



# **Impact Report by DB Schenker in Poland featuring Impact on Economic and Social Environment**



*Based on 2018 data*

*Schenker sp. z o.o. and Schenker Technology Center (Warsaw) sp. z o.o.*



# Table of contents



## 1. Economic impact - DB Schenker's contribution to the Polish economy.....4

Summary: key economic impacts .....5

1.1. Value of purchases.....7

1.2. Value added.....7

1.3. Employment.....9

1.4. Household income.....12

1.5. Taxation - contribution to the national and local budgets.....14

## 2. Impact of DB Schenker investments on the socio-economic environment..... 16

2.1. Impact of DB Schenker's investments in Poland on the national economy.....18

## 3. The social dimension..... 22

3.1. Working based on highest safety standards..... 23

3.2. Social costs of accidents at work..... 24

## 4. Methodological note.....25



The DB Schenker Group is a global player but in each of its countries of operation it makes an impact on the local economy. With its investments, its expenditure on services and products and the creation of many new jobs, DB Schenker not only contributes to the development of the Polish transport sector, but of the entire Polish economy.

DB Schenker's contribution to the Polish economy is not only felt by the sectors directly linked to its operations in which immediate effects arise. It is felt in a whole spectrum of branches of the economy. Economic modelling helps to better understand and measure the extent to which DB Schenker in Poland contributes to the country's economic development.

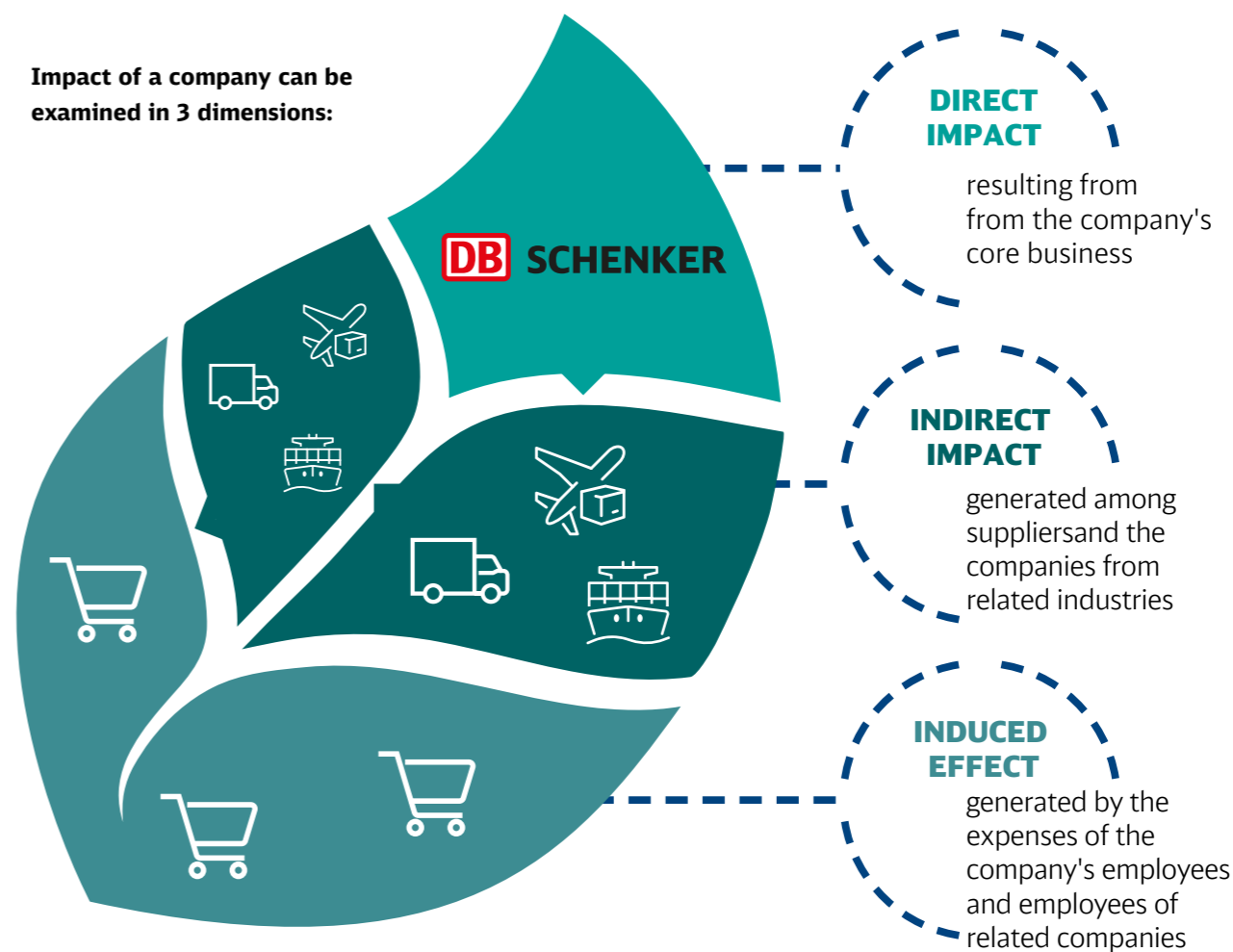


# 1. Economic impact - DB Schenker's contribution to the Polish economy

DB Schenker in Poland contributes to the creation of value added, of household income and of new jobs: directly, indirectly and by induction. Such contribution was calculated using input-output analysis, originally created by Nobel Prize winner Wassily Leontief. Three levels of DB Schenker's impact on the national economy in Poland can be distinguished: The first one is the direct impact resulting from the day-to-day core business of the company. It includes the following:

- value added created,
- new jobs created,
- taxes paid,
- salaries & wages paid to its employees.

However, the company's impact extends much further than the direct effects of its operations. Economy is a system of connected vessels. DB Schenker in Poland engages in cooperation with other operators from various industries and sectors, such as suppliers and producers, and thus, growth of its activities also translates into their scale of operation - they can also create value added, hire employees and pay salaries, and that, in turn, boosts household income. This way, DB Schenker in Poland produces indirect effects in various sectors of the economy. Household income generated by DB Schenker in Poland, both directly - for its employees, and indirectly - for the employees of its suppliers and subcontractors, support the increase of Polish GDP in the form of consumer spending. The latter effect is yet another impact: the induced effect.



## Summary of the key results of the overall economic impact (3 dimensions in total)



**1 410.6**  
million PLN

**Value added** generated by DB Schenker's operations in Poland in 2018



**13 322**

**Jobs** created and maintained through DB Schenker's operations in Poland in 2018



**368.9**  
million PLN

**Household income** generated by DB Schenker's operations in Poland in 2018



**1 101.7**  
million PLN

**Value of purchases of DB Schenker products and services** in Poland from Polish suppliers in 2018



**37.2**  
million PLN

**Value of taxes** paid by DB Schenker in Poland in 2018

### 1.1. Value of purchases

The value of purchases showing the so-called intermediate consumption is an important variable to estimate the company's contribution to GDP, which further generates multidimensional effects in the Polish economy.

By purchasing the materials, energy and services necessary for the operation of the company, DB Schenker in Poland supports the development of its suppliers and sub-contractors, bringing positive effects for the economy.

This way, DB Schenker in Poland contributes to the generation of indirect effects in various sectors of the economy. In addition, the increased income of DB Schenker employees in Poland, as well as employees of suppliers and subcontractors, allows for growing expenditure on consumption, which in turn creates value added, jobs and wages in the economy.

Thanks to the increased demand for their products, suppliers can create value added, hire employees and pay wages, which in turn boosts household income.

**1.43 bn PLN<sup>1</sup>** was the total value of materials and services consumed by DB Schenker in Poland in 2018.

Purchases made by DB Schenker from Polish suppliers prevailed in the areas of transport and

warehousing, professional services, business and financial, insurance and real estate services.

### 1.2. Value added

**What is meant by saying that DB Schenker in Poland generates value added in the economy?**

**The value added is a way to measure the company's contribution to the Polish gross domestic product.** It is an increase in the value of goods as a result of a specific production process or service creation. In accounting terms, the value added represents the

portion of the global output of the enterprise, which remains after deducting intermediate consumption, i.e. the value of goods and services used as inputs in the production process. The greater the share of value added in the company's final product, the greater its creative contribution to the production process and a greater share in GDP generation.

<sup>1</sup> Costs of materials, energy and external services consumption and the value of material stocks (from Central Statistical Office G-05)

Value added generated in 2018 by DB Schenker's operations in Poland:

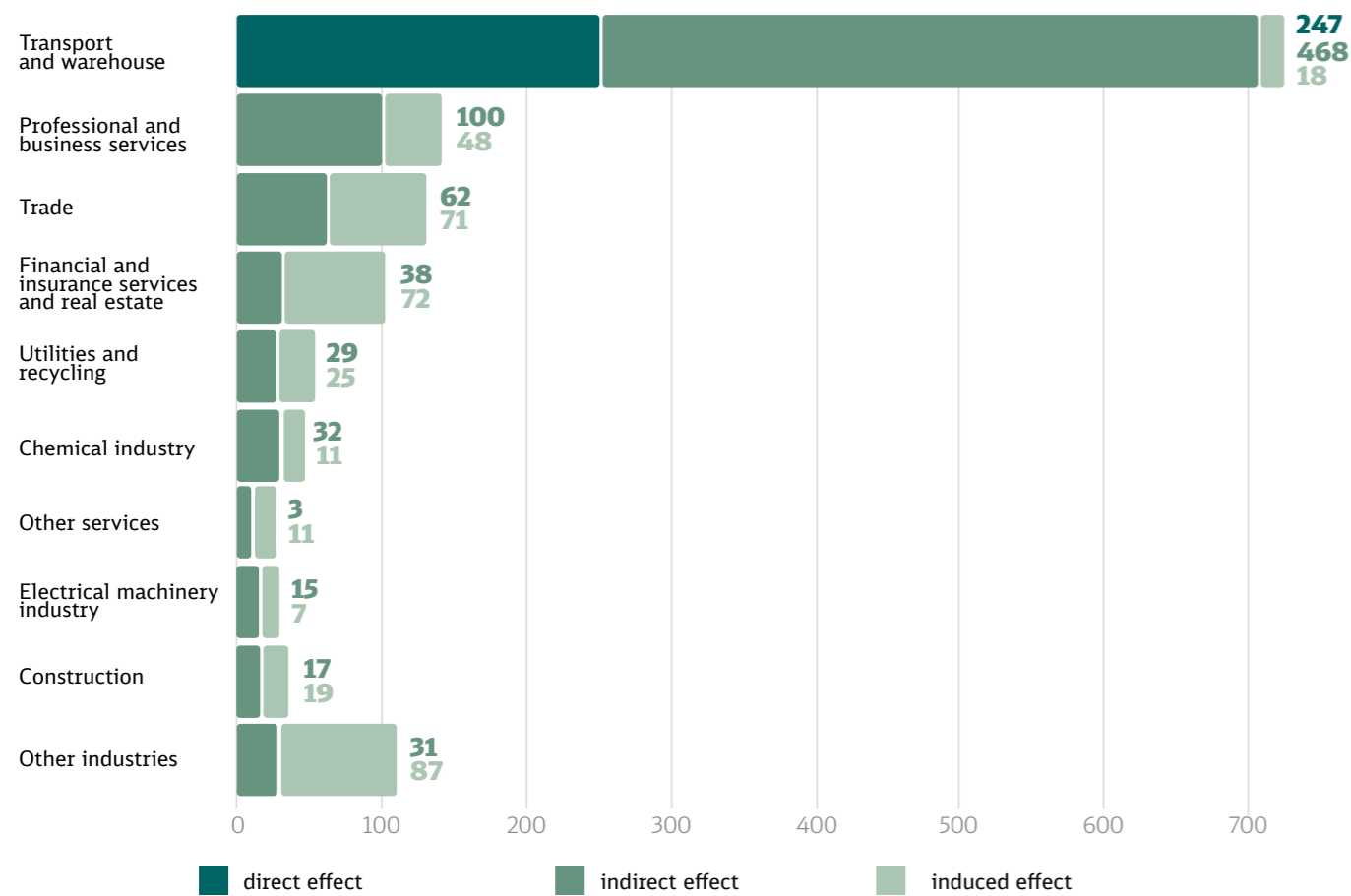
Direct effect	PLN 247.2 million	Total effect <b>1.41</b> billion PLN
Indirect effect	PLN 794.2 million	
Induced effect	PLN 369.2 million	

Each zloty of Value added generated by DB Schenker in Poland contributes to a total of PLN 5.71 in the national economy.<sup>2</sup>



Through the links between the individual branches of the economy, DB Schenker in Poland generates effects in many sectors. The most strongly supported sectors are transport and warehouse, professional and business services and trade.

Table. Value added generated in individual industries in 2018 thanks to DB Schenker's operations in Poland [million PLN].



Source: Deloitte analyses, 2019

<sup>2</sup> The multiplier effect was calculated on the formula: total effect/direct effect. The multiplier shows how value added, employment, wages and salaries in the whole economy will change as a result of changes in these values in DB Schenker companies.

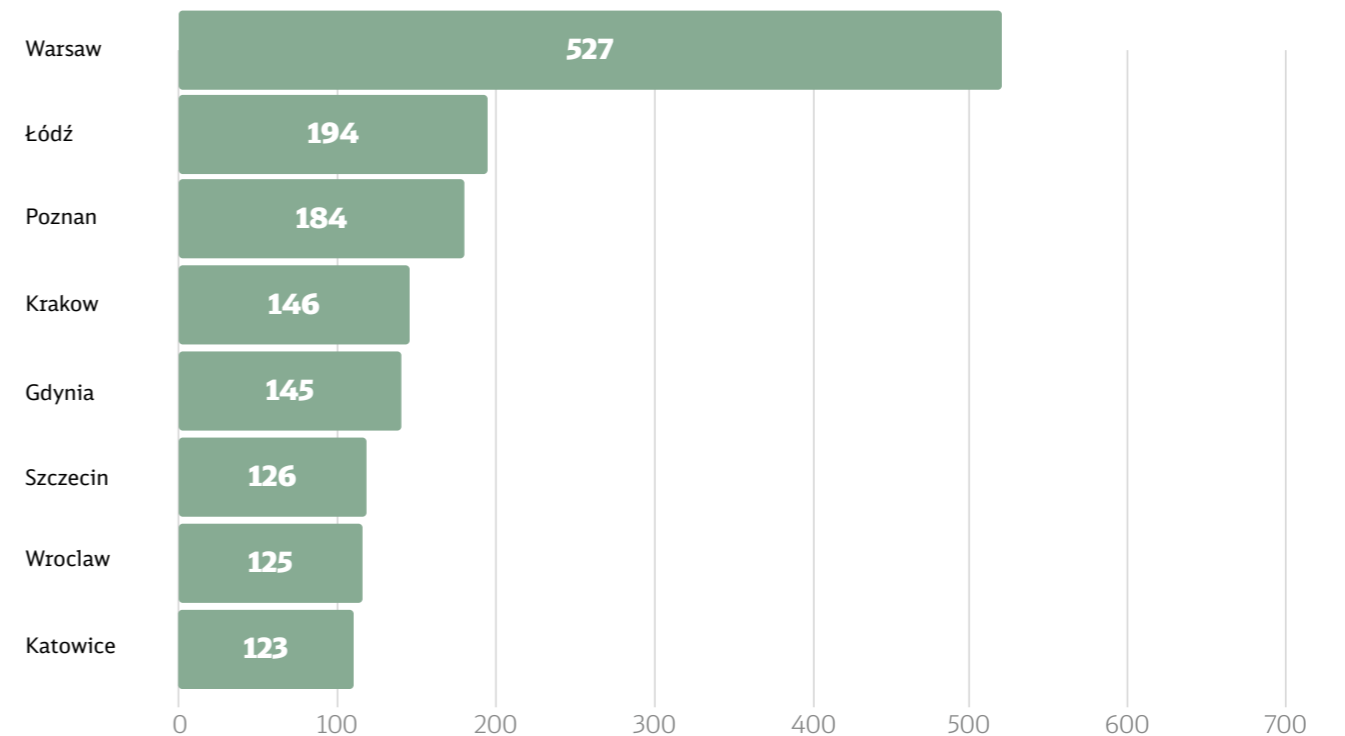
### 1.3. Employment

A very important category of impact of DB Schenker's activity in Poland on the economic and social environment is the creation of jobs - both directly (by employing its employees) and indirect and induced - generating demand for their suppliers' products and services, so they employ more people.



Direct employment at DB Schenker in Poland at the end of 2018 amounted to **2 317** people

Table. Average employment at DB Schenker in Poland in 2018 in 8 selected economic centres. [people]



**13.3 k** jobs were created and maintained thanks to DB Schenker's activities in Poland.

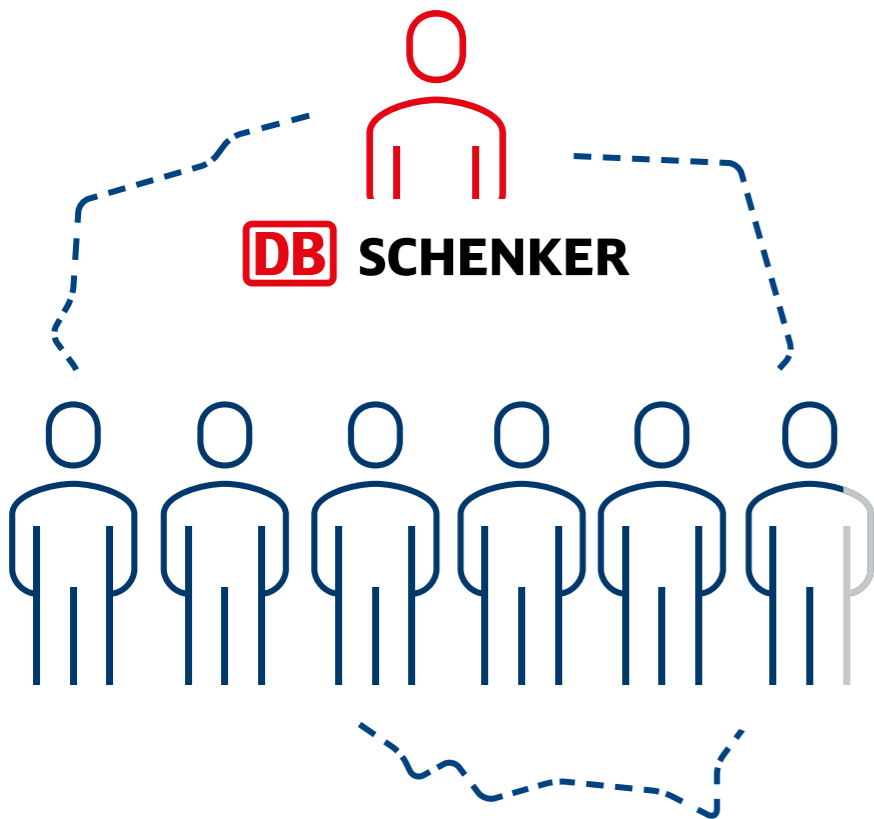
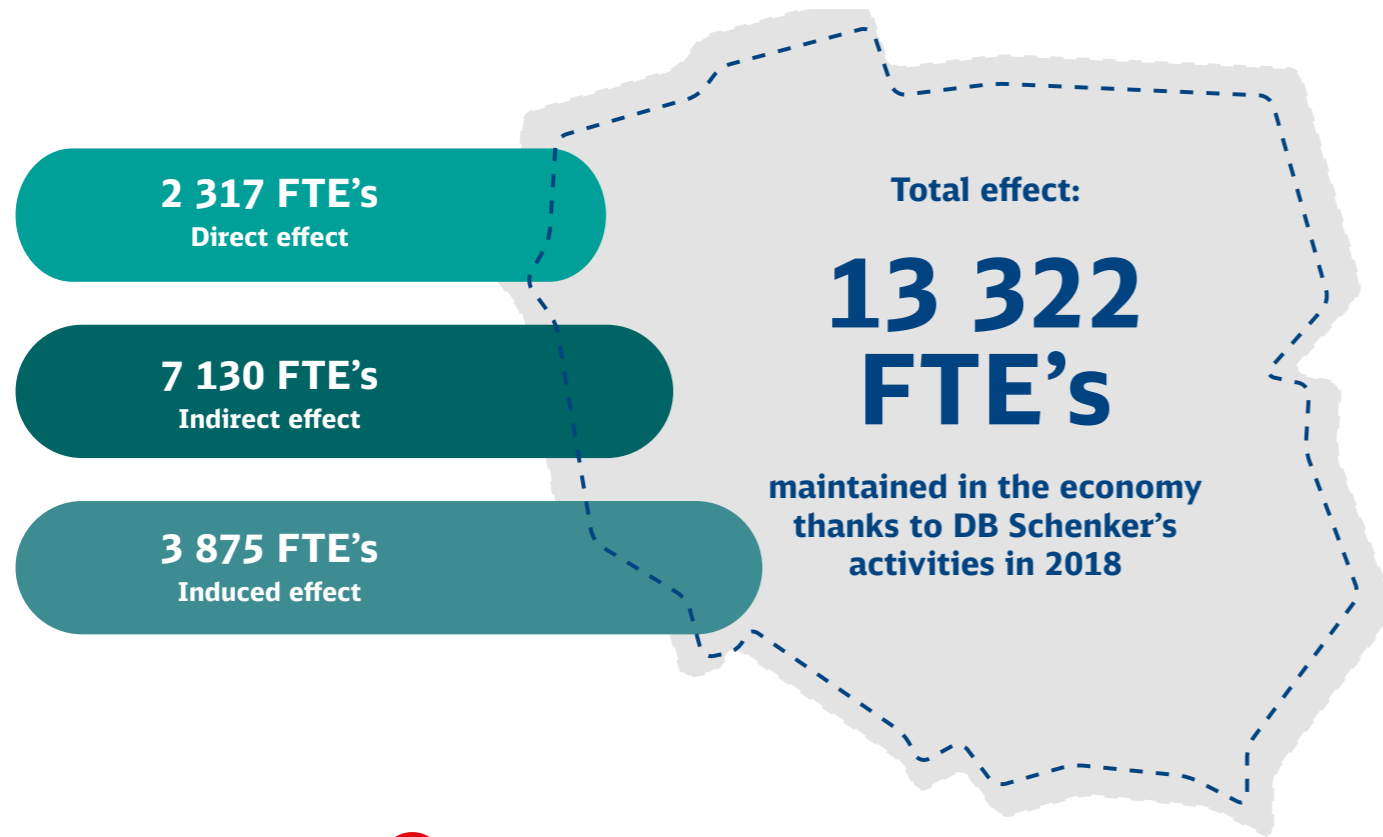
Did you know that?

This is nearly 36% of the total number of employees in the transport and warehouse management sector in the Mazowieckie Voivodeship.





**Jobs created and maintained in 2018 thanks to DB Schenker's operations in Poland**

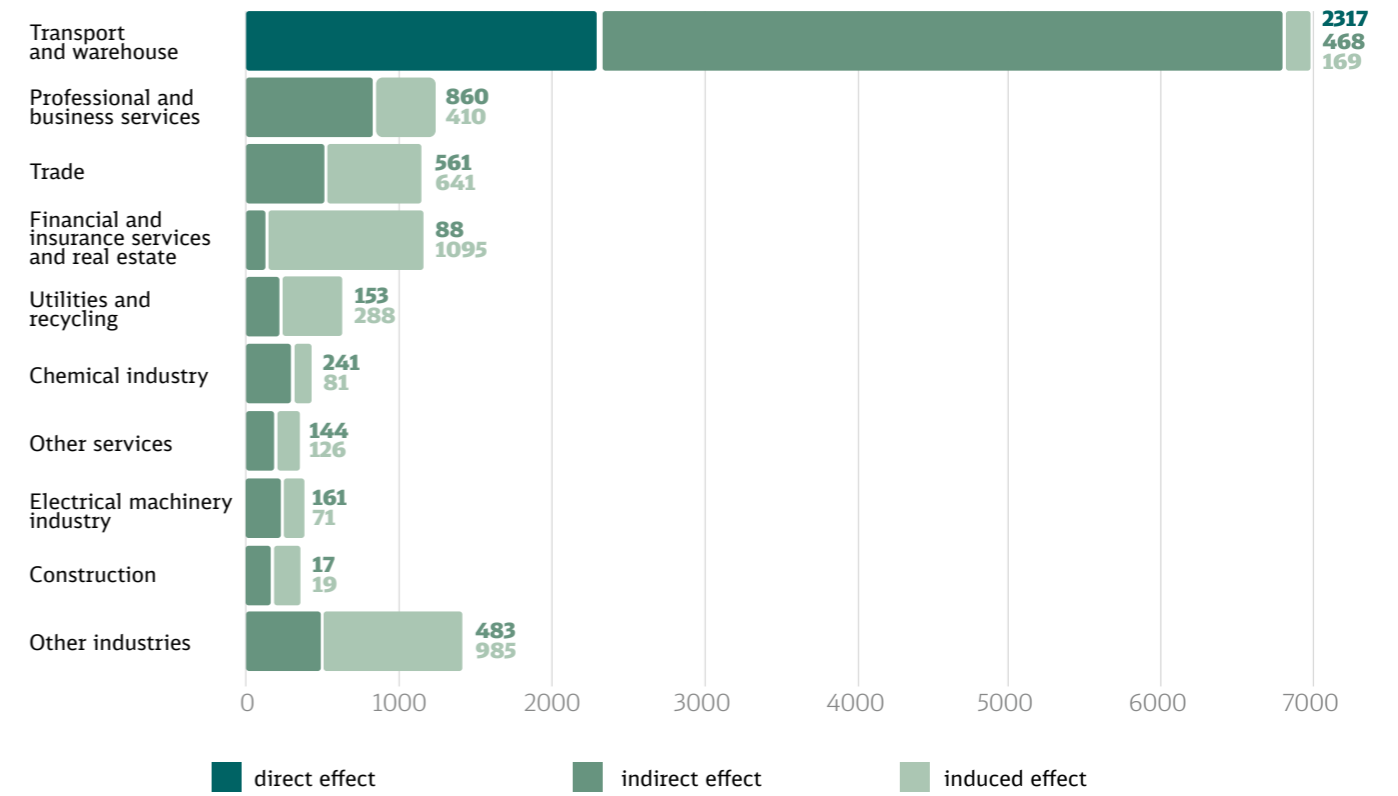


One job maintained by DB Schenker contributes to maintaining as much as

**5.75**  
jobs in Poland

Thanks to DB Schenker's activities in Poland, many jobs have been created not only in the transport and warehouse sectors, which mainly support the company's operations. The expenses of DB Schenker's employees and suppliers translate to 2,500 people employed in trade and professional and business services sector.

**Chart. Jobs created and maintained in individual industries in 2018 thanks to DB Schenker's operations in Poland [people]**



Source: Deloitte analyses, 2019



### 1.4. Household income

The economic situation of households is largely determined by the state of the labour market.

The increase in employment and wages affects the quality of life of the employed and their families. In macroeconomic terms, periods of prosperity are conducive to increased consumption, which in turn feeds into state revenues and budgets.

In 2018, DB Schenker in Poland paid 148.1 million PLN gross in salaries and wages.

The indirect effect, i.e. income of households of DB Schenker's suppliers and subcontractors and their related associates amounted to 186 million PLN in 2018. The induced effect - i.e. salaries and wages paid to employees in other companies, which profit from the consumption and investment made by employees of DB Schenker and its suppliers - represents an extra of 75 m PLN of income in the economy.

#### Household income generated in 2018 thanks to DB Schenker's operations in Poland

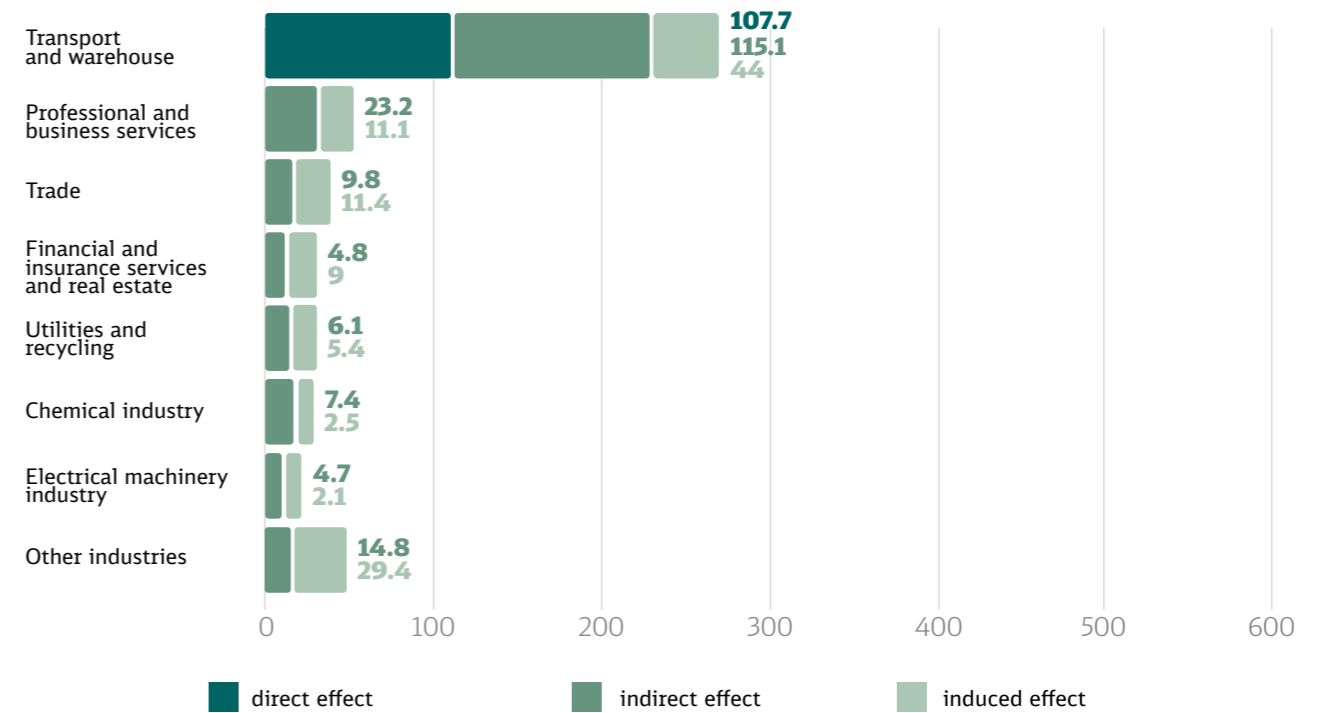


Each Polish zloty spent by DB Schenker on (net) wages and salaries paid out in Poland contributes to the creation of the total income of 3.43 PLN for other households.



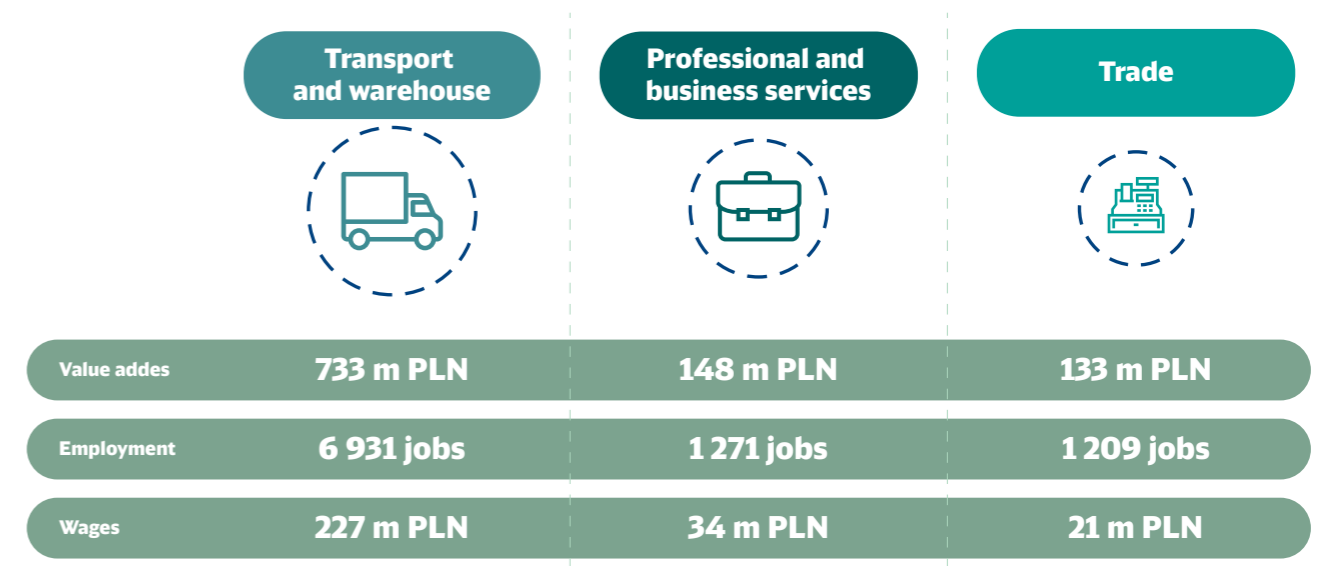
<sup>3</sup> Net remuneration paid by DB Schenker in Poland.

Table. Household income generated in individual industries in 2018 thanks to DB Schenker's operations in Poland [million PLN].



Source: Deloitte analyses, 2019

#### 3 GREATEST BENEFICIARY INDUSTRIES – TOTAL EFFECTS (direct, indirect and induced)



Source: Deloitte analyses, 2019

## 1.5. Taxation - contribution to the national and to local budgets

Company's positive impact on the Polish economy is also manifested by the taxes it pays. They are a direct source of financing the state's activities, enabling the implementation of budgetary expenditures related to, inter alia, regional development, road construction, investments

in environment protection, social, health or educational spending. Taxation contributes to the state budget and the budgets of local communities where the company operates.

Last year, the total amount paid to the state budget and local governments was

# 37.2 m PLN



Did you know that?

The amount of 37.2 million PLN would allow the purchase of 15 electric buses or planting over 1 000 000 trees

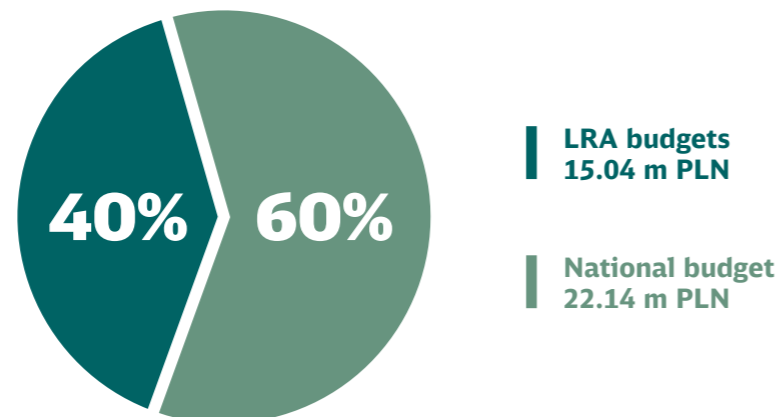


Some of the taxes paid by DB Schenker in Poland are directly paid or distributed from the central level to individual Local/Regional Authorities: LRA's (Polish abbrev. JST) - voivodeships, districts and municipalities. These are particularly visible in smaller municipalities, where the company is often one of the most important taxpayers.

In total, about 40% of taxes paid by DB Schenker go directly to the budgets of LRA's, which in 2018 amounted to 15 m PLN.

Income tax (PIT) and real estate tax constituted the largest share of this revenue.

### National and local taxes paid by DB Schenker in 2018



Data on receipts to Local/Regional Authorities represent approximate municipal revenues, calculated on the basis of DB Schenker data in Poland and LRA's shares in tax receipts, according to information from the MF.



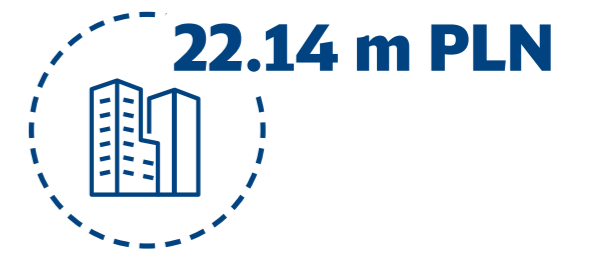
Source: Deloitte analyses, 2019

The biggest share of tax revenue goes to the Cities of Warsaw, Łódź, Kraków and Wrocław. In total, DB Schenker makes a visible contribution to the local budgets of as many as 50 Polish municipalities.



Did you know that?

The amount of 22.14 million PLN would be sufficient to cover 90% of the participatory budget of the city of Wrocław in 2018<sup>4</sup>



### Selected local taxes paid in 2018 By DB Schenker in Poland<sup>5</sup>

City	Tax Type and Amount	Did you know that?
Warsaw	Total tax payable: <b>2.67 million PLN</b>	This amount would allow the construction of almost 670 green parking spaces <sup>6</sup> .
Łódź	Total tax payable: <b>1.38 million PLN</b>	This amount is comparable to the funding received in 2018 by theatres in Łódź.
Krakow	Total tax payable: <b>1.03 million PLN</b>	This amount is the equivalent of the funding allocated by the city of Krakow for the modernization of all kindergarten playgrounds in 2018.
Wrocław	Total tax payable: <b>928 thousand PLN</b>	This amount corresponds to the expenditure of the city of Wrocław in 2018 on preventive monitoring, increasing the safety of residents.
Nadarzyn	<b>886 thousand PLN</b> real estate tax	This is almost half of the expenditure that the municipality of Nadarzyn spent in 2018 on local public transport.
Pyskowice	<b>517 thousand PLN</b> real estate tax	This is more than half of the expenditure which was allocated in 2018 by the Pyskowice municipality for the improvement of the district road infrastructure.
Tarnowo Podgórne	<b>512 thousand PLN</b> property tax	This is almost half of the expenditure needed to set up a network of integrated interchange stations in the municipality of Tarnów Podgórne along with investments in bus stock and technical facilities.

<sup>4</sup> Deloitte calculations based on city budget data

<sup>5</sup> Comparisons based on 2018 city budgets

<sup>6</sup> Green parking space = road and protection mesh + lawn





## 2. Impact of DB Schenker's investments on the socio-economic environment

DB Schenker, with its long-standing presence in the Polish market, has made many investments, which had a significant impact on both the economy of the country and of the individual regions where new projects were rolled out.

One of such investments, recently completed, is an ecological terminal in Nowa Wieś Wrocławska. Inaugurated on 8 October 2018, the facility is more than twice the size of the so far existing terminal. It has 8000 sqm of operating area and 1300 sqm of office space. The terminal is located near Wrocław, in close proximity to the main roads - A4 and A8 motorways, away from residential buildings, without causing any inconvenience to the people of Wrocław. Thanks to the increased area and convenient location, the investment is

capable of handling up to 8,000 shipments a day. The facility boasts a number of environment friendly solutions. These include LED lamps and solar ones, solar collectors for domestic water heating, rainwater tanks and heating-ventilation units enabling heat recovery. The innovations launched will enable the achievement of twofold reduction in energy consumption and cutting down CO2 emissions by 230 tons per year.



Atop all the environmental benefits, the investment entails tangible economic benefits. Opening a new terminal generates value added, triggers GDP growth, boosts household income and creates jobs directly, indirectly, as well as induced jobs.



### How the impact of the investment was measured?

The CGE: computable general equilibrium model was applied to measure the impact of investments, commonly used to measure the impact of various impulses that affect the economy, its individual industries or regions. Among others, the sources of such impulses are investments which affect e.g. supply of capital, demand for labour and demand for intermediate goods. The general equilibrium model is an advanced tool, as it models the entire economy, considering the supply and demand side and the links between different industries. This requires the inclusion of many variables and the collection of a relatively large database feeding into the model.

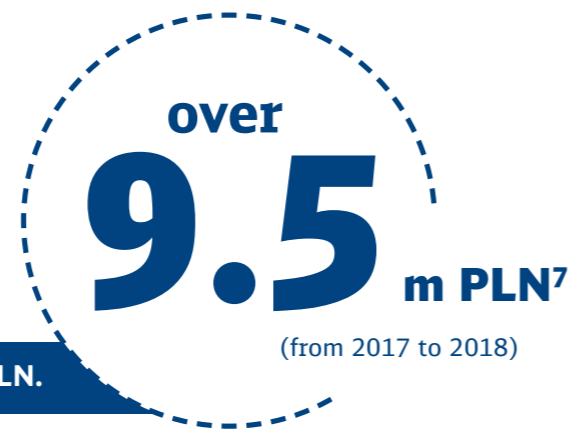
The entities included in the CGE model, i.e. households and businesses, make their decisions and affect supply or demand in individual markets, something that is captured by behavioural and structural equations. The equations in the CGE model are constructed on the basis of existing economic theories or expertise, while key behavioural and structural parameters in the equations are estimated using econometric tools on the basis of data available or data derived from econometric literature, so that the theoretical CGE model can well reflect the reality of the economy being modelled.

## 2.1. Impact of DB Schenker's investments in Poland on the national economy

Investments have a significant impact on both national and regional economies. Among others, they importantly impact the level of GDP and increase the revenues to the state budget and budgets of LRA's. The situation is no different for the new investment of DB Schenker Group. Due to its scale, it has an economic impact on many

levels. This impact is not limited to the logistics sector in which the DB Schenker Group operates, where direct effects arise. It is felt in various sectors of the economy - by affecting the Group's service providers or customers from many industries and by boosting households which i.a. can benefit from creation of new jobs.

The construction and commissioning of the new terminal has contributed to an increase in central budget revenues of average



In total, by 2026 the state will gain over 95 m PLN.

Construction of the terminal in 2017 and the investments made in it contributed an additional amount to GDP

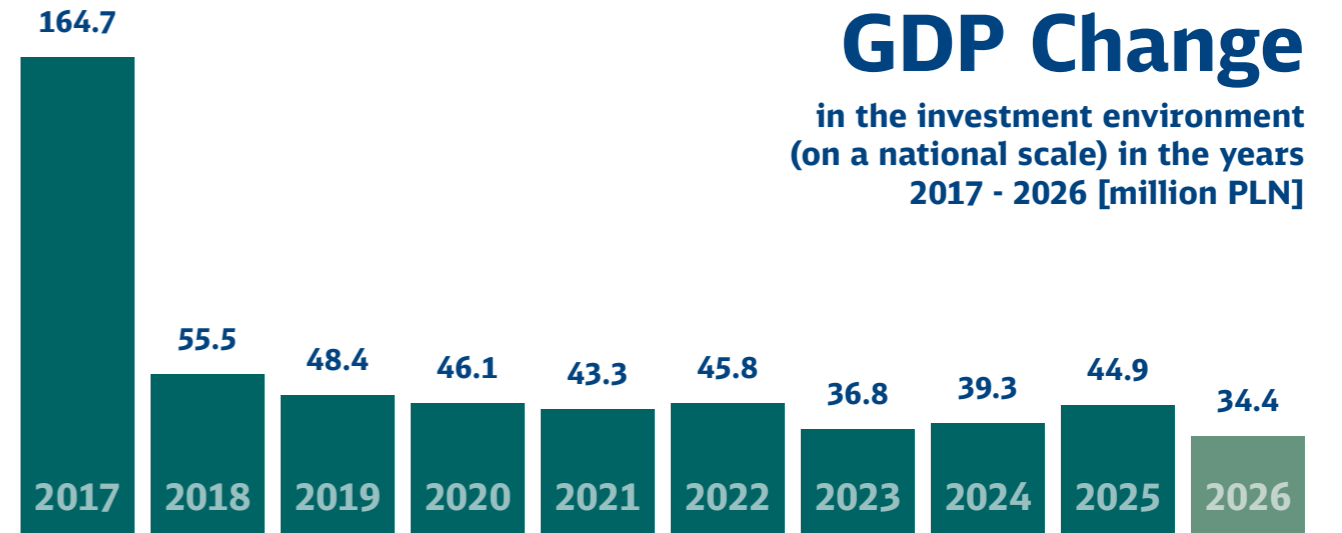


and in the Dolnośląskie voivodship as much as PLN 13 million.

In the years to come, as the terminal continues operations, it is estimated that the investment will involve a steady increase in GDP at both national and regional level. As a result of job creation, expenditure and continued demand for additional services to be provided by third parties, the investment in

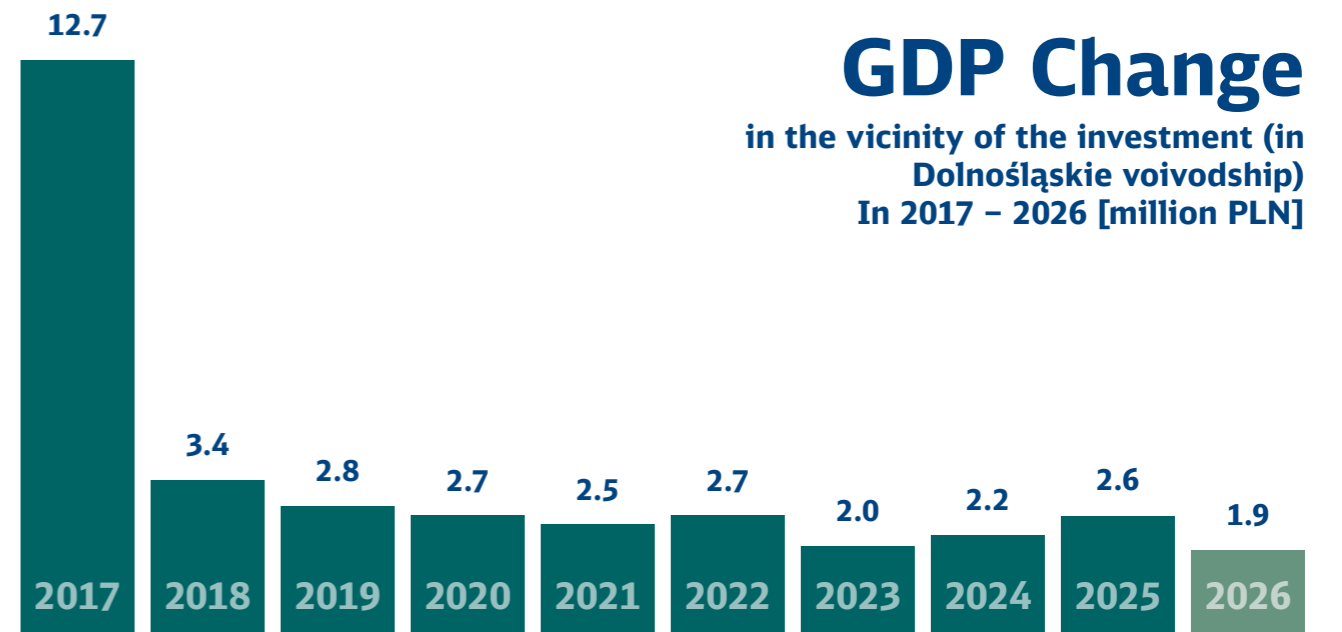
in the operational phase contribute now and will contribute to wealth creation. The Polish GDP received an additional 55.5 million PLN in 2018, and the GDP of the Dolnośląskie voivodship the extra funds of 3.4 million PLN, respectively.

<sup>7</sup>Total income from PIT, CIT and indirect taxes paid to the state budget through the investment. These taxes will be paid by DB Schenker and related entities cooperating with the company (economic impulse – see: the introduction to the chapter „Economic impact”).



This positive trend, albeit gradually decreasing, will remain at a similar level. In 2026.

34 million PLN will be added to Poland's GDP, and Dolnośląskie voivodship almost 2 million PLN

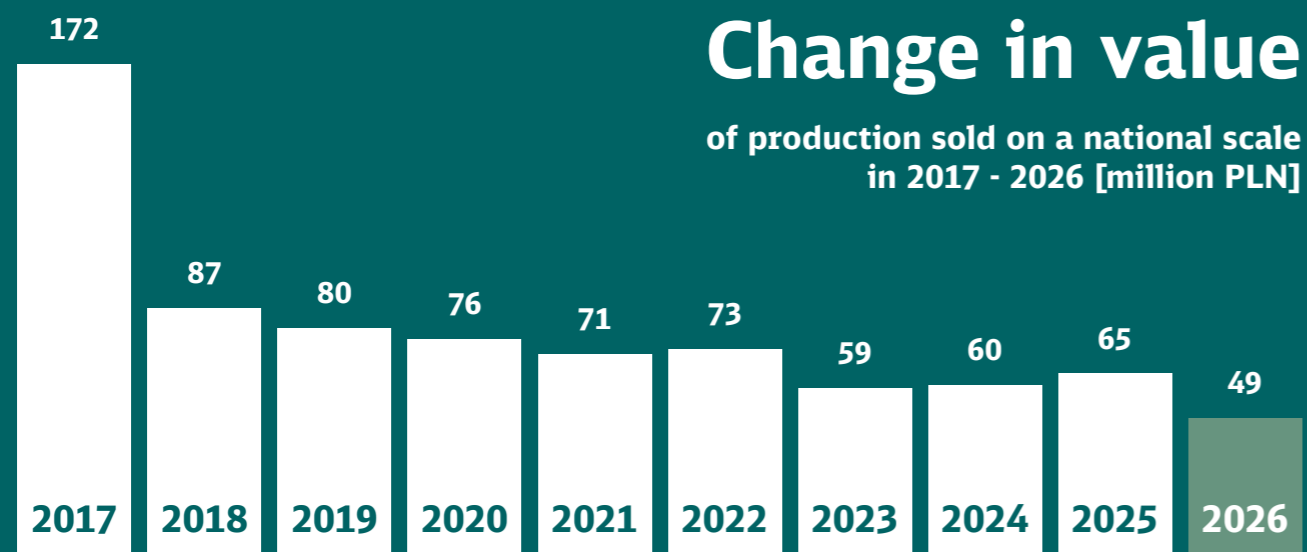


As a result of the investment and the ensuing changes mentioned above, both at the national and regional level, there was a positive change in the value of the production sold: i.e. the value of industrial products sold has grown. In 2017, at the terminal construction stage, this change featured most significantly. On a national scale it amounted to over 172 million PLN. After the launch of the investment, the impact, albeit reduced, continues on a high level

(from 80 million PLN in 2019 to 49 million PLN in 2026)

As a result of the investment, the value of production sold in 2017 increased **by 172 m PLN**

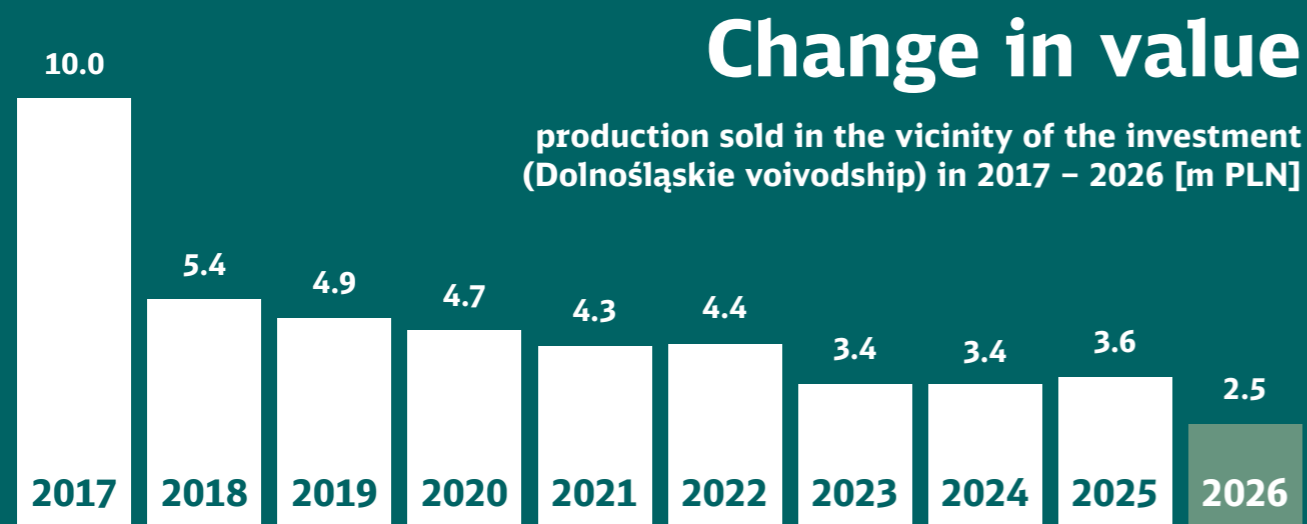




This impact is and will be visible also at the regional level of Dolnośląskie voivodship (Lower Silesia).

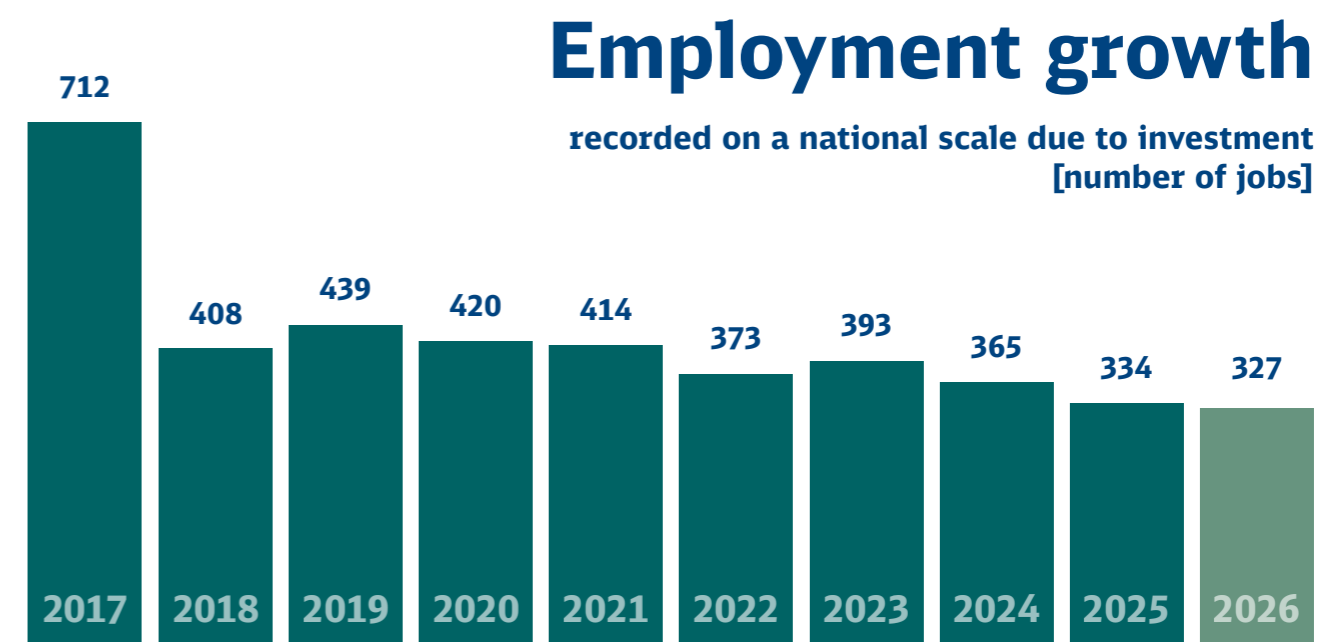
According to the developed model, after the launch of investment in 2019, this change amounted to 4.9 million PLN, and in 2026 it will stand at 2.5 million PLN.

**In 2017, increase in the value of production sold in Dolnośląskie voivodship stood at 10 m PLN**



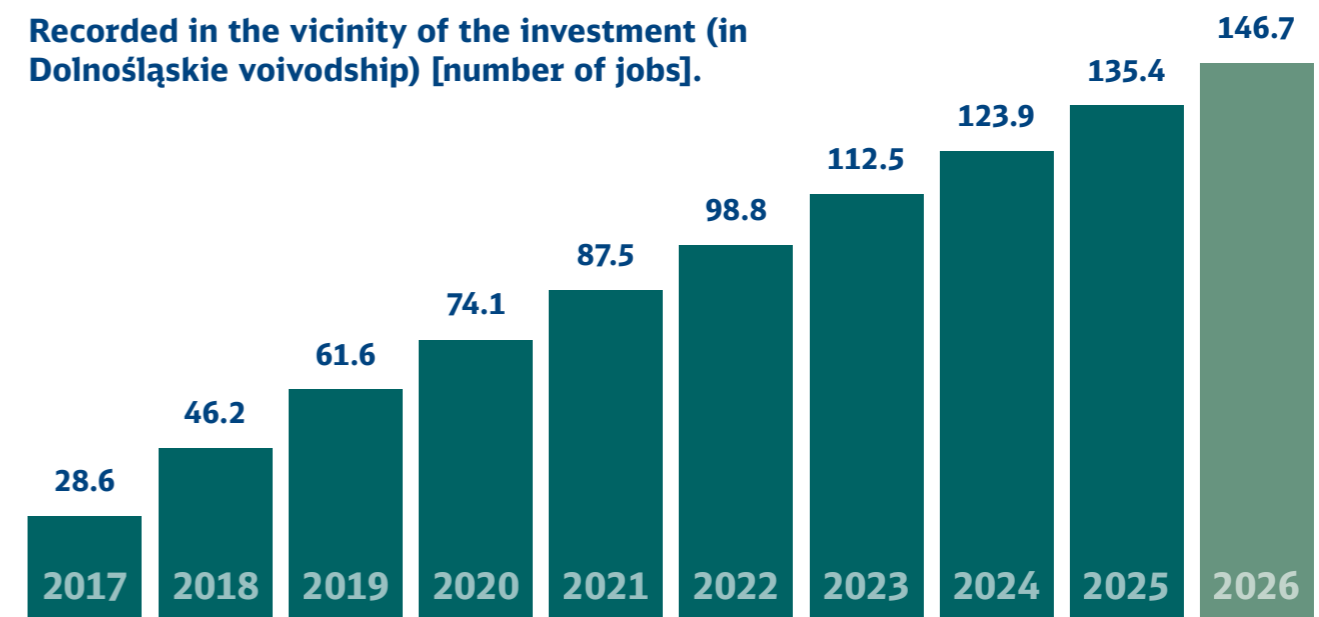
For the economic and social environment, creating new jobs is extremely important. Thanks to the construction of the terminal and the expenses made by the employees in the facility and its affiliates functioning,

many new jobs were created. In 2018, their number on a national scale amounted to 408, and as predicted, this number will remain at a similar level - in 2026 it will be 327.



## Employment growth

Recorded in the vicinity of the investment (in Dolnośląskie voivodship) [number of jobs].



Undoubtedly, the creation of the terminal also has a positive impact on job creation in the region. At the onset of the investment, 28 new jobs were created in the surroundings, but this number will gradually increase: in 2026, there will be 146 new jobs.

Along with the increase in employment, the investment directly translates into the fall of unemployment level, both in Poland and in Dolnośląskie voivodship (Lower Silesia).



## 3. The social dimension

### 3.1. Working based on highest safety standards

Occupational safety and health standards and safety culture are areas of utmost importance at DB Schenker in Poland, the tenets which are defined in the company's strategic objectives. Security depends on all employees. For this reason, DB Schenker in Poland places emphasis on proactive identification of hazards and on accident prevention through early response to, for example, reports of dangerous conditions and behaviours, or near misses. In this regard, important is effective communication with employees, as much as their involvement in current health and safety issues, i.e. inspections, explaining the circumstances and causes of undesirable events, reporting dangerous situations on an ongoing basis and responding effectively to such reports.

- protective equipment
- Golden rules of safety
  - Training
  - Briefings, single issue sessions
  - Communication – video tutorials, posters

As a result of these activities, awareness of safety among employees is growing, as well as identification and reporting of near misses to prevent their emergence in the future the increasing number of near misses reported by employees demonstrates that an effective turn-around in the attitude of employees to safety has been achieved and this helps to

” The average post-accident absence time at DB Schenker in Poland is 51% shorter than the national average for the logistics industry.<sup>8</sup>

**Actions taken by DB Schenker in Poland to ensure safety at work:**

Every year DB Schenker in Poland launches new initiatives to ensure safety at work for the company and its subsidiaries.

In 2018, the most important actions taken by the company to improve health and safety at work included:

- Prevention programme
- ‘I see and react’ - developed
- Managerial supervision - eKASK system
- Marking of terminals and surroundings
- Clothing, safe footwear, personal

eliminate risks. Despite the increasing scale of operations and growing employment the number of incidents involving injuries continues on a similar level for years; noteworthy is that between 2015 and 2018 no serious or fatal incident has been reported at DB Schenker in Poland.

Also, the average duration of post-accident absence at DB Schenker is significantly lower than the national average in the logistics industry.

<sup>8</sup>GDP Sections - Transport and warehouse

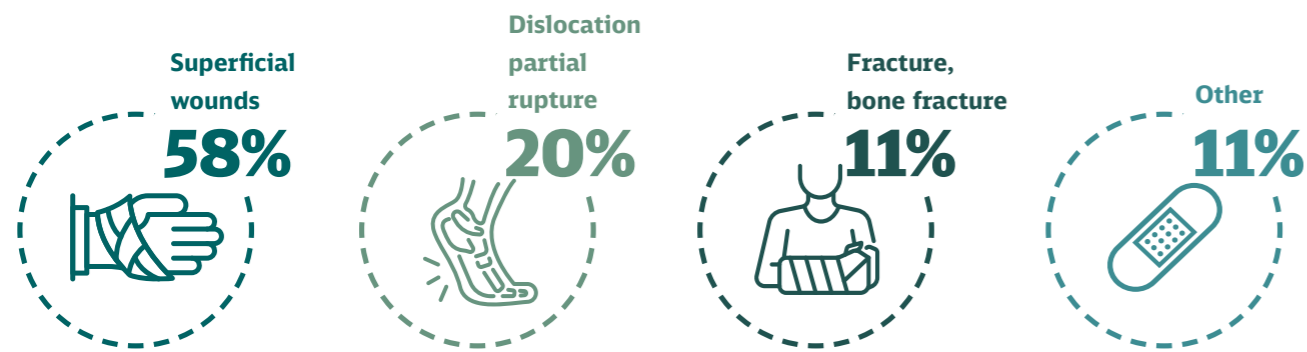
**Number of accidents at work at DB Schenker in Poland in 2018.**



Source: DB Schenker analyses, 2019



Structure of accidents at work at DB Schenker in Poland in 2018



Source: DB Schenker analyses, 2019

3.2. Social costs of accidents at work

Accidents at work have a number of consequences. They generate social costs and losses for the whole economy. These costs are born by:

- Society - in the form of costs of social security: ZUS and NFZ,
- Employees and their families - medical costs and rehabilitation, lost income, the impact of the accident on the job and the rest of life,
- Employers - cost of medical assistance and transport, cost of lost working time, cost of replacement and overtime, cost of company disruptions, cost of losses material and repairs, cost of damages.

The highest costs are associated with severe and fatal accidents. The latter can even soar to half a million PLN per accident. It is therefore important that there were no accidents in this category recorded at DB Schenker between 2015 and 2018.

An important category among social costs is the costs associated with the absence of employees. Safe working conditions shaped at DB Schenker in Poland allowed the company to reduce the total number of days of incapacity to work due to accidents at work by 51% compared to the national average in the transport and warehouse services sector.



Reduction of social costs associated with a significantly lower number of days of absence from work at DB Schenker in Poland in 2018 was as high as

533 k PLN

4. Methodological note

Impact analysis of DB Schenker in Poland in 2018 is the first ever study of the kind in the history of the organization.

The analysis was prepared to summarize the impact of DB Schenker's activities in Poland on the economy and society. It covers companies: DB Schenker Sp. z o.o., and DB Schenker Technology Center (Warsaw) Sp. z o.o. The analysis of the economic impact concerns operating activities in the calendar year 2018 of the above-mentioned companies.

The calculation of the economic effects was carried out on the basis of a calculation model prepared based on input-output tables.

It reflects the relationships between the branches of the economy and allows to estimate what effects in the whole economy are generated by the activities of a given operator in categories such as value added, employment and household income. The results obtained from the model illustrate the effects of operations for 2018. The calculation was based on financial data for 2018 provided by DB Schenker in Poland. In order to fully present the economic impact, data were also collected and aggregated on taxes paid by these companies to the central budget and budgets of municipalities.

The following data were used to simulate the Leontief model: Input-output tables for 2010 as published by the Central Statistical Office in 2014. New tables are published every five years, so these are the most up-to-date tables available.

The data provided by the Contracting Authority have been adjusted by the inflation rate.

The impact of the investment was estimated using a CGE general equilibrium model based on information provided by DB Schenker in Poland. All resultant variables are defined in the change category compared to the economic equilibrium without the existence of a modelled investment project. In other words, calculating the impact of a given investment in the CGE model boils down to finding a new balance for all the markets considered (i.e. quantities and prices that balance demand and supply) and comparison with the balance without a given investment.

Depending on the specific variable, the change is calculated as the difference in% between the overall balance of the economy with the investment project and the overall balance without the project, or as a difference in absolute figures (million PLN, number of companies, number of unemployed, etc.).

The social impact of DB Schenker in Poland was presented on the basis of information provided by DB Schenker in Poland and statistical data from publicly available sources.

**DB Schenker in Poland is responsible for the completeness and correctness of the data provided for calculations. The methodology and results applied in The report is consistent with Deloitte Advisory.**

