JRC SCIENCE FOR POLICY REPORT

RIO Country Report 2017:
Romania

Research and Innovation Observatory country report series

Chioncel, M.F.

Del Rio, J.C.

2018

Joint
Research
Centre

Executive Summary

Romania maintained a relatively stable macroeconomic situation, low inflation and external deficits despite the political instability. The real GDP growth accelerated in 2017, expanding by 5.8% in the first half of the year, driven by private consumption, tax cuts, increase of the wages in both public and private sectors and low rates of inflation. Public investment contracted due to a slow uptake of new projects financed by EU funds under the 2014-2020 programming period. The high share of employment in agriculture, the industry dominated by traditional manufacturing sectors and low investments in modern equipment are factors undermining productivity growth. In 2016, the Romanian expenditure on R&D (GERD) was 0.48% of GDP compared to 0.49% in 2015 and 0.38% of GDP in 2014, the lowest value in the past years. Romania is a modest innovator. Competitiveness is affected by a weak R&I capacity coupled with a low demand for R&I due to the structure of the economy and the reluctance of firms to engage in these activities. The R&D investment in the business sector (BERD) increased from 0.16 in 2014 to 0.27% of GDP in 2016, yet remains significantly lower than the EU28 average (1.30% of GDP).

Challenges for R&I policy-making in Romania

Increase public R&I expenditure*: The R&I system is chronically underfunded. With a GERD value per capita 14 times smaller than the average spent in EU28 (Eurostat, 2017), Romania had in the last ten years, one of the lowest, if not the lowest, GERD in EU28. The National Strategy for RDI 2014-2020 (NSRDI 2020), adopted on 21 October 2014, reaffirmed a 1% target for public GERD by 2020. However, since 2008, the R&I system has shown a trend of underfunding, lower than the targets assumed by national strategic documents. In November 2017, the ex-ante conditionality for RDI was acknowledged by EC as fulfilled. This will ensure the access to the ESIF funds dedicated to RDI through the relevant national operational programmes.

Significant brain drain generating lack of skilled human resources: Romania has one of the highest share of researchers working abroad (World Bank, 2014). Skills shortages exist in the ICT sector, health professionals, teachers (CEDEFOP, 2016a), skilled trades, engineering, transport and distribution (Manpower Group, 2015). The recent wages increases in health and education sectors provide marginal improvements. The current Programme of Government made the harmonisation and the increase of the wages in education and health sectors one of its priority. However, to date the staff remains underpaid, while the foreseen 2018 relevant measures have created significant controversies. The Government Ordinance OUG 32/2016 (and the Methodology adopted in August 2017) stipulates the exemption of the tax for personal income resulted from R&I activities, aiming to provide stimulus to staff involved in RDI activities.

Improve the governance of the R&I system at national, regional and institutional level. Ensure predictability and stability: *T*he R&I governance is characterised by excessive and burdensome bureaucracy, predisposition to over-regulation, frequent legislative and institutional changes, lack of human resources. In less than two years period, five ministers held responsibility for RDI, under four distinct governments. The political changes affected the RDI policy and system, triggering delays, ad-hoc changes. Coordination mechanisms and organisms are set-up in theory; yet they may be deemed as insufficient in the absence of human resources, of political determination and culture willing to make them functional.

Enhance the efficiency of public expenditure in R&I and education: The limited funds for R&I are dissipated across a large R&I system which lacks funding schemes rigorously based on the results of the regular evaluation of the research and education performance. Implementation of the actions foreseen in the NSRDI 2014-2020 enables in theory monitoring and evaluation. The project (SIPOCA27), funded in august 2016 will deliver a methodology for the evaluation of the implementation of NSRDI 2014-2020, to

be applied for the mid-term evaluation of the Strategy. The project will also make operational a platform integrating the Registry of Researchers in Romania, the National Registry of Research Infrastructures, linked with the public information available on RDI projects. The National Roadmap for large research infrastructures was finalised in November 2017.

Improve the framework for private RDI investment and the collaboration with the public sector: The level of R&I funds invested by businesses is very low: 0.18% of GDP in 2015 (EU28 average in 2013: 1.12%). The highest proportion of these funds is spent on R&I performed by the business sector and a very small share (0.03% of GDP) is provided to the public sector. This indicates a low level of science-business collaboration and a weak commercialisation of public research results. The NSRDI 2014-2020 sets targets in terms of activating the business sector and increasing the economic impact, with a focus on the smart specialisation domains. This concerted action hopefully will create a momentum for the business to become involved in the RDI policy design and tailor it to support the economic needs. The business sector shows signs of an increasing interest in innovation, as revealed by the emergence of hubs, especially in ICT.

Main R&I developments in 2017

- New coalition government in power
- The former National Authority for Scientific Research and Innovation (NASRI) is replaced by the Ministry of Research and Innovation (Government Decision 13/2017)
- Massive street protests
- The four RDI advisory councils were reorganized and reactivated in April 2017 (MRI orders no 211,212,213,214/ 19.04.2017)
- NSRDI is updated to include ALFRED (Government Decision 81/2017)
- New regulation regarding the functioning and organisation of the four RDI consultative councils
- The order regarding the approval of the procedure for granting the fiscal incentives for R&D activities was agreed (Joint order Ministry of Public Finances 2326, MRI 2855/29.08.2017)
- Increase of the income ceilings for the specialists involved in RDI projects funded by public funds (Government Decision 751/2017)
- The Infrastructures Roadmap is finalised (September 2017) and final version approved (Order MRI 624/2017)
- EC through official letter agrees that the R&I conditionality was fulfilled

Smart Specialisation Strategy

The four smart specialisations (S2) aggregated at national level, by NSRDI, are: (1) bio economy, (2) ICT, space, security, (3) Energy, environment, climate change and (4) eco-nano technologies and advanced materials. The project „SIPOCA 27"[1] implements a strategic orientation mechanism, aiming to identify smart specialisation niches through an active entrepreneurial discovery process (EDP). All seven regions developed their own RIS3, through an active EDP process. Most of the RIS3 include monitoring output & impact indicators and the relevant sources. The RDAs, with the involvement of the regional RDI and economic stakeholders identified the projects which are submitted under ROP calls (to be closed in January 2018). All the identified smart specialisation fields in the seven regions match the S&T identified in the NSRDI 2014-2020 and the Strategy for Competitiveness.

---

[1] *Developing the Administrative Capacity of the Ministry of Research and Innovation to implement actions established in the National Strategy for Research, Technological Development and Innovation 2014-2020"*