25 YEARS OF POLISH AGRICULTURE

FOOD SECURITY IN EUROPE
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Introduction

In the last quarter-century, Polish economy has experienced many changes and transformations. These have also concerned agriculture, which is now significantly different than in the 1990s and at the beginning of the 21st century.

Agriculture is currently the fourth largest sector of economy in Poland, and its contribution to the country’s GDP is much higher than the EU average. Rural areas constitute 93% of Polish territory, and are inhabited by nearly 40% of the population. The agrifood sector is an important component of the country’s economic potential as it accounts for almost 8% of the total gross added value. It also provides employment for nearly 20% of the economically active population. The exports of agrifood products stand for almost 12% of total Polish exports. For a few years now, the sector has been achieving a favourable balance of trade – in 2013, the trade surplus for agrifood products reached the hitherto unseen level of EUR 5.7 billion against EUR 4.3 billion in 2012 (an increase by over 32%).

Over the last years, there has been a rise in the number of modern farms, which make use of innovative production technologies. It should also be noted that approximately 1.5 million of farms benefit from subsidies for agricultural production, which has a remarkable impact on its growth. Macroeconomic analyses show that Polish agriculture, along with the food processing sector, will be able to make a good use of the opportunities that have emerged as a result of opening the large and affluent EU food market. It will also be able to cater for the considerable absorptive power of the eastern markets, where Polish agrifood products already enjoy a good reputation and strong interest among consumers.

The aim of this report is to present Polish agriculture in objective light, as a sector of economy ensuring the food security of Poland, but also influencing the food security of other European countries. In addition, we want to challenge the unfavourable stereotype dominating the current public debate in Poland, whereby agriculture is an underdeveloped sector of the economy, unworthy of investment. In the report, we intend to present Polish agriculture as one of the key branches of economy, which is growing very dynamically and brings measurable benefits to the society.

The report was prepared with the objective of inspiring reflection and public debate about the model of operation of Polish agriculture. We hope that our work will provoke a discussion. Moreover, we trust that its participants will not only take a stance on our theses and conclusions, but also come up with additional, specific solutions promoting the development of this highly important sector of Polish economy.
Chapter 1.  
AGRICULTURAL MAP OF POLAND

Over the last 25 years, agriculture – currently the fourth largest sector of Polish economy – has changed considerably. This was due to both the economic transformations occurring in the years 1989–1990 and Poland’s accession to the European Union. Since rural areas constitute 93% of the country’s territory, and the methods of running farms favour the production of safe food, it is important to make a proper use of agriculture’s potential.

NATURAL CONDITIONS

Natural conditions belong to the most important factors shaping agriculture – while being totally independent from politics. In Poland, these conditions are by 30–40% worse than in the countries of Western Europe. One of the reasons is that in our climate there is little precipitation during summer, when a vast portion of the growing season takes place.

The functioning of agriculture also depends on soil conditions. Good and very good soils constitute 28.6% of all arable land, average soils – 39.1%, and poor and very poor soils – 32.3%. About 80% of soils on cultivated land in Poland are characterised by a certain degree of acidity, whereas the remaining 20% of soils have a neutral or alkaline pH. Since the majority of arable crops require mildly acidic to neutral soils in order to grow properly, the experts advise the introduction of the so-called liming procedure.

POTENTIAL OF POLISH AGRICULTURE

The extent of fulfilling the potential of Polish agriculture is determined by three factors. The first one is the area of arable land. From 2000 to 2012, it shrunk by 16%. On the other hand, there was a 20% rise in the average area of cultivated land per farm. This was due to a decrease in the total number of farms.

The second factor is work. In our country, its potential is still being used less efficiently than in the EU, yet over the last years a significant improvement in the effectiveness of using work has been observed.

The third factor is capital. It depends on the value of fixed assets, such as agricultural machinery. In the years 2000–2012, the value of fixed assets per 1 ha of cultivated land rose by 35%. The greatest growth dynamics as regards the value of these assets concerned Lubuskie, Małopolskie, Śląskie, and Świętokrzyskie Voivodeships, whereas the least dynamic growth was reported in Pomorskie Voivodeship. Farms with the highest value of fixed assets are located in Śląskie, Małopolskie, Wielkopolskie, and Łódzkie Voivodeships.

SPECIALISATION

The changes taking place in agricultural production are leading to its concentration and specialisation. Large, at least 100 hectare farms are focusing on plant production. Farms with a surface of some 10–50 ha are involved in both plant and animal production. In farms having no more than 10 ha, there is no specialisation.

PLANT PRODUCTION

Plant production is among the basic branches of agriculture in Poland. In 2012, its value amounted to about 40% of total commodity production. The total area of sown land is dominated by cereals, with a current share of 73.2%. Moreover, it is worth noting the gradual increase in the area of corn and rape seed cultivation, coupled with a decline in the cultivation of potato and, over the recent years, also of sugar beet.

FERTILISERS

After Poland’s accession to the EU, the intensity of plant production has increased, which is connected with a rise in the use of mineral fertilisers (especially in voivodeships with the most intensive production, such as Dolnośląskie or Wielkopolskie Voivodeships). A contrary tendency has been observed as regards the use of lime fertilisers, needed for deacidification of land. Since the 1990s, the use of agricultural lime has fallen by more than three times, which has been largely attributable to the withholding of budget aid for liming after Poland joined the EU.

ANIMAL PRODUCTION

Animal production is still the dominant branch of commodity production (over 55%), although its importance has been decreasing in the recent years. This domain is characterised by clearly marked processes of specialisation and concentration – there has been a significant rise in cattle and pig populations in the case of farms with an area of more than 50 ha. The largest livestock populations are observed in Podlaskie and Wielkopolskie Voivodeships, and the lowest ones – in Dolnośląskie and Zachodniopomorskie Voivodeships. In the Greater Poland and Kujawy regions, pork production prevails, whereas in Podlachia, Mazovia, and Greater Poland, the highest animal populations consist of cattle, including dairy cows.
In the food sector, the transformation began earlier than in the remaining sectors of the economy, which was as early as in the summer of 1989. It was then that a liberalisation of the market occurred, thanks to, among others, the prevalence of private ownership in agriculture. The fundamental change in the country’s economic regime took place at the beginning of 1990. At this time, the first market solutions were implemented. The most important ones revealed to be the new macroeconomic regulations, such as the declaration of economic freedom or denationalisation of foreign trade.

BEGINNINGS OF THE ECONOMIC TRANSITION

The early 1990s were marked by an opening to the international, but chiefly with regard to imports (the export opportunities failed to keep pace). The problem consisted not so much in the rise of imports, but in domestic products being ousted by imported goods as a result of a competitiveness gap.

Many believe that Poland failed to protect its food sector sufficiently, which led to ever larger domains of individual branch markets being shaped by foreign companies, and the strong external competition diminishing the opportunities of Polish producers.

From the last decade of the previous century up to 2003, an unfavourable balance of foreign trade continued. By the end of the last decade of the 20th century, the value of exports struggled to surpass USD 3 billion, while the value of imports exceeded USD 3.5 billion. There were important changes in the geography of Polish exports. The exports of agrifood products to the EU and CETA countries rose. We exported less to the former republics of the Soviet Union, and especially to Russia. Furthermore, the share of animal products in exports decreased, while the share of unprocessed plant products increased.

The situation started to change at the beginning of the 21st century. An especially fast surge in trading took place in 2003, and was due to the accelerated liberalisation of trade exchange with the EU. From a net importer – which Poland was until 2002 – the country transformed itself into a more and more prominent net exporter of food. In the years 2000–2013, the value of exports rose by nearly seven times, and of imports – by more than four times. As a result, in 2013, the trade surplus in food trading approached the level of EUR 6 billion.

POLAND ENTERS THE EUROPEAN MARKET

At the turn of the centuries, the global economy slowed down, which did not have a positive impact on the situation of agriculture. In such circumstances, farmers were hesitant about the accession to the European Union. However, the advocates of integration assured that the accession would accelerate economic growth, which is precisely the drive of agricultural development. Indeed, such was the outcome of the accession. It was shortly followed by, inter alia, a hike in the exports of goods – by as much as 141%. Farmers were also convinced in favour of Poland’s accession to the EU by the promise of subsidies. In this case as well the expectations have been fulfilled – since Poland became a Member State, the agricultural sector has received approximately EUR 30 billion of aid from the EU budget. Public opinion surveys show that after 10 years of membership over 60% of farmers accept the fact of Poland being an EU Member State.

Membership in the EU, thanks mainly to various forms of financial support, has ameliorated the income situation of Polish farmers. What is more, the growth dynamics of household income was greater in the case of farmers than of other socioeconomic groups. As to agricultural entrepreneurs (both producers and service providers), their financial and economic standing after the accession has not only been good, but also stable. An important result of the increase in farmers’ income has consisted of a significant upturn in investment. There has been a surge in the demand for agricultural machinery, as well as for other investment goods – to such an extent that their sales have roughly doubled.

During the period of Poland’s membership in the EU, there has been a rise in agrifood exports, which has contributed to a twofold increase of our share in the total EU agrifood exports – from 1.7% in 2003 to 4.1% in 2012. Currently, Poland ranks eighth in the list of the EU’s largest exporters of food. Our exports to the EU market primarily involve processed products, such as sugar confectionery (EUR 1.67 billion), red meat and offal (EUR 1.48 billion), tobacco products (EUR 1.39 billion), processed fruit products (EUR 1.04 billion), poultry meat and offal (EUR 0.96 billion), milk and dairy products (EUR 1.14 billion), fish and shellfish (EUR 0.84 billion), processed meat products (EUR 0.62 billion), and cereals (EUR 0.62 billion). Whereas from the EU we chiefly import plant products and processed plant products.

After the EU, the second most important recipients of Polish agrifood products are the CIS states, principally Russia. In 2013, our sales to this market rose by 8.6%, that is up to EUR 2.19 billion. Next, the importers of Polish agrifood products include third countries that are not grouped in any category, such as China. In 2013, these countries received EUR 1.58 billion worth of our agrifood products, which was 20% more than the year before.

Then, the list of markets receiving our food contains the NAFTA states (Canada, Mexico, and the USA), EU candidate countries, and EFTA countries (Iceland, Liechtenstein, Norway, and Switzerland).

To sum up, foreign trade is an important factor stabilising domestic markets for agricultural products. In Poland, the production dynamics in agriculture and food industry outpaces the dynamics of food demand. A larger portion of production growth in the sector is directed to foreign markets, which means that exports have become a major instrument for handling surpluses. Thus, exports constitute a very important source of revenue for the domestic food industry. This in turn has a positive influence on the economic standing of many branches of agriculture and food industry. The established commodity structure in the agrifood products trade is favourable to the Polish economy and confirms the thesis about the proexports nature of development in the domestic food industry.
Chapter 3.

FOOD SECURITY IN A GLOBALISING ECONOMY

For many years, food security was understood as the ability of a given country to ensure its food supplies by means of products manufactured entirely or mainly in its own territory. Recently, this definition has become obsolete. Now, food security is primarily an effect of solutions applied in the political, economic, and social sphere.

MONITORING OF FOOD SECURITY

One of the most important bodies ensuring global food security is the Codex Alimentarius Commission, founded by the FAO and WHO. Notifications about potentially dangerous food are obtained via the RASFF (Rapid Alert System for Food and Feed) system.

In Europe, risk assessment and communication is handled by the European Food Safety Authority. In Poland, the statutory control over food is maintained by five specialised inspection bodies, yet in 2001 the Ministry of Agriculture and Rural Development presented a project concerning the establishment of the National Food Safety and Veterinary Medicine Inspectorate, which would implement a holistic approach to food security. Its existence would facilitate all actions aimed at providing the Poles with sufficient protection.

We can talk about food security when three conditions are met: food is physically available, economically accessible, and safe. In order to check on a continuous basis whether these conditions are being fulfilled in 109 countries of the world, the Global Food Security Index was developed. What are the results for Poland? In the ranking compiled in 2012, we ranked 26th with a score of 72.7 points. Every year, our country improves its result.

SELF-SUFFICIENCY

A major factor contributing to food security is a high degree of food self-sufficiency. In the context of open economy, food self-sufficiency translates into physical and economic accessibility of food in the internal market, irrespective of its sources (domestic production or imports). A country has accomplished food self-sufficiency when not only the domestic demand for domestic products, but also the domestic demand for foreign agricultural products equals the foreign demand for domestic agricultural products. In 2013, Poland achieved a high degree of food self-sufficiency, measured as the ratio of domestic production to domestic use of agricultural products.

THREATS AND WAYS OF IMPROVING THE SITUATION

The consequence of a lack of food security is the prevalence of malnutrition and hunger. According to the FAO statistics, the number of people around the world suffering from malnutrition and hunger in 2010 amounted to 925 million. In the EU, almost 43 million people are threatened by malnutrition. In our country, the problem of malnutrition is also serious since, as a report by the EC revealed, every fourth child in Poland is at risk of poverty.

The world’s food security could be in danger because of, among others, the increased population growth and, what follows, an increased demand for food. To avert the crisis, an intensification of agriculture is necessary. It is equally important that the populations of the developing countries are becoming more affluent, since this will contribute to a rise in the demand for animal products. Scientists are warning that unless we curb the global consumption of meat in the upcoming decades, we will face a global food crisis. Given the multiple threats to food security, the EU needs a robust Common Agricultural Policy. It would allow for tackling the challenge of ensuring food for the evergrowing population – and not only within the EU, but also across the world. The challenges to the CAP include, among others, guaranteeing the continuity of agricultural production in the EU, creating a new food quality policy, or reducing the waste of food products.

For centuries, food security meant ensuring food supplies by means of food produced entirely or mainly within a given country, in order to satisfy the needs of all its inhabitants. With the development of trade and international specialisation, the understanding of food security has changed. Thanks to a rapid growth in the global food production, as well as to free trade at the international level, countries without favourable conditions for developing agricultural production could purchase food in other markets. Access to food has started to depend on financial means, and not on domestic production. Food security is chiefly an effect of systemic and institutional solutions in the political, economic, and social sphere.
**Chapter 4.**

**CHALLENGES FOR THE AGRIFOOD SECTOR IN THE MODERN WORLD**

Agricultural development is closely connected with the events taking place within the global economy, and the economic standing of agriculture constitutes an integral element of the general economic situation. GDP growth leads to an increase in the income of the population, which in turn results in a stronger demand for food products. These inter-relations are further strengthened by globalisation.

Because of globalisation, Polish agriculture is, on one hand, becoming a part of an open, worldwide economic structure, but, on the other hand, must be up against strong competition. In order to meet the global challenges, this sector of the economy should be undergoing constant transformations, and farmers should take action allowing to compete with other agricultural products in terms of quality, and to exploit market niches.

Competition presents a major challenge for agriculture in the era of globalisation. In order to cope with it, farmers should take such action as improving farm efficiency, promoting innovative activities, building up Polish brands in foreign markets and increasing their trustworthiness, or supporting the improvement of efficiency within the marketing chain. Poland is currently facing a serious decision: whether to reduce social expenditure while increasing prodevelopment spending or not. However, this idea can arouse opposition on the part of some politicians and social groups.

Additionally, globalisation favours the development of corporations, also on the international level, which poses a challenge for the domestic agribusiness. Corporations are increasing their presence within economic structures, taking on the leading role, and are powerful enough to dominate entire market segments.

An important challenge for agriculture will consist in upholding the assumptions on the part of some politicians and social groups.

An important challenge for agriculture will consist in upholding the assumptions of the 2014–2020 EU budget. Most likely, the problems associated with the adoption of a budget perspective for this period do not herald a relaxation of fiscal restrictions within the Community. Such a change of direction in the cohesion policy is probably aimed at creating a proving ground for testing, among others, the mechanisms of discontinuing direct subsidies. Thus, agriculture should adapt well in advance to the very likely fundamental change in the philosophy underlying the budget-based support for the sector. Besides, it cannot be ruled out that after 2020 the overall volume of subsidies for agriculture in Poland will diminish.

Another important factor influencing agricultural development is the demographic structure. Until 2050, the world population will be rising, yet the character of this process will not be uniform. There will be a dramatic fall in the proportion of the economically active population in Russia, Japan, Germany, and China, whereas the size of this group will increase tremendously in India, Nigeria, Pakistan, and the USA. It is estimated that the total population of Poland will shrink from 38.1 million in 2008 to 34 million in 2050. At the same time, the populations of developed countries will age steadily. These changes will reveal to be a major factor in bringing about a shift in consumer types and the structure of consumption. As they will be accompanied by an increase in the wealth of populations, these changes will necessitate modifying the volume and structure of food production accordingly. The European Union must make some strategic decisions as to whether to focus on producing food as per its own standards for the inhabitants of Europe or to boost production, for such reasons as, for instance, humanitarian considerations.

When creating a new growth strategy for agriculture, one that will match the global conditions, it is worth taking a few different theories into consideration. The first one regards the so-called industrial development. This tactic makes it possible to increase agricultural production through using various types of mechanisms for supporting or replacing the workforce. Moreover, it allows for improving the efficiency of land, as well as livestock. The economic effects of industrialism include, inter alia, a stronger demand for agricultural products, lower number of agricultural workers, or modernised means of transport. It was precisely industrialism that led to the commercialisation of agriculture. Yet, the downsides of industrialism include a lack of care for the natural environment.

The second tactic is induced development. It is based on the assumption that progress in agriculture must be due to external factors. The driving force should act upon agriculture through the market. The fact of progress having an external source is beneficial not only to farmers, but also to the entire society since the more agriculture is efficient, the less the entire economy is burdened with the costs of its growth.

The bipolarisation strategy assumes that changing the agricultural structure would allow for modernising agriculture. The advocates of this strategy argue that this structure needs to be bipolarised to include the sector of economically robust industrial farms and a vast sector of nondevelopmental, social farms. The latter will fail as farms, but will transform into multifunctional units.

The essence of the sustainable growth strategy is the turning towards modern agriculture that is technically efficient, but at the same time friendly to people and the environment. The development of biological sciences, and especially of biotechnology and genetics, has led to achieving better productivity of land. We produce more and more food using less and less space. The demand for food has become somewhat segmented. On one hand, there is a demand for low-priced food products available as a result of mass production within industrial agriculture. On the other hand, there is a growing market for organic farming products that are characterised by a high nutritional and pro-health value, but also a higher price.

Sustainable agriculture should be based on family farms, integrated with the entire national economy, and complementary to other activities undertaken in rural areas. For these principles to be applied, we need to, among others, ensure support from the state, strengthen rural self-government units, and create conditions favouring the multifunctional agricultural development.

Agricultural development depends more and more on tendencies prevailing in the global economy. This relationship is enhanced by the globalisation process. Over the last years, farmers have reevaluated their priorities – it is no longer quantity, but quality of the food produced that matters. Furthermore, farmers are not only engaging in production, but are also pursuing other goals, such as economic, social, environmental, or cultural objectives.
The basic functions of agriculture, that is those related to food production, are to an ever-increasing extent performed not only by agriculture itself, but also by entities that are independent from it. It is because the development potential of agriculture is less and less attributable to the conditions created within the sector. Instead, there is a growing influence nowadays of the sectoral policy, and especially macroeconomic policy. The competitiveness of the food sector depends primarily on the development tendencies observed in the entire economy. Positive macro-scale projects are reported on agriculture, as well as its environment. When GDP rises, so does the income of the population, which in turn leads to an increase in the demand for food products. The economic standing of agriculture constitutes an integral part of the overall economic situation. In a globalising world, agriculture is more and more exposed to external influences. This has both positive and negative sides.

Even now, in the second decade of the century, it is visible that the changes taking place on the economic map of the world are exerting a crucial impact on the development of various sectors of the economy, including the food sector. There is an opinion that these transformations will also necessitate major institutional changes within the economic policies being implemented, including – or maybe especially – the Common Agricultural Policy. In such a case, the development of agribusiness and its environment should be monitored. This will allow for preparing the Polish food sector for the challenges connected with the new conditions, including the economic ones, and to the possible regulatory changes.

In the previous half-century, the characteristics of the global economy included, on one hand, the marginalisation of agriculture, state interventionism, statism, and planned economy. On the other hand, the economy was liberal and open (the Washington Consensus). Unfortunately, the outcomes of such a policy turned out to be insufficient. The great civilisation breakthrough that has been taking place over the last years has resulted in abolishing the industrial civilisation model, which has reigned for centuries. It is being replaced by a new, still undefined economy based on knowledge. Some theories are being revised as they are proving obsolete in the changing reality. For instance, there are doubts being expressed as to the accuracy of the Kuznets’ law, which concerns the conflict between equality and efficiency. The American Nobel Prize winner’s idea that economic growth is associated with an increase in inequality is being confronted with the examples of countries where economic growth has occurred within an egalitarian setting.

FERTILISER MANAGEMENT

The growth of the fertiliser industry is of fundamental importance to ensuring a country’s food security and constitutes an indispensable condition of the world’s sustainable development. Nitrogen fertilisers are of greatest economic relevance. It is estimated that they allow for producing almost 50% of food consumed by people. In Poland, some 1.7 million tonnes of nitrogen fertilisers are produced, which makes us the second largest manufacturer among the EU Member States. Our production consists mostly of ammonium nitrate, urea, and nitrochalk, yet producers are more and more interested in the solution of urea and ammonium nitrate (UAN). As far as the use of nitrogen fertilisers is concerned, Poland ranks third in the EU, after France and Germany. Interestingly, while in the other EU countries the use of nitrogen fertilisers is decreasing, in Poland it is on the rise. The nitrogen fertilisers that we tend to use the most are urea and ammonium nitrate.

CHARACTERISTICS OF THE DISTRIBUTION MARKET IN POLAND

After Poland’s accession to the European Union, the income standing of farmers changed radically. They have gained the most from the integration, although they have had to respond to new challenges. Farmers have multiplied their assets significantly thanks to the European subsidies enabling them to develop farms.

As to the distributors of products for agriculture, they too have had to adapt to the
new reality. The distribution market in Poland is rapidly professionalising customer service. The companies of the sector are increasingly efficient in terms of organisation and economically strong, they are also making use of the modern ICT tools. Today, their offer to farmers includes not only goods for sale, but also, for instance, advisory services (that allow for establishing a relationship with the customer), maintenance of machinery, or help with obtaining the EU funding. Moreover, distributors are introducing and broadening the range of products paired with suitable training services. The service variety encourages farmers to expect comprehensive services of a single provider. Such an approach is profitable to both parties: farmers receive comprehensive services, and distributors earn a considerable income. It should be underlined that in the years 2004–2014 the largest companies increased their income by a few times, and the leaders of the market generate an income exceeding PLN 1 billion.

In the distribution market, wealthy local players with a considerable geographical reach are beginning to emerge. They are active in such fields as the distribution of goods, logistics, financial services, or advisory services.

**FARM ADVISORY MODEL**

In 2003, there was a reform of the Common Agricultural Policy. Its essential element consisted in the introduction of the so-called FAS, that is Farm Advisory System. It was to be implemented in every EU Member State. In the EU, the FAS is maintained by public bodies, yet the services can also be provided by private entities.

In Poland, the farm advisory system is governed by the Act of 22 October 2004 on farm advisory units. One of the main tasks of advisors concerns helping farmers to prepare requests for the EU subsidies. Farm advisory, however, has some other functions of fundamental importance. Firstly, it fulfils the educating function; secondly, it facilitates a smooth flow of information between the agricultural market participants; and thirdly, it assists the development of farms.

Advisory services can be provided by public, private, and combined – that is public–private – entities. In our country, the central role is performed by the public advisory services, which are based on farm advisory centres.

Despite this domination, private advisory services are growing, and fast. They are offered mainly by agricultural producers and distributors of products for agriculture. These services are a part of their business model, and are supposed to improve the level of customer service. Such companies conduct their activities by employing both traditional forms of training and advisory services, and new solutions, such as coaching, demonstrations, or workshops. It often happens that they establish separate companies to offer advisory services.

There is no exact information as to the number of people making use of advisory services in Poland. However, statistics show that most eager users of these services include farmers from the Mazowieckie and Łódzkie Voivodeships, and the least interest is exhibited by farmers from the Lubelskie, Podlaskie, and Warmińsko-Mazurskie Voivodeships.

It is worth noting that advisory services are not the main source of knowledge for farmers. They also gain it from specialist press, Internet, and television, or the so-called opinion leaders. Next, the list includes farm advisory centres, and then trainings organised by producers. It cannot go unnoticed that the role of the Internet is increasing. Studies reveal that 86% of farms in Poland enjoy Internet access, and 71% of farmers consult the Internet when making decisions, for example about purchases. This is precisely why a portion of the companies decided to communicate with their customers through the Internet. The fact that farmers are more and more often resorting to modern technologies has also led to an increased interest in software that helps to run farms in a very modern manner.

Polish agriculture, especially over the last 10 years, has experienced many positive changes. Further agricultural development can to a large extent depend on the quality of the farm advisory system. For it to be improved, advisors should embrace the most recent scientific achievements, but also stay in constant contact with farmers, who would have an impact on the development of these services.
Chapter 6.

STATISTICS
(example statistic figures)

- Developed on the basis of http://stat.gov.pl/, „Statistical Yearbook of Agriculture”

### Tab. 1. Global share and position of Poland

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### Tab. 2. Poland’s share in the European Union

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Chapter 7.

SOCIOLOGICAL SURVEYS AMONG AGRICULTURAL OPINION LEADERS
(example surveys)

EUROPEAN UNION – THE DRIVER OF CHANGE FOR THE BETTER

- The respondents declare that these were especially the EU subsidies for agriculture that contributed the most to the positive changes.

In your opinion, what had the greatest influence on the positive changes in Polish agriculture during this period?
The answer to the question how has Polish agriculture changed over the last 25 years seems rather simple in the context of the present paper. Just as other sectors of the economy or domains of social life have transformed in those years, Polish agriculture evolved as well. Now it is modern, it is growing dynamically, and it provides the society with measurable benefits.

While we do have an outline of the general situation in Poland, and it seems fairly straightforward, the authors of the present work would still like to provoke a discussion about the directions for the Polish food sector, with the intention of making the future Polish agriculture even more competitive and modern, both in technical and economic aspects. So that it is based on farms integrated with the entire national economy, and develops in compliance with the highest environmental protection standards.

Undoubtedly, it is the last decade, that is the time since Poland’s accession to the European Union, that has changed the face of our national agriculture. Thanks to the various kinds of cofunding, Polish agricultural entrepreneurs have grown. There has been an increase in the turnover of foreign trade in agricultural and food products. The level of knowledge has risen, and so has the willingness to educate. Polish farmers are more and more confident to engage in precision farming, which is based on those techniques that allow to achieve – in a sustainable way – high yields of suitable quality, while incurring rational costs.

Furthermore, the distribution market in Poland is swiftly professionalising customer service. The companies of the sector are increasingly efficient in terms of organisation and economically strong. Farm advisory services have become an element of their business model, and their most important function is to educate, also with the aim of increasing social capital in the sector. With this idea in mind, in 2011, the Puławy Competence Center was established – as the first agricultural thinktank in Poland, which integrates three different points of view focused on this sector: the sensitivity and experience of agricultural entrepreneurs, the knowhow of entities manufacturing the means of production, and finally the knowledge and vision of scientific institutions concentrating on agricultural issues. Thus was created an institution that today constitutes a vigorous platform for cooperation of science and business within agriculture. The mission of Puławy Competence Center is to promote the model of a modern agricultural entrepreneur and to bring measurable benefits to all agricultural market participants. It is a modern centre for collaboration, and especially for exchanging information and experience among farmers, advisors, scientific institutions, and the broadly defined business.

The importance of educating, analysing tendencies, and making forecasts about the events that will have an influence on food management, is confirmed by the most recent forecasts of the World Health Organisation. It is estimated that today the world is inhabited by about 7 billion people. Until 2035, there will be 8.6 billion people living on the planet, and in 2050 – 9.3 billion. Along with the population growth, there will also see an increase in the demand for food and food security for every human being. It should be highlighted that even today Polish agriculture is the sector of economy that ensures this security, and not only at the national but also at the European level. In this context, a crucial role has been played by the progress in the area of fertiliser management. Polish farmers are increasingly effective in achieving all the purposes of fertilising, and its level allows to
obtain arable crop yields that guarantee food security. It is due to a change in the way of perceiving fertilisation, now it is not only seen as the primary factor in increasing yields, but also as an efficient way of controlling the quality of primary agricultural products.

National agriculture is growing dynamically. The exports of agrifood products are rising. This is evocative of the enormous potential of agricultural entrepreneurship and Poland's competitive advantage in the world. The task of agricultural producers should consist in marketing products that enjoy their own, globally recognised brand. The task of the farm advisory system should consist in obtaining the EU funds and using it to ensure intellectual support to Polish agricultural entrepreneurs.

When presenting you with the present Report, devoted to the focal issue of 2014, that is the evaluation of what has been achieved during 25 years of freedom, the Puławy Competence Center intends to prepare analyses and forecasts that will constitute an essential element of the discussion about the perspectives of agriculture and its associated sectors. This year, we would like to encourage a debate during the 4th edition of the „Science – Business – Agriculture” Conference in Puławy. We would also like to pledge that in the nearest future our goal will be to initiate a discussion and present reports concerning the most important issues in our sector.