

“The P2G is a key technology to bridge the major energy grids and consumers. Our project will help stakeholders find and evaluate the beneficial regional applications.”

Integration of energy vectors is key to ensure cost-efficient inclusion of renewable energy. P2G contributes to the overall efficiency and balancing of the energy system with energy storage and transfer of green energy to end use sectors. Currently, regional commercial P2G-projects have not yet emerged. SuperP2G will ensure that P2G solutions approach commercial implementation by contributing to

1. technical optimisation and system integration
2. market access and uptake, as well as for
3. development of solutions for adoption.

SuperP2G interconnects leading P2G initiatives in five countries, ensuring joint learning. Each national project focuses on different challenges, where researchers team up with local need-owners to co-create solutions. SuperP2G focuses on improving existing tools including open access, as well as develop a new open tool based on the OptiFlow and H2IndexII tools. This is supplemented with analysis of regulation and markets, as well as stakeholder involvement.

The SuperP2G Tool Approach

The ambition is to provide the need-owner a commonly validated toolchain:

1. A set of tools which use coordinated approaches to build a common database.
2. Calculations and optimizations running in a tool that is a combination of “OptiFlow” and “H2-Index II” and techno-economic evaluation of value chains in combinations with transport and optimization models as well as the underlying data basis.
3. Comprehensible publication of results to a general audience



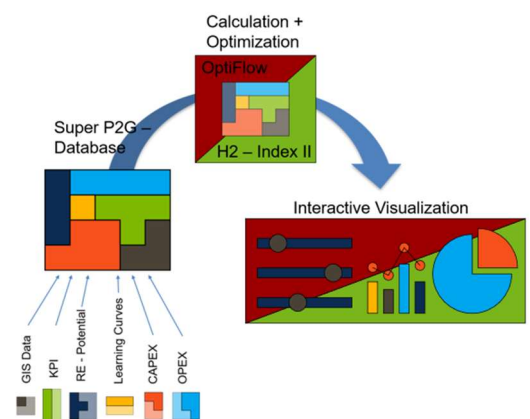
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Main objective

The objective of SuperP2G is to lower the threshold for need-owners to validate and put P2G to practice for "Smart Energy Systems", "Sectorial Integration" as well as "Local&Regional development". The sub-objectives of the consortium is to:

Optimise P2G systems by connecting leading national projects/regions with regard to P2G and their corresponding need-owners in EU with each other to utilise synergies with regard to the evaluation tools and procedures used when evaluating P2G;

Showcase the potential for P2G in each involved country and derive pan European conclusion with regard to the technology, Market conditions and Stakeholder adaptation; and

Raise visibility and knowledge levels about the possibilities with P2G throughout Europe and especially in the involved countries

Expected main results

The results include a set of tools and procedures to foster implementation of P2G in the planning as well as in operation of P2G in integrated energy systems. These tools, databases and methodology are improved by the insights of the different case studies as well as the cross-insemination. Furthermore, the project will develop a new open and common European best-in-class standard tool for P2G-evaluation based on OptiFlow (FutureGas) and H2IndexII (HYPOS) and with added value from the other national developments.

Other results include scientific papers from the different case studies, including models for assessment of power-to-gas systems.



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Together with our partners, we are supporting the European Power to Gas sector in its transition towards a sustainable future!



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"Now more than ever, we need alternatives to natural gas!"

*- Prof. Marie Münster
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