



JRC SCIENCE FOR POLICY REPORT

# RIO Country Report 2017: Croatia

*Research and Innovation  
Observatory country  
report series*

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## Summary

### Key findings

Economic trends are broadly positive, but the risks persist; gross domestic product (GDP) is expected to grow by 3.2% in 2017 and slightly decelerate afterwards (EC, 2017c). According to Eurostat's latest data (January 2018), total gross domestic expenditure on research and development (R&D) (GERD) amounted to €387.7 million (0.84% of GDP) in 2016, which represented an absolute annual increase on €374.8 million in 2015 (0.84% of GDP). Public expenditure on research and innovation (R&I) amounted to 55.2% of GERD while business expenditure on R&D amounted to 44.8% of GERD. Investments in R&I in Croatia have experienced a downward trend for more than a decade (in 2004, GERD amounted to 1.3% of GDP); in recent years, the trend has been stagnant, which is insufficient to enable Croatia to catch up with more advanced economies. In 2016, budget deficit was reduced to 0.8% of GDP and government debt decreased for the first time in the last decade (from 86.7% to 84.2%), although it is still high. The unemployment rate decreased from 16.6% in 2015 to 13.3% in 2016, but employment rates remain among the lowest in the EU. Moreover, the opening up of the labour market in most EU countries to Croatian citizens has increased incentives for young unemployed people to seek jobs abroad, which could have negative effects on the labour force and GDP growth in the medium term. The opportunities for R&I system reforms provided by the Smart Specialisation Strategy (S3) are often underexploited. However, gradual improvements are being made, which are linked with investments in infrastructure and R&I projects in both public and private sectors. Although economic recovery after the long recession (2008-2014) is in progress, the structure of the economy and the policy environment are still insufficiently conducive to innovation-led growth.

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

1. **Increasing R&I funding and improving the absorption of European Structural and Investment Funds (ESIF):** Despite the efforts undertaken, Croatia is struggling to increase R&I investment, which is stagnant (0.84% of GDP in 2016) and far below the 2020 target of 1.4% of GDP. R&I investments from ESIF will lead to improvements, but they have often been delayed.
2. **Building a coherent and integrated R&I policy framework:** Additional efforts (the merger of two ministries) were made to integrate the government approach towards R&I into the private sector. The implementation of the adopted strategic documents has been fragmented and slow. The opportunities provided by S3 are underexploited.
3. **Strengthening the private sector's R&I capability and improving the business innovation environment:** ESIF programmes that facilitate investment in R&I (e.g. R&I projects and centres of competence) are particularly important for business and technological development. There is still a need to improve the business climate, as well as to strengthen the links between science and business and develop the 'smart' skills required to meet business needs.
4. **Strengthening public sector R&I capacity:** Reforms to the public sector R&I system (e.g. reorganization of public research institutes, evaluation of research work), coupled with investments in infrastructure and R&I projects, are expected to bring about results in the medium term. The creation of European Regional Development Fund (ERDF)-funded centres of research excellence (CoREs) provides an opportunity to improve R&I performance in priority research areas.

### Main R&I developments in 2017

- New [Regulations on the conditions for promotion into higher scientific grades](#) were adopted in May 2017 (OG 28/2017), which stipulated more rigorous minimum criteria for the promotion of scientists into higher scientific/teaching grades.

- The [Ordinance on the organisation and operation of the scientific area councils and scientific field committees](#) of the National Council for Science, Higher Education and Technological Development (NCSHETD) (OG 47/2017) has been adopted; it regulates the working and organisational procedures of the NCSHETD's councils and committees.
- The [draft law on amendments to the law on scientific and higher education](#) is in public consultation; it is intended to determine the rules relating to the promotion and working rights of scientific researchers in a more precise way. The draft has been subjected to much criticism.
- The Croatian Science Foundation launched two calls for proposals in April 2017 – for [installation research grants](#), aimed at supporting the independent research careers of young scientists, and for [support to researchers for applications to European Research Council programmes](#).
- A major programme funded by the ERDF – [Investment in organizational reform and infrastructure in the research, development and innovation sector](#) – was launched in May 2017 to support organisational reform and infrastructure for research institutions; evaluation has been completed, but the results are still not publicly available.
- In June, another programme targeting research institutions was launched ([Investments in Science and innovation – First call](#)), with a focus on applied research projects.
- Four new support programmes, funded by the ERDF for small and medium-sized enterprises (SMEs), were launched in 2017 ([Internationalisation of business in the MSE sector; From product certification to the market](#), [Development of entrepreneurial zones](#) and [Promotion of entrepreneurship 2017-2019](#)). In addition, [Commercialization of innovation in entrepreneurship](#) was launched in December 2016.
- Grant contracts with 10 CoREs with a total value of €50 million, funded by ERDF, were signed in October.
- The multi-annual institutional funding based on performance indicators introduced in 2013 as a financial reform measure has been criticised as inefficient, since it has not contributed to quality in research institutions, which is attributed mainly to low levels of funding.
- The [draft law on state aid for research and development projects](#) was subject to public consultation in November.

### **Smart specialisation Strategies**

S3 was introduced at national level by the indicative annual plan for calls for proposals, co-financed by ESIF through [Operational Programme Competitiveness and Cohesion 2014-2020](#). It started in 2016 with public calls for proposals aimed at innovative companies (Competency and development of SMEs, Innovations in newly established SMEs) and for cooperative projects for industrial research (Increasing the development of new products and services resulting from R&D activities, Strengthening capacities for research, development and innovation). Several important R&I infrastructures envisaged in the S3 action plan have been established. They include CoREs, competitiveness clusters and centres of competence (evaluation of which is still in progress).



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