

# Chapter 12

## The Effectiveness of Stimulating Innovativeness in Poland through Science and Technology Parks

**Ewa Minska-Struzik**

*Poznan University of Economics, Poland*

**Szymon Truskolaski**

*Poznan University of Economics, Poland*

### ABSTRACT

*The aim of the chapter is to examine the effectiveness of S&T parks after five years of the Polish presence in the EU. The results of the empirical research, presented in the chapter, show that the effectiveness of enhancing innovativeness is hardly satisfactory. For instance, from 2007-2009 almost 400 incumbents of 25 existing Science and Technology parks in Poland were only able to claim 18 patents. The main drawbacks of Polish S&T parks are: 1) specialization mostly comprising general ICTs, which, as the authors argue, is too broad; 2) insufficient research equipment; 3) the lack of co-operation with R&D institutions other than universities; 4) focusing on fulfilling the EU funds' criteria as to provide the exact number of jobs created or to rent a particular office space. It is also important to note that 53% of incubators and S&T parks' income originates from European funds—in the near future, new methods of raising income must be developed by these institutions or they will cease to exist. These policy issues are relevant not only for Poland but for any economy contemplating active government involvement in R&D.*

### INTRODUCTION

In a globalizing knowledge-based economy, the basic factors of competitiveness are the ability to learn, to accumulate experience, and to innovate. Political decision makers who are aware of this

search for effective manners of stimulating these above mentioned determinants, but at the same time they realize that the vital factor is the support offered to interaction in the innovation process. Innovation is in fact a dynamic social process, in which the relationships between the representatives of each stage of knowledge creation play the key role. Institutionally the innovation process is

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embodied in the network of co-operating companies, research centers, and business-related institutions. The state strives to develop and maintain the high quality of interaction by providing adequate culture and infrastructure for innovativeness, the development of which involves more and more frequently science and technology parks (S&T parks).

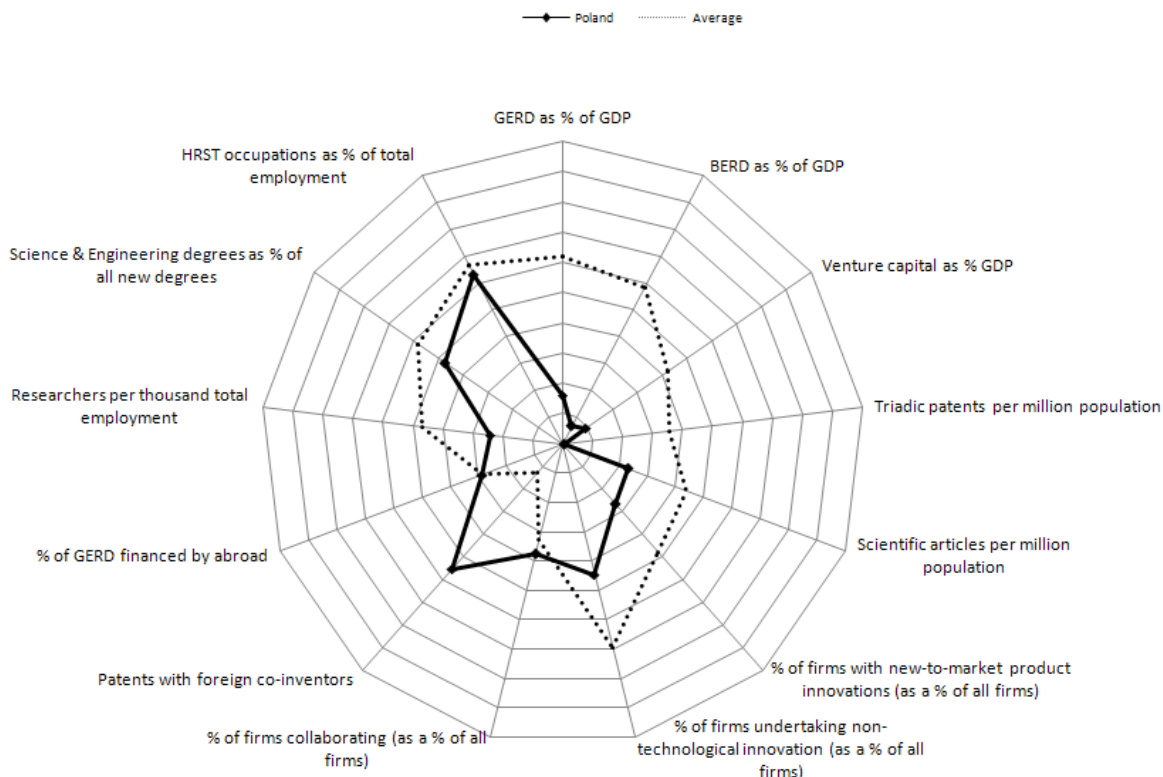
The purpose of this chapter is to assess the operations of S&T parks in Poland after the EU accession. After the review of theoretical literature on the subject and the results of empirical research on the operation of parks outside Poland, we present the general description of Polish parks and the results of our own study of the selected group of Polish parks, which apart from boosting entrepreneurship, have also begun to display the first results of stimulating innovativeness.

## BACKGROUND

With the regard to innovativeness, Poland, as well as most of Central European countries, belongs to medium advanced group of countries. Knowledge Economy Index developed by World Bank places Poland in 37th position (between Slovak Republic and Greece)<sup>1</sup>. More complex assessment run by OECD reveals poor innovativeness performance of Poland in comparison to OECD countries. It is shown in Figure 1.

Poland's Gross Expenditure on R&D (GERD) was 0.6% of GDP in 2008, being the fourth lowest in the OECD area in terms of per capita values (USD 104 in current PPP). Industry financed 31% of GERD and the government funded a hefty 60%. The business enterprise sector performed 31% of GERD, the higher education sector 34% and

*Figure 1. Science and innovation profile of Poland and OECD (average) in 2008. Source: OECD Science, Technology, and Industry Outlook (2010)*



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