IMPACT OF EU FUNDS ON BUILDING THE INNOVATION POTENTIAL OF POLAND’S SMALL AND MEDIUM ENTERPRISES FROM THE METAL AND MACHINE-BUILDING INDUSTRIES.

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Abstract

The innovation potential of Poland’s small and medium enterprises is influenced by numerous factors — external ones resulting from their business environment conditions and internal ones determined by the capacity of the enterprise in terms of its management efficiency and effectiveness as well as its resources. The path from an idea to the innovation implementation, however, is very laborious and time-consuming and it is connected with overcoming many obstacles that are mostly related to financial constraints. Thus, financial support for innovation activity is important for small and medium enterprises. The funds from the EU budget, which in Poland are distributed through a variety of programmes, including operational programmes, provide such an opportunity.

The aim of this paper is the assessment of the possibilities to provide support for the SME innovation potential illustrated with the example of the companies from the metal and machine-building industries supported with the use of EU funds and the identification of the obstacles to acquire such funds that the companies from this sector face.

Keywords: innovation potential, SME, metal & machine sector, EU funds

1. INTRODUCTION

Small and medium enterprises play an important role in the Polish economy since they improve the dynamics of development of individual regions, have a positive impact on the reduction of unemployment, supply the local market with goods and provide services for local communities. In 2009 there were 1.67 million enterprises in Poland, of which most (99.8%) were small and medium enterprises. The SME sector in Poland is dominated by micro enterprises that constitute 96% of the total number of enterprises. The medium-term trends, however, indicate that the structure of companies in Poland is heading towards the structure similar to the one which exists in the EU – the percentage of micro enterprises decreases whereas the share of the other groups of companies rises. The contribution of SMEs to the creation of gross added value is approx. 48.4% and the number of people working in this sector constitute 2/3 of the total workforce [8]. A significant number of small and medium enterprises also operate in the metal and machinery sector in Poland. Micro enterprises are the most numerous, approx. 74% in the metal sector and approx. 80% in the machinery-building sector. The shares in the group of small enterprises are 16% and 13% respectively. The penultimate group comprises medium enterprises which constitute 6% of the total number of enterprises operating in the metal sectors and 5% of the total number of enterprises operating in the machinery sector. The smallest is the number of large enterprises, only 3% in the metal sector and 1% in the machinery sector [15].

The level of innovativeness of small and medium enterprises, including the metal and machinery industries, is still rather low, which has a negative impact on building their innovation potential. Innovations affect the way small and medium enterprises operate at many levels related, on the one hand, to the volume of sales, market share, and on the other, to productivity and efficiency [1]. Innovation is understood as the
implementation of a new or significantly improved product (good or service), process, a new marketing method or a new organisational method in business practices, workplace organisation and external relations [2]. According to E. Jędrych, innovation is the process in which an economic organisation such as an enterprise “learns”, i.e. acquires information (innovations) from the environment and uses this information for its own benefit in order to ensure its own market continuity [3]. The ability to effectively introduce innovations in the SME sector companies determines their innovation potential which has a variety of definitions in literature. According to K. Poznańska [4], the innovation potential consists of the following key elements: (i) financial potential – internal financial resources as well as resources offered by various financial and non-financial institutions, (ii) human resources – number of employees and their qualifications and skills (iii) material potential – production structure (age and level of automation) and its market flexibility, (iv) knowledge (market information, technical knowledge). According to A. Żołnierski [5] and R. Sitkowska, the innovation potential is determined by the internal innovation potential of the company (personnel, R&D and the technologies used) as well as access to external sources of innovation (universities, R&D centres, regional and local authorities, competitors, suppliers, etc) [6].

Small and medium enterprises, including the ones from the metal and machine-building sector, face numerous obstacles that hinder the development of their innovative activity. These include: limited financial resources, reluctance to invest, constant reduction of state budget expenditure on R&D, impact of market factors, i.e. a decrease in demand for the offered products or services, adverse phenomenon of the reduction of knowledge transfer from Polish universities to the economy, limited access to knowledge, etc. [7].

2. FINANCING THE INNOVATION POTENTIAL OF SMALL AND MEDIUM ENTERPRISES FROM EU FUNDS

EU funds are an important source of financing for the innovative activity of small and medium enterprises in the metal and machinery industry. The National Cohesion Strategy sets out the main directions for support of operational programmes implemented in Poland in the years 2007-2013. Entrepreneurs carrying out innovative ventures mostly make use of the Innovative Economy Operational Programme (IE OP) and 16 Regional Operational Programmes (ROP). The main objective of the IE OP is the development of the Polish economy based on innovative enterprises. In the years 2007–2013, the total amount of 9 711 629 740 Euro was allocated to the implementation of this programme, of which the allocation from the European Regional Development Fund amounts to 8 254 885 280 Euro and the national contribution constitutes 1 456 744 462 Euro [12]. As of 2nd March 2012 there were 8830 contracts signed for the total amount of 30.10 billion PLN in the framework of the IE OP, which is approx. 75% of the funds allocated to finance the measures of this programme [12].

Small and medium enterprises that base their growth on the introduction of innovative solutions form the target group of beneficiaries that make use of almost all the priorities (excl. Priority 2) in the framework of several IE OP measures. These companies are given support preference due to the existing obstacles to growth that hinder their innovative activity. The measures financed in the framework of the following five priorities are particularly important for this group of enterprises [10], [11]:

- priority III- Capital for innovation, which aims to increase the number of enterprises that base their activities on innovative solutions and to improve access to external sources of funding for innovative ventures.
- priority IV- Investments in innovative undertakings, which aims to increase the level of innovativeness of enterprises through stimulating companies to use modern solutions.
- priority V- Diffusion of innovation, which aims to provide entrepreneurs with high quality services and infrastructure that serve to strengthen and exploit their innovation potential as well as to strengthen the competitive position of enterprises through the development of cooperative relations.
priority VI- *Polish economy on the international market*, which aims to improve the image of Poland as an attractive business partner and the localisation for making valuable trade contacts, investment placement and conducting business activity as well as the development of tourist services.

- priority VIII- *Information society*, which aims to increase innovativeness of the economy through stimulating the development of the electronic economy by supporting the creation of new, innovative e-services, innovative e-business solutions and by the reduction of technological, economic and mental obstacles to using e-services by the society.

The analysis of the selected measures of the Innovative Economy Operational Programme indicates that this programme is an important source of funding for the innovative activity of small and medium enterprises by supporting innovative projects on the national as well as international scale. The aid offered by the programme is addressed not only to entrepreneurs but also to networks of business environment institutions and business innovation centres such as technological parks or advanced technology centres, which should contribute to the creation of the system of support for SME innovativeness.

Regional Operational Programmes (ROP), which aim mainly at the growth and improvement of competitiveness in the given region, are also an important source of funds for the innovative activity of small and medium enterprises. As of 29th February 2012 [13] there were 24 539 contracts signed for all the ROPs, which is approx. 76% of the funds allocated to financing measures in the framework of these programmes.

The new strategic document of the European Union entitled *Europe 2020 – the EU strategy for smart, sustainable and inclusive growth* places emphasis on innovativeness support. One of the areas of the strategy “Smart Economic Growth” encompasses the following initiatives related to innovativeness [14]:

- *Innovation Union*, which aims to: use the R&D and innovative activity to solve social problems, strengthen each element of the innovation process, from initial research projects to commercialisation of their results.
- *Youth on the Move*, which aims to provide opportunities for students and interns to study abroad, prepare young people better to enter the job market, improve the performance and attractiveness of European universities as well as all education levels and training (high level of academic education, equal opportunities).
- *European Digital Agenda*, which aims to create a single digital market based on the fast and very fast Internet: by the year 2013 all citizens of Europe should have access to the broadband Internet.

The measures taken in the framework of these initiatives are going to free the European innovation potential, improve the results of the educational process, the quality and performance of educational institutions as well as allow to take advantage of economic and social opportunities provided by the digital society. They should be implemented at the regional, national and EU level.

3. **EU FUNDING SUPPORT FOR THE INNOVATION POTENTIAL OF SMALL AND MEDIUM ENTERPRISES IN THE METAL AND MACHINE-BUILDING SECTOR IN THE LIGHT OF THE AUTHORS’ RESEARCH**

The studies presented in this part of the paper [15] were conducted among the owners and managers of small and medium enterprises in the years 2009 – 2011 with the use of survey method in the form of direct interview. The study aimed to analyse and assess the determinants that affect the innovation development of the SME sector in Poland. Approx. 600 manufacturing companies situated in the following 6 voivodeships participated in the study: Łódź, Pomeranian, Masovian, Silesian, Greater Poland and Warmian-Masurian, of which 274 companies operated in the metal and machine-building sector. The presented results constitute part of the study which relates to the analysis of the support for the innovation potential of small and medium enterprises in the metal and machinery industry provided by the EU funds and the identification of the obstacles in the acquisition of funds by the companies from this sector. In terms of employment, the
breakdown in the surveyed group was as follows: 31.8% micro enterprises, 32.5% small enterprises and 35.7% medium enterprises.

One field of study is the analysis of the use of EU funds for the innovative activity of small and medium enterprises in the metal and machine-building sector in Poland in the years 2004-2006 and 2007-2013. The research confirms the fact that the propensity of companies to acquire EU funds is still low as only 29% of the surveyed companies made use of this aid, mostly in the form of the IE OP and regional programmes in the years 2007-2013 as well as the IRDP and the SOP ICE in the years 2004-2006 (Fig.1).

![Fig. 1](image1.png)

**Fig. 1** The level of participation in selected EU programmes by small and medium enterprises in the metal and machinery sector.

Source: Authors’ compilation

The reasons for a low level of EU funding exploitation can be seen in the assessment of the availability of these resources conducted by the respondents as more than 55% of the surveyed companies estimated availability of funds as difficult (Fig.2). It reflects many efforts made by the analysed entities to acquire EU funds and the restricted application conditions that are not always possible to meet, e.g. co-financing, particularly in the case of micro enterprises that have at their disposal limited financial resources.

![Fig. 2](image2.png)

**Fig. 2** Availability of EU funds for small and medium enterprises in the metal and machinery sector.

Source: Authors’ compilation.

The adjustment (adequacy) of the aid provided in the form of EU funds to the needs of entrepreneurs was also assessed as rather low by the surveyed companies. 68% of the respondents had a negative opinion concerning the degree of adequacy and 19% estimated this degree as low. This state of affairs results from the ill-matched support objectives, lack of flexibility of the financial instruments offered (they do not take into
consideration the current and future company needs) as well as from mistakes made at the level of the development of guidelines for this support. The surveyed companies also pointed to numerous barriers, external as well as internal, in the acquisition of EU funds (Fig. 3) occurring most often at the stage of project preparation. The most troublesome for the entrepreneurs are complicated application procedures, too bureaucratic administration system, high costs of funding acquisition and the lack of assistance on the part of public administration. Despite these obstacles, small and medium enterprises in the metal and machine-building industry increasingly often and more willingly make use of EU funds to finance their innovative activity. An important factor in this growth of interest in the EU aid is the increased knowledge and awareness on part of entrepreneurs that such funds are available as well as their conviction that this support is real, taking into consideration the more limited access of these companies to external capital from other sources, e.g. offered by banks. This fact is also confirmed by the presented research as almost 67% of the respondents plan to apply for more EU funds supporting the innovative activity in the future.

![Fig. 3 Obstacles to the acquisition of public aid by small and medium enterprises in the metal and machinery sector.](attachment:image)

Source: Authors’ compilation
4. CONCLUSION

The presented research allowed to formulate the conclusions concerning the role of EU funds in building the innovation potential of small and medium enterprises in the metal and machine-building sector. The study indicates that these companies increasingly often take advantage of EU funds to finance their innovative activity. They do not fully utilise, however, the offered aid due to numerous obstacles to its acquisition and its low adequacy to the needs of entrepreneurs. In order to improve the existing situation, it is important to streamline the information system concerning the availability of EU funds, to establish clear rules for the implementation of individual programmes addressed to small and medium enterprises as well as to define the criteria for granting support to entrepreneurs so that all companies should have equal opportunities of applying for these funds regardless of their size and financial standing.

REFERENCES

[15] Authors’ own research carried out in the framework of the research project “Polityka wspierania innowacyjności sektora małych i średnich przedsiębiorstw w Polsce - analiza uwarunkowań i ocena realizacji” (Support policy for innovativeness of the SME sector in Poland – determinant analysis and implementation assessment), 2008-2011, commissioned by the State Committee for Scientific Research.