

ROLE OF EU FUNDS IN SUPPORTING INNOVATIVENESS OF ENTERPRISES

MAREK WIKIŃSKI

m.wikinski@uthrad.pl

Kazimierz Pulaski University of Technology and Humanities, Faculty of Economic and Legal Sciences, Department of Law, Chrobrego 31 Street, 26–600 Radom, Poland.

Abstract

The purpose of this article is to characterize the possibilities of supporting innovativeness of enterprises from the European Union structural funds in the financial perspective 2014–2020. The article diagnoses and analyzes Polish enterprises in terms of their expenditure on innovativeness and introducing innovativeness to their activities. The publication describes the European Regional Development Fund and the two documents in force in Poland: Strategy for Innovation and Efficiency of the Economy "Dynamic Poland 2020" and the Operational Program Intelligent Development, 2014–2020. Their priority is implementation of innovation in enterprises by supporting innovative projects from EU structural funds.

Key words

EU structural funds, innovation, enterprises

JEL classification

O31, O32, O38, L25

1. Introduction

Specialist literature offers a variety of definitions of innovation. Some authors interpret it narrowly, meaning a first commercial introduction of a new product, process, system or equipment (Freeman, 1968), changes to manufacturing methods and products based on new or as yet unused knowledge (Sopińska, Wachowiak, 2016, p. 17) This implies innovation in its narrow sense is any novelty which finds its use. A number of authors expand the concept of innovation to comprise not only application of an invention to business activities but also a range of earlier actions, such as: inventing itself, design, implementation, and methods of manufacturing innovation (Duda, Gašior, 2014, p. 717). Thus, it means the process of creative knowledge use, transformation of knowledge held by an organization or acquired from outside into new products, services or processes (Cavagnoli, 2011, p. 111). This is an idea, practice or object noted by an accepting or new organization. For the purposes of human preservation its perception as new is not essential, though (Rogers, 2003). In effect, broadly-defined innovation is an entire management process including a variety of activities leading to creation, development and introduction of new products (Wolak–Tuzimek, 2016, p. 2058).

Enterprises in the market economy strive for improved competitiveness and are forced to undertake innovative activities that require substantial financial expenditure. These entities are able to resort to external sources of financing, however. EU funding is one of them.

It is the aim of this paper to examine the possibility of financing enterprise innovativeness with the European Union structural funds in the financial perspective 2014–2020.

Two research hypotheses are posited:

- H1: Polish enterprises are able to have their innovative activities supported with a range of operational funds and programmes.
- H2: Polish enterprises exhibit a growing tendency to obtain EU funding for their innovative activities.

Level of support for projects subsidised with EU or EEA resources depends on type of operational fund or programme supporting a project. A key part of the programming for 2014–2020 is the initiative EUROPE 2020, the EU sustainable development strategy for the coming years. This strategy is a specific plan laid out by the European Union to realise five actions in the following areas: employment, education, innovation, social inclusion, as well as climate changes and energy use. These actions must coincide with assumptions of the horizontal objectives: intelligent development, sustainable development, and development aimed at promoting social inclusion

2. Sources of EU funding for innovative activities of enterprises

The European Regional Development Fund is an important financial instrument for Polish enterprises. It was established in 1975 in response to postulates from new member states of the EEC. Financial aid as part of the Fund concentrates on the following aspects (Głąbicka, Grewiński, 2005, p. 148):

- Investments improving attractiveness of regions and mobilisation focussed on new technologies and development of research.
- Development of information society which involves expansion of infrastructure providing access to broadband Internet for maximum numbers of digitally excluded individuals.
- Protection and improvement of the natural environment.
- Infrastructural investments enhancing dynamics of structural development, including creation of trans-European transportation, communications, and energy networks; restructuring of unprofitable industries.

By force of the Ruling of the European Parliament and the Council number 1301/2013 of 17 December 2013 on the European Regional Development Fund and on specific provisions concerning the investment for growth and jobs goal and repealing Regulation (EC) No. 1080/2006, a new ERDF programming term of 2014–2020 was initiated. At this stage of programming, emphasis is placed on Regional Operational Programmes – in comparison with the previous programming term, the support is to rise by nearly 6 percentage points. Research actions, development of information and communication technologies (ICT), promotion of the small and medium-sized enterprise sector as the driving force of economy, fostering of a low-emission economy, and roll-out of infrastructure in weakly developed regions are key priorities of the ERDF spending in 2014–2020.

Implementation of the European Funds in 2014–2020 is based on documents prepared by the member states under the Partnership Agreement. Their contents, scope, and major assumptions arise from strategic documents – Europe 2020 Strategy (Lesáková, 2018, p. 79), National Development Strategy till 2020, and 9 integrated strategies concerning innovativeness, transport, social capital, human capital, energy sector and the environment, efficiency of the state, regional development, development of agriculture and rural areas.

The Strategy for Innovation and Efficiency of the Economy Dynamic Poland 2020 (SIEG), adopted by the Council of Ministers on 15 January 2013, is one of them. It envisages provision of appropriate conditions for functioning of enterprises, science and administration to improve competitiveness and innovativeness of the Polish economy. The Strategy points to a need for a complex and integrated innovation policy that would influence diverse aspects of creating state-of-the-art projects in such areas as entrepreneurship, inter-sectoral collaboration, development of research facilities and personnel, knowledge transfer, public tenders, and PPP.

Focus on research to be financed with public resources is of significance, therefore, projects with high potential for knowledge commercialisation and fostering the strategy of intelligent specialisation are preferred by operational programmes during the term 2014–2020.

This terms of EU fund programming additionally supports projects realised jointly by the science and business sectors, which is expected to boost the national degree of commercialisation of R&D results. Accordingly, instruments addressed to research units should contribute to building of the knowledge-based economy and thus bring palpable benefits to enterprises and society as a whole.

The Operational Programme Innovative Development targets actions to match R&D supply to market requirements, on the one hand, and help stimulate enterprise demand for innovations and research and development work, on the other hand.

The programme's resources support R&D projects (research and developed work, R&D infrastructure) prepared by research units, enterprises, or their consortia.

Subsidies are designed to support all or selected parts of the innovation process: starting with the phase of idea generation through R&D activities to implementation of research results and innovative activities in international markets. Not only technological but also service innovations and new solutions in the area of work organization and management in enterprises will be supported in response to needs of workers, consumers, trade partners in the chain of supply or other stakeholders.

Intervention of the OPID is focused on fields of maximum scientific and economic potential nationally and regionally, that is, the so-called intelligent specialisations.

Documents like: *Programme of Enterprise Development*, to address results of *Technological Foresight for Industry in Poland – InSight2030*, and the *National Research Programme* will provide grounds for identifying these specialisations at the national level. At the supraregional and regional levels, the intelligent specialisations will be indicated by: the development strategy for Eastern Poland, regional development strategies, and regional innovation strategies. Projects financed with OPID resources in areas defined as intelligent specialisations will receive preferential treatment in selection of projects to be supported.

Given the importance of challenges associated with climate changes and sustainable development, OPID will envisage horizontal solutions preferring research, development and innovation projects in the area of development, including low-emission, technologies.

3. Level and structure of financial spending on innovative activities

The European Union, including Poland, opened 2014 with a new budget to apply until 2020. Like in the preceding years, Poland is the largest beneficiary of the EU funding. It will be paid €106bn, including nearly €82.3bn for the cohesion policy to level differences of regions' development (Wikiński, 2017, p. 7).

Within 10 years of Poland joining the European Union, 177 800 projects worth PLN 558.2bn were realised, including PLN 311.2bn from EU subsidies. During the two completed financing terms, i.e. in 2004–2006 and 2007–2013, entrepreneurs pursued projects worth more than half a million Polish zloty, with a mere 6.67% of projects with values ranging between a half a million and one million Polish zloty, and a majority (66.67%) of projects worth more than 2 million zlotys. Projects with values of between one and 2 million ranked second. Entrepreneurs were subsidised up to 50% of their undertakings.

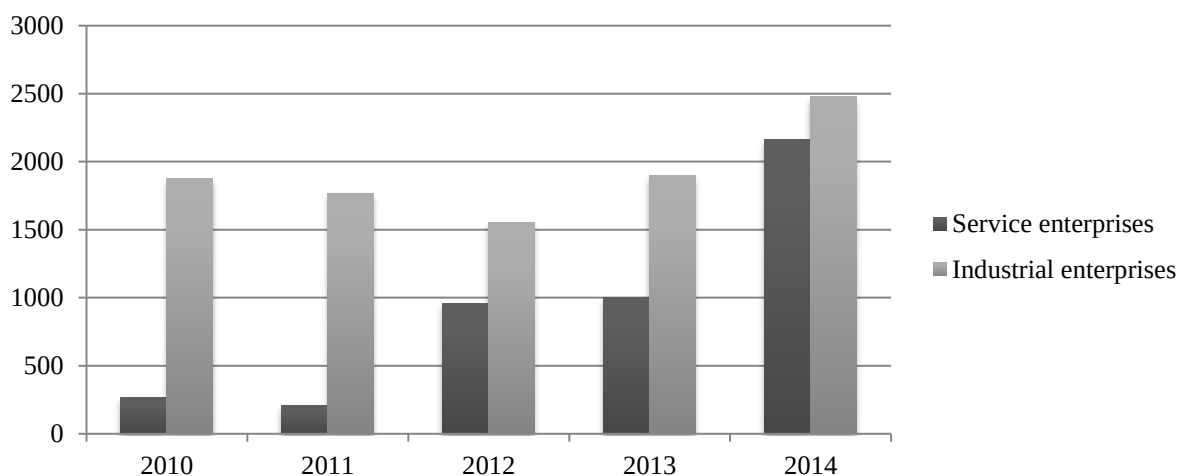
The smallest businesses employing up to 9 people prevail in the Polish economy, constituting 95.9% of the enterprise population, followed by small firms – 3%, medium-sized – 0.9%, and large companies – 0.2%. In respect of legal status, enterprises run by self-employed individuals are the most numerous – 92.0% of all entities. The SME sector accounts for 70.2% of overall employment in the sector of non-financial enterprises.

Large firms, particularly those employing more than 500 persons, spent the most on innovative activities (65% of the total expenditure). Both industrial and service enterprises assigned most funds to purchasing of plant and machinery, means of transport, tools, devices, and equipment (59.1% of all spending by industrial enterprises, 36.7% by service firms). With regard to R&D work, these shares were distinctly narrower, namely, 13.3% of the overall spending by industrial and 13.6% by service firms. Although private expenditure on R&D is far below the EU average, spending on innovative activities other than R&D is high. This is characteristic for countries at low levels of technological progress.

As far as the percentages of industrial and service businesses incurring expenses on innovative activities are concerned, the indicator has declined nearly twice since 2006. This applied to all enterprise groups defined by size. In turn, value of innovative expenditure per one industrial and service enterprise has increased. Large service firms have spent far more on innovative activities than large industrial enterprises did.

The opposite relations hold for small and medium-sized companies.

Table 1: Level of financial expenditure on innovative activities by Polish enterprises during the term 2010–2014 (in millions PLN)



Source: The author's own compilation on the basis of Statistic Poland [GUS, 2011, p. 58; GUS, 2012, p. 59; GUS, 2013, p. 74; GUS, 2014, p. 75]

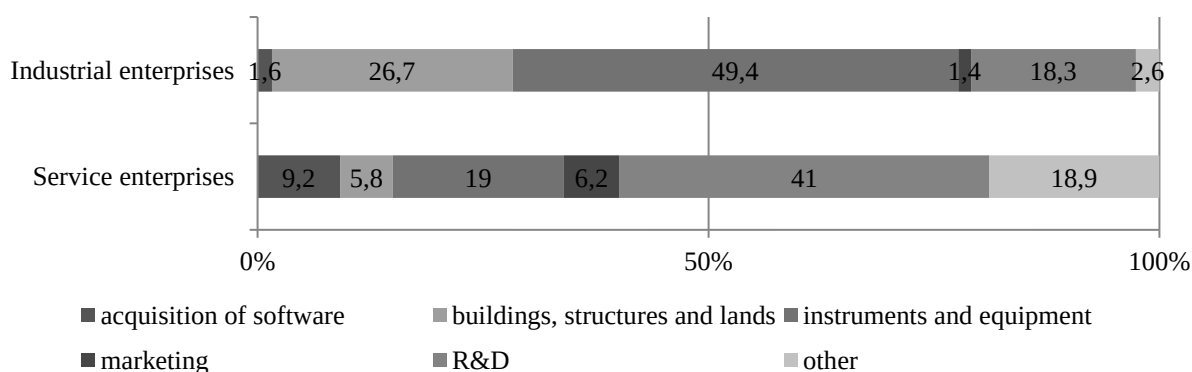
Eurostat figures concerning expenditure on innovative activities by actively innovative European enterprises show Poland ranks in the first tenth with a result of €4.32bn for the industrial sector and €2.11bn for services. Considerable differences between European countries should be noted here. Spending by German industrial enterprises is nearly 16 times as large as that of Polish firms. Service companies in France spend 8 times more than Polish enterprises do on their innovative activities.

Figure 1: Industrial innovation active enterprises in the years 2012–2014 by selected European countries



Source: Statistic Poland [GUS, 2017, p. 21]

Table 2: Structure of expenditures on innovation activities in 2016



Source: Statistic Poland [GUS, 2017, p. 66]

4. Conclusion

Polish enterprises are more reluctant to undertake innovative activities than firms from other EU countries. This is so for complex reasons. Fear of risk, shortage of financing, and limited knowledge and experience of innovation are major causes.

Securing EU funding helps enterprises on the way to faster development, launching of new commodities, and provision of new services.

A critical review of literature and statistical analysis point to the following conclusions:

1. Enterprises can obtain EU funding from several sources. The European Regional Development Fund co-finances investments improving attractiveness of particular regions to investors and mobilising concentrated on new technologies and development of research. As part of the Operational Programme Innovative Development, actions are supported that are designed to improve adequacy of R&D supply to the market demand, on the one hand, and to stimulate enterprise demand for innovations and research and development work, on the other hand. Polish enterprises can also secure resources from the national budget in line with the assumptions of the National Development Strategy Until 2020. The review of literature confirms the research hypothesis H1 is correct.
2. Expenditure of Polish enterprises on innovative activities has tended to increase. A dependence between company size and level of the spending can be observed. The larger an enterprise, the higher its expenditure on innovation. Volumes of EU funding secured by enterprise grew in the entire period studied, which corroborates hypothesis.

Systemic undertakings to affect the entire innovation system in Poland are necessary to encourage enterprises to engage in innovative activities. Such actions include: promotion of innovativeness as a source of economic competitiveness, promoting cooperation of science and business (networking), and fostering of pro-innovative attitudes in society. Standards of economic innovativeness, effectiveness of support instruments, and trends in this area will be analysed.

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