

Report – indicating the primary
and development-supporting
businesses of Lublin





**PROGRAM
REGIONALNY**
NARODOWA STRATEGIA SPÓŁNOŚCI



WOJEWÓDZTWO
LUBELSKIE

UNIA EUROPEJSKA
EUROPEJSKI FUNDUSZ
ROZWOJU REGIONALNEGO



The object of the contract is completed under the project co-financed by the European Regional Development Fund within the Regional Operational Programme of the Lubelskie Province for 2007-2013.

Table of contents

Indication of primary businesses and businesses supporting town development	4
Description of businesses for the development of Lublin	9
Food industry	9
BPO/SSC	10
Information and Communication Technology (ICT)	13
Logistics and Transport	14
Renewable energy	16
Automotive industry	17
Health protection and pharmacy	19
Biotechnology	21

Indication of primary sectors and businesses supporting city development

Objectives

The selection processes of businesses for the city of Lublin was targeted at indicating the key sectors for the present and future development of the city. The list of the key businesses for the development of Lublin is additionally supposed to constitute a 'hint' for the city governing authorities indicating at which particular areas they should concentrate their actions connected with gaining investors.

Observations made by Deloitte, including talks held with the representatives of the Lublin industrial sector, indicated that the city's economy does not have a clearly specified business profile. The huge business variety results, among others, from the system transformation which led to the establishment of a significant number of small and medium enterprises as well as micro enterprises outside the sectors traditionally developed in Lublin, such as agricultural and food industry.

Another objective of the recommendation of businesses for Lublin was the indication of a list of potential investors who, at a subsequent stage of works, were interviewed by the Deloitte project team.

Method of the selection of businesses for Lublin

The selection process of businesses for Lublin comprised the following five stages:

- 1.** Compilation of a list of present businesses/businesses developed in Lublin
- 2.** Compilation of a list of present businesses/businesses developed by reference cities
- 3.** Compilation of a short list of businesses for Lublin
- 4.** Validation of the short list of businesses and recommendation of 8 businesses for Lublin
- 5.** Prioritization businesses and distinguishing primary and supplementary businesses.

The following diagram presents the visualization of the selection process of businesses for Lublin.

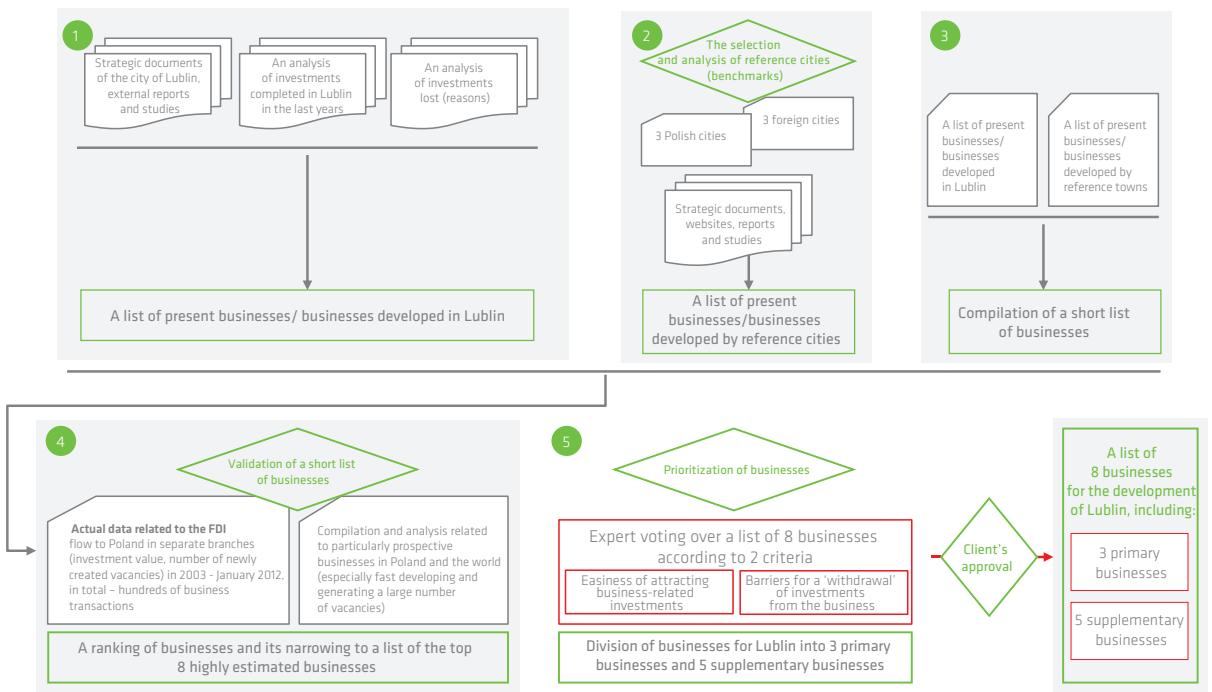


Diagram 1. Logical diagram of the selection process of sectors for Lublin

Re 1. Compilation of a list of present businesses/businesses developed in Lublin

Actions:

- Accessing and analyzing strategic documents of the city of Lublin as well as publications, reports and external studies related to the Lublin market.
- Accessing information related to investments in progress and investments completed in Lublin in the past years.
- An analysis of information related to investments in Lublin, including investments lost (the analysis of reasons for investor's withdrawal from the planned investment/ the city).

Outcome:

- A list of key present businesses and businesses developed in Lublin.

Source: Own work of Deloitte

Re. 2 Compilation of a list of present businesses/ businesses developed by reference cities

Actions:

- Selection of domestic and foreign reference cities ('peer groups') including:
 - A city similar in characteristic features to Lublin (considering such factors as: size, demographic potential, location including the distance from the country's main decision making and economic body).
 - Cities being leaders within the scope of economic growth and investment winning
- Determining a list of sectors comprising developed sectors and sectors particularly promoted by reference cities.

Outcome:

- A list of 6 reference cities ('peer groups') comprising Olsztyn, Białystok, Poznań, Cluj-Napoca, Cork.
- Olsztyn, Białystok (Polish cities similar in characteristic features to Lublin).
- Poznań (Polish city perceived as one of the 'leaders' within the scope of economic development and abilities to absorb investments).
- Cluj-Napoca and Ostrava (a foreign cities similar in characteristic features and potential to Lublin)
- Cork (a foreign city, perceived as one of the 'leaders' within the scope of economic development and the ability to absorb investments).
- A list of present businesses and businesses developed by reference cities.

Diagram 2. Reference cities ('peer group') selected for the purposes of the selection process of Sectors for the development of Lublin

	Cities similar in characteristic features/ potential to Lublin	'Leading' cities within the scope of economic growth and investment winning
Polish cities	Olsztyn Białystok	Poznań
Foreign cities	Cluj -Napoca (Romania) Ostrava (The Czech Republic)	Cork (Ireland)

Source: Own work of Deloitte

Re 3 Compilation of a short list of businesses in Lublin

Actions:

- Compilation of one list of present businesses/businesses developed by Lublin and reference cities.
- Exclusion of 'duplicates', i.e. businesses repeated for the analyzed cities.

Outcome:

- A short list of businesses for the development of Lublin

Re 4 Validation of a short list of businesses and indication of 8 businesses for Lublin

Action:

- Validation of the list of businesses based on
 - Actual data related to the FDI flow to Poland in separate lines of business (investment value, number of newly created vacancies) in 2003- January 2012.
 - Studies and analysis related to businesses particularly prospective in Poland and in the world (especially fast developing and generating many new vacancies).
- Quantification of results (total of the points gained) for each business from the short list.
- Preparation of a business ranking on the basis of the short list and selection of 8 businesses with the highest grade.

Outcome:

- A final list of 8 businesses for the development of Lublin.

① The table of the aggregated grades awarded by the Deloitte experts to individual sectors constitutes an appendix to this study.

② The order corresponds to the total of points gained by a given line of business as a result of grades awarded by the Deloitte experts. The 'logistics and transport' and 'renewable energy' sectors gained an analogous number of points and were placed 4 within the business ranking.

Re 5 Prioritization of businesses and indication of primary and supplementary businesses.

Action:

- Obtaining opinion of experts from Poland and abroad for the purpose of the assessment of the 8 businesses indicated for Lublin based on the following criteria¹:
 - Criterion 1: "Ease" of attracting investments in a given line of business by the city
 - Criterion 2: Barrier for relocation ('withdrawal') of investors from a given line of business in the city
- Aggregation of the value of grades awarded to separate businesses by Deloitte experts
- Distinguishing from the list of 8 businesses for the development of Lublin -primary businesses (3 businesses with the highest total grade in two of the above mentioned criteria) and supplementary businesses (the remaining 5 businesses).

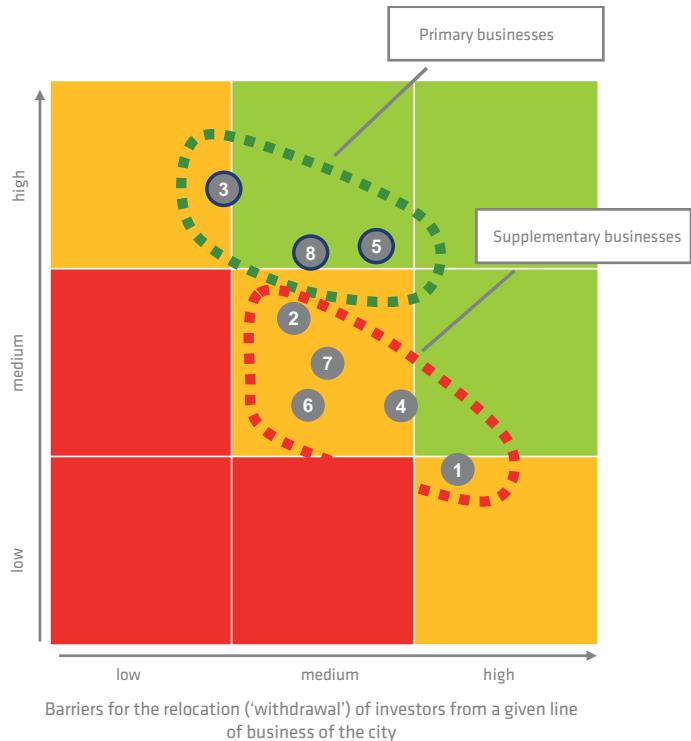
Outcome:

- A list of primary and supplementary businesses for the development of Lublin, including ²:

**Diagram 3. Matrix of the selection
of primary and supplementary
businesses for the development
of Lublin**

Businesses for the development of Lublin	Position in the business ranking
1 Automotive industry	5
2 Logistics and transport	4
3 BPO/SSC	2
4 Renewable energy	4
5 Food industry	1
6 Biotechnology	7
7 Health protection and pharmacy	6
8 Information and communication technology	3

- 3 primary businesses (Food industry, BPO/SSC, Information Technology and Telecommunications)
- 5 supplementary businesses (Logistics and transport, Renewable energy, Automotive industry, Health protection and pharmacy, Biotechnology)



Source: Own work of Deloitte

Description of Sektors for the development of Lublin

In the section below a synthetic description of businesses indicated for the development of Lublin is presented. The description of each business comprises an adopted definition of a given business, a list of key determinants of attractiveness (potential) of the business and challenges of their development.

The businesses were presented in the order corresponding to the place of a given line of business in the ranking compiled by the Deloitte project team, i.e.

- Food industry
- BPO/SSC
- Information and Communication Technology
- Logistics and Transport
- Renewable energy
- Automotive industry (3)
- Health protection and pharmacy
- Biotechnology.

Food industry

The business comprises manufacturers of food products (including food products and semi-products). The food industry also includes suppliers of technology, services and components used for the purposes of food production and catering services.

Determinants of the sector's attractiveness:

- The food industry constitutes one of the main manufacturing businesses in Poland, employing around 0.5 m. people. The food industry constitutes more than 20% of the general production in Poland.
- The Lubelskie Province constitutes one of the main centers of the food industry in the country. The attractiveness of the Province for the development of the food industry is influenced, among others, by:
 - The agricultural structure of the region with a significant number of suppliers of agricultural products used in the food industry
 - The proximity of eastern country borders – access to a significant number of consumers from eastern markets.

③ The 'logistics and transport' and the 'renewable energy' gained an analogous number of points in the Deloitte ranking.

④ The Central Library of Agriculture, www.cbr.edu.pl

⑤ The 'salt scandal' related to the application of industrial salt in the food industry acts as an example.

⑥ CIMA, Chartered Institute of Management Accountants.

- The development of the Polish food industry was significantly affected by Poland's accession to the EU and the opening of new markets. During the three years following Poland's accession to the EU, the export increased more than twofold.⁴

Challenges

- The main challenges for the development of the Polish food industry (including the Lublin food industry) are, among others:
 - Lack of stabilization on eastern markets (particularly in Russia), one of the most important markets for the Polish food products.
 - Competition on the side of the export of highly processed food products from the Eastern Europe.
 - Strict requirements with reference to product hygiene and safety regulated by the EU.
 - Occurrence of examples of negative PR/information, deprecating the image of Polish food products.⁵

BPO/SSC

The BPO/SSC comprises suppliers of services on the market of Shared Services Center and Business Process Outsourcing, including, among others, financial and accounting, IT, legal, engineering, and customer services.

Determinants of the sector's attractiveness

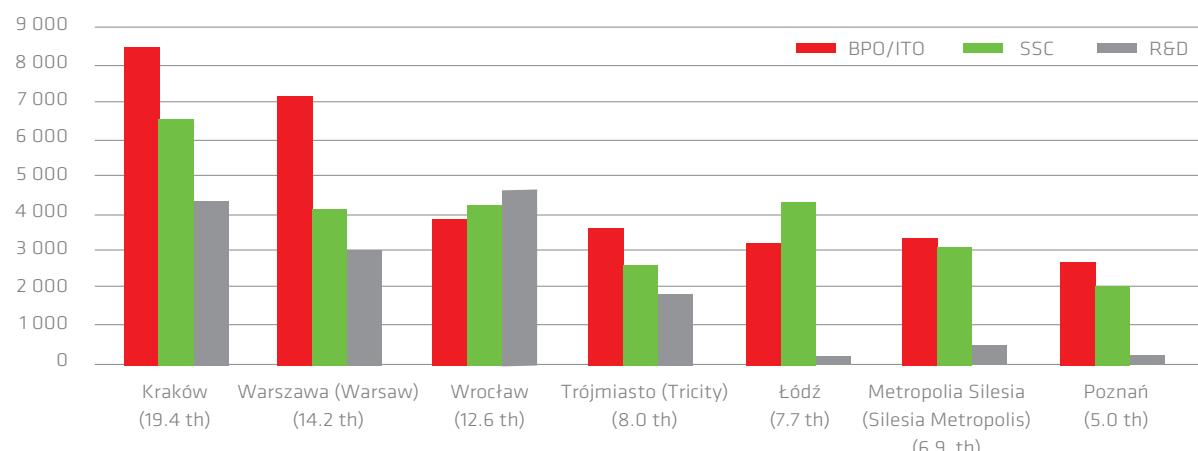
- Following the opinion of market analysts, the significance of Poland as a location for BPO and SSC centers is systematically increasing. The analysis of the present trends indicates that in the forthcoming years, the employment within the BPO/SSC sector will double compared with the present situation.⁶
- Alternative estimates of the Association of Business Service in Poland indicate that the present employment in the Polish BPO/SSC sector at the level of c. 40 thousand persons (generated by c. 200-300 enterprises) will increase in the period of the forthcoming years to the level of 70 thousand persons.
- The main factors influencing a positive perception of

Poland as an attractive location for BPO/SSC services include, among others, a convenient geographical location, qualified employees possessing knowledge of various foreign languages, lower pay expectations compared with Western European countries. The significance of the above mentioned factors favorably places Lublin among other Polish cities.

- The scientific base is significantly important for the development of BPO/SSC services. Enterprises within the business services sector often cooperate with institutions of higher education while looking for human resources.⁷ Therefore, BPO/SSC centers are often located in cities which are recognized academic centers.

⑦ The BPO/SSC sector – an opportunity for the unemployed,
eGospodarka.pl,
www.egospodarka.pl/

The number of people employed in the main BPO/SSC centers, R&D in Poland.



Source: ARAW, www.araw.pl

- The development of the BPO/SSC sector is supported and promoted in Poland by numerous organizations and associations (among others: Fundacja Instytutu Outsourcingu [Outsourcing Institute Foundation], Association of Business Service Leaders), which support the development of outsourcing services and the tightening of business relations.

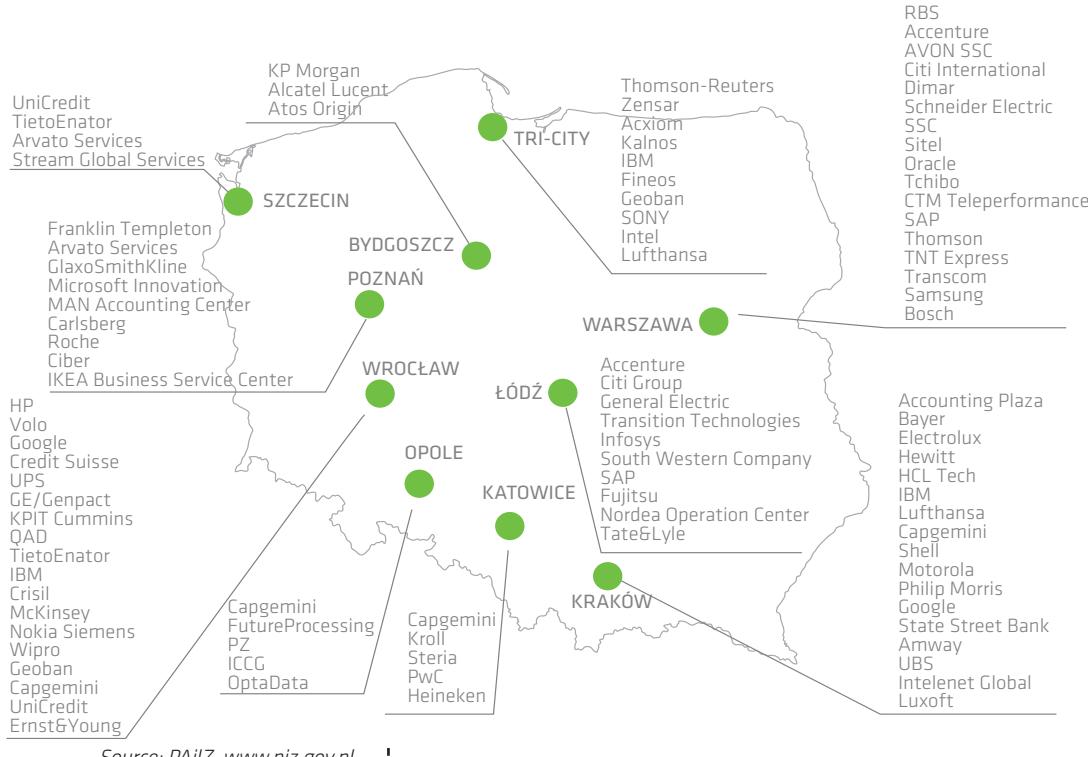
Challenges

- When choosing a location, outsourcing companies, apart from the criterion of the availability of qualified human resources, are also significantly directed by the availability of free office space. Deloitte analyses indicate that the present resources of the office infrastructure in Lublin require further development for the purpose of adjustment to potential investors within the BPO/SSC business.

⑧ An interview with Łukasz Maciąk, Fundusz Nieruchomości 'Arka', published in Gazeta Wyborcza. We compete with business centers from India, 6th January 2012.

- It is significant to properly adjust the offered office space to the specific needs of the lessees of the BPO/SSC sector (advanced information and communication technology infrastructure of proper bandwidth, high degree of open-space.) The business requirements should, thus, be taken into consideration by developers at the very stage of building design.
- Despite the fact that forecasts for the BPO/SSC sector for the forthcoming years are optimistic for Poland, the continuous technological progress affects the gradual automation of business processes and changes in the requirements facing the employees of the business service sector. (8) It is also necessary to follow and be ahead of trends and to properly plan investments in education as well as to broaden the expert knowledge of potential future employees of the BPO/SSC sector.
- During the location of the investment in the BPO/SSC sector, the previous positive experience of a given location/city plays a significant role in winning over investors. The challenge faced by Lublin is the compilation of an adequate portfolio ('success track') of the completed BPO/SSC investments, which will act as a magnet for new investors in that sector.

Diagram 4. Location map of key BPO/SSC investments in Poland



Information and communication technology (ICT)

The ICT sector comprises enterprises rendering information and communications technology services as well as producers of equipment, software and sub-assemblies to be used in the ICT area.

Determinants of the sector's attractiveness

- The total value of the Polish ICT market amounts to EUR 25 bn, 3/4th of which falls to the telecommunications sector, 1/4th to the information technology. In the information technology sector, the biggest share is constituted by the sale of digital equipment, followed by IT services and software.
- Despite its size, the ICT market in Poland still indicates a significant growth potential (the value of the Polish market is twofold lower than the Spanish one, despite the comparable number of consumers).
- In the highly developed EU countries, e.g. in the UK, Spain or Germany, the value of the IT segment is comparable with the telecommunications one. In Poland, the significant disproportions between the dominating telecommunications segment and the much smaller IT segment may indicate an existing significant potential of the IT market development.⁹
- In Poland, c. 60% of households possesses a computer, and 40% possesses access to the broadband internet connection. Approximately, 20% of the society uses the online banking services. The above rates place Poland below the average for the highly developed economies of the Western Europe, North America or Japan, indicating at the same time the growth potential of the ICT market in Poland.
- The further informatization of the country by creating information society is also one of the objectives of the Polish government, pursuant to, among others, the principles of the Lisbon Strategy.

⑨ The Polish Chamber of Information Technology and Telecommunications, www.piit.org.pl

Challenges

The main challenges conditioning further development of the ICT market comprises, among others:

- The necessity to continue the liberalization process of the telecommunications market,
- Refraining Polish ICT specialists from leaving the country (especially to other EU countries),
- The necessity of promoting the ICT sector at the central level by the government/public institutions,
- The necessity of further digitization of public administration,
- Expanding the possibility flexible forms of employment by employers,
- High, compared with the pay, prices of the IT equipment and telecommunications services.

Logistics and transport

The logistics and transport business comprises enterprises with the branch activity connected with rendering services of people and goods transport, storage, freight forwarding and logistics, as well as suppliers of services and systems supporting the above mentioned areas (i.e. transport, storage, freight forwarding and logistics).

Determinants of sector's attractiveness

- The economic growth sustained in Poland despite the global economic slowdown, as well as the increasing trade exchange should affect, in the long term, the further development of the logistics and transport market in the country.
- The growth of the logistics and transport market is currently influenced by the present tendencies related to the reduction of operating expenses. This causes that transport and logistics functions are more and more often entrusted with specialized companies. As a result, it leads to a relatively stable market growth and the appearance of new players.
- The tendency to reduce operating expenses leads to the more and more popular phenomenon of transferring production (whole or part) to regions offering lower costs,

including, among others, Central and Eastern European countries. This is followed by an increase in demand for transport and logistics services. Lublin appears to be favorably located within the network of transit routes combining the Western Europe with Eastern European countries.

- Another factor beneficial from the perspective of transport and logistics market development in the Lublin region is the structure of the local production sector with a significant contribution of the agricultural and food production. The closeness of Polish eastern borders also renders Lublin a base for transport and logistics companies managing food export to eastern European countries.
- The liberalization of the transport market and the flow of foreign carriers to Poland constitute an opportunity for the development of the transport and logistics sector (also within the Lublin region).
- Within the recent years, there has been an increase in demand for new trans-shipment points, especially distribution centers. The preferred locations are the areas near logistics hubs and transport corridors, areas of favorable communication location and relatively low price.

Challenges

- Effective functioning of the transport and logistics system requires proper road infrastructure. The present condition of infrastructure constitutes the main barrier for the functioning and development of the transport market and the market of storage buildings in Poland, including the Lublin region. According to the requirements of the new programming period, the share of EU funds in financing 'hard' infrastructure (including transport infrastructure) in 2014-2020 will be significantly reduced.
- In the case of transport on routes connecting the Eastern European countries with the Western Europe, except for barriers of technical nature resulting, among others, from differences in the railway width, a significant threat is posed by the international transport outside Poland, mainly by sea.¹⁰

¹⁰ An example of omitting the territory of Poland is an agreement concluded between the German (DB) and Russian (RZD) railways concerning transport via railway and ferry connection through Russian sea ports.

⑪ Study conducted upon the order of ING bank (The transport and logistics market in Poland).

⑫ Analytical report "Poland in the lead of Central and Eastern European countries in the development of the renewable energy market", Frost & Sullivan, 21 May 2010.

⑬ Directive of the European Parliament and the Council 2009/28/EC dated 23 April 2009 concerning the promotion of using energy generated from renewable resources.

⑭ Resolution of the Council of Ministers no. 202/2009 concerning Poland's energy policy till 2030, the Ministry of Economy, www.mg.gov.pl

- A barrier of the transport market development (especially the road transport) is constituted by increasing costs of carriers, in particular the costs of fuel and employment.
- According to the research conducted, three fourths of respondents (representatives of the transport and logistics market) enumerated, among the main factors hindering the development of transport and logistics enterprises (except for the increasing costs of activity), the shortage of qualified employees (not only drivers, but also specialists, e.g. forwarding agents).¹¹

Renewable energy

The renewable energy sector comprises producers and providers of services, solutions and technologies applied in the power industry, with a special emphasis on the power industry using renewable sources of energy. The business also includes enterprises dealing with the so called clean technology, i.e. suppliers of services, solutions and technologies for the purposes of environmental protection, reduction of the use of non-renewable sources and/or producing less waste compared with conventional technologies.

Determinants of the sector's attractiveness

- In the opinion of market analysts, the Central and Eastern Europe, including Poland, is becoming more and more attractive for foreign investors of the renewable energy sector.¹² A factor that significantly stimulates the market development is the regulatory aspect – the obligation imposed by the European Union of the 20% share of renewable energy in the total production of energy in EU member states in 2020.¹³
- Meeting the said obligation by member states led to the necessity of adjusting the power industry policy, establishment of colorful certificates system and the imposition of the obligation of purchasing energy generated from renewable resources.
- In the strategic document "Poland's energy policy till 2013" adopted by the Polish government, the plans of

using renewable energy resources were indicated as priority activities.¹⁴.

- EU developed plans of using renewable sources of energy (RSE) supported by numerous opportunities of investment funding in that scope, which contributes to further market stimulation.
- The second determinant, apart from regulatory aspects, of the development of renewable power industry is the systematic increase in prices of conventional energy carriers, observed throughout the recent years.
- Poland, especially the Lubelskie Province, possesses favorable conditions for the development of renewable energy. A significant share of agricultural areas and open spaces create favorable conditions for the development of, among others, wind energy and production of biomass.

Challenges

- Poland possesses huge potential within the area of the investment in renewable sources of energy. Nonetheless, the market growth should be accompanied by adequate regulations meeting the requirements of this branch of economy.
- Many experts in the energy market claim that the regulations binding in Poland still require adjustment for the purpose of minimizing the existing barriers of the said market development. The impact of the Lublin governing bodies on the national regulatory amendments is relatively limited.

Automotive industry

For the purposes of future activities of the Lublin governing bodies, it is recommended to adopt a broad definition of the automotive industry, perceived as the market of mechanical vehicle producers (including motor cars, trucks, buses, motorcycles, as well as special, industrial and agricultural vehicles), their sub-suppliers manufacturing/supplying specialist parts, sub-assemblies, vehicle devices and technologies.

⑯ Report: Polish automotive industry. Assessment of the business environment. Polish economy viewed by automotive industry entrepreneurs, 2012. The report constitutes a summary of findings of research conducted by Deloitte among the Polish entrepreneurs of the automotive industry sector.

⑰ as above

⑱ as above

The adopted definition of the automotive industry also comprises a market of services, spare parts and accessories.

Determinants of the sector's attractiveness

- 60% of entrepreneurs operating within the automotive industry estimate that within the next 5-10 years Poland will become a very attractive market for locating new investments.¹⁵
- An especially significant factor attracting investors from the automotive industry is the Polish labor market characterized by the accessibility of qualified and efficient labor force of high service quality, as well as the management executives with a huge development potential. The representatives of the automotive industry market assessed positively the Polish labor market in the context of availability of qualified labor force (43% of positive indications), labor quality and efficiency (23%) as well as the educational level and potential of the management staff (20%).¹⁶
- An opportunity for further development of the automotive industry in Poland is the trans-border cooperation with other countries of the Central and Eastern European region.¹⁷ In this scope, Lublin is favorably located compared with the regions of the northern Poland (more favorable distance and travelling time to the Slovak and Czech borders – Central and Eastern European countries with a significant share of the automotive sector in the economy)
- From the perspective of the automotive industry sector, the Polish local market is mainly connected with sub-suppliers of various parts and components, not that much with car manufacturers. Gaining smaller investors may become a chance for Lublin (due to limited resources compared with the biggest towns such as e.g. Poznań).

Challenges

- In the opinion of entrepreneurs of the automotive industry, for the purpose of fully using the Poland's potential

of gaining investment in the automotive industry, it is necessary to render employment more flexible and to activate local government units which should become business partners of enterprises locating their workplaces at the local government territory. Almost 1/2 of the respondents claim that this sphere (flexibility of the labor market) requires changes and adjustment to the market needs.¹⁸

- While creating adequate conditions for the development of automotive industry in Poland, there is a need to expand cooperation with various research units and institutions of higher education.¹⁹ A challenge (and a chance) for Lublin is the proper use of the existing scientific and research potential within the area of the automotive industry, with the human resources from, among others, The Department of Engineering of the Lublin Institute of Technology .
- Entrepreneurs within the automotive industry claim that there is a necessity to activate local communities, including local government units, which should become business partners of the enterprises locating workplaces at their territory. The cooperation with the local community and the local government is the most alarming and difficult element, which was indicated by 1/3 of the respondents as the least satisfactory factor directly affecting the activity in the automotive industry sector.²⁰

Health protection and pharmacy

The health protection and pharmacy branch comprises enterprises manufacturing products (including medicines and pharmaceutical products) and health protection services.

Determinants of the sector's attractiveness

- The pharmaceutical brach (apart from biotechnology) is perceived as the leading one in terms of innovation of economic areas. The value of the pharmaceutical market in 2011 reached PLN 21 bn (EUR 5 bn). The average growth rate of the Polish pharmaceutical market value in 2003-2010 amounted to 6.5%. Experts' estimates indi-

⑯ as above

⑰ as above

⑱ as above

²¹ Pharmaceutical and biotechnology sector in Poland 2011, PAiZ

²² IMS Health,
www.imshealth.com

²³ PAiZ, www.paiz.gov.pl

²⁴ PMR Publications,
www.pmrpublications.com

cate that till 2016 the estimated market value will reach more than PLN 60 bn.²¹

- Analysts' estimates indicate that in 2013 the rising pharmaceutical markets, including Poland, will account for even half of the development of the global pharmaceutical market.²² Poland belongs to the group leaders. The country is characterized by favorable social, economic and demographic conditions for the development of the pharmaceutical market (stable growth of the domestic product, aging and enriching society).
- The development of the pharmaceutical market in Poland is also favorably affected by the widespread access to the medical care and guaranteed benefits package.
- According to the analysts of the pharmaceutical market, the Poland's position as an attractive and promising market is currently translated into the business activity of crucial international pharmaceutical concerns as well as the development of local, Polish enterprises.
- Poland possesses qualified specialists within the pharmacy branch. During the 2009/2010 academic year, more than 8 thousand students were trained at pharmaceutical field of study. The biggest number of pharmacy students were reported in the Śląskie, Lubelskie and Małopolskie Provinces.²³
- According to PAiZ data for 2010, among 30 biggest global pharmaceutical enterprises, 16 possess manufacturing plants in Poland.

Challenges

- In short-term period of 2012-2013, market analysts expect rather moderate sale increase on the pharmaceutical market due to the planned state reductions in medicine reimbursement.
- Another hindrance for the market development is smaller purchase force of clients due to the increase in prices of refunded medicines, following the amendments to the Reimbursement Act.²⁴
- According to the geographical location of pharmaceutical enterprises, there are visible disproportions between in-

dividual Polish regions. At the same time, the Ma-
zowieckie Province plays a dominant role. Almost 1/3 of
all pharmaceutical enterprises in Poland are located at
that territory.²⁵

② PAiZ, www.paiz.gov.pl

Biotechnology

- The biotechnology industry comprises enterprises which, in their activity, apply natural and engineering sciences (especially in the genetic engineering and molecular biology) for the purpose of product manufacturing and rendering specific services. The biotechnology line of branches also includes enterprises supplying technologies, services and devices supporting research and production within the area of biotechnology.

Determinants of the sector's attractiveness

- Biotechnology is on the list of fields of study ordered by the Ministry of Science and Higher Education. The field of study 'biotechnology' is one of the most popular in Poland – at 38 institutions of higher education in Poland biotechnology is studied by almost 26 thousand students, which gives around 6 thousand graduates per annum (data for the 2009/2010 academic year).
- The innovative nature of the industry determines an increase in expenses for research and development in that area (from the 2.8% of the total amount of domestic expenses over B+R in 2005 to 4.6% in 2009)
- According to the FDI Intelligence, Poland places 11 in the world in terms of attractiveness of locating B+R investments within the biotechnology sector.
- Poland is characterized by competitive labor costs compared with Western European countries.
- Poland also possesses a developed raw material and technological base, and qualified human resources.
- The development of the biotechnological industry is also favorably affected by an increase in biotechnology related sectors, e.g. pharmaceutical and cosmetic branch, etc.
- The development of the biotechnological market in Poland is also supplied by a relatively rich EU funds allocated for biotechnological projects.

- A systematic increase in the interest of foreign institutions in laboratory services in Poland is observed. It must, however, be stimulated by proactive behavior of Polish laboratories – i.e. engagement in gaining western clients and meeting their demands.

Challenges

- There is a necessity of determining effective distribution principles of public outlays designated for scientific study.
- There also exists an obligation to create a domestic system of effective redistribution of EU funds designated for equipment, infrastructure and completion of research, also within the biotechnology area.
- More dynamic market development requires education of potential customers of biotechnological research (e.g. genetic research) related to their completion and application possibilities.
- There is also a necessity of promoting the scope and results of activities of Polish biotechnological institutions and enterprises.

Urząd Miasta Lublin [Municipal Office of Lublin]
Wydział Strategii i Obsługi Inwestorów [Department of Strategy and Investor Services]
Address: Plac Litewski 1, 20-080 Lublin, Polska
Tel. +48 81 466 25 00
Fax.: +48 81 466 25 01
e-mail: inwestorzy@lublin.eu
www.um.lublin.pl

Author of the study:
Deloitte, Al. Jana Pawła II 19, 00-854 Warszawa, Polska,
Tel.: +48 22 511 08 11, +48 22 511 08 12, Fax: +48 22 511 08 13
[www.deloitte.com/pl.](http://www.deloitte.com/pl)

