

Towards Poland's Energy Transition: The Embeddedness of Scientific Energy-Related Projects in a Broader Context*

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Abstract

The accelerating pace of the green transition and the urgent need for energy security across Europe have increased interest in energy-related research. In Poland, these challenges are particularly pressing due to the country's heavy reliance on fossil fuels and the resulting vulnerability of the energy system. While technological innovation in the energy sector is gaining momentum, there is a noticeable gap in the literature regarding the structure of scientific collaboration and the disciplinary scope of energy research in Poland. This study addresses this void by mapping the landscape of national research projects and identifying key actors, disciplines involved and funding sources.

The study used the RAD-on dataset (part of the Integrated Network for Information on Science and Higher Education in Poland) on publicly funded projects carried out by scientific entities. In the analyzed two-year period (2023-2024), only one in four initiatives carried out within the scientific discipline of *environmental engineering, mining and energy* indicate an interest in energy transition issues. Among these, the most frequently mentioned topics are energy efficiency, hydrogen technologies and biofuels. Inter-organizational and international scientific cooperation is not common in these projects. Only one in three projects includes contributions from another scientific discipline, and these are mainly related sciences classified in the same field: engineering and technology. 95% of the identified projects were co-funded by indigenous institutions (with a national or regional focus).

Keywords: energy transition, clean technologies, inter-organizational collaboration, network