

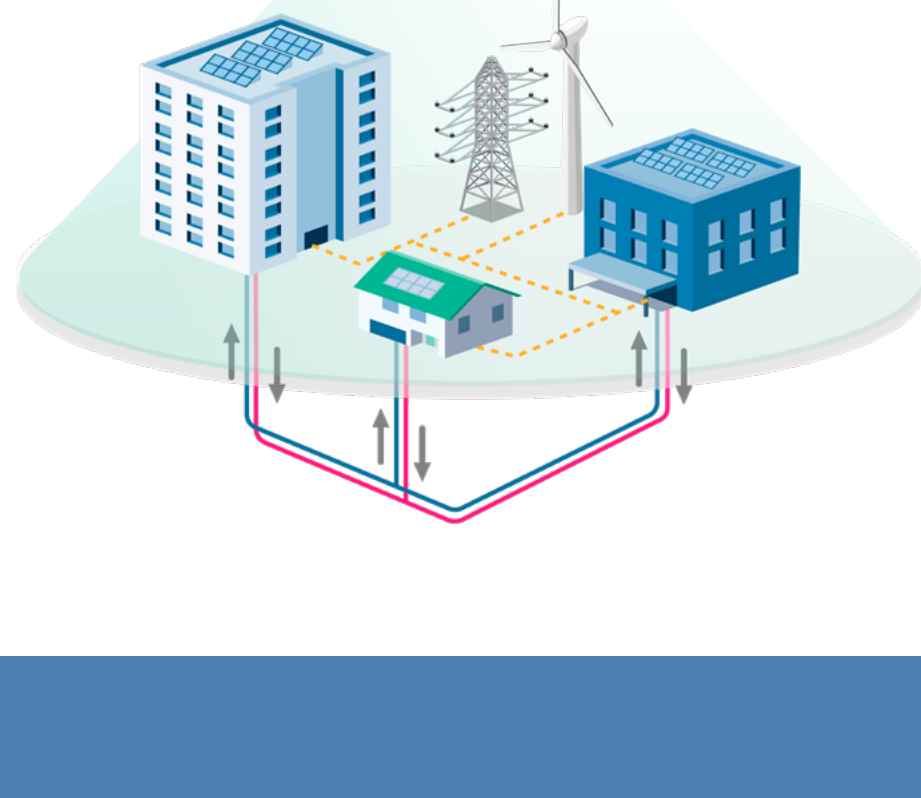
NEWSLETTER
HYPERGRYD

Hybrid Coupled Networks for Thermal-Electric Integrated Smart Energy Districts

HYPERGRYD, the Horizon 2020 project is moving forward!!

With the participation of 19 partners from 7 European countries, HYPERGRYD is developing a set of cost-effective, replicable, and scalable technical solutions that will enable the integration of renewable energies with different dispatchability and intrinsic variability within thermal grids and their connection to electricity grids.

HYPERGRYD aims to accelerate the sustainable transformation, planning, and modernisation of district heating and cooling (DHC) for the 4th and 5th generations. It also works on the real-time management of electrical and thermal energy flows in complex coupled energy networks and the synergies between them.



HYPERGRYD comes to an end!!

As we are near the end of the project, HYPERGRYD solutions are undergoing final testing in the Live-in Labs at Sonnenplatz, Environment Park, KEZO Research Centre, and Eurac Research Centre.



NEWS

Kezo Live-in Lab Workshop: Innovative RES technologies and simulation tools for Electricity, Gas and Heating Grids



With the project nearing completion, we looked at the workshop at the Zezo Live-in Lab on 18 March. It was our last Live-in Lab to visit.

[▶ LEARN MORE](#)

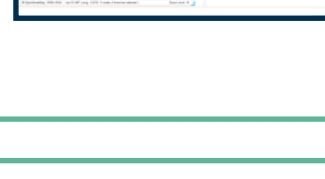
Living Lab Sonnenplatz: A Hub for Sustainable Energy Solutions



This article describes the Living Lab Sonnenplatz in Großschönau (Austria) as one of the main demonstration sites of the HYPERGRYD project. Relevant information can be found in this article along with conclusions and findings.

[▶ LEARN MORE](#)

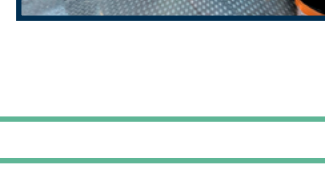
An Integrated Physical Planning Tool for Energy Systems and DHC Networks



This article explains the SAInt tool from partner encord. This integrated software modelling platform enables the coordination of all planning processes, helping system planners and energy managers navigate the energy transition.

[▶ LEARN MORE](#)

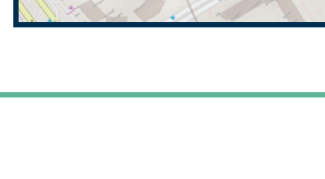
The Institute for Renewable Energy of Eurac Research was the location chosen for the 7th Hypergrid General Assembly



This article explains the work carried out at the project's 7th General Assembly, which took place in Bolzano, Italy, at the headquarters of the partner Eurac Research. It also explains the face-to-face workshop that took place on October 30th, also at Eurac Research.

[▶ LEARN MORE](#)

How BIM-GIS Integration is Transforming DHC Network Planning for Smart Energy Districts



This article explores how the BIM-GIS integration revolutionises the design, operation, and management of DHC systems, offering engineers, urban planners, and energy professionals a glimpse into the future of Smart Energy Districts.

[▶ LEARN MORE](#)

A short recap of the Workshop: Innovative Solutions for Expanding and Peer-to-peer Energy Trading with Thermal Assets in Local Energy Markets



The workshop's aim was to obtain the opinions of the participants, especially the stakeholders of the Living Lab Sonnenplatz Großschönau, regarding the P2P exchange system and its social and economic acceptance.

[▶ LEARN MORE](#)


PUBLICATIONS & RESULTS

Empowering Sustainable Energy Communities with IoT: A Case Study of Demand Response Management in Großschönau Municipality

This paper presents an IoT-powered demand response management simulation study in a building district, validated using data from the Großschönau Municipality in Austria. This community encompasses various building types connected to both electric and local district heating (DH) networks.

[▶ LEARN MORE](#)

Position paper: The role of DHC in the FitFor55 package – EC funded projects' point of view

The H2020 REWARDHeat and ReUseHeat projects have provided their position on the review of Directives relevant to the Fit-For-55 package at the beginning of 2022. In this updated version, the two projects have joined forces with HYPERGRYD, WEDISTRICT, Bio-FlexGen and ConnectHeat to reflect on the updated EU legislative framework.

[▶ LEARN MORE](#)

PROJECT DELIVERABLES

D6.6 HYPERGRYD Workshops Series

[▶ DOWNLOAD & READ](#)

D5.2 Digital Twins of components and Living Labs development, preliminary version

[▶ DOWNLOAD & READ](#)

D4.4 Smart energy services and operation tools

[▶ DOWNLOAD & READ](#)

D3.7 Description and report of developed multi-physics SAInt modelling tool for network coupling and optimisation. Preliminary version

[▶ DOWNLOAD & READ](#)

D3.5 Description and report of energy exchange and smart trading tool including simulation studies for living labs as active LECs. Preliminary version

[▶ DOWNLOAD & READ](#)

D2.8 Integration of the models and optimal controls into the components and the enabling of flexibility services

[▶ DOWNLOAD & READ](#)

D2.7 Technical specifications and guidelines for Enabling Technologies integrations in Smart Energy Grids

[▶ DOWNLOAD & READ](#)

D2.8 Integration of the models and optimal controls into the components and the enabling of flexibility services

[▶ DOWNLOAD & READ](#)

D3.5 Description and report of energy exchange and smart trading tool for LEC including simulation studies for living labs as active LECs. Preliminary version

[▶ DOWNLOAD & READ](#)

D3.7 Description and report of developed multi-physics SAInt modelling tool for network coupling and optimization. Preliminary version

[▶ DOWNLOAD & READ](#)

D4.2 ICT Architecture and data requirements for HYPERGRYD DT PaaS

[▶ DOWNLOAD & READ](#)

D4.4 Smart energy services and operation tools

[▶ DOWNLOAD & READ](#)

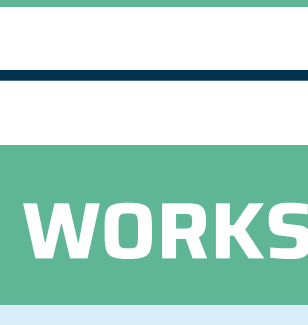
D5.2 Digital Twins of components and Living Labs development, preliminary version

[▶ DOWNLOAD & READ](#)

GLOSSARY

Have you seen our wiki-style glossary? It provides terms and definitions to help partners and stakeholders understand and align on project concepts.

This tool serves as a valuable reference for anyone seeking to deepen their understanding of 4th and 5th generation district heating and cooling networks.

[GLOSSARY](#)


WHITE BOOK

The white book provides all information regarding Hypergrid's best practices and research results, oriented toward researchers and stakeholders.

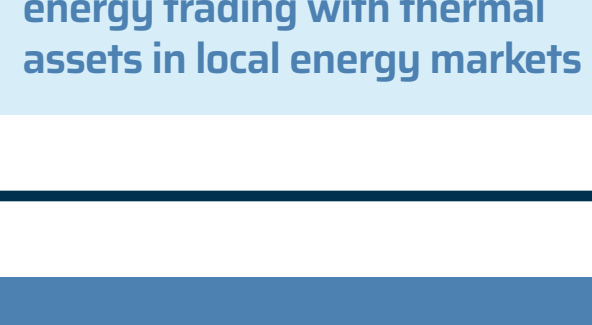
[▶ LEARN MORE](#)

WORKSHOPS

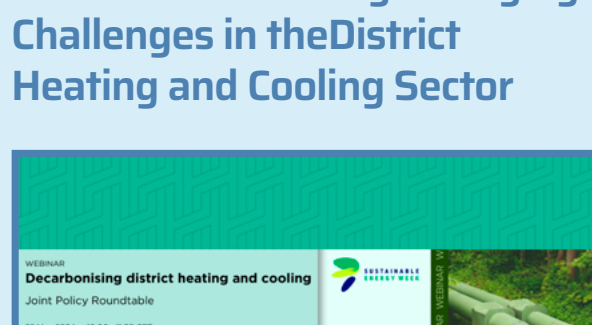
In this Workshop section we offer information about the workshops that have already taken place and those that are upcoming.

[▶ VIEW WORKSHOPS](#)


Innovative RES technologies and simulation tools for Electricity, Gas and Heating Grids



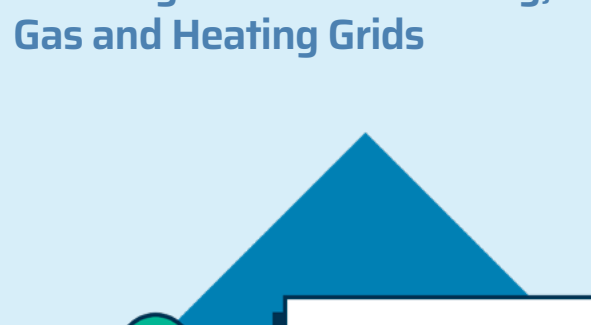
Innovative Solutions for Expanding and Peer-to-peer energy trading with thermal assets in local energy markets



Innovative Decision-Support Tools for Addressing Emerging Challenges in the District Heating and Cooling Sector



Decarbonising District Heating and Cooling



Innovative Optimization and Planning Tools for Electricity, Gas and Heating Grids



HYPERGRYD SOLUTIONS

We asked our partners to tell us about their work, benefits, and challenges at HYPERGRYD.


[▶ WATCH THE VIDEO](#)

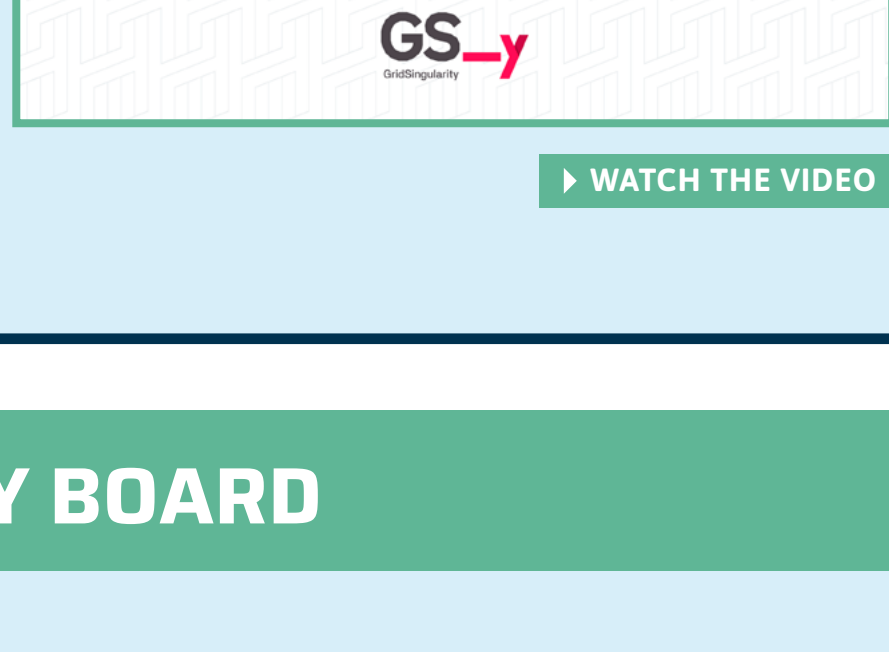
[▶ WATCH THE VIDEO](#)

[▶ WATCH THE VIDEO](#)

WOMAN IN DHC

The HYPERGRYD Woman in DHC series has been created to gather women's perspectives on the Heating and Cooling Districts sector and highlight their contribution behind this challenging project.

Don't miss the latest interview!

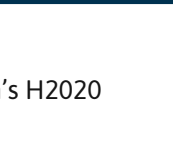
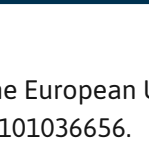
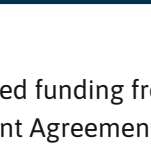
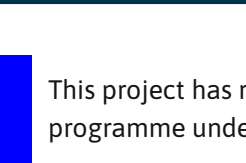

[▶ WATCH THE VIDEO](#)

STAKEHOLDER ADVISORY BOARD

The conclusions

On 20 January 2025, the project technology developers engaged in a vivid exchange with the HYPERGRYD Project Stakeholder Advisory Board on the project's key results and their exploitation potential. Thermal storage innovation was highlighted as an opportunity with increased policy and industry focus on distributed flexibility aggregation. Digital tools were analysed as a catalyst and an essential tool for energy system optimisation, alerting to a need for a clear and effective data access and sharing framework both for market interoperability and a successful user engagement. Development of tariff models to support energy community scaling and demand response action was also discussed, in addition to continued need to subsidise installation of flexibility assets like heat pumps and batteries.

Don't forget that our final video will soon be available on our website and YouTube!!


<https://hypergrid.eu/>


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