

INVESTMENT OPPORTUNITIES

Automotive Industry in the Czech Republic



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www.czechinvest.org

Last up-date: March 2009



CzechInvest, the Investment and Business Development Agency, is an agency of the Ministry of Industry and Trade. Established in 1992, the agency contributes to attracting foreign investment and developing domestic companies through its services and development programmes. CzechInvest also promotes the Czech Republic abroad and acts as an intermediary between the EU and small and medium-sized enterprises in implementing structural funds in the Czech Republic. Our systems of quality management and information security were certified by Quality Austria and Certification & Information Security Services in accordance with ISO 9001:2000 and ISO 27001:2005.

The Czech Automotive Industry at a Glance

“What convinced us was the quality of Czech engineers and the long automotive tradition in the Czech Republic. For this reason we can promise further improvements in our results and achieve competitive prices.”

Clive Hickman, Managing Director, Ricardo Vehicle Engineering

Automotive Industry Association of the Czech Republic

The AIA is an industrial interest group of manufacturing, commercial and other companies that make up the Czech automotive and related industries. Today the AIA covers most of the automotive sector with 160 members.

Membership is absolutely optional. It gives participants permanent contact with the automotive industry and provides them with current information. The Association offers cooperation with other organizations while coordinating activities and providing assistance in achieving the goals of the automotive sector.

The AIA represents the common interests of the sector in dealings with national and international offices and also promotes the development of economic cooperation with other countries.

www.autosap.cz



Success breeds success and this adage certainly epitomises the Czech Republic, which hosts one of the highest concentrations of automotive-related manufacturing and design activity in the world. Indeed, according to FDI Magazine, in 2002-2004 the Czech Republic secured more automotive R&D projects than any other country in Europe.

Already accounting for 20.2% of manufacturing output and 20.2% of Czech exports in 2007, the automotive sector, with over 120,000 employees and half of the world's top fifty component manufacturers, is a powerful engine of the Czech economy. It is about to accelerate further given that Škoda, combined with Toyota/PSA and the new Hyundai plant will soon be producing 1,200,000 cars annually.

The benefits from being part of the Czech Republic's automotive cluster, which features an extensive and robust value chain, was underscored by the European Investment Monitor of Ernst & Young, which ranked the Czech Republic as the world's leading location for automotive-component plants for three consecutive years. While the country has the capacity and resources to accommodate three major vehicle plants and holds excellent business opportunities for suppliers, the Czech Republic is poised to consolidate its position as one of the leading European centres for automotive-related design and R&D activity.

The confluence of the increasing numbers of automotive-related centres of excellence, very strong academic and institutional base and unmatched, deep-rooted engineering tradition creates a culture of competitive innovation which sets the country apart from others, particularly in Central and Eastern Europe. Indeed, a policy goal of the Czech Government is to ensure that the country's automotive sector remains in the vanguard of competitive innovation by providing a business climate conducive to sustained growth through a range of activities aimed at fully unlocking the Czech Republic's scientific, engineering and intellectual capital.

CzechInvest, the Investment and Business Development Agency of the Czech Republic, provides clients with comprehensive support. The Agency has the proven project management expertise to reduce the burden on clients' management resources in terms of facilitation of the entire investment decision-making and implementation process.



Škoda: More than 100 Years of Automotive History



“The characteristics of today’s Central European automotive industry as I see them are state-of-the-art technology and highly competitive factories; a highly skilled workforce and long tradition in engineering together with favourable wages and especially unit costs. And last but not maybe most important, access to know-how and division of labour. In the Czech Republic ten years ago our role solely was to maintain and exploit these advantages.”

Dr. Carl H. Hahn, Honorary Chairman, former Chairman of the Board of Directors, Volkswagen AG

When Václav Klement and Václav Laurin started manufacturing automobiles in 1905, they did not know how important decision they had actually made. After more than a hundred years, what was originally a small plant in Mladá Boleslav called Laurin & Klement is now a modern and successful European car manufacturer and also the Czech Republic’s biggest exporter.

The modern history of the company started after the Velvet Revolution of 1989, when Škoda started looking for a strong foreign partner that would provide financing and know-how, and in 1991 the company became the fourth brand of the Volkswagen Group. Today Škoda Auto operates plants in the Czech Republic as well as abroad, delivering its vehicles to customers in over one hundred markets worldwide.

Made up of the parent company Škoda Auto, its fully consolidated subsidiaries Škoda Auto Deutschland, Škoda Auto Slovensko, Škoda Auto Polska and Škoda Auto India Private and the affiliated OOO Volkswagen RUS, the Škoda Auto Group is currently one of the most important businesses in the Czech Republic. The sole shareholder in Škoda Auto (since July 2007) is Volkswagen International Finance, a company that acquired Volkswagen’s interest in connection with organisational changes planned in the VW Group.

The most successful year in the history of Škoda Auto was 2007, when the Mladá Boleslav-based car manufacturer delivered a total of 630,032 vehicles to its customers, 14.6% more than in 2006. The company defended its position as the market leader in the Czech Republic and managed to increase its market share in Western Europe, its strongest market, by 8.4% (to 2.2%), despite the overall market recession. Škoda Auto also focused on the fast-growing markets in China, Russia and India that are becoming increasingly important. In 2007, the process of building another dealer network started in China; in early 2008, the company’s production programme in India was extended with the Škoda Fabia, and in Russia Škoda is currently finishing the construction of a new factory together with Volkswagen RUS.

The success of the Škoda brand is underscored by a number of awards that the company’s models have won in prestigious competitions. For example, the Škoda Superb won the prestigious international competition Car of the Year 2009; the Škoda Octavia won the Car of the Year 2008 competition organised by SAE China and Sina Auto News; the new Škoda Fabia won two awards in Ukraine – Car of the Year 2008 in the small and mid-size vehicles category and Best Value for Money in 2008; the readers of Auto Bild Allroad magazine voted the Škoda Octavia 4x4 as the four-wheel-drive of 2008, etc.

One of the company’s key units is Škoda Auto Technological Development. The division employs a number of unique methods and optimisation strategies, the results of which are reflected in the VW Group’s projects. To make operations really effective, the excellent expertise of Škoda Auto Technological Development is combined with considerable investments in development capacities and resources. Before the end of 2008, the company has completed construction of its new technology centre in Mladá Boleslav. Working in brand new offices, laboratories and workshops, the centre’s staff are going to develop electrical systems, chassis and engines, and perform various tests of vehicle parameters (acoustics, noise level, resistance to solar radiation, lighting properties, etc.) The total area of the technical development premises is enlarged by 70% and the centre offers attractive career opportunities for dozens of mechanical and electrical engineers and other development specialists whose work includes research and development tasks for both Škoda and Volkswagen Group as a whole.

The technology centre offers new jobs to 370 qualified employees. As of 30 June 2008, Škoda Auto employed 29,312 people, of which 27,754 in the parent company and 1,558 in its subsidiaries.





TOYOTA PEUGEOT CITROËN AUTOMOBILE

“The Czech Republic attracted us mainly by its remarkable engineering tradition and high level of technical education. This is what we looked for. We are also very satisfied with the quality of the local component manufacturers.”

Jean-Martin Folz, President of PSA Peugeot Citroën



www.tpca.cz

TPCA: One of the most Modern Plants in the World

Toyota and PSA Peugeot Citroën launched commercial production at their joint TPCA (Toyota Peugeot Citroën Automobile) plant in the Czech Republic in early 2005. Four years after the carmakers unveiled their joint venture and three years after they chose a site near the Czech town of Kolín, the first three cars rolled off the production line – one each of the new Toyota, Peugeot and Citroën models. The millionth vehicle was produced just three years and nine months later, on 1 December 2008.

The facility was designed primarily by Toyota, the partner that took most of the responsibility for manufacturing. At around EUR 1.3 billion, the state-of-art plant located 40 miles east of Prague is one of the biggest foreign investments in Central Europe to date. The plant produces approximately 320,000 cars per year. TPCA produces the Peugeot 107, Citroën C1 and Toyota Aygo models. In 2008 these economical city cars with low fuel consumption and emissions were given a facelift. In 2009, TPCA is planning to increase capacity to 340,000 cars annually.

Eighty percent of all parts are sourced in the Czech Republic. More than 99% of the cars are exported to European markets, mainly Italy, France, the United Kingdom and Germany. TPCA has more than 3,500 employees.



Hyundai Motor Manufacturing Czech The most Modern Car Manufacturer in Europe

“We are very pleased with our decision to locate our project in the Czech Republic. It is a developed country and our Czech colleagues and employees are technically erudite, flexible and hardworking.”

Kim Eok-Jo, president, HMMC

“Hyundai has decided to build a plant in the Czech Republic!” This information had the force of a lightning bolt when it was officially announced in Ostrava back in September 2005. Hyundai decided to follow in the footsteps of its sister company Kia, which had started building a plant in Žilina, Slovakia, one year earlier. Both plants are now in operation, forming a unique complex: Each plant will make 300,000 cars a year, while Hyundai Motor Manufacturing Czech (HMMC) will make transmissions for both plants and Kia Motor Slovakia will provide engines.

Hyundai came to the Moravia-Silesia region in the nick of time, so to speak, as the region suffered from high unemployment resulting from painful restructuring processes in the region's traditional industries – coal, steel and heavy engineering. Hyundai offered to create about 3,500 jobs and to invest in excess of EUR 1 billion. An additional 5,000-7,000 are to be created by component suppliers. The Czech government and the Moravia-Silesia region following up this huge investment, one of the biggest in the Czech history, by spending billions of Czech crowns infrastructure, particularly roads and railways.

An investment agreement was signed in May 2006 and top-soil removal and land-preparation works started on 1 November of that year. The first pillar was erected in April 2007 and all production halls were completed by the end of the year. Installation of technologies followed; operational tests started during summer and on 3 November 2008, the first mass-produced Hyundai i30 cars rolled off the production line. The cars were white, red and blue respectively, reflecting the colours of the Czech flag and emphasising the fact that Hyundai i30s made in Nošovice are real Czech cars. By the end of 2008, Hyundai had hired more than 2,000 employees in their brand new plant in Nošovice, with plans to employ 1,500 more by 2011.



www.hyundai-motor.cz

Irisbus Iveco



Iveco Czech Republic, with its headquarters in Vysoké Mýto, is the largest factory of the Irisbus Iveco Group, the second largest bus manufacturer in Europe. The company focuses on production of long-distance buses. Due to ever-increasing demand, production in the plant is rising every year, and in 2008 is set to surpass the mark of 3,000 buses produced.

Iveco Czech Republic also offers the widest range of products of the entire Irisbus Iveco Group, including minibuses, tourist coaches and city, suburban, long-distance and intercity buses. Fundamental diversification over the last three years has resulted not only in new designs, passenger comfort and outstanding consideration for the environment, but thanks to the quality, service life and low operating costs of the buses, they represent great value for money. In addition, a focus on environmental friendliness has brought about a big expansion of the range of buses on offer that use alternative fuels.

In the area of city transport, Irisbus Iveco is maintaining its current position as the European leader in terms of environmental protection, reduced emissions and expansion of the range of buses powered by alternative fuels. The line of very popular low-floor Citelis city buses has been expanded with the addition of the low-entry city/suburban/long-distance Crossway LE, which during in the short time it has been in production has become a much sought-after model and is offered in a three door version. The traditionally very strong position of Irisbus Iveco in the segment of long-distance coaches continues to be supported by the Arway and Crossway models.



www.karosa.cz

SOR Libchavy



The leading Czech bus and coach producer SOR Libchavy Ltd. was established in 1991 and its first bus was on the road only two years later. Nowadays, the company produces 500 buses of its own design in the mid-length category annually and the plan is to double this number following the launch of its new welding centre.

The main benefits of SOR's buses compared with the competition are their low curb weight, which on average is up to two tonnes lower than comparable buses made by competitors. Due to this lower curb weight, fuel consumption is 14.5% less than that of other types of buses on the market.

SOR Libchavy produces buses in city, intercity, tourist and low-floor city versions. These buses have been equipped with IVECO Euro IV engines as standard since 2006 and are currently being prepared for installation of Euro V motors. Another innovation in the pipeline is the production of two more fully low-floor city buses. For the intercity buses segment, SOR offers three mid-floor models as well as a low-entry version.

The company will also prepare production of a trolleybus and a hybrid bus. SOR obtained ISO 9001 certification in 2001. Exports account for around 50% of total production, and increased production is aimed at foreign markets like Slovakia, the Baltic states, Serbia, Moldova, Ukraine, Denmark, Belgium, Holland, Germany, Croatia and Bulgaria.



www.sor.cz

Tatra



With a tradition dating back more than 150 years, TATRA Corporation in Kopřivnice is among the oldest car manufacturers in the world. The company was established in 1850, and in 1897 it started producing a broad range of passenger cars and also trucks. The company has also produced railway carriages, tracked vehicle, trolleybuses and airplanes.

Nowadays, heavy off-road trucks and vehicles for both road and terrain conditions comprise the company's principal manufacturing program. The trucks are made in four commercial series, including TERRNo1 and JAMAL civilian vehicles, and ARMAX and FORCE military vehicles.

Vehicles bearing the TATRA brand are characterized by their exceptional chassis design, high ground clearance, and high reliability, which makes them ideal for operation in the hardest terrain and climatic conditions. Tatra is statistically the world's most successful vehicle in off-road truck competitions.

TATRA exports 80% of its output, mainly to its traditional markets in Russia, the other CIS, India, Australia and Europe. TATRA, a.s. currently employs almost 2,000 people, while the entire TATRA holding company comprising the parent company and its subsidiaries has approximately 4,000 employees.



www.tatra.cz

Integration of Avia and Ashok Leyland Motors s.r.o.



Ashok Leyland took over AVIA's Truck Business Unit two years ago to form AVIA Ashok Leyland Motors s.r.o., better known today as simply AVIA Ashok Leyland. Since then a lot has changed, both for the employees of the Prague-based truck manufacturer and for its markets.

Today the factory produces nearly one hundred trucks per month, which reflects a substantial increase of the past two years. A sense of optimism prevails on the shop floor, with teams rearranging production spaces to streamline each stage of production while improving conditions for employee.

The call for new, environmentally friendly vehicles and strong economic growth in this region will see old vehicles rapidly replaced. Ashok Leyland has plans to extend the range into new weight sectors, marketing the new vehicles through the developing AVIA Ashok Leyland sales and service network.

AVIA Ashok Leyland will invest heavily in both the Czech and Slovak markets. The company's aim is to make the level of service support the best in the marketplace. A big push toward improving parts supply is already bearing fruit, with ambitious goals to continually improve parts and service support. AVIA is also investing in high-calibre personnel, not only in marketing and sales, but throughout the organisation, where the level of expertise is quickly being brought up to an international level.



www.avia.cz

Manufacturing Case Studies



Benteler

Benteler Automobiltechnik, a major German automotive components manufacturer, expanded its activities in the Czech Republic. The company's two existing factories with 1,000 employees have been followed by a third facility in Rumburk producing chassis parts, safety components and pressed parts located. Investing more than EUR 50 million, Benteler Automotive Rumburk uses the most advanced methods and technologies, such as high-strength material moulding. The Czech facilities contribute to the company's success with their high level of development competence, innovative products, customised solutions and a comprehensive range of services.



Continental

Continental developed its activities in the Czech Republic through its acquisition of the tire manufacturer Barum in 1999, which made it the largest European tire producer, establishment of greenfield projects for the production of brake cylinders and powerbrake units, and through the acquisition of Siemens VDO Automotive, which is focused on production of fuel-injection units, onboard instruments, air-conditioner control panels, radios, navigation systems, sensors, electronic control systems, jets, pumps, valves, hose systems and air-conditioners. Continental operates in six locations in the Czech Republic: Adršpach, Brandýs nad Labem, Frenštát pod Radhoštěm, Jičín, Otrokovice and Trutnov. The company has nearly 13,000 employees.



DENSO

Denso Manufacturing Czech was established in 2001 in Liberec. With over 1,700 employees and investments worth approximately CZK 4.4 billion, Denso is one of the largest investors in the North Bohemia region. The plant produces automobile air-conditioning units, evaporators, condensers and radiators. In 2002, it was followed by Denso Airs Division and Liplastec, its key suppliers for the air-conditioner business. Both Denso plants supply mostly Toyota, PSA and Volkswagen Group. Strongly oriented to new technologies and product development, Denso's operations in the Czech Republic are becoming the company's core manufacturing facilities in Europe.



Magna

Magna, the world's most diversified automotive supplier, has production operations in three locations in the Czech Republic. Magna's seat division produces seat systems and interior components in Chabařovice and Chomutov, while the Magna Cartech branch manufactures body components in České Velenice. Magna employs approximately 1,100 people in the Czech Republic.



KOITO

Koito Czech was founded in 2001 as a wholly owned subsidiary of the Japanese Koito Manufacturing Co. to conduct European operations and as a second European base in addition to Koito's already existing UK facility. Investing USD 70 million, Koito completed its new plant in the town of Žatec in 2002. Its 500 employees manufacture and market innovative automotive lighting products such as gas discharge headlamps (GDHL), adaptive front lighting system (AFS), and LED headlamps to meet the increasing number of orders from European carmakers and Japanese transplants.



MOTORPAL, a.s.

Motorpal is an established manufacturer of fuel-injection equipment for diesel engines. Founded in 1946, it is still a purely Czech company whose recent business expansion has been very dynamic. Key products include injection pumps, injectors and injection nozzles as well as other parts for the automotive industry (balancing shafts, gearbox parts and brake-system parts). Motorpal is a qualified OEM partner of a wide range of engine producers, providing complex services ranging from development, sampling and tuning of injection systems to series production. It is certified in compliance with ISO 9001 and the automotive standard VDA 6.1. In December 2008, Motorpal was awarded ISO 14001 environmental certification and its automotive branch received ISO/TS 16949 certification. The company has four production plants located in Jihlava, Jemnice, Batelov and Velké Meziříčí. It has almost 1,700 employees and is one of the largest employers in the region of Vysočina.

Saint-Gobain

Saint-Gobain is a major French investor in the Czech Republic. The company's expansion in Hořovice (Central Bohemia) cost more than EUR 15 million and increased the number of employees to more than 500. The expanded plant of Saint-Gobain Sekurit uses the latest technology to produce state-of-the-art automotive glass in smaller series for mid- to high-end and luxury vehicles such as those manufactured by Ford, Jaguar, VW or Rolls Royce. The parent company is continuously increasing the R&D capacities of its Czech subsidiary to benefit from its proven innovation potential.



SungWoo Hitech

SUNGWOO HITECH is one of the leading Korean firms in the automotive sector. The company focuses primarily on body components, doors and roof assemblies. For its USD 111 million investment in 2005, SUNGWOO HITECH selected the Hrabová Industrial Zone in Ostrava, where it undertook to create at least 1,000 new jobs. Series production began in October 2006. The company was the first Korean investor to be awarded the title Investor of the Year.



TRW

TRW Automotive operates eight subsidiaries in the Czech Republic producing a wide range of automotive components: switches, fasteners, seat belts, chassis components, lighting elements, components for steering gears, etc. Lucas Varity, TRW's prime brand in the field of automotive brakes, produces car-brake systems and spare parts in two manufacturing facilities in the country. The subsidiary TRW-DAS Dacice has recently decided to meet the group's increasing demand for its development and design work by continuing to expand its technology centre in Dacice, which focuses mainly on steering and suspension systems.



ROBERT BOSCH

Robert Bosch has established a number of independent subsidiaries in the Czech Republic and has 8,150 employees and three production plants here. The concentration of the group's manufacturing and R&D activities in the Czech Republic ranks among the highest in Europe. The Jihlava plant is the group's global centre for the development and production of high-pressure injection systems for diesel engines. Moreover, Robert Bosch is establishing a new development and innovation centre in České Budějovice to develop new platforms for automotive components and modules.



Have a taste... The full menu of Czech-based automotive compo

Lighting Systems

Automotive Lighting
Koito Czech
Hella Autotechnik,
Visteon Autopal

Exhaust Systems

Faurecia Exhaust Systems
Vyfuky Tyll
Bosal
Karsit
Eberspächer International
Witzenmann
Monroe
Mann+Hummel

Wheel & Tyres

Hayes Lemmerz Alukola
Ronal
Barum Continental
Mitas

Seatings

Faurecia
Commercial Vehicle Group
Fehrer Bohemia
Fezko
Car Trim
Johnson Controls
Viza Automocion
Recticel
Gumotex
Tanex Plasty

Infotainment solutions

Continental Teves
Panasonic Automotive Systems
Tokai Rika

Fuel System

Continental Teves
Aisin Bitron
Robert Bosch
Toyoda Gosei
TI Automotive
Motorpal
Kautex -Textron
Cooper-Standard Automotive

Door Systems & Car locks

Brano Group
Defend
Witte
Kiekert
Assa-Abloy
Brose
Edscha Bohemia
Pyeong-Hwa
Arvin Meritor

Interior

Plakor Czech (ARRK)
Hyundai Mobis
Cadence Innovation
Gruppo Antolin
Peguform
Happich
Avon Automotive
Gumarny Zubri
Gumotex
Saar Gummi
CIE Automotive
BTV Plast
Rieter CZ
Magna
Dymos

HVAC

Denso
Behr
Valeo
Visteon
Senior Automotive
Hutchinson
Brose
Fujikoki
Eaton
Showa Aluminium Czech

Engine Systems

Nemak
ČZ
PBS Turbo
Almet
Strojirny Poldi
Motorpal
Brisk
Bosch Diesel
Robert Bosch
Bontaz-Centre
Magneton
Alfmeier CZ
Metal Progress
Timken

Brakes

TRW/Lucas Varity
Cooper-Standard Automotive
Knorr-Bremse
Brano Group
Mubea
Brose
Federal Mogul
Lucas Varity
TI Group

Electronics

Continental Teves
Kostal
Futaba
TVM
Furukawa
Mitsubishi Electric
Yazaki
JTEKT Corporation
Alcoa Fujikura
Johnson Controls
Lear
Akuma
Steering Systems
Koyo Seiko
TRW
Delphi
Tokai Rika

Exterior

s. n. o. p.
Benteler
Essa
Sungwoo Higtech
Karsit
Kovovyroba Hoffmann
Klein&Blažek
Wagon Automotive
Dura
Duve
Massag
Arvin Meritor
AGC
Saint Gobain
Cadence Innovation



Airbag&Safety

Aoyama
Toyoda Gosei
Filec Central Europe
Indet Safety System (Nippon Kayaku)
EuWe Eugen Wexler
ITG Automotive Safety

ment suppliers is available at <http://automotive.czechinvest.org>

Did you know...

that 46 of the top 100 automotive suppliers* are based in the Czech Republic.
here are a few examples:

* Note: Special Edition of business magazine Automobile Produktion, October 2008
Source: CzechInvest 2009



AGC



ALCOA

ALPS
ALPS ELECTRIC CO., LTD.

ArvinMeritor™

AISIN

DELPHI
Automotive Systems

EAT•N

faurecia

**FEDERAL
MOGUL**

Futaba



Honeywell



IR Ingersoll Rand

**JOHNSON
CONTROLS**

**LEAR
CORPORATION**

Lucas VARITY

**MITSUBISHI
ELECTRIC**

Panasonic

RIETER

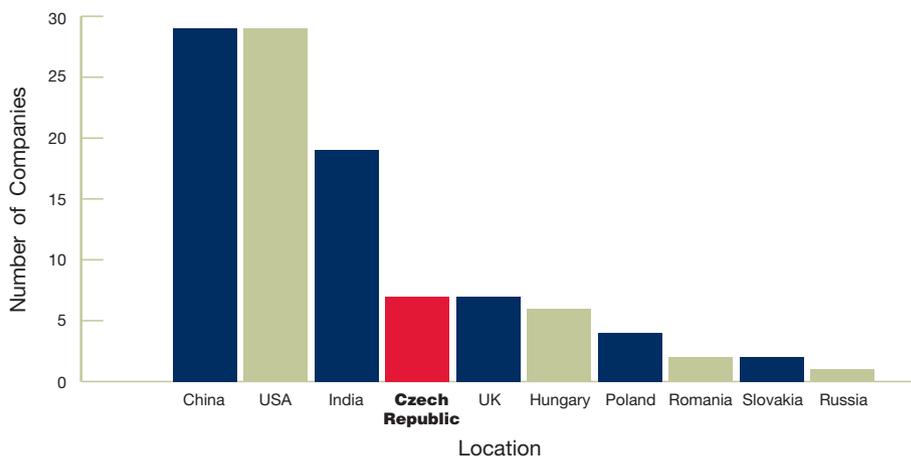
TIMKEN
Where You Turn

tyco

Top Automotive R&D Location

According to FDI statistics (see below), the Czech Republic is the world's fourth most attractive automotive R&D location. This is due to the perfect blend of an outstanding engineering tradition, excellent technical education and consistent attention to ongoing training of new, high-quality automotive professionals.

R&D and Technology Centres 2003-2008



*Incoming R&D Projects in Selected Countries
Source: fDi Markets 2009

Selected Technology and R&D Centres

CENTRAL BOHEMIA REGION

AUFEEER DESIGN
Ingersoll Rand
ŠKODA AUTO
KOSTAL CR
Behr Czech
Faurecia

LIBEREC REGION

MSV SYSTEMS CZ
Lucas Varity TRW
Denso

PLZEN REGION

NARETEC II
Alcoa Fujikura
ZF Engineering
MB Engineering

PRAGUE REGION

Ricardo Prague
MB Engineering
Valeo Autoklimatizace

SOUTH BOHEMIA REGION

Bosch
TRW-DAS

HR.KRALOVE REGION

Continental Teves
SWELL

YYSOCINA REGION

MANN+HUMMEL
Bosch

SOUTH MORAVIA REGION

Blata
MANN+HUMMEL

ZLIN REGION

Indet Safety Systems

OLOMOUC REGION

HELLA KG Hueck&Co.

MORAVIA-SILESIA REGION

Siemens VDO Automotive
Hayes Lemmerz Int.
Autopal



Source: CzechInvest 2009

| Investor | Country of origin |
|-----------------------------|-------------------|
| Kostal | Germany |
| VALEO SYSTEMES | France |
| THERMIQUES | |
| Nippon Kayaku | Japan |
| Mercedes-Benz | Germany |
| HELLA KG Hueck & Co. | Germany |
| Lippstadt | |
| Autopal | USA |
| Blata | Czech Republic |
| Ricardo | Great Britain |
| NARETEC | Czech Republic |
| Behr Czech | Germany |
| Hayes Lemmerz International | USA |
| Bosch | Germany |
| VOLKSWAGEN | Germany |
| Continental Teves | Germany |
| MSV Systems | Czech Republic |
| Alcoa Fujikura | USA |
| Aufeer Design | Slovakia |
| Denso | Japan |
| NARETEC II | Czech Republic |
| Indet Safety Systems | Japan |
| TRW | USA |
| Swell | Czech Republic |
| Ingersoll Rand | USA |

Source: CzechInvest 2008

“My experience with Czech engineers in automotive fields during my 25 years with GM and Chrysler R&D in the US and Canada has been more than excellent. They have a high level of technical education, comprehensive knowledge and understanding of complicated technical issues and excellent skills. Czech universities offer a pool of engineering and management talents for the global market.”

George Strnad, Design Engineer, General Motors Corporation

“We have had no problems finding young designers with the skills required to do detailed design work for Mercedes Benz.”

Ronald Fink, Director of Mercedes-Benz Engineering



Selected Czech-Based Technology Centres



Mercedes-Benz Engineering

Mercedes-Benz Engineering was established on two sites in Prague and in Plzen as a subsidiary of MBtech Group, a global provider of automotive engineering and consulting services. The Czech R&D centres specialize in CAD design of components and modules for new vehicles, engines and electronics. The scope of services ranges from concept to construction support of series production. The Czech Republic is the only CEE country contributing to MBtech Group's engineering and consulting expertise.



Ricardo Prague

Established in 2000, Ricardo Prague joined the network of Ricardo's technical centres in the UK, USA, Germany, Japan, China, India, etc. to provide CAE design and analysis support to customers around the world. The Prague centre offers research and development services relating mainly to combustion engines, transmissions and vehicle technology. Increasing the number of engineers to 160, Ricardo Prague undertook a major expansion of its technology centre in the Czech Republic in 2004.



Swell Technology Centre

In its new Development Services Centre in Hořice, Czech Republic, the engineering company SWELL operates a progressive technology centre for development of alternative material binding (e.g. sheet metal gluing, polymer gluing) and alternative materials applications (e.g. composites) in the automotive industry. The scope of activities covers CAD/CAE engineering, testing and prototyping of materials, components and assemblies, mainly in the sheet-metal area (BIW structures). The company's customers include Škoda Auto, Continental Automotive Systems, MAGNA, Wilhelm Karmann, Integral Metalltechnik, ITW Automotive Products and others.



Valeo Climate Control

Valeo Climate Control has a technology centre in Prague to provide engineering support for its heating, ventilation and air-conditioning (HVAC) and control panel programmes. As it is engaged in all new development projects, the Czech R&D centre cooperates with nearly all Valeo climate control divisions elsewhere in the world. As a state-of-the-art yet cost-effective development location, Valeo's Czech R&D centre is considered a centre of excellence for air-conditioning system design.



Visteon/Autopal

Visteon has had a strong presence in the Czech Republic since it acquired the renowned company Autopal thirteen years ago. With 4,400 employees in four plants, Visteon/Autopal serves both the European and American markets as a world-class supplier of automotive lighting, climate control and cooling components. Autopal houses Visteon's European Technical Centre for lighting R&D and testing. A technology centre for climate control and cooling components is planned to follow soon.

Highly Skilled Professionals in the Service of the Automotive Industry

Graduates in Technical Universities



Source: Institute for Information on Education 2008

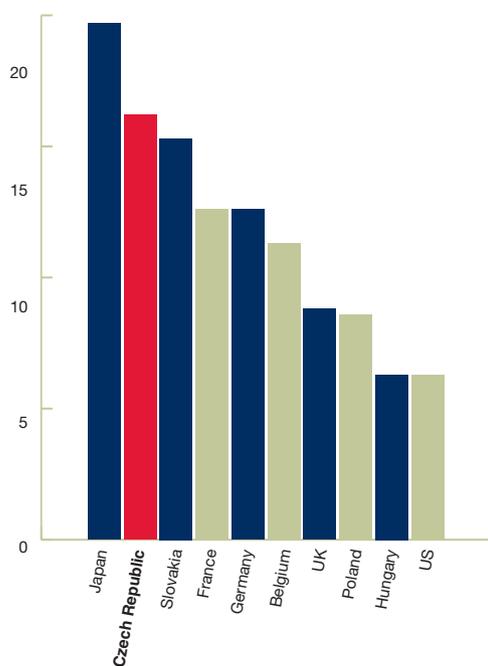
The Czech Republic's solid automotive-related academic and institutional base, as part of the country's traditionally strong technical education system, is its prime asset:

- Total number of university students in the academic year 2007/2008: 344,180
- One of the highest numbers of graduates in engineering, manufacturing and construction worldwide (16.2 % of total university degrees); see OECD Education at a Glance, 2008.
- More than 79,000 technical university students and students of technical faculties of other universities.
- Almost 17,000 technical graduates per year, of which 8,300 are mechanical and electrical engineering graduates.
- Increasing number of doctoral candidates. In the academic year 2007/2008: 8,337 students in doctoral programmes, this represents strong potential for future R&D in the Czech Republic.
- Czech Technical University in Prague (CTU) is one of the largest technical universities in Europe (more than 21,000 students in 2007/2008).

Source: Institute for Information on Education, Statistical Yearbook, 2008; Education at a Glance, OECD Indicators, 2008

Engineering, Manufacturing and Construction Graduates

(% of tertiary - type A* graduates in 2006)



*Note: University Graduates

Source: Education at a Glance, OECD Indicators, 2008

Automotive Related Faculties



Czech Republic
Technical Students Total
 Students: 79 153
 Graduates: 16 999
 PhD Students: 8 025

| | | |
|---|--|--|
| Czech Technical University in Prague Students: 10 378 Graduates: 2 403 | Technical University of Liberec Students: 2 407 Graduates: 351 | University of West Bohemia Students: 5 401 Graduates: 1 054 |
| Charles University Students: 3 404 Graduates: 659 | University of Pardubice Students: 3 709 Graduates: 761 | Brno University of Technology Students: 12 453 Graduates: 3 020 |
| Institute of Chemical Technology Students: 3 874 Graduates: 890 | Technical University of Ostrava Students: 10 228 Graduates: 2 070 | Tomas Bata University Students: 3 914 Graduates: 787 |

Source: Institute for Information on Education 2009; Universities Information

Note: Faculty Selection Defined by CzechInvest



Selected Czech Technical Universities and Automotive R&D Projects

Josef Božek Research Centre of Engine and Automotive Technology

The main focus of the Research Centre at CTU is research and development of spark-ignition engines (gasoline, gas, alternative fuels) and diesel motors. The research is focused on thermodynamics, internal flow aerodynamics, turbocharging and supercharging of engines using conventional and emerging technologies, emissions reduction and after-treatment, engine management by intelligent controllers, engine dynamics and structural strength of components applied to design optimisation, etc.

For more information please visit www.bozek.cvut.cz

Prague – Czech Technical University (CTU)



- Second largest technical university in Europe
- Exchange programmes with foreign universities in over thirty-five countries
- More than twenty thousands students
- The Josef Bozek Research Centre – the country's leading research body focused on automotive technology – is based at the university
- Projects with Bosch, AVX, Cadence, etc.

| | Students | Graduated |
|-------------------------|---------------|--------------|
| Mechanical Engineering | 3,159 | 458 |
| Electrical Engineering | 5,499 | 1,548 |
| Transportation Sciences | 1,720 | 397 |
| Total | 10,378 | 2,403 |

Note: Faculties related to Automotive Industry

Source: Czech Technical University Prague, 2008, www.cvut.cz

Technical University of Liberec (TUL)

- Projects with Siemens, Škoda Auto, Bez Motory, Tedom, Brisk, etc.
- Faculty of Mechatronics, Informatics and Interdisciplinary Studies focusing on automatic control and engineering informatics, mechatronics, engineering and information technology.
- Department of Vehicles and Engines – The main field of research is focused on usage of alternative fuels, development of gas engines, optimisation of the combustion process, new engine and vehicle concepts, noise and emission reduction, etc.



| | Students | Graduated |
|------------------------|--------------|------------|
| Mechanical Engineering | 1,620 | 163 |
| Mechatronics | 787 | 188 |
| Total | 2,407 | 351 |

Note: Faculties related to Automotive Industry

Source: Technical University of Liberec, Institute for Information on Education, 2008, www.vslib.cz

Technical University of Ostrava (TUO)

- Project with Siemens, Skoda auto, Vítkovice, ArcelorMittal Ostrava, Ivax Opava etc.
- Nanotechnology Centre and Energy Research Centre
- Regional Technology Transfer Centre facilitating the commercial utilisation of knowledge generated at the institution
- Centre for Advanced and Innovation Technology and Business Incubator of VŠB-TUO



| | Students | Graduated |
|---|---------------|--------------|
| Mechanical Engineering | 2,562 | 522 |
| Electrical Engineering and Computer Science | 3,436 | 682 |
| Metallurgy and Materials Engineering | 2,281 | 422 |
| Safety Engineering | 1,949 | 444 |
| Total | 10,228 | 2,070 |

Note: Faculties related to Automotive Industry

Source: Technical University of Ostrava, 2008, www.vsb.cz

Jan Perner Transport Faculty (University of Pardubice)

Research in the area of driving dynamics, especially in the fields of directional stability and a special aspect of stability – rollover resistance of tank vehicles. Another area is research of tire properties at higher speeds with respect to the origin and development of slip angles. The faculty also focuses on modelling and control of electric drives, vehicle diagnostics and development of motor-management systems and control of dynamometer brakes.



University of Pardubice (UP)

- University of Pardubice has been for years one of the three institutions offering higher education in technical chemistry-related subjects
- Research and Development is carried out on a broad scale, ranging from fundamentals to specific applied research activities
- The most extensive cooperation is carried out with the institutes of the Academy of Sciences of the Czech Republic.
- The faculty cooperates with companies like Škoda Auto, Swell, SOR Libchavy, Continental Teves, TÜV SÜD Auto, Tatra and others.
- The faculty cooperates with trailer manufactures and producers of special bodies, too. According to their concrete requests the faculty provides simulations of body loads due to dynamic effects caused by vehicle combination ride. The results serve especially for strength and durability calculations.

| | Students | Graduated |
|----------------------------|----------|-----------|
| Chemical Technology | 1,643 | 390 |
| Transport | 2,066 | 371 |
| Total | 3,709 | 761 |

Note: Faculties related to Automotive Industry

Source: University of Pardubice, Institute for Information on Education, 2008, www.upce.cz

New Technologies Research Centre, ZCU Pilsen

The automotive-related research activities of the centre comprise, for example, modelling of disc brake cooling, flow in the catalytic converter and flow and related noise generation in the exhaust system. The centre has developed a special computer program for predicting hot spots on the brake disc, as well as corresponding equipment for experimental verification.

For more information visit www.ntc.zcu.cz



University of West Bohemia, Plzeň (UWB)



- Projects with Gühring, Matsushita, Skoda Auto etc.
- New Technologies Research Centre
- NTCR cooperates with companies such as Škoda Auto, VW, AP Racing, HP Pelzer, Triumph Design, Buzuluk etc.
- Science and Technology Park – a joint project of the university, the Business Innovation Centre Plzeň and the City of Plzeň.

| | Students | Graduated |
|------------------------------------|----------|-----------|
| Mechanical Engineering | 1,663 | 194 |
| Electrical Engineering | 2,219 | 532 |
| Faculty of Applied Sciences | 1,519 | 328 |
| Total | 5,401 | 1,054 |

Note: Faculties related to Automotive Industry

Source: University of West Bohemia Plzeň, 2008, www.zcu.cz

University of Technology in Brno (UT)

- The third biggest higher education institution in the Czech Republic
- Projects with Honeywell, Bosh, Siemens, T-Mobile, IBM, etc.
- Cooperation with Microsoft in training and education
- Technology Transfer Office facilitating the commercial utilisation of knowledge generated at the institution

| | Students | Graduated |
|---|----------|-----------|
| Mechanical Engineering | 4,583 | 1,092 |
| Electrical Engineering and Communication | 4,084 | 1,145 |
| Information Technology | 2,750 | 501 |
| Chemistry | 1,036 | 282 |
| Total | 12,453 | 3,020 |

Note: Faculties related to Automotive Industry

Source: University of Technology in Brno, 2008, www.vutbr.cz





 Univerzita Tomáše Bati ve Zlíně
Tomas Bata University in Zlín

Tomas Bata University in Zlín (TBU)

- Throughout its history, the Tomas Bata University in Zlín cooperated with various partners from automotive sector and its suppliers, e. g. Robert Bosch, Barum Continental, Siemens Automotive, Themis, etc.
- The University Institute, as the TBU in Zlín representative in an international consortium, will be participating in CERADA (Central European Research and Development Area) project from 2009 till 2011. The project, focused to automotive industries and related R&D coordination in three Central European countries
- Technological Innovation Centre – a joint project of the university and the Zlín Regional Council including technology transfer, incubators etc.

| | Students | Graduated |
|--------------------------------------|--------------|------------|
| Faculty of Technology | 2,705 | 448 |
| Faculty of Multimedia Communications | 1,209 | 339 |
| Total | 3,914 | 787 |

Note: Faculties related to Automotive Industry

Source: Tomas Bata University in Zlín, 2008, www.utb.cz

Kaipan – Innovating the Past



KAIPAN



Kaipan came into being as a small workshop in 1991 with the aim of building a few replica cars for friends. The Lotus Seven served as the original model. Although the original idea was to import Lotus Seven replicas from abroad, it was gradually transformed into development and production of the company's own versions of original designs. The first prototype was introduced in the autumn of 1992 but additional years of development and tests ensued. Development was completed in 1997 and KAIPAN 47 model was approved for series production and road operation. Production was then gradually expanded to the current capacity of 100 -150 vehicles per year. The present manufacturing programme consists of models KAIPAN 57 (introduced in 2002), KAIPAN 47 (2007) and KAIPAN 15, which entered production in 2008. Seventy KAIPAN 14s were made and developed into brick-boxes in 2008. Besides the Czech Republic, KAIPAN 14s were also exported to Germany, the Netherlands, Serbia, Montenegro, Bulgaria and Slovakia. Fifteen KAIPAN 57s were produced in 2008. Kaipan has expanded its production facilities and hired and trained new employees. A further increase in production in following years is expected. A new model is also being tested.

At present Kaipan is a stable company with sufficient experience that combines the advantages of a small production plant with the possibilities of rapid flexibility.

www.kaipan.cz



Automotive Database

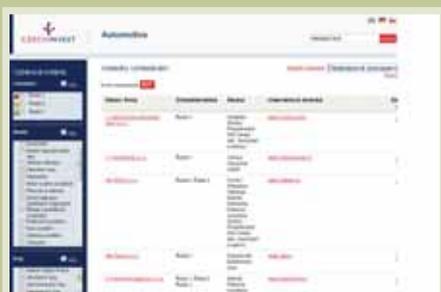
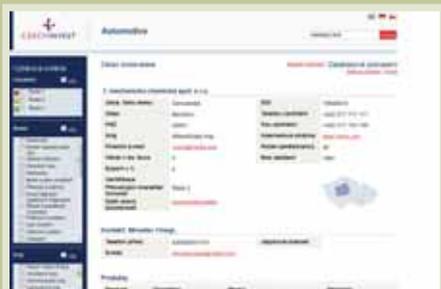
“In addition to manufacturing proximity, the government incentive programme for new technology centres was key to Honeywell’s decision. We are very pleased with the support CzechInvest is providing.”

Dan Sheflin, Vice-President of Technology for Automation and Control Solutions, Honeywell

“The visit to Czech companies in 2006 was very fruitful and we have identified several opportunities at both the first- and second-tier levels. The preparation and support of CzechInvest were first-class. All suppliers were well-prepared and very open in their approach to Nissan Europe. Certainly they are considerable candidates for Nissan.”

Geoff Smith, General Manager, Nissan Europe Purchasing

<http://automotive/czechinvest.org>



Information can cost you a fortune

Our automotive database offers it for free

The database of automotive suppliers at <http://automotive.czechinvest.org> covers the sector of automotive component manufacturers in the Czech Republic and enables comprehensive yet simple searching for suitable suppliers according to class (Tiers 1, 2, and 3), modules (the part of the car in which the component is used) and location, as well as fulltext searching.

The database contains more than 800 suppliers and its scope covers the Czech Republic’s entire automotive supplier base, making it an exceptional tool for mapping the possibilities of this sector in a given region. Other unique aspects are the division of suppliers into Tiers 1, 2 and 3 and useful display of customers for each component produced by a given supplier. The database thus provides information on which vehicle manufacturers the given components are intended for. These manufacturers include all global brands such as VW, Daimler, Toyota, BMW, Ford, Volvo, Porsche, Audi, etc.

Make a date with Czech firms

Leave the legwork to us

Do you want to have a look at the production facilities of your potential suppliers or joint-venture partners? The Czech Republic is a small country, which gives it certain advantages: over the course of a few days, you can visit dozens of firms in every corner of the country and thus find out which companies will make the most suitable partners. CzechInvest’s project managers will organise visits exactly according to your requirements. Do you have a list of firms that you would like to check out at first hand? We will contact them for you and prepare the itinerary of your business trip. Are you not sure which firms in the Czech Republic could become your partners? That doesn’t matter, as we will seek them out according to your specifications in our database of suppliers.

Please contact us at suppliers@czechinvest.org

CzechInvest’s services

- Assistance in implementing investment projects
- Collection/provision of information
- Tailor-made visits to the Czech Republic
- Identification of suitable business properties
- Identification of potential suppliers/JV partners
- Mediation with government bodies
- Handling of investment incentives
- EU-funded business support programmes
- Provision of „aftercare services

Why invest in the Czech Republic?

- Strategic position in Central Europe
- Developed transport and telecommunications infrastructure
- Highly developed technical base
- Highly educated workforce
- High innovation potential of its people
- Positive approach of the Czech government

Car Makers Using CzechInvest Automotive Database



Association for Foreign Investment



Partnership to Support Foreign Direct Investment into the CR

„The Association for Foreign Investment (AFI) represents a group of renowned companies operating the Czech market that support the entry of foreign investors into the Czech Republic by providing them with a broad range of professional services. The AFI's primary purpose is to make the entry of new investors into the Czech Republic as fast and easy as possible. Consultants from the AFI's ranks are experts in the areas of legal and advisory services, consulting, engineering, project management and other services.

During its more than ten years in existence, the AFI has assisted its members in preparing a range of significant projects of foreign investors in the Czech Republic.

Thanks to their experience, the AFI's members are the ideal bridge between local conditions and the expectations of foreign investors.“

Jan Bobek, Chairman of the Steering Committee, AFI

...is a joint project of the Association for Foreign Investment and CzechInvest - the Investment and Business Development Agency of the Czech Republic. The project is intended for stable companies that offer highly competitive services and products and that are interested in supporting the high-quality investment climate in the Czech Republic while promoting the country abroad. Programme activities support, to the maximum degree possible, communication between partners and foreign investors, Czech companies, representatives of the state administration and AFI members by means of e.g. organising prestigious award ceremonies, such as:



Investor roku
Investor of the Year



Podnikatelský projekt roku
Business Project of the Year



Podnikatelská nemovitost roku
Business Property of the Year

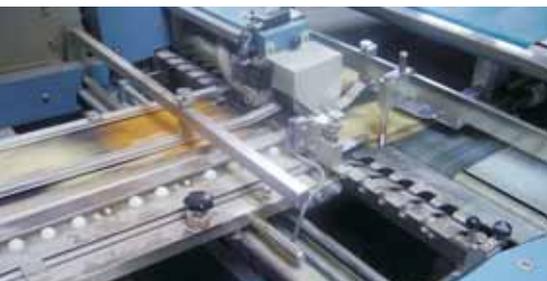
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