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SYSTEMATIC SYNTHESIS OF TECHNICAL TOOLS FOR STRENGTHENING REGIONAL ENERGY TRANSITIONS

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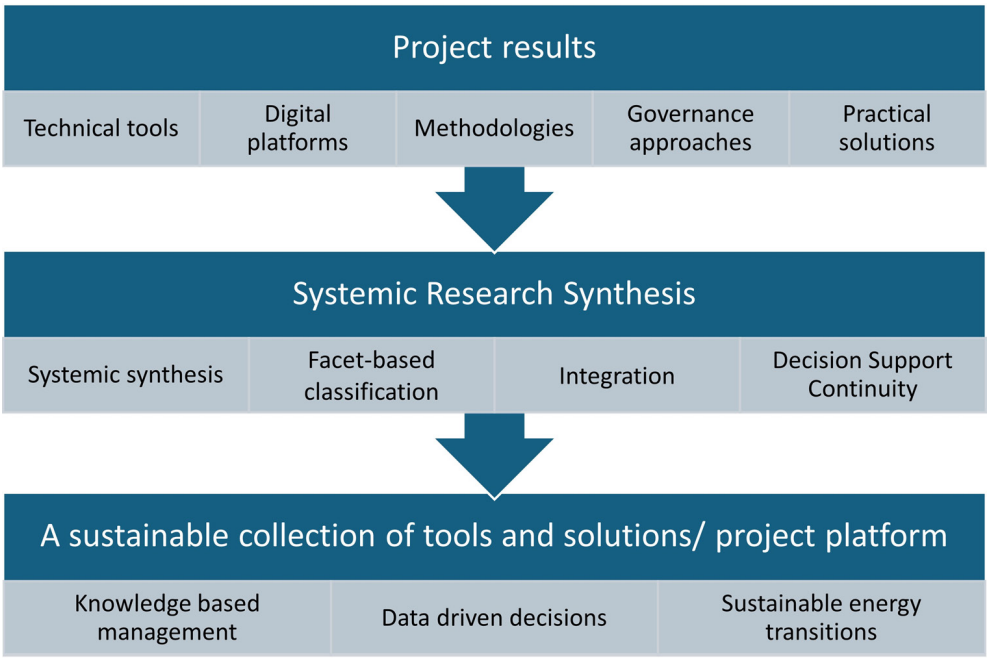
Abstract – The transition of the energy sector to a climate-neutral, resource-efficient and sustainable development model is one of the central priorities of the European Union's policy documents and funding programmes. In recent years, increasing support has been provided to projects that address complex and multi-level challenges in the field of regional and local energy transition, developing technical tools, digital platforms, methodologies, governance approaches and practical solutions for public institutions and other stakeholders. These projects create significant added value in the form of knowledge, innovation and practical tools. However, at the same time, there is a significant problem - the fragmentation of project results. The developed tools and solutions are often scattered across different projects, platforms and publications, without a unified structure and interconnection. After the end of the project life cycle, access to project results becomes limited, their use decreases, and knowledge transfer to other territories and institutions is not fully ensured. Consequently, the overall investment effect and practical impact on achieving the goals of the energy transition also decrease. The study used a combined methodological approach, combining a systematic synthesis of project results with a facet-based classification. A structured analysis of technical tools, methods and solutions was carried out, identifying their areas of application, mutual connections and overlaps. This approach allowed to identify the most significant gaps in the regional energy transition, to assess the interaction and synergy potential of the developed tools, as well as to create a structured basis for an integrated combination of tools and knowledge. The results of the analysis, also based on stakeholders' opinions and practical needs, allowed us to determine that the main challenge is not the availability of individual tools, but their mutual integrity, complementarity and applicability within a unified energy transition management framework. The results highlight shortcomings in integration, decision support continuity and cross-sector coordination. At the same time, the study shows that a systematic, facet-based synthesis of project results creates the basis for a sustainable collection of tools and solutions – a unified project platform or Resource Hub – that allows for the structured use of existing technical resources, strengthening data-based decision-making and building a knowledge-based approach to regional energy transition management.

Keywords – Capacity building; facet-based criteria; knowledge transfer; resource hub; solution mapping; transnational knowledge



The methodology of synthesizing the technical tools

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