

The SDG wheel of EU research funding: Not merely the fifth wheel on the wagon but a useful policy monitoring tool.

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In 2015, the United Nations agreed to adopt a framework with 17 Sustainable Development Goals (SDGs) as a universal call to action to end poverty, protect the planet, and ensure all people enjoy peace and prosperity by 2030. It is common to represent each of these 17 goals as equally important in terms of the physical surface allocated to them in the so-called SDG wheel.

While the European Union is transparent in terms of projects funded, it does not report any information on how much of this funding is allocated to each SDG. This lack of transparency is a significant limitation. The only indirect information available is through OpenAIRE, which uses a black box machine learning model to label the presence of SDGs in research texts.

Boudt et al. (2024) address the research gap in quantifying the prevalence of each SDG in the over one hundred thousand projects funded by these Framework Programmes between 1984 and 2023. They use the SDG lexicon of Borchardt et al. (2022) to label each project based on the presence of SDG keywords in its title and abstract. To foster collaboration and engage with policymakers, they provide their results on SDG prevalence in EU-funded projects data as open access through an interactive dashboard application.¹

In this note, we recommend that their data be visualized using the SDG wheel of EU research funding. Unlike the traditional SDG wheel in which each SDG received equal weight, the proposed wheel scales each SDG with the attention it receives in terms of funded projects under the Framework Programmes. Figure 1 shows the SDG wheel using the average prevalence of each SDG.

¹ The dashboard application is available at: <https://sdgdashboard.streamlit.app>



Figure 1 The SDG wheel of EU research funding for the 1984 - 2023 Framework Programmes

The distribution of SDGs across the EU funded projects is concentrated with only four SDGs receiving the attention of more than half of the projects, namely SDG 3 (good health and well-being), SDG 7 (affordable and clean energy), SDG 9 (industry, innovation and infrastructure), and SDG 13 (climate action). The share of attention received by each SDG is time-varying. Figure 2 shows that the attention to climate action has tripled since the start of the Framework Programmes. In contrast, the attention to SDG 7 (affordable and clean energy) first decreased from 20% in FP1 to 6.7% in FP6, and increased again to over 12% in Horizon Europe.

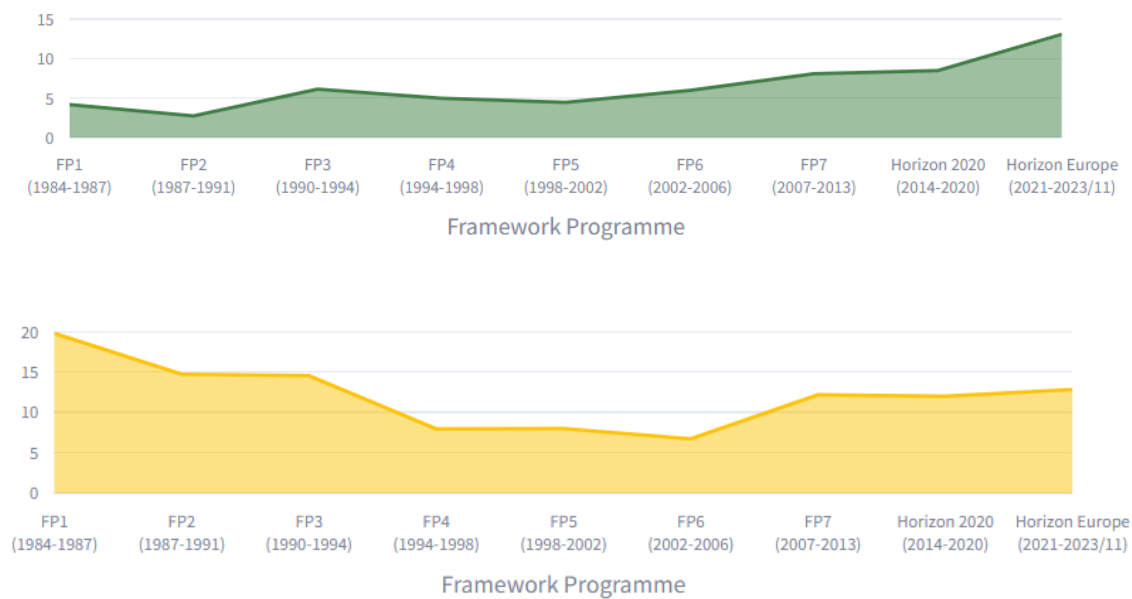


Figure 2 Attention to SDG 13 (climate action, top figure) and SDG 7 (affordable and clean energy, bottom figure) in EU-funded projects

A key question is to what extent the obtained SDG allocation is optimal from a research effectiveness and/or EU policy perspective. As much of the EU funding is bottom-up organized starting from the interest of researchers with various evaluation panels, there is no central coordination in guiding SDG funding allocations toward objective levels. There is, therefore, no guarantee that the resulting allocation is socially and politically desirable. For this reason, we recommend that EU policymakers actively monitor the SDG wheel of EU research. The proposed SDG wheel of EU funding representation should, therefore, not merely be the fifth wheel on the wagon. By comparing it with the target allocation, it becomes an actionable instrument for proactive EU research & innovation policymakers. If certain SDGs are underweighted compared to the target SDG allocation, policy makers can remediate by launching thematic research calls directly aiming at those SDGs.

References:

Borchardt, S., Barbero Vignola, G., Buscaglia, D., Maroni, M. and Marelli, L., Mapping EU Policies with the 2030 Agenda and SDGs, EUR 31347 EN, Publications Office of the European Union, Luxembourg. <https://doi.org/10.2760/87754>

Boudt, K., Inghels, Y., & Spithoven, A. (2024). Trac(k)ing the trajectory: Mapping Sustainable Development Goal 8 in EU-funded research projects (No. 24/1084). Ghent University, Faculty of Economics and Business Administration.