



energy demand. understood.

REDAP

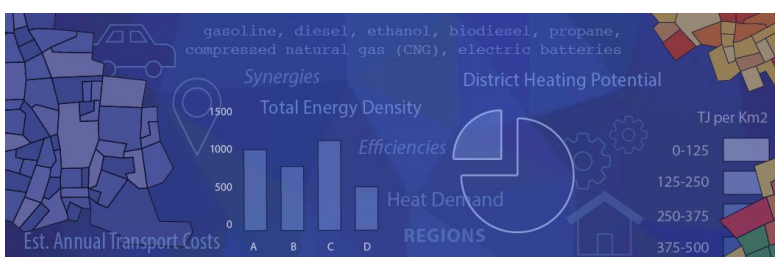
Regional Energy Demand Analysis Portal

“ REDAP sets a new standard for energy demand monitoring & reporting for 2030 and beyond. The partners collaborate with a focus on regional/sectoral integration and innovation.

This RDI project aims to develop a robust, secure, and extendable system for analysing building and mobility energy demand at the regional level. REDAP is intended to provide clear, consistent and comparable data insights to support the complex decarbonisation activity of front-line energy planning experts. These insights could also inform a range of energy & climate policy and regional energy strategies which add value to communities and the wider energy value-chain.

REDAP estimates and visualizes the characteristics and distribution of energy demand for the building and mobility sectors. It will identify areas with high intensities of energy use (incl. heat demand densities, approx. associate energy costs, type of fuel consumption, consumer profile etc) as well as enable integration with real energy data from municipal buildings. In doing so, REDAP will help inform synergies and efficiencies at the local level (e.g. district heating), as well as energy retrofitting and heat-pumps strategies.

Regarding the project's mobility component, REDAP will include an advanced methodology for analysing mobility energy demand (per transport mode) in a given region. The insights will also be used to understand the energy relationship between the transport and building sectors, as well as the demand on the grid systems. These insights could be used to inform the rollout of car-share, electric vehicle charging infrastructure, and other sectoral decarbonisation strategies.



Project Duration

11.11.2019 - 11.11.2021

Project Budget

Total Budget: € 1,265,904

Funding: € 1,025,941

Project Coordinator

Spatial Outlook Ltd. (Ireland)

Project Partners

- AIT Austrian Institute of Technology (Austria)
- Codema (Ireland)
- ICHEC (Ireland)
- Spatial Outlook Ltd. (Ireland)
- Chalmers University of Technology (Sweden)

Project Website

www.redap.eu

Contact

niallconway@spatialoutlook.com

ERA-Net Smart Energy Systems



This project has received funding in the framework of the joint programming initiative ERA-Net Smart Energy Systems. The initiative has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements no. 646039 and no. 755970.





Joint Programming for Flourishing Innovation from Local and Regional Trials towards a Transnational Knowledge Community

www.eranet-smartenergysystems.eu

Main Objectives

1. Automate the process of energy demand analysis of the urban building stock.
2. Incorporate into REDAP a transport energy demand analysis methodology which is developed by Austria's AIT.
3. Develop an improved reporting methodology for delivering energy demand insights to decision-makers
4. Ensure that REDAP is delivered as a secure, online, database-driven, standardised and extendable system which is accessible to need-owners
5. Explore opportunities for partnerships and commercialisation strategies of the REDAP system.
6. Ensure that the REDAP project becomes an opportunity for knowledge transfer between the partners and the ERA-Net Knowledge Community.

Expected Main Results

1. Finalise a working prototype of the software system.
2. Develop an understanding among stakeholders of how REDAP supports the wider decarbonisation and climate action agenda.
3. Establish clear engagement with the Need-Owners (Codema, Dublin's Energy Agency, City of Gothenburg Council, the Region of Western Sweden, two Austrian regional energy agencies) regarding their front line energy demand analysis requirements.
4. Aligned REDAP data insights with various regional monitoring and reporting requirements (e.g. Sustainable Energy & Climate Action Plans, National Energy & Climate Plans, Green Financing, etc).



Regional Energy Demand Insights

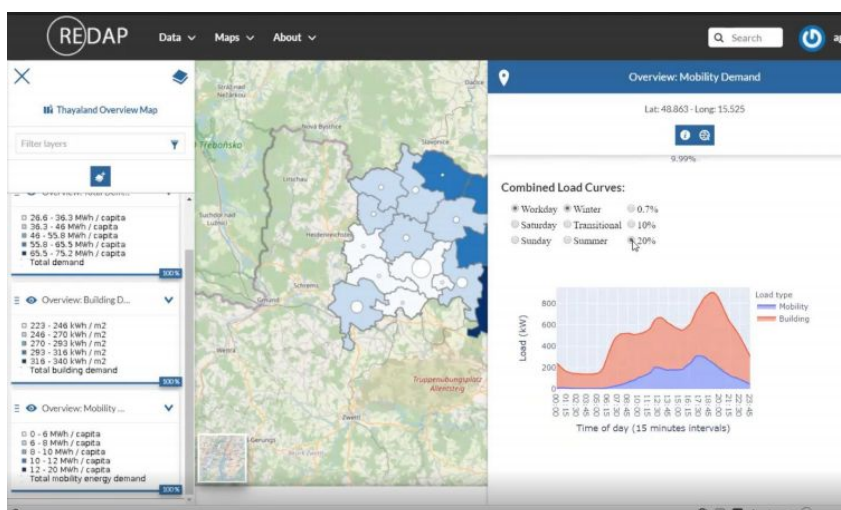


Fig. A screenshot of the current REDAP prototype system, as presented during a Need-Owner workshop (Sept 2020).