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Directions of increasing innovativeness of economy – the case of Poland

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Abstract: Innovations significantly affect a country's economic development, at the same time contributing to raising its position. A very important role in improving the innovativeness of enterprises, regions or the national economy is played by the state, creating a strategy, programmes or regulations supporting development and pro-innovation policy. This article attempts to systematise knowledge in the field of innovation and to determine directions for increasing the innovativeness of the economy in Poland. This study analyses strategies supporting innovation in Poland in the years 2014-2020.

Keywords: development strategies, innovativeness, enterprises.

JEL codes: L10, L22, O10, O31

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1. Introduction

In recent years, we have noticed in Poland an increased importance of innovation and the innovativeness of enterprises in the economy, which translates substantially into the economic development of the country. Innovations penetrate the scientific or technological environment, influencing their diffusion, and the implementation and absorption of innovations

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are also important. An increase in the level of innovation of enterprises leads to their development. The role of the state is to create the best conditions conducive to the absorption of knowledge by increasing R&D expenditure and ensuring a high level of education. The result of these activities will be primarily increased activity that is imitative and ultimately innovative (Pilarska, 2014: 55-56; Daszkiewicz et al. 2005: 18-20; Dubel: 27-28). The state creates documents, strategies in which priority areas for the development of a competitive knowledge-based economy are designated. A pro-innovation policy (at the local, regional, national and European level) is aimed at creating appropriate conditions for supporting innovation processes. The pursuit of innovation policy by the state related to a development policy¹ may lead to a coherent strategic landscape and increase the number of executive programmes, including government activities, which should translate into the implementation of innovation.

The aim of the article is the analysis of innovation and a review of activities undertaken – implemented strategies, programmes supporting innovation (the level of innovativeness) in 2016-2020 affecting the condition of the Polish economy, including the functioning of enterprises, raising their position in the market and using their existing innovative potential.

2. Innovation, innovativeness of enterprises - an explication of the concept

Innovation as defined by the OECD² in the *Oslo Manual* is "the implementation of a new or significantly improved product (product or service) or process, a new marketing method or a new organisational method in business practice, workplace organisation or relations with the environment"(1996: 20-24; 2005: 19-24). We come to deal with different definitions, but it can be said that innovations are perceived as changes, novelties, benefits, amenities, creating a new need, or finding new uses for old products (Gulga, 2011: 68-69; Szymura-Tyc, 2015: 36-39; Weresa, 2012: 13-15). In an enterprise, innovation becomes useful when it provides and translates into the benefits it achieves, e.g. in the form of gaining an advantage over the competition.

In the literature of the subject, the most frequently identified types of innovations are (Howaniec et al, 2015: 8-9; Pomykalski, 1997: 18-19; OECD, 1996: 20-24; OECD, 2005: 19-24):

- product innovations, consisting of improving a product already manufactured or introducing a new product in place of ones used so far, where the product should fulfil

¹ Development policy is understood as a set of interrelated activities undertaken and implemented to ensure sustainable and balanced development of the country, socio-economic, regional and spatial cohesion, and increasing the competitiveness of the region's economy.

² OECD - Organization for Economic Cooperation and Development

its tasks much better, providing objectively new or improved benefits to the consumer or its costs should be clearly lower compared with the existing products,

- process innovations, consisting of introducing new methods of production or product delivery, contributing to the improvement of production efficiency, its flexibility, improving the health and safety of work and making it easier to perform, and increasing the supply of offered products or services,
- marketing innovations, based on the introduction of new or significantly improved sales or marketing methods, aimed at increasing the attractiveness of products or their better adaptation to market conditions,
- organisational innovations, consisting of the introduction of new or significant improvements in a company structure or management methods, increasing a company's ability to innovate and/or the quality and efficiency of work processes,
- technological innovations involving the modification of factors and properties of the implemented manufacturing processes

Many authors indicate that innovations interpenetrate and are complementary (Garcia et al, 2002: 111-130). Enterprises should therefore be oriented towards all types of innovations in order to increase their importance in the market. The benefits of the applied innovations translate into the internal and external sphere of activity in the economy. Thus, small, medium and micro enterprises implement appropriate changes, since it is changes that have been the demand of the times, and even indispensable for sustainability of business success. In the technology-oriented world, as it is today, the development and success of the ever-changing business is required exponentially. Organizations need to change and innovate in response to environmental changes, as well. They also need to identify new ways to provide collective resources for implementing an innovation (Siddiquee, 2007, Supriyono, 2015: 1057-1061). This can be seen from the standpoint of changes in the products or services that involve an evolution of features, or change the way "in view of the world". The term innovation can be viewed from various perspectives, including technology, economics and business, the global environment and the socio-political culture customer and market trends, behaviour and organizational change as a whole (Supriyono, 2015: 1057-1061)

Innovation and technological progress contribute to competition and lead entrepreneurs, among others, to independent development and implementation of innovations. Alliances of strategic enterprises, their merger, creation of a network of business connections and various forms of connections are beginning to emerge. They strengthen each other as part of a joint

development plan and strategic goals. Technological innovations stimulate economic growth, which in turn promotes technological development and becomes the most important factor in the growth of productivity. As a result, new technologies stimulate the development of new markets. An important role in the area of increasing innovativeness and competitiveness of the economy is also attributable to non-technological innovations, i.e. organisational, process, product and marketing (National Development Strategy 2020, 2012: 5-43).

On the other hand, through innovation, we mean the ability to create new values, inter alia, by enterprises, regions and countries, and it should also lead to achieving a competitive advantage and influence the way they operate in. The competitive advantage should be renewable and maintainable over a longer period (Preisner, 2017: 68). In a sense, innovation determines creative thinking of employees and the use of emerging opportunities. The dominant approach to enterprise innovation is focusing on a selected type of innovation, e.g. process, technology, product, marketing and organisational.

Innovativeness in an enterprise is most often determined by the number of implemented innovations (the scope of innovations), and it affects all sectors of the economy, both in profit-oriented organisations and in the so-called "non-profit" ones, both private and local government (Camision-Zornoza et al, 2004:331-360, Preisner et al, 2014: 12-14). In the meantime, innovative activities are all activities of scientific, technical, organisational, financial and commercial nature that lead or are going to lead to the implementation of new or significantly improved products and processes. At the same time, this activity may be carried out by the enterprise itself on its own premises (inside the company) or it may consist in the purchase of goods and services, including consultancy services or knowledge, from external sources (Matusiak, 2005: 37-39; OECD, 2005: 5-21). It is worth noting that if innovation is to become a permanent element of the development of the economy, cooperation between the sphere of science, enterprises and business environment institutions is assumed.

3. The government-run actions supporting pro-innovation policy in Poland in 2016-2020

Innovativeness should be supported by public authorities. In Poland, various measures of pro-innovation policy are applied and regional development is also supported, among others, by including areas in development processes (in the aspect of regional development).

The development policy is carried out through the ensuing strategies for national development and through innovativeness, regions, projects and programmes. These strategies

should translate into an increase in innovation activity, for the diffusion of innovation in enterprises.

The main areas of the innovation policy are as follows (Strużycki et al, 2011: 27-29; Bąkowski, 2003: 16-19; Duda, 2017:15-20, 88-92):

- creating favourable conditions for innovation, including activities which focus on stimulating competitiveness, simplifying tax and administrative procedures, and increasing the financing of innovative activities,
- stimulating research and innovation, creating a vision focused on the directions of development of research and development, strengthening cooperation between research institutions, universities and entrepreneurs by providing high-quality services by institutions or preparing a modern infrastructure needed to run a business. Increasing the state's expenditures for research conducted in enterprises and creating new technology companies, absorbing technological innovations into the economy,
- creating a culture of innovation by shaping the attitudes of innovative entrepreneurs and the awareness of public authorities, promoting active cooperation for innovation. And raising public awareness in the field of innovation.

The system of supporting the development of innovativeness of the economy in Poland is based, among other things, on implementing the strategy of serving the development of enterprises, regions or countries.

Below, there is a specification of the governmental documents currently in force:

- The strategy *Europe 2020* – all "projects" and solutions of the Polish government's strategy are part of the assumptions of this strategic document of the European Union, which facilitates the coordination of political activities at the EU and national levels. This document, consisting of three priorities, one of them called "smart development", refers to the knowledge-based economy and innovation. Innovations play a key role there as they become the driving force of the state development. The strategy creates the conditions for smart economic growth through investments in research, innovation and education (European Commission, 2010).
- The strategy *Poland 2030. Third wave of modernity* – defining the main trends, challenges and concept in the long-term perspective of the country's development. The strategy emphasises simultaneous development in three strategic areas: competitiveness and innovativeness of the economy, diffusion and balancing of the development potential of Polish regions, as well as the efficiency and effectiveness of the state. In the

area of the innovative economy, goals and directions include issues related to stimulating innovation, entrepreneurship, human creativity and economic efficiency. Above all, they also focus on education, research and science, strengthening science-business connections, expenditures for education and improving the quality and effectiveness of scientific research. The key element of actions for entrepreneurs is shaping their competences, allowing them to develop enterprises and be competitive in the market. It is also important to create financial instruments and strengthen business environment institutions serving entrepreneurs in Poland. The strategy assumes building competitive advantages so that Poland has new growth potential in areas that have not been exploited so far, e.g. in the area of education or innovation (National Development Strategy 2020, 2012: 5-20).

- *National Development Strategy 2020* – a medium-term national development strategy, consisting of integrated strategies. The "Strategy for Innovation and Efficiency of the Economy" is interesting for entrepreneurs. One of its areas focuses on the development of new competitive advantages of the Polish economy based on knowledge and intellectual capital. The strategy aims to increase the innovativeness of the economy, disseminates the model of the third generation university, which strives to combine education and research and development with the implementation of innovation and business. It also systematises competences that enable implementation of development activities and creates conditions for the development of regional and local centres (National Development Strategy 2020, 2012: 5-20).
- *National Municipal Policy 2023* – there are also points in the document that are responsible for the development and innovation of metropolitan areas. It clarifies the possibility of using the unique potentials and competitive advantages of Polish cities to ensure sustainable development, which directly translates into an improvement in the quality of life of urban residents (National Municipal Policy 2023, 2015: 6-18).
- The *Start in Poland* project – developed by the Ministry of Development together with the Council for Innovation, assumes assistance and development of start-ups in Poland. Entrepreneurs with ideas based on innovative solutions receive help not only in the incubation phase, but also during the commercialisation of an innovative solution for the economy. The project is also implemented by providing capital from an investment fund for *Venture Capital* and *Business Angels* funds that will invest in innovative ventures. The programme assumes the creation of acceleration programmes, in which

start-ups or new technology companies will be able to develop in cooperation with large corporations. Thanks to this type of cooperation, a start-up – a corporation – an accelerator, in addition to financial support, gain also access to infrastructure, high-class mentors, resources, competences, new customers and outlets. Thanks to this project, Polish enterprises will raise and increase expenditures on innovative activities, ensuring dynamic development of the economy by supporting projects that have a chance to be successful, both in Poland and internationally (Start in Poland, 2015: 6-28).

- *Innovation Strategy for Economic Efficiency - Dynamic Poland 2020* – developed by the Ministry of Economy and coherent with the country's development policy. Its aim is to support a "highly competitive economy" based on knowledge and cooperation, adjusting the regulatory and financial environment to the needs of an effective and innovative economy, or stimulating innovation through increasing the efficiency of knowledge and work. A competitive economy should be understood as an economy that will achieve a higher rate of economic growth and will improve the standard of living of citizens in relation to other countries. The strategy also aims to increase the internationalisation of the Polish economy, for example by supporting Polish exports and investments abroad or supporting the inflow of innovative investments (National Development Strategy 2020, 2012: 5-20).

The strategies have a horizontal character and tend to equalise business opportunities, creating opportunities for raising the level of innovation. They recommend directions of operation in the economy and affect various sectors, e.g. industry branches – the so-called high technology, business services, education, science and R&D activities.

4. Conclusion

Innovation is one of the factors determining technological or social progress. The economy is increasingly moving towards the development of a mature, innovation-based keystone, as well as territorial balancing of development and efficiency. The development policy pursued by the Polish government is aimed at activating innovative enterprises, all the time new strategies, projects, laws and documents are being created to enable the level of innovation in enterprises to be raised. All the strategies and projects are to "extract" the potential of enterprises, to enable them to develop. To improve the functioning of enterprises in Poland, a "constitution for business" is currently being created, designed to implement practical facilities for business and society. In this way, it seems, entrepreneurs in the Polish

state will have a reliable partner. Promoting the state's innovation policy is very important as well-functioning instruments will provide help and support for entrepreneurs, e.g. by eliminating legal barriers. Monitoring state regulations with the aim to improve them guarantees the development of innovative activities.

Literature

- Bąkowski, A. (2003). *Wspomaganie innowacyjności przedsiębiorstw przez Programy Ramowe Unii Europejskiej*. In: Górzyński, M., Woodward, R. (eds.). *Innowacyjność polskiej gospodarki*. Warszawa: Centrum Analiz Społeczno-Ekonomicznych (CASE).
- Camision-Zornoza C., Lapiedra-Alcami R., Segarra-Cipres M., Boronat-Nawarro M. (2004). *A meta-analysis of innovation and organizational size*. In: *Organization Studies*, 25(3).
- Daszkiewicz, N.; Wasilczuk, J.; Dominiak, P. (2005). *Małe i średnie przedsiębiorstwa w obliczu internacjonalizacji i integracji gospodarek europejskich*. Gdańsk: Scientific Publishing Group.
- Duda, J. (2017). *Iternacjonalizacja polskich mikro- i małych przedsiębiorstw w procesie integracji europejskiej i globalizacji*. Warszawa: Difin SA.
- Dubel, A. (2017). *Multi-Criteria Assessment of the Twinning Methodology for Development of Demand-Driven Cross-Sector Innovation Collaboration Programme Benefitting SMEs in the Cleantech Sector*. In: *Polish Journal of Environmental Studies*, Vol. 26, No. 5A.
- European Commission (2010), Communication from the Commission. *Europe 2020. A strategy for smart, sustainable and inclusive growth*, European Commission, Brussels. Available at: <http://ec.europa.eu/transparency/regdoc/rep/1/2010/PL/1-2011-681-PL-F1-1.Pdf>. Accessed 26 October 2017.
- Garcia, R., Calantone, R. (2002). *A critical look at technological innovation typology and innovativeness terminology: a literature revive*. In: *The Journal of Product Innovation Management*, 19(2).
- Gulda, K. (2011). *Innowacje w przepisach prawnych*. In: Perenc, J., Hołub-Iwan, J. (eds.). *Innowacje w rozwijaniu konkurencyjności firm. Znaczenie, wsparcie, przykłady zastosowań*. Warszawa: Wydawnictwo C.H. Beck.
- Howaniec, H., Okrzesik O. (2015). *Współpraca nauka-biznes. Współpraca trójstronna jako przykład innowacji w procesie komercjalizacji badań i transferu technologii*. Bielsko-Biała: Wydawnictwo Naukowe Akademia Techniczno-Humanistyczna.
- Matusiak, K. (eds.). (2005). *Innowacje i transfer technologii. Słownik pojęć*. Warszawa: PARP.
- Ministry of Regional Development, (2012). *National Development Strategy 2020*. Document adopted by resolution of the Council of Ministers on 25 September 2012, Warsaw. Available at: https://www.mr.gov.pl/media/3336/Strategia_Rozwoju_Kraju_2020.pdf. Accessed 16 April 2017.
- Ministry of Infrastructure and Development. *National Municipal Policy 2023*. Document adopted by resolution of the Council of Ministers on October 20, 2015. Warsaw, October 2015. Available at: https://www.mr.gov.pl/media/10252/Krajowa_Polityka_Miejska_20-10-2015.pdf. Accessed 14 April 2017.

- Ministry of Development and Polish Council for Innovation. *Start in Poland*. Available at: <https://www.mr.gov.pl/strony/plan-na-rzecz-odpowiedzialnego-rozwoju/kluczowe-projekty/program-start-in-poland-pakiet-instrumentow-dla-innowacyjnych-firm/>. Accessed 28 April 2017.
- OECD (1996). *The Measurement of Scientific and Technological Activities. Proposed Guidelines for Collecting and Interpreting technological Innovation Data*, Oslo Manual. Paris: OECD.
- OECD (2005). *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*. OECD. Statistical Office of the European Communities, Paris: OECD.
- Pilarska, Cz. (2014). *Innowacyjność w Polsce – aspekty makroekonomiczne i mikroekonomiczne*. In: Przybylska, K. (ed.). *Uwarunkowania innowacyjności polskich przedsiębiorstw*. Warszawa: PWN.
- Preisner, L. (2017). *Enabling Sustainable Development: Changes in the Integrated Pollution Prevention and Control Directive – Review of the Latest Opinions*. In: *Polish Journal of Environmental Studies*, Vol. 26, No. 5A.
- Preisner L., Pindór T., (2014). *Audyty środowiskowe jako instrumenty wspomagające system zarządzania środowiskowego*. *Logistyka Odzysku*, Nr 2 (kwiecień-czerwiec 2014).
- Pomykański, A. (1997). *Innowacje*. Łódź: Wydawnictwo Politechniki Łódzkiej.
- Supriyona B. *Innovative Public Leadership (Case Study on Innovative Food Policy for SME's in Sidoarjo Regency)*. In: *Procedia - Social and Behavioral Sciences* 211, Published by Elsevier.
- Siddiquee, N.A. (2007). *E-government and Innovations in Service Delivery. The Malaysian Experience*. In: *International of Public Administration*.
- Strużycki, M., Bojewska, B. (2011). *Rola Państwa i rządu w kształtowaniu innowacyjnej gospodarki*. In: Perenc, J. (eds.), Hołub-Iwan, J. *Innowacje w rozwijaniu konkurencyjności firm. Znaczenie, wsparcie, przykłady zastosowań*. Warszawa: Wydawnictwo C.H. Beck.
- Szymura-Tyc M. (2015). *Internacjonalizacja, innowacyjność i usieciowienie przedsiębiorstw*. Warszawa: Difin SA.
- Weresa, M.A. (2012). *Systemy innowacyjne we współczesnej gospodarce światowej*. Warszawa: PWN.

KIERUNKI ZWIĘKSZANIA INNOWACYJNOŚCI GOSPODARKI W POLSCE

Streszczenie

Innowacje istotnie wpływają na rozwój gospodarczy kraju, przyczyniając się zarazem do podnoszenia jego pozycji. Bardzo ważną rolę w podnoszeniu innowacyjności przedsiębiorstw, regionów lub gospodarki narodowej odgrywa państwo, tworząc strategię, programy czy rozporządzenia wspierające politykę rozwoju i proinnowacyjną. W artykule podjęto próbę usystematyzowania wiedzy z zakresu innowacyjności oraz określenia kierunków zwiększenia innowacyjności w Polsce. W opracowaniu analizowano strategię wspierającą innowacje w Polsce w latach 2014-2020.

Słowa kluczowe: strategię rozwoju, innowacyjność, przedsiębiorstwo.

Kody JEL: L10, L22, O10, O31

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