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ARTIFICIAL INTELLIGENCE AS A CATALYST FOR INNOVATION IN POLISH TECHNOLOGY STARTUPS

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Purpose: The article aims to show how artificial intelligence influences the development of innovative solutions in Polish technology startups and to determine Poland's significance in the global startup ecosystem in the face of dynamic changes in AI-based industries.
Design/methodology/approach: The article is based on a review of the literature and an analysis of secondary data from industry reports, including the *Global Startup Ecosystem Index 2025* and research by the Startup Poland Foundation (2024). The analysis was supplemented by case studies of 11 Polish technology startups using AI in their business models. The selection of startups was deliberate and included companies distinguished in prestigious competitions and acceleration programs, such as Aulery and Warsaw Booster.
Findings: The analysis indicates that artificial intelligence is widely used in Polish technology startups, both in process optimization and in the creation of innovative products and business models. The fastest growing global startup sectors are Foodtech, Hardware & IoT, and Energy & Environment. Poland occupies a stable position in the top 40 of the global ranking of 100 startup countries, with Warsaw as the leader of the national ecosystem. Examples of distinguished Polish startups show the growing importance of AI in the MedTech, DeepTech, and IoT sectors, offering solutions such as health applications, educational robots, autonomous ecological systems, and IT infrastructure management platforms.
Research limitations/implications: The list of startups is not exhaustive, which limits the possibility of an in-depth analysis of the entire Polish startup ecosystem. Future research could include in-depth interviews with startup founders and an analysis of the impact of legal regulations and the availability of financing on the development of AI-based solutions.
Practical implications: The results can support entrepreneurs, investors, and young technology companies in identifying key areas of development and directions for implementing AI-based innovations in Polish startups, increasing awareness of its applications.
Originality/value: The article combines current global and national data with an analysis of the role of artificial intelligence in the Polish startup ecosystem based on 11 case studies, showing specific examples of AI applications in innovative business models.
Keywords: artificial intelligence, AI, startups, digital transformation, innovation, technological entrepreneurship.
Category of the paper: Case study.

1. Introduction

Over the past two decades, there has been a significant increase in research in the field of technological entrepreneurship, which is increasingly focusing on artificial intelligence (Czemiel-Grzybowska, 2023, p. 126). The impact of AI on the activities of startups, and more broadly on the functioning of modern enterprises, including the processes, practices, and results of new business initiatives, is widely discussed in foreign literature (Alateeg, Al-Ayed, 2024; Rezazadeh et al., 2025; Sedláček, Sterk, 2017; Anane-Simon, Atiku, 2024; Baek et al., 2023; Schulte-Althoff et al., 2021; Bakouche et al., 2025; Pešík et al., 2023; Basri et al., 2024; Bessen, Impink, Seamans, 2022; Bessen, Impink, Reichensperger et al., 2022; Winecoff, Watkins, 2022; Cot et al., 2025; Jorzik et al., 2024; Amarasekara Rajapaksha, 2024; Lee et al., 2023; Maulina et al., 2020; Paeplow et al., 2025; Rios-Campos et al., 2024; Cautela et al., 2019; Nam et al., 2024; Tang et al., 2025), but is also increasingly reflected in Polish scientific works, where there is a growing number of publications in this area (Bielińska-Dusza, 2022; Piwowar et al., 2023; Chaciński, 2025; Czemiel-Grzybowska, 2023; Kmita, 2025; Puślecki, 2021; Ratajczak, 2025).

2. The concept of artificial intelligence: a theoretical approach

According to the European Commission, artificial intelligence is defined as (…) "systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals. AI-based systems can be purely software-based, acting in the virtual world (e.g. voice assistants, image analysis software, search engines, speech and face recognition systems) or AI can be embedded in hardware devices (e.g. advanced robots, autonomous cars, drones or Internet of Things applications)" (European Commission, 2018, p. 1).

The European Union has adopted Regulation (EU) 2024/1689 of the European Parliament and of the Council, The Artificial Intelligence Act (AI Act), which is the world's first comprehensive legal regulation on artificial intelligence. This act establishes normative definitions of concepts that are essential for determining its scope. Article 3 of the AI Act defines the concept of an artificial intelligence system, specifying what an AI system is within the meaning of EU law, stating that "'AI system' means a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments" (European Union, 2024, p. 46).

According to the OECD, an artificial intelligence system is defined as follows: (…) "An AI system is a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment" (OECD, 2024, p. 4).

AI as a scientific discipline integrates a wide range of techniques and approaches (Ratajczak, 2025). Currently, the key research and technological approaches in the field of artificial intelligence include: machine learning, natural language processing, computer vision, deep learning, and neural networks (Piwowar et al., 2023, pp. 6-7; Chaciński, 2025, p. 116; Kowalkiewicz, 2024, p. 6; Kusznieruk, Zemke-Górecka, 2022, p. 65; Marszałek, 2024, p. 23).

3. The role of artificial intelligence in shaping innovative solutions in enterprises

The continuous development of AI technology has a significant impact on the functioning of enterprises, affecting competitiveness, productivity, innovation, business processes, and the growth of company value, resulting in the creation of new, innovative business models (Bielińska-Dusza, 2022; Chaciński, 2025; Piwowar et al., 2023). The use of artificial intelligence in business and the economy brings many benefits in the form of automation of routine processes, increased productivity, and savings in time and resources (Kmita, 2025; Mosbah, 2020; Ratajczak, 2025).

AI enables personalization of offers and improvement of customer service, as well as supporting the forecasting of market trends, demand, and prices, which allows for more effective planning of production, inventory, and marketing activities (Piwowar et al., 2023; Hauke, 2025). In addition, AI technologies contribute to improving efficiency through automation and better resource management within the company (Piwowar et al., 2023; Ratajczak, 2025).

Its application allows (…) ‘to increase the accuracy of forecasts, minimize operational risk, and influence the quality of strategic decisions’ (Chaciński, 2025, p. 116). AI can also help with (...) ‘sustainable development, cybersecurity, and data analysis’ (Kmita, 2025, p. 4).

Artificial intelligence-based solutions can help startups identify market opportunities, collect and process large amounts of user data to make more informed decisions, better understand user preferences, and obtain more accurate information about demand for specific products or services (Nowak-Mizgalska, 2024, p. 85).

In the Polish economy, AI is most often used by large enterprises, alongside which startups developing AI technologies are actively operating, while in SMEs its implementation remains limited (Chaciński, 2025; Bielińska-Dusza, 2022; Kmita, 2025). The process of digital transformation in small and medium-sized companies is at an early stage (Ratajczak, 2025).

The technological transformation of enterprises largely depends on the development and implementation of AI technologies (Bielińska-Dusza, 2022). As Bielińska-Dusza points out, the pillars of technological transformation include a digital strategy supported by management, building an organizational culture conducive to digitization and attracting qualified employees, as well as cooperation within partnerships, collaboration in communities, and a focus on development rather than solely on costs (Bielińska-Dusza, 2022, p. 193). Digital transformation not only promotes rapid business growth, but also strengthens their resilience to various types of risk. This phenomenon was particularly evident in the second half of 2020, when the COVID-19 pandemic forced companies to quickly adapt to new technologies (Puślecki, 2021, p. 132).

A key factor increasing the competitiveness of companies is their ability to innovate, especially in areas that are new to the entire industry (Puślecki, 2021). As Kruk and Wierzbicki note, the ability of startups to implement product, process, and business model innovations determines their market success (Kruk, Wierzbicki, 2025). Product innovations increase customer satisfaction and market share, while process innovations are linked to operational efficiency and reduce costs. Business model innovations, on the other hand, provide a competitive advantage by allowing companies to create new value propositions and reach untapped market segments. This type of innovation has a particularly strong impact because (...) ‘it can redefine market dynamics and set new standards within industries’ (Kruk, Wierzbicki, 2025, p. 61).

4. The dominant sectors in the development of innovative startups

StartupBlink is a global research center that analyzes startup ecosystems and monitors trends affecting their development. Every year, it publishes the Global Startup Ecosystem Index—the world's most comprehensive report evaluating startup ecosystems in 1000 cities and 100 countries (‘About Us - StartupBlink’, n.d.).

According to the latest Global Startup Ecosystem Index 2025 report, among the 11 key startup industries worldwide, the fastest growing sector is Foodtech, which recorded growth of 46.1%. This sector includes Agtech, Food and Beverage, Food Manufacturing, Online Food Ordering, and Foodtech-Other. The Hardware & IoT sector ranked second, with a growth rate of 45.4%. It includes areas such as 3D Printing, Consumer Electronics, Hardware, Manufacturing, Nanotechnology, Robotics, Internet of Everything, Smart Cities, Smart Home,

and Hardware & IoT-Other. The third fastest growing sector is Energy & Environment, which achieved growth of 40.2%. This sector includes Clean Energy, Cleantech, Energy, Sustainability, Waste Management, and Energy & Environment-Other (Global Startup Ecosystem Index 2025, 2025, pp. 15, 360). These are the three main industries that are growing the fastest, each of which has seen an increase in the number of startups exceeding 40.0%. The next places in the ranking are occupied by industries related to health, data analysis, and technology: Healthtech (31.9%), Software & Data (28.7%), and Fintech (26.6%). The Social & Leisure (22.5%) and Ecommerce & Retail (20.6%) sectors are growing at a moderate pace, while Marketing & Sales has seen a slight increase (8.8%) and Transportation remains virtually unchanged (0.9%) (Global Startup Ecosystem Index 2025, 2025, p. 15) (Figure 1).

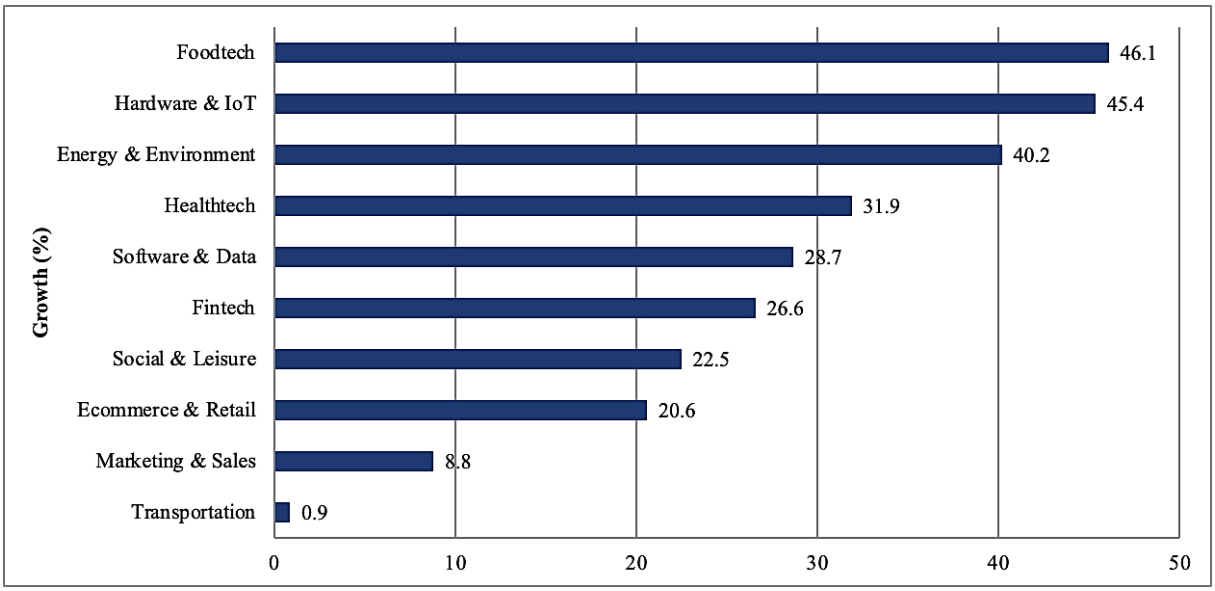

Figure 1. Trends in startup ecosystems: 10 key industries in 2025 [%].

Source: own work based on (Global Startup Ecosystem Index 2025, 2025, p. 15).

5. Poland's position in the global startup ecosystem

The importance of AI and innovative business models of Polish startups is best seen in the context of the global startup ecosystem. An analysis of Poland's position and that of its cities in global rankings allows us to assess the development of the domestic technological entrepreneurship environment and identify prospects for further growth and integration with global trends.

In a report published by StartupBlink, Poland ranks 33rd out of 100 countries in the overall ranking of the best countries (Global Startup Ecosystem Index 2025, 2025, p. 25). Compared to 2024, Poland moved up one place, recording an annual ecosystem growth of 10.6% and achieving a total score of 8233. Considering the global ranking of the best countries in 2021-

2025, Poland ranks among the leading startup ecosystems in the world. During the analyzed period, Poland remained in the top 40 of the ranking, occupying the following positions: 30th place in 2021, 33rd place in 2022 and 2023, 34th place in 2024, and again 33rd place in 2025 (Global Startup Ecosystem Index 2025, 2025, p. 155) (Figure 2). The slight fluctuations in position confirm the resilience of the Polish ecosystem to changing economic and technological conditions around the world.

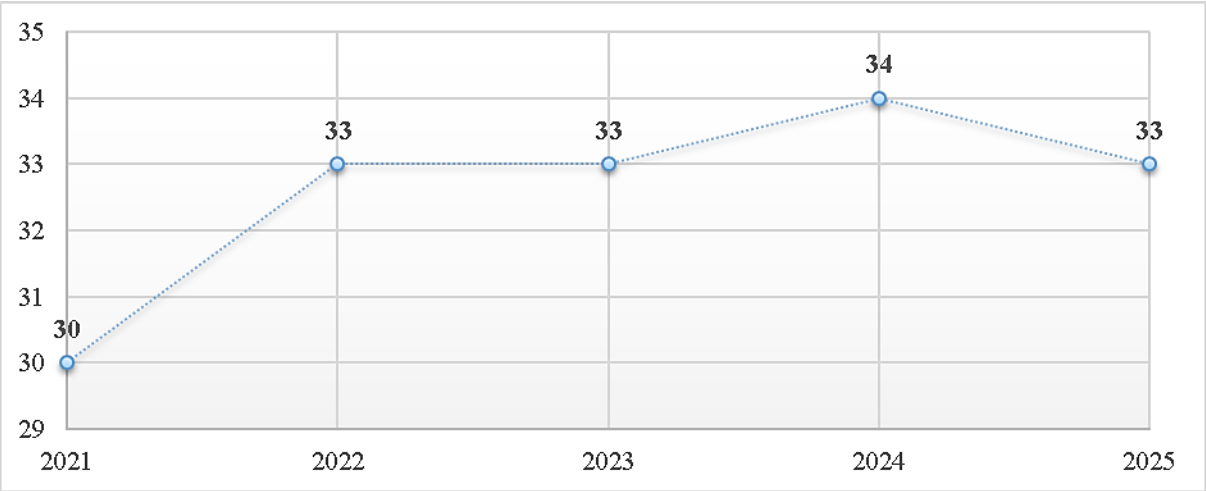

Figure 2. Poland in the Global Startup Ecosystem Index – country ranking (2021-2025) [N].

Source: own work based on (Global Startup Ecosystem Index 2025, 2025, p. 155).

In the latest ranking, Poland can boast the presence of thirteen cities among the 1000 classified worldwide (Global Startup Ecosystem Index 2025, 2025, p. 156). The highest-ranked Polish city in the ranking remains Warsaw, which took 91st place in the world, moving up four places compared to 2024 (Global Startup Ecosystem Index 2025, 2025, p. 27). The capital remains the clear leader of the Polish ecosystem, being the only city from Poland in the top 100 of the ranking (91). The second highest position in Poland is held by Wrocław, which ranked 176th, followed closely by Kraków in 184th place. Both cities are strong academic and technological centers that offer a dynamically developing environment for startups and growing institutional support. The next places in the StartupBlink Index 2025 ranking were taken by: Gdańsk (326th place), Poznań (330th), Katowice (479th), Lublin (548th), Łódź (571st), and Rzeszów (575th). Szczecin, ranked 810th, closes the top ten Polish cities in the ranking (Global Startup Ecosystem Index 2025, 2025, p. 156). Three other Polish cities are ranked further down the list: Toruń (839th place), Białystok (893rd) and Olsztyn (935th) (Global Startup Ecosystem Index 2025, 2025, pp. 369-377). Although they rank lower, their presence in the ranking of the 1,000 best startup ecosystems in the world testifies to the growing involvement of smaller cities in the development of local startup ecosystems and innovative initiatives (Table 1).

Table 1.
Ranking of Polish cities in the Global Startup Ecosystem Index 2025

National Rank	City	Global Rank & Change (from 2024)	Total Score
1	Warsaw	91^{+4}	9,675
2	Wrocław	176^{+9}	3,89
3	Krakow	184^{-}	3,518
4	Gdańsk	326^{+91}	1,313
5	Poznan	330^{-7}	1,289
6	Katowice	479^{-54}	0,611
7	Lublin	548^{+101}	0,476
8	Lodz	571^{-25}	0,436
9	Rzeszow	575^{-108}	0,429
10	Szczecin	810^{+49}	0,214
11	Torun	839^{+73}	0,197
12	Bialystok	893^{+54}	0,174
13	Olsztyn	935^{+23}	0,154

Source: own work based on (Global Startup Ecosystem Index 2025, 2025, pp. 156, 369-377).

6. AI-driven innovation in Polish technology startups

Artificial intelligence plays a significant role in the activities and development of Polish technology startups. According to a survey conducted by the Startup Poland Foundation between July 1 and September 9, 2024, on a sample of 3297 startups, more than half of young technology companies in Poland (56%) use AI to increase work efficiency, and for 13% of founders, artificial intelligence is a key element of their business model (Dziewit, 2024, pp. 6, 18).

The Startup Poland Foundation also asked startups about the keywords that best describe the nature of their main product or service. The largest percentage of respondents (28%) indicated the category covering AI, Deep Tech, and the Internet of Things (IoT) (Dziewit, 2024, pp. 15-16). Following AI/DeepTech/IoT are sectors with high growth potential: Medtech (14%), Hardware (13%), and Analytical Tools and Business Intelligence (12%). The categories "Education" and "Industry 4.0" received the same percentage of responses (Figure 3).

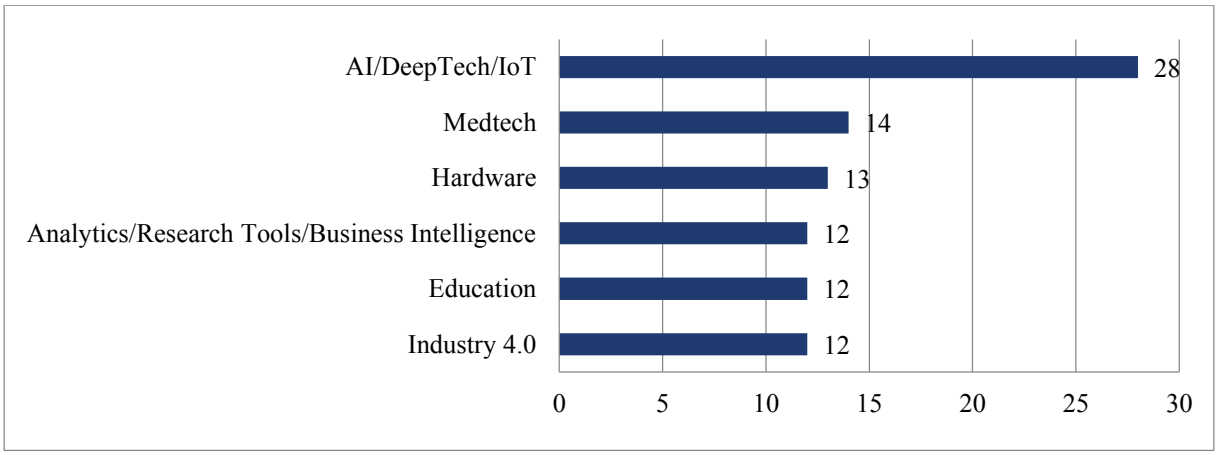

Figure 3. Keywords that best describe the nature of the main product/service offered by startups in Poland [%]

Source: own work based on (Dziewit, 2024, p. 16).

In the Startup Poland Foundation report, entrepreneurs most often declared that their startup offers solutions in the SaaS (Software as a Service) model, i.e., software made available to users as a service—39% of participants gave this answer. Web applications (29%) and mobile applications (28%) ranked lower (Dziewit, 2024, p. 14). SaaS is one of the innovative e-business models distinguished by the way it uses the Internet (Rojek, 2023, p. 154). In turn, 18% of startups offer their customers physical products in the form of hardware, while 17% develop their activities in the area of consulting (Dziewit, 2024, p. 14) (Figure 4).

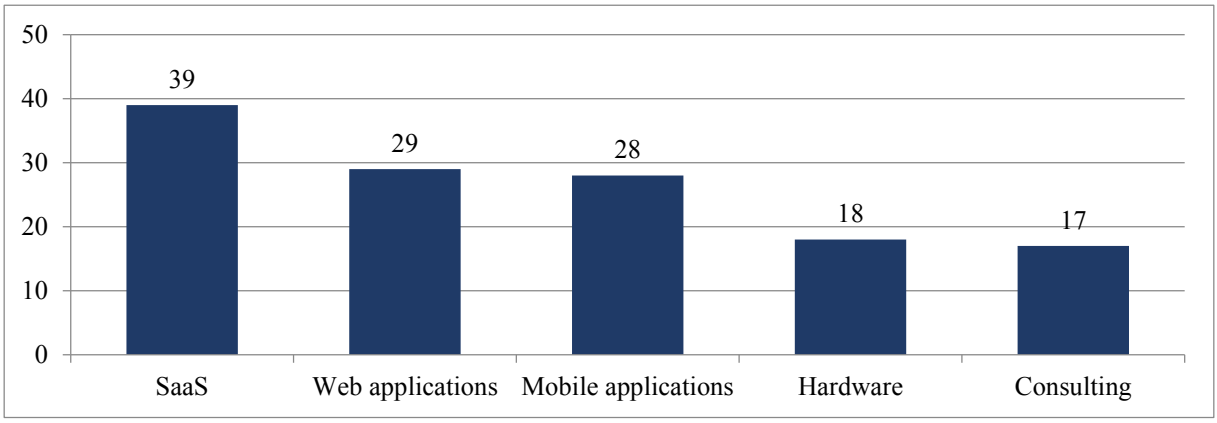

Figure 4. Key areas of startup offerings [%].

Source: own work based on (Dziewit, 2024, p. 14).

Every second startup surveyed operates in the B2B model, offering its products or services to both large enterprises (B2B enterprise) (35%) and smaller business customers (B2B small business) (21%). The direct-to-consumer sales model is chosen by 17% of young companies, and one in ten indicates that it operates in the marketplace model (Dziewit, 2024, p. 12) (Figure 5).

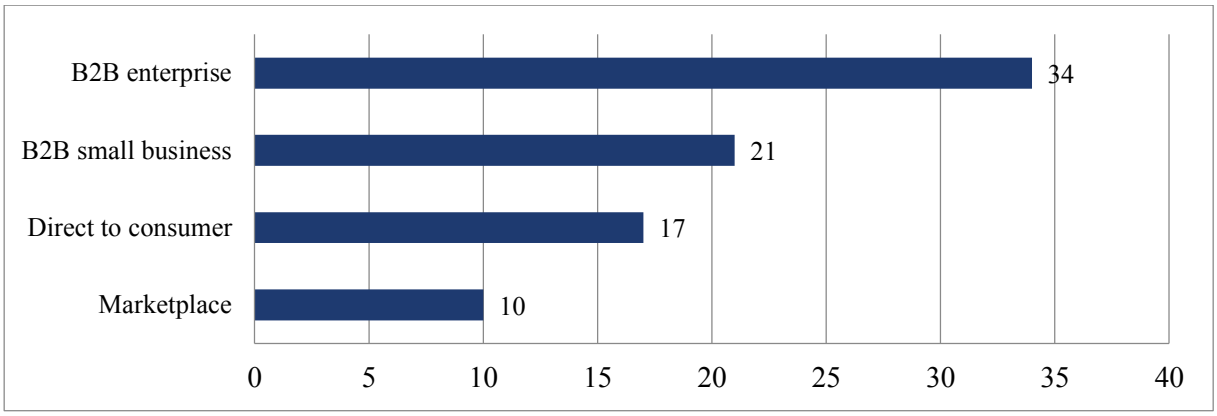

Figure 5. Business models of Polish startups – most popular solutions [%].

Source: own work based on (Dziewit, 2024, p. 12).

Polish technology startups are increasingly implementing solutions based on advanced technologies, including artificial intelligence, which allows them to create innovative products and services. Below are selected examples of Polish startups that effectively use modern technologies and AI in their business models. Table 2 lists a total of 11 startups. Three of them are winners of the 2024 Aulery competition, Poland's oldest startup competition, which selects the best companies with global potential every year (*Aulery*, n.d.). The winners of the 14th edition of the Auler Gala 2024 were: PhotoAiD, Respo Centre, and Mizzox (Zieliński, 2024; Korneluk, 2025a; Duszczyk, 2023; Janczewska-Bażak, 2025; Gryn, 2024; Kieszek, 2024a; Dobroszek, 2024). The next three startups listed are winners of Warsaw Booster'24: Inventmed, Semi Robotics, and Water Sense (*Warsaw Booster 2024. Podsumowanie Edycji*, 2024; Kuta, 2024; Kieszek, 2024; *Water Sense czyli polskie rzeki pod czujnym okiem IoT*, 2024; WaterSense…, 2025; Zieliński, 2024a). Warsaw Booster, implemented since 2015 on behalf of the City of Warsaw by a consortium of the Startup Hub Poland Foundation (SHP), the Coalition for Polish Innovation Foundation (KPI), and the Mobile Open Society Through Technology Foundation (MOST), is a unique urban acceleration program in Poland and the Central and Eastern European region, supporting young technology companies and the development of their founders' business skills (*Warsaw Booster - O Programie*, n.d.). Other startups that received recognition include: Spacelift, Spaceform, Photon Entertainment, iYoni (Lifebite), and StethoMe (Twój Biznes…, 2025; Krogulec, 2025a, 2025b; Korneluk, 2025; Wittenberg, 2025; Cyrny, 2025; Lemańska, 2022; Drążkiewiczwicz, 2023; Domaradzki, 2021; Polska Agencja Rozwoju Przedsiębiorczości, 2023) (Table 2).

Table 2.
Examples of Polish startups using advanced technologies and AI

No.	Startup	Sector	Description of the innovative solution	The role of AI / advanced technologies	The role of AI in the business model	Scale of implementation / impact of innovation on the market
1	Lifebite (iYoni)	MedTech	An application supporting fertility and efforts to conceive. It provides prevention, health education, psychological support, and assistance in treatment planning	Automatic fertility assessment based on medical algorithms and AI	Enables accurate fertility prediction, detection of fertility-affecting diseases, and menstrual cycle monitoring through the use of AI	Over 250,000 downloads of the app; support for approximately 30,000 women
2	StethoMe	MedTech	Wireless stethoscope integrated with a thermometer and sound analysis system compatible with smartphones	Automatic interpretation of auscultation sounds. The StethoMe AI algorithm recognizes and classifies abnormal auscultation sounds	Shorten the diagnostic process and enable remote medical consultations	It allows parents to listen to their child's lungs themselves and send the recording to their doctor. Speeding up consultations and reducing the number of in-person visits to clinics
3	PhotoAiD	GovTech	An application for automatically generating biometric photographs that comply with official standards using a smartphone, without the need to visit a photo studio	Automation of the photo creation process in the SaaS model	It allows anyone to take a photo for documents on their own, without specialist knowledge or equipment, from any location	Global reach – customers from over 150 countries on five continents, approximately 11 million photos for documents taken annually
4	Respo Center	HealthTech	An online diet application that supports users in changing their eating habits and losing weight, connecting them with a team of dietitians and physiotherapists	Individualized nutrition plans and ongoing monitoring of treatment results	Scalable online dietary services using AI personalization	Over 16,000 active users and nearly 71,000 app downloads. The platform is developed by a team of 188 specialists. The startup was named the best Polish startup of the last 15 years in the ‘Aulery All-Stars’ poll

Cont. table 2.

5	Mizzox	SaaS	An integrated platform that automates and streamlines daily business, financial, and communication operations within a company	Automation of payment processes, interest calculation, and accounting document circulation, integration with banking systems, and secure data storage in the cloud. The platform also offers extensive modules for managing projects, tasks, calendars, finances, HR, and internal communication	Comprehensive, automated business management, enabling cost reduction by replacing multiple scattered tools with a single universal system accessible from any device	Over 15,000 active licenses, corresponding to 26,000 platform users in Poland. Revenue in the first quarter of 2024 at PLN 2.7 million
6	Inventmed	MedTech	Innovative medical device “Laserobaria 2.0_S” accelerating the treatment of difficult-to-heal chronic and post-traumatic wounds of the limbs	The use of advanced physical technologies through the simultaneous application of five therapeutic factors in a single applicator	Launch of a certified medical device that integrates the effects of oxygen, ozone, magnetic fields, red light, and UV light to improve treatment effectiveness	The product has won numerous awards and distinctions, including in the Startup Challenge 2023, Mother & Child Start-up Challenge, and Silesian Innovator competitions. International expansion. Clinical implementations; prevention of limb amputations in patients with diabetes and atherosclerosis, among other conditions
7	Semi Robotics	Robotics	FIDI feeding robot supporting people with disabilities	The robot is fully autonomous, using a 3D camera and software to recognize the face and gestures of the person being fed, enabling precise meal delivery without the involvement of a caregiver	Personalization of robot operation and automation of the feeding process, which increases the efficiency of care and reduces the need for direct staff involvement	Commercialization of a social innovation solution. Increased independence for people with disabilities. The startup was a semifinalist in the Infoshare Startup Contest. Focus on the B2B market with private care and medical facilities, with planned cooperation with the public sector, including hospitals

Cont. table 2.

10	Spaceform	DeepTech	3D printing technology designed to work on Earth and in space	The technology is based on innovative solutions in the field of materials engineering, automation, and process control systems. The innovation lies in the method of feeding and applying the metal powder. It allows layers to be applied in microgravity conditions, which is a barrier to the use of other powder technologies in space	Spaceform aims to provide a scalable solution for manufacturing in space — particularly for spare parts and tools needed to maintain orbital infrastructure	The technology is aimed at operators of future orbital stations. The startup plans to test the prototype in parabolic flights in Europe or the United States. Funding is provided by, among others, the ESA BIC Poland incubator
11	Photon Entertainment	EdTech	Photon educational robot for children to learn programming	The robot responds to programmed instructions, enabling practical learning about how intelligent systems work. The robot allows students to be gradually introduced to the world of coding. Photon can be programmed using four proprietary graphical languages and the most popular programming languages, including Scratch (MIT), JavaScript, Python, and Apple Swift	Building digital skills. By learning to code, children learn how to think logically, plan, analyze, predict, and spot mistakes. Photon teaches the basics of coding, creative problem solving, and, above all, improves logical thinking	The Photon robot is widely used in educational systems in many countries. The product has gained popularity in Poland, Slovakia, France, and Italy, among others, and in 2024, it significantly expanded its operations in Spain and the United States. Over 70% of the company's revenue comes from foreign markets. Photon solutions are used by over 1.5 million pupils on six continents

Source: own work based on (Twój Biznes. Fundusze Europejskie w Polskiej Agencji Rozwoju Przedsiębiorczości, 2025; Drążkiewiczwicz, 2023; Polska Agencja Rozwoju Przedsiębiorczości, 2023; Goch, n.d.; Domaradzki, 2021; Zieliński, 2024a, 2024b; Korneluk, 2025a, 2025b; Duszczyk, 2023; Krogulec, 2025a, 2025b, 2025c, 2025d; Janczewska-Bażak, 2025; Gryn, 2024; Kieszek, 2024; Dobroszek, 2024; Kuta, 2024; 'Polskie WaterSense triumfuje w globalnym konkursie Dysona. Jak projekt może dbać o jakość wód?', 2025; Wittenberg, 2025; Cyrny, 2025; Lemańska, 2022; *Zdjęcia do dokumentów online*, n.d.; *Water Sense czyli polskie rzeki pod czujnym okiem IoT*, 2024).

The companies presented include startups from the medical sector (MedTech, HealthTech), Information Technology (SaaS, IT, DeepTech), Robotics, IoT, and Education (EdTech).

In the MedTech sector, health and diagnostic applications stand out, including iYoni, which supports fertility and pregnancy efforts, and StethoMe, a wireless stethoscope that uses algorithms to automatically interpret auscultation sounds. The Respo Center uses artificial intelligence to personalize diet plans and track user progress. On the other hand, Inventmed is a startup that uses advanced physical technologies to treat hard-to-heal wounds, while Semi Robotics offers autonomous feeding robots that support people with disabilities.

SaaS startups such as Mizzox use business process automation, integrating financial, HR, and communication functions into a single platform, which significantly reduces costs by replacing multiple disparate tools with a single, universal system accessible from any device.

In the IoT sector, startup Water Sense has developed autonomous water quality monitoring stations that use AI to predict environmental hazards, while Spacelift offers a platform for managing cloud infrastructure with full IT process automation. Spaceform develops 3D printing technologies for both terrestrial and space applications.

PhotoAiD is an example of a Polish startup operating in the GovTech area, providing modern IT solutions for public administration. The company has created an application that automatically generates biometric photos that comply with official requirements. In the field of EdTech, Photon Entertainment is introducing educational robots that teach programming and develop children's digital skills.

7. Summary

The Polish startup ecosystem maintains a stable position in the Global Startup Ecosystem Index published by StartupBlink, ranking 33rd among 100 countries assessed in 2025. The presence of thirteen Polish cities in the list of 1,000 classified worldwide confirms the gradual development and growing importance of the domestic technological entrepreneurship environment in the global dimension.

According to the results of a study conducted by the Startup Poland Foundation, more than half of Polish startups (56%) use AI to increase efficiency, and 13% treat it as a key element of their business model. The dominant models for offering products are SaaS (39%), web applications (29%), and mobile applications (28%). At the same time, nearly 60% of startups operate in the B2B model, targeting both large enterprises and smaller business customers.

The success of Polish startups awarded in competitions such as ‘Aulery’ 2024 and Warsaw Booster 2024 confirms the growing potential of Polish technology startups. These startups stand out both for their modern solutions and their ability to expand internationally. Their innovations

have a significant impact on the market: from medical and dietary applications reaching thousands of users, to educational platforms and SaaS services that serve millions of users around the world. Many of these startups are achieving global reach, securing funding, and winning prestigious international awards, further confirming their potential to create scalable and innovative solutions. In all 11 case studies analyzed, artificial intelligence and advanced technologies play a key role, enabling process automation, service personalization, and increased operational efficiency.

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