Automotive Industry in Poland

Desk Research Report 2017

XSIGHTS
RESEARCH AND CONSULTANCY

OTOMOTİV ENDÜSTRİSİ İHRACATCILARI BİRLİĞİ OİB

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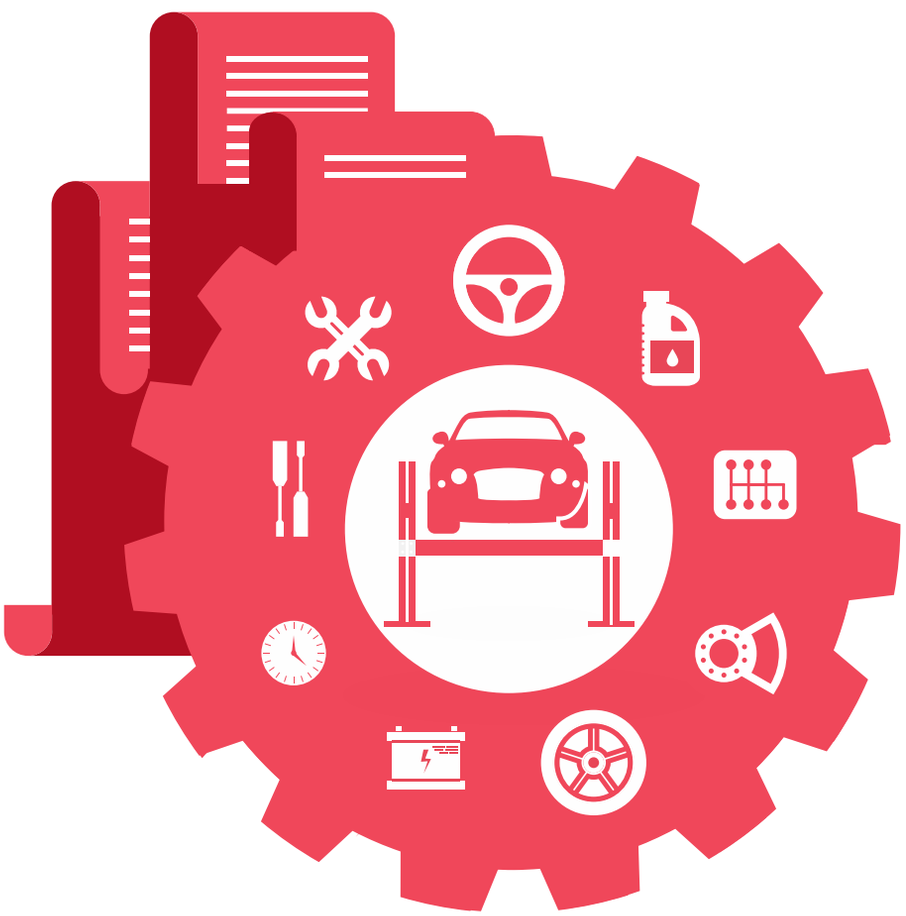


General Economic Situation in Poland

Outstanding performance of the Polish economy during the crisis. Poland is the only EU country that avoided recession in 2009 as well as during the whole period of crisis. Polish cumulative GDP growth in 2008-2012 amounted to 18.1%, which is by far the best result in the EU and one of the best in the OECD.

Attractive environment for investment. It is more than state aid that attracts companies from Poland and from around the world. Investors also appreciate the quality of infrastructure and dense transport network, the availability of a well-educated workforce, the zones' advantageous geographic locations as well as favorable attitudes and active support from central and local government bodies.

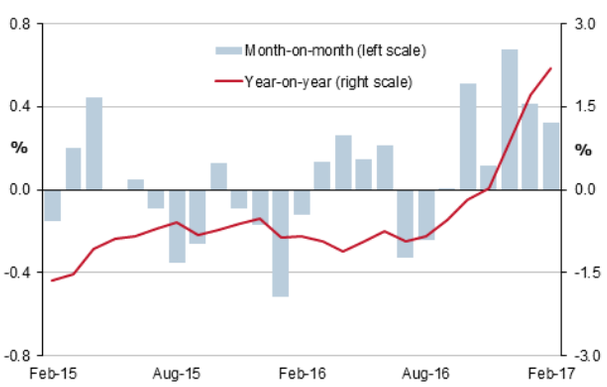
Gross Domestic Product and Consumer Prices in Poland

Gross Domestic Product of Poland grew 2.8% in 2016 compared to last year . This rate is 11-tenths of one percent less than the figure of 3.9% published in 2015.

The GDP per capita of Poland in 2016 was $12,316, $236 less than in 2015, when it was $12,552. To view the evolution of the GDP per capita, it is interesting to look back a few years and compare these data with those of 2006 when the GDP per capita in Poland was $8,996.

Source: http://www.intellinews.com/

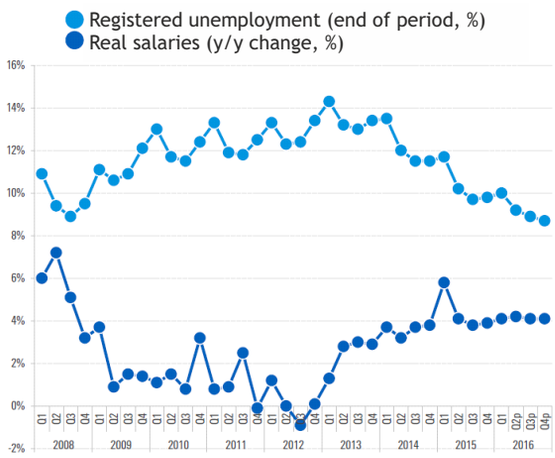
The average inflation of Poland in 2016: -0.66%.
Consensus Forecast is forecasting that inflation will average 1.9% in the whole of 2017, far below the central bank's target of 2.5%.



Source: http://www.focus-economics.com/

Poland: Labour Market

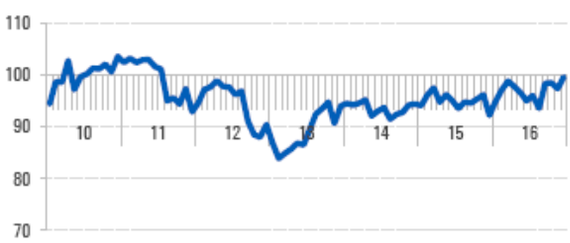
Not taking the seasonal differences into account, the unemployment rate has been systematically decreasing since 2014. According to the forecasts, this trend will continue in 2016. At the same time, real wages are expected to grow by 4.2% in 2016.



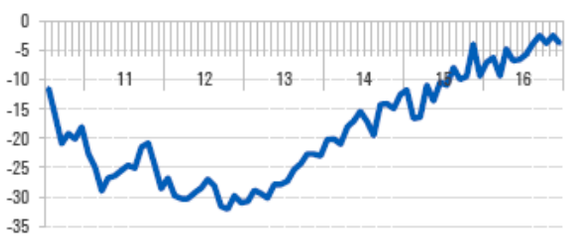
Sentiment Indices

Companies rate the current market situation similarly to the last year, they also express relatively optimistic opinions about the future. The highest level of optimism is presented by retail trade companies. Among individual consumers, the assessment of the current situation is steadily improving. At the same time, anxiety about the future is decreasing.

Business sentiment index

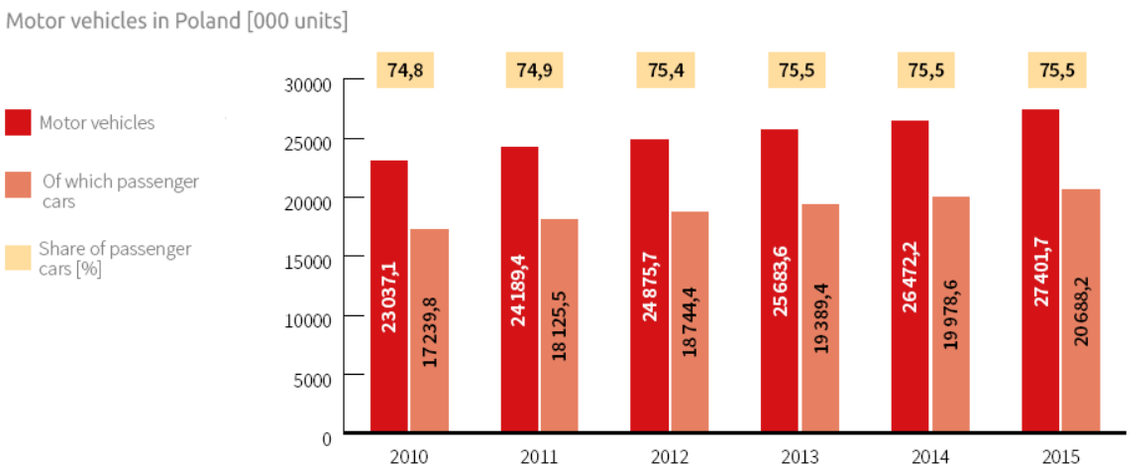


Consumer sentiment index



Vehicle Parc in Poland

The vehicle parc in Poland has steadily been increasing over the last five years.



Motor vehicle fleet* in 2015 (1,000 units)

	Motor Vehicle Fleet	Including updated**
Poland	**26.958,9**	**19.598,0**
Incl. passenger cars	20.688,2	15.211,6
LCV & Trucks	3.096,4	2.182,6
Road Tractors	356,4	279,2
Buses	109,4	74,9
Motorcycles	1.271,6	665,5
Mopeds	1.258,9	1.048,0
Others	178,0	136,2

Source: CSO/PZPM analysis based on CEP

* and mopeds
** during last five years

The Average Age of The Passenger Vehicle

In 2015, the average age of a vehicle in Poland (for the updated part of total fleet) stood at 13.4 years, while the median age totalled 14 years. Four years and under passenger cars accounted for 10% of the passenger car fleet at end-2015, what corresponds to 1,562,600 vehicles. The oldest, or more than 20 years old cars had 12% of share, what means that they outnumbered the newest ones aged up to four years.

The age structure of the passenger car fleet at the end of 2015 (%)

	Up to 4 years	5-10 years	11-20 years	More than 20 years
Total pc fleet	7.6	16.0	43.8	32.6
Including Updated	10.3	21.7	56.1	11.9

Source: PZPM analysis based on CEP

According to the Automotive Market Research Institute SAMAR the average age of passenger cars in Poland in 2016 was 15 years (Automotive Market Research Institute SAMAR, 2017)

The size of the fleet which has been ageing for many years is mainly increased as a result of imports, dominated by more than decade old cars. The cost of upkeep of such veteran fleet is not only borne by vehicle owners (higher repair bills) but the entire society. Old vehicles are less safe and eco-friendly – their worn engines have much higher emission levels of noxious exhaust gases than new versions.

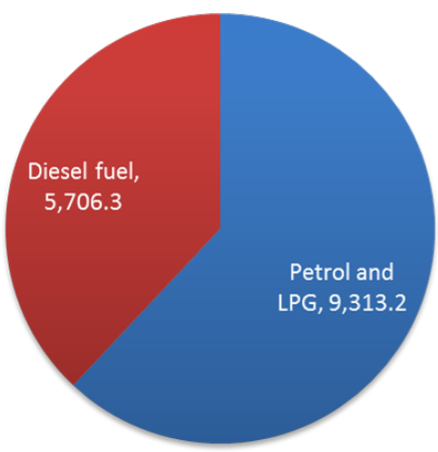
Petrol Leads The Way

45% of the updated passenger car fleet split by fuel types accounts for petrol-powered models. Cars fitted with diesel units have 38% of share, LPG accounts for 16% and alternative drives for 1%. 56% of the youngest cars, aged up to four years, are powered with a petrol unit. Cars fitted with diesel units had the biggest share in the five to 10 years old category. They have 54% of share, what corresponds to 1,770,800 vehicles.

The Polish Liquefied Gas Organisation estimates that there were 2,914 passenger cars powered with autogas at end-2015. Meanwhile, approx. 100,000-120,000 LPG conversions were fitted the same year. The Organisation announced that out of all vehicles with LPG conversions, 62 % were fitted with engines from 1,400 to 1,999 cc, whereas 29.5% of the cars with a LPG installation were powered by up to 1,399 cc units.

Hybrid (17,200 cars, including 13,400 aged up to four years) were most popular among alternative drives. Compressed natural gas was used to power 2,700 vehicles, mainly aged from five to 20 years, while the number of all-electric vehicles stood at less than 1,000, of which 500 were less than four years old.

Passenger cars by fuel type (1,000 units)

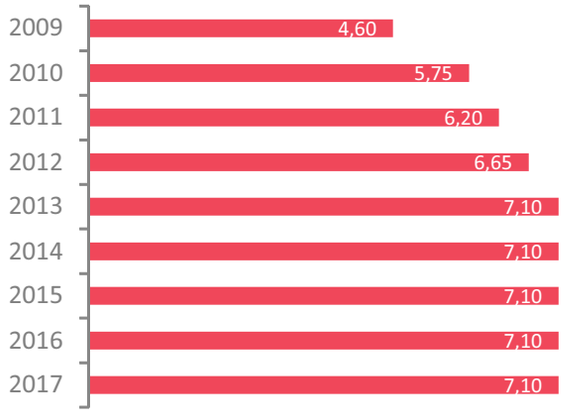


Source: CSO/PZPM analysis based on CEP

Bio-fuel

Following enforcement of a respective act on 1 January 2008, engine fuels now contain bio-components. Their content is regulated by the National Indicative Target (NIT) computed on the basis of net calorific value which stood at 7.1% in 2015. In order to meet NIT, petrol should contain 10.3% of ethanol and 7.16% of esters. Poland admitted to trade motor fuels containing up to 7% of esters, whereas the content of bio-components (in terms of volume) in petrol may account for up to 5%. Therefore, in order to meet the National Indicative Targets, fuel companies were forced to market pure esters, or B100 bio-fuel. According to data of the Polish Industry and Oil Trade Organisation, fuels were supplemented with approx. 313,000 cubic meters of ethanol and approx. 755,000 cubic meters of esters. 2015 sales of subsidised B100 have been estimated at 325,000 cubic meters, up by more than 100,000 cubic meters than the year before. In 2013, the National Indicative Target was fixed by the government at 7.1% until 2017.

National Indicative Target by net calorific value (%)



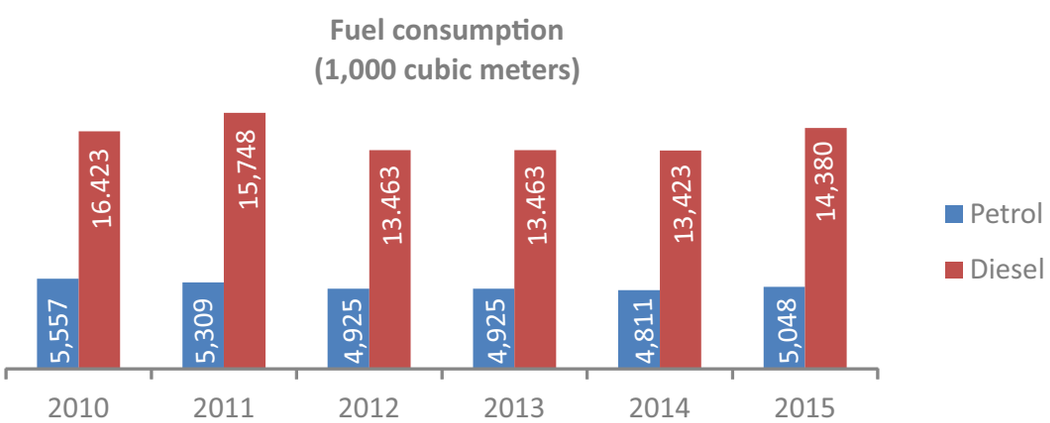
Source: POPIHN

Soaring fuel sales

Economic growth in 2015 stoked an increase in fuel consumption by 5%. Demand for diesel oil soared by 6% to 14.8 billion cubic meters, whereas consumption of petrol fuel was up by over 5 billion cubic meters for the first time in five years, mainly as a result of lower retail prices.

Despite better performance, data of the Polish Industry and Oil Trade Organisation reveal that illegal trade in diesel fuel may be growing. This is reflected by an increase in import transactions and intra-Community diesel oil supplies made by independent importers by 59%. Meanwhile, oil companies associated in the Organisation imported 17% diesel oil less than the year before. The Organisation believes that this may hint that at least some independent operators are engaged in tax scams.

11% of total petrol fuel marketed domestically was sourced from other countries in 2015 (2% less versus 2014). Imported diesel oil accounted for 15% of total fuel in 2015, a figure higher by three percentage points than the year before. The share of imported LPG has contracted by 2% to 85% of total consumption.



Retail sales of premium petrol whose price exceeds that of standard gasoline by up to several dozen Groszys per litre went up by 3.3% throughout the year, while the sales dynamics was down four times versus 2014. There was an upturn in consumption of premium diesel fuel by 8.3% (nearly 5 percentage points less on a year earlier), but demand for standard diesel grew by 1.4%. Premium petrol had 8% of share in total market, while premium diesel oil secured approx. 7% of share. The popularity of both premium fuels has been growing steadily since 2012.

Source: POPIHN

Business Options for Newer Vehicles

Split by ownership, 93.7 million of passenger cars from the updated fleet were owned by private customers (14,256,900), and 6.3% by companies (entities with REGON number).

55.7% of cars up to four years old are owned by natural persons, and 44.3% by legal persons. Split by age, 94.2% of cars from five to 10 years old are owned by natural persons, and 5.8% by businesses. Their share in the 11-20 years old group was down to 0.7% and stood at 0.4 for cars older than 20 years.

Petrol is the fuel of choice for private customers. The share of petrol-powered cars in total passenger car fleet registered in Poland at end-2015 stood at 42% and 34% for cars with diesel units. 16% were running on LPG. Businesses registered 516,900 cars with diesel units and 388,900 ICE cars.

Number of Cars per 1,000 Population

There were 518 motor vehicles (updated during the past five years) per 1,000 population at end-2015, including 395 passenger cars. The highest saturation with passenger cars was reported for Wielkopolskie province with 443 cars per 1,000 population. The figure for Mazowieckie stood at 432, 407 for Lubuskie and 403 for Opolskie. Podlaskie (350), Warmińsko-mazurskie (351) and Podkarpackie with 381 passenger cars per 1,000 population came last on the list.

Passenger-car ownership is estimated at 526 per 1,000 in 2016, in line with ownership rates in the rest of the EU. The Economist Intelligence Unit expects car ownership to advance further in 2017-21, reaching 536 per 1,000 in 2021.

Motor vehicles* by provinces in 2015
(1.000 units)

Provinces	Passenger cars	Motorcycles	LCVs	Buses	MHCV**
Poland	15,211.6	624.5	1,972.8	74.6	625.3
Dolnoslaskie	1,147.5	39.9	142.6	6.0	34.6
Kujawsko-pomorskie	773.2	33.6	94.4	3.4	28.8
Lubelskie	814.9	35.8	98.3	5.0	30.7
Lubuskie	415.3	16.5	51.2	1.5	16.6
Lódzkie	997.7	39.3	135.2	4.9	42.9
Malopolskie	1,287.4	54.6	176.7	8.3	47.8
Mazowieckie	2,306.3	93.9	345.4	11.7	130.6
Opolskie	404.2	16.3	42.7	1.6	13.4
Podkarpackie	811.8	43.8	100.6	4.3	27.6
Podlaskie	417.6	19.3	52.0	2.0	18.0
Pomorskie	882.6	34.7	113.1	4.3	36.1
Slaskie	1,814.0	69.1	202.4	7.0	61.3
Swietokryzskie	449.9	17.5	68.7	3.0	20.8
Warminsko-mazurskie	507.0	20.3	59.5	3.0	17.6
Wielkopolskie	1.538.0	65.3	207.9	5.7	75.1
Zachodniopomorskie	628.7	23.9	79.2	3.4	23.0

Source: PZPM analysis based on CEP

* only vehicles updated during last five years
** including road tractors and special-purpose vehicles

Commercial Vehicles – the fleet

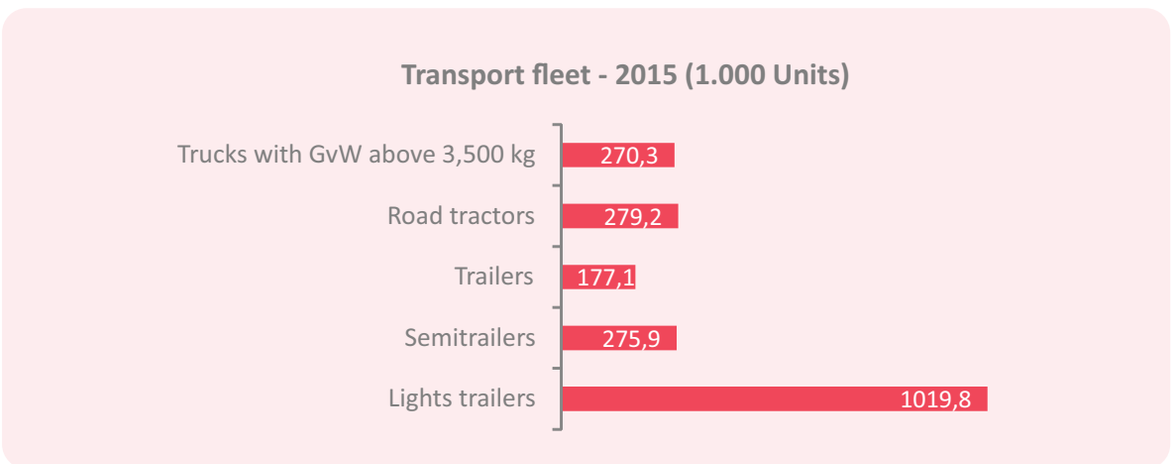
The fleet of trucks and tractors - 2015 (1,000 Units) registered LCVs, specialized vehicles,

	Vehicle fleet	Including updated*
LCVs	2560,1	1972,8
Trucks, special-purpose vehicles and road tractors	1070,7	625,3
Total	3630,8	2598,1

Source: PZPM/CEP

* vehicles updated during last five years (2011-2015)

Taking into account the updated part of the heavy-duty fleet (heavy vans, special-purpose vehicles, trucks and tractors, including tractor units), at end-2015, Poland was home to 2,598,100 such vehicles, what marks an increase by 2% versus 2014. The growth rate was lower than in 2014 when it reached 3% and higher than in 2012 when the fleet of heavy-duty vehicles was up by 1.5%.



The share of trucks, special-purpose vehicles, road tractors and light commercial vehicles in total fleet is shrinking. The figure for 2015 stood at 13%, or 0.2 percentage points less than in 2014.

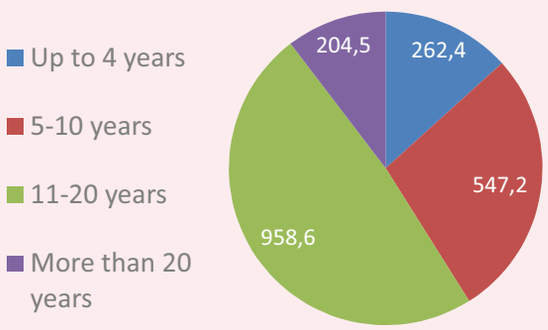
Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / The Polish Leasing Association

Light Commercial Vehicles

Poland was home to 1,972,800 light delivery vehicles with GVW up to 3.5 tons at end-2015, i.e. more by 1.5% than in 2014. Nearly half of them (49%) were from 11 to 20 years old. The youngest up to four year old vehicles accounted for 13%of total fleet. The share of the oldest category, that is vehicles more than two decades old, accounted for 10%.

The biggest number of registrations was declared for Mazowieckie (345,400), and Śląskie (207,900) provinces, whereas the smallest fleets of light commercial vehicles were based in Opolskie (42,700), and Lubuskie (51,200).

The age structure of LCVs with GVW of up to 3.5 tons at the end of 2015 (1,000 units)



Most popular LCV versions are powered with diesel units. Vehicles with diesel engines accounted for 81% of total fleet. 11% of them were running on petrol and only 6% were fitted with autogas conversions. 2% of the fleet accounted for vehicles with “other” types of drive.

Individual users registered 76.5% of total light commercial vehicles, whereas businesses had 23.5% of share in registrations. Nevertheless, in the segment of up to four years old vehicles the share of entities holding a REGON number accounted for as much as 70%. 94% of more than two decade old vehicles are used by natural persons.

The leader among less than four years old commercial vehicles was Fiat with more than 20% of market share. Coming up next was Renault (12.5%), Peugeot (10.7%), Volkswagen (10%), and Ford (8.3%).

Most popular makes in the segment of five to ten year old vehicles include Fiat (13.7 per cent of share in the segment), Renault (12.1 per cent), Volkswagen (9.6 per cent), Ford (8.4 per cent) and Citroen (8.2 per cent). The average age of a registered light commercial vehicle from the updated part of total fleet at end-2015 was 11.9 years, with the median age of 12 years.

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / analysis based on Central Register of Vehicles (CEP)

Heavy-duty vehicles

Figures for the updated part of the fleet reveal that at end- 2015, Poland was home to 625,300 registered trucks with GVW above 3.5 tons, i.e. more by 3.3% than in 2014. The biggest share in total fleet (37%) was held by 11 to 20 years old vehicles. Models aged from 5 to 10 years had 27% of share, while the oldest ones - more than two decades old – 19% versus 17% for the youngest, four years and under vehicles.

In 2015, the updated fleet of trucks, special-purpose vehicles and tractor units with GVW above 16 tons accounted for 435,100 vehicles, or 5.9% more than the year before.

Most numerous categories were formed by vehicles aged from 11 to 20 years (158,900 vehicles) and from five to 10 years old (140,100). There were 91,100 youngest vehicles, under 4 years of age, and 45,000 of the oldest ones.

43.5% of the fleet were vehicles registered by businesses, and the rest by individual users. The share of individual owners in the youngest age category stood at 20% and exceeded 75% for more than 11 years old vehicles.

Ranking first with nearly 20% of market share in the segment of youngest trucks with GVW above 16 tons was DAF, ahead of Volvo (more than 17%), and MAN (17%).

The leader of the five to 11 year old truck segment was MAN(19%), outperforming DAF (more than 18%), and Scania (less than 17%).

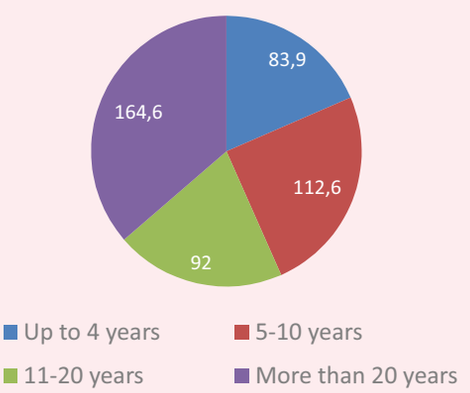
The biggest number of trucks with GVW above 16 tons were registered in Mazowieckie (22.6%), Wielkopolskie (12.3%) and Śląskie (9.7%) provinces. On the opposite side were Opolskie (2.1%), Warmińsko-mazurskie and Lubuskie (2.6% each) provinces with the lowest number of registrations. The average age of vehicles from this group stood at 11.1 years, with median age pegged at 10 years.

Truck units

Data for the updated part of the fleet reveal that at end-2015 Poland was home to 453,000 registered truck trailers and semi-trailers as well as special-built trailers (including 275,00 heavyweight and special-purpose) and 1,019,800 light trailers.

The latter age category of trailers which are under 4 years old had 18% of share in total fleet, whereas the figure for the oldest ones (more than 20 years old) was 35%. Other age categories (from 5 to 10 and from 11 to 20 years) had more than 23% of share each. More than two decade old vehicles also dominate the heavy trailer and semi-trailer category. Their share exceeded 36%, mainly as a result of truck trailers 75% of which fit into this age category. Old trailers have 11% of share in total fleet, while the figure for the youngest ones - aged under 4 years - stands well above 27% and 5% for semi-trailers. Most semi-trailers include five to ten year old vehicles which have nearly 36% of share in total fleet.

The age structure of trailers and semitrailers with GVW of more than 3.5 tons including road tractors - 2015 (1,000 units)

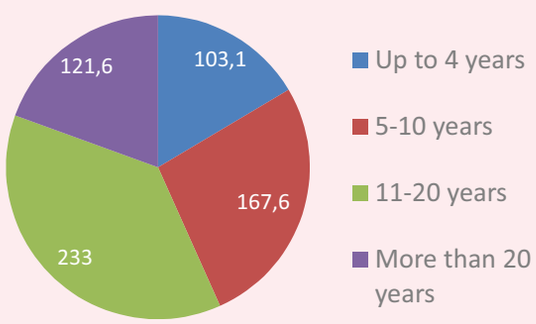


Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / analysis based on Central Register of Vehicles (CEP)

Tractor units

There were 277,400 road tractors with GVW equal or over 16 tons at end-2015. The share of the oldest, or more than two decade old tractor units stood at 4%, while the figure for the youngest ones - up to 4 years ago - totalled 28%. Most numerous were road tractors aged from 5 to 10 years which account for 37% of total road tractor fleet. The average age of road tractors was 8.8 years (with median age at 8 years), while the average age of a truck was 13.5 years, with median age pegged at 12 years.

The age structure of trucks with GVW of more than 3.5 tons including road tractors - 2015 (1,000 units)



Most popular LCV versions are powered with diesel units. Vehicles with diesel engines accounted for 81% of total fleet. 11% of them were running on petrol and only 6% were fitted with autogas conversions. 2% of the fleet accounted for vehicles with “other” types of drive.The biggest number of trucks with GVW above 3.5 tons were registered in Mazowieckie (130,600), Wielkopolskie (75,100), and Śląskie (61,300) provinces, while the smallest number of such vehicles was registered by licensing and registration departments from Opolskie(13,400), Lubuskie (16,600) and Warmińsko-mazurskie (17,600) provinces.

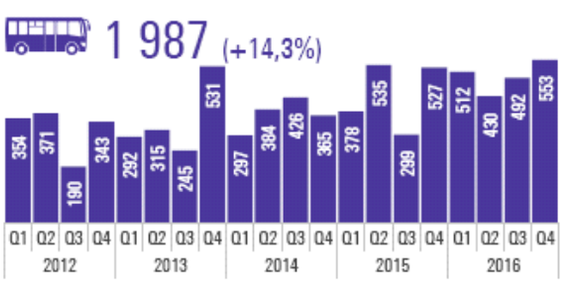
Records for the updated part of the vehicle fleet reveal that road tractors registered in Poland at end-2015 outnumbered registered trucks (complete chassis, exclusive of tractors) for the very first time. This reflects investments made by hauliers that specialise in international road transport.

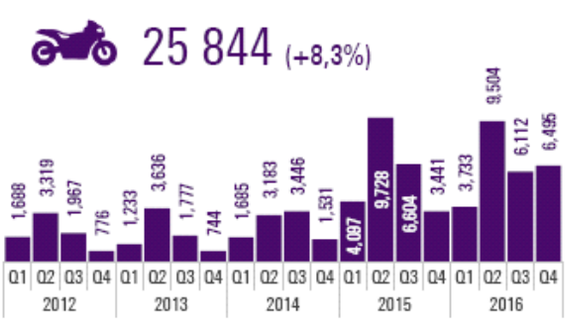
Split by type of ownership, nearly 59% of trucks with GVW above 3.5 tons (including road tractors) belong to private individuals and 41% are owned by companies.

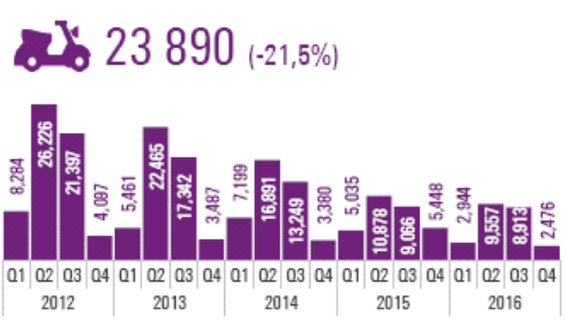
The most popular make among trucks less than 4 years old was MAN (with 18.6% of the segment at end-2015), ahead of DAF (18%) and Mercedes-Benz (17.3%). The leader in the 5 to 10 years old category is once more MAN (21%), outperforming DAF (16.4%) and Scania (14%).

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / analysis based on Central Register of Vehicles (CEP)

Registrations of new vehicles (1,000 Units)







Registrations of New PC Vehicles (1,000 units)

Registrations of new vehicles (in thousands)

Institutional customers

281,7 (+21,8%)

Individual customers

134,4 (+8,8%)

Mass-market brands

363,9 (+15,7%)

SKODA	52,3	(18%)
VOLKSWAGEN	42,8	(20%)
TOYOTA	40,8	(14%)
OPEL	34,2	(17%)
FORD	29,1	(14%)
RENAULT	23,6	(25%)
KIA	19,5	(11%)
HYUNDAI	17,8	(11%)
DACIA	16,9	(30%)
NISSAN	13,7	(-2%)

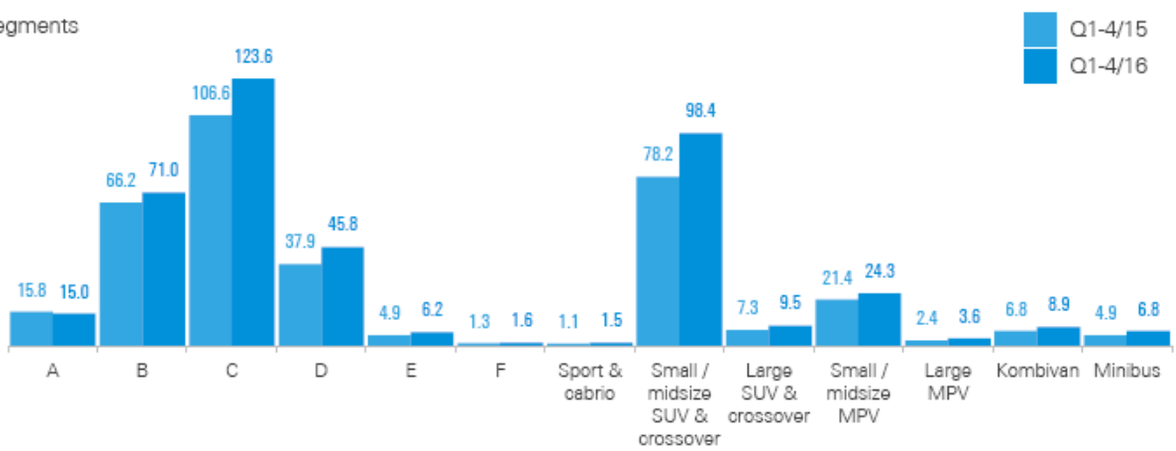
Premium+ brands

52,3 (+29,3%)

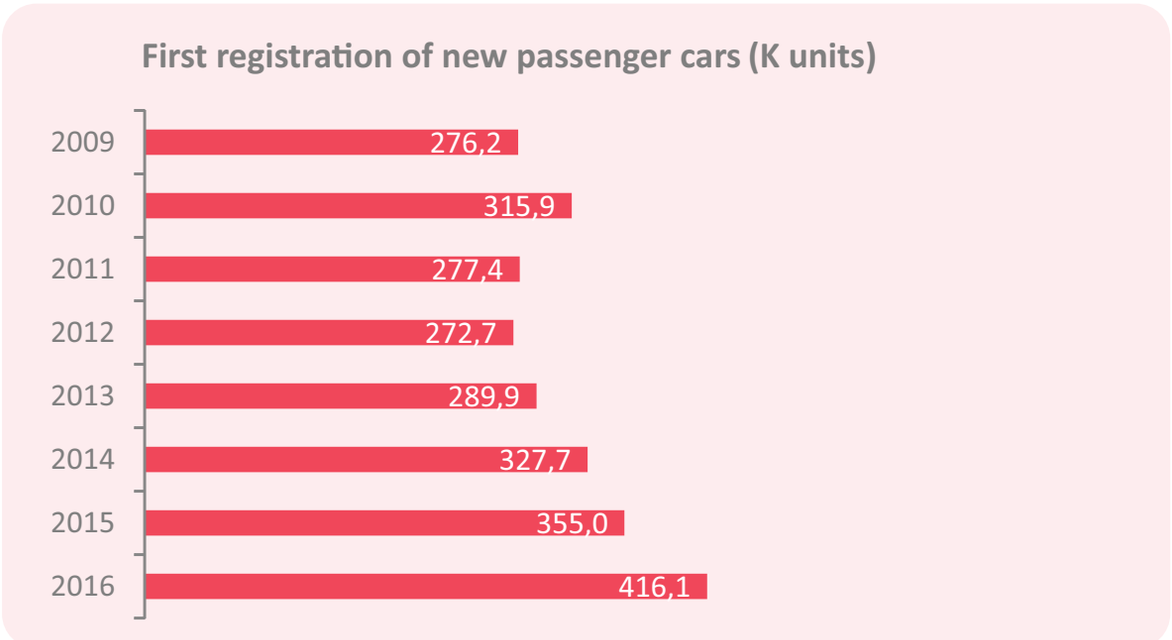
BMW	12,5	(31%)
MERCEDES	12,0	(36%)
AUDI	10,8	(35%)
VOLVO	7,7	(13%)
LEXUS	3,4	(36%)
MINI	1,6	(39%)
PORSCHE	1,1	(30%)
LAND ROVER	1,0	(1%)
ALFA ROMEO	0,7	(2%)
JAGUAR	0,5	(103%)

In 2016, 416,1 thousand new passenger cars were registered, i.e. 50,4 thousand (13.8 %) more than in 2015.

Segments



Passenger car registrations



The number of passenger car registrations at end-2016 totalled 416,1 thousands and was higher by 13.8% than in 2015.

Institutional customers

281,7 (+21,8%)

Individual customers

134,4 (+8,8%)

Private customers purchased 134,4 thousands passenger cars, which is 8,7% more on a year earlier.

Their share in total registrations shrunk to 32,3% and was down by 2,5 percentage points on a previous year. Back in 2010, individual customers held more than 50% of share in total registrations.

Passenger car registrations

Raking up 12,6% of market share with 52,3 thousands passenger car registrations, Skoda once more topped the chart of the most popular passenger car makes in 2016. Its sales were up by 17,7% versus the previous year.

Ranking second was Volkswagen with 10,3% of registrations, what reflects an increase up by 20,5% to 42,8 thousands passenger cars. Toyota came third with 40,8 thousands registrations (9,8% of the market share), which were up by 14,%.

Highest sales increase was realized in Mercedes brand with 35,7%.
Toyota was the most desirable make for individual customers with 11,6% market share.
Skoda was the most desirable make for business purpose with 13,6% market share.
Total sales of top 20 brands covered 93,8% of total sales.

	Brand	YTD January - December				
		2016		2015		Change %
		Total	Mkt shr %	Total	Mkt shr %	y/y
1	SKODA	52288	12,57%	44441	12,52%	17,7%
2	VOLKSWAGEN	42830	10,29%	35550	10,01%	20,5%
3	TOYOTA	40768	9,80%	35649	10,04%	14,4%
4	OPEL	34212	8,22%	29300	8,25%	16,8%
5	FORD	29102	6,99%	25549	7,20%	13,9%
6	RENAULT	23610	5,67%	18845	5,31%	25,3%
7	KIA	19529	4,69%	17618	4,96%	10,8%
8	HYUNDAI	17785	4,27%	16033	4,52%	10,9%
9	DACIA	16949	4,07%	13000	3,66%	30,4%
10	NISSAN	13678	3,29%	13989	3,94%	-2,2%
11	MERCEDES-BENZ	12672	3,05%	9340	2,63%	35,7%
12	BMW	12497	3,00%	9547	2,69%	30,9%
13	PEUGEOT	11373	2,73%	10583	2,98%	7,5%
14	MAZDA	11231	2,70%	9335	2,63%	20,3%
15	AUDI	10787	2,59%	8008	2,26%	34,7%
16	FIAT	9338	2,24%	7512	2,12%	24,3%
17	SEAT	8745	2,10%	7180	2,02%	21,8%
18	VOLVO	7741	1,86%	6821	1,92%	13,5%
19	SUZUKI	7695	1,85%	6711	1,89%	14,7%
20	HONDA	7514	1,81%	5769	1,63%	30,2%
Total 1-20		390344	93,80%	330780	93,18%	18,0%
Others		25779	6,20%	24195	6,82%	6,5%
TOTAL		**416123**	**100%**	**354975**	**100%**	**17,2%**

* PZPM na podstawie CEP (MSW/MC)

Source: PZPM on the basis of CEP (Ministry of Internal/Digital Affairs)

Most popular brands

Skoda Octavia is the most preferred car model for both 2015 and 2016.

Skoda Fabia had the second highest sales units in 2016. Fabia was followed Opel Astra by the help of individual customer sales.

Dacia Duster is the most preferred SUV model in Poland in 2016.

The sales of top 20 models covered 42,5% of total sales.op 20 brands covered 93,8% of total sales.

No.	Model	YTD January - December					
		2016		2015		Change % y/y	Ch. Position y/y
		Total	Mkt shr %	Total	Mkt shr %		
1	Skoda Octavia	16.964	4,1%	14.177	4,0%	19,7%	-
2	Skoda Fabia	15.072	3,6%	12.043	3,4%	25,2%	-
3	Opel Astra	14.819	3,6%	10.638	3,0%	39,3%	+1
4	Volkswagen Golf	12.624	3,0%	11.639	3,3%	8,5%	-1
5	Toyota Yaris	11.089	2,7%	9.633	2,7%	15,1%	+1
6	Toyota Auris	10.422	2,5%	9.709	2,7%	7,3%	-1
7	Ford Focus	9.819	2,4%	9.185	2,6%	6,9%	-
8	Volkswagen Passat	8.857	2,1%	7.895	2,2%	12,2%	+1
9	Skoda Rapid	8.777	2,1%	8.974	2,5%	-2,2%	-1
10	Dacia Duster	8.307	2,0%	6.312	1,8%	31,6%	+3
11	Nissan Qashqai	7.704	1,9%	6.388	1,8%	20,6%	+1
12	Renault Clio	7.020	1,7%	7.467	2,1%	-6,0%	-2
13	Hyundai Tucson	6.893	1,7%	2.147	0,6%	221,1%	+34
14	Opel Corsa	6.770	1,6%	6.893	1,9%	-1,8%	-3
15	Skoda Superb	6.425	1,5%	4.120	1,2%	55,9%	+4
16	Kia Sportage	5.936	1,4%	5.060	1,4%	17,3%	-2
17	Ford Mondeo	5.262	1,3%	4.518	1,3%	16,5%	-2
18	Toyota Avensis	4.928	1,2%	4.467	1,3%	10,3%	-2
19	Toyota Corolla	4.641	1,1%	4.067	1,1%	14,1%	+1
20	Renault Megane	4.595	1,1%	3.571	1,0%	28,7%	+5
Total 1-20		176.924	42,52%	148.903	41,95%	18,8%	
Others		239.199	57,48%	206.072	58,05%	16,1%	
TOTAL		**416.123**	**100%**	**354.975**	**100%**	**17,2%**	

* PZPM na podstawie CEP (MSW/MC)

Source: PZPM on the basis of CEP (Ministry of Internal/Digital Affairs)

First registrations of passenger car by market segment

The most sough-after market segment was formed by compact models (C segment) whose registrations in 2015 were up by 5.9% to 106,600 units. Ranking second were small and medium-sized SUVs (78,200 registrations) whose registrations rose by more than 13.4% year-to-year. Just behind them with 66,300 registrations were B segment vehicles whose popularity picked up by 11.4%.

The demand for D segment cars surged by 9.5% to 37,900 vehicles, whereas take-up for small minivans stalled (21,400 registrations versus 21,500 for the year before). The popularity of the smallest A segment cars remained stable. Their registrations in 2015 totaled 15,800 that is almost 1% more than the year before.

Segment	2014 Share (%)	2015 Share (%)	Change (%)
A	4.8	4.4	0.9
B	18.2	18.7	11.4
C	30.7	30.0	5.
D	10.6	10.7	9.5
E	1.3	1.4	16.0
F	0.4	0.3	0.2
Sport & Cabrio	0.3	0.3	28.2
Small & Midsize SUVs & Crossovers	21.0	22.0	13.
Large SUVs & Crossovers	1.9	2.1	19.9
Small & Midsize MPVs	6.5	6.0	-0.6
Large MPVs	0.9	0.7	-17.9
LAVs	2.4	1.9	-11.7
Minibusess	1.1	1.4	36.1

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) /
Central Statistical Office (CSO) analysis based on Central Register of Vehicles (CEP)

First registrations of passenger car by market segment

In 2016:

•Medium-sized C-segment cars, such as the Skoda Octavia, the Opel Astra, the VW Golf, the Toyota Auris and the Ford Focus, dominate the market and are also preferred by business buyers. They account for about one-third of new-car registrations. Cross-over vehicles and small sport utility vehicles (SUVs) have emerged as the second most popular category, taking up nearly one-quarter of all sales and outpacing the overall market.

•Individual motorists tend to prioritise smaller B-segment vehicles, such as the Opel Corsa and the Toyota Yaris. However, as incomes rise the structure of demand is expected to evolve gradually away from a focus on small cars to a more conventional divide between small and family-sized cars.

• The premium segment gained nearly 30% year on year in 2016. The three German market leaders-BMW, Mercedes-Benz and Audi-took a combined 35% share of the luxury market. BMW remains the market leader.

Prices of passenger cars

Poland is still a middle-income country. Disposable personal income per head has fallen by more than US$1,000 over the past two years, to an estimated US$7,019 in 2016, largely owing to the weakening of the zloty against the US dollar. Even low-priced new vehicles are out of the reach of many households.

Item	Price (US$)	% of monthly personal disposable income	Affordability rank
Low-priced car, 900-1299cc (low)	9,389	1,661	32 out of 60
Low-priced car, 900-1299cc (high)	19,313	3,416	38 out of 60
Compact car, 1300-1799cc (low)	15,496	2,741	32 out of 60
Compact car, 1300-1799cc (high)	21,934	3,880	34 out of 60
Family car, 1800-2499cc (low)	22,366	3,957	28 out of 60
Family car, 1800-2499cc (high)	38,779	6,860	33 out of 60
Deluxe car, 2500cc upwards (low)	94,402	16,700	37 out of 60
Deluxe car, 2500cc upwards (high)	113,715	20,116	35 out of 60
Cost of a tune-up but no major repairs (low)	178	31.51	37 out of 60
Cost of a tune-up but no major repairs (high)	254	45.01	35 out of 60
Annual premium for car insurance (low)	738	130.5	37 out of 60
Annual premium for car insurance (high)	1,145	202.6	36 out of 60

Note. Affordability rank: for each country the price of an item as a percentage of monthly personal disposable income is calculated. Countries are ranked according to these percentages. The most affordable country will have the lowest percentage and be ranked first.

The National Bank of Poland (NBP, the central bank) has been cutting its interest rates since 2013, when its benchmark rate stood at 4.75%. In the first quarter of 2015 it reduced its rates to a record low of 1.5%, where they have remained. Lower rates, along with easier availability of auto loans, have increased the affordability of passenger cars for individuals.

New PC registrations by fuel type and engine size

A split by engine size indicates that the highest share in registrations (28.3%) is held by the segment fitted with 1,400 to 1,600 cc units. The runner up (with 21.0% of share) is the sub-segment of 1,200 to 1,400 cc engines. Coming third were vehicles powered by 1,800 to 2,000 cc units which won 20.0% worth of market share. The biggest growth dynamics (by 41.1%) was demonstrated by the segment with engines from 2,600 to 2,800 cc which accounted for 300 vehicles in 2014.

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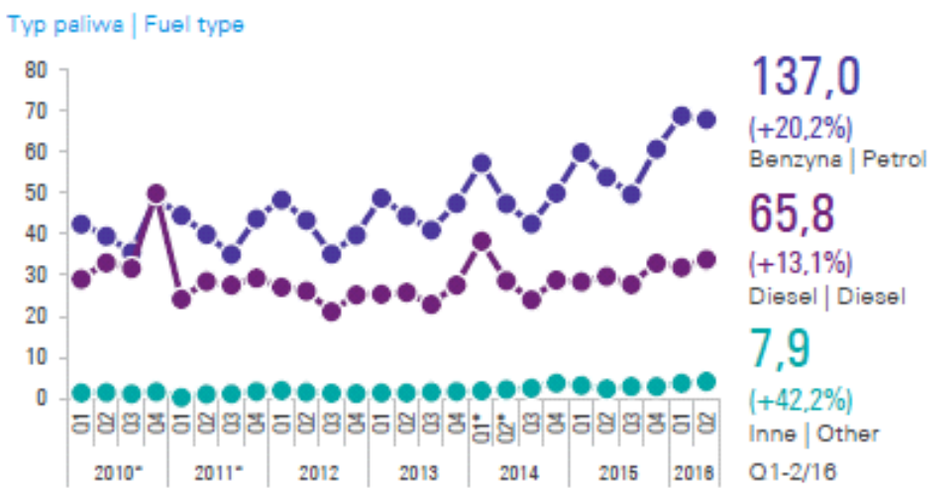


Polish drivers are keen to import second-hand cars which are fiercely competing with new ones. Less than 6.5% of used vehicles were under four years old and it is fair to say that without second-hand imports, their owners would buy more than 52,000 vehicles on the new car market. In reality, however, the number of second hand vehicles imported in 2015 exceeded sales of new ones almost twice.

*Data covers 4-5 seats vehicles with type approval as a commercial vehicle (so-called kratka) and extracted from commercial vehicles category. All changes calculated y/y.
Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) /
Central Statistical Office (CSO) analysis based on Central Register of Vehicles (CEP)

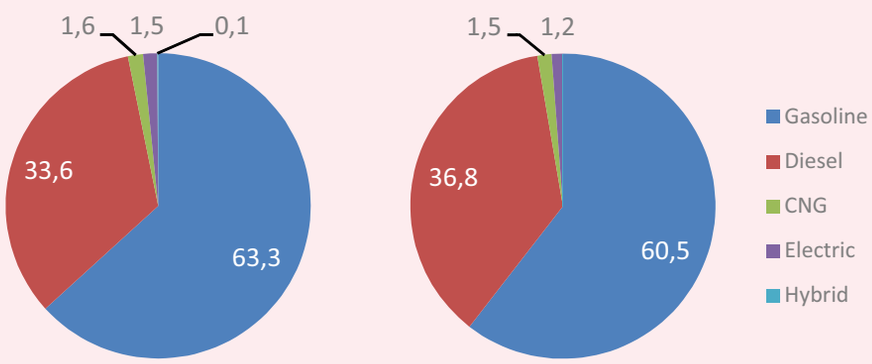
Surging demand for petrol engines

Diesel's popularity was fading in 2015 with the number of registered cars fitted with diesel units down by 1.2%, but considering that the overall market picked up, the share of diesel units in total registrations plunged by nearly 3 percentage points to 33.6%.

The market share lost by diesel units was raked up by petrol engines whose share in registrations was up to 63.3%. The number of their registrations increased by 13.3% to 224,600 vehicles versus 2014.

The appeal of factory-fitted LPG installations is clearly rising. The number of their registrations corresponded to 5,500 vehicles, what marked an increase by 15.8%. There is very little take-up for vehicles running on natural gas. Polish authorities registered six such vehicles in 2015 versus 14 the year before.

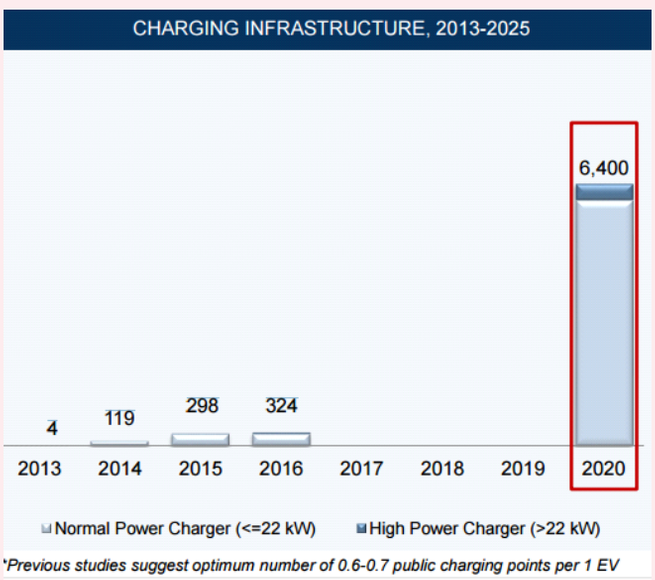
Meanwhile, demand for hybrid vehicles is growing. The number of their registrations totalled 5,400 and was higher by 40.4% than in 2014, while dynamics plunged by 50% year on year. The share of hybrids in total registrations fetched 1.5% and was lower by 0.1 percentage points than that of cars with factory-fitted LPG conversions. Declared separately, data for plug-in hybrids (declared together with battery-powered electric vehicles in European reporting) revealed a surge in the number of their registrations by 120.9% to 190 vehicles.



Unlike the highly successful hybrid drive, the all-electric drive failed to gain a foothold on the market. Despite the fact that the number all-electric registrations soared by more than 25.5% to 69 vehicles, but their share remains low in terms of absolute figures.

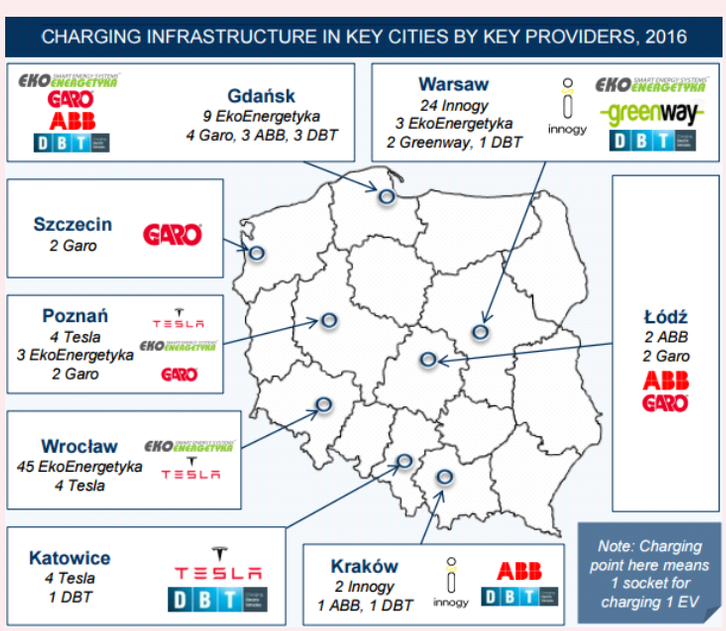
Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) /
Central Statistical Office (CSO) analysis based on Central Register of Vehicles (CEP)

Charging Infrastructure



Currently, there are 324 public charging points present around the country and by 2020 the Government plans to have 6,400 of them conveniently distributed throughout Poland.

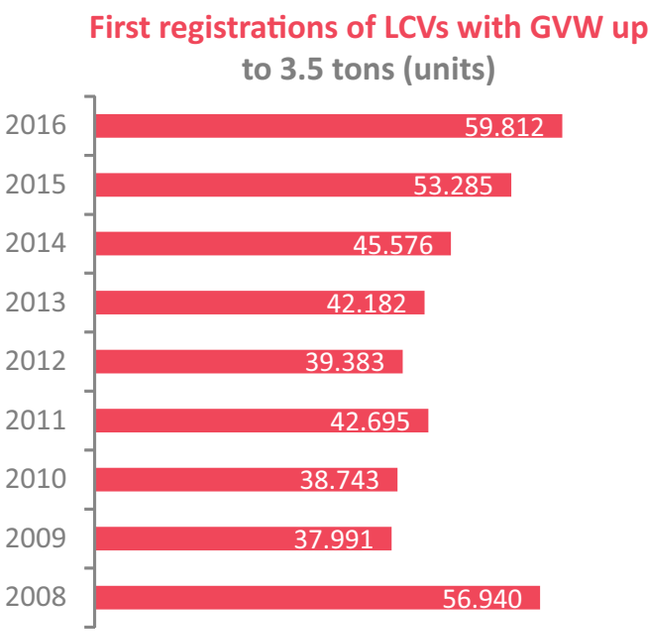
All participants of the ecosystem have to cooperate closely on modernization of energy infrastructure and development of EV-friendly conditions to stimulate the ecosystem



New registrations - LCVs

In 2016, the market of light delivery vehicles with GVW up to 3.5 tons demonstrated a dramatic surge by nearly 12.2% (compared to the previous year) to 59,812 vehicles.

The registration figures are growing since 2013, marking the best performance since 2008 when companies registered 3,000 more vehicles.



Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / The Polish Leasing Association

New registrations - LCVs

In 2015, the market of light delivery vehicles with GVW up to 3.5 tons demonstrated a dramatic surge by nearly 17% (compared to the previous year) to 53,285 vehicles. The growth rate was doubled compared to the figure for 2014, marking the best performance since 2008 when companies registered 3,500 more vehicles. The year 2015 ended with a bumper performance in December which saw 6,347 vehicle registrations. This is an all-time record among PZPM statistics. The result for December was higher by 22.8% versus December 2014.

The 2015 leader on the market of LCVs with GVW below 3.5 tons was once more Fiat with 12,012 new registrations, more by 12.5% than in 2014. Despite a surge in registrations, the Italian auto maker has not managed to retain its market share which shrunk by nearly one percentage point to 22.5%. Ranking second was Renault (7,649; a rise by 20.8%) which outranked Peugeot (5,272; up by 12.3%) and Ford (5,230; up by 24.1%). Further down the list were Volkswagen (4,804 vehicles, 20.1% more versus 2014), Mercedes-Benz (3,628 vehicles; up by 14.3%), Citroen (3,612; up by 15.4%), Iveco (3,260; up by 58.2%), Opel (2,594; up by 52.8%) and Dacia which came last in the top ten with 1,916 registrations, a result higher versus 2014 performance by 15.1%.

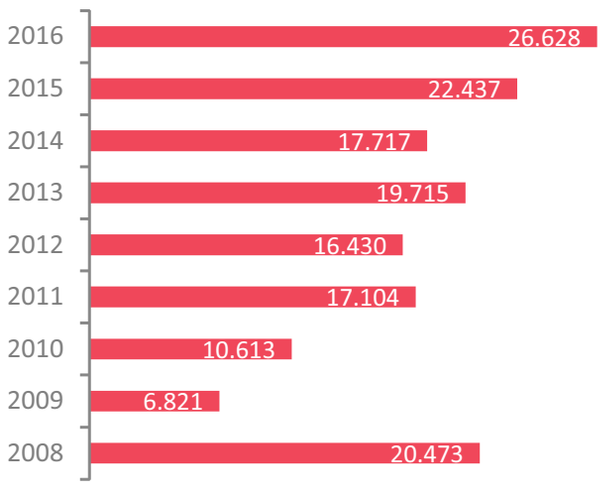
Most popular models in 2015 included Fiat Ducato (8,116 vehicles), Renault Master (6,078), Iveco Daily (3,256), Peugeot Boxer (3,093) and Mercedes-Benz Sprinter (2,545).

According to the Polish Leasing Association, the lease of delivery vehicles with GVW up to 3.5 tons in 2015 covered 42,600 LCVs valued at PLN 3.5 billion, what marks a decrease by more than 22% versus 2014 when the lease value stood at nearly PLN 4.5 billion, inclusive of leased passenger cars with CV type-approval.

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / The Polish Leasing Association

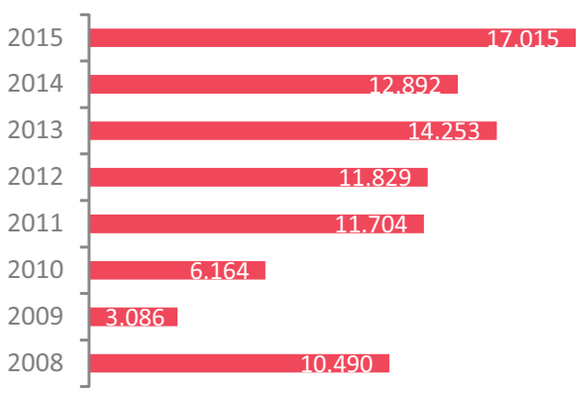
New registrations - LCVs

First registrations of new CVs above 3.5 tons including road tructors (units)



In 2016, first registrations of new trucks with Gross Vehicle Weight above 3.5 tons covered 26,628 vehicles, i.e. 18.7% more than in 2014. Such performance is above the record-breaking result for 2007 which saw 22,682 LCV registrations.

First registrations of new road tractors with GVW less than 3.5 tons (units)



The largest group in the truck segment was formed by tractor units whose registrations accounted for 17,015 units; up by 32% compared to the previous year. This figure corresponds to 87% of market share and marks an increase by nearly 2 percentage points versus the previous year.

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / The Polish Leasing Association

Most popular brands

The most popular make among new heavy-duty vehicles with GVW over 3.5 tons was MAN (4,184), ahead of DAF (3,903) and Mercedes-Benz (3,688).

First registrations of new commercial vehicles with GVW above 3.5 tons including road tractors (units) are shown below:

Brand	2014	2015	Change (%)
MAN	3,173	4,184	31.9
DAF	2,870	3,903	36.0
Mercedes-Benz	3,316	3,688	11.2
Scania	2,436	3,538	45.2
Volvo	2,648	3,303	24.7
Iveco	2,127	2,425	14.0
Renault	1,018	1,245	22.3
Others	129	151	17.1
TOTAL	17,717	22,437	26.6

Top brands in the heaviest segment - trucks with 16 ton GVWR and above were DAF (3,820), MAN (3,695), and Scania (3,538).

First registrations of new new HCVs with GVW above 16 tons (units) are show below:

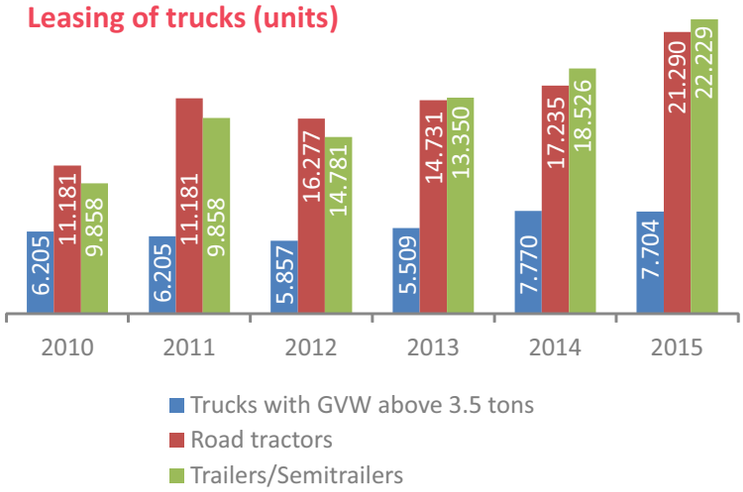
Brand	2014	2015	Change (%)
DAF	2,784	3,820	37.2
MAN	2,478	3,695	49.1
Scania	2,436	3,538	45.2
Volvo	2,633	3,294	25.1
Mercedes-Benz	2,859	3,244	13.5
Iveco	1,201	1,444	20.2
Renault	928	1,168	25.9
Others	42	33	-21.4
TOTAL	15,361	20,236	31.7

Most registered new tractor units with GVWR up to 16 tons and over were DAF (3,820), MAN (3,695) and Scania (3,538).

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / The Polish Leasing Association

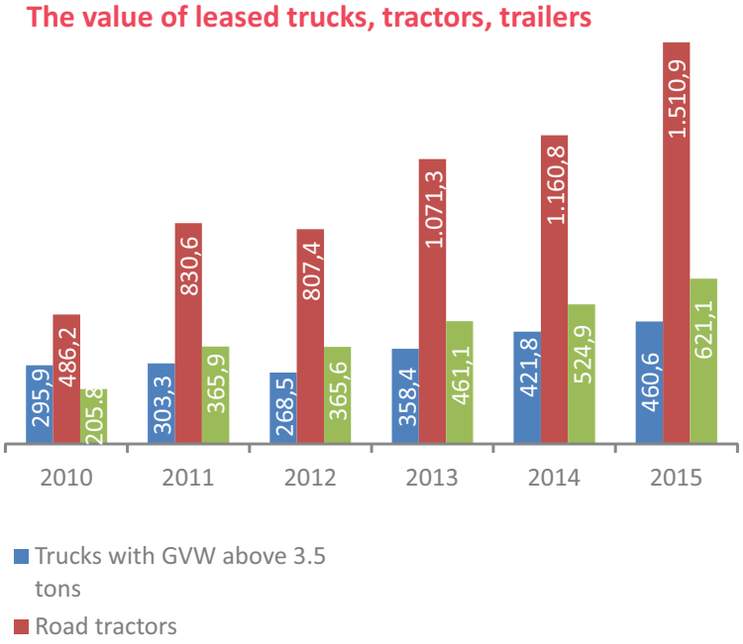
Leasing of trucks

Leasing of trucks (units)



Data of the Polish Leasing Association confirm that the transport sector increased its procurements in 2015. The value of 7,700 leased trucks with GVWR above 3.5 tons went up by 9.2% to more than EUR 450 million. In addition, there were 21,300 tractor units valued at EUR 1.5 billion covered by lease plans, what marks a result higher by EUR 340 million (30.1%) versus 2014.

The value of leased trucks, tractors, trailers



Total value of leased trucks with Gross Vehicle Weight Rating above 3.5 tons, tractor units and semi-trailers totalled EUR 2.6 billion in 2015 and was higher by almost PLN 2 billion than in 2014 and lower by nearly EUR 450 million than the value of leased passenger cars.

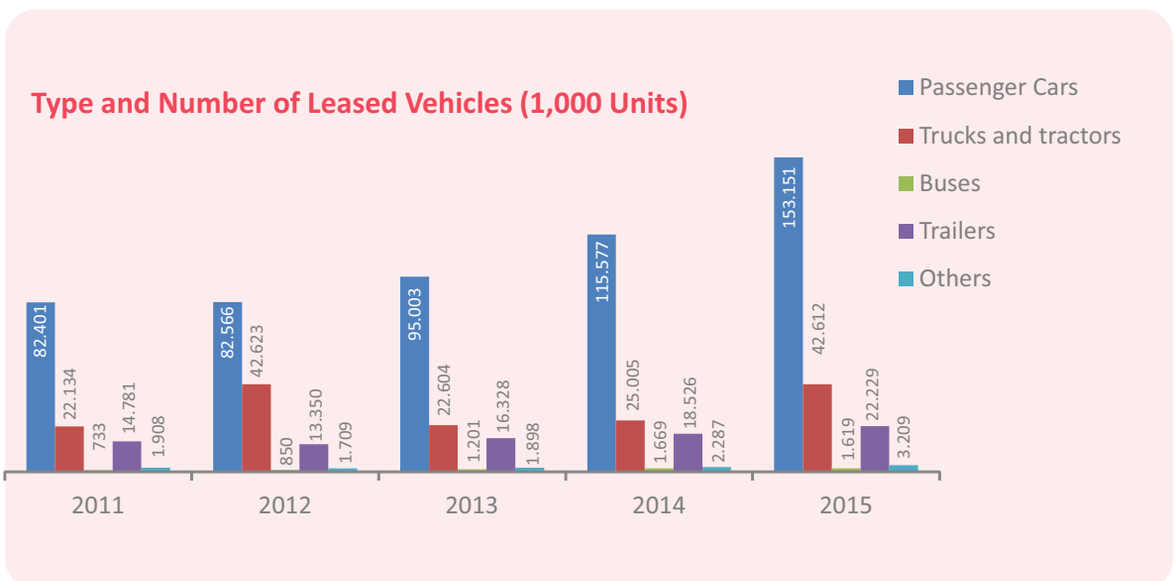
The value of 22,200 leased semitrailers and trailers exceeded EUR 620 million in 2015 and was higher by more than EUR 90 million versus 2014 (up by 18.3%).

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / The Polish Leasing Association

Corporate fleets

Fleet registrations are setting new records, indicate data of the Central Registry of Vehicles processed by PZPM. Fleet registrations in 2015 accounted for 65.2% of the market, i.e. over 3.8% more than in 2014. The rate of growth of company fleets was similar to that for the previous year. In terms of absolute figures, companies registered 231,400 passenger cars in 2015, what points out to growth at 15%.

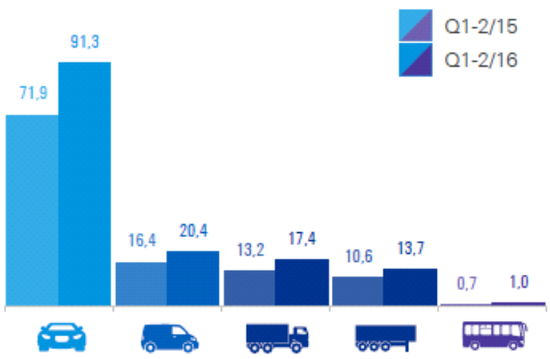
The year 2015 saw registration of 53,300 commercial vehicles with GVW below 3.5 tons, a result higher by 16.9% versus 2014. Data of the Central Register of Vehicles reveal that leasing, fleet management or car rental companies registered 151,800 new passenger cars in 2015, that is, 13.2% more than in the previous year. In 2015, their share in total corporate fleet accounted for 65.6% versus 66.7% the year before. With new passenger cars and LCVs with GVW up to 3.5 tons, the number of newly registered vehicles totalled 185,700, what indicates an increase by 16.9% year-to-year.



Separate statistics are announced by the Polish Leasing Association which reports the value of new contracts and the number of vehicles financed through lease. It should be stressed, however, that the PLA aggregates new and used vehicles and passenger cars with CV type-approvals as classified as LCVs, what prevents any direct comparisons of the Association's records with data of PZPM/Central Register of Vehicles. According to PLA's data, in 2015, lease and fleet management companies purchased 153,200 passenger cars, that is, 32.5% more than in the previous year.

Source: Automotive Industry Report 2016, PZPM / The Polish Leasing Association

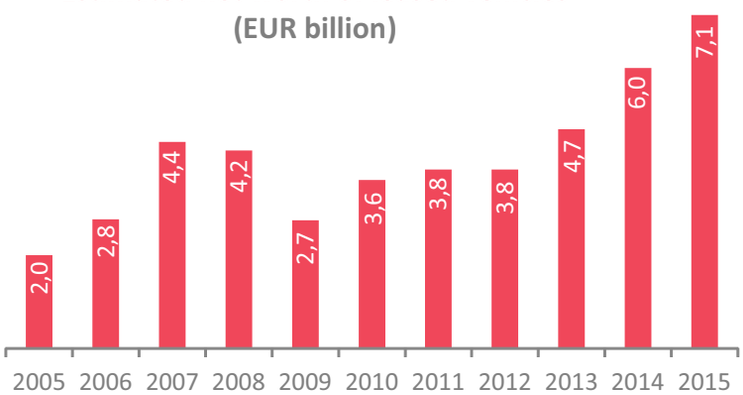
Value of leased vehicles



Number of leased assets (1,000 Units)

The Polish Leasing Association's data reveal that inclusive of passenger cars and light commercial vehicles (with GVW below 3.5 tons), procurements made by lease providers accounted for 188,100 vehicles and were up by 20.7% versus 2014.

Estimated net worth of leased vehicles (EUR billion)



The combined value of passenger cars financed through lease companies totalled EUR 3.4 billion and was higher by 36.7% than the year before. The value of leased commercial vehicles financed through lease has gone up by 22.6% to EUR 790 million.

Estimated net worth of leased passenger cars (EUR billion)

The highest value of leased passenger cars was declared by: Getin Leasing (EUR 445 million), Raiffeisen Leasing Polska (EUR 360 million), and Volkswagen Leasing (EUR 335 million). Ranking first in terms of the number of leased passenger cars was Getin Leasing (26,600 vehicles) ahead of Raiffeisen Leasing Polska (16,800) and Europejski Fundusz Leasingowy (15,900).

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / The Polish Leasing Association

Auto bodies

Auto bodybuilders form three distinctive segments: companies specialising in LCV conversions, bodyworks for chassis cabs as well as production of trailers and semitrailers. All several hundred Polish manufacturing facilities and operations from the sector have the combined employment level of approx. 10,000 people and generate annual revenue of up to EUR 1.4 billion, a figure comparable to 2008. The industry failed to improve its performance last year.

Poland is home to approx. ten leading light coachbuilders and eight heavy bodybuilders who also specialise in semi-trailers. Bodywork production has major social impact. Polish bodybuilding companies manufacture ambulances and fire engines.

Eight players from this sector are PZPM members: Alu Trans System sp. z o.o.; Carpol sp. z o.o.; The European Van Company (Alu Van, Poly Van and Poly Pan); Gruau Polska sp. z o.o.; Moto Wektor sp. z o.o.; MR Auto; Tramp Przedsiębiorstwo Jan i Janina Mikusz sp. j., and Wielton SA. Their combined headcount exceeds one thousand.

Estimated at about 15,000 vehicles, the Polish bodywork market for LCVs and heavy-duty trucks whose domestic sales account for approx. 40,000-50,000 vehicles is worth around EUR 130- 180 million. The segment is responsible for conversions or custom modifications of 20% to 30% of all purchased delivery vehicles, a rather high figure compared to the Nordic countries.

The sector is home to over 100 players employing over 5,000 staff members. Significant fluctuation in take-up forces all companies from this industry to demonstrate high flexibility. The leading company from the segment is AMZ Kutno whose annual turnover totals EUR 11-27 million, whereas five other players generate the annual revenue of EUR 2.3 to 11 million.

Bodyworks for chassis cabs, semi – trailers and trailers

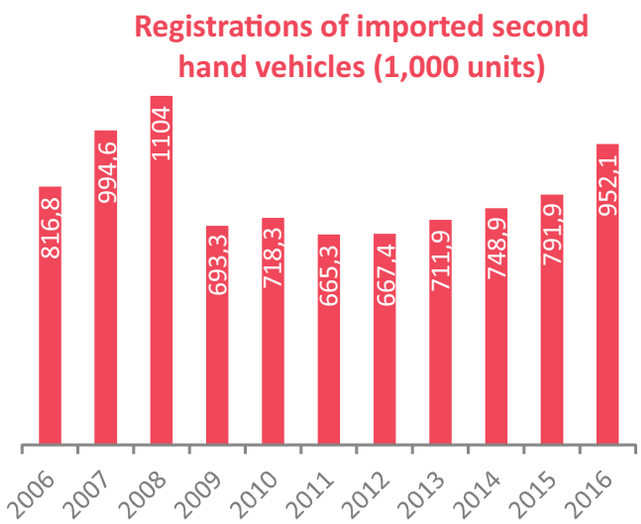
The second segment is dedicated to truck chassis conversions. 5,400 truck chassis cabs (with GVW above 3.5 tons) and the same number of bodies were sold in Poland in 2015, including around 1,400 box bodies, 600 special-purpose bodies and approx. 150 coachworks manufactured overseas. The value of this sub-market has been estimated at EUR 13.6-18 million.

Ranking first in terms of value is the trailer and semi-trailer segment. Despite the major production value of semi-trailers (approx. EUR 900 million), the employment level in the sector is comparable to that of bodybuilders specialising in LCV coachwork.

On the other hand, this production profile is much more material-intensive. In 2015, Polish customers bought 17,378 semi-trailers with GVW above 3.5 tons. Entrepreneurs operating in this segment must demonstrate major flexibility to keep with the fluctuating customer demand. The size of this market is largely driven by previous sales of semi-trailers. After the collapse in demand in 2009 which went down by 70% in just 12 months, the Polish market for new semi-trailers (by first registrations) shrunk to 4,900 units. It regained momentum during the next two years and in 2010 demonstrated growth at 41% and by 72% in 2011. Ever since that time, save for a mild downturn, it continues its two-digit growth. The market went up in 2012 to 11,600 units, and fetched 17,400 units (+16%) last year. The market for heavy-duty trailers with GVW above 3.5 tons is also up, although its growth is less dramatic.

In 2009, heavy-duty trailers with 900 registrations accounted for 15% of total trailers. Their number went up to 44% and 24% over the next two years to later see a slump in dynamics and fetch growth pace at 0.4% to 2.3%. Trailer registrations in 2015 accounted for 1,766 units. Wieluń-based Grupa Kapitałowa Wielton is the largest manufacturer in this segment in Poland which ranks among ten leading European producers. In 2015, the group's sales revenue exceeded EUR 143 million.

First registrations of used vehicles imported to Poland



952,135 used vehicles imported from other countries were registered in Poland in 2016, i.e. more by 17.8% than in 2015, what marks the best performance after 2008. The volume of used vehicle import out numbers new registrations by more than two times. These proportions have remained stable since Poland's accession to the EU. Import of second-hand cars failed to exceed 40,000 vehicles before 2004.

Year	More than 10 years old	From 4 to 10 years old	Less than 4 years old
2008	42.1	43.4	13.6
2009	41.5	46.7	11.8
2010	43.0	45.9	11.1
2011	46.7	43.5	9.8
2012	463	45.6	8.1
2013	48.3	43.9	7.7
2014	50.8	41.5	7.7
2015	55.6	37.9	6.5
2016	53.9	37.2	8.9

Meanwhile, the popularity of older vehicles continues to surge. The share of vehicles aged four years and under plummeted by 8.9% in 2016, or more than 2.4 percentage point, while the share of the oldest, more than a decade old vehicles fetched 53.9% and was down by nearly 2 percentage points versus 2015. The share of vehicles from four to ten years old went down to 37.2%.

Split by brands, ranking first was once more Volkswagen with 107,400 registrations, less by 2,000 versus 2014. The second most popular make was Opel which witnessed a surge by 8% to 92,000 registrations, whereas Audi cemented its no. 3 position with 72,400 registrations and over 10% growth versus 2014. Last year, the fourth place went to Ford (56,100, up by less than %) which once more outperformed Renault (53,000, down by 4%). Ranking further down the list were BMW, Peugeot, Citroen, Toyota and Mercedes. The champion of the highest growth dynamics in the top ten was again BMW with result pegged at 16%.

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / The Polish Leasing Association

Vehicle Production

2016 PRODUCTION STATISTICS

Country	Cars	Commercial vehicles	Total	% change
China	24,420,744	3,698,050	28,118,794	14.5%
USA	3,934,357	8,263,780	12,198,137	0.8%
Japan	7,873,886	1,330,704	9,204,590	-0.8%
Germany	5,746,808	315,754	6,062,562	0.5%
India	3,677,605	811,360	4,488,965	7.9%
South Korea	3,859,991	368,518	4,228,509	-7.2%
Mexico	1,993,168	1,604,294	3,597,462	0.9%
Spain	2,354,117	531,805	2,885,922	5.6%
Canada	802,057	1,568,214	2,370,271	3.8%
Brazil	1,778,464	377,892	2,156,356	-11.2%
France	1,626,000	456,000	2,082,000	5.6%
Thailand	805,033	1,139,384	1,944,417	1.8%
UK	1,722,698	93,924	1,816,622	8.0%
Turkey	950,888	535,039	1,485,927	9.4%
Czech Rep.	1,344,182	5,714	1,349,896	8.3%
Russia	1,124,774	179,215	1,303,989	-5.4%
Indonesia	968,101	209,288	1,177,389	7.2%
Iran	1,074,000	90,710	1,164,710	18.6%
Italy	713,182	390,334	1,103,516	8.8%
Slovakia	1,040,000	0	1,040,000	0.1%
Others	781,708	138,454	920,162	10.6%
Poland	554,600	127,237	681,837	3.2%

Production Growth

Poland is the EU's sixth-largest car producer and, along with the Czech Republic, Slovakia and Romania, forms part of east-central Europe's auto-motive hub.

In 2015 car production reversed six consecutive annual losses and posted a 13.1% year-on-year gain. Vehicle production is skewed in favour of smaller vehicles, although Poland is also the largest manufacturer of buses in the EU.

The growth trend in manufacturing was maintained in 2016 as factories based in Poland boosted their production output by 3.2% versus 2015. CSO reveals that 554,600 passenger cars rolled down the assembly lines of all production facilities. Data of auto manufacturers reveal that the combined production included 681,837 passenger cars and LCVs up to 3.5 tons.

Motor Vehicle Production in Poland ***

in thousand units

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Passenger Cars*	841,1	818,8	784,8	740,2	540,0	475,1	472,6	534,7	554,6
Trucks (incl. LCV) and Road Tractors	99,3	55,4	79,9	92,1	98,5	111,0	115,9	120,9	122,0
Buses**	4,6	4,9	4,5	5,1	4,0	4,1	5,0	5,0	5,2
Total	944,9	879,0	869,2	837,3	642,4	590,2	593,5	660,6	681,8

Remark: * data including simplified assembling in 2000 -2001 years
** for transporting 10 persons and more
***Some figures are provisional and can be changed in subsequent publications CSORemark: * data including simplified assembling in 2000 -2001 years
** for transporting 10 persons and more
***Some figures are provisional and can be changed in subsequent publications CSO

Source: GUS (Central Statistical Office of Poland)

Production Growth

Leading car producers in the country are Fiat, Volkswagen and Opel. GM also contributed to recent output gains once its Buick division started importing the Polish-built Cascada convertible to the US market.

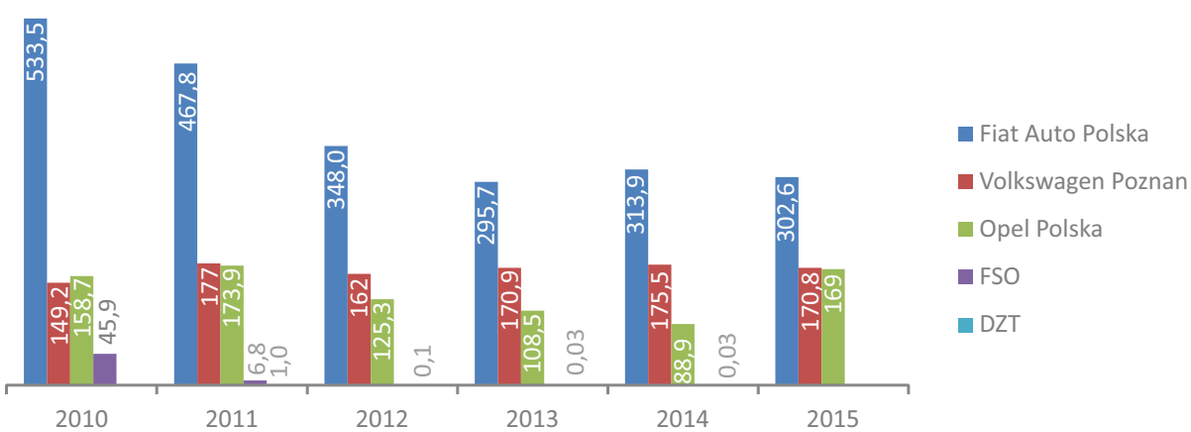
In 2015 with more than 47% share in the domestic production of passenger cars and light commercial vehicles, Tychy-based Fiat Chrysler Automobiles manufacturing site remains the biggest auto factory in Poland. Nevertheless, its output was lower by 3.6% or 302,600 vehicles versus the previous year. This figure included 253,700 vehicles manufactured for Fiat's brands - Fiat (181,000 - up by 8.7%), Lancia (57,800 - down by 5.4%) and Abath (15,000). The remaining 48,900 were Ford Kas whose production volume has declined by 10.3%. However, it suffered a 3.5% decline in production year on year, and in 2016 production fell to about 268,000 units when Ford moved production of its Ka model to Romania.

The second leading automotive manufacturer holding over 26% of share in 2015 was Poznań-based Volkswagen factory which manufactured 170,800 vehicles, that is 3% less versus 2014.

Gliwice-based Opel site manufactured more than 169,400 passenger cars, or twice as much than in 2014. Most popular models made in Gliwice included Astra J (132,300 vehicles, up by 48.8%), Astra K (29,800), and Cascada (or Astra convertible version - 7,300; up by 43.1% versus the previous year).

Just like the year before VW Poznań dominated the entire commercial vehicle segment with 107,700 LCVs that rolled down its assembly lines. 13 all-terrain Honkers 2000 were produced by DZT Fabryka Samochodow w Lublinie.

Production of PCs and LCVs up to 3.5 tons by makes 2015 (1,000 Units)



Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / CSO, Manufacturers data

Automotive parts and components manufacturing

Almost 1,000 suppliers already manufacture parts and accessories in Poland. As a result Poland is one of the leading locations for manufacturing automotive parts and components both for national and international vehicle factories and for the secondary market. It is estimated that more than 2/3 of the 30 largest global producers of parts and components already have their plants in Poland. The developed network of sub-suppliers of parts and components is of key importance for the efficient functioning of plants producing vehicles and engines.

The enterprises dealing in manufacturing automotive parts and components include both companies which have a majority of Polish capital: e.g. Lumag (platings, brake linings and brake pads), Asmet (exhaust systems), Filtron (filters), Groclin(equipment), and ZAP Sznajder, LOXA Batterien, as well as Autopart (batteries), Boryszew S.A. (external and internal vehicle components), Asmet and GG Profits.

Entities with a majority of foreign capital operate in the following fields:

- Control and breaking systems – Brembo (Dąbrowa Górnicza, Częstochowa), Mando Corporation (Wałbrzych), Nexteer Automotive (Tychy, Gliwice), TRW (Czechowice-Dziedzice, Pruszków, Bielsko-Biała).

- Interior fittings – Sitech (Polkowice, Głogów), Lear (Tychy, Jarosław, Mielec, Legnica), Faurecia (Grójec, Jelcz, Wałbrzych), Johnson Controls (Świebodzin, Skarbimierz, Siemianowice Śląskie, Bieruń, Żory).

- Tires – Bridgestone (Stargard Szczeciński, Poznań), GoodYear Dębica (Dębica), Michelin (Olsztyn)

- Lightning and electronic components – Sungsam-zem Polska (Ełk), Automotive Lighting (Sosnowiec), Aures (Sosnowiec), Valeo (Tychy, Chrzanów, Czechowice – Dziedzice), Delphi (Gdańsk, Jeleśnia), Pol-Elektra (Łochowice).

- Body glass – Saint Gobain (Dąbrowa Górnicza, Żary, Koło), PGW Pittsburgh Glass Works (Komorniki Śląskie), Guardian (Częstochowa), Pilkington (Sandomierz, Chmielów).

- Batteries – Exide Technologies (Poznań), Johnson Technologies (Katowice).

Source: Automotive Industry Report 2016, Polish Association of Automotive Industry (PZPM) / CSO, Manufacturers data

Motorists support the state budget

In 2015, motorists bought fuel worth around EUR 29 billion, or approx. EUR 1.8 billion less on a year earlier, of which EUR 10 billion was retained by the state budget. 33% of EU95 retail price accounted for the excise duty, 19% for value-added tax and 3% for fuel surcharge.

On the average, taxes accounted for EUR 0.41 in the price of fuel. In case of diesel, value-added tax totalled 19%, excise duty accounted for 26% and fuel surcharge for 6%, what added additional EUR 0.43 to the price of one litre of fuel. In case of LPG, the share of value-added tax stood at 19%, 19% for excise duty and 5% for fuel surcharge - 69 Groszys per litre altogether.

Two major oil refining plants and more than 6,600 gas stations are catering to the needs of Polish motorists. The entire oil industry employs approx. 90,000 people. Most petrol stations are family-owned businesses and this type of business activity provides a source of income to around 10,000 families, that is, to 40,000 people.

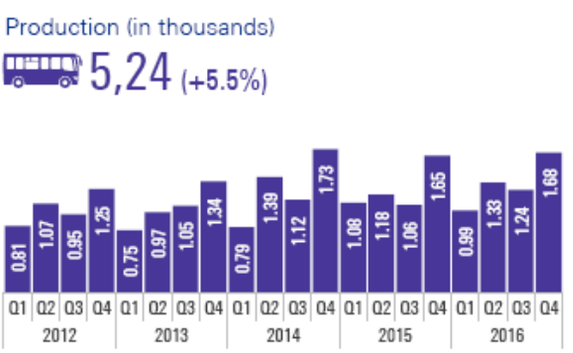
Source: POPIHN

Vehicle Production

Data of the CSO reveal that in 2016 manufacturing sites based in Poland produced 122,0 thousands trucks and road tractors.

CV production has held up better than car production over the past few years, rising by a modest 0.9% in 2016 and 4.4% in 2015. Vehicle output has fallen since 2008, however, and Poland's focus has shifted towards components that are supplied to plants elsewhere in the region.

Prominent CV manufacturers in Poland include Fiat, Volkswagen, Ford and MAN. Supply will remain driven by investment trends in Poland, the EU and East Asia (Polish lorries have been marketed in Indonesia and Singapore).



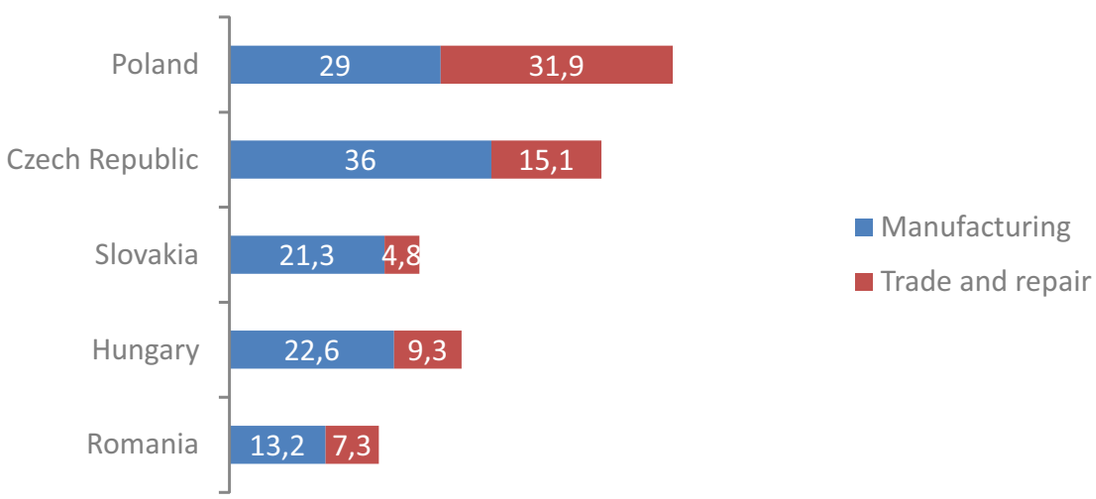
Source: Automotive industry. Quarterly report by PZPM and KPMG / GUS, IBnGR, CEP (MSW)

The automotive industry in Poland versus CEE

In recent years Poland has attracted a substantial amount of foreign investment in the automotive manufacturing sector and, consequently, has become one of the major manufacturers of cars, car parts and components in Central and Eastern Europe. At the same time, automotive manufacturing has evolved into one of the key industries in Poland in terms of production value, employment, capital expenditures as well as share in exports. Moreover, Poland is the region's largest automotive market in terms of sales and services.

Taking into account manufacturing of motor vehicles, parts and accessories as well as trade and repair services related to cars and car parts, the Polish automotive industry is among the largest in Central and Eastern Europe. According to the most recent data available from Eurostat, in 2014, the turnover of automotive manufacturing companies in Poland amounted to EUR 29.0 billion. EUR 31.9 billion of turnover was generated by companies involved in the trade and repair related to cars, car parts and accessories.

Turnover of automotive companies in selected CEE contries – 2014 (EUR billion)



Source: EUROSTAT

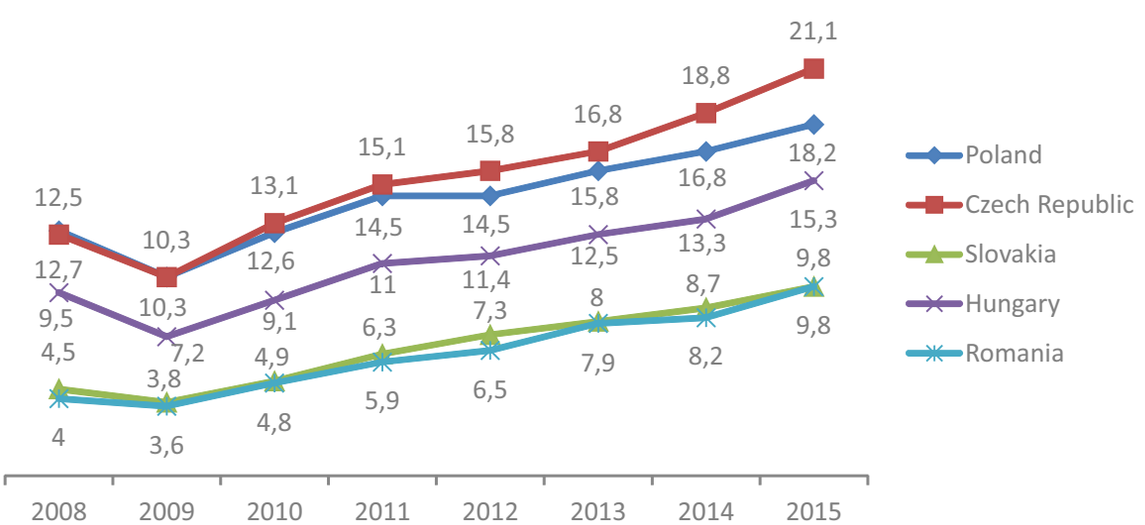
The automotive export

Taking into account the number of manufactured motor vehicles, Poland remains on the third place among the Central and Eastern European countries. In 2015, Polish manufacturers produced 534,700 passenger cars. This was in significant increase in comparison with the previous year and the first increase after several years of systematic decline of passenger car production. At the same time production of commercial vehicles also increased, reaching 125 900 (according to OICA methodology).

Poland is a significant manufacturer of commercial vehicles not only compared to CEE, but also to Europe in general. Although Spain, France, Germany, Italy and Russia can boast a larger output of commercial vehicles, these are countries with a larger automotive manufacturing industry and significantly larger internal markets.

Poland's position in this respect will be further strengthened after 2016, i.e. after the planned launch date of the new Volkswagen plant in Września. The second – along vehicles production – key segment of the Polish automotive manufacturing industry is the production of automotive parts and accessories. The situation in this category is more stable, with output constantly growing due to investment and reinvestment projects. However, taking into consideration the full range of automotive components (i.e. including tyres, glass, batteries, engines as well as electric equipment and mechanical parts of combustion engines), Poland lost its position of the regional leader in the recent years, held now by the Czech Republic.

Exports of components, parts and accessories (EUR billion)



Source: EUROSTAT

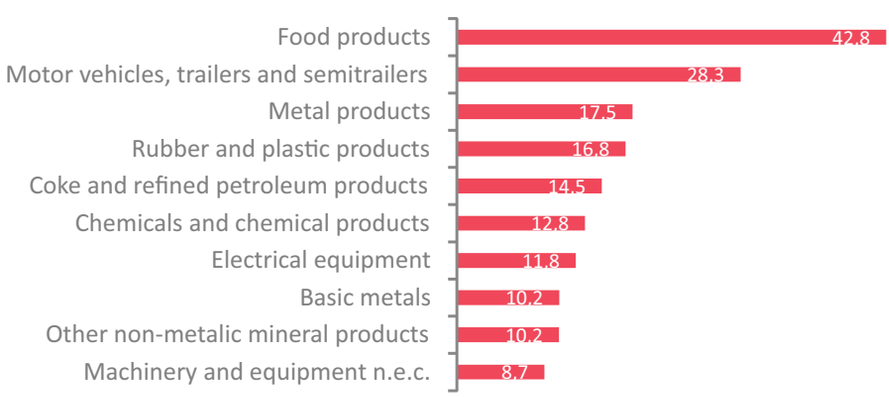
Role of the automotive manufacturing in the Polish economy

The Polish automotive manufacturing is almost entirely export-oriented, thus the sector's shape depends heavily on the economic situation on foreign markets, notably Western European ones. This was especially visible in 2009 and 2012, when the output of automotive plants located in Poland decreased along with the depression in the EU economy.

After weak results in 2012, automotive manufacturing recovered and increased its output, thanks to investment (mainly reinvestment of companies already present in Poland) and the ongoing revival on many key export markets. Sold production value of automotive manufacturers in Poland amounted to EUR 28.3 billion, which means a significant increase of 10.7% y/y in real terms (i.e. considering price change).

Automotive manufacturing is one of the largest industrial sectors in Poland, accounting for 10.4% of sold production value in this part of the economy. In terms of sold production value it ranks second after food manufacturing, surpassing all other manufacturing industry sectors as well as many important industry branches like mining and quarrying, energy, oil or utilities.

Sold production in manufacturing industry - 2015
(EUR million)



Source: GUS

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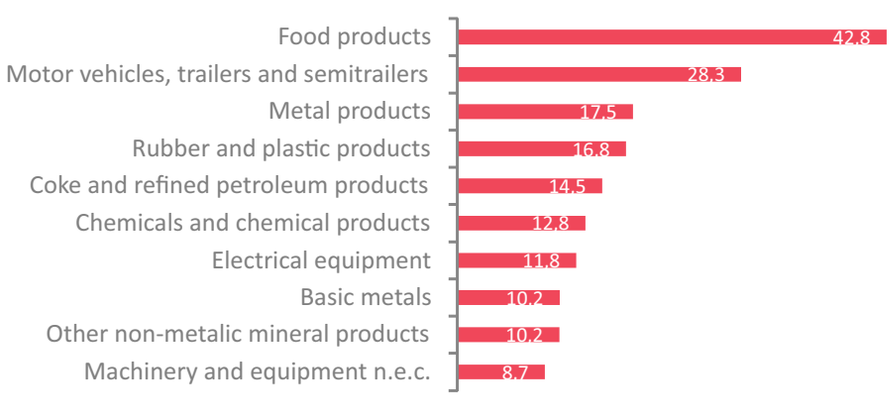
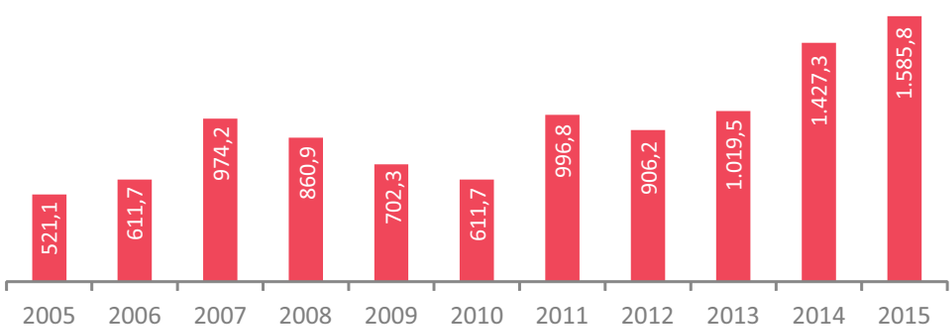


Source: EUROSTAT

Role of the automotive manufacturing in the Polish economy

Growth in Poland's automotive production in recent years was driven mostly by extensive investment outlays. In 2015, capital expenditures of automotive manufacturers in Poland amounted to PLN 7,0 billion. In terms of investment outlays, automotive manufacturing remains one the key sectors of industry, accounting for 8.3% total outlays in this part of the economy.

Manufacture of motor vehicles, trailers and semi trailers – investment outlays (EUR million)

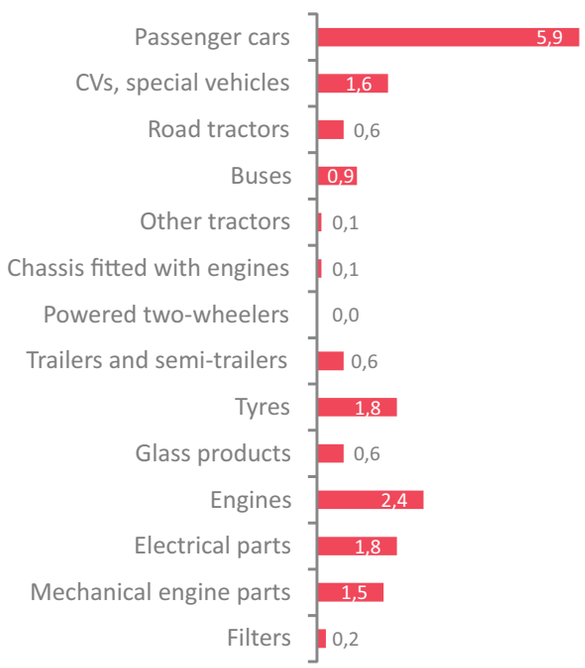


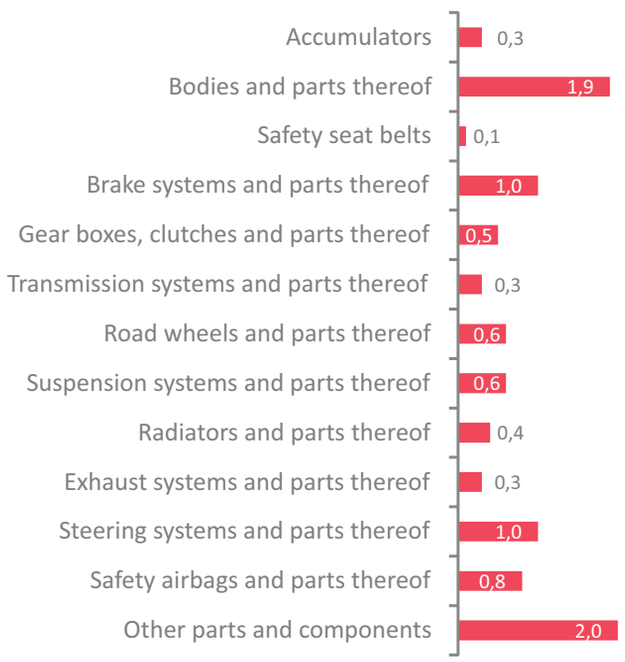
In 2015 automotive production incurred the highest investments outlays in the entire manufacturing industry, leaving behind food production (EUR 154 billion), despite the latter being a significantly larger branch.

Source: EUROSTAT

Role of the automotive manufacturing in the Polish economy

Polish automotive exports - 2015 (EUR billion)

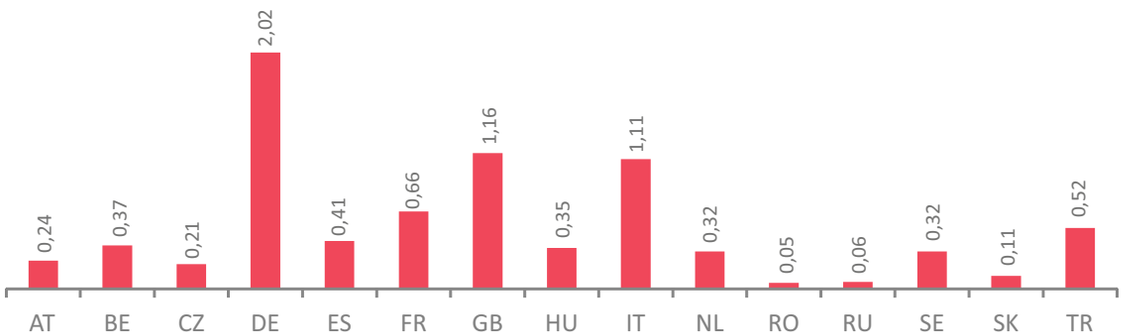




Source: EUROSTAT

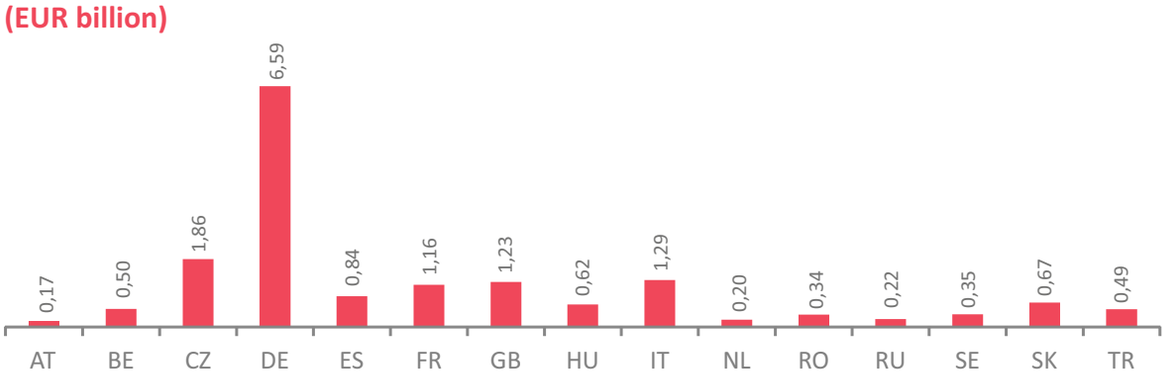
Destinations of Polish exports

Destinations of Polish exports of vehicles, trailers, semi-trailers -2015 (EUR billion)



Among key recipients, growth was significant in case of Turkey (26.4% y/y), the Netherlands (24.6%), Hungary (24.0%), Slovakia (23.9%) and Austria (21.6%). Exports to Germany, which is by far the most important destination for automotive products from Poland, rose by 8.8%. A drop in total export value was noted only in the case of two countries: Sweden (-5.1%) and, for another consecutive year, Russia (-42.3%).

Destinations of Polish exports of components, parts and accessories -2015 (EUR billion)



Source: EUROSTAT

FDI in the automotive industry in Poland

According to Eurostat, foreign companies invested €86 billion in Poland in 2015, more than a third of total gross fixed capital investments for all Central European EU countries.

In 2016 the influx of FDI to Poland accelerated again. A value of finished investment projects supported by PAIiIZ raised from 800 mln euro in 2015 to 1.7 billion in 2016. 60 per cent of that investments were conducted by the companies already operating in Poland. According to estimations, in the previous year the influx of FDI to Poland exceeded PLN 50 billion. The greatest share of the new investments flowed to Poland from the USA, France and Germany. Thanks to them there will be 16 000 new job openings.

EUR 167 billion of FDI stock was registered at the end of 2016 (NBP),

EY's European Attractiveness Survey 2016 implies Poland as the 1st most attractive FDI destination in CEE (and 5th most attractive in Europe). Better scores were only attributed to Germany, UK, France and the Netherlands.

Foreign automotive concerns may rely on the friendly business environment in Poland whilst the country itself has a few attributes which make it one of the best locations in the region.

FDI in the automotive industry in Poland

The automotive sector in Poland is attractive for the largest players in the sector as indicated by both new investments and by the re-investments made by companies already present in Poland.

▪ Accumulated foreign direct investments in the automotive sector in Poland are estimated at approx. EUR 12 billion (according to fDi Markets).

▪ In 2004 – 2015, a total of 535 investment projects worth more than EUR 13 billion were implement ed with the assistance of the Polish Information and Foreign Investment Agency.

▪ As a result of investment outlays, companies established 148,129 new work places of which 25,718 persons found employment in the automotive sector.

▪ Over the last decade, the Agency completed 100 projects from the automotive sector totalling more than EUR 4.6 billion.

▪ The largest investors currently present on the Polish market are Fiat, VW, GM, TRW, Faurecia, Toyota, Man, Kirchhoff, Ronal and Mando.

Volkswagen (VOWG_p.DE) spent nearly 3.4 billion zlotys (663.6 million pounds) on a new factory to build the Crafter delivery van in Poland, moving output out of high-cost Germany in the company's biggest-ever commercial vehicle project. In 2016 Volkswagen facility in Września started the manufacturing of Crafter. Its expected capacity is 100,000 vehicles annually.

Nevertheless, in November 2016 Toyota announced plans to invest a further US$158m in its Poland unit, and Daimler plans to build an engine plant to supply Mercedes-Benz.

General Motors announced the decision to launch a diesel engines production plant in Tychy in 2017 (producing three types of 1.2 l engines). The target investment value of the project amounts to PLN 300 million.

Daimler AG (ETR: DAI) is investing at least US$540 million to build an engine plant in Jawor, in the southwest of Poland. The facility, with a workforce of several hundred employees, will manufacture the latest generation of gasoline and diesel engines for passenger vehicles, meeting highest environmental standards. The project will receive the state aid.

FDI in the automotive industry in Poland

For many years Poland has been one of the most important recipients of foreign direct investment (FDI) in Central and Eastern Europe. In the best years of the last decade, the amount of foreign capital invested in Poland reached EUR 15.6-17.2 billion annually. Unfortunately, the global crisis led to significant instability of FDI inflow, which slowed down to EUR 2.1 billion in 2013. 2014 brought about a significant, more than fourfold, increase of foreign direct investment inflow, which reached almost EUR 9.0 billion.

The inflow of foreign capital into the automotive sector had been relatively stable up to 2008 and amounted to EUR 300- 700 million a year. After 2008, however, net automotive FDI inflow became very instable and twice its annual value proved negative. In 2014, net FDI inflow amounted to EUR 870 million, an increase compared to 2013 (up by EUR 129 million). Total FDI stock in this sector reached as much as EUR 7.8 billion at year end.

In 2014, net inflow of investment in trade and services was positive, but smaller by EUR 45 million in comparison with 2013. In total, FDI stock value in the segment reached almost EUR 1.8 billion at the end of 2014.

FDI inflow (EUR million)

	2010	2011	2012	2013	2014
Total	10.473	14.832	4.716	2.059	8.994
Manufactured motor vehicles, trailers and semi trailers	759	-93	1.308	741	870
Whole sale and retail trade and repair of motor vehicles and motor cycles	-103	67	103	167	122

FDI stock (EUR million)

	2010	2011	2012	2013	2014
Total	161.378	157.151	178.257	168.506	171.674
Manufactured motor vehicles, trailers and semi trailers	6.478	6.527	7.990	7.238	7.811
Whole sale and retail trade and repair of motor vehicles and motor cycles	1.391	1.380	1.489	1.572	1.760

Source: NBP

Tyres for passenger cars

Poland is the sixth market in Europe after Germany, France, Italy, Great Britain and Spain. On the other hand we are the third market when it comes to winter tyres, after Germany and Italy, and slightly ahead of France.

According to statistics from the European Tyre and Rubber Manufacturers Association (ETRMA), which represents the global tyre companies, in 2015 the European data showed that in spite of differences in tyre sales throughout the year, a summary of the year turned out to be positive. Segment of passenger tyres showed a solid growth and maintained this trend since previous year. Therefore after a fall in 2012, and stagnation in 2013 this seems to be a good rebound.

The European market in 2015 for passenger car tyres showed an increase of 3%, 4% of the truck and bus, 6% of motorcycle and scooter, and a decrease of 9% of the agricultural tyre in comparison to 2014. At this background, the results in Poland are not that spectacular. Nevertheless, after poor 2014 the sales grew. In the segment of passenger car, van and light trucks tyres in both winter and summer season they ended in positive territory.

After earlier rising by 11% in 2014 sales of summer tyres still grew by 1%. The same increase was in winter tyres. Thus, with 9.669 million pcs. is about 1% higher comparing to the previous year. This result was significantly influenced by the rapidly expanding segment of the SUV. This can be seen in the results of the sale of cars and this is also reflected in the tyres. In comparison to the previous year this segment grew by 14%. On the other hand, in the segment of van tyres growth was 13%.

Source: ETRMA

Future expectations & trends

The risks to the market endure, including the danger of a new flare-up in Ukraine and worsening relations with Russia, which is suffering from an economic crisis. Poland's conservative Law and Justice (PiS) party, which is in power after winning the October 2015 election, has also attracted some international criticism for controversial moves against press and court freedom. Although the zloty is strengthening, we expect real GDP growth to strengthen in 2017 and to remain above 3% a year in 2018-21.

Currently, new car sales are limited due to the popularity of used car imports. But this situation may change with the trend to more environmentally friendly cars.

In particular, aftermarket sales in Poland offers promise due to the predominance of used cars.

Poland has lost ground to neighbouring Czech Republic and Slovakia as a regional automotive hub. Poland lost a bidding war in 2015 with Slovakia for a US$2.5bn plant to be built by Jaguar Land Rover (UK, owned by India's Tata Motors). Nevertheless Poland will remain an attractive investment destination for international car manufacturers.

Poland's industry is exclusively focused on a range of lower- and mid-range models (Fiat 500, VW commercial vehicles, Opel Astra) and low-valueadded assembly procedures.

One opportunity is that the presence of R&D functions for global OEMs could be increased. For innovation-intensive, capital-heavy industry, such as automotive R&D, the benefits of colocating R&D and production are considerable. The operations of global OEMs have grown enough over time in Poland to raise the level of expertise to support location of more advanced functions, such as R&D.

Source: ETRMA

7 Investment Incentives in Automotive Sector

Summary

Investors implementing new investments in the automotive sector in Poland may benefit from various forms of public support. The aid is available on national level – as government grants and on regional level, as investment incentives available in special economic zones.

Special Economic Zones are one of the main instruments used to attract foreign investors to Poland. Since their establishment two decades ago, SEZ continue to serve as an attractive solution for investors seeking to establish business activity in Poland, thus driving economic growth and helping create new jobs.

One project may utilize state aid combining different incentive sources. Support is available, inter alia, for: investments into fixed assets and into the creation of new jobs, research and development activities, activities related to environmental protection (e.g. support for investments in renewable energy sources), training, acquisition of a new technology.

Investment incentives granted to entrepreneurs must be in line with both domestic and EU legislation concerning the provision of state aid which define the rules of combining aid from various sources, maximum support levels, beneficiary categories and detailed criteria to be met when applying for assistance.

According to the investors, the factors which make the automotive sector particularly attractive include:

- the convenient location of Poland in the centre of Europe and among approximately 40 automotive plants located in Central and Eastern Europe and operating in 16 are located in Poland.

- the developed network of sub-suppliers and co-operators which exceeds 900 plants of which over 500 companies hold ISO/TS 16949 quality certificates;

- the availability of skilled labour force;

- an attractive system of investment incentives, including non-reimbursable grants and tax exemptions.

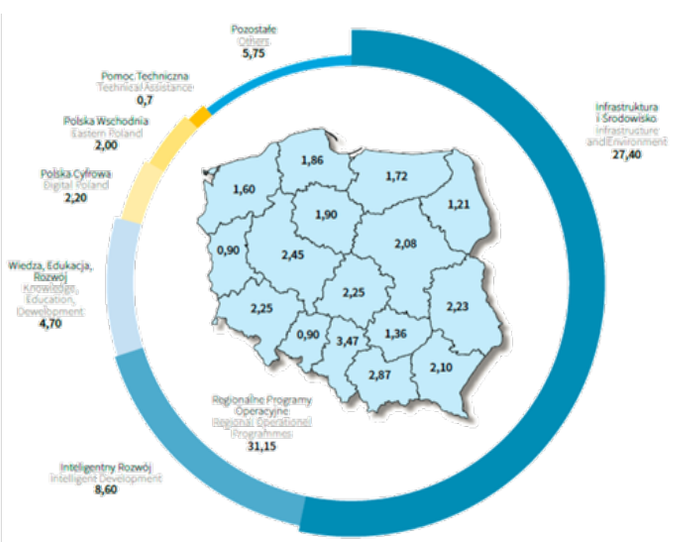
Public support and incentives

Poland is the single biggest beneficiary of EU funds in the new financial perspective. In the years 2014-2020, the country will receive more than EUR 82.5 billion for the implementation of the European Cohesion policy under 6 domestic and 16 regional operational programmes. Combined with national incentives, these resources will establish a broad system of support for business.

Support will be available in the form of grants as well as repayable financial instruments during both the investment and operational phase. State aid intensity will be up to 80% depending on the support measure selected and the size of the enterprise. Aid is also offered in other programmes such as:

- Government programmes.
- Tax exemptions in special economic zones,
- R&D tax credit,
- Horizon 2020,
- Protection and Water Management,
- Programmes managed by the National Fund for Environmental,
- EU programme for the Competitiveness of Enterprises
- and Small and Medium-sized Enterprises (COSME),

The Allocation Of EU Funds For 2014-2020
[in EUR Billion]



Institutions which support business in Poland

Institutions Which Support Bussiness in Poland İn General

Ministry of Economy - The main activity of the Ministry of Economy is aimed at creating favorable conditions to run business activity for both foreign and domestic investors. In this respect one of the key factors of investors-friendly environment is sustainable economic growth in the long term. This leads to improving companies' economic situation, stimulating the businesses to invest and enables Polish companies to compete at international level. In late 2015 it was merged into the new Ministry of Development.

Polish Information and Foreign Investment Agency (PAIiIZ) - has been servicing investors for over 20 years. Its mission is to create a positive image of Poland in the world and increase the inflow of foreign direct investment by encouraging international companies to invest in Poland.

The Polish Automotive Industry Association is the leading Polish organisation of automotive industry employers which brings together manufacturers and representatives of manufacturers of motor vehicles, motorcycles and mopeds as well as vehicle and bodywork manufacturers in Poland. Organisations associated in PZPM represent 67 automotive brands.

The main goal of PZPM is to represent the interests of its member organisations in relations with state administration bodies, the mass media and society. PZPM initiates legislative changes and supports initiatives for the development and promotion of the Polish automotive sector. The organisation is invited by the government to review key draft legislative acts relevant for the automotive industry and contributes to efforts of parliamentary and government commissions.

Domestic cash grants under the MASP

Multi-Annual Support Programme (MASP grants) is a specific type of aid financed from the Polish budget. It is designated for large investments which are considered crucial to the Polish economy and their implementation in Poland depends on receiving a grant from the state budget. Assistance in the form of a subsidy is granted to entrepreneurs who undertake investments in the so-called priority sectors which include automotive.

In order to benefit from this form of support, a company should begin negotiations with the Polish Information and Foreign Investment Agency (PAIiIZ) and the Ministry of Economy. There are no calls for applications - this aid scheme is available throughout the year. The investment may start before the agreement is signed; however, not earlier than after obtaining a letter of intent from the Minister of Economy.

The MASP grant is paid in annual installments in accordance with the schedule specified in the agreement with the Ministry of Economy on the basis of the process of incurring eligible costs.

To receive and maintain support the investor is obliged to:

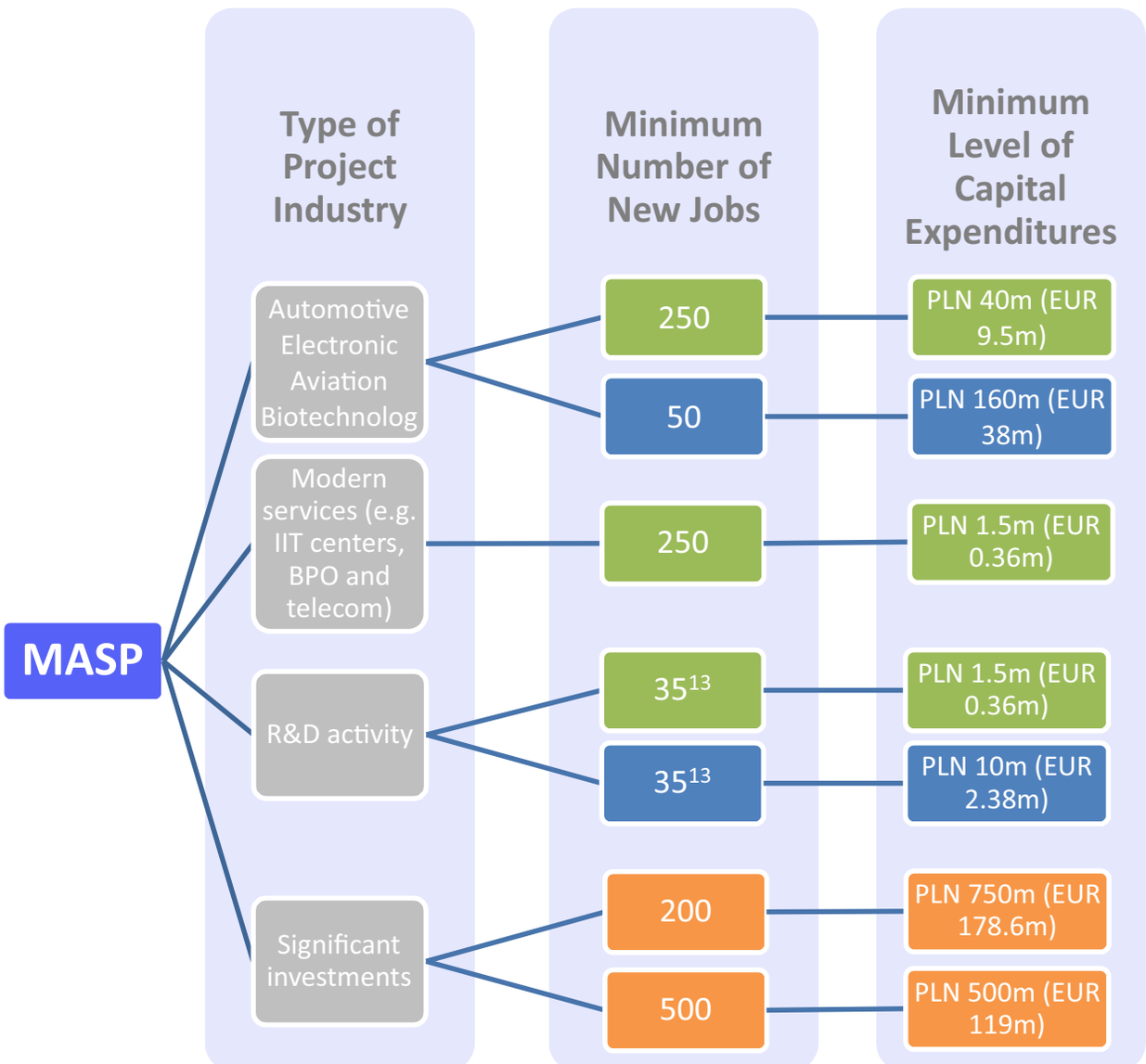
1- Fulfill all conditions enlisted in the agreement concluded with the Ministry of Economy, inter alia:

- Create the declared number of new jobs
- Incur the declared amount of eligible investment expenditures (if applicable)
- Report annually on project implementation
- Achieve the goals of the projec

2- Ensure durability of investment:

- Maintain all new jobs for at least 5 years after their creation
- Maintain the investment itself for at least 5 years after its completion

Types of projects supported under MASP grant



[13] For employees with high education level

projects eligible for support based on employment costs

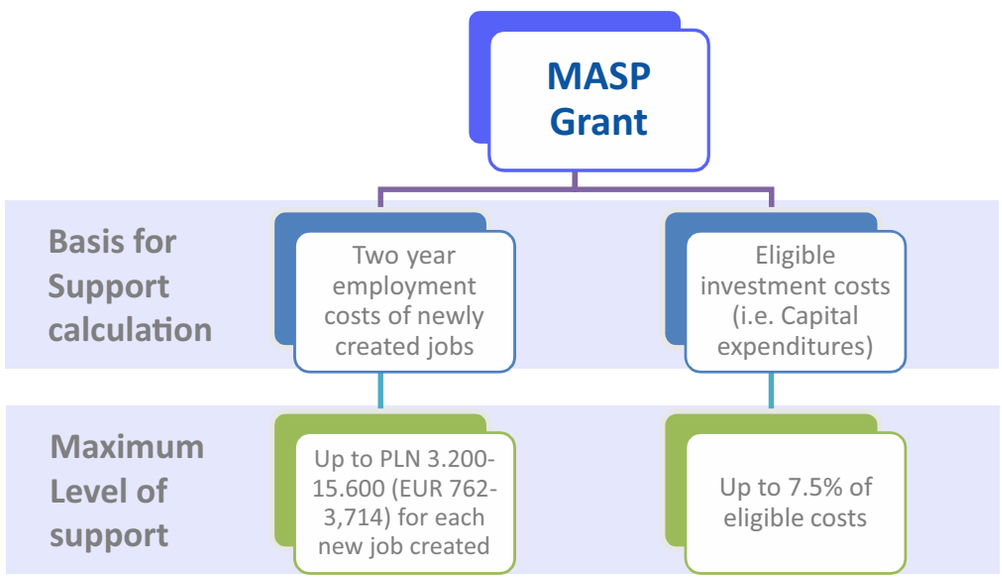
projects eligible for support based on capital expenditures

projects eligible for support based on employment costs or capital expenditures

Calculation of support level in the MASP grant

The total amount of support for investments involving the start of a new business and/or diversification of an existing business may not exceed the thresholds defined as the maximum intensity of regional state aid multiplied by the total eligible costs of the investment. The amount of aid depends on the location of the investment and must be in line with the so-called regional aid map.

The funds are paid in proportion to the degree of performance of obligations specified in the agreement between the investor and the Minister of Economy.



The MASP grant may be combined with the SEZ benefit or cash grant from EU funds; however, some additional restrictions and limitations apply in such a case as shown in the graph below.

Combining MASP with SEZ benefit and EU cash grant possible for:			
Investments in R&D activity and significant investments without additional conditions	Investments in automotive, electronic, aviation and biotechnology only if capital expenditures amount to at least PLN 350m (EUR 83.3m)	Investments in modern services only if at least 500 new jobs are created	Other investments only if the MASP grant does not exceed PLN 3m (EUR 0.7m)

Real Estate Tax Exemption (RETAX)

Another investment incentive for entrepreneurs is the exemption from real estate tax. This form of aid is available based on a resolution of the City/Municipal Council.

In this case, support is often granted as a form of de minimis aid which is exempt from the European Commission notification requirement. For the above reason the total amount of de minimis aid granted per Member State to a single undertaking cannot exceed EUR 200 000 over a period of three fiscal years (EUR 100,000 for undertakings operating in the road transport sector).

Retax exemption applies to land, buildings and structures associated with an investment within the area of the city. Detailed conditions of the Retax exemption are listed in the resolution and may be different in each city.

It is required to submit an application to the City/Commune Council before the project starts.

The amount of aid may be calculated in relation to:

- Costs of investment in tangible and intangible assets associated with the completion of the new investment, or
- Costs of creating jobs associated with the completion of the new investment

According to the current binding Notice of the Ministry of Finance, the maximum annual rates in 2016 apply as follows:

- with respect to land used for business activity purposes - based on surface area and are EUR 0.2 per meter square;
- with respect to buildings or their parts used for business activity purposes - based on usable surface and are EUR 5.2 per meter square;
- with respect to constructions, based on the value thereof and are 2%.

Tax exemptions in Special Economic Zones

Special Economic Zones (hereinafter: SEZ) are administratively marked plots of territory where business activity may be conducted under preferential terms within the state aid framework.

14 SEZs in Poland

The first advantage of selecting a SEZ as the destination for starting a new business undertaking is the support from each zone's managing entity at the early stage of the project eg. assistance in legal and administrative procedures. This allows the company to establish its business on a specifically prepared site with all infrastructure already in place. Alternatively, it is possible to apply for the extension of SEZ territory over new land owned by the investor.

The second and crucial merit to choosing SEZs is the benefit of tax relief. Public aid is granted to entrepreneurs, including those operating within automotive industry, in the form of income tax exemption and property tax exemption.

The exemption refers to income generated from business activity conducted within the SEZ territory on the basis of SEZ permit. Tax exemption in the SEZ constitutes state aid in accordance with national and EU legislation.

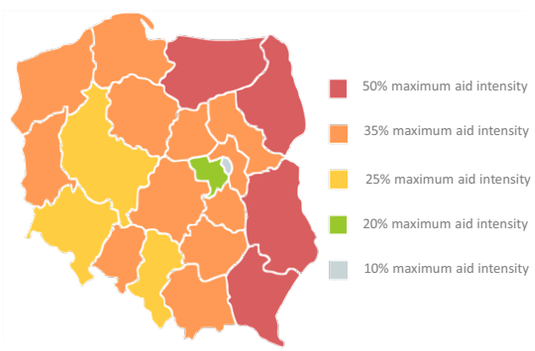
What?	•Exemption in Corporate Income Tax (CIT) for legal entitles of Personal Income Tx (PIT) for non legal entitles
For whom?	•Investors who have obtained the SEZ permit
How much?	•30-70%[1] of capital expenditures or two year employment costs
How long?	•Till the end of SEZ existence, i.e. Currently until Dec 31, 2026
Where?	•On the territory holding SEZ status[2], but in some cases also on private land that may be included in the SEZ[3]

1 Depending on the location othe investment and the size of the investor
2 Still approx. 6,000 ha available in SEZ
3 Over 4,000 ha may still be included in SEZ

Source: Own presentation

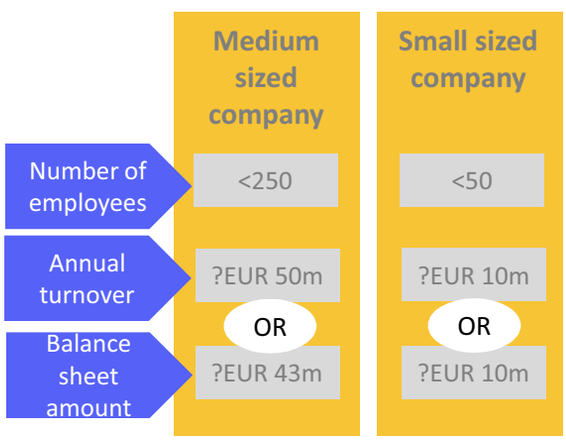
Maximum value of the SEZ benefit

Eligible costs may be either the costs of acquisition of fixed assets and intangible assets or two-year' labor costs for newly created jobs. State aid intensity may range from 15% to 70% depending on the geographical area where the project is carried out and the size of the enterprise. Maximum state aid limits are illustrated on the map below:

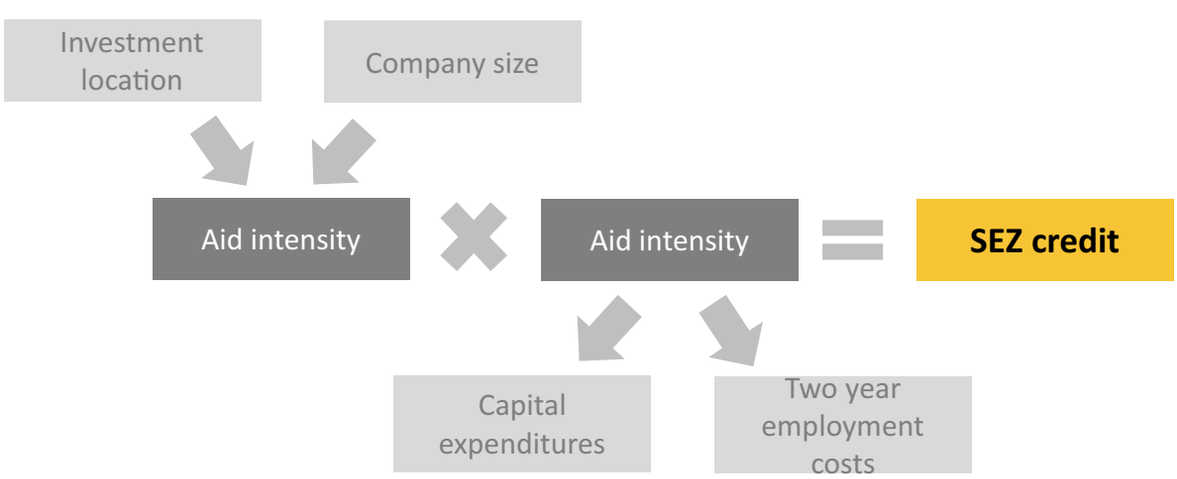


Source: KPMG

These limits are increased by 10 percentage points in case of medium sized enterprises and by 20 percentage points in case of micro and small enterprises.



Finally, the SEZ credit is calculated as follows:



How to apply for SEZ benefit

In order to benefit from the SEZ credit, a company needs to first obtain a SEZ permit, which has a form of an administrative decision. The SEZ permit may be issued for an initial investment project involving minimum capital expenditures of EUR 100,000 and creating new jobs.

The initial investment project is defined as an investment in tangible and intangible assets relating to:

- The setting up of a new establishment
- The extension of an existing establishment
- Diversification of the output of an establishment into products not previously produced in the establisment
- A fundamental change in the overall production process of an existing establishment

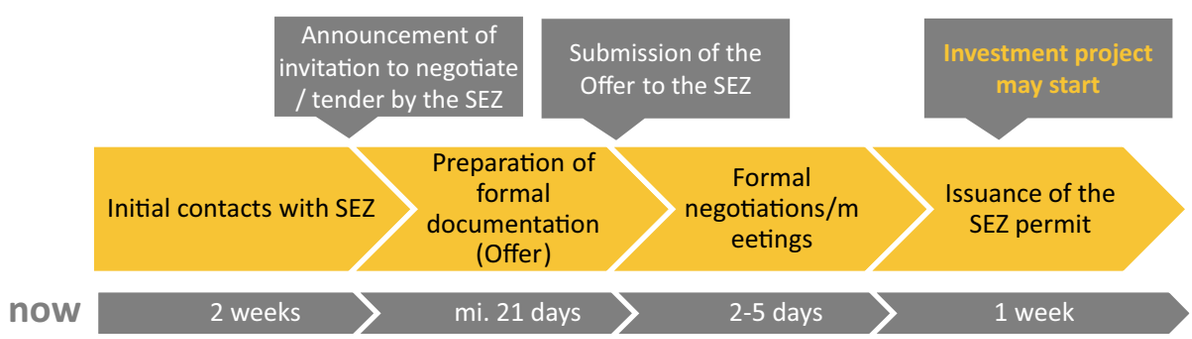
To apply for a SEZ permit the company has to prepare formal documentation ('the Offer') which shall contains:

- The business plan that describes its new investment project to be conducted in the SEZ, including an incentive effect analysis and financial projections

- Some additional formal documents (e.g. a decision granting the taxpayer identification number, REGON number, valid transcript from the National Court Register, documentation confirming the source of financing)

The content of the Offer may differ to a certain extent for particular SEZs. Within the Offer, the company declares the main commitments for the activity to be conducted in the SEZ - the amount of capital expenditures to be incurred and the number of new jobs to be created. Such commitments are then listed in the SEZ permit as the obligations to be fulfilled by the company.

Procedure of Applying for a SEZ Permit

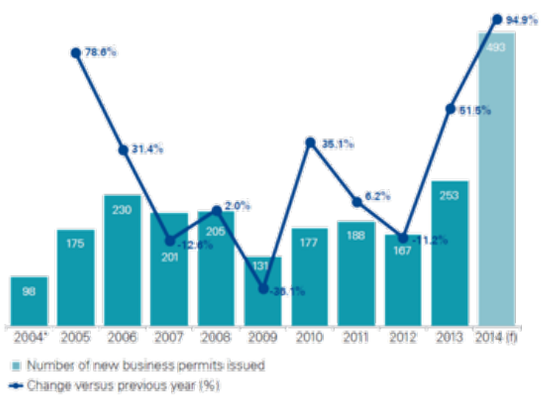


Effects of SEZs' operation on the economy

Twenty years after the adoption of the Act on Special Economic Zones they have developed and grown very extensively and have become an effective tool for attracting investors, creating new jobs and modernising Poland's economy. Towards the end of 2014 the accumulated value of investments in SEZs may exceed EUR 22 billion.

At the end of 2004 the number of SEZ business permits totalled 679 but it leapt to 1,709 at the end of 2013, which means that the growth rate exceeded 150%. The accumulated value of investments within the SEZs during the same period recorded a nearly five-fold growth, from EUR 4.5 billion to EUR 21.1 billion. The number of jobs rose more than three times. At the end of 2004 entrepreneurs holding business permits employed about 74,600 people within the SEZ whereas the respective figure at the end of 2013 was nearly 267,000.

New business permits in SEZs

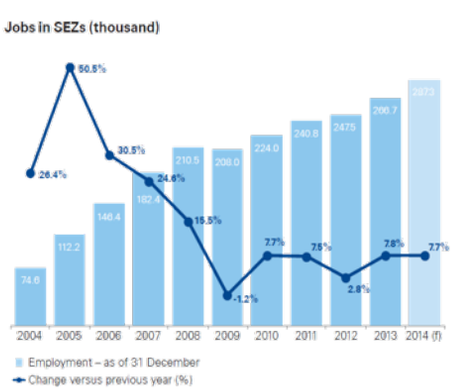


* As no information on the number of business permits issued in 2003 was available, the percentage change for 2004 has not been calculated.

(f): forecast

Source: KPMG in Poland based on the Ministry of Economy report "Information on the implementation of the Act on Special Economic Zones" and forecasts provided by SEZ boards

Jobs in SEZs (thousand)



(f): forecast

Source: KPMG in Poland based on the Ministry of Economy report "Information on the implementation of the Act on Special Economic Zones" and forecasts provided by SEZ boards

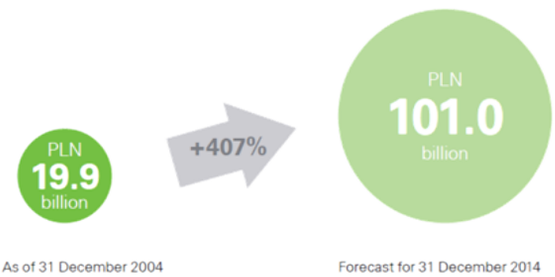
Capital expenditures in SEZs (in PLN billion)

(f): forecast

Source: KPMG in Poland based on the Ministry of Economy report "Information on the implementation of the Act on Special Economic Zones" and forecasts provided by SEZ boards

Effects of SEZs

Accumulated value of investments in SEZs



Source: KPMG in Poland based on the Ministry of Economy report 'Information on the implementation of the Act on Special Economic Zones' and forecasts provided by SEZ boards

Effectsof SEZs' operation as at December 31, 2012

SEZ	Total SEZ area (ha)	Number of permits	Number of cities/ communes		Capital expenditures amount (mEUR)	Number of new jobs	Number of jobs Maintained
Kamienna Góra	367.14	50	7	8	442	4,545	245
Katowice	2,004.83	227	21	18	4,665	38,037	11,897
Kostrzyrisko-Slubicka	1,454.47	130	7	27	1,124	13,443	6,701
Kraków	558.72	77	8	13	425	6,398	3,174
Legnica	1,059.26	56	5	8	1,306	9,311	254
Lódz	1,276.63	163	22	25	2,376	19,085	6,836
Mielec	1,246.00	168	14	9	1,342	17,153	3,781
Pomorska	1,323.23	91	12	11	1,741	11,985	3,551
Slupsk	824.35	50	5	8	280	2,800	832
Starachowice	612.91	72	5	10	391	3,889	3,215
Suwalki	342.77	65	4	3	377	5,093	195
Tarnobrzeg	1.632.31	144	10	26	1,753	20,635	9,388
Walbrzych	2.212.20	186	16	31	3,476	25,689	6,703
Warminsko-Mazurska	914.51	66	11	15	739	8,224	4,392
TOTAL	**15,829.33**	**1,545**	**147**	**212**	**20,436**	**186,287**	**61,164**

Source: Ministry of Economy

Evaluation of the SEZs

The fact that Poland's economy is among the fastest growing ones across the European Union can also be credited to the existence of special economic zones. As a result of investments within SEZs a few hundred thousand new jobs were created. Structural unemployment was reduced in regions with relatively low level of advancement but also in those parts of the country which were most severely hit by the side effects of the economic transition after the collapse of communism. The existence of SEZs has largely contributed to the revitalisation and development of huge greyfield areas which were lying fallow after a wave of bankruptcies of manufacturing plants in the early 1990s. Statistics which show the number of newly created jobs and the value of capital expenditures are not sufficient to give a full picture of the positive effects arising from the existence of special economic zones.

During the last two decades SEZs became one of the key tools in the effort to build a modern and competitive economy. The advantageous terms of business in SEZs attracted many high tech investors, including global leaders in their respective industries. Their presence creates a huge market for local suppliers, enabling the flow of know-how and growth of innovative, highly specialised branches of the economy in Poland.

The Polish SEZs are also very well evaluated considering all economic zones in the world. Five out of 14 Polish SEZs were classified in the global ranking of top 50 special economic zones prepared by the British fDi Magazine of the Financial Times – "Global Free Zones of the Future 2012/2013". The best result belongs to the Katowice SEZ, which was ranked 2nd in Europe and 11th globally.

Other Polish SEZs that were included in the ranking of top 50 economic zones are the Łódź SEZ (18th globally and 3rd in Europe), the Wałbrzych SEZ (22nd globally and 4th in Europe), the Pomorska SEZ (35th globally and 5th in Europe) and the Starachowice SEZ (37th globally and 7th in Europe). In the ranking it was emphasized that European economic zones are distinguished from other zones especially by the high quality of infrastructure and the developed network of all forms of transportation.

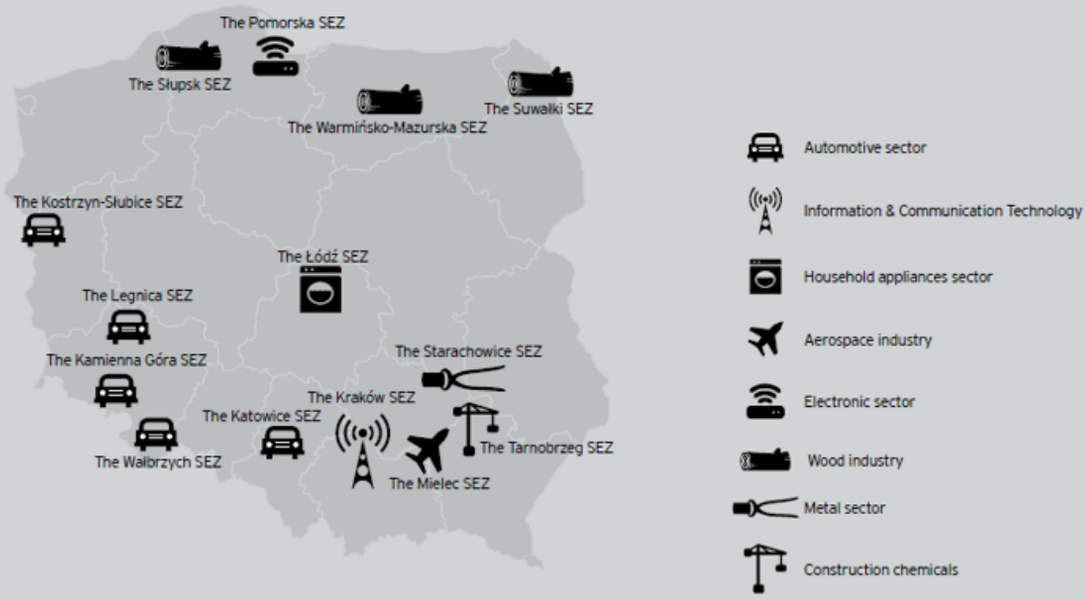
Business activity on the territory of SEZ

According to Ministry of Development's data for 2015, the automotive industry is the leading sector in 4 out of 14 SEZs in Poland. These zones include: Katowice SEZ, Kostrzyn-Słubice SEZ, Legnica SEZ and Wałbrzych SEZ. Among the fifteen largest entrepreneurs conducting business activity within the territory of SEZs, the top five belong to the automotive industry. Altogether, eight out of fifteen leading investors operate in the automotive industry. All major investors are companies with foreign capital, among others from the USA, Japan, Switzerland, the Netherlands, Germany and Belgium.

Nevertheless, taking into account the country of origin of the capital, Polish investors have slight advantage over the others – in total the amount of their expenses is almost 20% of funds invested in SEZs.

Over 26.5% of total investment expenditures within the territory of SEZs was incurred by enterprises from the automotive sector (based on Ministry of Development's data).

The map below presents the main seats of all Polish SEZs, along with their main specialization meaning the predominating sector



Public support in business operation stage Grants

During the operational phase it is possible to apply for support for ongoing business activities among others for research & development, innovation, energy and environmental protection.

With regard to R&D, activities directed at producing new or improved products, technologies or services that usually conclude with the creation of a prototype, plan or design will be eligible for funding in the form of grants and repayable instruments from national as well as regional operational programmes. Innovation is understood as the the implementation of new or significantly improved products, processes, marketing or organizational methods in business practice. This includes products, processes and methods that the company is the first to develop and those that have been adopted from other companies or organizations. Depending on the size of the company, the level of support reaches up to 65% of eligible costs for large enterprises, 75% of eligible costs for medium-sized enterprises and 80% of eligible costs for small and micro enterprises.

Businesses can also apply for the co-financing of investment projects promoting clean energy, energy efficiency and environmental actions, both at the energy production/distribution stages and in manufacturing processes (e.g. investments leading to reduction of consumption of raw materials). Support is addressed to projects involving the efficient use of resources (e.g. replacement of old production lines with new ones,), creating an energy-efficient economy, reducing emissions (e.g. modernization of heat sources) and renewable energy sources (RES).

Small and medium enterprises (SMEs) are provided with specific support instruments. Recognizing their particular significance for building sustainable economic growth, programmes were designed to facilitate the implementation of innovative technologies by such entities, encourage cooperation between business and science and implement environmental solutions. When planning the project co-financed with public funds it is important to monitor the dates of calls within certain programmes/ measures. The schedules are dynamic and can be updated during the year.

Tax incentives for R&D activities

In Poland entrepreneurs may currently take advantage of two types of tax incentives for R&D activities:

1. R&D center status - The status of an R&D center may be granted to entities with revenue generated from sales of goods and products and from financial operations worth at least EUR 1,200,000, where mininum 20% is generated from sales of the results of own R&D activity. Additionally, there is a requirement to have no tax or social security arrears. The centers may create the so-called 'innovativeness funds' – up to 20% of their monthly revenue can be allocated to the fund and recognized as tax deductible costs for CIT purposes. The requirement necessary create the fund is that its resources must cover the expenses associated with its own R&D activity

2. R&D Tax relief - From 1st January 2016, businesses have the opportunity to benefit from new tax reliefs for carrying out R&D activities. The bonus in in the form of an additional set-off of eligible costs against taxable income in the amount of:

- 30% of salaries of employees engaged in research and development activities,
- 20% (SME) or 10% (large enterprises) of other related expenses on research and development activities: purchase of raw materials used for the R&D works; expertise, researches, opinions and advisory services; payments for usage of research equipment; depreciation of fixed assets and intangible assets used for R&D works excluding passenger cars, buildings and constructions.
- The costs of R&D activity have to be shown separately in the accounts. Eligible costs are listed in the tax return. Because in contrast to grants, in the case of tax relief for R&D, a review of the eligibility for relief occurs only during tax inspections, it is important to: ensure correct identification of projects and eligible costs and possess documents confirming carrying out of research and development projects and the legitimacy of assigned costs.
- From 2017 it is planned to increase the amount of relief up to 50%. In contrast to R&D grants, tax relief covers incurred costs. The relief will not apply to taxpayers running their activity in SEZ territory on the basis of SEZ permit during.

Tax incentives for R&D activities

There are aid schemes designed to help employees and entrepreneurs raise their qualifications and adjust their skills to market requirements.

“General training” involves tuition which is not applicable only or principally to the employee’s present or future position in the company, but which provides qualifications which are largely transferable to other companies or fields of work and thereby substantially improve the employability of the employee.

“Specific training” in turn involves tuition directly and principally applicable to the employee’s present or future position in the company and provides qualifications which are not or only to a limited extent transferable to other companies or fields of work.

Maximum support levels are shown in the table below.

General training	Small enterprises - up to 80%
	Medium enterprises - up to 70%
	Large enterprises - up to 60% of eligible expenses
Specific training	Small enterprises - up to 45%
	Medium enterprises - up to 35%
	Large enterprises - up to 25% of eligible expenses

Polish employers are also able to obtain partlial refunds for the costs of training for newly-hired staff previously registered as unemployed (the maximum amount is 50% of the total training cost but no more than the national average wage; for individuals aged 45 and above, it is up to 80% but no more than 300% of the national average wage). to 50%. In contrast to R&D grants,

Grants under INNOMOTO Programme

Companies from the automotive sector will be able to receive cash grants under a programme dedicated exclusively to the automotive industry – INNOMOTO.

The aim of the Programme is to improve the Polish automotive sector's competitive position in world markets by strengthening the capacity to generate innovative solutions.

The Programme was officially unveiled on June 23, 2016 during a conference at the Ministry of Development.

The support under INNOMOTO will be awarded for research and development projects undertaken by the automotive industry. The support will be available for companies and consortiums of companies.

The maximum level of support will amount to 80% of eligible costs. In the first call for proposals, which will begin on October 5, 2016 and is scheduled to close on November, 21 2016, the National Centre for Research and Development will allocate EUR 57 million for innovative projects. At the moment it is not known whether there will be more calls for proposals under the Programme. The planned call may be a unique opportunity to support the planned project.

Laws and Regulations Regarding Foreign Investments

The legal concept of "doing business" is best described in Polish law in the Act on Freedom of Economic Activity (2004), which defines economic activity as "manufacturing, construction, trading, provision of services, the search for, identification and extraction of natural resources, as well as professional activity pursued for the purpose of gaining profit and conducted in an organised and continuous manner". The Act also states that undertaking and pursuing economic activity shall be free and allowed to everyone on equal terms subject to conditions specified in the law.

This definition of "doing business" also applies to foreign investors undertaking economic activity in Poland. However, there are differences between investors from EU and EFTA member countries and those from other countries.

Investors from EU and EFTA member countries or from countries, which have entered into specific international agreements with the EU may conduct economic activity on the same terms as Polish citizens.

Other investors may conduct economic activity on the same terms as Polish citizens only if they hold specific permits, e.g. that legalise their stay in Poland and allow them to conduct commercial activity. Such investors may conduct economic activity by:

- establishing limited partnerships, limited joint-stock partnerships, limited liability companies and joint-stock companies

- purchasing and acquiring shares in such companies.

Legal forms of doing business in Poland

The main legal forms available for doing business in Poland are listed below. All these forms are available to Polish investors and foreign investors based in EU and EFTA member countries or countries which have entered into specific international agreements with the EU:

- joint-stock company (spółka akcyjna – S.A.)
- European Company (Societas Europea) (Spółka Europejska – SE)
- limited liability company (spółka z ograniczoną odpowiedzialnością – sp. z o.o.)
- limited joint-stock partnership (spółka komandytowo-akcyjna – S.K.A.)
- registered partnership (spółka jawna – sp.j.)
- limited partnership (spółka komandytowa – sp.k.)
- professional partnership (spółka partnerska – sp.p.)
- sole proprietorship (indywidualna działalność gospodarcza)
- European Economic Interest Grouping (Europejskie Zgrupowanie Interesów Gospodarczych – EZIG)
- civil law partnership (spółka cywilna) – all the partners in this type of partnership have to be registered as individuals jointly pursuing economic activity. Therefore, such a partnership is not a separate business entity though it may be used for joint investment projects or consortia.

Conducting Business in Turkish Automotive Industry

Turkish government explicitly declares intentions to develop automotive industry to become one of the leading car manufacturers in the world.

Regardless of the location of the investment, all automotive industry investments in Turkey (including sub industry investments) are supported by several measures. Local and foreign investors have equal access to.

Regional Investments Incentive Scheme Measures

Incentive Item		Region I	Region II	Region III	Region IV	Region V	Region VI
VAT exemption		+	+	+	+	+	+
Custom duty exemption		+	+	+	+	+	+
Tax reduction as of investment contribution rate	Out of OIZ	15%	20%	25%	30%	40%	50%
	Within OIZ	20%	25%	30%	40%	50%	55%
Social Security Premium Support (employer's share)	Out of OIZ	2 Years	3 Years	5 Years	6 Years	7 Years	10 Years
	Within OIZ	3 Years	5 Years	6 Years	7 Years	10 Years	12 Years
Land allocation		+	+	+	+	+	+
Interest support	Local loans	-	-	3 Points	4 Points	5 Points	7 Points
	Foreign currency loans			1 Points	1 Points	2 Points	2 Points
Social Security Premium Support (Employee's Share)		-	-	-	-	-	10 Years
Income Tax Withholding Allowance		-	-	-	-	-	10 Years

Conducting Business in Turkish Automotive Industry

Various governmental and industrial institutions provide additional incentives

Institution	SME or General	
KOSGEB	SME	Gives R&D, innovation and industrial application incentives.
TÜBİTAK	General	Uses industry incentives by Ministry of Economy; R&D investments receive R&D tax discount of %100 as of 2008; the companies that use law no:5746 discount cannot use law no:5520 discount at the same time.
Ministry of Science, Industry, and Technology	General	Supports attempts of cumulative industrialization with legislation called "Cumulative Support Program Legislation"; support amount provided by ministry without payback, for business plan cannot be more than 50% of budget, while for each supported area cannot be more than 75% of the budget.
TTGV	General	Supports two types of R&D projects •Technology development projects support (suspended in current in 2013): "Technological product" and "Technological Process Innovation" , classified as R&D projects are supported; maximum support is 1 million USD, maximum support duration is 2 years and supports need to be paid-back •Advanced technology projects support: Companies applying for this support have R&D projects in food processing, biomedical, or climate control technologies); manufacturing and software companies are targeted and can receive a maximum support of 3 million USD to be paid back in three years.

Poland vs Turkey

Categorization	Poland	Turkey
Based on new job creation and level of capital expenditure	x	
Based on General, Regional, Large Scale and Strategic Investment		x

Sector Based Categorization in Poland :

- Automotive
- Biotechnology
- Electronic
- R&D Activity
- Aviation
- Siginificant invetments

Sector Specific Incentive for only Renewable Energy in Turkey.

Both Poland and Turkey offer equally attractive incentive Poland offers the added advantage of receiving more generous EU grants and offers a more stable currency.

Tax incentives	Poland	Turkey
VAT exemption		x
Real Estate Tax exemption	x	
Tax Exemptions in Specific Economic Zones	x	x
Tax exemptions in Technolgy Development Zones		
Tax Incentives for R&D	x	x

Other incentives	Poland	Turkey
Interes Rate Support		x
Custom Duty Exemption		x
Export Support		x
Support for training	x	
Social Security Premium Support		x

3. Labor Costs in Automotive Sector

Summary

Directly, the automotive production sector in 2015 employed 172 thousand (an increase of 3.3% against 2014), this represents 6.8% of all employment in manufacturing. Taking into account the employment in related industries, transport and services, effectively, employment in the automotive industry amounts to approximately one million people.

Employment costs in the automotive sector are competitive and constitute 25.1% to 29.3% of the EU average.

The average monthly salary amounted to EUR 977 in 2014, with EUR 1,420 in the production of cars and vehicles and EUR 883 in the production of parts and components.

Labour efficiency in the automotive sector is approx. 30% higher than in the entire processing industry. An average employee in the automotive sector creates EUR 155 thousand per year, while the average for the Polish industry as a whole is EUR 108 thousand.

Labour market in general

When comparing to other EU countries, alongside the requirements of the manufacturing sector, it is apparent that Poland offers favourable investment conditions.

Employment Costs

As graph below shows, Poland offers some of the lowest labour costs in the EU.

What is even more important, labour costs in Poland are growing at a much slower pace than those in Romania and Bulgaria. We may assume that, with average growth rates of 8.7% and 12.3% respectively, costs in these countries will be rising at a very fast pace. The changes that have occurred in the labour costs over the period of the last 6 years (2008=100) are presented below.

Source: Hays analysis based on Eurostat, 2014

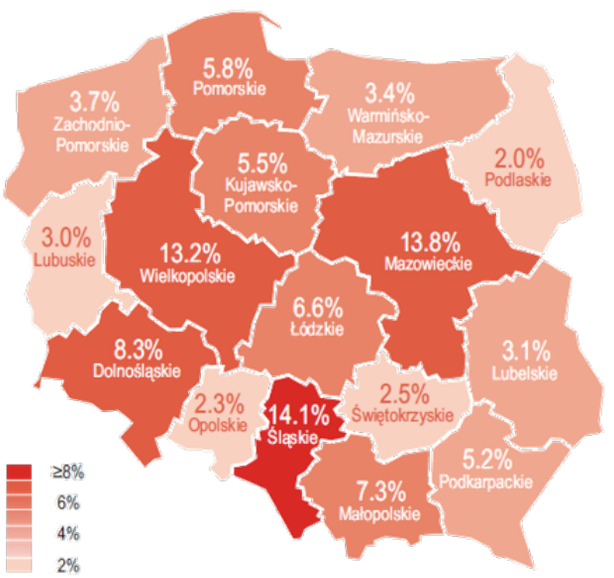
Source: Hays analysis based on Eurostat, 2014

Employment in the Manufacturing Sector

In 2014 there were over 370,000 organisations operating in the manufacturing sector in Poland, employing more than 2.3 million people, in excess of a quarter of whom were working in the Mazowieckie and Śląskie regions alone. Other important manufacturing regions in Poland are Wielkopolskie and Dolnośląskie, as shown on the map below.

Third largest sector in Poland in terms of employment is the automotive sector, which in 2014 employed over 200,000 people, which also has the largest average number of employees per company – 34 in one entity.

The Share of Individual Regions in the Employment in the Manufacturing Sector in 2014



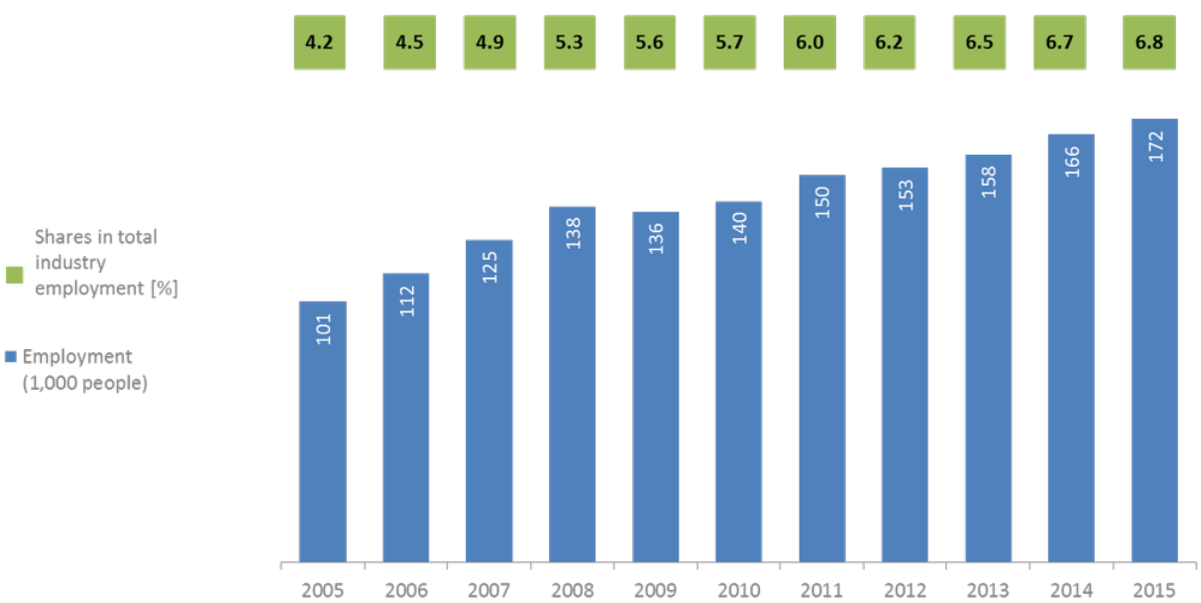
Source: Hays analysis based on Central Statistical Office

Employment in the Manufacturing Sector by Industry in 2013

Source: Hays analysis based on Central Statistical Office

Employment in Automotive Industry

As a consequence of a large number of investment projects, employment in automotive manufacturing has been constantly growing in the last years, even despite wavering production results. In 2015, automotive plants increased by 3.3%, up to 172,000. Higher employment was only recorded in manufacturing of metal products (244,000) and the food industry (362,000). In total, automotive manufacturing accounts for 6.8% workplaces in the whole Polish industry.



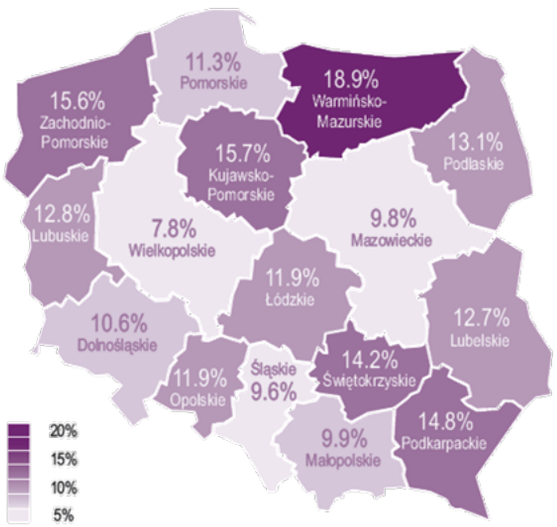
Unemployment

At the end of October 2015 Poland's unemployment rate was 9.6%: 0.1 percentage points lower than in September 2015 and 1.7 percentage points lower than the same month in 2014.
The total number of registered unemployed persons in Poland at the end of Q4 2015 was over 1.55 million. This represents a significant readily-available talent pool.

When analysing the Polish unemployment map, the differences between regions are significant. The more developed regions, such as Wielkopolskie, Mazowieckie and Śląskie, have an unemployment rate of below 10%, while in some less developed regions, such as Warmińsko-Mazurskie and Kujawsko-Pomorskie, this rate is often above 15%.

As mentioned previously, the unemployment map can show the parts of the country where there is an accessible labour force, although it is worth considering that there are certain sub-regions in some of the most developed regions that also have high unemployment rates (such as Radomski, near Warsaw, and Bytomski in Śląskie). These regions can enable an investment to be made near a major hub, such as Warsaw, whilst also providing easy access and cheaper costs of the labour force, particularly when hiring blue-collar workers.

Average Unemployment Rate in Poland in Q1-Q3 2015 by Region

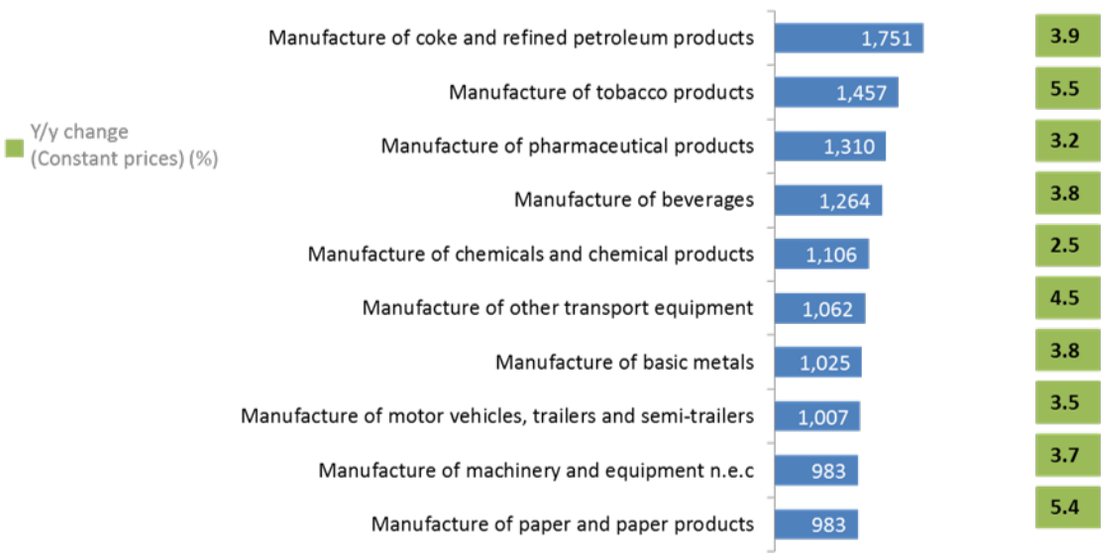


Source: Hays analysis based on Central Statistical Office

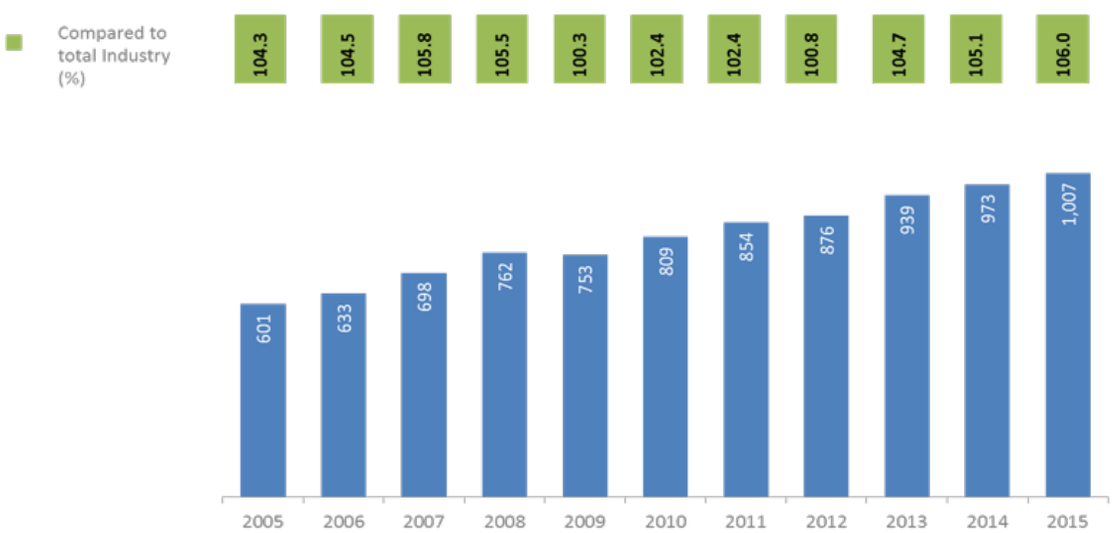
Average Monthly Gross Wages and Salaries

Together with employment growth, there was an increase in average monthly gross wages and salaries in automotive manufacturing. In 2015, it amounted to EUR 1.007, up by 3,5% compared to the previous year. Average gross wage in the sub industry, on the other hand, was EUR 1.023 in Poland. Same figures in Turkeys amounted to EUR 740 and and EUR 732.

Average monthly grass wages and salaries in manufacturing industry in 2015 (EUR)



Manufacture of motor vehicles, trailers and semi-trailers - average monthly gross wages and salaries (EUR)

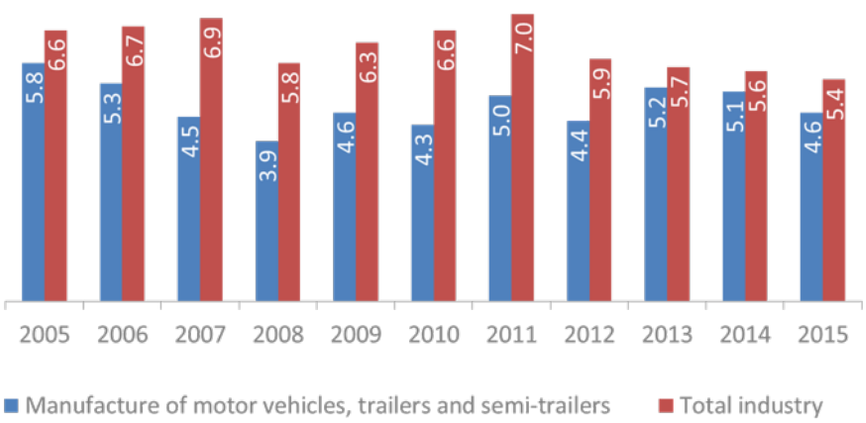


Labor Costs

Labor costs in automotive manufacturing remain relatively high, amounting to 106.0% of the average in the entire industry and 114.5% of manufacturing in 2015. Comparable labor costs are recorded in manufacturers of metal and manufacturers of machinery and equipment.

In 2015, automotive manufacturers' nominal (in current prices) output grew significantly faster than employment. As a result, labor productivity (understood as annual value of nominal sold production per employee) increased by 6.5%, to EUR 164,500. Also in this respect, automotive manufacturing remained one of the most efficient sectors of manufacturing industry. On the other hand, return on sales in automotive manufacturing, according to GUS data, stood at 4.6% in 2015, less than in 2014 (5.1%).

Sales Profitability (%)



Labour Costs in Automotive Industry

	Poland Main Industry	Poland Sub Industry	Turkey Main Industry	Turkey Sub Industry
Per year	EUR 15.479	EUR 15.237	EUR 9.716	EUR 9.564
Per month	EUR 1.290	EUR 1.270	EUR 810	EUR 797
Per day	EUR 69	EUR 68	EUR 43	EUR 43
Per hour	EUR 8,6	EUR 8,5	EUR 5,4	EUR 5,3
Per minute	EUR 0,142	EUR 0,14	EUR 0,09	EUR 0,089

Social Security Contributions

The second element of total labor costs are social security contributions. The average level of those in Poland is approximately 20% of gross annual salary. The final amount depends on the company's type of activity (that influences the size of the contribution to the Injury Fund) and the employee's salary (the contributions are significantly lower after crossing the threshold of EUR 27,550 of annual salary).

The amounts of the contributions to various funds is presented in table above.

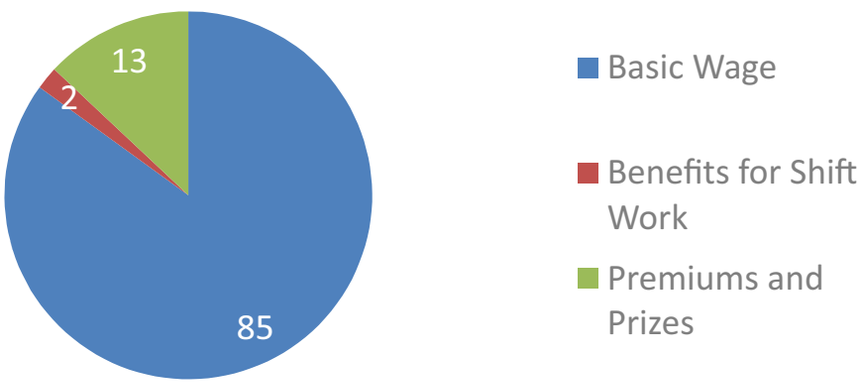
It is also worth noting that Social Security Contributions are significantly lower in Poland that in other CEE countries, such as Slovakia (35.2 %), the Czech Republic (34%) and Hungary (28.5%).

Employers' National Insurance Contributions

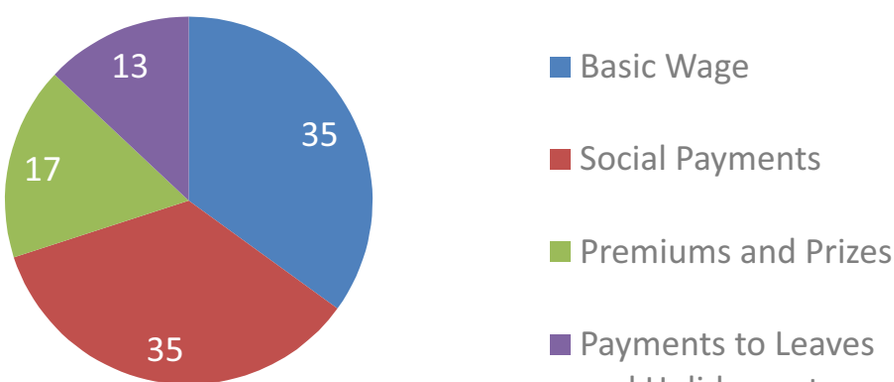
National Insurance System	Employer's Contribution for salary up to EUR 27,550	Employer's Contribution above EUR 27,550
Pension	9.76%	-
Annuity	6.50%	-
Sickness	-	-
Injury	0.40% - 3.60%	0.4% - 3.60%
Unemployment	2.45%	2.45%
Employee Guaranteed Fund	0.10%	0.10%
Health	-	-
TOTAL	19.21% - 22.41%*	2.95% - 6.15%*

Distribution of Labor Costs in Automotive Industry

Distribution of Labor Costs (%) Poland



Distribution of Labor Costs (%) Turkey



Gross Monthly Salary Ranges for Manufacturing Roles

The two most important components of employer costs are salaries and social security contributions. The salary ranges for roles typical for manufacturing companies in Poland are presented.

It is worth noting that salary levels can increase when seeking specialists with niche skills and/or when relocation is required.

	MIN	OPT	MAX
Plant Manager (up 100 FTEs)	3,000	4,000	5,000
Plant Manager (100-500 FTEs)	3,700	5,900	8,000
Plant Manager (more than 500 FTEs)	6,800	7,950	9,050
Production Manager	1,900	2,700	4,550
Shift Leader (Mistrz) (50-100 FTEs)	1,000	1,600	2,050
Production Planner (3-5 years of exp.)	900	1,350	1,800
Quality Manager	2,150	3,150	4,550
Quality Process Engineer (3-5 years of exp.)	1,150	1,450	2,050
Supplier Quality Assurance Engineer (3-5 years of exp.)	1,150	1,600	2,050
Customer Quality Engineer (3-5 years exp.)	1,150	1,600	2,050
Engineering Manager	2,600	3,300	4,550
Production / Process Engineer (3-5 years of exp.)	1,150	1,700	2,250
Project Manager	1,900	2,950	4,550
Project Engineer (3-5 years of exp.)	1,250	1,800	2,500
Lean Manager	2,600	3,600	5,650
Black Belt	2,250	3,200	4,550
Lean Manufacturing Engineer (3-5 years of exp.)	1,250	1,800	2,500
Maintenance Manager	1,700	2,850	4,100
Maintenance Engineer (3-5 years of exp.)	1,150	1,600	2,250
Tooling Engineer (3-5 years of exp.)	1,600	2,050	2,700
Electrician (3-5 years of exp.)	1,000	1,350	1,700
Mechanic (3-5 years of exp.)	1,000	1,350	1,800
Design Engineer (3-5 years of exp.)	1,150	1,600	2,250
EHS Manager	1,800	2,600	4,100
EHS Specialist (3-5 years of exp.)	1,150	1,600	2,250
Purchasing Manager	2,050	3,200	4,550
Purchasing Specialist (3-5 years of exp.)	1,000	1,450	2,050
Commodity Buyer	1,700	2,400	3,400
Project Buyer	1,700	2,150	2,700
Logistics Manager	1,900	3,050	4,050
Logistics Specialist (3-5 years of exp.)	1,000	1,350	2,050
Warehouse Manager	1,350	1,900	2,950
Transport Manager	1,350	2,150	2,950

Source:
Hay s Poland Salary Survey

Gross Monthly Salary Ranges for Manufacturing Roles

When assessing employment costs, the variations between average salaries in each Polish region should also be considered. Salary levels mostly depend on the development of each region, as well as the type of industry situated in that particular area. This is why the highly industrialised Śląskie and Dolnośląskie regions have average salaries within the manufacturing sector that are up to 20% higher than the poorer and less developed regions of eastern Poland, such as Lubelskie and Podkarpackie (according to data from GUS for the first quarter of 2015).

Average Gross Wages and Salaries by Occupational Groups

	Poland Main Industry	Poland Sub Industry	Turkey Main Industry	Turkey Sub Industry
Managers	EUR 2.931	EUR 2.885	EUR 2.586	EUR 2.546
Professionals	EUR 1.413	EUR 1.408	EUR 1.790	EUR 1.766
Technicians and Associate Professionals	EUR 1.159	EUR 1.131	EUR 1.099	EUR 1.087
Clerical Support Workers	EUR 861	EUR 850	EUR 753	EUR 736
Service and Sales Workers	EUR 621	EUR 619	EUR 670	EUR 669
Craft and Related Trades Workers	EUR 923	EUR 908	EUR 642	EUR 639
Plant and Machine Operators and Assemblers	EUR 755	EUR 742	EUR 613	EUR 612
Elementary Occupations	EUR 638	EUR 638	EUR 556	EUR 556

Source: MIMSA and Xsight's own elaborations

Gross Monthly Salary Ranges

Unionization in Poland is not a significant determinant of wages. There are not statistically significant differences between union and non-union workers in the automotive industry. On the other hand, In Turkish automotive sector, monthly gross average wages in factories covered by collective agreement can be up to 30% higher than factories not covered by collective agreement.

Average Gross Wages and Salaries by Seniority				
	Poland Main Industry	Poland Sub Industry	Turkey Main Industry	Turkey Sub Industry
up to 1,9 year	EUR 772	EUR 760	EUR 743	EUR 731
2,0 ? 4,9	EUR 832	EUR 829	EUR 358	EUR 353
5,0 ? 9,9	EUR 1011	EUR 987	EUR 965	EUR 955
10,0 ? 19,9	EUR 1.144	EUR 1.129	EUR 1.056	EUR 1.032
20 years and more	EUR 1.034	EUR 1.018	EUR 1.148	EUR 1.146

Compensation for Termination of Employment Contract

In general, an employment contract can be terminated:

- by mutual agreement of the parties
- by one of the parties observing a notice period (termination with notice)
- by one of the parties without observing a notice period (termination without notice, possible only in the cases specified in the Labour Code)
- at the end of the period for which it was concluded or on completion of the task for which it was concluded.

Declarations of both parties on termination of an employment contract (with or without notice) must be made in writing.

Any declaration by an employer on termination of a non-fixed term employment contract or on termination of an employment contract without notice should give reasons for the contract being terminated.

In general, if an employment contract is unlawfully or unjustifiably terminated by the employer, the employee is entitled to bring a claim in a labour court for:

- reinstatement on former conditions, or
- due compensation.

However, the final decision as to which of these two employee rights will be applied in an individual case lies with the court.

It is important to note that, because the governmental statistical institutions offer only limited data a further detailed labor cost analysis requires quantitative research methods.

4. Taxes on Automotive Sector

Car registration

In general, a car needs to be registered before it is admitted into free circulation on Polish public roads. Moreover, in cases where a vehicle's owner changes and a vehicle is intended to be used on the Polish public roads, a new application for registration of this vehicle needs to be submitted to the proper local authorities.

Additionally, Polish law provides for special regulations concerning a situation when the vehicle registered abroad is purchased by a Polish resident and delivered to the territory of Poland. Please note that in order to register such a car inter alia the following documents are required:

- Confirmation of recycling fee payment
- Confirmation of excise duty payment (for passenger vehicles)
- The registration is performed upon the request of
- the legal owner of the car;
- the Polish user of the car – in cases where a foreign entity put the vehicle at the Polish user's disposal (e.g., upon the lease or rental agreement);
- the plant or separate business unit manager authorised by the owner – in cases where the vehicle is owned by a multi-plant firm or other entity which consists of separate business units.

Registration of imported cars

Such a request should be submitted to the proper local authorities. Polish provisions do not specify any special conditions to be met in order to register a vehicle by a foreign owner. However, there may be some difficulties concerning the determination of the proper local authorities in Poland.

Number plates used in Poland

A vehicle with a foreign number plate can be used on public roads, provided that

1. the vehicle meets certain technical conditions,
2. the vehicle has number plates with Latin letters and Arabic numbers,
3. the user of this vehicle possesses a document confirming registration of the vehicle in a foreign country
4. the vehicle should have a symbol showing the country in which it is registered.

Vehicle imported from the territory of a non-Member of the European Union, after the release of the vehicle by the Customs Service is approved for use for a period of 30 days.

However, in cases where a vehicle registered abroad was purchased by a Polish resident and delivered to the territory of Poland, such a vehicle should be registered in Poland within 30 days after the delivery and foreign number plates should then be replaced by the Polish ones.

Car Taxation

According to the Polish law, the following taxes/fees are due with regard to cars:

1. Excise duty on passenger cars supplied before their first registration in Poland
2. Car registration fees
3. Tax on transportation means
4. Fee for using the national roads
5. Value-added tax (VAT)

1. Excise duty on passenger cars sold before their first registration in Poland

1.1. Taxable event

Excise duty is due in case one of the following transactions regarding a passenger car is performed before its first registration in Poland:

•Sale – tax point arises when an invoice is issued, but not later than within seven days after the delivery of a car

•Import – tax point arises when the customs debt arises

•Intra-Community acquisition – as a rule, tax point arises

- at the moment of transferring the right to dispose of a car as an owner– if the right to dispose of the car as owner was acquired after the car was moved to the territory of Poland;
- at the moment of transferring a car to Poland – if the right to dispose of the car as owner was acquired before the car was moved to the territory of Poland;
- at the moment of filing the application for registration of the car in Poland, pursuant to the provisions on road traffic – if the person (entity) applying for registration of the car in Poland is not its owner.

•Starting from March 1, 2009, the excise duty on passenger cars became a socalled one-phase tax. This means that the above transactions are subject to excise duty only in case the excise duty has not been settled at the earlier stage of turnover (e.g., the sale of a vehicle would not be subject to excise duty if excise duty has already been settled upon intra-Community acquisition or importation of this vehicle).

1.2. Taxable person

As a rule, taxable persons can be

- a person/entity who sells a passenger car (before it was registered for the first time on the territory of Poland)
  - which was produced in Poland or
  - with regards to which excise duty has not been paid as a result of the activities mentioned in above points;
- importers as well as persons/entities performing an intra-Community acquisition of a passenger car in Poland.

1.3. Tax due

Generally, the excise rate depends on car's engine cubic capacity and amounts to

- 18.6% – in case when the engine capacity exceeds 2,000cc or
- 3.1% – in case when the engine capacity is lower or equal to 2,000cc.
- No excise duty should be paid upon the intra-Community acquisition or first sale of vehicles in Poland in case the vehicles are subsequently exported from Poland within 30 days following the intra-Community acquisition or sale.

Car Taxation

2. Car registration fees

2.1. Chargeable event

- The fee for issuing the registration card along with stickers as well as the fee for issuing number plates are charged every time the vehicle is registered or reregistered (e.g., as a consequence of change of the vehicle's ownership).
- Additionally, if the car is registered for the first time in Poland, the fee for issuing the vehicle card is charged.

2.2. Chargeable person

- The fees should be settled by a person who is requesting the registration of a vehicle. Amounts of fees:

Amounts of fees

Fee	Amount
Fee for issuing the registration card along with stickers	19.25 EUR
Fee for issuing tnumber plates	18.15 EUR
Fee for issuing vehicle card	17.00 EUR

3. Tax on transportation means

3.1. Taxable

In general, the tax on transportation means concerns

- lorries and semi-trailer trucks if their maximum total weight exceeds 3.5t,
- trailers if their maximum total weight along with the vehicle exceeds 7t,
- buses.

The tax should be declared, in principle, in the tax return submitted on an annual basis (by February 15 every year). However, this tax is payable in two instalments. The first instalment should be paid by February 15, and the second one by September 15.

3.2. Taxable person

The fee is payable by the legal owner of the vehicle. As a legal owner is also treated an entity without legal personality for which the vehicle is registered and entities being users of vehicles registered in Poland, which were entrusted to them by the foreign individual or legal entity.

3.3. Tax due

For the year 2015, the transportation tax on lorries, semi-trailer trucks and trailers is based on the maximum total vehicle's weight, whereas the tax on buses is based on number of seats. The

Means of transport	Size	Maximum annual rate [PLN]
Lorries	Above 3,5t up to 5,5t	821,45
	Above 5,5t up to 9t	1370,38
	More than 9t but less than 12t	1644,45
	Equal or above 12t	3138,07
Semi-trailer trucks	3,5t up to 12t	1918,50
	Above 12t up to 36t	2425,51
	Above 36t	3138,07
Trailers	7t but less than 12t	1644,45
	Equal or above 12t up to 36t	1918,50
	Above 36t	2425,51
Buses	Less than 30 seats	1918,50
	30 seats or more	2425,51

Car Taxation

4. Fee for using the national roads

4.1. Taxable event

The fee for using the national roads is due for vehicles with a certain gross mass (maximum total weight exceeding 3.5t) and buses.

4.2. Taxable person

The fee is payable by a person performing transport on the national roads.

4.3. Tax due

In July 2011 Poland launched the electronic system of charging the fees for using the national roads for transport indicated under relevant provisions. It covers fees due on vehicles with a maximum total weight exceeding 3.5t and buses. The fees are charged based on the distance driven on the road covered by the system and the rates are in PLN per kilometre.

The rates vary depending in particular on the

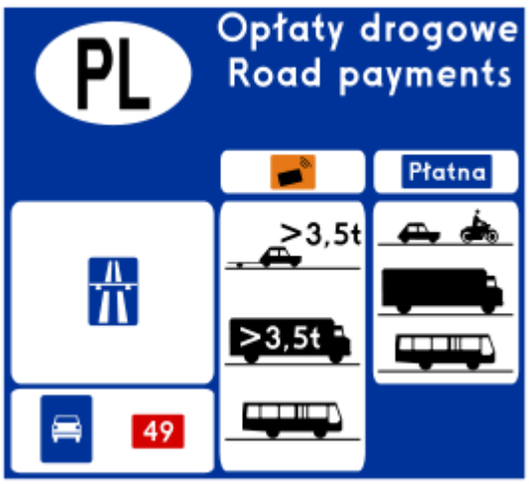
- category of vehicle,
- maximum total weight of a vehicle and
- exhaust fumes emission class.

Persons performing transport on the national roads should possess an electronic device that records the distance covered by a given vehicle.

5.1. Level of deduction of car-related expenses

A passenger car is a road vehicle with a maximum total weight of 3.5 tonnes designed to transport no more than nine persons including the driver except for

- vehicles having one row of seats separated from the cargo hold with a wall or another fixed partition, classified as multi-purpose cars or vans;
- vehicles having one row of seats with an open cargo hold;
- vehicles having driver's cabin with one row of seats and cargo hold body as two separate constructions;
- vehicles of a special purpose, e.g., truck-mounted cranes, excavators etc.



viaTOLL

5.1.1. Regulations concerning passenger cars

- The part of depreciation write-offs calculated on the initial value of a passenger car exceeding the PLN equivalent of 20,000 EUR does not constitute tax deductible cost. Moreover, CIT Law limits the deductibility of insurance premiums for a passenger cars, the value of which exceeds 20,000 EUR (only part of share premiums is tax deductible).
- Based on the Polish CIT Law, the expenditures related to the use of a car, which does not belong to the taxpayer, constitute the tax deductible costs up to the limit calculated as a number of business kilometre travelled multiplied by a rate per kilometre or, in particular cases, up to the monthly lump-sum limit. The above-mentioned expenditures include e.g., fuel or costs of repairs.
- According to the latest tax authorities' position the costs of rental payments should be treated as tax deductible without any limitation.
- Regardless of the above, in the case of an operational lease the whole amount of lease fee paid by the lessee constitutes his tax deductible cost.

Car Taxation

5.1.2. Regulations concerning trucks
In the light of the Polish CIT provisions,

- depreciation write-offs and insurance premiums relating to trucks constitute tax deductible costs in full amount and
- costs of use of a rented truck are fully deductible for tax purposes

5.1.3. Loss or liquidation of a vehicle

In case of any damage to or liquidation of a vehicle, which was not covered with the voluntary insurance, any losses or repair costs after the car accident do not constitute tax deductible costs.

5.2. Leasing

In the table is a summary of general information concerning conditions that need to be fulfilled in order to classify an agreement related to a lease of a vehicle as an operational or financial lease under the CIT Law and tax consequences resulting from the above-mentioned classification.

Classification of leasing agreements for C

	Operational lease	*Financial lease*
Period for which agreement must be concluded	A fixed period of time, however, not shorter than two years.	A fixed period of time.
Payments	Total amount of lease payments must be equal or higher than the initial net value of the leased vehicle (i.e., net of VAT) or (if the next leasing agreement pertaining to this vehicle is signed) equal to its market value at the date of the next leasing agreement	Total amount of lease payments must be equal or higher than the initial net value of the leased vehicle (i.e., net of VAT) or (if the next leasing agreement pertaining to this vehicle is signed) equal to its market value at the date of the next leasing agreement
Additional requirements	The lessor does not benefit from the given exemptions listed in the Polish CIT Act	The leasing agreement needs to include a provision authorising the lessee to depreciate the leased asset for CIT purposes. Consequently, the lessor is not entitled to depreciate the leased asset.
Tax consequences resulting from the agreement	The total amount of rental payments constitutes a tax deductible cost for the lessee and taxable revenue for the lessor. Furthermore, the lessor is entitled to depreciate the leased object for CIT purposes.	The capital element of lease payment is effectively tax neutral for CIT purposes for the lessee and lessor. Only the interest element (surplus over the initial value of a leased asset) constitutes tax-deductible cost for the lessee and taxable revenue for the lessor.

6.1. General

Rules regarding VAT deductibility for cars and car-related expenses significantly changed starting from April 1, 2014. The change results from the derogation decision (2013/805/EU) issued on December 27, 2013 by the Council of the European Union. Derogation decision allows Polish government to introduce limitations on VAT deductibility regarding purchase and lease of passenger cars and car-related expenses.

In the Polish VAT Law the deductibility of input VAT incurred on a purchase (lease) of a car depends on its classification – generally, a passenger car or truck.

The criteria of the above-mentioned classification are basically the same as those resulting from the Polish CIT Law and were changed starting from April 1, 2014.

6.2. Deduction
Provision binding in 2015

General VAT deductibility rule is that taxpayers are allowed to deduct 50% of VAT related with purchase/lease of vehicles with a gross weight under 3.5 tonnes.

Same rule (50% deduction) will apply to maintenance costs and other costs related with using vehicles with a gross weight under 3.5 tonnes.

Until June 30, 2015 no input VAT deduction will be allowed with regard to purchase of fuel for passenger cars (as a temporary deviation from the general rule of 50% VAT deductibility). This exceptional rule may be maintained, as this will to some extent depend on budgetary situation of Poland.

Full VAT Deductibility

Apart from the above-described general rules, exceptions allowing full (100%) input VAT deduction are applicable in case of the following situations:

•taxpayer's scope of business activities includes – among others – re-sale, renting or leasing cars, or concluding similar agreements; this relates, however, only to cars which are designated for sale or lease (rent) and not for cars used by such taxpayers;

- taxpayer purchases specific kind of vehicles, such as:
- cars allowed to carry at least 10 persons (including the driver);
- vehicles having one row of seats separated from the cargo hold with a wall or another fixed partition, classified as multi-purpose cars or vans;
- vehicles with one row of seats having an open cargo hold;
- vehicles having driver's cabin with one row of seats and cargo hold body as two separate constructions;
- vehicles of a special purpose, e.g., truck-mounted cranes, excavators etc.;nd.

•taxpayer uses cars only for the purpose of its business activity (other than re-sale, renting or leasing cars, or conducting similar agreements); in such a case, additional requirements, described below, need to be fulfilled.

Conditions for full VAT deductibility in case of cars used solely for business purposes

Taxpayers willing to fully deduct VAT on purchase/lease of cars under 3.5 tonnes need to ensure, that such vehicles will be used solely for business purposes and it will not be possible to use them in any other way (e.g. for private purposes). This requirement may be achieved by establishing specific internal regulations for use of company vehicles.

Moreover, for each vehicle claimed to be used solely for business purposes, specific type of evidence will have to be maintained. Evidence should, among others, provide the following type of information: vehicle plate number, mileage readings (at the beginning and at the end of each reconciliation period), entries of each person using the car indicating: date and purpose of the trip, exact distance covered, trip description, first and last name of the driver.

Amendments in the VAT Regulations in 2016

In 2016 the VAT regulations will not be modified significantly.

The only important amendment to the VAT Act which could have impact on the motor industry relate to deduction of VAT from purchases used for mixed use (taxable and non VATable activity).

The new regulations could affect the scope of deductibility of VAT of entities having some characteristics of the holdings. In the near future it is expected that changes aimed at reducing the tax frauds will be introduced. The motor industry was indicated in the Country Action Plan of the Tax Administration for 2016 as one of the economic sectors which are most prone to tax frauds. Reduction of the tax frauds in the motor industry was indicated as one of the priorities of the Tax Administration.

As of 1st July 2016 larger taxpayers will be obliged to implement solutions enabling them to generate the data in the format of Standard Audit File. Additionally, those taxpayers will be obliged to send their VAT registers in the Standard Audit File format together with their monthly or quarterly VAT return. According to the Ministry of Finance, the data obtained from the taxpayers in this format will allow easier (thanks to utilization of the IT tools) identification of any inaccuracies in the tax reporting

Electric Vehicles

There are no regulations regarding electric vehicles in Poland. On the other hand, some regulations (eg. Tax reductions for electric vehicles) may occur in future because of the increasing popularity of electric vehicles.

Regulations in Turkey

Although the readjustment of the automotive sales taxes was already at a high
level, it ranks again the first with a significant increase in Turkey. This topic is still the most important problem of the sector.

Motor vehicle tax taken yearly depends on the age and the engine size of the vehicle for passenger cars and motorcycles.he increasing popularity of electric vehicles.

Engine Size	Motor Vehicle Tax (Yearly)				
	1 - 3 age	4 - 6 age	7 - 11 age	12 - 15 age	16 and above age
Passenger Cars					
1301 - 1600 cm³	1.035,00	776	450	318	122
1601 - 1800 cm³	1.827,00	1.428,00	841	513	199
1801 - 2000 cm³	2.878,00	2.217,00	1.303,00	776	306
2001 - 2500 cm³	4.317,00	3.134,00	1.958,00	1.170,00	463
2501 - 3000 cm³	6.019,00	5.236,00	3.271,00	1.760,00	646
3001 - 3500 cm³	9.166,00	8.247,00	4.968,00	2.480,00	910
3501 - 4000 cm³	14.411,00	12.444,00	7.329,00	3.271,00	1.303,00
4001 cm³ and above	23.586,00	17.687,00	10.475,00	4.708,00	1.827,00
Motorcycles					
100 - 250 cm³	122	92	68	43	17
251 - 650 cm³	252	191	122	68	43
651 - 1200 cm³	646	385	191	122	68
1201 cm³ and above	1.565,00	1.035,00	646	513	252

Regulations in Turkey

VAT

The sale of new passenger cars is subject to 18% VAT. The VAT rate for the operational or financial leasing of the passenger cars is also 18 %. The second hand sale of the passenger cars and that of the vehicles which are designed specifically for the passenger transportation is subject to VAT at the rate of 1 %.

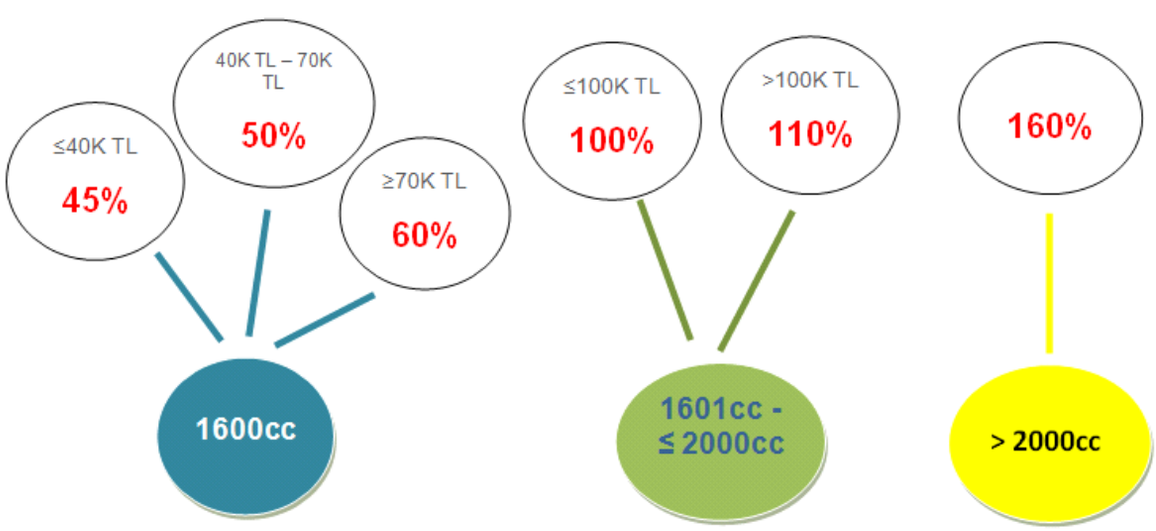
Special consumption tax

Special consumption tax is an indirect tax due for the list of the goods stated in its particular Law. The passenger cars are also in this list and subject to special consumption tax.
For the hybrid engine passenger cars, special consumption tax ratio:

If the engine does not exceed 1800cm3, the electric motor will exceed 50kW., the tax is 45%
If the engine is between 1800cm3 - 2500cm3, the electric motor will exceed 100kW., the tax is 90%
If the engine volume is 2500cm3 or m ore, there is no change, the tax is 145%.

Special consumption tax ratio for passenger cars with only electric engine is 10%.

- Special consumption tax depends on the engine size and the price before tax as shown in below table in %.



Poland vs Turkey

There are no typical ownership taxes in Poland. There is only a local tax for owners of commercial vehicles with weight over 3.5t.

	Poland	Turkey
Excise duty on passenger cars supplied before their first registration	x	
Car registration fees	x	
Tax on transportation means (commercial vehicles)	x	
Fee for using the national roads	x	
Motor Vehicle tax (ownership tax taken yearly)		x
Value-added tax (VAT)	x	x
Special consumption tax		x

VAT rate in Turkey is less than in Poland. On the other hand Special Consumption Tax ratio is high in Turkey which has a strong impact on car sellig prices when compared to excise tax in Poland.

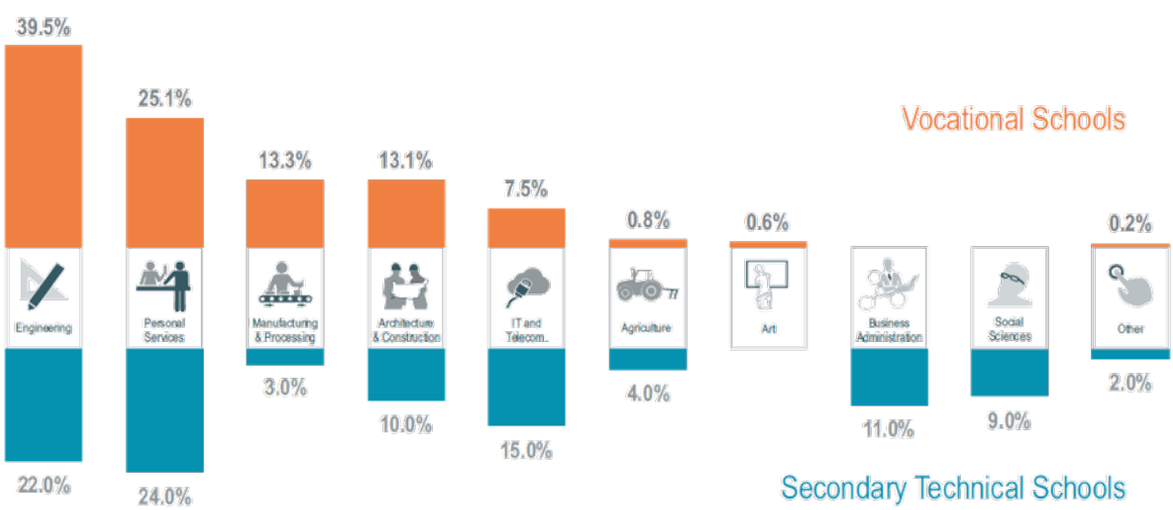
5. Education/Training in Automotive Sector

Secondary school graduates

Vocational and secondary technical education was in decline for a few years following accession to the EU, so in 2012 the government introduced reforms to make them more attractive to potential students and also to bring the elements of such education closer to the needs of the labour market.

One of the highlights of the reforms was the introduction of qualification frameworks, where qualifications are put together to make up the vocation. This made the system more flexible and enabled schools to create new programs in response to changes in the labour market. In the school year 2013/2014 more than 535,000 young people were studying at technical secondary schools and there were more than 185,000 students at vocational schools.These schools have various educational profiles and the numbers of students for each of the profiles are presented below. The most relevant fields of study for the manufacturing sector are Engineering and Manufacturing & Processing, which were chosen by more than half of vocational school students and more than a quarter of secondary technical school students.

Students in Vocational and Technical Secondary Schools by Field of Education



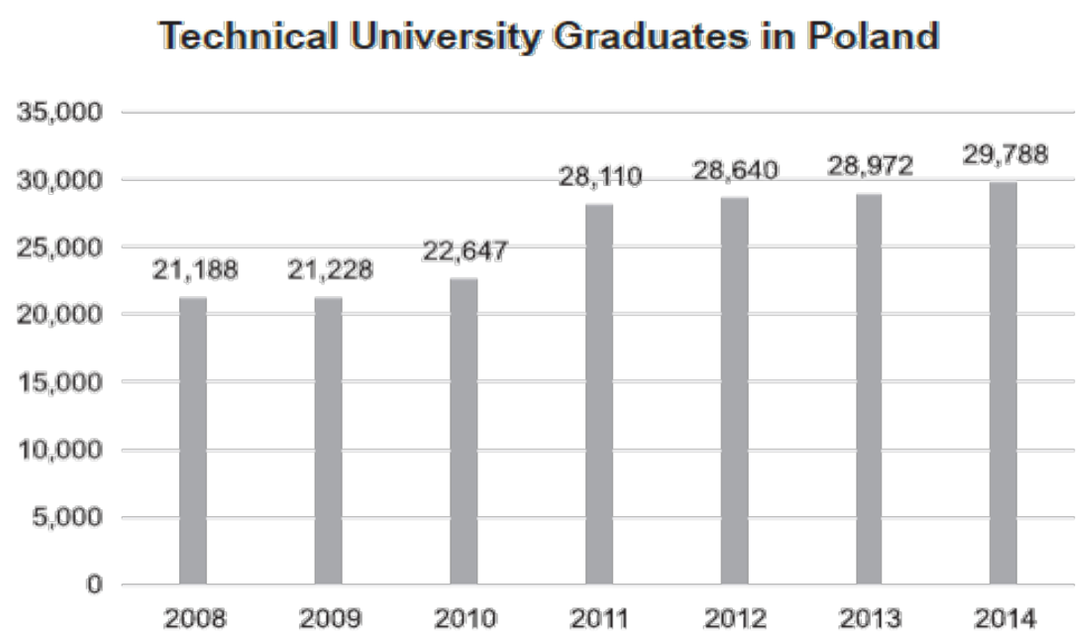
Source: Hays analysis based on Central Statistical Office

Tertiary school graduates

Technical studies are also becoming increasingly popular in Poland, thanks mainly to growing awareness among future students and some government programs. In 2014, the four most popular higher education institutions (in terms of the number of applications) were technical universities. Warsaw University of Technology was the most popular one, with 7.9 applicants for every place. The number of graduates has also been growing, as shown in graph below.

What is worth noting is that the total number of graduates in Poland is declining and thus the share of engineering graduates in the total number of graduates is growing. In 2014 it was 7.0%, up by 0.6 percentage points compared to 2013.

Many businesses co-operate with universities by offering traineeships to both students and graduates. Some companies decide to extend this co-operation and become involved in the educational process by organising courses or sponsoring industry-related events held at universities. Businesses from the manufacturing sector are happy to employ graduates with no professional experience. Possible gaps in skills and knowledge can be quickly dealt with by additional in-company training courses. Graduates are most often expected to be open to new experiences, to be ready to learn and be involved.



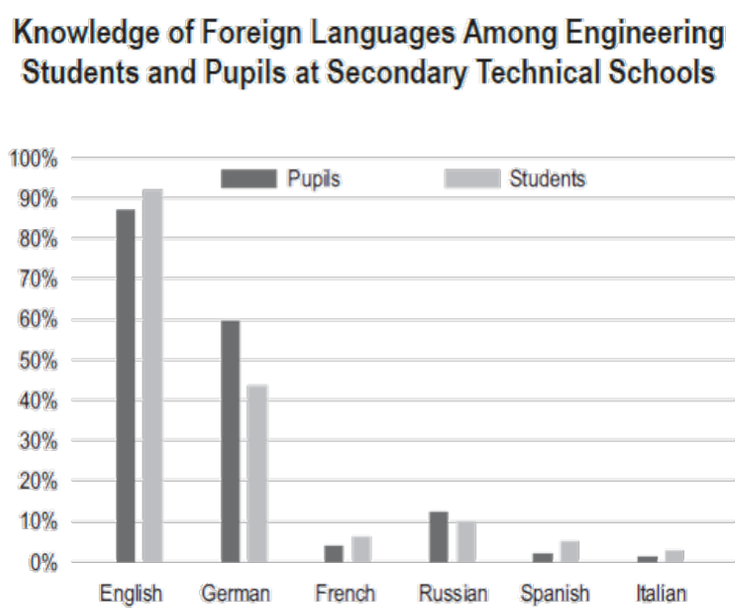
Source: Hays analysis based on Central Statistical Office

Knowledge of foreign languages

Candidates for engineering positions are almost always required to speak at least one foreign language, usually English. However, increasingly often technicians are also required to be able to read and write in English as more and more often technical documentation is only available in that language. In recent years, Hays Poland specialists have also observed a growing demand for German speakers, especially in the western Polish regions such as Dolnośląskie and Wielkopolskie.

The graph below shows the self-declared levels of language proficiency for engineering students and pupils at secondary technical and vocational schools in Poland.

It is worth noting that the level of German is higher among pupils than among students. One possible explanation is the growing awareness among pupils of the importance of foreign languages – German as a language of choice reflects the strong ties of Polish industry to that of our western neighbour.



Source: Hays analysis based on BKL Survey, sample = 6,000 students; 16,000 pupils

Technical Universities

The offer of engineering studies in Poland:

•Computer Science (offered by Cracow University of Technology, Lodz University of Technology, Poznan University of Technology, Warsaw University of Technology)
•Electrical Engineering or Electronics (offered by Poznan University of Technology, Warsaw University of Technology)
•Information Technology (offered by Lodz University of Technology, Poznan University of Technology, Warsaw University of Technology)
•Civil Engineering (offered by Warsaw University of Technology)
•Power Engineering (offered by Warsaw University of Technology)
•Environmental Engineering (offered by Warsaw University of Technology)
•Oil and Gas Technology (offered by Cracow University of Technology)
•Computational Mechanics (offered by Cracow University of Technology)
•Machine Design (offered by Cracow University of Technology)
•Thermal Power Systems and Installations (offered by Cracow University of Technology)
•Mechanical Engineering (offered by Cracow University of Technology, Lodz University of Technology)
•Transportation Management and Railway Vehicle Engineering (offered by Cracow University of Technology)
•Combustion Engines (offered by Cracow University of Technology)
•Road Engineering (offered by Cracow University of Technology)
•Computational Engineering (offered by Cracow University of Technology)
•Supply Chain Management (offered by Cracow University of Technology)
•Renewable Resources (offered by Cracow University of Technology)
•Biotechnology (offered by Cracow University of Technology,Lodz University of Technology)
•Biomedical Engineering (offered by Lodz University of Technology)
•Engineering of Technological Processes (offered by Cracow University of Technology)
•Architecture (offered by Lodz University of Technology, Poznan University of Technology,Warsaw University of Technology)
•Optics (offered by Warsaw University of Technology)
•Technology Management (offered by Lodz University of Technology, Poznan University of Technology, Warsaw University of Technology)
•Mechatronics (offered Lodz University of Technology)
•Robotics (offered by Poznan University of Technology)
•Composites and Nanomaterials (offered by Poznan University of Technology)
•Structural Engineering (offered by Poznan University of Technology)
•Telecommunications (offered by Lodz University of Technology, Poznan University of Technology)
•Aerospace Engineering (offered by Warsaw University of Technology).

Industry and technical schools / university cooperations

Employees from the Delphi Poland sites cooperate with local universities. In Gdansk, students learn both theory and practice in Delphi-organized workshops focused on optimal use of resources, called the lean philosophy. In Krakow, technical university students take advantage of a series of lectures prepared by Delphi engineers about automotive electronics.

VW is committed to the development of professional training. On the initiative of Volkswagen Poznań, County Office and School Complex No. 1 (Zespołu Szkół nr 1) in SwarzĊdz created a class with extended curriculum in mechatronic fitting, where students are underage workers of Volkswagen Poznań. VW also cooperates with Poznań University of Technology, Adam Mickiewicz University, and the University of Economics in Poznań.

Faurecia also works actively with universities, including Warsaw University of Technology and the Lodz University of Technology. The scope of cooperation includes commissioning of research (metallography, chemical composition, strength tests), the development of tool designs and consultation in the selection of materials and surface treatment. There are also scholarship and internships for students.

In summary, collaboration of automotive companies and scientific circles can potentially create synergies, improving the competitiveness of the industry. Universities have extensive research facilities, access to research equipment and technological innovations, they can gain experience in cooperation with industry. This also gives a broad overview of the real needs of producers, which can be solved in an innovative way by co -financing of research by industry.

Human potential in automotive

The automotive sector in Poland has very large potential with access to many qualified professionals of both lower and higher level. Mechanical engineering schools are one of the most often chosen in vocational education, while the engineering faculties are increasingly popular at universities.

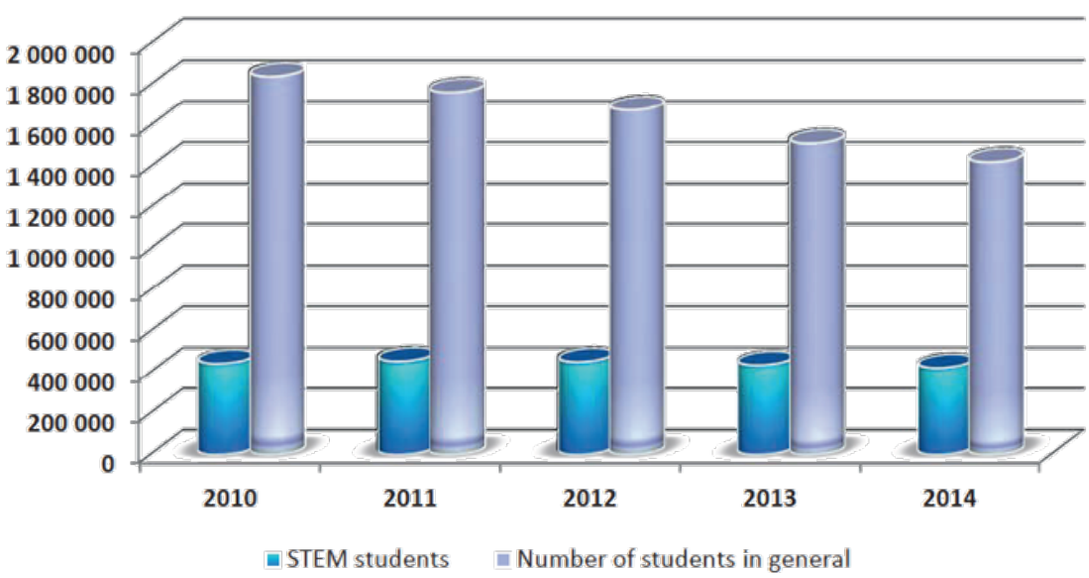
In 2013, professional titles of technicians/mechanics were received by 4061 graduates of post-secondary vocational schools and technicians, while the titles of technicians/mechanics of motor vehicles were received by 5020 graduates of vocational schools.

18 public universities of technologies operate in Poland as well as a dozen of non-public ones, educating students in 15 specialities related to the automotive industry. At the end of 2013, the number of students in Polish universities amounted to 1 549 877 of which 106 005 in engineering faculties related to automotive industry (89 951 in the first-cycle study, and 16 046 in the second-cycle study).

he number of students in voivodships with well-developed automotive industry is relatively high: Śląskie 13 882, Dolnośląskie 14 525 and Wielkopolskie 9 477. In the academic year 2012/2013, the number of graduates on faculties related to the automotive industry amounted to 20 880 individuals (13 320 in the first-cycle study, 7 154 in the second-cycle study).

In addition, there is a steady increase of the interest in STEM curriculum studies (Science, Technology, Engineering, and Mathematics

Chart 1. Students in Poland in general and STEM students in 2010-2014.



Education Supports

Also noteworthy are the plans to support vocational education. The Ministry of National Education (MEN) wants to allocate resources to support vocational education, including the promotion of cooperation between employers and schools and educational institutions of various types and levels in the vocational educational, testing and counselling process. By 2020, the ministry plans to allocate EUR 800 million to support vocational education, and the method of allocating the majority of these funds is to be determined by the regions. The so –called dual system of education, that is, one in which students learn their profession directly in the enterprises is to be disseminated. Also activities related to the functioning of the Integrated Qualifications Register are planned, including the inclusion to the integrated system qualifications originating outside of the education system and the system of higher education.

Automotive Industry Institute (PIMOT)

PIMOT is a research institute directly subordinate to the Minister of Economy. In general, the Institute performs scientific, research, and development work in the field of automotive industry problems.

The basic Institute's activities are conducted in the field of natural sciences, engineering, and biotechnology (PKD 72.19.Z and PKD 72.11.Z) and they include:

- Carrying out of scientific studies and research and development work;
- Adaptation of outputs of the scientific studies and research and development work to practical application needs;
- Implementation of outputs of the scientific studies and research and development work.

PIMOT organises and holds scientific conferences and seminars and conducts educational and supplementary training activities, inclusive of driving school activities (PKD 82.30.Z, PKD 85.53), specialistic training, and various forms of continuing education (PKD 85.59). Driving lessons for people with disability of various types are also provided.

PIMOT's services are directly provided for such clients as:

- Enterprises;
- Manufacturers and importers of vehicles, vehicle components, and parts thereof;
- Schools of higher technical education;
- Businesses of the sector of small and medium-sized enterprises;
- State administration units; Non-governmental organisations (NGOs);
- People with disability of various types.
- Indirect consumers of Institute's products are all vehicle users.

http://www.pimot.eu/dzialalnosc-naukowa/instytutu

Universities and R&D Institutions in Turkey

Automotive industry in Turkey is one of the manufacturing sectors that employs mostly higher education graduates. Approximately 8% of the employers have engineering degrees. In the last years many universities opened new programmes specifically devoted to Automotive Engineering:

University	Bachelor	Masters	Doctorate
Afyon Kocatepe University	+		
Atılım University	+	+	
Boğaziçi University		+	
Cumhuriyet University	+		
Çukurova University	+	+	
Fırat University	+	+	
Gazi University	+	+	+
Hacettepe University	+		
Işık University	+		
İstanbul Teknik University		+	
Karabük University	+		
Kocaeli University	+	+	+
Mersin University	+		
Okan University	+	+	
Pamukkale University	+	+	
Sakarya University		+	+
Süleyman Demirel University	+		
Uludağ University	+	+	+
Yakın Doğu University	+		

Okan University, one of the most eminent and distinguished foundation universities in Turkey, is home to a diverse undergraduate and graduate student body of 14,000. Currently, Okan University has students from 43 different countries. It offers more than 138 undergraduate and graduate programs. The University comprises six faculties, two applied sciences schools and three graduate schools. The university also offers a variety of two year associate degree programs that correspond to the in-demand vocational opportunities.

The new global business era of borderless business relations demands a new set of engineering competencies. Okan University Automotive Engineering Undergraduate Program, having revised its programs accordingly, offers a rich selection of concentration areas in order to meet the unique career needs of our students. The world-class faculty members from diverse backgrounds provide a balance of theory and practice in the execution of the curriculum.

The Engineering Faculty of Atılım University has a unique position among Turkish universities, with its new and popular engineering fields such as mechatronics, manufacturing, software, informatics systems, energy systems and automotive engineering in addition to the existing conventional engineering departments. Altogether there are fourteen departments in the faculty. Having been established in 1997, the faculty, with its relatively large number of departments, a strong and dynamic academic cadre, and modern educational and research facilities, has secured a reputable position in a very short time and now is competing with the famous public universities in Turkey

Department of Mechanical Engineering at Hacettepe University offers an undergraduate program in Automotive Engineering and Master of Science and PhD programs in Mechanical Engineering. The research focus of the department lies in the areas of automotive engineering, solid mechanics and design, mechanisms and machine theory, materials, control, mechatronics, sensors and thermal-fluids engineering and energy.

Uludag University Automotive Engineering Department was established in 2010 and was started to give education on master of science degree in 2011. The Automotive Engineering Department is a pioneer department for Turkey, as being one of the first of its kind in Turkey. The Department offers two programs to qualified students for further education and research at advanced level, leading to the degree of MSc in Automotive Engineering. The Graduate Programs are MSc with thesis and non-thesis programs in Automotive Engineering. Non-thesis program is a MSc without thesis program with the support of Politecnico di Torino (PdT) Italy.

Poland vs Turkey

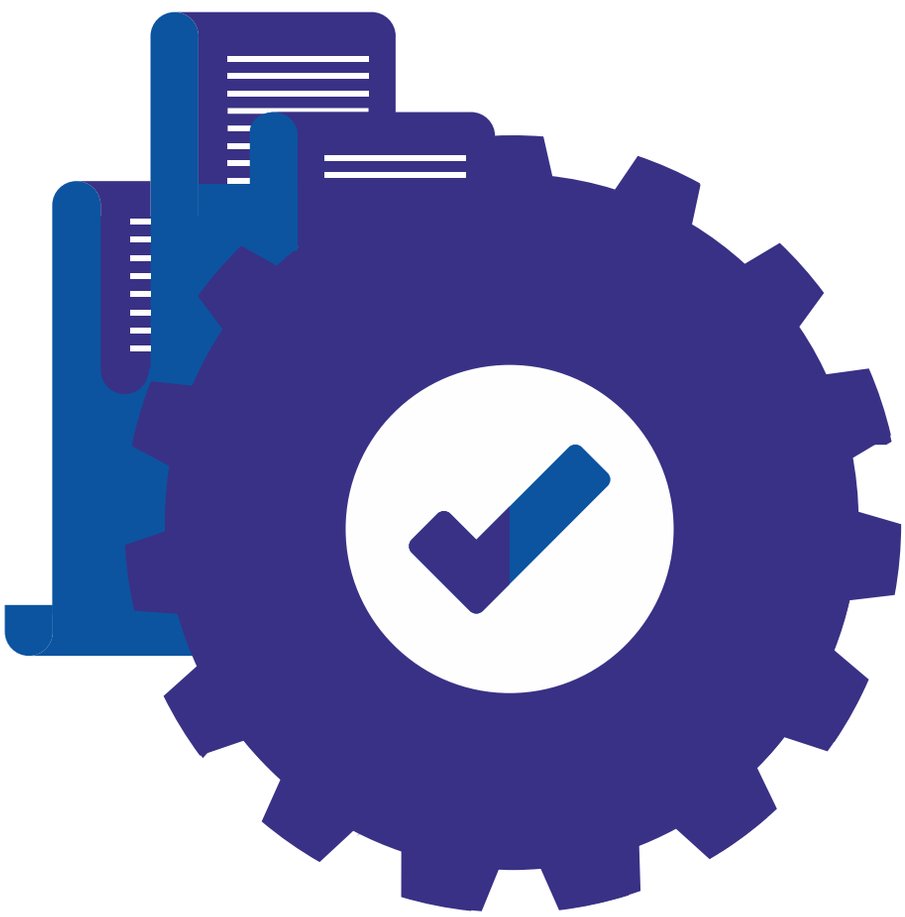
Turkey makes reforms in many fields with either its adjustment laws or its own studies during the integration process into The European Union.

With the projects and grant programs applied after Poland's entry at the EU, education programs were revised. With the applied education politics, the most rural areas of the country were tried to be reached at and education began with common principles.

It was determined that the education in Poland is divided into four as general, regional, school district and local education and that the education in Turkey is divided into two as central and rural education. Whereas the system of education of Poland is structed as 6+3+3, the 12 years of compulsory education in Turkey is structed as 4+4+4. In the secondary education institutions in Poland, there are two-year additional general high school and three-year additional technical schools. The secondary education institutions in Turkey consist of only four-year high school education. Universities in Poland are categorized as technical higher education, general university, teacher training colleges and foreign language teacher training colleges. In Turkey, there exist only general universities and the structuring occurs in itself. In Poland, there is a discrete ministry which deals with higher education. In Turkey, all educational institutions are connected to ministry of national education.

As it srands, at the time of writing this report; Poland offers more sophisticated education for engineers as well as workmen than Turkey hence presents a more rellabşe workforce for investors, at only slightly higer costs.

6. Conclusions



Concluding Remarks

Poland is one of the major countries in Europe for automotive investments. Polish automotive industry accounts for about 11% of Poland's industrial production. Poland is one of the largest producer of light vehicles in Central and Eastern Europe (CEE).

As depicted in the report Poland offers inexpensive (relative to other European and CEE countries) but highly-qualified human resources. The presence of the most significant companies in the sector is not without merit, providing a complex network of cooperative relations and availability of sub-suppliers.

Nearly the whole production of the Polish automotive industry is sent for exports. The majority of automotive exports is directed at the EU, where the largest recipients are Germany and Italy (i.e. the countries with the largest investments in the sector).

Foreign investments constitute the basis of the Polish automotive sector. Nearly all international concerns operate in Poland, responsible for the majority of production and generating orders both for foreign and local sub-suppliers. The total value of foreign investments in the sector is estimated at the level of approximately €6 billion.

The automotive sector in Poland is highly supported by the government. Supports are received on the basis of the minimum number of newly-created jobs or the value of incurred investment outlays.

Turkey's automotive industry offers companies a dynamic domestic market and reach to a qualified yet relatively inexpensive labor force. The automotive market grows and the production of vehicles increases steadily.

The Turkish government supports the automotive industry in various ways but gives a special attention to R&D efforts. TUBITAK Marmara Research Center coordinates several automotive projects including range extended electric vehicle.

The current manufacturers in the Turkish automotive sector continue to increase their investments. However, it will be necessary to aim for new strategic investments to move into the next level and increase the added value in production.

The positive developments in Turkish logistics sector also presents ample opportunities to Turkish automobile manufacturers. On the other hand, import dependency of the industry and increasing energy prices are the main threats against Turkey. Also, taxes on new vehicle sales is a slowing factor for development of vehicle parc.

Poland and Turkey have common points with regards to the automotive industry: Qualified yet relatively inexpensive labor; export mostly to EU; special attention to R&D.
Turkey's growing current account deficit creates a significant macroconomic risk for investors. Political risks such as terrorist attacks in major cities and Turkey's proximity to the civil war in Syria also add to macroeconomic instability. On the other hand, Polish Zloty performs steadily against Euro. Poland enjoys a steady decrease in the ratio of current account to GDP.

Poland may offer good investment opportunities for Turkish investors.

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EUROSTAT

NBP

ETRMA

Own presentation

Ministry of Economy

KPMG in Poland based on Ministry of Economy report “information on the implementation of the Act on Special Economic Zones” and forecasts provided by SEZ boards

Hays analysis based on Eurostat, 2014

Hays analysis based on Central Statistical Office

Hays Poland Salary Survey

MIMSA and Xsight’s own elaborations

Hays analysis based on BKL Survey, sample:6000 students; 16000 pupils

Notes

Notes

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