## WAREHOUSE AND LOGISTICS CENTRES IN POLAND

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ABSTRACT

This article analyses the distribution and development of selected logistical infrastructure facilities in Poland. The distribution of warehouse and logistics centres as well as the development of the modern warehouse space market were examined. The article presents the number of facilities and their warehouse area in 2012 and 2017. Furthermore, concentration areas of this type of infrastructure and companies that manage them were indicated, as well as potential logistics centres were characterized. The differences between a warehouse and a logistics centre were presented. The analysis was based on the Cushman & Wakefield's offer and information published by logistics centre operators and port authorities. In 2018, there were approximately 200 warehouse centres in Poland with a total warehouse area of over 15 million m² and only 2 logistics centres: Silesian Logistics Centre in Gliwice and CLIP Logistics in Swarzędz. The biggest industrial developers that offered warehouse area to let in 2017 were: Prologis, Logicor, Segro and Panattoni. Most of the warehouse centres provided services using exclusively road transport.

# Introduction

The aim of this article is to analyse the distribution and development of selected logistical infrastructure facilities in Poland. The location of warehouse and logistics centres, as well as the development of the modern warehouse space market were examined. These facilities constitute important elements of logistical infrastructure. Concentration areas of this type of infrastructure and companies managing them were indicated, as well as potential

logistics centres were characterized. Moreover, the differences between a warehouse and a logistics centre were presented. Attention was put on the access of such facilities to various modes of transport (multimodality).

The data regarding warehouse centres presented in the article were obtained from Cushman & Wakefield's offer. The company is one of the world's largest consultancy and intermediary companies in the field of commercial property leasing, including warehouse areas – it operates in 58 countries (Piekarski, Juściński, 2005; *Przegląd rynku...*, 2004).

In accordance with the definition presented by the European Association of Logistics Centres "Europlatforms", a logistics centre is a designated area where all the activities relating to transport, logistics and goods distribution – both for national and international transit are carried out. Services are provided by various entities on a commercial basis. A logistics centre should (Europlatforms, 2017):

- be open to all interested companies,
- be multimodal, i.e. provide access to several modes of transport and support intermodal transport,
- offer public services to users,
- comply with European quality and performance standards.

In Polish literature, a logistics centre is most often defined as: a spatial object with its own organization and infrastructure which allow independent enterprises to perform actions on goods in relation to their storage and transportation between the sender and the recipient, including support for intermodal transport and providing various services to users (Kisperska, 2009, p. 287).

 Table 1. Comparison of selected logistics facilities

	Infrastructure							Scope of services																
The type of object	warehouse building	Intermodal terminal	office rooms	office building	customs post	vehicle refueling station	technical service point for vehicles	car wash	catering facility	motel	storage	cross docking	sorting packages	intermodal reloading	forwarding	customs service	telecommunication services	financial services	packaging rental	packaging cleaning and repair	fuel sales	vehicle servicing	catering services	hotel services
Logistic centre	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Warehouse centre	+	-	+	-	-	-	-	-	-	-	+	+	+	-	+	+	+	-	-	-	-	-	-	-

Source: own elaboration based on Kisperska-Moro, Krzyżaniak (2009).

In addition to logistics centre, there can be distinguished warehouse and distribution or logistics-distribution centres. The main difference between a logistics centre and a warehouse centre is the range of offered services and access to various means of transport. A logistics centre has to have access to at least two modes of transport, and have an intermodal terminal as one of its elements. It also offers a range of services related to the supply chain management process. In most cases, a warehouse centre only includes storage facilities with an office part, and is only serviced by road (Table 1). The difference is already visible at the investment stage. Warehouse centres were built by one investor, most often industrial developers, in accordance with standard projects, whereas logistics centres were created by many entities, often with the participation of local-government. It should be emphasized

that not all facilities called logistics centres are them in reality. Often the name resulted from the marketing strategy of a given company, e.g. for the determination of a finished goods warehouse or a central warehouse (Fechner, 2004).

## Development of warehouse infrastructure in Poland

Warehouse facilities built by industrial developers were created as a part of Build-to-Suit (BTS) investments – their localization, space, as well as technical and performance characteristics were agreed with the lessee before the construction started, or as semi-speculative projects – the infrastructure did not have a predetermined lessee. The number of modern facilities and warehouse complexes in Poland has been dynamically growing in recent years. Modern warehouse areas are facilities put to use after 2000. In 2012–2017, 80 warehouse complexes, and a total of over 3.6 million m² of warehouse area (Table 2) were built in Poland. In 2018, the total warehouse area in modern warehouse complexes exceeded 15 million m². The biggest developers in terms of the number of warehouse complexes offered were: Pannattoni – 24 in 2012 and 30 in 2017, and Prologis – 26 in 2012 and 21 in 2017. In the analysed years, this group was joined by: Logicor, Segro and Goodman that at the end of February 2017 managed respectively 19, 14 and 12 warehouse centres. In terms of warehouse area in 2017, Prologis was the largest one with 2,218.9 thousand m², Logicor – 844.6 thousand m², Segro – 757.7 thousand m², and Panattoni – 570.6 thousand m² (*Marketbeat Poland...* 2018; own elaboration based on the offer Cushman & Wakefield 02.2012 and 02.2017).

Table 2. Warehouse stock in Polish voivodeships in 2012 and 2017

	February	2012	February 2017				
Voivodeship	the number of warehouse	warehouse area	the number of warehouse	warehouse area			
	centres	(sq. meters)	centres	(sq. meters)			
Poland	105	5,910,940	185	9,510,457			
Dolnośląskie	8	525,900	19	1,108,377			
Kujawsko-Pomorskie	2	65,100	5	165,101			
Lubelskie	_	-	4	93,187			
Lubuskie	-	-	1	4,700			
Łódzkie	14	858,230	21	1,300,834			
Małopolskie	6	109,780	12	339,284			
Mazowieckie	40	2,143,780	60	2,960,968			
Opolskie	_	-	-	-			
Podkarpackie	2	48,390	2	53,229			
Podlaskie	-	-	-	-			
Pomorskie	4	137,000	8	446,336			
Śląskie	19	1,209,740	30	1,715,466			
Świętokrzyskie	-	-	-	-			
Narmińsko-Mazurskie	-	-	-	-			
Vielkopolskie	9	766,360	19	1,130,132			
Zachodniopomorskie	1	46,660	4	192,843			

Source: own elaboration based on the offer Cushman & Wakefield.

The highest concentrations of warehouse centres were located around large cities: Warszawa, Poznań, Wrocław and Łódź agglomerations, the Katowice and trójmiejska urban areas, as well as Kraków and Szczecin. On the other hand, Opolskie, Świętokrzyskie, Podlaskie and Warmińsko-Mazurskie voivodeships did not have

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warehouse centres (Figure 1). In 2018, the first warehouse centre was opened in Białystok in Podlaskie voivodeship. At that time, the first warehouse complexes were under construction in Świętokrzyskie and Warmińsko-Mazurskie voivodeships (Cushman, Wakefield, 2018).

In addition to the developers, warehouse centres were owned by logistics operators, e.g. Sistema Poland – 5 (Tychy, Łódź, Bieruń, Sosnowiec, Bielsko-Biała), Muller die Logistyk – 2 (Gliwice, Wrocław), Ost Sped – 2 (Kalisz and Gądki) (Based on information published by the listed companies). Large retail chains had their own warehouse infrastructure. Some of these distribution centres had access to railways – including facilities belonging to: Ikea Hanim Poland SA, Castorama Polska Sp. z o.o., Jysk Sp. z o.o. and Blum Polska Sp. z o.o. (Bocheński, 2014).

Warehouse centres established in Poland were focused on providing services using mainly road transport. Warehouse facilities were often located in the vicinity of road junctions on motorways and expressways, away from railway lines and stations. Only 14% of them had access to the railway in 2013 – had their own siding. A characteristic feature was that a significant part of the facilities was located near container terminals (Figure 1), which made it possible to use intermodal transport. About 42% of warehouse complexes were located within a radius of 10 km from the nearest container terminal (Bocheński, 2014).

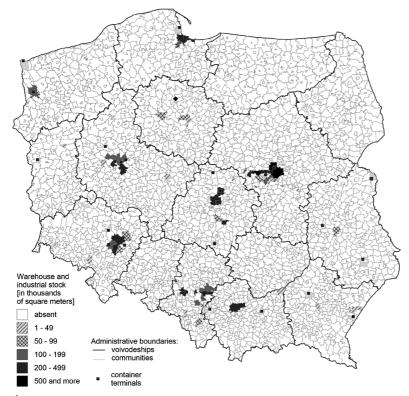


Figure 1. Warehouse and industrial stock in communities and location of container terminals in Poland – February 2017.

Source: own elaboration based on: the offer Cushman & Wakefield from February 15, 2017; information published by the Silesian Logistics Centre and Wielkopolska Logistics Centre; Bocheński (2018).

# **Logistics centres in Poland**

There is no network of logistics centres in Poland. Demand for modern warehouses has been met by industrial developers who have built and managed warehouse centres. The existing logistics centres were created as a result of local initiatives. This was due to the lack of national policy in the area of logistics infrastructure development (Fechner, Krzyżaniak, 2013, pp. 97–107). There can be distinguished about 10 potential logistics centres in Poland (Table 3). However, only 2 of them met most of the criteria for logistics centres: Silesian Logistics Centre in Gliwice and CLIP Logistics in Swarzedz.

Table 3. Equipment of potential logistics centres in Poland

		Warehouse building	0	_	Storage area					
The name of the object	Container terminal		Customs warehouse	Customs service	storage yards for containers (TEU)	covered warehouses (m²)	other storage yards (m²)			
Euroterminal Sławków	+	-	+	+	3,700	8,500	118,200ª			
Silesian Logistics Centre in Gliwice	+	+	+	+	2,850	28,000	25,000			
CLIP Logistics in Swarzędz	+	_	+	+	4,500	300,000	-			
Wielkopolska Logistics Centre Konin-Stare Miasto	-	+	+	+	-	13,000	-			
Pomerania Logistics Centre (Goodman)	+ b	+	-	+	55,000b	500,000°	-			
West Pomerania Logistics Centre in Szczecin seaport	+ <sup>d</sup>	-	+e	nd	4,000 <sup>d</sup>	56,000°	140,000°			
Logistics Centre of Gdynia seaport	+ <sup>f</sup>	+	+	_	~30,000 <sup>f</sup>	31,840	-			
Logistics Centre PKP Cargo in Malaszewicze	+	-	+9	+	1,872 >3,200 <sup>9</sup>	nd	45,000			
Logistics Centre PKP Cargo in Medyka-Żurawica	+	-	_	+	80	nd	7,596			
Logistics Centre in Łosośna	-	-	_	+	-	1,137	50,000			

nd - no data

Source: own elaboration based on information published by managers of logistic centres and seaports.

The initiatives to create logistics centres were undertaken in, among others, the hinterland of the main ports in Gdańsk, Gdynia, Szczecin and in dry ports at the interface between normal and wide tracks in: Sławków, near Przemyśl and Małaszewicze. In 2007, Zachodniopomorskie Centrum Logistyczne was created next to DB Port Szczecin container terminal. So far, only truck parking lots have been constructed on it site, and the majority of the area remains undeveloped. In Gdańsk, in the vicinity of the DCT terminal, a warehouse centre was built by the developer Goodman (Bocheński, Palmowski, 2015). Whereas in Gdynia, the concept of creating the so-called Logistic Valley, stretching west of the port of Gdynia was developed. The Gdynia Port Authority directly invested in the construction of warehouses for rent (Gdynia Maritime Port Authority SA, 2017). The potential logistics centre was Euroterminal Sławków located within the Katowice urban area at the end of the Broad-Gauge Metallurgical Railway Line. A similar function was performed by PKP Cargo facilities in the Medyka-Żurawica reloading area near Przemyśl and Małaszewicze. There were reloading unit assemblies belonging to different operators, located at the

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<sup>\*-</sup> including steel product (8,200 m²) and bulk cargo (110,000 m²); b- maritime container terminal DCT; c- target area; d- maritime container terminal of DB Port Szczecin; d- Free Customs Area on the general cargo terminal of DB Port Szczecin; d- maritime container terminals BCT and GCT; d- including terminals Europort and Adampol.

junction of broad-gauge (1,520 mm) and European standard-gauge (1,435 mm) railway lines (Bocheński, 2017; Bocheński, 2018).

In 2015, 6 Polish centres belonged to the European Association of Logistics Centres "Europlatforms": Pomeranian Logistics Centre in Gdańsk, the Port of Gdynia's Logistics Centre, Zachodniopomorskie Logistics Centre in Szczecin, Euroterminal Sławków, Silesian Logistics Centre in Gliwice and CLIP in Swarzedz.

The problem of existing logistics infrastructure facilities in Poland was primarily the lack of access to at least two modes of transport and insufficient scope of additional services. Multimodality is one of the most important elements of a logistics centre, one of whose tasks is to support intermodal transport.

## Conclusions

At the current stage of the development of the logistics market in Poland, the creation of a network of logistics centres similar to other European countries seems unlikely. This is due to the omission of this issue in the state's transport policy. The demand for modern warehouse areas is met by dynamically developing warehouse centres built by developers. In 2018, there were about 200 warehouse centres in Poland with a total warehouse area of over 15 million m<sup>2</sup>. The biggest industrial developers that offered warehouse area to let in 2017 were Prologis, Logicor, Segro and Panattoni. Among the potential logistics centres, only 2 met most of the criteria for logistics centres: Silesian Logistics Centre in Gliwice and CLIP Logistics in Swarzędz.

The examined logistics infrastructure was concentrated in the largest agglomerations: Warszawa, Łódź, Wrocław, Poznań and the trójmiejska and Katowice urban areas. Opolskie voivodeship did not have any of this type of infrastructure, whereas in Podlaskie, Świętokrzyskie and Warmińsko-mazurskie voivodeships, the first facilities of this type had not been created until 2018. A majority of the facilities were operated by car transport alone. The lack of fully developed logistics centres and the focus of most warehouse centres on providing services only by road transport hampered the development of intermodal rail transport.

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