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supporting decision makers

Automotive industry in Poland

While the food sector is ranked 1st, the automotive sector in Poland is the second largest branch of industry in the country in terms of production volume, and its share in the Polish GDP is 8%. There are about 2,700 auto-related enterprises with 180,000 employees. About 75% are companies employing less than 10 people. The value of production in 2016 reached PLN 138.8 billion (PZPM) and recorded a 75% increase in comparison to 2007. In recent years, the automotive sector in Poland has become one of the largest in this part of Europe. Its growth results in improvements in many related industries, such as fuel sales and road and communications development.



Source: Own elaboration based on GUS and EUROSTAT data

Production of the automotive sector in Poland is mainly located in five regions. These provinces include: Lower Silesia, Silesia, Greater Poland, Lesser Poland and Mazovia. The main components manufactured in Poland are car parts and accessories, including chassis and parts of the vehicle drive system. The position of the Polish automotive industry is confirmed by numerous new investments, such as the Volkswagen factory in Września (Greater Poland Province) which was opened at the end of 2016 to build two models of commercial vehicles, the Mercedes plant under construction in Jawor (Lower Silesia Province to manufacture engines for a wide range of car models or the expanding LG Chem factory in Biskupice Podgórne (Lower Silesia Province) which will produce lithium-ion batteries for electric vehicles.

Automotive industry in Poland

Production of the automotive industry in Poland

In 2016, 681,834 vehicles (GUS) left Polish factories, including:







The reported production volume ranks Poland as the 3rd largest producer of motor vehicles in Central and Eastern Europe, behind the Czech Republic and Slovakia.

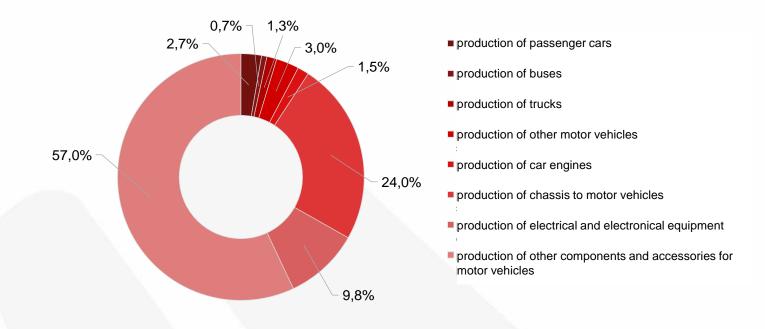
Cars make up 75% of all vehicles registered in the leader on the list of the most popular passenger car brands, The second place is taken by Volkswagen – whichPoland. In 2016, the number of cars in Poland amounted to 21 million. Škoda – with over 12% market share - remained owns a 10% stake. Passenger car factories operating in Poland increased their production by 4% in 2016. In total, 554.6 thousand new vehicles left the plants. Among the manufacturers of passenger cars in Poland, predominant are definitely foreign companies; the biggest producer is FCA Poland which in 2016 generated 41% of the total production of passenger cars in Poland. The second place is occupied by the Opel plant in Gliwice, with a 30.1% share in the market of the so-called 'light cars'.

An important part of the Polish automotive industry is the market of trucks and buses. In 2016, companies operating in the country produced 122 thousand trucks, including commercial vehicles and 5,234 buses. Manufacturers of trucks include both foreign brands (Scania, Man) and domestic companies (Solaris, Jelcz). Also among bus manufacturers operating in Poland, there are international corporations such as Volvo or Mercedes-Benz and Polish companies such as Autosan, Solbus and Solaris Bus&Coach. On the other hand, among the most popular registered truck brands (with tonnage limit above 3.5 t), DAF dominates with over 18% market share, and VOLVO and SCANIA are also worth mentioning. Still, when it comes to selling commercial vehicles (of GVW of up to 3.5 t), FIAT remains the clear leader (20% market share), followed by Renault, Peugeot and Volkswagen.

The production of automotive parts and accessories is an important element of the entire automotive industry. It is a dynamically developing industry, currently producing about 92% of the output (calculated in pieces) in this sector and reaching a 60% share in the value of sold production (GUS). As already mentioned, Poland is one of the leading manufacturers of automotive parts and accessories in Europe (6th place). The companies specialize in the manufacture of equipment, rubber, rubber and metal parts, as well as technological elements. It can, therefore, be concluded that in Poland, most of the elements necessary to build a car are produced. Among the largest manufacturers of automotive components are Volkswagen Motor Polska, LG Chem, Daimler and Pittsburgh Glass Work.

Automotive industry in Poland

Structure of the automotive industry in Poland [share in PLN billion]



Source: Own elaboration based on GUS data

Features of Poland as a favorable location for the automotive industry:

- Logistics an extensive network of expressways and motorways, access to seaports and large airports facilitate the transport of parts and finished vehicles.
- ▶ Manpower the average employment in the enterprise sector amounts to 6 million people, of which the automotive industry employs about 180 thousand people trained in technical universities and in automotive vocational schools.
- ▶ Academic center 21 technical universities all over Poland, with various majors. In total, there are 390 higher education institutions in Poland, with over 1.3 million students and 360 thousand graduates each year.
- Investment plots Poland is the fifth largest country in the European Union, which makes it an attractive location in terms of investment plots availability.
- **Numerous and strong industrial centers** five regions (Lower Silesia, Lesser Poland, Mazovia, Silesia and Greater Poland) are where the automotive industry is most active and which provide support for investors, as well as a competitive business environment.

AUTOMOTIVE INDUSTRY Automotive industry in Poland

Exports

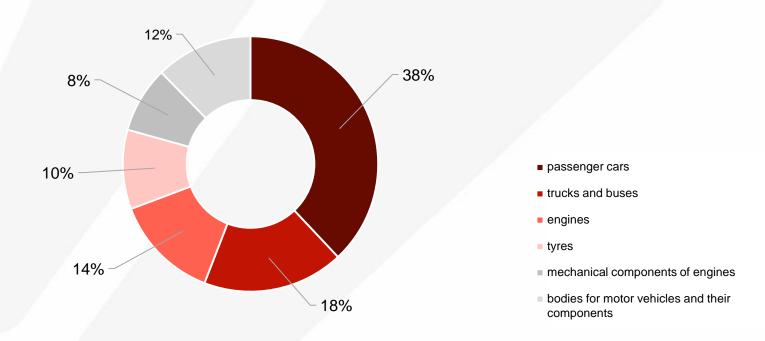
The automotive sector in Poland is oriented towards export – about 70% of the automotive production is sold abroad. Therefore, its condition and results are strongly dependent on the foreign situation. It is a very dynamic and growing market. In 2016, exports exceeded a record-breaking EUR 24.4 billion (IDA). The largest recipient of Polish automotive products is the European Union. Here, the share in exports amounts to as much as 85%.

The biggest importers of the Polish automotive industry:

- Germany
- Czech Republic
- The United Kingdom
- France

The export of the automotive industry is primarily the sale of automotive components, parts and accessories. The value of exports in this industry amounted to EUR 10 billion and accounted for 43% of the sector's total foreign sales.

Export structure of the automotive industry [share in EUR billion]



Source: Own elaboration based on the PZPM report "Automotive Industry. 2017/2018 Report"

Automotive industry in Poland

Selected automotive industry plants in Poland:

Volvo Polska

Volvo Polska Autobusy is part of Volvo Bus Corporation, one of the world's largest bus manufacturers. The Wroclaw plant has been operating since 1996 and is currently the largest Volvo bus factory in Europe. Its production includes chassis and body assembly processes. Entire city, long-distance buses and coaches are built here. Vehicles from the Volvo factory in Wroclaw are supplied to markets all over Europe.

General Motors/ Opel

General Motors has been operating in Poland since 1994, at the beginning - in Warsaw, and in 1998 - the production moved to a modern factory in Gliwice. Currently, the Silesian plant consists of the production of passenger cars in Gliwice, the engine production plant in Tychy and the Shared Services Center. As many as 95% of all products manufactured in Gliwice are sold abroad. In 2016, the factory in Gliwice manufactured 201 thousand cars, 18.6% more than in the previous year.

Volkswagen

Volkswagen is present in Poland through two daughter companies: Volkswagen-Poznań and Volkswagen Motor Polska. The plant in Poznań was established in 1993, and, from the very beginning, was involved in the manufacture of commercial vehicles. Currently, 18 car models of various brands belonging to the Group are assembled in four plants owned by the company. The Volkswagen Motor Polska's factory was established in Polkowice in 1999. Since then, it has been producing state-of-the-art diesel engines and the main sub-assemblies necessary for them, such as engine blocks, cylinder heads, crankshafts, connecting rods and integrated camshaft modules.

FCA Poland/Fiat Auto Poland

A Fiat Auto-owned enterprise was founded in 1992, starting its activity in two locations: Tychy and Bielsko-Biała. Currently, the Tychy plant produces three models in the Group's assortment: Fiat 500, Lancia Ypsilon and Abarth 500. In addition to the full production cycle of passenger cars, the FCA Group also manufactures in Poland, diesel and petrol engines, automotive components, production systems and cast iron. In 2016, the plant produced 273.8 thousand cars.

LG CHEM

The LG Chem Poland branch was established in 2006, in Biskupice Podgórne, near Wroclaw. In Lower Silesia, it consists of two divisions. The Optical Division produces polarizers for LCD monitors and TVs. The EP division (Engineering Plastic) is 5 years younger and produces, among other things, granulate used in electronic, electrical, IT and automotive products. In the second half of 2016, construction of LG Chem Wroclaw Energy Sp. z o. o. began, which is the first European plant of the Group specializing in manufacturing lithium-ion batteries for electric cars. It will produce all battery components - from electrodes, to cells, modules and accumulators.

Automotive industry in Lower Silesia

Lower Silesia is one of the top five provinces in the automotive industry in terms of production volume. In these regions, over 66% of all the production of cars in Poland is produced in total. The automotive sector in the Wroclaw region consists primarily of manufacturing vehicle parts and accessories. Plants operating in Wroclaw specialize in the construction of mechanical engine parts, exhaust systems, metal, rubber and insulating components, as well as braking and safety systems. In 2015, the value of manufactured vehicles, trailers and semi-trailers in Lower Silesia amounted to PLN 2.7 billion (GUS).

Companies from the automotive sector in Lower Silesia are mainly concentrated around large urban centers: Wroclaw, Wałbrzych, Legnica and Polkowice, Oława and Jelcz-Laskowice. The choice of location is connected with logistics conditions and access to qualified personnel. So far, the geographical decisions of enterprises have also been significantly influenced by the location of special economic zones, where favorable income tax reliefs are offered on their activity.

For years, Lower Silesia Province has been consistently strengthening its potential in the automotive sector through the development of transport infrastructure, strengthening of available personnel, development of technical university potential and cooperation within automotive clusters, including the Lower Silesian Automotive Cluster.

Location and list of companies from the automotive sector in Lower Silesia



AUTOMOTIVE INDUSTRY Automotive industry in Lower Silesia

Company	Production	Location
VOLVO POLSKA	coaches and buses	Wroclaw
WABCO POLSKA	safety technologies and control systems for trucks	Wroclaw
TOYOTA MOTOR MANUFACTURING POLAND	gearboxes, petrol engines	Wałbrzych
AUTOLIV	airbag and safety restraint systems	Oława
SITECH	car seats	Polkowice
RONAL POLSKA	car wheels	Wałbrzych
PITTSBURGH GLASS WORKS	car windows	Komorniki (Środa Śląska)
VOLKSWAGEN MOTOR POLSKA	diesel engines	Polkowice
FAURECIA	car seats	Wałbrzych
TAKATA PETRI	parts and accessories for motor vehicles	Krzeszów (Wałbrzych)
TOYOTA MOTOR INDUSTRIES POLAND	diesel engines	Jelcz-Laskowice
GKN DRIVELINE POLSKA	half shafts and drive systems	Oleśnica
FOUNDATION BRAKES	brake systems	Mirków
BOSCH POLSKA	brake systems and power steering	Wroclaw
BASF	catalytic converters	Komorniki (Środa Śląska)
DAICEL	airbag components	Żarów
ETO MAGNETIC	power hydraulics	Wroclaw
LG CHEM	lithium ion batteries	Kobierzyce
BRIDGESTONE	rubber products for construction machinery	Żarów
DENSO	diesel engine filters	Żarów
COOPER STANDARD	fuel, brake, antishock systems	Dzierżoniów
FAURECIA	parts and accessories for motor vehicles	Legnica
LEAR	steel structures, guides and mechanisms of car seats	Legnica
WEZI-TEC	interior fittings, exterior elements, engine covers	Legnica
MANDO	steering and braking systems, suspension	Wałbrzych
DAIMLER AG	car engines	Jawor

Automotive industry in Lower Silesia

Another advantage of the region is the activity of the Wroclaw University of Technology, one of the best technical universities in the country (2nd place in the Ranking of Higher Schools in Poland, Perspektywy 2017). It currently educates 34,000 students in 44 faculties, including: mechanics and mechanical engineering, electronics, automation and robotics or mechatronics. Future employees of the automotive industry are also trained in technical schools of motor vehicle engineering in Wroclaw, Legnica and Strzelin. These institutes cooperate with automotive companies, such as that of School Complex No. 2 in Wroclaw - which offers a patronage class of authorized Mercedes-Benz services.

Wroclaw and the surrounding area is a strong center for innovative research. The Wroclaw University of Technology, mentioned above, has over 5,000 inventions and utility models to its credit. The development centers include Wabco, Volvo, Autoliv, Robert Bosch and GKN. Wroclaw is also one of the leading Polish cities in the field of modern business services, outsourcing and nearshore processes. Here, service centers for such companies as Toyota or Sitech operate. IT projects for the automotive industry are carried out by, among other companies, Capgemini, Global Logic, Hicron and Luxoft.



THE LOWER SILESIAN AUTOMOTIVE CLUSTER

This was established on the initiative of the Legnica Special Economic Zone in 2014. It is a joint project of the LSEZ, Wroclaw University of Technology, Polish Investment and Trade Agency, the Ministry of Economy and leading representatives of the automotive industry. Its objective is to increase the innovative potential of automotive industry companies operating in Lower Silesia and South-Western Poland by providing them with joint access to the most modern solutions, a sound educational base and through supporting the transfer of knowledge, experience and technology.

The cluster includes:

- BASF Polska,
- Volkswagen Motor Polska
- Sitech
- Hicron
- Faurecia
- Vorwerk Dichtungssysteme
- Faist ChemTech Polska
- Fiuka Polska
- Heldener MetallTechnik

- Pittsburgh Glass Works
- Pneumat System
- Staufen Polska,
- Centrum Intermodal Ritex
- Aircom Automotive
- Hester
- Gotec Polska
- Wezi-Tec
- Voestalpine Rotec

- Viessmann Technika Grzewcza
- VIA Technika Obróbki
 Powierzchniowej
- · Schurholz Polska
- Sanden Manufacturing Poland
- Plasticos Durex Polska
- Gates Polska
- Arleg S.A.
- Politechnika Wrocławska
- PAIH



The Strength of the Wroclaw Agglomeration



1. BUSINESS ENVIRONMENT

Dense network of cooperation links and availability of suppliers. In Lower Silesia, there are over 100 companies operating in the automotive sector.



3. LOCATION

Central location of the region in Europe. Developed road infrastructure and air and rail networks



5. ACADEMIC CENTER

A specialized higher education institution – Wroclaw University of Technology has more than 8,000 graduates each year



2. INVESTMENT PLOTS

Availability of investment plots, production halls and office space



4. TECHNOLOGY AND INNOVATION

Several dozen scientific and research centers operating in the region; development of new technologies



6. MANPOWER

Qualified management, engineering and executive staff – 1 million people working professionally in Lower Silesia.

The study used, *i.a.*, the following sources of information:

- Statistical data and sectoral studies of the Central Statistical Office (GUS).
- Data, analyses and sectoral presentations of the Polish Investment and Trade Agency (PAIH).
- Data, analyses and presentations of the Polish Automotive Industry Association.
- Data and information of the Wroclaw Agglomeration Development Agency (ARAW).
- Analyses, forecasts and information from the Ministry of Economy.
- 6) Information on the websites of LG Chem, Volvo Poland, General Motors, Volkswagen, FCA Poland
- Wroclaw Driven by Knowledge Publication Wroclaw Agglomeration Development Agency/Knight Frank.

