



GREEN DEAL PROJECTS SUCCESS STORIES



CLEAN ENERGY WORKING GROUP

DEVELOPING A REVOLUTIONARY SMART GRID DATA MANAGEMENT SYSTEM

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H HYPERGRYD project

In a research pilot, the HYPERGRYD project demonstrated a revolutionary data collection strategy using internet of things (IoT), to greatly enhance the availability of smart grid data throughout the energy system.

The learnings from this approach can be implemented in other data-intensive integrated networks of smart energy districts.

#EUGreenDeal



ABOUT THE HYPERGRYD PROJECT

HYPERGRYD integrates thermal and electric grids through a set of renewables-based, user-friendly digital solutions.

It delivers a unique digital platform that processes and analyses complex data, provides improvements in connectivity across the whole energy system and serves as an easy-to-use single service hub for its various users.



DESCRIPTION OF SUCCESS

Data availability is crucial in energy projects such as HYPERGRYD. The modelling and optimisation of energy systems relies heavily on data-driven processes - however getting access to heat and electricity meters can often be a challenging task.

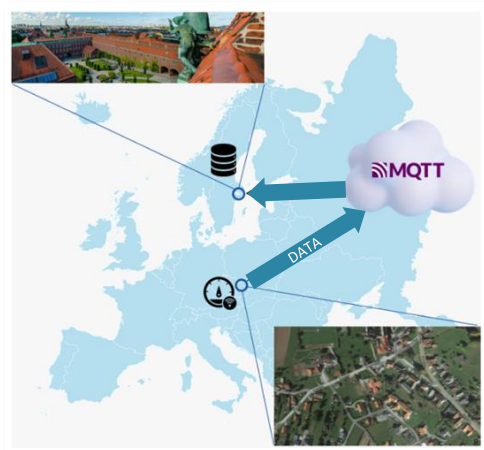
Sonnenplatz, the Austrian pilot partner, provided a novel data collection solution whereby an entire community is connected to both electric and thermal networks. Instead of using traditional file-based data that is periodically updated, the project partner, Royal Institute of Technology Sweden (KTH), implemented a revolutionary data collection strategy that uses an internet of things (IoT)-enabled solution which is much more efficient, and enables the project to rapidly progress and develop.



HIGHLIGHTS

- **Efficient data transfer** from energy smart meters in Großschönau to the KTH database in Stockholm via the internet.
- **Instant availability of live data** for the programming stations at KTH, instead of dealing with data based in static files.
- **Automation of updates to optimise tasks** and machine learning models due to the availability of newly downloaded data.

Based on the newly created database at KTH, data analytics, mining, and modelling have become much more efficient. KTH researchers are now capable of upgrading their methods by taking advantage of this database which is shared and scalable.



IMPACT

The algorithms in the KTH server now provide optimal operation schedules for different energy assets, and recommend an efficient plan for event processes to take place.

User-friendly dashboards with clear visualisations are now available which provide much more accurate insight from the live data streaming in.

The most innovative aspect is that all the data analytics stages – from data collection, storage, mining, and data visualisation – now all happen in a single automated process using just one click!

Read more about this success story online

[Developing a revolutionary smart grid data management system](#)

Visit the project website

[HYPERGRYD](#)

