



# Food Processing

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NESST Empowers Industry Profile

# About the Research

High-growth industries of Poland – including the manufacturing, aviation, food processing, logistics and warehouse market, nursing and long-term care, and retail industries – will create thousands of jobs in the next five years. Many of the available positions in these industries provide dignified employment, yet do not require a university degree or long-term experience. Is this an opportunity for labour inclusion of underserved communities? NESsT believes it is.

NESsT conducted the following research as part of its NESsT Empowers initiative, which tackles the lack of quality, skilled jobs available for under-served communities in emerging market countries. The NESsT Empowers program invests in social enterprises that prepare people from these communities for dignified employment. Read all the NESsT Empowers industry profiles, at [www.nesst.org/nesst-empowers-poland](http://www.nesst.org/nesst-empowers-poland).

## CREDITS

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# Industry Characteristics

The food and drink industry is Europe's largest manufacturing sector, generating a 1,089 billion euro (USD 1.28 billion) turnover yearly.<sup>1</sup> It is also the biggest employer in the European Union, with 289,000 companies providing jobs to 4.25 million people.

More than 99% of food and drink manufacturing companies are small and medium, generating half of the industry turnover and being responsible for 62.8% of its employment; the remaining is generated by the few big players. With EUR 2.5 million (USD 2.9 million) expenditures for research and development, it is one of the sectors which prioritizes innovations to improve technological processes.

In 2015, there were 14,700 food processing companies operating in Poland. In line with European industry characteristics, 80% of the players are small and medium companies employing up to 50 people each.<sup>2</sup> They are specialised in a variety of products – meat, dairy, bakery products, processed fruit and vegetables.

Poland is an attractive location for investors given its tradition of producing high-quality food products, competitive labour costs, huge local market, potential for research and development, investment incentives (i.e. government grants, corporate income tax exemption within Special Economic Zones). The country lures the world's biggest food and beverage production companies (see Table 2 on page 4).

<sup>1</sup> FoodDrinkEurope, *Data & Trends of the European Food and Drink Industry*, 2016, [www.fooddrinkeurope.eu](http://www.fooddrinkeurope.eu).

<sup>2</sup> Polish Investment and Trade Agency, *Food Processing*, 2016: [www.paih.gov.pl](http://www.paih.gov.pl)

**Table 1. Biggest subsectors of food and beverages production industry in Europe (2013)<sup>3</sup>**

Subsector	Share of total turnover	Share of value added	Share of employment	No. of companies
Meat products	20%	14%	21%	13%
Various products (including chocolates, biscuits, confectionery, food preparations, etc.)	16%	21%	14%	9%
Drinks	14%	18%	10%	9%
Dairy products	14%	9%	8%	4%
Bakery and farinaceous products	10%	19%	32%	53%
Animal feed	7%	5%	3%	2%
Processed fruits and vegetables	6%	6%	6%	4%
Oils and fats	5%	2%	1%	3%
Grain mill and starch products	4%	3%	2%	2%
Fish products	2%	2%	3%	1%

<sup>3</sup> FoodDrinkEurope, *Data & Trends of the European Food and Drink Industry*, 2016.

Table 2. Food and Beverage Industry Leaders

Global Food and Beverage Production Leaders Operating in Poland<sup>4</sup>

Company	Global Annual Revenues	Products Made in Poland	Operations & Employment in Poland
<b>Cargill</b>	PLN 400 billion USD 114 billion	Edible oils, isoglucose, animal fodder	Since 1991; production facilities in over 20 locations (including eastern cities as Białystok and Sandomierz); 1,850 employees.
<b>Nestle</b>	PLN 340 billion USD 97 billion	Confectionery	Since 1993; 9 production facilities; over 5,042 employees.
<b>PepsiCo</b>	PLN 220 billion USD 63 billion	Beverages, snacks	Since 1991 – the first production facility Grójec; currently, three others in Mazowieckie. 2850 employees.
<b>Bunge</b>	PLN 142 billion USD 41 billion	Margarine, oil	Three production facilities - Kobylniki, Brzeg, Karczew; owns Kruszwica, the biggest Polish oil producer established as national manufacturer in 1952; over 1,000 employees.
<b>Mondelez</b>	PLN 103 billion USD 30 billion	Confectionery, snacks, dairy	Since 1992; earlier as Krafts Foods Poland; seven production facilities (Śląskie, Podkarpackie, Mazowieckie, Wielkopolskie, Dolnośląskie and Opolskie voivodships). 4,600 employees.
<b>Unilever</b>	PLN 93 billion USD 27 billion	Margarine, vegetable oils, ice-creams, frozen food, cleaning products	Since 1991; four production facilities (Poznań, Katowice, Bydgoszcz, Banin); Almost 4,000 employees.
<b>Danone</b>	PLN 91 billion USD 26.4 billion	Dairy, water, baby & medical nutrition	Since 1995, in Bieruń, Śląskie; owns production facilities in Opole and Krotoszyn and four water factories in Śląskie and Zachodnio-Pomorskie. Almost 3,500 employees.
<b>Heineken</b>	PLN 83 billion USD 24 billion	Beer	Owner of Grupa Żywiec, Poland's biggest beer manufacturer, with five breweries in north and south Poland with 1991 employees and PLN 2.4 billion (USD 670 million) in sales in 2016.

<sup>4</sup> FoodDrinkEurope, *Data & Trends of the European Food and Drink Industry 2016*.

JLL, Polish Information and Foreign Investment Agency, EY, Hays. *Made in Poland. An Investment Guide for Manufacturing Sector Companies*, 2016.

Review of the official websites of the food processing companies operating in Poland (November 2017)

### Other Polish Market Leaders

Company	Annual Revenues	Products	Operations & Employment
<b>Maspex</b>	PLN 4.2 billion USD 1.2 billion	Beverages and noodles	Launched in 1990, runs production facilities in Poland and Russia, Romania, Hungary and Czech Republic.
<b>Animex</b>	PLN 4 billion USD 1.1 billion	Meat	Established as national manufacturer in 1951; transformed into a joint stock company in 1994; runs eight meat production facilities (also in Warmińsko-Mazurskie voivodship where unemployment is the highest in Poland). 8,300 employees.
<b>Mlepol</b>	PLN 3.5 billion USD 100 million	Milk products	Operates since 1980s, currently runs 12 production facilities, mainly in north-east Poland (Podlaskie and Warmińsko-Mazurskie v.), but also in Mazowieckie, Kujawsko-Pomorskie and Lubuskie v. 2300 employees and 14,000 farmers as milk providers.
<b>SM Mlekovita</b>	PLN 4 billion USD 1.1 billion	Milk products	Launched in 1928, runs 16 production facilities including in north-east Poland (Podlaskie and Warmińsko-Mazurskie) and Małopolskie. 5000 employees.
<b>Sokolów</b>	PLN 3.2 billion USD 910 million	Meat	Established in late XIX century; runs seven production facilities in Mazowieckie, Wielkopolskie, Małopolskie, Podlaskie and Podkarpackie voivodships, over 7,000 employees.

According to the Polish Investment and Trade Agency data, international food production companies operating in Poland are located mostly in Wielkopolskie, Dolnośląskie, Mazowieckie, Łódzkie i Opolskie voivodships; some also invested in the Warmińsko-Mazurskie voivodship, where the unemployment rate is one of the highest and the access to lower skilled workforce is easier to find.

In 2016, food and beverage manufacturing accounted for 20% of the processing and manufacturing sector in Poland.<sup>5</sup> Poland targets the European Union markets and exports to the region are increasing.<sup>6</sup> In 2015, the total exports of live animals, animal products, vegetable products, fats and oils, and prepared foodstuff was valued at PLN 100 billion (USD 28.6 billion), while total imports - PLN 67.2 billion (USD 19.2 billion).<sup>7</sup> Around 80% of all the exported products go to EU countries, with half of this amount going to Germany.

Sales in the first half of 2017 were stable in comparison to 2016, with the highest amounts generated by meat and dairy products.

The players invest heavily in infrastructure, especially in machines and technical equipment (70% in food production and 80% in beverages sector). It leads to increased automatization, which may threaten future employment numbers in the sector.

**Table 3. Results of Polish Food and Beverage Production Industry**

		2016	I & II Q 2017
<b>Net sales revenues (by sections and divisions of industry)</b>	<b>Food Products</b>	PLN 178 billion (USD 50 billion)	PLN 94 billion (USD 26 billion)
	<b>Beverages</b>	PLN 29 billion (USD 8 billion)	PLN 13 billion (USD 3.6 billion)
<b>Sold production (by industrial groups)</b>	<b>Food Products</b>	PLN 159 billion (USD 44.4 billion)	PLN 85 billion (USD 24 billion)
	<b>Beverages</b>	PLN 16 billion (USD 4.5 billion)	PLN 8 billion (USD 2.2 billion)

<sup>5</sup> Central Statistical Office, Industry Outlays and Results in 2016: [www.stat.gov.pl](http://www.stat.gov.pl).

<sup>6</sup> JLL, *Polish Information and Foreign Investment Agency, EY, Hays. Made in Poland. An Investment Guide for Manufacturing Sector Companies, 2016.*

<sup>7</sup> Central Statistical Office, Yearbook of Foreign Trade 2016: [www.stat.gov.pl](http://www.stat.gov.pl).

<sup>8</sup> Central Statistical Office, Industry Outlays and Results in 2016.

<sup>9</sup> Central Statistical Office, Industry Outlays and Results in I and II quarter of 2017: [www.stat.gov.pl](http://www.stat.gov.pl).

# Employment Opportunities

While the biggest food and beverage companies offer many positions in departments like marketing, distribution or logistics, the industry also needs employees in its manufacturing facilities – positions related to the production lines, technology of machines used in production, quality control, and local plant logistics.

In 2016, there were 371,500 people working in food manufacturing and 21,700 in beverages production – the employment in both divisions of the industry remained stable in the first half of 2017. While analysing statistical data of Polish food manufacturing industry presented by industrial groups in 2017, the greatest employment is recorded in:

- meat (processing, preserving, production): 95,500
- bakery and farinaceous products manufacturing: 52,900
- dairy products manufacturing: 36,000
- fruit and vegetables (processing and preserving): 27,800<sup>10</sup>

According to the Central Statistical Office, in the second quarter of 2017, agriculture – as separate sector of the national economy – provided jobs to 1,511,000 people employed in individual farms. They are producers of final food products (fruits and vegetables) and suppliers of food production and processing companies.<sup>11</sup> This number does not include the seasonal workers that are in high demand in Poland. According to the Institute of Agricultural and Food Economics, individual farms need up to 500,000 seasonal workers, for an average of 45-50 days per year. The highest demand comes from orchards and gardening, with up to 260,000 people employed for 70 days in fruit collection (since mid-June and in the autumn).<sup>12</sup> While some jobs require certain qualifications (i.e. tractor operators and combine harvester drivers), the seasonal work in fruit collection can be done without qualifications or experience but does not provide stability or opportunities to advance. Outdoor work is often fulfilled in difficult weather conditions, non-ergonomic positions, based on contracts of mandated or task-specific contracts. The Polish labour market is not able to address the need for agricultural seasonal workers, so workers from Eastern countries are attracted – mostly from Ukraine. They are ready to work with lower wage rates than Polish workers and, in many cases, without legal work agreement.<sup>13</sup>

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<sup>10</sup> Central Statistical Office, Industry Outlays and Results in 2016.

Central Statistical Office, Industry Outlays and Results in 1st and 2nd quarter of 2017.

<sup>11</sup> Central Statistical Office, Labour Force Survey in Poland, 2nd quarter of 2017: [www.stat.gov.pl](http://www.stat.gov.pl).

<sup>12</sup> Interview with PhD Bożena Karwat-Woźniak, Institute of Agricultural and Food Economics (January 2018).

<sup>13</sup> Interview with the representative of Local Labour Office in Grójec (January 2018).

## OCCUPATIONS AVAILABLE IN THE FOOD PRODUCTION AND PROCESSING INDUSTRY

According to the Barometer of Professions, the manufacturing worker for food processing and production is an occupation with balanced supply and demand all over Poland. For the more qualified food technology and nutrition specialists, the supply of candidates is higher than the demand in 10 voivodships. On the other hand, the whole country faces a shortage of bakers, except for Mazowieckie and Łódzkie voivodships.

The Ministry of Family, Labour and Social Policy lists in its statistics specific occupations from the food production and processing industry. The occupations with the highest demand or the related unemployment numbers are included in Table 4 (see right):<sup>14</sup>

The biggest demand was for meat processing machines operators. Employers had difficulties filling positions for butchers and food manufacturing machines operators (over 25% of vacancies unfilled). An analysis of the on-line published job offers provides a classification of the types of positions that are available as demonstrated in Table 5 (see page 9).

**Table 4. Occupations within Food and Beverage Industry with Highest Number of Vacancies or Unemployed**

Occupation	No. of unemployed at the end of II Q	No. of new vacancies registered in I & II Q	No. of vacancies at the end of II Q 2017
<b>Confectioner</b>	9,075	1,893	260
<b>Baker</b>	7,642	1,849	358
<b>Butcher and producer of processed meat</b>	2,102	1,015	278
<b>Fish processing worker</b>	819	1,784	237
<b>Meat processing machines operator</b>	562	3,765	682
<b>Food manufacturing machines operator</b>	242	1,731	467
<b>Intestines processing worker</b>	119	1,185	246

<sup>14</sup> Ministry of Family, Labour and Social Policy, Labour Market Department, *Zarejestrowani bezrobotni oraz wolne miejsca pracy i miejsca aktywizacji zawodowej według*

*zawodów i specjalności w pierwszym półroczu 2017 roku:*  
www.mpips.gov.pl.



Table 5. Analysis of job offers in food processing companies available on Pracuj.pl portal

Position	Responsibilities	Qualifications	Experience
<b>Production Worker (lower-skilled)</b>	<ul style="list-style-type: none"> <li>Supplying production line</li> <li>Packaging and sorting</li> <li>Initial quality review of products</li> </ul>	<ul style="list-style-type: none"> <li>Understanding the production facility operations system</li> <li>Clean sanitary and epidemiological health tests (recorded in book holders)</li> </ul>	General work, production and pallet truck driving experience - an advantage
<b>Shift Leader</b>	<ul style="list-style-type: none"> <li>Implementation of production plans</li> <li>Ensuring compliance with standards and procedures of food production</li> <li>Coordination of the production process in line with quality and hygiene standards</li> <li>Control over quantity of used materials/supplies;</li> <li>Job safety</li> <li>Responsible for the team's results</li> </ul>	<ul style="list-style-type: none"> <li>Minimum secondary level of technical education</li> <li>Leadership, organisational and interpersonal skills</li> <li>Ability to solve problems</li> <li>Computer literacy, especially MS Office</li> </ul>	Preferred: higher level of education; similar work experience; knowledge on food production; HACCP standards, English
<b>Production Manager</b>	<ul style="list-style-type: none"> <li>Managing the production (based on plans and budget)</li> <li>Quality control</li> <li>Collaboration with other departments</li> <li>Ensuring compliance with standards</li> </ul>	<ul style="list-style-type: none"> <li>Higher level of education preferred</li> <li>Excellent interpersonal and communication skills</li> <li>Ability to solve problems</li> <li>Team managing experience</li> <li>Great organisational skills</li> <li>SAP experience</li> </ul>	2-3 years of professional experience in similar position
<b>Quality Control Specialist</b>	<ul style="list-style-type: none"> <li>Control of the quality of products and transport conditions</li> <li>Reporting</li> <li>Training the production team</li> </ul>	<ul style="list-style-type: none"> <li>Higher level of education in food technology</li> <li>Computer literacy especially MS Office</li> <li>Time flexibility</li> <li>English</li> </ul>	Two years of professional experience
<b>Quality Control Manager</b>	<ul style="list-style-type: none"> <li>Laboratory coordination and supervision</li> <li>Supply of laboratory needed materials</li> <li>Collaboration with the suppliers</li> <li>Supervision of tests</li> <li>Interpretation of test results</li> <li>Implementation of recommended adjustments</li> <li>Certificates of materials</li> <li>Training the team and supporting the production department</li> <li>Use of SAP system</li> </ul>	<ul style="list-style-type: none"> <li>Higher level of education in food technology, biology or similar fields</li> <li>Knowledge of standards and procedures, including ISO 22000, IFS, HACCP</li> <li>Ability to conduct qualitative assessment of products</li> <li>Good knowledge of English and MS Office</li> <li>SAP experience preferred</li> </ul>	Three years of professional experience

As in other manufacturing sectors analysed within the NESsT Empowers research in Poland, the low skilled entry-level positions do not require experience and education from the candidates. However, increasing automatization is relevant for this industry as well. According to WiseEurope Institute, the lower-skilled production worker is the automatization most endangered occupation.<sup>15</sup>

A person with a lower-level position may have a chance to advance and become a shift leader after few years if she/he has a higher level of education or the employer has no requirements regarding formal education. Regarding specialist and managerial positions, higher level of education and 2-3 years of experience at similar position are required.

The food production companies collaborate with vocational schools to address their need for skilled candidates. For instance, the Vocational School in Mrągowo launched together with Mlekpól a new class profile – milk-processing technician.<sup>16</sup> The students have the chance to receive hands-on training in a real production facility and the company participates in the educational process, developing new talents needed in the industry.

<sup>15</sup> WiseEuropa Institute, M. Bitner, R. Starościk, P. Szczerba, *Czy robot zabierze ci pracę? Sektorowa analiza komputeryzacji i robotyzacji europejskich rynków pracy*, 2016: [www.wise-europa.eu](http://www.wise-europa.eu).

<sup>16</sup> Complex of Vocational Schools in Mrągowo: [www.zszmragowo.pl/rekrutacja-2017](http://www.zszmragowo.pl/rekrutacja-2017).

## WORK CONDITIONS IN THE FOOD PROCESSING INDUSTRY

The earnings in this sector grow gradually, together with the growth of minimum wage in Poland – PLN 2000 (USD 560) in 2017.

**Table 6. Average Earnings in the Food and Beverage Production Industry**

Average Gross Monthly Payment	2016	I & II Q of 2017
Food Manufacturing	PLN 3682 USD 1,030	PLN 3872 USD 1,085
Beverages Production	PLN 6069 USD 1,700	PLN 6169 USD 1,730

The average is based on the earnings of employees of all grades or skill levels – the earnings of food manufacturing workers are 30% higher than the minimum wage and the salaries of lower-skilled workers at the level of minimum wage. Average earnings in the beverage production are significantly higher due to more automatic production process that results with smaller portion of low-skilled workers.

The work happens in two or three shifts, and employees receive a set of benefits: financial bonuses for efficient performance results; attendance bonuses for employees with no abandoned working days; private healthcare; additional insurance; company's pension and social funds; subsidized meals; free transportation from other towns; professional trainings allowing self-development and promotion. Candidates for higher-level positions receive company cars.

<sup>17</sup> Central Statistical Office, *Industry Outlays and Results in 2016*

Central Statistical Office, *Industry Outlays and Results in Ist and IInd quarter of 2017*

## MARGINALISED GROUPS

The industry offers a variety of jobs, with lower-skilled positions available for people with no education or experience – for example at-risk youth. But the most needed candidates are the ones with vocational education. They are offered permanent contracts and opportunities to advance.

The repetitive and standardized tasks in the production lines are an opportunity for people with intellectual disabilities, who are in an extremely difficult situation in the labour market in Poland.

There are many Polish and foreign examples of social enterprises employing people with intellectual disabilities in food processing and production – two examples can be found in the boxes below. Through these social enterprise models, marginalized groups gain income, develop their professional skills, build relations and self-confidence, under the supervision of qualified staff members who are trained and qualified to work with this group. The agriculture industry that is producing fruits and vegetables and supplying food manufacturing companies, provides jobs for low- and medium- skilled seasonal workers that could be potentially recruited from at-risk groups, such as former prisoners.

## DALBA SOCIAL COOPERATIVE

Dalba Social Cooperative runs the first Polish (and sixth in the world) cooperative brewery. Ninety percent of its employees are people with intellectual disabilities and mental health problems.

Launched in 2014, it currently employs 18 people with disabilities in the Brewery and Pub in Gdansk. Drawing on the long brewery tradition of the region, the enterprise developed a wide offer of beers, including APA, IPA or Stout. It is the first brewery in Poland selling freeze-dried beer. Its main clients are pubs and restaurants, but also institutional clients interested in gift sets.

Their investment plans include building a new production hall and creating additional 10 workplaces for people with disabilities. The team is considering the possibility of developing a social franchise, based on their model. The business was honoured with the prestigious title of Social Enterprise of the Year 2017, awarded by The Foundation for Social and Economic Initiatives (FISE) and its partners.

► [www.browarspoldzielczy.com](http://www.browarspoldzielczy.com)

## FAIR & BIO TRADE COFFEE

Fair & Bio Trade Coffee Roasting House is the first plant roasting fair trade coffee employing disadvantaged persons from Czech Republic. Located near Prague, it also runs an on-line shop for special coffee selection and useful equipment, such as coffee grinders and filters. Its main clients are companies purchasing coffee for offices, cafés, and individual coffee lovers.

Operating as a cooperative with 24 members, it employs six people with physical disabilities. The staff members are trained and constantly learn and gain experience especially in how to process orders: preparing the packaging, grinding the coffee, managing the plan, doing administrative work. The plant manager, who is an experienced barista and roasting expert, does the actual roasting of the coffee. By 2021, Fair & Bio aims to employ additional 15 people.

► [www.fair-bio.cz/en/](http://www.fair-bio.cz/en/)



## Summary

- The main growth driver of the food processing sector is exports.
- Leading Polish food producers from the food processing industry have production facilities located all over the country, including Warińsko-Mazurskie voivodship, where unemployment is the highest in the country.
- The sector of food processing offers entry-level jobs with no expected professional experience nor education.
- But these jobs in the food processing industry are in the most serious danger due to automatization.
- There are social enterprises offering jobs in the food and beverages processing and production industry to at-risk groups, including people with intellectual disabilities.

## ABOUT NESsT

NESsT has been working for 20 years to provide dignified employment to lift people out of poverty in emerging markets. NESsT achieves its mission by raising philanthropic capital to invest in and develop social enterprises that create employment and viable income opportunities for the poorest communities facing isolation, discrimination, lack of job skills and poor education. To date, NESsT has invited 176 social enterprises to enter its portfolio providing them with an average of four years of support and investing more than USD 14 million in capacity building and direct funding. Through this investment, NESsT has contributed to creating more than 49,000 dignified employment and sustainable income opportunities.

## SUPPORT

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