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DIRECTORATE-GENERAL FOR RESEARCH & INNOVATION

Directorate A - Policy Development and Coordination
A.4 - Analysis and monitoring of national research policies

References to
Research and Innovation
in the European Semester Country Report 2016

Slovakia

Introduction

This document is a compilation of the Research and Innovation (R&I) references extracted from the European Semester Country Report 2016. It offers a quick overview of the analysis done by the European Commission on the reforms undertaken by the country in research and innovation and the progress made towards the Europe 2020 target on R&D.

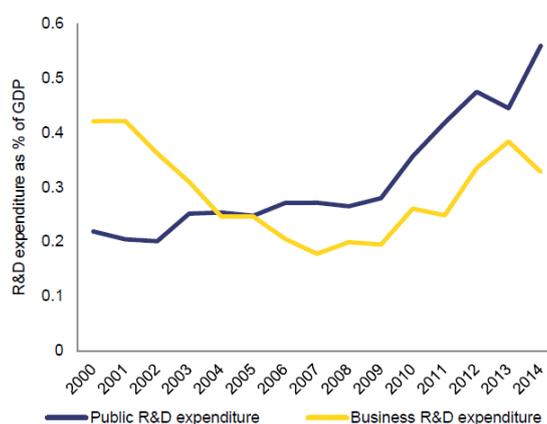
References to research and innovation

1.1. Research and innovation

A stronger capacity to innovate can facilitate Slovakia's move up the value chain. Slovakia ranks well below the EU average in terms of innovation performance, a key determinant of growth potential. Research & development (R&D) is hampered by low public and private resources, a fragmented policy framework and inefficient public spending. Expenditure on R&D has gradually increased in recent years, albeit from a very low level, and is highly reliant on EU funds¹. Total R&D intensity rose to 0.89 % of GDP in 2014, almost double the level of 2008. This ratio, however, remains well below the EU average of 2 % (2014). The increase in public R&D expenditure has been more pronounced than that of the private sector (Graph 2.6.3), mainly due to the support received from EU Funds. Fifteen EU-funded strategic projects to create university parks and research centres were almost completed in 2015 and will help to fill the gap in R&D infrastructure.

The innovation policy framework is highly fragmented. Cooperation between competent ministries is not optimal, and strategic quality control for R&D projects is encumbered by eight different government agencies being responsible for supporting R&D and innovation. The fragmented administrative framework and the lack of coordination and thematic concentration may partly explain the low levels of research performance² and the low participation of domestic firms in R&D.

Graph 2.6.4: Public and private R&D expenditure in Slovakia (% of GDP)



Source: European Commission

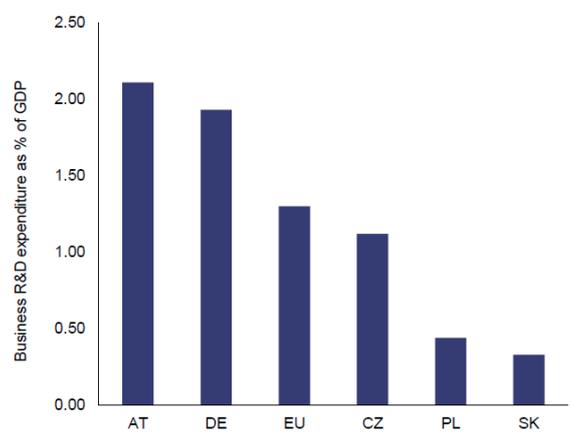
Private R&D spending is comparatively low, which partly reflects Slovakia's business model. Private expenditure on R&D in the business sector was 0.33 % of GDP in 2014, compared to an EU average of 1.3 % of GDP (Graph 2.6.4). The Slovak economy is

¹ This refers to project finance only, the institutional finance is provided by the Slovak Government.

² This performance is reflected in indicators such as the proportion of Slovak scientific articles among the 10 % most-cited articles worldwide. This share reached 4.4 % in 2010, which is well below the EU average of 11.4 %. Slovakia ranks in 23rd place among EU Member States according to this indicator.

characterised by a high share of manufacturing output, which is usually R&D-intensive. However, low expenditure on R&D by the business sector reflects the fact that the manufacturing sector is dominated by a few large multinational companies, which tend to import most of their technology. Slovakia has so far not succeeded in attracting a sizeable volume of R&D investment from these companies. Furthermore, the overall share of high-tech products in exports remains relatively low compared to Slovakia's main competitors, even if the share has been increasing in recent years. There is only a very low number of Slovak SMEs innovating in-house (15 % in Slovakia against 28.7 % in the EU), and few of them collaborate with others (6.7 % in Slovakia against 10.3 % in EU)³.

Graph 2.6.5: Private R&D expenditure in selected Member States in 2014 (% of GDP)



Source: European Commission

Policy efforts to bolster private R&D are underway. A law introducing tax deductions (25 %) for private companies investing in R&D entered into force in January 2015. An assessment will be available in March 2016 but discussion is already taking place to raise the ceiling. In addition, in June 2015 the government approved a 'concept paper' on support for start-ups and the development of the start-up 'ecosystem'.

Implementation of research and innovation framework initiatives is slow. There have been significant delays in implementing the complex strategic framework for research and innovation⁴, which proposes a better governance structure, a set of policy measures and areas of specialisation. An action plan to implement this strategy is still pending, delaying effective implementation of some measures under the Operational programme Research and Innovation (2014-2020). The foreseen transformation of numerous funding agencies has been slow. The Research Agency and the Technology Agency were created in 2015 through transformation of two existing institutions. The planned transformation of the Slovak Academy of Sciences from a state organisation into a public research institution to facilitate cooperation with the business sector has been postponed to 2016.

A low level of cooperation between academia and industry hinders the commercialisation of research outputs. However, the innovation vouchers system, launched in 2013, has shown some promise. In 2015, under the third call, 70 applicants received financial support totalling EUR 365 000. While the country has implemented a number of additional policy measures to stimulate knowledge transfers, these have mainly been focused on physical infrastructure. There has been less emphasis on improving framework conditions to create incentives for, and reward academics engaging in, cooperation with industry, or on

³ Innovation Union Scoreboard 2015.

⁴ Research and Innovation Strategy for Smart Specialisation for the Slovak Republic was adopted in November 2013 with the objective to stimulate a structural change in Slovakia towards a growth based on increasing ability and excellence in research and innovation.

providing support for the creation and development of spin-off companies. A National Office for Technology Transfer was established and will now work more intensively with offices located within universities. So far, researchers are predominantly evaluated on their publication record and teaching achievements, with the commercialisation of research outputs playing little role in their career advancement.