R&D INTENSITY CASE STUDY: POLAND

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The 2030 Responsible Development Strategy adopted in 2017 by the Council of Ministers sets the following R&D-related targets:

- **R&D intensity**: 1.7% of GDP by 2020 and a target of 2.5% by 2030 (up from 1% in 2015), with an equal share of public and private funding of 60%
- **Business enterprise expenditures on R&D (BERD) in relation to GDP**: 0.8% of GDP by 2020 and a target of 1.3% of GDP by 2030 (up from 0.47% in 2015)

In addition, in Poland, the autonomous R&D policy is led by 16 provinces (NUTS 2), which adopt their own development strategies and innovation objectives. 8 provincial strategies set GERD objectives. In addition, these strategies will use dozens of different innovation indicators.

Regions finance their strategies using their own resources, central resources (through government-region contracts), EU regional operational programmes and EU national operational programmes.

Other regional instruments are Regional Research Agendas, Regional Smart Specialisations (RIS), Regional Innovation Centres.
In general, GERD, BERD and others R&D expenditure intensity indicators for the GDP, are no longer a sufficient set of indicators are use. In many cases, data collected on this way do not allow for inferring on R&D productivity, which is now becoming the most important challenge:

- In cases of high impact of public institutions on the economy, the level of R&D expenditure does not reflect real social challenges;
- During periods of expansive economic policy, where economic growth is stimulated by the “cheap factors’ of production, increasing expenditure on R&D are not visible, against the growing economy statistics data;
- Polish companies during the last thirty years of intensive development and restructuring, relied mainly on technologies and investment goods imported from abroad, in a small extent creating demand for domestic research. The follow-up innovation processes are not reflected in R&D statistics, as well as innovations not related to research.
Companies often fail to report (unless they have an interest in this) investments in R&D as investments in intangible assets. It is only the introduction of new instruments, e.g. tax advantages, encourages stimulates economic operators to demonstrate R&D investments;

In the age of globalisation, the R&D expenditure in individual countries, can translate into economic benefits in other countries. The essence of the current phase of the globalisation of innovation is the spatial separation of the places, where innovation are invented, where are undertaken theirs development, and the localizations, where they are offered on global markets and generate profits and benefits.

Finally, we propose to consider the indicator taking into account transfer technology and intangible values

- “High technology” + „intangible values” in exports;
- “High technology” +”intangible values” in import.
The Polish approach to innovation policy is mainly based on following the model of western European countries. However, developing countries do not have to follow this difficult path. What is crucial:

- to analyse and to take advantage of endogenous potentials;
- be oriented to address the link between innovation support policies and addressing internal development, market and social needs;
- to prevent of brain, research and innovation drain.
Conclusions:

1. „R&D Intensity case study: Poland” aims to show that Poland, which has been characterised by rather low R&D expenditure over the last few decades, actually has significant innovation potential and ambitious goals in this regard.

2. Poland's experience in R&D support policy can be valuable for less developed countries who want to develop their innovation.