R&D intensity as a policy target

The OECD project ‘R&D intensity as a policy target’ explores the relationship between aggregate national R&D performance and disparities at the regional, sectoral and firm levels, as well as the relevance of R&D intensity targets in a context of digital and AI-driven innovation. The project provides practical policy guidance to countries.

Overview

Many countries have established policy targets for R&D intensity – the ratio of R&D expenditure over GDP – in the last two decades, particularly since in 2002 the EU set the target of reaching 3% of EU GDP spent in R&D. The objective of such targets is to steer private and public investments in R&D, considered a major driver of innovation and productivity growth. National R&D intensity levels depend on a wide range of factors (such as industry structure, firm sizes, role of multinational companies), and countries have used multiple policy approaches to increase them. Beyond the aggregate R&D performance, quality of R&D and its composition (i.e. by topics, actors, regions) also need to be considered as they are critical determinants of impact.

In contribution to this policy debate, the project addresses the following questions:

1. What is the relationship between aggregate national R&D performance and regional (and other) disparities?
2. What is the relevance of R&D intensity targets in the digital age?
3. What is the policy experience across countries in targeting R&D intensity?

The 2019-20 project is conducted by the Working Party on Innovation and Technology Policy (TIP). It uses a mix of research methods and a cross-country analytical approach. Delegates to the TIP from Australia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, the Netherlands, Portugal, Sweden, the United Kingdom and the European Union are part of the steering group that oversees the project development.

Project timeline

- **Kick-off workshop**
  12 April 2019 (London, UK) Discuss project scope & methodology

- **TIP workshop**
  19 June 2019 (Paris, France) “Innovation disparities”

- **OECD TIP Meeting**
  20-21 June 2019 (Paris, France) Discuss project focus & preliminary case study template

- **TIP-NESTI workshop**
  11 December 2019 (Paris, France) “Innovation in the digital age: What new evidence and tools are needed to optimize policy?”

- **OECD TIP Meeting**
  December 2020 Discuss project final outcomes

- **OECD TIP Meeting**
  18-19 June 2020 (Paris, France) Present policy and statistical analysis, case studies

- **OECD-TIP Meeting**
  9-10 December 2019 Discuss ongoing work and progress on case studies

- **OECD-CREA workshop**

- **Final launch**
  2021 Official launch of final project outcomes

Q1 2021
**Project activities**

1. **What is the relationship between aggregate national R&D performance and regional (and other) disparities?**

   National R&D intensity is an aggregate measure of all R&D investments in a country, and thus does not reflect geographical, sectoral and firm disparities. High levels of R&D intensity could thus be driven by the concentration of research excellence in a few specific locations (such as Silicon Valley) or leading firms, or by a more dispersed distribution of R&D activities across innovation ecosystems.

   By means of quantitative and qualitative analysis, this module investigates how equal or unequal distribution of R&D activities across regions relates to aggregate national R&D intensity levels and the implications of those disparities on socio-economic policy objectives.

2. **What is the relevance of R&D intensity targets in the digital age?**

   Digital technologies are transforming innovation practices. Data has become a key input for innovation, and there are more opportunities for services innovation, among other changes. Yet major innovation activities in the digital age, such as software and business model innovation, are not well captured in R&D investment statistics. In view of such changes, this module explores what the relevance of R&D intensity targets in the digital age is, and what alternative or complementary measures could be.

3. **What is the policy experience across countries in targeting R&D intensity?**

   With R&D intensity targets in place for up to two decades in certain countries, there is extensive policy evidence to understand better the country experiences in defining and reaching R&D targets, and to evaluate whether this is the best measure to assess the innovativeness of an economy. Through an in-depth investigation of the main priorities and related quantifiable targets set in national STI strategies, as well as a number of case studies conducted by countries, this module explores policy approaches to support R&D. Special emphasis is be placed on examining how regional disparities and changes of the digital age have been taken into account during target setting and implementation, as well as what possible complementary policies are needed to increase R&D.

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**Recent project events**

- [Innovation disparities](#), Paris, 19 June 2019
- [Project kick-off](#), London, 12 April 2019

**Related publications**


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