

ACADEMIC ENTREPRENEURSHIP INCUBATORS NETWORK IN POLAND

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Abstract

Academic Entrepreneurship Incubators are one of the important tools in national strategy of innovation. They provide knowledge, know-how and technology transfer from academic society to market environment. Enabling scientists and students to commercialize their ideas, they supply the market with new technologies. AEI Foundation is the largest network in Europe, gathering more than 40 academic incubators on Polish universities. It provides innovative entrepreneurs with commercial services, such as accounting, legal consultancy, marketing consultancy etc. It also serves as a knowledge and experience source offering access to laboratories, databases and technology experts. Incubating companies are protected against the negative market forces and are able to concentrate on most important factors influencing a success of a startup company: choosing the right idea, hiring right people, building partnership with investors, and finding financing sources or managing the organization. Country policy provides different programs supporting such innovation-friendly ideas as AEIs. Programs could be divided on process driven or activity driven. Process driven programs try to build legal and administrative background to strengthen innovative policy application, while activity driven programs focus on popularization of the entrepreneurship idea and encouraging both scientist and entrepreneurs to involve in technology transfer and commercialization of scientific ideas. Although the process of introducing innovative concepts to the market is very important, there are still various barriers disrupting development of Academic Entrepreneurship Incubators and in effect influencing emergency of knowledge-based companies. The most important obstacles are mentality and organization structures of universities, emigration of educated young people, problems with estimating value of new products, blurred laws regarding ownership of intellectual values and asymmetry of information between buyer and seller.

Keywords:

Academic Entrepreneurship Incubators, Innovation, Technology transfer, Knowledge society.

Introduction

Knowledge became one of the most important factors in economy of 21st century. While access to natural resources and unqualified workforce is limited, contemporary strategies focus on networking and knowledge exchange. Polish membership in European Union and Lisbon Strategy give to the centers of innovation and entrepreneurship new tasks to fulfill. Competitiveness of the region depends on its ability to combine creatively business resources and development of business friendly market environment. Universities, centers of technology transfer, entrepreneurship incubators and companies play special role in this task. One of the most important activities among that supporting innovative economy policy in Poland is Academic

Entrepreneurship Incubators network. AEI is the largest network of academic incubators in Europe that offers proinnovative services. The network is involved in social and business projects, both of regional and national scope. More than 31 incubators on universities in Poland were created. They offer services supporting start-up companies: accounting services, investment financing for the companies, legal help and consultancy in marketing and technology.

The objective of this paper is to show an overall concept standing behind AEI, and to try to evaluate main problems influencing AEI activities in Poland.

Definition of academic entrepreneurship incubator

Academic entrepreneurship incubator (AEI) is a specific type of entrepreneurship incubator

developed in early 90s. It provides a possibility to verify theoretical knowledge for students that finish higher education and help them to start up their own companies. This type of incubators is an initiative of an academic organization that supports both students and academic staff in market activities¹⁰.

Apart from typical functions AEIs promote business education and commercialization of new products and technologies. Commercialization of technology is understood as all activities involved in transfer of technological or organizational knowledge to market practice. Commercialization of technology can be described as a process of supplying the market with new technologies. It includes all forms of innovation diffusion and technical education¹¹.

The possible development is granted due to access to¹²:

- academic laboratories and research equipment,
- consultancy in areas of technology and intellectual property rights,
- knowledge and experience of scientific staff in various areas,
- databases containing the data on researchers, innovators, ideas, technologies, prototypes etc.

Narrow definition of AEIs considers rather their functions than their potential activities. From this point of view incubator should focus on the preincubation phase of the companies. Its main objective should be defined as laying a solid base for potential businesses. Therefore its competencies should focus on activities such as:

- business promotion,
- training,
- consultancy,
- analyses of market potential.

The most important resource of AEI is human capital, that more than any other factor influences its success. This fact allows academic incubators to function even without vast infrastructure.

Success factors of academic entrepreneurship

Consulting company Cambridge Consultants¹³ prepared a report in which it described basic factors that influence rate of success of enterprises that are

an effect of academic entrepreneurship.¹⁴ The list consists of five elements:

- way of choosing the enterprise,
- human resource management,
- partnership,
- managing financial reserves,
- management.

The process of choosing the idea for an enterprise should involve both experts in area of chosen technology and market professionals. The stress should be laid on innovative ideas. An important aspect is to be aware of what potential customers would need.

HR Management means that incubating company that should hire the best possible specialist and engage them in the process of enterprise development.

Creating partnership with investors is a vital part in starting a company. Good understanding of partner's objectives can effect in mutual profits.

Unless the product is accepted by the market, starting company should try to cut the cost as much as possible, in order to prepare reserves for intensifying market efforts on later stages, after the product launch and market testing.

Professional management at last can provide company with elasticity to market environment and specifics of the enterprise and commercializing innovation. Well managed company plays a role of intermediary – it connects technology changes with market and capital¹⁵.

Development of AIEs in Poland

A first attempt of setting up academic incubator in Poland was made in 1998 at Warsaw University. Its Center of Technology Transfer launched first program of preincubation of business ideas for university students¹⁶. Program gained attention not sooner than in 2004, when Ministry of Economy and Labor started a challenge called "Academic Entrepreneurship Incubators". Year later, in September 2005, 30 initiatives were recognized. Currently, Operational Program "Innovative Economy 2007-2013" developed by the Ministry of Economy and Ministry of Science and Higher Education, co-financed by European funds, focuses on seven priorities: research and development of new technologies, R&D infrastructure, capital for innovation, investments in innovative activities, innovation diffusion, Polish economy on international markets and building and development of information society.

¹⁰ *Akademyckie Inkubatory Przedsiębiorczości* Stowarzyszenie Organizatorów Ośrodków Innowacji i Przedsiębiorczości w Polsce http://www.sooipp.org.pl/pliki/osrodki/inkubatory_opis.pdf, p. 1

¹¹ Matusiak K.B., *Innowacje i transfer technologii – słownik pojęć*, PARP, Warszawa, 2005, p. 87

¹² Lavelle J., Matusiak K.B., Krukowski K., Mażewska M., Zasiadły K., *Inkubator Przedsiębiorczości*, MPiPS, MBOiR, Warszawa 1997, p. 46

¹³ http://www.cambridgeconsultants.com/mc_spokespeople.shtml#

¹⁴ *Jak w Europie przechodzi się od pomysłu do produktu?* newsletter Cordis Focus, nr 276 - march 2007, p.18

¹⁵ Wissema J.G., *Technostartery – dlaczego i jak?*, PARP, Warszawa 2005, p. 11

¹⁶ Stawska A. E., *Student z pomysłem* [in:] „Sprawy Nauki“ Nr 2 (97) / 2004, p. 28

Instruments planned in Innovative Economy Program serve the objectives of renewed Lisbon Strategy. To fulfill the priorities, strategy will offer various incentives for innovativeness and technology transfer.

Exceptional role in academic entrepreneurship plays PARP – Polish Agency for Enterprise Development¹⁷. It operates in 5 main areas:

- cooperation with academic society and central authorities,
- conducting researches and preparing analyses and reports,
- supporting entrepreneurship among students and academics,
- providing current information in form of internet website, discussion forums and databases,
- organizing seminars and conferences promoting innovativeness, cooperation and technology transfer.

Currently in Poland exists more than 40 academic entrepreneurship incubators. Existing AEIs can be grouped in three categories¹⁸:

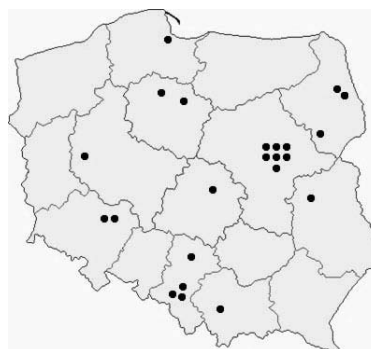
- 1) AIE founded by Business Centre Club Students Forum and Academic Entrepreneurship Incubators Foundation. They are hosted by public and private universities all over Poland and are parts of Academic Entrepreneurship Incubators Foundation, with headquarters in Warsaw. They offer services in accounting, management and law. Entrepreneur can use office equipment in the process of business development. Incubated company is acquired during quizzes and individual interviews with students, which have business ideas. Because an incubated company can become a part of the foundation, beginning entrepreneur does not have to bear the costs of registering and taxes. The incubation period lasts up to 3 years, depending on the maturity of the business. After leaving the incubator, a company is obliged to share the profits with AIE for the time as long as the incubation process.
- 2) Academic Technology Incubators based on University Centers of Technology Transfer. Such AIP usually is a self-standing project and is a complementary support for a wider program of innovation support and technology transfer. Entrepreneurs are selected for their innovativeness and are offered consultancy and training, help in technology trans-

fer, databases access, international knowledge networks, venture capital and other sources of financing¹⁹.

- 3) AEI based on students' organizations activities and academic offices of career management.

Academic Entrepreneurship Incubators Foundation is the largest part of AEI network in Poland. Network consists of 25 incubators. It hosts companies, which operate in one of 6 categories: education, trade, IT, healthcare, services, and production.

Academic Entrepreneurship Incubators Foundation in Poland



Source: own study

The number of the companies registered in foundation's database reaches 451²⁰. In cooperation with Business Centre Club the Foundation helps to find business partners for companies hosted by AEI. The most promising ideas developed by incubating companies are promoted to capital funds and often find investors.

Foundation is self-financing. Only 4% of funds are of public origin. In 2007 as a first organization of a sort, AEI was audited and given quality certificate ISO 9001:2000.

Academic Technology Incubators in Poland



Source: own study

¹⁷ <http://www.pi.gov.pl/default.aspx?docId=1481&mId1=332>

¹⁸ Zasiadły K., Guliński J., *Inkubator przedsiębiorczości akademickiej – Podręcznik dla organizatorów i pracowników*, SOOIPP, Poznań 2005, s. 34

¹⁹ Dzierżanowski M., Szultka S., Tamowicz P., Wojnicka E., *Analiza stanu i kierunku rozwoju parków naukowo-technologicznych, inkubatorów technologicznych i centrów transferu technologii w Polsce*, PARP, Warszawa 2005, s. 50

²⁰ <http://www.inkubatory.pl>

Current initiatives promoting academic entrepreneurship and cooperation of business and science organizations in Poland

There are 3 main initiatives that promote academic entrepreneurship in Poland. Program Innovator of Foundation for Polish Science is directed to young researchers and focuses on transfer of research outcomes to business entities. Two main areas of the program are education in marketing and entrepreneurship and support, including financing, for innovative projects on early stage of their commercialization²¹. Another project, called "Technological fishing-rod" is supporting commercialization of research findings, as well as acquiring and utilizing funds from 7th Frame Program²².

From the initiative of Foundation of Polish Rectors is being created "Code of Partnership Between Science and Economy"²³. In the first stage works focus on regulations regarding flawless transfer of scientific research outcomes and other intellectual achievements to commercial entities.

Academy of Innovation and Venture Capital is an example of program educating entrepreneurs in innovation activities and cooperation with science society²⁴. It offers training for small and medium entrepreneurs that wish to develop innovative projects, particularly advanced technologically or have the ideas and lack the market knowledge or funds. Vital element of the program is concentration on the possible cooperation with scientific centers and using their potential and research findings.

Legal environment influencing AEs in Poland

Formal background for development of entrepreneurship support institution in Poland was formed on the ground of political system change in 1989. First organizations of a kind were founded independently in different regions of the country in 1990. Although first academic incubator was set up in 1998, only in 2006 "Act on higher education" regulated rules of support of entrepreneurship initiatives by academic organizations²⁵. It states that university can cooperate with economic organizations on the ground of²⁶:

- both commercial and non-commercial transfer of research outcomes,
- spreading the idea of entrepreneurship in academic society,
- organizing market activities that are separated financially and structurally.

Universities are encouraged to²⁷:

- support business activities of academic staff and students as well as other non-academic entities in form of academic incubators, that can be formed as a university unit, trade corporation or foundation,
- create centers of technology transfer that support knowledge exchange between university and market environment.

Relevant regulations regard activities of academic staff²⁸. Academic teacher:

- can be employed at the same time on regular post only by one employer,
- should inform rector of the university about performed commercial activities in 7 days from the beginning of the activity,
- can be relegated if employed on the different post without acknowledgment of the rector.

There are also additional acts influencing entrepreneurship potential of universities. These are:

- "Rules of science financing"²⁹,
- "Act about forms of support of chosen innovation activities"³⁰.

Above acts focus on taxation of research and development activities, purchasing knowledge and its qualification in the cost structure, lowering the tax rates for those organizations that purchase or develop new technologies.

The latter aims to increase competitiveness and innovativeness of the economy using different tools³¹:

- new financial instrument – technology loan,
- admitting entrepreneurs the status of research and development center,
- changes in tax regulations,
- enhancing competencies of Polish Agency for Enterprise Development (PARP).

Last of the tools has direct influence on academic incubators. New competencies of PARP encompass supervising and coordinating National Innovation Network and supporting activities of institutions

²¹ See: http://www.sgh.waw.pl/ogolnouczeniaw/fundusze_europejskie/wnioski_zlozone/2_6_ZPORR_TW

²² Zdolińska A., *Wędką technologiczną*, Nauka w Polsce, http://www.eduskrypt.pl/wedka_tehnologiczna_ma_wylowic_najtlustsze_kaski_z_naukowych_pracowni-info-1678.html

²³ <http://www.frp.org.pl/kodeks.htm>

²⁴ <http://www.vc.eucp.pl/>

²⁵ Dz. U. 2006 Nr 46 poz. 328 - Zm.: ustawa - Prawo o szkolnictwie wyższym

²⁶ Ibidem, Art. 4/7

²⁷ Ibidem, Art. 86

²⁸ Ibidem, Art. 109/129

²⁹ Dz. U. 2004 Nr 238 poz. 2390 - Zasady finansowania nauki

³⁰ Dz. U. 2005 Nr 179, poz. 1484 - Ustawa o niektórych formach wspierania działalności innowacyjnej

³¹ <http://www.mg.gov.pl/GOSPODARKA/>

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operating for development of innovativeness of entrepreneurship and economy, such as technology transfer centers, technology parks, entrepreneurship incubators and other.

Barriers of development of AEs in Poland

Barriers of expanding academic entrepreneurship are mostly the effect of previous political system, that were limiting business activities, emigration of young, educated people that search careers abroad and structures and mentality of universities. One of the solutions could be changes in education programs and adopting them to European Qualification Frames. Other solutions involve bringing academic society toward open markets with focus hold on entrepreneurship education and market competencies development.

Academic Entrepreneurship Incubators being active on the market of intellectual property do not have simple paths of expansion. Problems with estimating value of new products, formal description of the market, ownership of intellectual values and asymmetry of information between buyer and seller influence negatively entrepreneurs. Only 20% of university's licenses find practical application and its value is low, because of high market risk³². There is still a need for broker companies that would help in development of partnerships between science and commerce.

Another problematic issue is ideas being developed in incubators, mainly by students or former students. It's hard to disagree that the majority of the concepts are of a low value and focus on offering products such as commercial SMS services or various entertainment. Entrepreneurship in incubators rarely involves technology transfer even if it can be supported by national and regional programs of innovation policy.

Conclusions

Academic entrepreneurship and Academic Entrepreneurship Incubators network in Poland is significant to the development of an academic system, entrepreneurship behavior and country competitiveness. Building knowledge based economy should be carried by both business and scientific organizations with the support of authorities. The better relations between academic centers and business environment, the more effective transfer of technology from innovators to industry will be. Although spin off or spin out companies or individual initiatives of the academic society members are not the answer for all

global problems such as unemployment or finding financing for education, their value for society and role in economy is evident.

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³² Dąbrowski M., *Przedsiębiorczość akademicka*, e-mentor 3/2006

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Received in March, 2008; accepted in April,
2008.

DOI: 10.5755/j01.eis.1.2.25804