuant to the budgetary rules, the CNB conducts transactions relating to government bond issues and financial market investments.

Česká národní banka

Na Příkopě 28, 115 03 Praha 1

Phone: +420 224 411 111

www.cnb.cz/en/public/contacts.html

More information at: www.cnb.cz



CENTRE FOR REGIONAL DEVELOPMENT OF THE CZECH REPUBLIC – ENTERPRISE EUROPE NETWORK

Centre for Regional Development of the Czech Republic (the Centre) was founded by the Ministry of Regional Development of the Czech Republic and is the implementing agency for European funding programmes. The Centre hosts one of the offices of the Enterprise Europe Network (EEN), a largest international network (with more than 600 partners worldwide) set up and run by the European Commission with the purpose of supporting businesses. Its consortium based in the Czech Republic (CR) consists of six partners in four cities – Praha, Brno, Plzeň, and Ostrava. The mission of the EEN is to help especially small and medium-sized enterprises (SME) with entering the EU and foreign markets and doing business there. Its experts provide comprehensive advisory services to businesses with the aim of broadening the international cooperation of companies, raising the innovative potential of enterprises in the EU and helping SMEs become integrated more widely in the EU framework programmes. To foreign clients the Centre – EEN Praha office offers: information about the CR, about the business environment in the CR, Czech legislation, about how to find Czech partners for cooperation, information about starting a business in the CR, sources of financing from Structural Funds and other information. Services of the Enterprise Europe Network are funded from the European Union's COSME Programme (2014-2020) under the grant agreement No. 831241 and by the Ministry of Industry and Trade of the Czech Republic.

Centrum pro regionální rozvoj České republiky – Enterprise Europe Network

U Nákladového nádraží 3144/4, 130 00 Praha 3
Phone: +420 225 855 312
E-mail: een@crr.cz

More information on the Centre for Regional Development of the Czech Republic at: www.crr.cz
More information on the Enterprise Europe Network in the Czech Republic at: www.een.cz



CZECH CENTRES

WHO WE ARE AND OUR AMBITIONS

The Czech Centres is an agency established for the promotion of the Czech Republic internationally and managed by the Ministry of Foreign Affairs of the Czech Republic. Our organisation provides a global network throughout three continents and 24 cities and we are active members of EUNIC, the European Union National Institutes for Culture.

Our primary aim is the development of enduring international cultural and economic links between the Czech Republic and other nations. We create and support partnerships for Czech industries and culture on a local and global level through both public and private bodies.

OUR WORK, YOUR OPPORTUNITIES

We accomplish these aims by fostering cooperation between foreign cultural institutions, experts and individual artists with Czech entities through highly successful international events, projects, and schemes.

These are successful because of our connections to the best Czech institutions of education, science, and culture and by providing access to research and innovation and identifying and exporting the most dynamic driving forces of science and creativity of the Czech Republic. We support the development of institutions, such as universities, start-ups and professional bodies, through mutual international cooperation to promote their success and in doing so, provide unique opportunities to anyone interested in working with and investing in the Czech Republic. In addition, our organisation provides practical skills and knowledge. We are renowned and trusted in our support for those teaching and using the Czech language, enrolling over 2 800 students in Czech language courses worldwide in last year. The Centres present the Czech Republic in cooperation with regional partners abroad. Having many professional partners, we act as a focal contact point for information sought by general public, media and others.

WHERE WE ARE

Locations of our global network:

Athens - Berlin - Bratislava - Brussels - Budapest - Bucharest - Jerusalem - Kiev - London - Madrid - Milan - Munich - Moscow - New York - Paris - Rome - Rotterdam - Sofia - Seoul - Stockholm - Tel Aviv - Tokyo - Warsaw - Vienna.

Czech Centres - headquarters

Václavské nám. 816/49, 110 00 Praha 1
Phone: +420 234 668 211
E-mail: info@czech.cz

More at: www.czechcentres.cz



CZECH CHAMBER OF COMMERCE

WHO WE ARE

- Independent public institution of entrepreneurial self-governance
- Largest and most representative business association in the Czech Republic including small, medium, and large companies, self-employed entrepreneurs, associations, unions, and craftsmen organisations
- Network – regional (regional and district chambers) and professional (unions, associations, etc.)
- Platform for 15 thousand members representing more than 60 % of GDP of the country and 66 % of employable population in the Czech Republic in non-compulsory membership scheme
- Member of European and international organisations

WHAT WE DO

- Support of International Trade
 - Organisation of business missions targeting particular territory or sector
 - Organisation of business missions accompanying state and government officials on their visits abroad
 - Organisation of business forums, seminars, round tables etc., targeting particular country or territory
 - Organisation of bilateral meetings between Czech entrepreneurs and foreign business delegations
 - Involvement in various European Commission's programmes
 - Support to foreign companies in finding suitable business partners in the Czech Republic
 - Publishing foreign demands, offers or tenders on Chamber website
 - Czech Business Representation in Brussels (CEBRE)
- Consultancy & advisory services (subsidies, projects, export & foreign trade, legal issues, etc.)
- CZECHPoints (registers, documents, certificates, services, etc.) over 50 one-stop-shops throughout the country
- Professional Education – national certification programmes (recognised occupation), skill competitions,
- Thematic courses & seminars, etc.
- Obligatory commenting point for new business legislation
- Lobbying at local, national, European & international level
- Issuing own monthly KOMORA.cz magazine and weekly electronic news distributed directly to members

Hospodářská komora České republiky / Czech Chamber of Commerce

Na Florenci 2116/15, 110 00 Praha 1

Phone: +420 266 721 300

E-mail: foreigndpt@komora.cz

More information at: www.komora.cz



CONFEDERATION OF EMPLOYERS' AND ENTREPRENEURS' ASSOCIATIONS OF THE CZECH REPUBLIC

The Confederation of Employers' and Entrepreneurs' Associations of the Czech Republic (Konfederace zaměstnavatelských a podnikatelských svazů ČR – KZPS ČR) is an open, independent, special-interest association.

- it unites eight representatives of employer unions in the fields of construction industry, textile industry, small and medium-sized businesses, production and consumer cooperatives, agriculture, mining and oil industry, wood processing industry, education, health care, culture, and social services;
- it represents 22 000 bodies with over 1 300 000 employees;
- it supports the promotion of specific interests of its members in the legislative field and in other areas;
- it formulates common business and employer interests of its members and promotes them in cooperation with relevant state authorities, other employers' organisations and trade unions and especially in various forms by consulting the government;
- it is one of the social partners representing the side of entrepreneurs in the Council of Economic and Social Agreement (Tripartite).

KZPS ČR's members:

- Association of Textile, Leather, and Clothing Industry
- Union of Czech and Moravian Producer Cooperatives
- Syndicate of Businesspeople and Tradespeople of the Czech Republic
- Association of Entrepreneurs in Building Industries in the Czech Republic
- Union of Employers' Associations of the Czech Republic
- Employers' Association of Mining and Oil Industry
- Agricultural Association of the Czech Republic
- Union of Czech and Moravian Consumer Co-operatives

Konfederace zaměstnavatelských a podnikatelských svazů ČR

Václavské náměstí 21, 110 00 Praha 1

Phone: +420 222 324 985

Fax: +420 224 109 374

E-mail: kzps@kzps.cz

More information at: www.kzps.cz (in Czech)

CENTRAL AND OTHER KEY BODIES OF THE CZECH REPUBLIC

SUPREME BODIES

Office of the President of the Czech Republic
Kancelář prezidenta ČR
www.hrad.cz

Parliament of the Czech Republic
Parlament České republiky

■ **Chamber of Deputies**
Poslanecká sněmovna ČR
www.psp.cz

■ **Senate of the Parliament of the Czech Republic**
Senát Parlamentu ČR
www.senat.cz

Office of the Government of the Czech Republic
Úřad vlády ČR
www.vlada.cz

MINISTRIES

Ministry of Foreign Affairs
Ministerstvo zahraničních věcí
www.mzv.cz

Ministry of Industry and Trade
Ministerstvo průmyslu a obchodu
www.mpo.cz

Ministry of Finance
Ministerstvo financí
www.mfcr.cz

Ministry of Transport
Ministerstvo dopravy
www.mdcz.cz

Ministry of Agriculture
Ministerstvo zemědělství
www.mze.cz

Ministry of Regional Development
Ministerstvo pro místní rozvoj
www.mmr.cz

Ministry of the Interior
Ministerstvo vnitra
www.mvcr.cz



Ministry of Justice
Ministerstvo spravedlnosti
www.justice.cz

Ministry of Defence
Ministerstvo obrany
www.army.cz

Ministry of the Environment
Ministerstvo životního prostředí
www.env.cz

Ministry of Labour and Social Affairs
Ministerstvo práce a sociálních věcí
www.mpsv.cz

Ministry of Health
Ministerstvo zdravotnictví
www.mzcr.cz

Ministry of Education, Youth, and Sport
Ministerstvo školství, mládeže a tělovýchovy
www.msmt.cz

Ministry of Culture
Ministerstvo kultury
www.mkcr.cz

DIPLOMATIC MISSIONS OF INTERNATIONAL ORGANISATIONS

Representation of the European Commission in the Czech Republic
E-mail: comm-rep-cz@ec.europa.eu
www.evropska-unie.cz,

Organisation for Security and Co-operation in Europe
Prague Office of the OSCE Secretariat
E-mail: quest@osce.org
www.osce.org

United Nations
Information Centre Prague
E-mail: unicprg@osn.cz
www.osn.cz

European Parliament
Information Office Prague
E-mail: eppraha@europarl.europa.eu
www.evropsky-parlament.cz

Representation of the European Investment Bank
E-mail: Prague@eib.org

European GNSS Agency
www.gsa.europa.eu/
E-mail: info@gsa.europa.eu

International Organization for Migration
www.iom.cz/
E-mail: prague@iom.int

THE MOST IMPORTANT WEBSITES

General information on the Czech Republic	www.czech.cz	Official site for the CR
BusinessInfo	www.businessinfo.cz	Official site for professionals searching for information, assistance, or business contacts in the CR
Doing Business in the Czech Republic	www.doingbusiness.cz	General information about business climate, structure, and development of the Czech economy
Portal of the Public Administration	www.vlada.cz	The electronic gateway for the public to administration and government services

Company Contact Information

ARES	wwwinfo.mfcr.cz/ares/ares.html	Access to Registers of Economic Subjects/Entities
Business Register	www.justice.cz	Public directory
Business Register	www.rzp.cz	Trade Licensing Register
European Databank	www.edb.cz	Telephone and companies directory
Czech exporting companies	http://exporters.czechtrade.cz/en	Czech Exporters Directory
Zlaté stránky	www.zlatestranky.cz	Telephone and companies directory

Legislation

Iuridika	http://iuridica.eunet.cz	Directory of legal services and official bodies
Portal of Czech judiciary	www.justice.cz	Course of legal proceedings

Finance

Czech National Bank	www.cnb.cz	Monetary, financial, and macroeconomic data
Prague Stock Exchange	www.pse.cz	Prague Stock Exchange data
RM-System	www.rmsystem.cz	RM-System Czech Stock Exchange
Czech Insurance Association	www.cap.cz	Directory of insurance companies operating in the CR
Register of Excise Duty Payers	www.cs.mfcr.cz/spd_internet/	Directory of taxpayers registered under individual tax identification numbers (DIČ)
Chamber of Tax Advisers of the CR	www.kdpcr.cz	Database of tax advisers

Statistics

Czech Statistical Office	www.czso.cz	Official statistical data and information covering different subjects
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Fairs and Exhibitions

BVV – Brněnské veletrhy a výstavy/Trade Fairs Brno	www.bvv.cz	List of exhibitions in Brno and relevant information
Association of Fair and Exhibition Organisers of the CR	www.czechfairs.cz	Exhibition centres and companies organising trade fairs in the CR and abroad

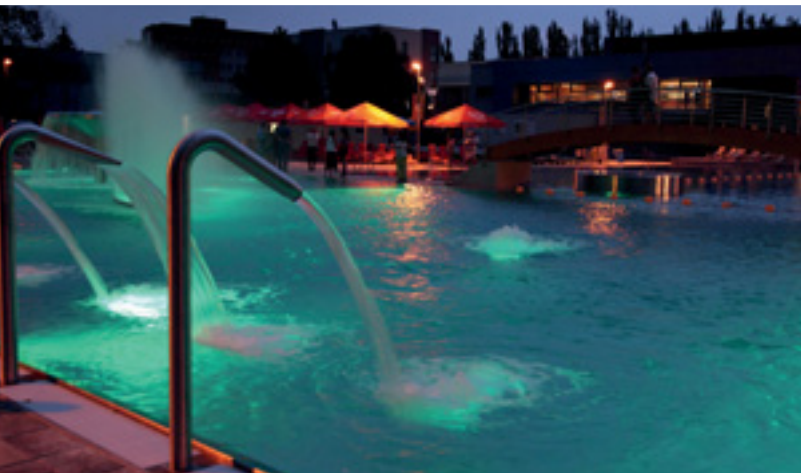
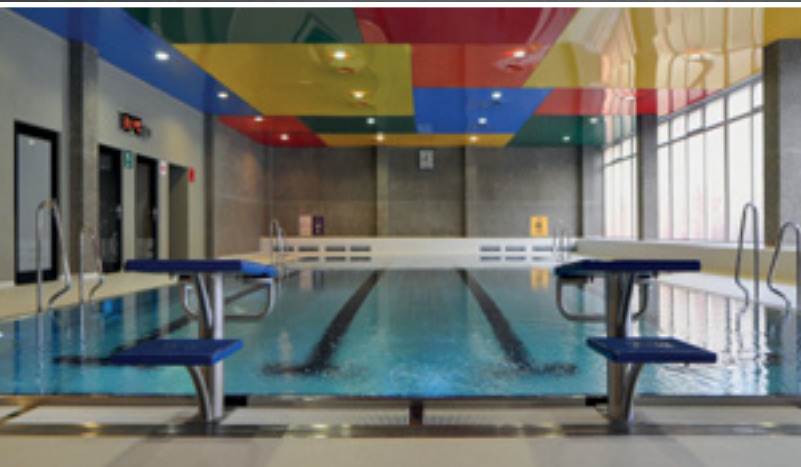
Miscellaneous

The Industrial Property Office	www.upv.cz	Patents, trade marks, utility models, and industrial designs
The Czech Science Foundation	www.gacr.cz	Awards grants to the best projects of basic research in all branches of science
The Register of Advertising Agencies	www.registrra.cz/rra	Expert assistance in choosing and working with advertising and communication agencies in the CR
Česká pošta (the Czech Post)	www.ceskaposta.cz	Incl. postcodes of municipalities and its districts (PSC), philately etc.
Residence of Foreigners in the CR	www.domavcr.cz	Advice for living in the CR
CzechInvest	www.czechinvest.org	Business and Investment Development Agency
Association for Foreign Investment	www.afi.cz	Support for entry of foreign investors
Cadastre of Real Estate	www.cuzk.cz	Information system, contains data on real estate in the CR
Road toll in the CR	www.premid.cz	Information on toll and charges
Portal of the Regional Information Service	www.risy.cz	Information website on the regions
The Czech Association of Hotels and Restaurants	www.ahrcr.cz	Directory of hotels in the CR

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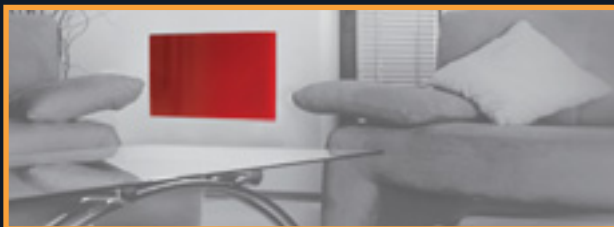


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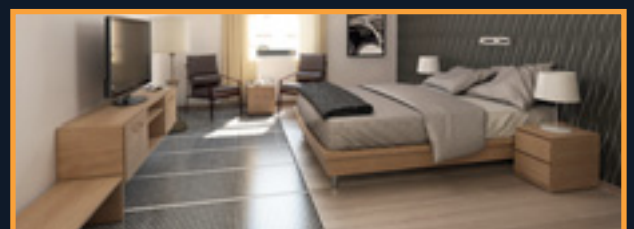


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