R&D INTENSITY CASE STUDY: HUNGARY

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18 June 2020
Item 4, 55th meeting of the Working Party on Innovation and Technology Policy
National R&D performance and targets

National level – most important target

- R&D expenditure/GDP = 1.8% in 2020 – national target to the Europe 2020 Strategy → 1.53% - 2018

Subnational targets

- Business sector R&D expenditure/GDP = 1.2% in 2020 – (Investment in the future - National RDI Strategy)
- BERD/GDP in the less developed regions - CHR region, outside Budapest and Pest county= 0.71% in 2023 (Operative Programme) and in CHR region = 2.08% in 2023
Major features of GERD/GDP:
R&D expenditure/GDP ratio is one of the indicators of the European Semester → commitment on the government level towards strengthening the RDI policy.

• More attention is paid to the RDI policy among the government policies.
• Direct stimulating effect on the evolution of the volume of public RDI funds within the state budget.

1.8% is a target that is easy to communicate from policy aspect.

• It can be easily adapted by all (not only by RDI and other policy actors but by stakeholders, too.)
• This target has become widely known enhancing the visibility and recognition of R&D.
Laying such emphasis on a single indicator also entails risks

R&D expenditure/GDP ratio cannot cover the whole of innovation activities.

Two main aspects:

1. In general the **structure of innovation expenditure is different** in higher and lower innovation performance countries.
   
   In Hungary main element of innovation expenditure is purchase of machinery, equipment and software.
   
   In more innovative countries R&D is the dominant element of innovation expenditures.
   
   In RDI policy making Hungary have to focus also on non-R&D part of innovation activities (strengthen business innovation, technology development) – GERD do not included these measures

2. Innovation costs associated with the **utilisation of R&D results** are not included \(\rightarrow\) commercialization costs
R&D intensity indicator challenges
Start-ups’ role cannot be described through traditional RDI statistical data and the R&D expenditure indicator.

Available statistical data cannot be analysed to such detail that would allow to get a better understanding of the domestic RDI processes → R&D in large companies, detailed sectoral and regional R&D data.

Besides R&D we should focus more intensive to the innovation questionnaire → more frequent innovation data (yearly) is needed for analysts to be able to deliver proper professional inputs for the decision-preparing processes.
Policies to enhance R&D performance: Key lessons from Hungary’s policy experience

• GERD/GDP reflects the R&D activity’s weight within the national economy, not the evolution of the GERD from year to year.

• Identifying and increasing the awareness of the distance from the target → it ensures to determine the factors to which we need to focus
  – In Hungary from 2015 → developing a uniform and dependable funding scheme
  – This process continued in 2018 with the establishment of the Ministry for Innovation and Technology aiming to strengthen the coordination between RDI-related policies
  – Significantly increased the amount of available RDI subsidies → targeted use of funds
    1. Supporting market-based innovation
    2. Institutional excellence programmes (financing research projects and research infrastructure development projects of universities/research institutes, knowledge sharing projects)
    3. Financing of basic research
New programs were launched:

- **Institutional excellence programmes** → Higher Education Institution Excellence Programme etc.
- Knowledge transfer projects of universities/research institutes and the business sector - **Center for Higher Education and Industrial Cooperation** etc.
- Science Parks, National Laboratories
- ...

- Target setting also enables us to **continuously measure the progress** to see what part of the distance we have already managed to overcome.
- Measuring this progress implies an opportunity for **motivation** too → positive results or bigger leaps in the progress have a positive effect on those involved and affirm their commitment.