



Introductory presentation

Innogrid 2023 - Project Session

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Project overview

- GENTE is a two-year ERA-NET project developing solutions for energy communities
- GENTE will create a toolbox for communities and community managers
 - The toolbox uses IoT, DLT, edge processing and AI
 - It stimulates the creation of new energy communities,
 - It provides communities with governing tools/structure, and encourages the participation of new actors.
- Technology includes:
 - Resource optimisation and community federation
 - Optimal multi-vector energy resource integration within and across communities.
- Methodologies include:
 - Approaches for creating and managing communities
 - Decision tools and guidelines for setting up
 - Incentive schemes and guidelines for community managers



Contribution to ‘electrification’

Switzerland



Turkey



Sweden



Six test sites across **three countries** enable the demonstration of solutions for new types of technologies and services in different technical, environmental and market contexts.

			GENTE use cases					
Grid flexibility provision	Self Consumption Optimisation	Peak load management	Community CO2 emissions reduction	Energy efficiency	Reduction in community energy costs	Reduction in community energy consumption	Increase in community autarky	Community federation
Supporting efficient network use			Delivering decarbonisation				Achieving scale	

Exploitable results - Toolbox Technologies

Technologies

Data analytics (forecasting, local optimisation)

Management software for community federation manager

IoT Building Energy Management System (BEMS) including heat pumps

DLT-based community manager platform

Optimisation software for aggregators leveraging energy communities

Data collection tools, submetering IoT platform

DLT-based prosumer account platform

Mobile application

- Modular services with defined API-based interfaces
- Highly transferable - cloud / fog / edge
- Give IoT platforms 'LEC superpowers'
- Commercial tools, open-source tools and exploitable academic research
- Exploitation pathways are in development



<https://www.linkedin.com/company/era-net-gente/>

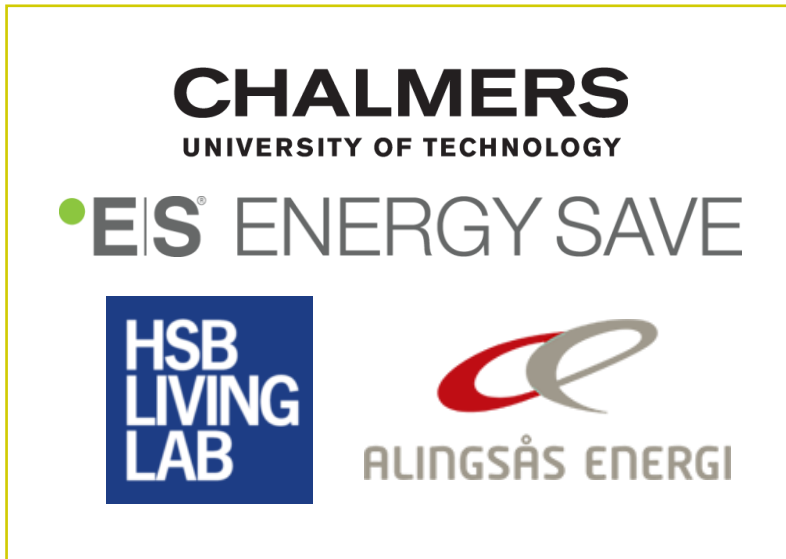


Thank you

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• **EIS** ENERGY SAVE

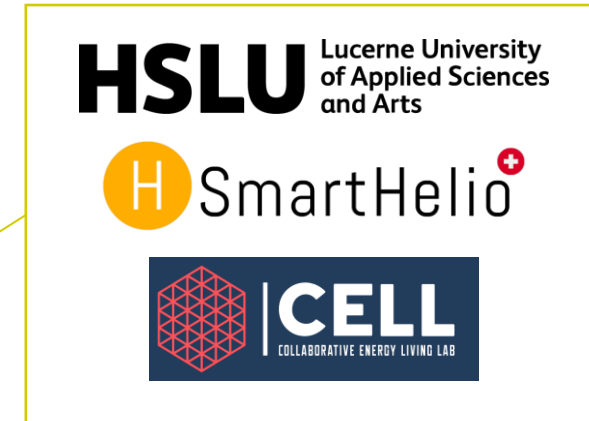
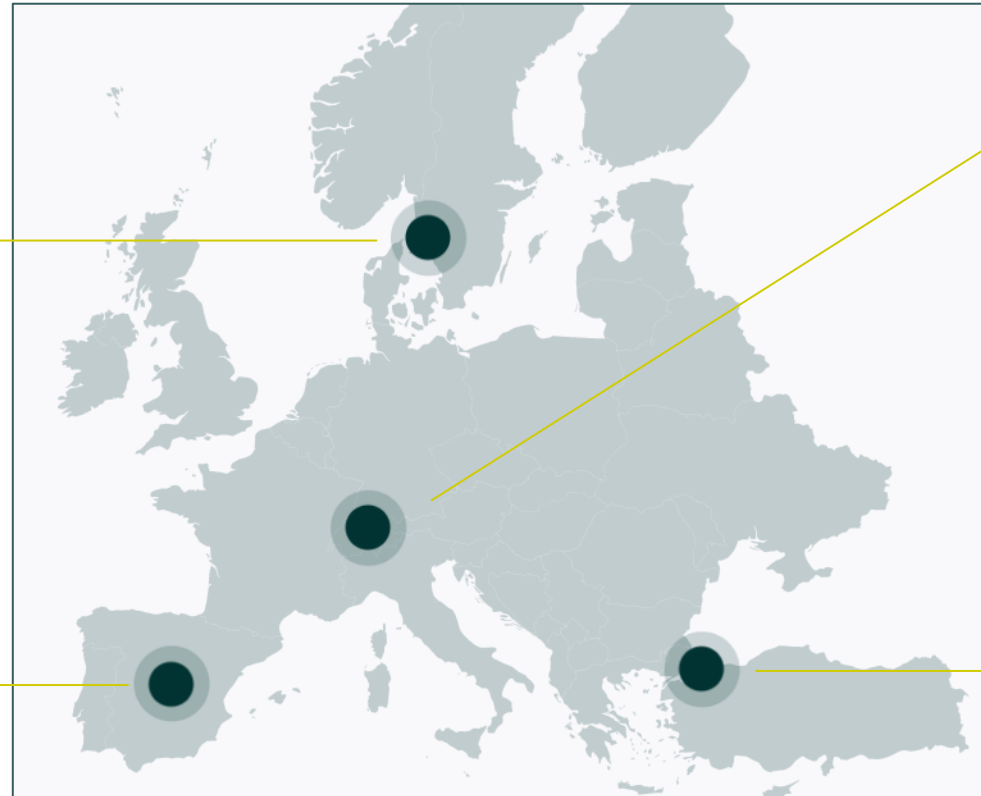
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ALINGSÅS ENERGI



PROSUME

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Our funding partners



ERA-Net Smart Energy Systems



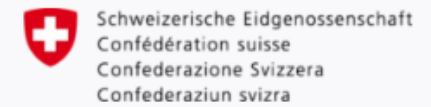
The Scientific and Technological Research Council of Turkey (TÜBİTAK)



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