

Storage of Energy & Power Systems in North-West Europe – STEPS

Increased investment in renewable energy creates a need for energy storage solutions. Mass production storage solutions are not tailored to the needs of local market segments, e.g. housing, local energy communities, business parks. The proposed user cases in STEPS benefit from tailor-made storage technologies, new technologies or other business models (e.g. Storage-as-a-Service). Innovative energy storage products get stuck on TRL5/6 due to barriers such as fragmented legislation, limited access to pilot sites and unawareness of end-users for the benefits of energy storage systems.

In [STEPS](#), business support and knowledge partners will strengthen the competitive position of innovative storage system providers within the NWE zone through a user-oriented and demand-driven approach to bring such storage systems closer to the market, including through tailor-made pilot plants. These activities include, in addition to advising local SMEs who want to focus on energy storage when entering new markets in NWE, creating market potential in NWE for energy storage solutions by responding to the needs of end users and increasing the awareness of the providers. A support programme will be implemented to connect end users to e-storage solution providers using a training tool to model their e-storage demand.

The specific share of UGent's EELab/Lemcko research group is twofold. Within the project, work is initially carried out to determine the most suitable storage solution in function of both the load profile and the yield of the (existing or non-existent) renewable energy source. This will be translated into a roadmap for the optimal determination of the required storage system and making the right choice for it. In addition, a software tool will be developed to make the correct dimensioning of a storage system in function of the dynamic consumption profile, whether or not including a renewable energy source. The software tool will also calculate the utilization rate of the storage system in order to determine the financial feasibility of such investments. The [existing test infrastructure within EELab/Lemcko](#) allows it to be used as a demonstration and training unit to simulate the impact of storage systems on an installation on a realistic scale.

The total budget amounts € 5.06 m of which €3.04 m is EU funding.

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