

SWOT ANALYSIS OF THE MACEDONIAN INNOVATION SYSTEM AND POLICY

**Slavica Rocheska; Marjan Angeleski
Olivera Kostoska; Gjorgji Mancheski
Faculty of Economics – Prilep, Macedonia**

Introduction 1/2

- ❑ Development of science, technology and innovation in the Republic of Macedonia is to be a basic precondition aimed at fostering the economic growth, competitiveness and employment.
- ❑ Macroeconomic indicators clearly point towards an unfavorable structural performance of the Macedonian economy, among the others, due to the insufficient investment to encourage the technological development and innovations.
- ❑ The country accounts for an extremely low figures of gross domestic expenditure on R&D (GERD). Thus, funds allocated on R&D have recorded a decreasing tendency for the period 2000-2008 (0,44% and 0,23%, respectively). **Moreover, GERD accounted for merely 0,20% of GDP in 2009 and this certainly placed the country at the bottom of the European list.**

Introduction 2/2

- ❑ The business sector in Macedonia is generally composed of small and medium enterprises that account for more than 98% of totals and absorb the above 53% of the total number of employees.
- ❑ Nevertheless, SMEs exhibit a limited ability to finance the research activities and develop their own technology base (the funds allocated to research and development in 2007 accounted for merely 0,04% of GDP – BERD).
- ❑ Industry-academia relations are very weak, the research activities are being much fragmented, while the market-oriented research is rather unusual.
- ❑ One of the basic assumptions to overcome such a situation is the possibility to create the strategic platform that will clearly define the directions of innovation development and implementation of policies aimed at strengthening the innovation capabilities of the economy as a whole.

Strengths

- ❑ Educated and relatively cheap labor force
- ❑ Willingness of the academic institutions to closely cooperate with the business community
- ❑ Increased Government initiatives and willingness to support innovation
- ❑ Good ICT infrastructure in the country
- ❑ Open economy stimulating trade and FDI

Weaknesses 1/2

- Insufficient coordination of STI policy makers and lack of institutions networking
- Supply-side oriented innovation policies
- Innovation culture is rather low
- No national innovation strategy
- Low awareness level and lack of interest about the protection of intellectual properties
- Low expenditures in R&D

Weaknesses 2/2

- Lack of educational contents and programs aimed at promoting quality, creativity and innovations
- Inadequate skills and competences of the employees
- Deficient structural mobility of the researchers
- Deficient commercialization of the research results
- Lack of the project sustainability related to innovation after implementing the program activities
- Rules and regulations are frequently changed
- Outdated technology in many industries and persistent technological lag

Opportunities 1/2

- Approximation of the national legislation to the EU law
- Possibilities to support innovations by different international programmes and instruments
- Adoption of a national innovation strategy
- Rising awareness for innovation development and creating innovation culture
- Improving the financial instruments to support R&D

Opportunities 2/2

- ❑ Rising skills and competences owing to reforms in educational process
- ❑ Increasing the cooperation between the business and academic community
- ❑ Pro-active policy for attracting FDI
- ❑ Exploring the possibilities of open innovation
- ❑ Policy learning from more advanced countries

Threats

- ❑ Prolonging the accession to the EU
- ❑ Brain Drain
- ❑ Consequences of the global economic crisis
- ❑ Political issues in the region

Conclusions

- ❑ It is more than necessary for the Macedonian economy to build its developing prospects upon the promotion of knowledge and innovations.
- ❑ During the last few years, the Government has captured a proactive approach to promote the science, technology and innovation. The policy incorporates a number of measures having a dispersive range. Yet, the problems persist in the lack of an integrated approach and insufficient coordination while implementing the measures.
- ❑ The new strategic framework is supposed to encourage the policies that will provide for efficient mobilization of the resources available and setting up partnerships and links among all the relevant stakeholders so as to properly implementing the concept of innovation.
- ❑ Taking into consideration the level of the country's development and the relatively modest financial resources, the policy makers are required to incorporate a mix of measures and instruments with the emphasis not only on radical innovations, but primarily to develop the absorptive capacities of domestic companies, attract more FDI, stimulate the entrepreneurship and encourage the incremental improvements in the business processes.