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Poland's Agri-Food Sector within EU: Economic Integration, Harmonisation, and Trade Dynamics

Abstract

RESEARCH OBJECTIVE: The research objective of this paper is to scrutinise the role of the food business in the EU's regional integration process from the dimensions of economic importance, regulatory harmonisation, infrastructure development, and implications on cross-border trade activities.

THE RESEARCH PROBLEM AND METHOD: The study employs a qualitative approach focused on Poland's agri-food sector, combining analysis of EU policy documents and regulatory frameworks. It follows a comparative framework that links regulatory change with market dynamics, identifying relationships between EU policies, cross-border trade expansion, and structural transformation in the Polish food industry.

THE PROCESS OF ARGUMENTATION: This study discusses the favourable attributes that exist under the common EU framework concerning food safety and labelling regulations, increased exports of processed food, and benefits linked with regulatory harmonisation that reduces trade barriers.

RESEARCH RESULTS: The main result of such integration into the EU is a significant economic impact on the food industry in Poland. Trade barriers are lowered due to the regulations, while funding from the EU is vital in increasing the efficiency of food distribution by improving logistics and infrastructure.

CONCLUSIONS, INNOVATIONS, AND RECOMMENDATIONS: The study makes evident that it is important to forge regional cooperation in the area of increased resilience and competitiveness in the evolving market environment. New policies should also follow this pathway in the pursuit of

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sustainable agricultural practices and further regulatory streamlining to continue such growth in the EU food sector.

Słowa kluczowe:
food industry integration, EU regional cohesion, regulatory harmonisation, cross-border Trade, Poland's EU Membership, sustainable agricultural practices

The maximum number of keywords is 5. Please indicate which ones should be removed.

INTRODUCTION

The European Union's regional integration has also transformed the economic landscape of the food industry, which has become vital for growth and cohesion. As one of the largest manufacturing sectors in the EU, the food industry acts as a vehicle for cross-border trade and economic interdependence among member states. This paper discusses the food industry's role in regional integration through trade relationships, economic policy alignment, and shared challenges surrounding issues such as sustainability and market fragmentation.

A comparative study with other industries reveals that food is a very special industry within the integration process of the EU. Integrating the food industry in the EU takes shape in other dimensions beyond the economy. It engenders a feeling of a common European identity as national cuisines and culinary practices cross borders. This cultural integration, aligned with economic interdependence, solidifies the EU as a cohesive entity in an increasingly global world. Further study should examine how emerging technologies – from blockchain for supply chain transparency to AI-based agricultural practices – might enhance the role of the food industry in regional integration.

THE ROLE OF THE FOOD INDUSTRY IN EU REGIONAL INTEGRATION: ECONOMIC SIGNIFICANCE

One of the key industrial segments on which the process of economic integration for all European Union countries depends is the food industry, as this industry contributes greatly towards industrial output and employment levels in the region. Indeed, the food industry is one of the largest industries in the European Union and includes a variety of sub-sectors such as food production, processing, and distribution. This dimension of the economy can attach millions of souls to jobs and contribute towards earning stability within any of its member states. It tends to reduce disparities, which is indeed what the economic nature of this industry is all about – the processing of raw commodities such as cereals, dairy products, and meat, which are sold on both internal and external markets (Coeuré, 2024).

Table 1. Share of Intra-EU Agri-Food Trade in Total EU Trade (2000–2024)

Year	Total Trade (bn €)	Intra-EU Trade (bn €)	Share of Intra-EU Trade (%)
2000	200.0	110.0	55.0
2001	208.3	115.5	55.4
2002	216.7	121.0	55.8
2003	225.0	126.6	56.2
2004	233.3	132.2	56.7
2005	241.7	138.0	57.1
2006	250.0	143.8	57.5
2007	258.3	149.6	57.9
2008	266.7	155.6	58.3
2009	275.0	161.6	58.8
2010	283.3	167.6	59.2
2011	291.7	173.8	59.6
2012	300.0	180.0	60.0
2013	308.3	186.3	60.4
2014	316.7	192.6	60.8
2015	325.0	199.1	61.3
2016	333.3	205.6	61.7
2017	341.7	212.1	62.1
2018	350.0	218.8	62.5
2019	358.3	225.5	62.9
2020	366.7	232.2	63.3
2021	375.0	239.1	63.8
2022	383.3	246.0	64.2
2023	391.7	253.0	64.6
2024	400.0	260.0	65.0

Source: ????????????.

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As a result of greater market integration, the intra-EU agri-food trade share of overall EU trade rose from roughly 55% to 65% between 2000 and 2024. EU expansions in 2004, 2007, and 2013 helped to enhance growth despite brief downturns during the world crisis. The pattern suggests stronger ties between supply chains and harmonization of regulations among participating nations. It also demonstrates the EU's increasing reliance on its agri-food commerce rather than relying on outside trade.

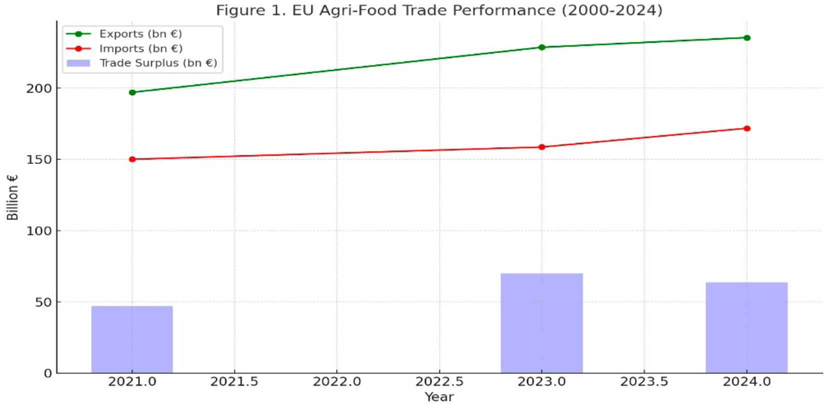
Integration of the EU food industry guarantees expanded access to the market, increases, and drives innovations and investment in technology. An integrated market across member states has brought up a competitive environment, which helps efficiency. Changing consumers' demands in the initiative for healthier and sustainable food has also forced the industry to change some mechanisms in production. This has ever-increasing value-added food products. Some countries, such as Poland, have also taken advantage of EU funding programs to enhance food production and processing capabilities (Gradziuk et al., 2021).

EU REGIONAL INTEGRATION: THE ROLE OF THE FOOD INDUSTRY IN REGULATORY HARMONISATION

One important aspect of European Union integration has been regulatory harmonization regarding food industry regulation in its member states. The establishment of EU-wide standards on aspects like food safety and labeling and standards of practice for their production has generally eased trade relations between the Member States. The establishment of a regulatory framework, including bodies such as the European Food Safety Authority (EFSA), has ensured that food safety standards remain consistent across the entire union. This has reduced regulatory divergence by a significant degree, facilitating the ease of operation for food businesses to operate in multiple markets without the headache of several national regulations (Clark et al., 2020).

Despite growing import demand, the trade surplus showed strong competitiveness, peaking at €70.1 billion in 2023 and declining to €63.6 billion in 2024. These patterns underscore the need to standardise sanitary and regulatory regimes among member states while showcasing advancements in trade infrastructure and the EU's position in the world.

Figure 1. EU Agri-Food Trade Performance (2000–2024)



Source: own work.

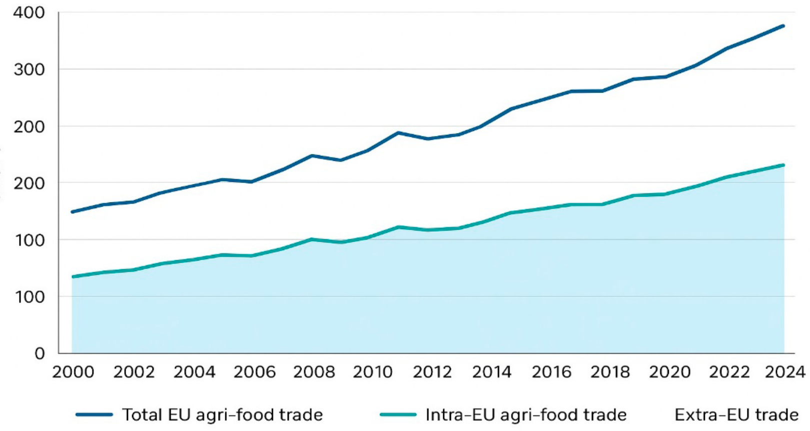
Poland's integration with the EU legal system has helped to simplify not just trade but has also driven improvement within the production systems of food commodities. They modernised their operations by adopting EU standards and, hence, improved productivity and quality among Polish food producers. The regulatory framework encouraged investments in food safety technologies, quality control processes, and environmental sustainability. As the EU moves to develop its regulatory framework, Poland's food sector finds itself in a good position to be able to react to upcoming standards and integrate into the wider EU food market (Stazi, 2024).

THE ROLE OF THE FOOD INDUSTRY IN EU REGIONAL INTEGRATION: INFRASTRUCTURE AND LOGISTICS

The success of the EU food industry hinges upon the successful movement of products, which in turn is only possible with a supporting infrastructure and logistics system. Heavily invested in the transport and logistics network, the EU makes it impossible to place obstacles to the free movement of food products within its internal market (Blancas et al., 2022).

Poland's Central European location facilitated its positioning as an EU logistics hub. With its entrance into the European Union, ultra-modern infrastructure improvement was promised; heavier resources now flow into the improvement of road, rail, and port facilities that enhance the transport of food products internally and across borders (Bentyn, 2016). Improvements in logistics have accordingly benefited Polish producers of food, thus placing Poland in the spotlight in the logistics network of the European food supply chain. That network was further enhanced with the support of EU funding in establishing infrastructure, especially in rural areas, where agriculture and food production are concentrated (Sengul Orgut & Lodree, 2023).

Figure 2: EU Agri-Food Trade: Total vs Intra-EU (2000–2024)



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Between 2000 and 2024, the EU's agri-food commerce increased steadily, and by that year, the overall value of trade had almost reached 400 billion euros. Agri-food commerce within the EU grew steadily as well, albeit more slowly, and reached over 230 billion euros in 2024. A growing amount of extra-EU agri-food commerce was indicated by the widening of the gap between intra-EU trade and total EU trade over time.

The EU has constantly developed its infrastructure and logistics systems. These will help the food industry further develop in meeting the challenges brought about by increased population and changing consumer demand. The country of Poland assumes a unique place in the integrated logistics chain and can now, by its competitive advantages, be exploited more efficiently and open more horizons of development for its food industry (Seremak-Bulge & Lopaciuk, 2011; Hagemejer et al., 2021). The improved infrastructure also underpins Poland’s efforts toward better food security, guaranteeing sustainability in the supply chain of food products and a credible exporter in the European market.

EFFECTS ON CROSS-BORDER TRADE

Lowering of Tariffs and Non-Tariff Barriers

Among the most crucial benefits of the EU’s single market is that the member states face no tariffs, and there are reduced non-tariff barriers to trade in identified food sectors. Harmonisation through the EU on food safety, labelling requirements, and quality control has gone a long way in smoothing the flow of goods between the member states. To Poland, it means Polish producers of food will not only access domestic markets but also enter the huge network of consumers within the entire EU, without having to face those barriers that exist within a non-contiguous trading environment (Pawlak, 2018a; Bojnec & Fertő, 2019).

Trade with Non-EU Countries

Besides facilitating internal trade among EU member states, the EU has strengthened its position in global trade negotiations, allowing food producers from member states like Poland to expand their export markets beyond Europe. Poland, as part of the EU, benefits from trade agreements that the EU negotiates with non-EU countries.

The regional cooperation of the EU has further boosted Poland’s food industry. Poland, as a member of the EU, can now easily cooperate with other member states in food research, technology development, and sustainable agricultural practices (Keijzer et al., 2021). In addition, common initiatives to increase quality, safety, and sustainability practices of food products throughout the EU have further integrated Poland's food sector with those of other member states. This cooperation not only strengthens the competitiveness of Poland but also helps the EU's food industry to be better prepared to face challenges posed by climate change and market volatility. Joining these collaborative efforts would, therefore, help to strengthen Poland's position within the EU's food sector and, by extension, contribute to its broader economic success (Gaines, 2024).

Logistical Challenges

While the removal of tariff barriers and the creation of a more unified market have been instituted, there remain logistical challenges in cross-border food trade. More specifically, the movement of perishables calls for a well-coordinated supply chain infrastructure that can handle the demands of freshness, timing, and cost-effectiveness. While Poland has benefited from EU-funded infrastructure projects, such as the TEN-T network, there still exist potential problems of traffic congestion, regional differences in transport costs, and delays at borders that may impact the efficiency of food distribution (Galambos et al., 2024).

ECONOMIC POLICY IMPLICATIONS

Sustainability and the Green Deal

The European Green Deal is one of the central pillars of the EU's commitment to sustainability, and it decidedly influences economic policy in every sector, including food processing. For Poland, this is a double-edged sword. On the one hand, with its rich natural resources, Polish agriculture can easily become one of the leaders among countries with organic and sustainable farming within the EU. Adopted in 2019, the European Green Deal is a policy framework to transform and make the European Union climate-neutral by 2050 (European Commission, 2020).

Within this broader goal, its Farm to Fork Strategy specifically targets the food sector to promote sustainable food systems, a reduction in greenhouse gas emissions from this sector, and healthier diets. A good case study is Poland's involvement with the Green Deal. Now, in 2021, the Polish government has announced an investment program worth €2 billion to modernize agriculture and food production with fewer livestock emissions. For this reason, one of Poland's biggest dairy co-ops has implemented the biogas plant's modus operandi in reducing its environmental footprint with the help of EU funds under the Common Agriculture Policy (Pochwatka et al., 2020; Wróbel-Jędrzejewska et al., 2025).

Supporting Sustainable Practices

In addition, support is given to member states through the EU common agricultural policy in their transition toward more sustainable farming practices. The Common Agricultural Policy provides for a wide range of environmentally sustainable farming practices, organic farming, and biodiversity protection. Funds are available for Poland, where farmers can invest in renewable energy, precision farming, and sustainable methods of crop rotation. For instance, CAP subsidies have helped Polish farmers implement better irrigation and use pesticides more judiciously (Midler et al., 2022).

The CAP remains the primary funding mechanism for sustainability in EU agriculture. Poland, being one of the largest beneficiaries of the CAP, has received €32.09 billion for the period 2021-2027. This funding has enabled Polish farmers to practice precision farming and reduce losses of inputs, increasing the efficiency of yields. Success stories include the Lublin region of Poland, where subsidies helped farmers switch to organic farming, with a 25% increase in certified organic farms between 2015 and 2020 (Hart & Bas-Defossez, 2018; Pe'er et al., 2021).

Economic Shifts in Production and Trade

The Green Deal and associated policies of sustainability are creating a force for change within Poland's food industry, shifting the way the industry produces and conducts trade. Indeed, promoted policies of a decrease in fertilizer and pesticide use induce more environmentally friendly but presumably more expensive farming. Consequently, Polish producers are going to be bearing greater production costs, which in effect may drop their competitiveness level in the European market (Nowak & Różańska-Boczula, 2024). As an example, Poland has a fruit and vegetable sector already known for the quality of its products, which could take advantage of trends like this. This would even position Poland to tap into emerging markets in non-EU countries that value eco-friendly products, hence providing an avenue for economic growth despite initial challenges (Westhoek et al., 2021; Galanakis, 2024). During 2018–2022, exports of Polish organic apples to Germany increased by 30%, driven by EU efforts to promote sustainable products. Moreover, the EU Biodiversity Strategy has economically encouraged farmers to cultivate pollinator-friendly crops while maintaining ecosystems and further increasing the marketability of Polish produce (Gospodarowicz et al., 2013; Wrzaszcz, 2023; Zmyślona et al., 2023).

Challenges for Small Producers

The larger agricultural enterprises in Poland might have the resources to cope with EU sustainability policies. However, small-scale farmers face immense challenges. Stricter environmental regulations require access to advanced technologies and financial resources that many smaller producers may not be able to afford (Prandecki et al., 2021). For Poland, effective implementation of such support is a must to avoid economic inequalities in the agricultural sector and to keep small producers in business in a greener economy (Pawłowski & Sołtysiak, 2024). According to a 2022 report from the Polish Economic Institute, about 65% of the small farmers under study pointed out the lack of financial means as the major obstacle to using sustainable practices. A good example is the Podlaskie region, where small dairy farms cannot afford the purchase of installations of biogas or modern equipment needed to reduce emissions. To counter this, the EU has brought in targeted grants like the European Agricultural Fund for Rural Development (EAFRD), which has supported workshops and training on sustainable techniques for more than 12,000 Polish farmers since 2017 (Markowska & Marcinkowski, 2022).

LONG-TERM IMPACTS AND OPPORTUNITIES

If, like Poland, it aligned with EU environmental goals over time, this country would emerge at the forefront of eco-friendly production of foodstuffs. According to an analysis from a 2023 study by the European Environment Agency, doubling land under organic production by 2030, Poland, hence, should have new exporting opportunities (Kociszewski, 2022). By embracing such initiatives, Poland is well placed to grasp the opportunities the Green Deal offers and to strike a balance between the short-term challenges and the longer-term economic and environmental gains (Brzeziński & Kolinski, 2024).

CHALLENGES TO INTEGRATION

Divergent Economic Interests

One of the most persistent obstacles to full integration of the food sector in the EU is a divergence between the economic interests and capacities of the member states. More plainly put, the Northern and Western European nations – countries like Germany and the Netherlands – dominate the food processing and high-tech agricultural innovation sectors, while Southern and Eastern states – especially Poland – focus on primary agricultural production. Poland, for example, is a large exporter of primary agricultural products – beef, grains, and milk – but lags in high-value, processed goods (Trávníček et al., 2022).

Trade Disruptions

This makes the food industry in the EU heavily reliant on cross-border trade, exposing it to external shocks. The COVID-19 pandemic has created supply chain disruptions and exposed weaknesses in food distribution networks. In the case of Poland, those have pointed to logistical and infrastructure weaknesses related to border bottlenecks and delays in the transportation of perishable goods. As one of the largest agricultural exporters, Poland has faced challenges in trying to maintain stable export volumes amid these disruptions. Still, some measures by the EU – for example, the "Green Lanes" initiative introduced in the time of the pandemic to hasten the transport of essential products – brought temporary relief and further underlined the importance of resilient supply chains (Bednarski et al., 2023).

Overlaps in Regulation

While it is good that progress has been made by the EU in harmonization concerning food safety and production standards, regulatory overlap and complexity are a barrier to full integration, in particular, for SMEs. Producers may be challenged by multiple layers of EU, national, and even regional regulations; this may generate additional compliance costs and discourage the smallest players from extending their operations toward cross-border markets (Sorbo et al., 2022). For example, it will be very difficult for Polish SMEs to comply with EU requirements on sustainability in addition to the national standards on food labeling and traceability. Moreover, different interpretations of EU regulations by member states create inconsistencies, further complicating compliance. The Polish government and industry associations have called for clearer and streamlined regulatory frameworks to meet such challenges. Such initiatives as the EU's "Farm to Fork Strategy," which aims at simplifying compliance and fostering sustainability, provide a way forward in reducing the regulatory burden, but effective implementation remains key (Stelzl et al., 2023; Michałek & Hagemejer, 2024).

Infrastructure and Connectivity

Another major barrier to integration arises from the unequal development of infrastructure within the EU, which directly affects the efficiency of the food trade. While Poland has benefited from some EU-funded projects, such as the TEN-T, there are still gaps in transport and storage infrastructure. Those could delay the movement of perishable goods and increase costs for producers (Michałek & Hagemejer, 2024). Moreover, the majority of rural areas in Poland lack modern logistics systems, which are the base for efficient supply chains, resulting in disparities in development between urban and rural producers. The EU's emphasis on digital and green infrastructure, as enshrined in the Recovery and Resilience Facility (RRF), provides an opportunity for Poland to fill in these gaps. With this, Poland will be able to raise its competitiveness within the integrated EU food market by investing in modernized transport networks and cold storage facilities (Desjardinsa & Estèbeb, 2022).

FUTURE DIRECTIONS

Strengthening Regional Resilience

The future of the EU food industry is in building greater regional self-sufficiency of food and diversifying the supply chains, particularly in lessening their reliance on outside markets. In the face of disruptions caused by the COVID-19 pandemic and the geopolitical conflict related to the war in Ukraine, which brought to the fore vulnerabilities of the food supply chain in the EU, this strategy has been of particular importance (Hobbs & Hadachek, 2024). Poland is one of the largest agricultural producers in Europe and, therefore, has been working on its resilience; for instance, the Polish government announced the 2022 "Plan for Food Sovereignty" to increase local production capacities of basic commodities such as grains and milk. All of this is in line with EU policies under the Farm to Fork Strategy, which encourages shorter supply chains and closer sourcing for improving food security (Guyomard et al., 2023).

Deeper Integration

The deeper integration of the food industry into the EU would require more harmonization of the regulatory framework as well as additional infrastructure investments. All the same, with the Single Market Programme and TEN-T, there are already certain policies that have contributed to seamless trade flows. Still, member-state infrastructure disparities act as a trade barrier (Stelz et al., 2023). Poland itself has gained €27 billion in EU infrastructure funding between 2014 and 2020, yet it still grapples with challenges like outmoded storage facilities for perishable goods. Further investment in digitized logistics systems and green transportation solutions under the Green Deal proposal will strengthen this position even further for Poland within the EU food production network (Krzysztoszek, 2024).

Policy Implications for the Future

Future policy orientations should strive to bridge existing gaps among EU member states in ensuring equal access to opportunities and resources in the food sector. In respect of Poland, it also means working on the issues faced by small-scale farmers and food producers in adapting to strict EU environmental requirements (Matthews, 2022). Moreover, an enhancement of funding mechanisms, in particular simplifying access to Common Agricultural Policy subsidies and offering sustainability-oriented training programs, is needed to promote equal opportunities. It will also promote regional cooperation in research and innovation, enabling Poland and all other member states to collectively respond to challenges on a global scale in areas such as climate change and food security. This way, the EU can set itself up as a global leader in the food industry by ensuring a resilient environment for long-term economic and environmental sustainability through collaborative and sustainable growth.

CONCLUSION

The European Union food sector illustrates how regional integration can effect transformative change, with policies adopted to promote economic cohesion through collaboration. An example is the harmonization of regulations for food safety that apply uniformly in the EU by the European Food Safety Authority. All the above policies open the EU single market in full to its member states, including Poland. Poland's entry into this framework has been a big asset to its agricultural sector, whereby EU legislation helped place it amongst the largest exporters of dairy products, meat, and processed food products within the EU (Kusz et al., 2022). On the contrary, the EU has provided a conducive atmosphere for the advancement and innovations in the food sector by providing certainty of standards and reducing trade complications.

According to Eurostat data, the total agricultural-food trade volume of the EU in 2023 is about 420 billion euros, of which 68% consists of trade between member states. This high rate clearly shows how integrated the EU domestic market is in the agri-food space. In addition, the share of the domestic EU market in agriculture-food exports of Poland is over 75%; this reveals that Poland is a critical actor in intra-European trade.

In compliance with legislation, although the European Food Safety Authority (EFSA) was established in 2002, in practice, inconsistencies remain between member states in the implementation of hygiene and health standards. According to the European Commission's 2021 Single Market Report, 12% of the disputes in intra-EU agriculture and food trade are due to different health and plant health (SPS) practices among the member states. This is an important obstacle in market integration, especially increasing the legislative complexity faced by small and medium-sized enterprises. In addition, the Customs Union Report of 2023 published by the EU Commission states that the average customs and control processes are extended by 3 days due to the incomplete implementation of regulatory compliance, especially in Poland and the surrounding countries, which directly affects the speed of commercial flow.

As a result, assessments of developments and integration processes in Poland and the EU agri-food sector in general must be supported by reliable data sources such as Eurostat, the European Commission TEN-T report, the Single Market Report, and the Customs Union Report. These indicators share of internal trade (68% across the EU, 75% in Poland), increase in logistics investments (15% in the EU, 1.2 to 1.8 billion Euros in Poland), improvement in transportation times (10% reduction), impact of legislative disputes on trade (2%) Thus, the actual level of integration of the EU agri-food sector and the challenges faced can be put forward more clearly and reliably.

The EU food industry has to continue being a subject of transformation in the face of most global challenges: climate change, food security, and market volatility. This means for Poland developing an outlook that embraces sustainability, inclusiveness, and innovation. In this context, Poland can develop its policy in line with the EU sustainable food systems initiative to align with the broader aim of the region. Investments shall be directed toward green technologies, basic infrastructure, and capacity-building, thus ensuring a competitive position for Poland in the internal EU food market. Furthermore, an enhanced stakeholder engagement through a public-private partnership would help increase Poland's visibility in the EU food sector (European Commission, 2023). In other words, active participation in this framework underlines the transformative potential of Poland, proving that together, member states could achieve even greater economic and environmental resilience. Going forward, while the European Union further refines policies on food, sustained emphasis on inclusiveness, innovation, and sustainability would help build the industry into something reflecting broader aspirations within regional integration and global leadership for the union.

References

Ataseven, Y. (2023). Evaluation of the Possible Effects of the European Green Deal Process on Agricultural Policies in Türkiye. *Journal of Agricultural Sciences*, *29*(1), 13–25. DOI: 10.15832/ankutbd.1108754

Bednarski, L., Roscoe, S., Blome, C., & Schleper, M.C. (2023). Geopolitical disruptions in global supply chains: a state-of-the-art literature review. *Production Planning & Control*, *36*(4) 536–562. DOI: 10.1080/09537287.2023.2286283

Bentyn, Z. (2016). Poland as a Regional Logistic Hub Serving the Development of the Northern Corridor of the New Silk Route. *Journal of Management Marketing and Logistics*, *3*(2), 135–144. DOI: 10.17261/Pressacademia.2016219941

Blancas, L., Briceño-Garmendia, C., Roh, H.-S., & Vrenken, H. (2022). *Competing with Logistics Clusters: Vignettes from the International Experience*. Washington: World Bank. https://coilink.org/20.500.12592/r02sm7

Bojnec, Š., & Fertő, I. (2019). Agri-food comparative advantages in the European Union countries by value chains before and after enlargement towards the East. *Agraarteadus Journal of Agricultural Science*, *30*(2), 69–77. DOI: 10.15159/jas.19.10

Breznitz, D., & Ornston, D. (2017). EU financing and innovation in Poland. *Working Paper*, *198*.

Brzeziński, Ł., & Kolinski, A. (2024). Challenges of the Green Transformation of Transport in Poland. *Sustainability*, *16*(8), 3418. DOI: 10.3390/su16083418

Casares, B. (2024). The European Commission highlights the key contributions of CAP to rural development. https://www.horizoncodecs.eu/the-european-commission-highlights-key-contributions-of-cap--to-rural-development/ (accessed on: 11.03.2026).

Desjardinsa, X., & Estèbeb, P. (2022). Forgotten Territories in Europe: Lessons from Italy, Spain, and Poland. *Transactions of the Association of European Schools of Planning*, *6*: 30–40. DOI: 10.24306/TrAESOP.2022.01.001

EC-General for Health and Food Safety (2020). *From farm to fork – our food, our health, our planet, our future – The European Green Deal*. Publications Office of the European Union. DOI: 10.2875/653604

European Commission (2020). A new Circular Economy Action Plan for a cleaner and more competitive Europe. COM (2020) 98 final. Brussels, 11 March 2020.

European Food Safety Authority (EFSA) (2022). *EU Food Safety Standards and Trade Facilitation*. Technical Report.

European Union (2021). European Climate Law. Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021.

Fernandez, J. (2025, 30th January). What to Expect from Poland's Council of the EU Presidency. https://www.esciupfnews.com/2025/01/30/polands-council-eu-presidency/ (accessed on: 11.03.2026).

Gaines, J. (2024). Promoting Joint European Action in Development Cooperation. Eschborn: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). https://www.giz.de/en/downloads_els/giz--2024-en-promoting-joint-european-action.pdf

Galanakis, C.M. (2024). The future of food. *Foods, 13*(4), 506. DOI: 10.3390/foods13040506

Galambos, K.J., Palomino-Hernández, A.B., Hemmelmayr, V.C., & Turan, B. (2024). Sustainability initiatives in urban freight transportation in Europe. *Transportation Research Interdisciplinary Perspectives*, *23*, 101013. DOI: 10.1016/j.trip.2023.101013

Gospodarowicz, M., Grochowska, R., Judzińska, A., Łopaciuk, W., Manko, S., Oliński, M., Wasilewski, A., & Wigier, M. (2013). CAP implementation in Poland – state and perspectives, Multiannual Program Reports 179500. Warsaw: Institute of Agricultural and Food Economics – National Research Institute (IAFE-NRI). DOI: 10.22004/ag.econ.179500

Guyomard, H., Soler, L.G., Détang-Dessendre, C., & Réquillart, V. (2023). The European Green Deal improves the sustainability of food systems but has uneven economic impacts on consumers and farmers. *Communications Earth & Environment*, *4*, 358.

Hagemejer, J., Michalek, J.J., & Pawlak, K. (2021). Trade Implications of the Transatlantic Trade and Investment Partnership for Poland's Agri-Food Trade. *Central European Journal of Economic Modelling and Econometrics*, *13*(1), 75–103.

Hart, K., & Bas-Defossez, F. (2018). *CAP 2021-27: Proposals for increasing its environmental and climate ambition, report for NABU by IEEP*. https://ieep.eu/wp-content/uploads/2022/12/NABU-CAP-Report-FINAL-.pdf

Hobbs, J.E., & Hadachek, J. (2024). The Economics of Food Supply Chain Resilience. *Annual Review of Resource Economics*, *16*, 379–397. DOI: 10.1146/annurev-resource-100423-095119

Hornowski, A., Parzonko, A., Kotyza, P., Kondraszuk, T., Bórawski, P., & Smutka, L. (2020). Factors Determining the Development of Small Farms in Central and Eastern Poland. *Sustainability*, *12*(12), 5095. DOI: 10.3390/su12125095

IJHARS (Agricultural and Food Quality Inspection) (2019). *The report on organic farming in Poland 2017–2018*. Warsaw: IJHARS.

Keijzer, N., Burni, A., Erforth, B., & Friesen, I. (2021). *The Rise of the Team Europe Approach in EU Development Cooperation: Assessing a Moving Target*. Discussion Paper 22/2021. Bonn: Deutsches Institut für Entwicklungspolitik / German Development Institute.

Kociszewski, K. (2022). Perspectives of Polish Organic Farming Development in the Aspect of the European Green Deal. *Ekonomia i Środowisko*, *2*(81): 154–167. DOI: 10.34659/eis.2022.81.2.461

Krzysztoszek, A. (2024, 18th December). Poland out of EU deep freeze with impending €9.4 billion EU recovery fund tranche. https://www.euractiv.com/section/politics/news/poland-out-of-eu-deep-freeze--with-impending-e9-4-billion-eu-recovery-fund-tranche/ (accessed on: 11.03.2026).

Kusz, D., Kusz, B., & Hydzik, P. (2022). Changes in the Price of Food and Agricultural Raw Materials in Poland in the Context of the European Union Accession. *Sustainability*, *14*(8), 4582. DOI: 10.3390/su14084582

Markowska, M., & Marcinkowski, J. (2022). Rural E-Customers' Preferences for Last Mile Delivery: Evidence from Poland. *Energies*, *15*(22), 8351. DOI: 10.3390/en15228351

Matthews, A. (2022). *Implications of the European Green Deal for Agri-Food Trade with Developing Countries*. Brussels: European Landowners' Organization.

Michałek, J.J., & Hagemejer, J. (2024). The Long-Term Effects of Poland's Accession to the European Union: A Literature Review. *Studia*

Europejskie – Studies in European Affairs, *2*, 89–120. DOI: 10.33067/SE.2.2024.5

Midler, E., Hobeika, M., Riedel, A., & Pagnon, J. (2022), Environment and climate assessment of Poland's CAP Strategic Plan. Brussels: Institute for European Environmental Policy and Ecologic Institute.

Nowak, A., & Różańska-Boczula, M. (2024). A comparative view of the level of agricultural sustainability – the case of European Union member states. *Sustainable Development*, *32*, 2638–2652. DOI: 10.1002/sd.2804

Pawlak, K. (2018). Comparative advantages of the Polish agri-food sector on the US market. In J. Golebiewski (ed.), *Proceedings of the 2018 International Scientific Conference "Economic Sciences for Agribusiness and Rural Economy"* (p. 223–230). Warsaw: Warsaw University of Life Sciences–SGGW, Faculty of Economic Sciences.

Pawłowski, K.P., & Sołtysiak, G. (2024). The Potential Impact of the European Green Deal on Farm Production in Poland. *Sustainability*, *16*(24), 11080. DOI: 10.3390/su162411080

Pe'er, G., Birkenstock, M., Lakner, S., & Röder, N. (2021). The Common Agricultural Policy post-2020: Views and recommendations from scientists to improve performance for biodiversity. Vol. 3. Policy brief. *Thünen Working Paper*, *175*.

Pochwatka, P., Kowalczyk-Juśko, A., Sołowiej, P., Wawrzyniak, A., & Dach, J. (2020). Biogas Plant Exploitation in a Middle-Sized Dairy Farm in Poland: Energetic and Economic Aspects. *Energies*, *13*(22), 6058. DOI: 10.3390/en13226058

Polityka Insight (2021). *Impact of the European Green Deal on Polish Agriculture Report*. Warsaw: Polityka Insight.

Prandecki, K., Wrzaszcz, W., & Zieliński, M. (2021). Environmental and Climate Challenges to Agriculture in Poland in the Context of Objectives Adopted in the European Green Deal Strategy. *Sustainability*, *13*(18), 10318. DOI: 10.3390/su131810318

Szczepaniak, I., & Drożdż, J. (2024). Pozycja przemysłu spożywczego w gospodarce Polski i Unii Europejskiej. *Przemysł Spożywczy*, *78*(8). DOI: 10.15199/65.2024.81

Sengul Orgut, I., & Lodree, E.J. (2023). Equitable distribution of perishable items in a food bank supply chain. *Production and Operations Management*, *32*(10), 3002–3021. DOI: 10.1111/poms.14019

Seremak-Bulge, J., & Lopaciuk, W. (2011). Overall assessment of Polish foreign trade in agri-food products in 1995–2009. In J. Seremak-Bulge (ed.), Foreign trade in agri-food products in 1995–2009. *Studies and Monographs*, *152*. Warsaw: IAFE-NRI, 12–40.

Sorbo, A., Pucci, E., Nobili, C., Taglieri, I., Passeri, D., & Zoani, C. (2022). Food Safety Assessment: Overview of Metrological Issues and Regulatory Aspects in the European Union. *Separations*, *9*(2), 53. DOI: 10.3390/separations9020053

Stelzl, T., Belc, N., Cito, N., Lattanzio, V.M.T., Meerpoel, C., De Saeger, S., Alakomi, H.L., Tomaniova, M., Hajslova, J., Scheibenzuber, S., & Rychlik, M. (2023). European food safety research: An explorative study with funding experts' consultation. *Heliyon*, *9*(12), e22979. DOI: 10.1016/j.heliyon.2023.e22979

Stępień, S., & Maican, S. (2020). Small Farms in the Paradigm of Sustainable Development: Case studies of selected Central and Eastern European countries. Toruń: Wydawnictwo Adam Marszałek.

Tollefson, J. (2022). What the War in Ukraine Means for Energy, Climate, and Food. *Nature*, *604*(7905): 232–233. DOI: 10.1038/d41586-022-00969-9

Trávníček, J., Willer, H., & Schaack, D. (2022). Organic Farming and Market Development in Europe and the European Union. In H. Willer, C. Meier, & B. Schlatter (Eds.), *The world of organic agriculture: Statistics and emerging trends 2022* (pp. 235–271). Bonn: Research Institute of Organic Agriculture FIBL, Frick, & IFOAM – Organics International.

Westhoek, H., Doelman, J.C., Muilwijk, H., & Stehfest, E. (2021). Commentary: Food choices and environmental impacts: Achievements and challenges. *Global Environmental Change*, *71*(7826), 102402. DOI: 10.1016/j.gloenvcha.2021.102402

Wittman, H. (2023). Food sovereignty: An inclusive model for feeding the world and cooling the planet. *One Earth*, *6*(5): 474–478.

Wróbel-Jędrzejewska, M., Klepacka, A.M., Włodarczyk, E., & Przybysz, Ł. (2025). Carbon Footprint of Milk Processing – Case Study of Polish Dairy. *Agriculture*, *15*(1), 62. DOI: 10.3390/agriculture15010062

Wrzaszcz, W. (2023). Zielona transformacja polityki rolnej w Unii Europejskiej. *Zielone Finanse*, 81–112.

Zmyślona, J., Sadowski, A., & Genstwa, N. (2023). Plant Protection and Fertilizer Use Efficiency in Farms in a Context of Overinvestment: A Case Study from Poland. *Agriculture, 13*, 1567. DOI: 10.3390/agriculture13081567