

Electronics sector in Poland

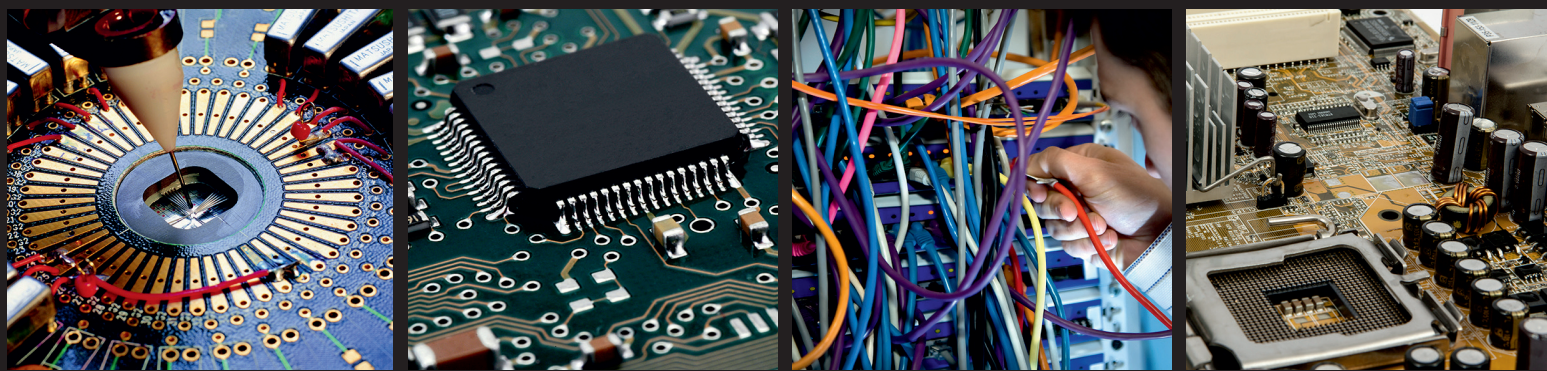


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The Electronics Sector in Poland

Sector Profile

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Did you know that

- The tradition of manufacturing electrical engineering equipment in Poland is over hundred years old, already before the WWII there were over 200 companies operating in this sector – half of them were in fact foreign capital companies.
- Poland is the larger producer of electronic equipment in Europe – the output value in 2014 amounted to EUR 13.8 billion.
- The electronics sector will be one of the fastest growing segments in the Polish economy – over 37% of the Polish population are people between 20 and 44 years of age, and this is exactly the age group creating the majority of demand for new electronic products;
- Poland is the third largest producer of LCD TV sets in the world;
- Poland is the largest producer of LCD TV sets in Europe, manufacturing 78% of total European output of LCD TV sets – in 2014, Poland exported over 18.4 million TV sets and monitors.
- In 2014, the State Treasury considered TV sets one of the nine export hits in Poland.

The History of the Electronics Market in Poland

The history of the electrical engineering sector in Poland goes back over a hundred years. Before the WWII over 200 electrical engineering companies operated in Poland employing a total of approx. 20,000 employees with the share of foreign capital amounting to approx. 50% at the time¹.

After the war, the sector development was possible mainly within the State owned enterprise Zjednoczenie Producentów Przemysłu Elektronicznego i Teletechnicznego UNITRA (the Union of Electronics and Teletechnical Industry Producers UNITRA). In the 1980s, UNITRA gathered approx. 30 enterprises and research institutions, including Zakłady Radiowe im. Marcina Kasprzaka (the Marcin Kasprzak Radio Plant in Warsaw), Unimor in Gdańsk and Tonsil in Poznań. The access to foreign loans ensured by the current economic policy enabled the purchase and delivery of technological lines and licences from various western countries (e.g. Tonsil bought technological lines and licences from the Japanese Pioneer Corp., Diora from the Swedish Aga and Fonica from the German Telefunken and Thomson). During the privatisation period started in the 1990, some of these companies was taken over by the prior suppliers of the lines or licences.

The 1990s and the economic transformation affected the map of electronics sector in Poland. The majority of the state companies and institutions were liquidated or privatised. At the same time, Poland attracted the interest of foreign companies. Some foreign investors commenced their operations in Poland through acquisitions of some already existing companies – e.g. Polkolor was acquired by Thomson, Polam by Philips, while some of the investors opened their new plants:

- Alcatel, Lucent Technologies, Siemens (telecommunications);
- Philips, Thomson, Daewoo, LG (audio–video);
- Flextronics, Kimball Electronics, Sofrel, Jabil (electronics assembly).

The largest privatisations in the electrical engineering sector are presented in the following table.

¹ Janusz Nowastowski, *Rozwój przemysłu elektrotechnicznego na tle przemian własnościowych w latach 1989-2011* (Development of electrical engineering industry against ownership changes in 1989-2011), [in:] Zeszyty Naukowe Wydziału Elektrotechniki i Automatyki Politechniki Gdańskiej – (Scientific Journals of the Faculty of Electric Engineering and Automation at the Gdańsk University of Technology) No 42/ 2015.

Table 1 – The largest privatisations in the electrical engineering sector

Company before Privatisation	New Owner
Polam Piła	Philips Lighting
Eltra Bydgoszcz, Elda Szczecinek	Schneider Electric
Zamech Elbląg, ZWAR Warszawa, Elta Łódź	ABB
Polar Wrocław	Whirlpool
Indukta, Basel, Ema, Celma Bielsko-Biała	Cantoni Motors
Telfa Bydgoszcz	Alcatel Lucent
Polam Pułtusk	ETI
Polam Kontakt Czechowice	Simon
Polam Ząbkowice Śląskie	Legrand
Śląska Fabryka Kabli Czechowice	Nkt Cables
ZWUS Katowice	Bombardier Transportation

Source: PALiIZ.

The World Electronics Market

According to the Global Powers of Consumer Products 2015, a report from Deloitte, the largest manufacturers of consumer electronics in the world are Samsung Electronics Co. Ltd. and Apple Inc. The ten biggest global producers of electronics are presented in the following table.

It is worth noting that until 2014, Panasonic and Nokia were among the largest producers but since 2015, their positions were taken over by TCL Corp (a leader supplier of mobile phones in China) and Changhong (one of the largest producers of TV sets in China).

Table 2 - The Largest Consumer Electronics Producers Worldwide

Top 250 Ranking Position	Company	Country of Origin	Turnover in USD billion (for 2013)
1	Samsung Electronics Co. Ltd.	South Korea	210.4
2	Apple Inc.	USA	170.9
5	Sony Corporation	Japan	66.7
8	LG Electronics Inc.	South Korea	53.5
12	Lenovo Group Limited	Hong Kong	38.7
49	ASUSTeK Computer Inc.	Taiwan	15.6
57	TCL Corporation	China	13.8
65	Acer Incorporated	Taiwan	12.2
81	Nikon Corporation	Japan	9.8
85	Sichuan Changhong Electric Co., Ltd	China	9.5

Source: Global Powers of Consumer Products 2015, Deloitte.

Traditional segments of the electronics sector (telecommunications, data processing, audio-video and household appliances), referred to as the 3C (customer, communication, computing) markets currently dominate the world manufacturing – 66%. This is in connection with continued large demand for products such as smart-phones, tablets or PCs, with their billions manufactured per year and with the latest requirements of the IT infrastructure. A report by the French DECISION, World Electronic Industries: 2012–2017, provides for changes in the share in the sector categories to take place soon, with the telecommunication and data processing equipment to remain the key factors (at 46%) but with the increased demand for electronics in industrial and medical equipment as well as for the automotive sector (both categories will constitute 32% of the global production of electronic equipment)². The following table presents the share of the particular categories in the electronics production in 2012 and in 2017.

Table 3 – Global production of electronic equipment in 2012 and in 2017.

No	Ca	Share in 2012	Share in 2017
1	Telecommunications	24%	24%
2	Data Processing	24%	22%
3	Industrial and Medical Equipment	17%	21%
4	Electronics for the Automotive Sector	9%	11%
5	Audio-video	11%	8%
6	Aviation & Defence	8%	8%
7	Household Appliances	7%	7%

Source: Report World Electronic Industries: 2012–2017, DECISION, March 2014.

Structure of the Electronics Sector in Poland

The electronics sector (PKD 26) is one of the most important industries in the national economy. Its share in the GDP oscillated in the last two decades between 1 and 2%. Total sector production sold in 2014 amounted to PLN 33.7 billion (an increase by 12% against 2013). This is approx. 3% of total industry production sold in Poland. Almost 55 thousand people were employed in manufacturing the electronics equipment which is 5.5 % more than in the previous year³. A total of 5,762 entities operate in this sector in Poland (manufacturing, commerce and services combined). The majority of them are micro-enterprises (employing up to 9 people) – 5,052 (88% of the total number) There are 515 small companies, 145 medium sized and 50 large companies in the sector⁴. A total of 230 enterprises are involved in manufacturing consumer electronics⁵.

The structure of the electronics market in Poland is presented below. Telecommunications and computer equipment constituted 62% of the market value.

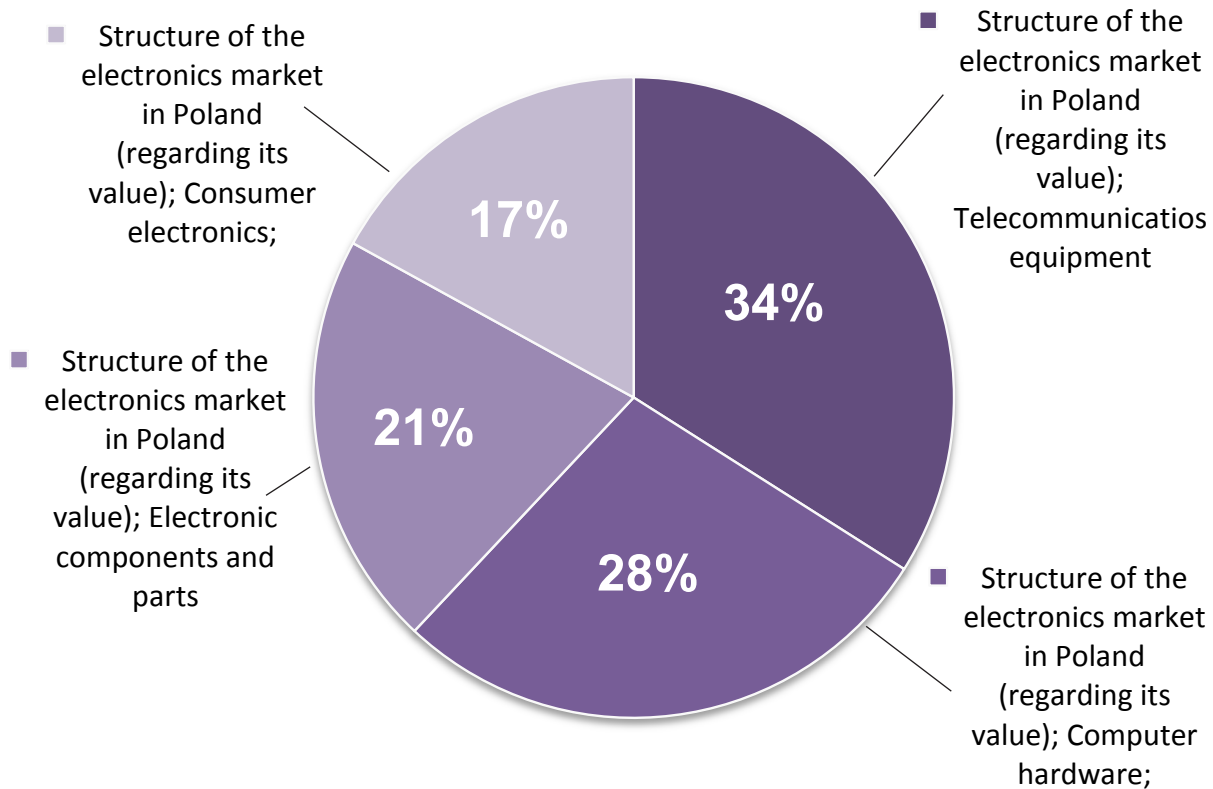
² The World Electronic Industries Report: 2012–2017, DECISION, 2014.

³ GUS (The Central Statistical Office) 2014.

⁴ According to the status of businesses by Bisnode, as at 1 September 2015

⁵ Status as in 2013. Statista www.statista.com

Graph 1. The Structure of the Electronics Market in Poland



Source: "Ekonomia i Zarządzanie" (the Economics and Management magazine) No 1/2014.

Poland is the largest producer of electronics equipment in Europe, according to the estimates its output in 2014 was worth EUR 13.8 billion, with Germany on the second place with their output worth EUR 13 billion, followed by Italy – output worth EUR 10.6 billion and Great Britain, with its production worth EUR 7 billion. Poland, next to the Czech Republic is the only country in Europe observing continuous increase in the production over the recent years. This market continues to have large potential for development. According to forecast by BMI, the sector will grow by 3.1% per annum until 2019⁶. The sector production increased by 200% over the last decade.

According to the list of 500 largest companies in Poland ("Lista 500"), edition 2015, issued by the Rzeczpospolita daily, Philips Lighting Poland S.A. from Piła was the largest company in the electronics sector. The remaining companies listed in this ranging are presented in the table below.

⁶ Source: JP Weber, Produkcja sprzętu elektronicznego oraz AGD w Polsce w tym roku jeszcze wyższa (Electronic Equipment and Household Appliances Production Even Higher this Year), 30-04-2014, [in:] <http://www.jpweber.com/pl/media/aktualnoci/aktualnoci-jp-weber/show/produkcja-sprzetu-elektronicznego-oraz-agd-w-polsce-w-tym-roku-jeszcze-wysza-/?start=40>.

Table 4 – The Largest Companies in the Electronics Sector (according to Lista 500 by Rzeczpospolita 2015).

No	Place on the Lista 500	Company	Revenue 2014	Employment
1	54	Philips Lighting Poland SA, Piła	5,153,948	4537
2	65	LG Electronics Wrocław sp. z o.o., Kobierzyce	4,798,239	1226
3	66	LG Electronics Mława sp. z o.o., Mława	4,794,563	2430
4	70	Polska Grupa Zbrojeniowa SA, Radom	4,500,000	19,000
5	98	Indesit Company Polska sp. z o. o.	3,240,501	3,149
6	102	Flextronics International Poland sp. z o.o., Tczew	3,132,663	no data
7	159	Amica Wronki SA GK, Wronki	2,027,495	no data
8	249	S E Bordnetze Polska sp. z o.o., Gorzów Wlkp.	1,208,401	2880
9	285	Leoni Kabel Polska sp. z o.o. Wierzbice	1,032,180	477
10	371	Apator SA GK, Toruń	725,527	2,284
11	376	UMC Poland, Ostaszewo	717,327	no data
12	380	Kimball Holding Obronny sp. z o.o., Tarnowo Podgórne	707,932	760
13	408	Polski Holding Obronny sp. z o.o. Warsaw	632,332	135
14	415	Coroplast sp. z o.o., Dylaki	617,742	2873

Source: Lista 500, Rzeczpospolita, edition 2015, [in:] <http://evertiq.pl/news/14638>.

High quality of the offered technologies, qualified personnel and geographic location made Poland the key player in the electronic manufacturing services (EMS). The European EMS market is the second largest one after Asia and Pacific. The largest EMS suppliers in Poland include Fideltronik, Flextronics, Jabil, Sowar and Zamel. EMS companies closely cooperate with OEM (Original Equipment Manufacturer) suppliers, i.e. manufactures selling products of other companies under their own brand name. This group comprises the majority of large corporations, e.g. Dell, HP and LG. Due to the fact that the EMS field is developing rapidly (from designing, through assembly to logistics), the share of such orders will continue to increase.

The TV Sets and Monitors Market

Poland is the leader among the European producers of the new generation, LCD and plasma TV sets. The largest producers operating in our country include the companies such as LG and Samsung. In 2014, the number of manufactured TV sets reached 19.6 million of which 13.7 million were flat screen receivers (70% of the whole output) – 2010 was the best year for the production with 26 million TV sets made in factories. Over the 15 years, the volume of TV sets and monitors production increased over three times – from 6.3 million sets (in 2000) to 19.6 million. (2014)⁷.

⁷ Industry Products Manufacturing in 2014 GUS, Warsaw 2015.

In 2014 the Polish export of monitors and TV sets was worth EUR 4.05 billion (18,441,909 sets). The main recipients were in the European Union states (mainly Germany, Great Britain, France and Italy) with 91% of the total exports earmarked there. In the same period 10,505,722 monitors and TV sets worth EUR 1.1 billion were imported to Poland⁸.

According to the information provided by PMR, the Poles buy annually 2.4 million TV sets worth approx. PLN 23 billion. The study by TNS Polska indicates that the 40 inch TV sets costing from PLN 1,500 to 3,000 are the most popular among the models chosen here⁹. Over thirty per cent share in the market belongs to Samsung, followed by LG with approx. twenty per cent share, while Sony, Toshiba, Sharp and Panasonic fall below 10%.

In 2014, the Ministry of State Treasury considered TV sets one of the nine export hits in Poland.

The Audio Equipment Market

In 2014, the production of radio receivers in Poland reached 1.6 million (an increase by 75% compared to 2013). Over the 15 years, the output volume grew fifteen times from 108,654 sets (in 2000) to 1.6 million sets (2014)¹⁰.

The Computer Equipment Market

Contrary to the world trends, the computer market in Poland keeps growing. In Q1 of 2015 a 2 per cent increase in sales was observed. Lenovo is the leader with its share in the market of approx. 35%. Despite the increase in demand for mobile devices, mainly tablets and smart phones, desktop computers continue to be relatively popular. This is mainly down to the development of the computer games sector offering equipment designated for players as well as the demand for desktop computers in companies and in the state administration sector.

Electronics for the Automotive Sector

The automotive sector became the Polish speciality of late (providing 7.5% of the Polish industry output). Investments for sub-suppliers of cars producers are largely located here and this tendency also refers to establishing enterprises producing electronic components for vehicles manufactured in Poland and in Europe.

Commencing the production of electronics for Volkswagen by the LG plant in Mława can serve as an example here, with the factory being the largest one in the sector in Poland. The company dealing currently with the production of TV sets, thanks to the cooperation with the German automotive tycoon attempted at diversifying its production and becoming independent from one type of product.

⁸ Foreign Trade. January-December 2014 GUS, Warsaw 2015.

⁹ http://www.biznes.newseria.pl/news/na_rynku_telewizorow,p1744729669.

¹⁰ Industry Products Manufacturing in 2014 GUS, Warsaw 2015.

The electronics sector in Poland is supported by extensive resources of qualified employees of both lower and higher level. Mechanical faculties are among the most often selected ones in vocational education, while engineering faculties become increasingly popular in higher universities. In 2014 over 65,000 students attended electronic engineering faculties¹¹ with 4,500 graduates in that year¹².

Average gross remuneration in the sector are as follows: an electronic technician PLN 3,619, an electronics technician PLN 3,482, an automation technician PLN 5,219, and a technology manager PLN 16,190¹³.

The Investment Competitiveness of Poland

According the fDi Markets, from 2003 a total of 201 investment projects were implemented in the electronics sector, worth EUR 7.5 billion, providing jobs to 48 thousand people.

Table 5 – The Largest Investors in the Electronics Sector in Poland

Company	Country of Origin	Number of Projects
Jabil Circuit	USA	6
Royal Philips Electronics	The Ne	6
LG	South Korea	5
Motorola Solutions (Motorola)	USA	4
Cisco Systems	USA	3
Siemens	Germany	3
Samsung	South Korea	3
Nippon Telegraph & Telephone (NTT)	Japan	3

Source: fDi Markets.

The Polish Information and Foreign Investment Agency participated in assisting 45 projects in the electronics sector in 2004-2014. The majority of investors originated from Asia (16 from South Korea, 10 from Japan and 4 from Taiwan).

Global corporations are keen to select Poland as the location of their new investments in Europe. The investment potential of Poland is confirmed in many international rankings created by institutions monitoring the investment climate:

- The most important report on foreign direct investment – the World Investment Report 2015 published by UNCTAD listed Poland among the 20 largest recipients of foreign direct investments, attracting FDI amounting to USD 13.9 billion;
- According to the survey by the Polish-German Chamber of Industry and Commerce (AHK), third time in a row Poland turned out to be the most attractive destination for investments in Central and Eastern Europe.
- According to the ranking by Bloomberg 2014 Poland is the best country for making business in the region;
- In the FDI Intelligence report, Poland is on the third place, just after China and the US as the best location for manufacturing investments in the world;

¹¹ In the faculties of electronics, electronics and telecommunications and mechatronics.

¹² Initial Data Regarding Universities - 2014, GUS 2015, <http://stat.gov.pl/obszary-tematyczne/edukacja/edukacja/dane-wstepne-dotyczace-szkolnictwa-wyzszego-2014-r-8,2.html>,

¹³ Remunerations Report, Spring 2015, AG Test.

- The competitiveness of Polish industry was observed in the European Competitiveness 2014 report of the European Commission pointing out that the Polish industry in 2008-2014 observed the highest rise in the production volume by over 20%,
- On the other hand, the Report on Europe's Investment Attractiveness by E&Y indicates that Poland is once again the most attractive country as the investment location in Central Europe;
- These convenient conditions for operating business in Poland are also confirmed by the highest ever place of Poland in the Doing Business 2016 ranking, where Poland was listed as 25th country. The attractive climate is one of key factors influencing the electronics sector development in Poland.

Available Forms of Public Aid

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

In Special Economic Zones, i.e. the divided areas designated for running business operations on preferential conditions, the entrepreneurs may rely on the availability of fully equipped area, assistance in legal and administrative procedures and for income tax exemptions. The amount of regional aid depends on the location of an investment, the amount of incurred outlays and the size of an enterprise applying for the aid.

The entrepreneurs planning their investments in the automotive sector may also use the government "Programme for the support of investments of considerable importance for Polish economy 2011-2020". The Programme provides for financial contributions to new investment (the investment grant) and contribution to costs of creating new jobs (the employment grant). 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 aid available under the Programme may be joined with other forms of support.

Communes also offer incentives to entrepreneurs as they are entitled to establish exemptions on the property tax rate.

Table 6 – Financial Contributions for Creating New Jobs (the employment grant)¹⁴

Sector	New Jobs	And	Eligible Costs of a New Investment (PLN million)	Grant per One Job (PLN)
Production:*				
• automotive				
• biotechnology				
• household appliances	250		PLN 40 million	
• aviation				
• agriculture-food				
BSS	250		PLN 1.5 million**	from 3,200 to 15,600***
R+D	35		PLN 1 million**	
Significant Investments in other Production Sectors	200 or 500		PLN 750 million or PLN 500 million	

Source: PAIIZ.

Financial contribution is not granted to the investments located in a district where unemployment rate is lower than 75% of the national average.

** Excluding office space rental costs

*** Additional 20% for the location in the east of Poland

*** Additional 5pp for the location in the east of Poland

¹⁴ For more information see: www.paiz.gov.pl/strefa_inwestora/grant_rzadowy.

Table 7 – Financial Contribution to the Eligible Costs of the New Investment (the Investment Grant)¹⁵

Sector	New Jobs	And	Eligible Costs of a New Investment (PLN million)	The Grant Amount (% of the Eligible Costs)
Production:* ■ automotive ■ biotechnology ■ electronics with household appliances ■ aviation ■ agriculture and food processing	50		PLN 160 million	from 1.5% to 7,5%**** of eligible costs
Significant Investments	200 or 500		PLN 750 M or PLN 500 M	

Source: PAIiLZ.

* The financial contribution is not granted to the investments located in a district with unemployment rate below 75% of the national average.

** Excluding office space rental costs

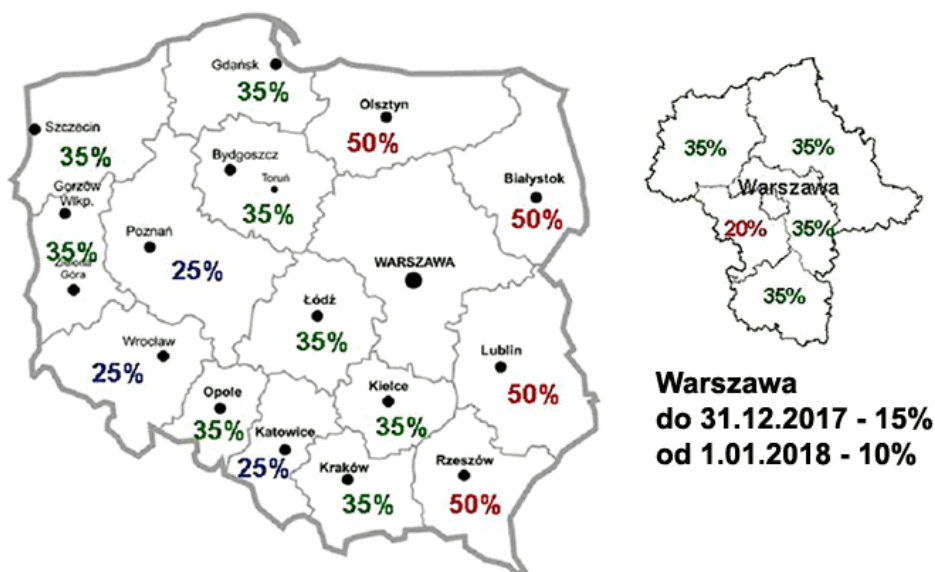
*** Additional 20% for the location in the east of Poland

*** Additional 5pp for the location in the east of Poland

Regional Aid 2014-2020

A new Regional Aid Map for 2014 - 2020 is valid in Poland from 1 July 2014. According to this Map, the basic maximum level of regional public aid, i.e. the percentage share of the aid in the eligible costs, amounts to:

Regional Aid Map for 2014 - 2020



Source: PAIiLZ.

*In the above map: Warsaw until 31.12.2017 – 15%

From 1.01.2018 – 10%

¹⁵ Ibid.

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