



JRC SCIENCE FOR POLICY REPORT

# RIO Country Report 2017: Hungary

*Research and Innovation  
Observatory country  
report series*

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## Executive Summary

### Key findings

The Hungarian growth rate remained on a steady level in 2016, achieving 2.2% and it is expected to achieve higher levels (3.5-3.8%) in 2017-2018 as the absorption of EU structural funds intensifies.

The general government deficit has been kept under a modest level, reaching 1.8% of the GDP in 2016 and the government debt as a % of GDP has also been decreasing since 2011 reaching 74.1% in 2016 and it is expected to continue so in the next years.

The employment situation further improved reaching an employment rate of 71.5% in 2016, slightly above the EU level. In parallel, the unemployment rate fell to 4.3% by the 2<sup>nd</sup> quarter of 2017.

After more than a decade of continuous growth, the gross expenditures on R&D declined in 2016 to 1.22% of the GDP. This fall was mainly due to the decreasing public funding.

Especially the public sources co-funded by the EU Structural Funds fell back in 2016 but the national sources of R&D also declined. Those sources are expected to be used much more intensely in 2017.

Business R&D expenditures achieved a small growth in nominal terms in 2016 mainly thanks to the activities of firms in pharmaceuticals and the vehicle industry.

Not only in general economic terms but also within the business sector's R&D activities the importance of foreign-owned companies is still extremely high.

### Challenges for R&I policy-making in Hungary

**Fostering innovation in domestic enterprises.** Small domestic firms lack their own funding for R&D and often wait for public support in order to launch new R&I projects. Recognising this issue, a large number of measures have been put in place to support private research and innovation activities, however the statistics has not reflected these investments so far.

**Enhancing the cooperation between science, higher education and business.** Several programmes were launched to support the cooperation between science, higher education and business in the past decade. However, they had usually short life-span to foster the achievement of significant results. The new Higher Education and Industry Cooperation Centres (FIEKs) have been established for a span of at least four years and it is expected that they would create long-standing bridges between academia and business which requires changes in the culture and attitudes in both spheres.

**Supporting the demand side of innovation.** Hungary has had little experience so far in pre-commercial public procurement (PcP). In fact, the National RDI Strategy 2013-2020 identified the enlivening of the R&D demand as one of the key issues in the development of the Hungarian RDI system. Although the National Reform Plan 2016 foresaw a PcP programme, this planned call was not published in the portfolio of RDI calls in 2017 due to the lack of demand from the public sector side.

**Supplying the R&I system with high-skilled human resources.** Both the share of science and engineering (S&E) graduates and the rate of participation in life-long learning are rather low in international comparison and a significant gap might be opening between the supply and demand for qualified S&E personnel in the future. There are several initiatives to improve the situation but it will take several years to reverse the trends.

## Main R&I developments in 2017

- [Updating the National RDI Strategy 2013-2020](#) is in progress with broad participation of prominent domestic and international experts. The consultation process with the stakeholders ended in 2017 to be followed by a national consultation. It is foreseen that the renewed RDI strategy will be adopted in the course of 2018.
- [Mid-term Policy Strategy of Gear Shift in Higher Education, Action Plan 2016-2020](#), is under implementation in higher education institutions supervised by the Ministry of Human Capacities.
- As a result of OECD-EU country review within the HEInnovate framework, the report [Supporting Entrepreneurship and Innovation in Higher Education in Hungary](#) was officially published in November 2017.

## Smart specialisation

The implementation of the National Smart Specialisation Strategy (S3) has begun under the supervision of the National Research, Development and Innovation Office (NKFIH). The defined specialisations of the S3 strategy are embedded in the calls of the NKFIH that were published for the new programming period 2014-2020.<sup>1</sup>

The S3 strategy is aligned with the National RDI Strategy 2013-2020<sup>2</sup> and provides a sectoral and territorial detailing of that strategy and therefore the two are – to a certain extent - intertwined. The NRD Office launched the renewal of the RDI Strategy involving key stakeholders in May 2017 which may influence the S3 strategy, too.

The national S3 strategy put focus on the promotion of smart production. Partly from these antecedents the government started to elaborate a new strategy of Industry 4.0 in 2016 (Iryni Plan). The aim of the Iryni Plan is to further increase the share of manufacturing in the Hungarian GDP with the support of seven key industries. In the context of the Iryni Plan so called “sample factories” are planned to be established in several locations throughout Hungary that will be announced in autumn 2017<sup>3</sup>.

The RDI calls published by NKFIH and other calls co-funded by the EU Structural Funds contain explicitly S3 priorities within the stated objectives of the calls, and the evaluation process favours those project proposals that are in line with S3 priorities. Consequently, the strategic objectives of S3 are realised at the level of the entire RDI portfolio.

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<sup>1</sup><http://nkfi.gov.hu/funding/portfolio-of-calls-to>

<sup>2</sup><https://www.google.hu/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwiSgoP-m4LWAhUTSJoKHZUbD94QFggtMAE&url=http%3A%2F%2Fnkfi.gov.hu%2Fdownload.php%3FdocID%3D25559&usq=AFOjCNHGWqZ5UucVKfn4KUoHOFpeV1GPYq> (Date of access: 31 August 2017)

<sup>3</sup><http://www.kormany.hu/hu/nemzetgazdasagi-miniszterium/belgazdasagert-felelos-allamtitkarsag/hirek/hamarosan-elindulhat-a-mintaqyarak-letesitese> (Date of access: 31 August 2017)



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