References to

Research and Innovation

in the European Semester Country Report 2017

Romania
Introduction

This document is a compilation of the Research and Innovation (R&I) references extracted from the European Semester Country Report 2017. 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 (R&I)

**Structural shortcomings in the R&I system are holding back its growth contribution.** Structural challenges to R&I remain unchanged (European Commission, 2016a). These include insufficient funding, institutional fragmentation, low quality of the public science base, and weak public-private collaboration. In 2015, the European Innovation Scoreboard (European Commission, 2016j) placed Romania in the lowest country category (‘modest innovator’), with scores well below the EU average on all dimensions and indicators (Graph 3.5.1). The lack of dynamism in R&I has implications for long-term competitiveness and growth prospects.

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<th>Graph 3.5.1: Innovation performance of EU Member States in 2015</th>
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<td><img src="image" alt="Innovation performance of EU Member States in 2015" /></td>
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<td><strong>Source:</strong> European Commission EIS2016</td>
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**R&D intensity improved but the lack of investment impedes R&I capacities take-off.** Although R&D intensity (¹) improved in 2015 (Graph 3.5.2), Romania still has one of the lowest levels among EU Member States. Out of the total 2014-2020 structural funds allocated only 3.4 % were allocated for R&I, far from the EU average of 10.6 % for the same period. The 2016 budget provided for a slight increase in public R&D expenditure up to 0.29 % of GDP, largely insufficient to reach the 1 % of GDP target of public investments in R&D (²) by 2020.

**Recently adopted measures to stimulate business investment have yet to gain traction.** In 2015, less than 200 business entities applied for the 50 % supplementary corporate tax deduction for R&D expenditure, even fewer than the 223 entities in 2014. Despite the slight increase in business R&D intensity in 2015, at 0.21 % of GDP it is still one of the lowest in

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(¹) Research and development (R&D) is the statistical proxy for expenditure in the R&I system (Eurostat). Intensity is measured as R&D expenditure in percent of GDP.

(²) Romania's Europe 2020 target is 2 % of GDP investments in R&D, with 1 % from the public sector and 1 % from the private sector.
the EU. To stimulate business R&D activities, the government introduced in August 2016 an exemption from paying the salary income tax for all R&D activities. Also, to stimulate the activity of computer programmes development, a measure of payroll taxes exemption was set up and is in place starting with 2017, for employees in start-ups with main activity in this area.

Graph 3.5.2: Evolution of business R&D intensity and public R&D intensity in Romania, 2000-2015

Source: European Commission

**Pervasive bottlenecks obstruct SMEs’ investment in innovation.** SMEs have a low level of innovation and knowledge flows between public R&D and the business sector (Graph 3.5.3) are weak, as borne out by Romania ranking at the bottom of the 'Linkages & Entrepreneurship' dimension of the Scoreboard (†). Red tape, poor infrastructure and the low level of entrepreneurial education hamper innovative entrepreneurship and the development and growth of technological start-ups.

Graph 3.5.3: Quality of scientific output and public R&D investment levels

Source: European Commission

† It covers performance indicators on SMEs innovating inhouse, innovative SMEs collaborating with others and public-private scientific co-publications.
Key steps have been undertaken to improve governance and reduce fragmentation. Developing and implementing effective smart specialisation strategies requires: (i) building on the strengths of clusters of entrepreneurial knowledge and resources, and (ii) involving all regional and national players. In this context, the establishment of the National Council for Science, Technology and Innovation Policy (4) may be an important step towards improving the still weak coordination between the national and the regional levels in a coherent innovation system. High fragmentation in public research performance, with more than 150 public institutions undertaking R&D, and inefficient technological transfer policy remain issues to be tackled.

The government is taking steps to improve the R&I environment. Under 'specific support' provided under the European Commission's Horizon 2020 Policy Support Facility (5) recommendations began to be drawn up in 2016 to create an environment conducive to the growth of technological start-ups. In September 2016, the European Investment Fund and the Romanian Ministry of European Funds launched a EUR 59.3 million (6) Competitiveness fund-of-funds to finance SMEs via several financial intermediaries.

1.2 Additional references to R&I

[3.4.4 Business environment, p.30]

Administrative procedures for business and the public are being simplified. During 2016 the Government adopted several emergency ordinances to simplify administrative procedures and facilitate relations between citizens and the public administration. This new legislation streamlines the process of submitting forms and promotes widespread use of email. In addition, in January 2017 the new government passed measures in support of entrepreneurship and simplification such as an increase of the threshold for micro-enterprises, an exemption of profit tax for R&D companies, and the elimination of 102 fees and duties.

[3.3.4 Education and skills, p.24]

A high share of students do not possess an adequate level of basic skills. The 2015 OECD Programme for International Student Assessment (PISA) found high levels of low achievement in basic skills (Graph 3.3.4). More than half of students from the lower socio-economic quarter are underachievers, indicating that socio-economic status has a large impact on student performance. Underachievement is also high in all other socio-economic quarters and the share of top performers in science is low. This risks hindering the country’s future innovation potential and affect its long-term competitiveness. Efforts were made to revise the curricula towards competence-based learning, but results will take a long time to become visible (7).

(4) The National RDI Strategy 2014-2020, provides for the creation of a consultative body responsible for coordination and harmonization of R&I policy, under the coordination of the prime-minister
(6) Funded by the European Regional Development Fund.
(7) Following the revision of the curricula for primary education (grades 1-4), a new curriculum for grades 5-8 is set to be phased in from September 2017. Plans to reform the curricula for high-school education have been delayed.