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European Union Entrepreneurship and Innovativeness Support Policy for Businesses

Abstract

The development of entrepreneurship as well as research and innovation have direct impact on growth in the level of economic development as well as the prosperity of individual citizens and society in general. The primary goal of policies involving research and technological development is establishing the European Union as a leading knowledge–based economy. Innovativeness is also the main factor in improving the competitiveness of companies.

The key to improving the economic situation in Poland is the strengthening of innovative attitudes among entrepreneurs. An efficiently running institutional system guaranteeing effective support instruments for entrepreneurs and the scientific–research sphere as well as guaranteeing the unhindered transfer of knowledge should prove helpful.

As the main factor in improving the competitiveness of companies, innovativeness is mainly the result of the development of collaboration between the spheres of science and business as well as the use of patent achievements in companies.

The drive behind future growth in the European Union will be sectors based on knowledge and innovation. However, these require a solid industrial network and resources allowing the utilization of new technologies.

To a great extent, growth in entrepreneurship and innovativeness as significant factors in the economic development of Europe and Poland is

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dependent on the elimination of administrative barriers for companies and the introduction of the facilitating of information and communication (ICT) as needed for them to function.

1. Introduction

The development of entrepreneurship as well as research and innovation have direct impact on growth in the level of economic development as well as the prosperity of individual citizens and society in general. The primary goal of policies involving research and technological development is establishing the European Union as a leading knowledge–based economy. Innovativeness is also the main factor in improving the competitiveness of companies.

2. Policies Aimed at Small and Medium Enterprises (SMEs) and Their Internationalization and Growth in Competitiveness and Innovativeness

The SME sector provides employment for approximately 66% of professionally active people in the European Union. Its turnover accounts for approximately 55% of the turnover of all companies operating on the European Internal Market. On average, approximately two million new companies are established each year in the European Union, which creates approximately one million new jobs annually. Most of the newly registered companies are one–man operations. The dynamics of the creation of new companies exceeds that of the withdrawal from the market of small businesses by approximately 6%. Although the typical company in the European Union employs an average of six people, major companies, usually transnational corporations, have an average employment of 1,035 workers. However, companies employing less than ten workers are dominant on the Internal Market, which means that none–tenth may be ranked as micro–businesses. Of these, almost 50% are one–man companies in which only the company owner works. Companies consisting of only one worker make up approximately eight million Community businesses. The share of employment in small companies varies by individual Member States and ranges from almost 60% in Greece through approximately 48% in Italy and Spain, to just over 20% in Ireland, Finland, Luxembourg, and Germany.

Micro–businesses employing up to ten workers account for almost 90% of the total number of 19.4 million companies in the private sector registered in the

European Union. Companies of this size provide jobs for over 38 million people. The average micro–business employs two people. The smallest companies mainly dominate industries such as housing construction, the retail trade, and hotel as well as restaurant services[1]. Small companies employing from ten to forty–nine workers provide employment for approximately one–fifth of all people employed within the territory of the European Union. There are over one million small companies that employ an average of twenty workers. Companies of this size mainly dominate in metalworking, clothing manufacturing, the leather industry, and wholesale trading.

There are approximately 165,000 companies registered within the territory of the European Community that qualify as being medium–sized. They make up just under 1% of the total number of companies. They provide employment for over 15 million people, where the average medium–sized company employs approximately ninety people. Most of them are active in the manufacturing sector, with the exception of countries such as the Netherlands and Luxembourg, where they dominate in services.

Studies on newly registered companies have demonstrated that 80%–90% of them launch operations employing a maximum of one worker. Almost 80% of the newly started up economic entities continue to be in operation after one year. After three years 65% are still on the market, but only 50% after the elapse of five years. Moreover, attention has been called to a certain regularity: Companies employing at least one worker upon start up have significantly greater chances of survival as compared with those in which only the owner is involved. In line with characteristics culled from European Union statistics, the average entrepreneur establishing a company is thirty–five to forty years of age. Persons with a college education prefer commerce and services, while those with secondary or primary education establish manufacturing companies or render construction services. An owner's prior experience in the field of management has great significance for the potential success of the company.

A key task facing European Union policy with respect to the SME sector is assistance for companies in surviving significant competitive pressure on the European Internal Market and the guaranteeing of an opportunity for company development on the global market as well as in its taking advantage of opportunities and potential in connection with the globalization of the economy.

[1] Wysokińska Z. and Witkowska J., *Integracja Europejska. Europeizacja polityki ekonomiczno–społecznej i umiędzynarodowienie rynków* [European integration: The Europeanization of economic–social policy and the internationalization of markets], PWN, Warsaw, 2010, pp. 30–31.

3. Growth in the Competitiveness of the SME Sector

Growth in the competitiveness of SMEs is chiefly identified with an increase in the productivity of the resources they use. Businesses are competitive when they achieve sustained growth in labor productivity as well as in the whole range of production factors. This also allows them to lower the unit costs of their own production as well as influence other companies on a national and international level. Growth in productivity facilitates the financing of company plans for expansion. Citizens benefit from better and cheaper market products in the short term as well as increased employment in the medium term. This also makes it possible to achieve sustained growth in real salaries. As a result of achieving sustained growth in productivity (productivity on a macro scale), the standard of living in the country improves. Thus, the company plays a basic role in generating income and employment, and has a part in enduring and sustainable economic and social development.

Growth in productivity is dependent on several factors, primarily on ones such as innovation and investment in the information and communication technology sector (ICT) and in the development of human capital. Educated workers are the basis for growth in productivity. Human capital, especially in the technological sector, plays a role in the growth of productivity in both the accumulation of knowledge and in its dissemination. Knowledge and the ability to use it effectively are the key to a competitive company. It is purposeful to develop and implement actions that make sure the people of Europe are provided with sufficient knowledge, relevant strategies, and practical methods for accelerating education for all[2].

Thus, growth in productivity is both prerequisite for the improvement of the competitiveness of companies and the economy as a whole, and for the achievement by that economy of sustainable social and economic development[3].

4. The Industrial Competitiveness of the Enterprises of the European Union

Looking back at longer–term changes in the industrial structures of the Member States over the years 1999–2007, industries have followed different

[2] "Making a European Area of Lifelong Learning a Reality," Communication from the Commission to the European Parliament and the Council, COM (2001) 678 final, November 21, 2001.

[3] Council and the European Parliament, Commission of the European Communities, Brussels, May 21, 2002, p. 4.

paths towards higher technology or higher skills that tend to have higher productivity growth. Moreover, their prices have suffered less from global competition. For analytical purposes, the industrial structures of the Member States can be looked at on the basis of similarities in character and trade trends. However, this can still mask substantial differences within each group.

In the **first group** of countries, the industrial structure is dominated by technologically advanced sectors. A key development over this period was the specialization of this group in technology–driven industries and sectors with high innovation or high education intensity, which increased further. The countries in this group are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, the Netherlands, Sweden, and the United Kingdom. The value added contribution of industry varies from 10.6% in France to 24.2% in Ireland.

The **second group** includes countries with industry specialization in less technologically advanced sectors. This is in spite of the presence of some highly competitive industries. The prevalence of labor intensive industries, low innovation, and relatively low knowledge intensity leads to fewer high–growth companies, at least compared with the first group of countries. The countries in this group are Cyprus, Greece, Italy, Luxembourg, Portugal, and Spain, with industry value added varying from 6.5% in Luxembourg to 16.1% in Italy.

The **third group** consists of countries that are catching up in terms of GDP per capita, and whose trade specialization is in high–innovation intensity sectors and technology driven industries. They have achieved a structural change from labor–intensive industries towards technology–driven industries in both production and trade. The group consists of the Czech Republic, Hungary, Malta, **Poland**, Slovakia, and Slovenia, with industry value added between 13.3% and 23.6% of the total.

The **fourth group** of countries encompasses those that are catching up, but with trade specialization in technologically less advanced sectors. These countries resemble those of the second group with which they also share a trend towards sectors with higher educational intensity. However, a major difference is the much stronger than average presence of high–growth firms in this group and the large increase in industry and trade specialization in technology–driven industries. This group consists of Bulgaria, Estonia, Latvia, Lithuania, and Romania, with industry value added between 9.9% and 22.4%.

There are competitive industries and growing companies within each group of countries. It is necessary to move towards innovative, knowledge–based sectors and to take decisive actions to facilitate change by improving

product market regulation, support innovation, and invest in education and training throughout on a lifelong basis—all necessary to boost competitiveness[4].

5. Supporting the Improvement of SME Competitiveness on the European Internal Market

Awareness of a need to provide policies aimed at the development of SMEs in the European Community came about together with the coming into effect of the program for the building of the Internal Market. Bringing this program to life was both an opportunity and a threat to small and medium enterprises. The opportunities came about thanks to the elimination of barriers through the establishing of four basic freedoms and the potential to operate on a large market. Threats stemmed from the increased competitive pressure that small and medium enterprises were less capable meeting than major companies. The *Action Program for Small and Medium Sized Enterprises* was approved in 1986. This is seen as the start of policy aimed at SMEs[5]. The year 1989 saw the creation within the structures of the Commission of a new general directorate (XXIII) tasked with action aimed at small and medium enterprises. It is concerned with the development and implementation of multiannual action programs for SMEs. The Concentrated Action project was launched in 1995 and is an element of the Integrated Program for Small and Medium–Sized Enterprises and the Craft Sector. Over successive years, the Third Multiannual Program (1997–2000), which targeted the maximizing of the potential of SMEs in employment, growth, and competitiveness, introduced the following instruments and actions:

- Simplification and improved efficiency of action in the administrative and regulatory sphere,
- Improvement in the financial conditions for company operation,
- Assistance for small and medium enterprises in the process of internationalization of their action strategies (the development of information services),

[4] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Industrial Policy: Reinforcing Competitiveness, European Commission, Brussels, October 14, 2011; COM(2011) 642 final; pp.4–5.

[5] COM (86) 445 J. O. CE C287 of November 14, 1986, as cited in Enterprise Policy in the European Economic Community, Commission of the European Communities, Brussels, 1990, p. 3.

- Increasing the competitiveness of SMEs as well as improving access to the results of scientific research, innovative achievements, and training programs, and
- The promotion of entrepreneurship.

The year 1999 saw the appearance of the European Commission Report evaluating the preliminary results of integrated actions, indicating a need for their continuation. At its summit in Feira in June of 2000, the Council of Europe approved the *European Charter for Small Enterprises*. In it, it calls on Member States and the Commission to take action in support of small businesses[6]. It is the view of the Commission that this Charter is a pillar of European Union policy aimed at entrepreneurship and the core of national policies of the Member States with respect to enterprises[7]. The Council approved the Multiannual Program for Enterprise and Entrepreneurship in December of 2000. It is particularly aimed at small and medium enterprises and encompasses the years 2001–2005[8].

The Lisbon Strategy[9] raised the development of entrepreneurship based on deregulation, the elimination of administrative barriers and bureaucratic impediments, better access to capital and technology, and the creation of uniform rules of competition for companies active on the European Internal Market to the rank of a basic strategic instrument in the European Union up to the year 2010.

Companies in the European Union are offered a series of instruments supporting their competitiveness, including outside the European Internal Market. It is especially SMEs investing abroad, exporting and importing, operating within the framework of the "network of company ties" being created at home and abroad, as well as institutions making up the business environment that provide specialized information and inexpensive services for companies operating abroad that can benefit from financial assistance and support programs[10].

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[6] The European Charter for Small Enterprises, www.europa.eu.int

[7] OECD Small and Medium Enterprise Outlook, OECD, Paris, 2002, p. 222.

[8] More on this topic in Z. Wysokińska and J. Witkowska, *Integracja Europejska. Dostosowania w Polsce w dziedzinie polityk* [European integration: Adaptation in Poland in the area of policies], PWE, Warsaw, 2004.

[9] Lisbon Strategy, http://europa.eu.int/comm/lisbon_strategy/intro_en.html

[10] Summary Report: The Public Debate following the Green Paper "Entrepreneurship in Europe," Commission of the European Communities, Brussels, October 19, 2003, www.europa.eu.int

Benchmarking—a program for comparisons among companies—has become the core of activities aimed at developing good examples (Best Practice) supporting the operations of SMEs. The experience of many countries demonstrates that the effect of disseminating benchmarking is not only an improvement in the condition of companies implementing various techniques intended to improve productivity, but also the overall improvement in productivity on a scale encompassing the entire national economy. Acquiring data for comparative purposes is very difficult, however. This is an area occupied by specialized consulting companies that have their own databases to which they provide access for a fee as a part of their advisory services.

The Lisbon Strategy of 2000 gave new impetus to policies aimed at companies. A new strategic goal for the European Union—intent on becoming the most competitive and dynamic economy of the world economy, knowledge based, capable of enduring and sustainable development, with a greater number of better jobs as well as greater social cohesion—has been formulated. The achievement of a so–formulated strategic goal is not possible without the creation of conditions fostering the development of companies, including small and medium enterprises.

European Union policy with respect to companies is addressed to the whole of the business environment. Its overall objectives are[11]:

- Promoting entrepreneurship and encouraging innovation,
- Strengthening commercial and regulatory conditions fostering the development of business and innovation,
- Eliminating administrative barriers for companies,
- Strengthening company competitiveness in a knowledge–based economy as well as improving the financial environment for business,
- Promoting collaboration among companies and the guaranteeing of support for business as well as services for business,
- Improving market access and the utilization by companies of the potential of the Internal Market as well as possibilities for operations on third party country markets, and
- Promoting better utilization of provided services.

The European Union applies a whole series of instruments in order to achieve these aims. The center of gravity is being shifted from direct action to new ways of coordinating national policies and new initiatives in the realm of support for enterprises as well as measurements of their impact. Member States

[11] Towards Enterprise Europe: Work Program for Enterprise Policy 2000–2005, Activities of the European Union, www.europa.eu.int

are encouraged to exchange their experiences, to mutually learn from each other, and to disseminate best practice. Procedures such as the Business Environment Simplification Task Force (BEST) are used in conjunction with prior actions and incorporate benchmarking, seminars, conferences, and policy overviews. These procedures are supported by statistical work, research, and analyses. Together, they are to help the European Union and Member States to adapt their policies aimed at companies to meet the requirements of the European Internal Market.

6. The European Strategy for Scientific Research and Innovation in the Field of Information and Communication Technology in the Perspective Period up to the Year 2020

The European Commission commenced public consultations in search of a better strategy for strengthening the role of Europe in scientific research and innovation in the field of information and communication technologies (ICT) over the upcoming ten years. The opinions of representatives of the sector, experts in the field of ICT, political decision–makers, and the public at large shall be taken into account in the new strategy on scientific research and innovation in the field of ICT, which shall be presented next year. The goal of the strategy is to make it possible for the European ICT sector, especially small and medium enterprises, to take up a leading position in the race aimed at guaranteeing worldwide competitiveness. Information and communication technologies are the driving force behind innovation and development in the world economy. It is for this reason that Europe is interested in attracting investment in scientific research and the development of these technologies as well as the best scientists and ideas. It is also facing challenges in the realm of energy, health, and the aging of society, which can only be met by applying solutions in the area of information and communication technologies. The launching of consultations is a first step in the development of an integrated strategy for scientific research and innovation in the ICT sector. Europe's poor results, especially in terms of level and intensity of investment in research and innovation, where the world's developed economies devote 33% of their research and innovation on information and communication technologies, while the figure for Europe is less than 25%, is primarily caused by its significant fragmentation. Moreover, the European Union accounts for 32% of the world's ICT market, but European companies have captured only 22% of that world

market[12]. Thus, investment in information and communication technologies is of prime importance in increasing the innovativeness of companies, economic growth, improvement in competitiveness, curbing administrative formalities, and the creation of new jobs.

In certain fields, especially those where ICT brings with its major social benefits, structural barriers may make entering the market of solutions utilizing revolutionary technologies impossible. Such barriers must be eliminated on regional, national, and European Union levels. It is for this reason that the Commission is implementing programs supporting the utilization of the innovative gains of information and communication technologies by small and large European companies.

The goal of the program for support of this technology (ICT PSP, 2007–2013), whose budget amounts to EUR 728 million, is the support of innovation and competitiveness through the dissemination of the most effective use of ICT by citizens, state administration, and companies. It is an element of a broader framework program of the European Commission in the area of competitiveness and innovation—the Competitiveness and Innovation Framework Program 2007–2013 (CIP).

The ICT PSP is based on the experience of an earlier program—e–TEN—which was concluded in 2006. e–TEN was a program supporting the development of electronic trans–European services in the public interest. The program was aimed at accelerating the undertaking of services intended to make permanent the European social model for the achievement of greater social and economic cohesiveness. This program encompassed six topics—e–Government, e–Health, e–Inclusion, e–Education, Services for SMEs, and Trust and Security.

The e–Contentplus (2005–2008), whose budget amounted to EUR 149 million, is intended to eliminate organizational barriers and promote the use of novel technical solutions in order to raise the level of accessibility of digital content in the multi–lingual environment. The program is a continuation of the e–Content program. It is primarily applied to specific market areas where progress is slow—i.e. the public sector (in its geographical layout), with respect to the educational sector, and the creation of electronic libraries with cultural, scientific, and academic input[13].

Competitiveness and Innovation Framework Program (CIP)

Research on the relation between competitiveness and innovation indicates the key role of innovation in sustaining competitiveness. Of prime

[12]http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1287&format=HTML&aged=0&language=PL&guiLanguage=en

[13] http://ec.europa.eu/information_society/tl/research/innov/index_pl.htm

importance in this case is technological competitiveness, but so is the capacity to compete in the distribution of goods[14].

The Competitiveness and Innovation Framework Program (CIP) supports innovative activities (including environmental innovation) and guarantees better access to financing and business support in the regions while using information and communication technologies as well as creating better possibilities for the building of a communication society. It is also aimed at promoting growth in renewable energy and energy efficiency.

CIP Operational Programs

- The Entrepreneurship and Innovation Program (EIP),
- The Information Communication Technologies Policy Support Program (ICT–PSP), and
- The Intelligent Energy Europe Program (IEE)[15].

The CIP budget for the years 2007–2013 amounts to EUR 3.621 billion. The program has been divided into three operational sub–programs where each one has its specific tasks aimed at improved company competitiveness and the building of their ability for innovations in various areas, especially including information and communication technologies (ICT) and sustainable energy. The budget is subdivided as follows: 60% of the budget is earmarked for the Entrepreneurship and Innovation Program (EIP), of which 20% is allocated for the promotion of environmental innovation. The Information Communication Technologies Policy Support Program and Intelligent Energy Europe Program are assigned 20% each out of the budget.

The Entrepreneurship and Innovation Program (EIP)

The Entrepreneurship and Innovation Program (EIP) supports small and medium enterprises (SMEs) in the European Union in the area of:

- Access to financing in various phases of company activity that target investment, technological development, environmental investment, technology transfer, and company transnational activities,
- Business services rendered by the Enterprise Europe Network in the area of support for company competitiveness,
- Improvement in innovation policy involving support for the building of networks of various market participants and commercial partners, and incorporating innovative practices such as benchmarking and best practice,

[14] More in Wysokińska Z., *Konkurencyjność w międzynarodowym i globalnym handlu technologiami* [Competitiveness in international and global technology trading], PWN, Warsaw, 2001, I and II.

[15] http://ec.europa.eu/cip/index_en.htm

- Environmental innovation involving support for pilot projects and projects targeting the market for testing conditions for innovative products, processes, and services that are not fully marketable due to high risk, but are aimed at significant effects in improving the state of the environment and the prevention of pollution, and play a role in the better use of natural resources, and
- Support for innovation and policies targeting SMEs through contracts and grants (including analytical work, expert reports, and research into defined sectors of industry) as well as recommendations for policies with respect to SMEs in order to achieve increased cooperation among European Union Member States[16].

The Information and Communication Technologies Policy Support Program (ICT–PSP)

The objectives of this program are primarily aimed at pilot schemes for companies, especially for SMEs[17], taking into account innovative ICT technologies directed at overcoming the absence of interoperability and market fragmentation, especially in such sectors as:

- ICT for "health," the "aging of society," and for inclusion,
- Digital libraries,
- ICT for improving public services,
- ICT for energy efficiency and the mobility of intelligence and knowledge, and
- Multi–lingual Web pages and the evolution of the Internet.

There is also a striving to monitor the Information Society through benchmarking, analyses, and improving awareness.

The Intelligent Energy Europe Program (IEE)

The objective of this program is to support projects aimed at research into climate change as well as procure energy and improve energy efficiency. This program supports concrete projects, initiatives, and best practice within the framework of annual competitions.

Examples of projects financed within the framework of this program are:

- Training in the field of new construction technologies that can provide up to 50% in energy savings as compared with conventional building construction,
- Improved effectiveness of support plans for electrical networks built on the basis of renewable energy sources in Europe, and

[16] http://ec.europa.eu/cip/eip/index_en.htm

[17] http://ec.europa.eu/cip/ict-psp/index_en.htm

- Support for cities in Europe in developing a more energy–efficient and clean transportation system[18].

The Competitiveness and Innovation Framework Program (CIP) is tied with other European Union programs and initiatives in the field of research, education, cohesion, environment, and training. This is especially true of the 7th Framework Program for Research and Technological Development(FP7–RTD).

7. Support for Innovativeness and Increased Competitiveness in Programs for Reforming Higher Education in Europe

The European Commission announced the year 2009 the European Year of Creativity and Innovation in order to call attention to the two most importance factors playing a role in increasing the long–term competitiveness of the European economy[19].

The locomotive behind future growth in the European Union shall be sectors based on knowledge and innovation that require a solid industrial network and resources allowing for the utilization of new technologies.

This means that it is vital to decrease the distance between the academic community and the world of business so that good ideas developed in laboratories can be reborn as world–class products.

The European Institute of Innovation and Technology is playing a role in this by creating "communities of knowledge and innovation"—strongly integrated public–private networks for collaboration among universities, research organizations, and companies, regardless of size.

European Union Strategic Documents Identifying Directions of Reform in Europe's Colleges

The Bologna Process initiated a new phase in internationalizing higher education in Europe through a clear establishing of tasks related to the need for structural reform in this sector, especially the reform of curricula and an improvement in the quality of education[20].

[18] http://ec.europa.eu/cip/iee/index_en.htm

[19] http://www.create2009.europa.eu/

[20] Internationalization of European Higher Education: An EUA/ACA Handbook, RAABE – Dr. Josef RaabeVerlag, 2009, pp. 18–19.

Reform of the Management of Colleges in Europe

Reform of higher education in Europe, which boasts over 4,000 colleges teaching approximately 20 million students and employing 1.5 million staff[21], is based on three main pillars:

- **Curricula reform** within the framework of a three–level system—i.e. Bachelor's (engineering), Master's, and Doctoral level studies as stemming from the Bologna Process, with greater flexibility in possibilities to choose an educational path, recognition of diplomas, and greater mobility of students and academic teachers.
- **College management reform** based on the autonomy of universities, strategic partnership, including aimed at greater collaboration with companies, and the evaluation of the quality of education with the purpose of improving it, while simultaneously increasing the openness of universities throughout Europe to students from other countries—European as well as countries in other regions of the world.
- **Financial reform** aimed at seeking out diverse sources for attracting funding targeting improvement in competitiveness and efficiency, and stronger links between revenues and effects, including revenues from tuition, entry fees, grants, and loans.

One of the basic instruments for implementing the objective of the reform of higher education in the European Union is the Lifelong Learning Program (LLP)[22]. The European Union has designated approximately EUR 7 billion for actions making possible learning throughout the whole of life. Primarily, it will be the implementation of the following programs that will make this possible:

- **Leonardo da Vinci:** Professional training, especially internship programs for young staff members and trainers with companies outside their home country and projects involving collaboration between institutions providing professional training and companies.
- **Erasmus**: Student mobility and collaboration among universities. From the start of its operations (1987), a total of 1.5 million students have participated in the Erasmus program. Furthermore, within the framework of the recently created **Erasmus Mundus** program, post–graduate students and scientific staff from the whole world can receive a Master's degree through studies organized by a syndicate of at least three European universities. The

[21] http://ec.europa.eu/education/lifelong-learning-policy/doc62_en.htm

[22] http://eacea.ec.europa.eu/llp/index_en.php

Tempus program is aimed at developing cooperation with neighboring countries in order to develop strong cooperation with the European Union.

There are successive program providing resources. **Grundtvig** finances educational projects catering to adults, especially in the area of international partnership, networks of cooperation, and the mobility of students and staff. **Comenius**, for its part, provides funds for collaboration among schools and the teachers working in them.

Financial resources have also been earmarked for the support of cooperation in the area of molding educational policy as well as for the study of foreign languages, e–learning, and the dissemination and exchange of best practice.

The reform of curricula is intended to adapt them to the needs of the modern world, taking into account the needs of economic practice, including companies striving to increase their international competitiveness, where colleges should also have their significant share (Bache 2006, p. 234).

Colleges fill a triple role. They serve as centers for both teaching on the highest level and for advanced research, as well as breakthrough innovation. They are a key element of the knowledge triangle in Europe. They have the potential to be the main driving force for realizing Europe's ambition of becoming a world scale economic leader and a society based on knowledge. This is taken into account in the shaping of European Union policy as of the summit at Hampton Court in October of 2005. However, at the same time, the implementation of this potential clearly requires the conducting of certain changes. The Communication from the Commission "Delivering on the Modernization Agenda for Universities – Education, Research and Innovation" of May of 2006 identifies nine recommendations, presented below, to accelerate the building of universities based on knowledge:

- Boost the proportion of students spending at least one semester abroad or in industry,
- Allow students to make use of loans and grants for study or do research,
- Bring procedures for the recognition of academic qualifications in line with diplomas and make European degrees more easily recognized outside Europe,
- Introduce training in intellectual property management, communication, networking, entrepreneurship and teamwork as part of a research career,
- Refocus courses and programs to allow greater participation at later stages of the life–cycle, thereby addressing the skill needs of Europe's workforce, and ensuring that universities are able to adapt to Europe's ageing population,

- Review national student tuition and support schemes so that the best students can participate in higher education and further research careers whatever their economic status,
- Review systems for funding universities so they are more focused on outputs and give universities more responsibility for their own long–term financial sustainability, particularly in research,
- Allow universities greater autonomy and accountability, so that they can respond quickly to change, which could include revising curricula to adapt to new developments, the building closer links among disciplines, and focusing on overall research areas domains (e.g. renewable energy, nanotechnology) rather than disciplines,
- Include more autonomy at individual institution level for choosing teaching and research staff[23].

A successive step aimed at indicating the need for the development of collaboration between colleges and business was the organizing by the European Commission of the University–Business Forum—European platforms for dialogue between the higher education and business communities. The first meeting of the Forum took place in February of 2008. Its continuation was the organization during that same year of three thematic workshop sessions. The second plenary meeting of the Forum in February of 2009 gathered together over 400 participants. In addition to workshops covering the individual topics it included a summing up of conclusions and a discussion on possible directions of the work of the Forum in the future, especially on the adapting of new curricula to meet the needs of the labor market as well as improving academic entrepreneurship of students and staff[24]. It also stressed that representatives of people studying, companies, and society as a whole should be present in accreditation agencies[25]. In an effort to provide training in increasing entrepreneurship, colleges should involve business—e.g. by creating visiting professor positions for prominent entrepreneurs. Professors and teachers should

[23] http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/592&format=HTML&aged=0&language=EN&guiLanguage=fr; also compare with Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "A New Partnership for the Modernization of Universities: The EU Forum for University Business Dialogue," COM(2009) 158 final, April 2, 2009.

[24] Ibid., pp. 3–4.

[25] Ibid., pp. 4–5.

simultaneously have access to training in teaching in entrepreneurship and an opening up to the business world[26].

The European Commission announced the year 2009 the European Year of Creativity and Innovation in order to call attention to the two most importance factors playing a role in increasing the long–term competitiveness of the European economy[27].

The locomotive behind future growth in the European Union shall be sectors based on knowledge and innovation that require a solid industrial network and resources allowing for the utilization of new technologies.

This means that it is vital to decrease the distance between the academic community and the world of business so that good ideas developed in laboratories can be reborn as world–class products.

The European Institute of Innovation and Technology is playing a role in this by creating "communities of knowledge and innovation"—strongly integrated public–private networks for collaboration among universities, research organizations, and companies, regardless of size.

Assistance for Small Enterprises

Although most people associate the term *company* with an international corporation, the fact is that almost all companies in the European Union (92%) are small companies employing less than ten people.

It is obvious that it is this kind of company that guarantees two–thirds of all jobs in the European Union and is deserving of special attention on the part of European Union programs and funds supporting companies such as:

- The program in the field of competitiveness and innovation with a budget of EUR 3.6 billion for the years 2007–2013, which is primarily designated for the rational utilization of energy, renewable energy sources, and information and communication technologies.
- The FP7, the main European Union program for financing scientific research (implemented by collected and companies) with a budget amounting to EUR 7 billion per annum[28].

The goal of such action is the promotion of entrepreneurship and raising qualifications, improving the access of SMEs to markets, and facilitating the development of their capacity in the area of research and innovation.

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[26] See paragraph 2 and 3 of the working document of Commission service staff, the "Global Entrepreneurship Monitor Report 2007," which demonstrates that the entrepreneurship indicator for China is two to five time greater than for the countries of the European Union.

[27] http://www.create2009.europa.eu/

[28] http://cordis.europa.eu/fp7/home_pl.html

Small companies that need information and advice can find them through the Enterprise Europe Network. It consists of approximately 500 information centers throughout the European Union that are partially financed out of European Union resources. The European Union is striving to curb formalities required in taking care of business matters.

The European Commission is planning to oversee an appropriate balance between the need for regulations (thanks to which markets will stay open and consumers, the environment, workers, etc. will be protected) and restrictions that stem from them for businesses. For the moment, this balance has been disrupted. This is why the European Commission is planning to curb administrative burdens by one–quarter by the year 2012[29].

8. Entrepreneurship and Innovativeness Support Policy in Poland

Compared with other European countries, Poland is one of the least innovative economies. Poland has been ranked as a moderate innovator in the European Union table of results in the area of research and innovation in 2012. Specifically, it is characterized by a relatively low share of innovative companies as well as business outlay on research and development. In terms of share of graduates majoring in the sciences and technology, Poland is average for the European Union[30].

Overall, Polish companies rarely base their business strategies on innovation in spite of the fact that the level of investment in innovation is growing. Instead, they tend to concentrate on short–term investments in new machines and equipment. In part, this is caused by low absorptive capacity and a lack of any long–term vision among entrepreneurs, especially in the SME sector. This situation is also the result of frequent changes and uncertainty as to the legal framework working to dissuade companies from a more strategic approach to planning.

Recently, Poland has conducted comprehensive reforms in the scientific and higher learning sector. The objective was to stimulate research and innovation as well as to improve the functioning of the system of higher

[29] http://europa.eu/pol/enter/index_pl.htm

[30] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Industrial Policy: Reinforcing Competitiveness, European Commission, Brussels, October 14, 2011, COM(2011) 642 final, pp. 4–5.; compare also Overview of Competitiveness in 27 Member States, MEMO/11/702; Brussels, October 14, 2011, pp. 1–3.

learning. Reform of the scientific sector involved the introduction of more competitive principles for financing research and the decentralization of implementation of scientific policy through the establishing of the National Science Center (NCN), which is involved in basic research, and the National Center for Research and Development (NCBiR), which is responsible for applied research and collaboration with industry. Pursuant to the reform, priority research areas are defined by the National Research Program (NPB) and strategic programs for scientific research. Priority research projects and programs are to be chosen applying technological foresight, aimed at identifying growth potential in the industry and services sector as well as key technologies for the future. The first strategic research programs and projects that scientific units and entrepreneurs are engaged in involve technologies for capturing and storing carbon dioxide and nuclear technologies. Research aimed at promoting the intelligent specialization of regions has also been undertaken, but it seems that strict coordination is essential in order to guarantee a more realistic and cohesive planning of scientific policy on the local level.

The main goals of the National Reform Program (KPR) up to the year 2012 is the creation in Poland of the best conditions in Europe for the conducting of economic activity, while simultaneously guaranteeing possibilities for development and a high living standard for inhabitants.

Reforms within the framework of the National Reform Program are conducted in three priority areas:

- An active society – Implementation of the National Reform Program is to bring about an improvement in the quality of education and adapt education to the needs of the economy, better prepare graduates to enter the labor market, and develop lifelong education. Significant stress was placed on actions supporting professional activity, including that of people aged over fifty.
- An innovative economy – Growth in innovativeness will have a significant impact on long–term economic growth. The program aims at improving the competitiveness of scientific entities as well as support for pro–innovation activities and the research and development (R&D) sector. Reforms are also to serve the effective improvement of transportation, industry, and tele–information infrastructure, applying new innovative solutions in environmental protection and the conclusion of main privatization processes.
- Efficient institutions – The effective use of public resources (without placing additional burdens on citizens and entrepreneurs) shall make possible the efficient implementation of pro–development policy and public investment, while guaranteeing a proper level of social security. The program aims at the development of electronic administration, improvement in the management

of public finance, further decentralization of public tasks, and the promotion of the Polish economy.

The basic principle behind the planned reforms is sustainable development in terms of the economy, society, and the environment as well as better lawmaking, support for entrepreneurship, the development of innovativeness, and influence over the small and medium enterprise (SME) sector. The following factors were taken into account in developing the draft program:

- Globalization processes increasing competitive pressure on the economy, entrepreneurs, and citizens,
- Demographic factors, mainly including the aging of society, and the related need to modify the model for professional activity and migration, and
- Challenges in the area of eliminating the negative effects of Man's impact on the environment[31].

According to the Report of the Ministry of the Economy[32], almost 300,000 entities commence economic activity in Poland in 2007. Over 96% of these are private companies. The tendency to start up one's own business is continuously increasing in Poland, which is demonstrated by the report developed by the Ministry of the Economy.

The Report proves that the development of entrepreneurship has a positive impact on economic growth and the labor market. Last year's GDP grew by 6.6% as compared with the previous year. According to experts from the Ministry of the Economy, this was a reflection of the very good condition of Polish companies. The financial result of companies employing over nine people surpassed a gross amount of PLN 127 billion. This is an increase of 26% as compared with 2006. Companies also noted the highest rate of profitability in ten years. The improving financial situation of companies also bore fruit in a high, 5% growth in employment as well as a record growth in investment of 27%.

In line with the Report, revenues from company operation exceeded PLN 2 billion in 2007. Private companies generated a total of 86% of this figure, with the remainder coming from companies of the public sector.

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[31] Krajowy Program Reform na lata 2008–2011 [National Reform Program for the Years 2008–2011], www.mg.gov.pl, economics section.

[32] Przedsiębiorczość w Polsce 2008 [Entrepreneurship in Poland 2008], report of the Ministry of the Economy, September 10, 2008 version, http://www.mg.gov.pl/NR/ rdonlyres/7121FF59-AE29-456D-A96D-DE64F089444A/48017/Przedsiebiorczość_w_ Polsce1.pdf

Moreover, investment outlay by companies employing over nine workers increased in 2007 by 27% to a level of PLN 126 billion. From among all enterprises, it was the major companies that invested the most. They account for 64% of completed investment ventures. The participation of medium–sized companies in such outlay was one–quarter, while the figure for small companies was 11%.

The value of exports in 2007 exceeded EUR 100 billion. Polish businesses sold goods on European Union markets for over EUR 80 billion. At the same time the value of imports amounted to EUR 77.3 billion. The goods structure in foreign trade also changed to the benefit of a greater share of goods on a high or medium high technological level.

In spite of a certain improvement in the level of innovativeness in Polish companies, analysts from the Ministry of the Economy continue to deem this progress as insufficient. This is seen in the continuously low share of outlay on research and development in GDP. In 2006 it amounted to 0.56%. A positive signal was the nominal growth by almost 6% of outlay on research and development[33].

Thus, the key to improving the economic situation of Poland is a strengthening of innovative attitudes among entrepreneurs. An efficient institutional system guaranteeing effective support instruments for business and the scientific–research sphere as well as guaranteeing the unhindered transfer of knowledge may be helpful in this[34].

Instruments Providing Direct Financial Support for Entrepreneurs in Research and Investment in Poland

- Innovation vouchers,
- Loans for the undertaking of investment projects of an innovative character,
- Technological Initiative I[35],
- Support for research and specifically targeted projects aimed at companies and the implementation of research and development work in companies,
- Stimulation of research and development activities in companies and support in the area of industrial design,

[33] Ibid.

[34] Ibid.

[35] Technological Initiative I is an initiative of the Minister of Science and Higher Education aimed at the development of new products and technologies based on Polish scientific and technical achievements. The novel element of this program is that it is addressed to entrepreneurs, especially to those managing small– and medium–sized companies as well as to those research teams that are directly linked to industrial activity.

- Technology Credit,
- New investments with high innovative potential,
- Investment support in the production sector,
- Investment support in the modern services sector,
- Support for the development of cooperative links of supra–regional importance,
- Intellectual property management,
- Support for economic activity in the area of the electronic commerce,
- Support for the implementation of B2B electronic commerce,
- Guaranteeing Internet access on the "last mile" phase of the Innovative Economy Operational Program (PO IG) 2007–2013, and
- Support in procuring product certification as required on foreign markets[36].

9. Conclusion and recommendation for Poland

The key to improving the economic situation in Poland is the strengthening of innovative attitudes among entrepreneurs. An efficiently running institutional system guaranteeing effective support instruments for entrepreneurs and the scientific–research sphere as well as guaranteeing the unhindered transfer of knowledge should prove helpful.

As the main factor in improving the competitiveness of companies, innovativeness is mainly the result of the development of collaboration between the spheres of science and business as well as the use of patent achievements in companies.

The drive behind future growth in the European Union will be sectors based on knowledge and innovation. However, these require a solid industrial network and resources allowing the utilization of new technologies.

To a great extent, growth in entrepreneurship and innovativeness as significant factors in the economic development of Europe and Poland is dependent on the elimination of administrative barriers for companies and the introduction of the facilitating of information and communication (ICT) as needed for them to function.

[36] http://www.mg.gov.pl/NR/exeres/6FD36BE7-5ABB-4DDF-8B9299A91DA51814,frameless.htm?NRMODE=Published

References

Bache J. (2006), *The Europeanization of Higher Education: Markets, Politics or Learning*? 'Journal of Common Market Studies,' Volume 44, Number 2

COM (86) 445 J. O. CE C287 of November 14, 1986, as cited in Enterprise Policy in the European Economic Community, Commission of the European Communities, Brussels, 1990

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Industrial Policy: Reinforcing Competitiveness, European Commission, Brussels, October 14, 2011; COM(2011) 642 final; pp.4–5

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Industrial Policy: Reinforcing Competitiveness, European Commission, Brussels, October 14, 2011, COM(2011) 642 final, pp. 4–5.; compare also Overview of Competitiveness in 27 Member States, MEMO/11/702; Brussels, October 14, 2011

Council and the European Parliament, Commission of the European Communities, Brussels, May 21, 2002

Global Entrepreneurship Monitor Report 2007, European Commission, Brussels, 2007

http://cordis.europa.eu/fp7/home_pl.html

http://eacea.ec.europa.eu/llp/index_en.php

http://ec.europa.eu/cip/eip/index_en.htm

http://ec.europa.eu/cip/ict-psp/index_en.htm

http://ec.europa.eu/cip/iee/index_en.htm

http://ec.europa.eu/cip/index_en.htm

http://ec.europa.eu/education/lifelong-learning-policy/doc62_en.htm

http://ec.europa.eu/information_society/tl/research/innov/index_pl.htm

http://europa.eu/pol/enter/index_pl.htm

http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/592&format=HTML&aged=0&language=EN&guiLanguage=fr; also compare with Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "A New Partnership for the Modernization of Universities: The EU Forum for University Business Dialogue," COM(2009) 158 final, April 2, 2009

http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/1287&format=HTML&aged=0&language=PL&guiLanguage=en

http://www.create2009.europa.eu/

http://www.create2009.europa.eu/

http://www.mg.gov.pl/NR/exeres/6FD36BE7-5ABB-4DDF-8B9299A91DA51814,frameless.htm?NRMODE=Published

Internationalization of European Higher Education: An EUA/ACA Handbook, RAABE – Dr. Josef RaabeVerlag, 2009

Krajowy Program Reform na lata 2008–2011 [National Reform Program for the Years 2008–2011], www.mg.gov.pl, economics section.

Lisbon Strategy, http://europa.eu.int/comm/lisbon_strategy/intro_en.html

Making a European Area of Lifelong Learning a Reality, Communication from the Commission to the European Parliament and the Council, COM (2001) 678 final, November 21, 2001

OECD Small and Medium Enterprise Outlook, OECD, Paris, 2002

Przedsiębiorczość w Polsce 2008 [Entrepreneurship in Poland 2008], report of the Ministry of the Economy, September 10, 2008 version, http://www.mg.gov.pl/NR/ rdonlyres/7121FF59-AE29-456D-A96D-DE64F089444A/48017/Przedsiebiorczość_w_ Polsce1.pdf

Summary Report: The Public Debate following the Green Paper "Entrepreneurship in Europe," Commission of the European Communities, Brussels, October 19, 2003, www.europa.eu.int

Technological Initiative I is an initiative of the Minister of Science and Higher Education aimed at the development of new products and technologies based on Polish scientific and technical achievements. The novel element of this program is that it is addressed to entrepreneurs, especially to those managing small– and medium–sized companies as well as to those research teams that are directly linked to industrial activity

The European Charter for Small Enterprises, www.europa.eu.int

Towards Enterprise Europe: Work Program for Enterprise Policy 2000–2005, Activities of the European Union, www.europa.eu.int

Witkowska J., Wysokińska Z. (2005), *Internationalization of small and medium sized enterprises and the European integration process -Umiędzynarodowienie małych i średnich przedsiębiorstw a procesy Integracji Europejskiej. Aspekty teoretyczne i empiryczne*, Wyd. Uniwersytet Łódzki, Łódź

Wysokińska Z. (2001), *Konkurencyjność w międzynarodowym i globalnym handlu technologiami* [Competitiveness in international and global technology trading], PWN, Warsaw, I and II

Wysokińska Z., Witkowska J. (2004), *Integracja Europejska. Dostosowania w Polsce w dziedzinie polityk [European integration: Adaptation in Poland in the area of policies*], PWE, Warsaw

Wysokinska Z., Witkowska J. (2004), *Innowacyjność małych i średnich przedsiębiorstw w procesie integracji europejskiej*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź

Streszczenie

POLITYKA UNII EUROPEJSKIEJ WSPIERANIA PRZEDSIĘBIORCZOŚCI I INNOWACYJNOŚCINA RZECZ PRZEDSIĘBIORSTW

Rozwój przedsiębiorczości oraz badania i innowacje bezpośrednio przyczyniają się do wzrostu poziomu rozwoju gospodarczego oraz dobrobytu poszczególnych obywateli i ogółu społeczeństwa. Głównym celem polityki w zakresie badań i rozwoju technologicznego jest ustanowienie Unii Europejskiej jako wiodącej gospodarki opartej na wiedzy. Innowacyjność jest też głównym czynnikiem poprawy konkurencyjności przedsiębiorstw.

Kluczowe dla poprawy sytuacji gospodarczej w Polsce jest wzmocnienie postaw innowacyjnych wśród przedsiębiorców. Pomóc może w tym sprawnie działający system instytucjonalny, który zapewni efektywne instrumenty wsparcia dla przedsiębiorców i sfery naukowo-badawczej oraz zagwarantuje swobodny transfer wiedzy.

Innowacyjność jako główny czynnik poprawy konkurencyjności przedsiębiorstw wynika głównie z rozwoju współpracy między sferą nauki i biznesu oraz z wykorzystywania osiągnięć patentowych w firmach.

Motorem przyszłego wzrostu w UE będą sektory oparte na wiedzy i innowacjach, wymagające jednak solidnej sieci przemysłowej i środków pozwalających na wykorzystanie nowych technologii.

Wzrost przedsiębiorczości i innowacyjności jako istotnych czynników rozwoju gospodarczego w Europie i w Polsce zależą w dużym stopniu od znoszenia barier administracyjnych dla przedsiębiorstw i wprowadzania ułatwień informacyjnych i komunikacyjnych (ICT) dla ich funkcjonowania.