



MUNICH

Urban Digital Twin

The Munich urban digital twin optimizes urban planning and energy efficiency through real-time 3D simulations, geodata integration, and AI-driven decision-making, ensuring smarter resource allocation and improved citizen engagement.



LYON

Confluence Monitoring System

The Confluence Monitoring System enables real-time energy tracking and monitoring by integrating GIS mapping, IoT data, and visualization dashboards, allowing better control over energy consumption and supporting sustainable urban development.



PORTO

Renewable Energy Communities

The Renewable Energy Communities digital model strengthens community-driven energy sharing by using real-time tracking, smart metering, and AI-based optimization, facilitating better energy distribution, cost savings, and increased use of renewable energy sources.



CHARLEROI

Digital Energy Transformation

The digital energy platform improves energy efficiency in the CleanTech district by deploying IoT-enabled smart sensors, digital twin modeling, and BIM integration, optimizing energy use in buildings and fostering sustainable district development.



PRAGUE

Golemio Urban Data Platform

The Golemio urban data platform enhances heating efficiency, smart grid management, and urban planning by utilizing AI-powered analytics, business intelligence dashboards, and digital twin simulations to improve decision-making and energy optimization.



STOCKHOLM

Energy System Selection

Stockholm leverages its previous PED experience to exchange knowledge with ASCEND cities and assessing SP1 solutions to determine the best energy system for Loudden's transition into a PCED.



BUDAPEST

Smart Energy Planning

The GIS-based digital twin empowers data-driven urban energy decisions by leveraging scenario modeling, census data, and biomass energy mapping, enabling precise energy forecasting and better sustainability planning.



ALBA IULIA

Smart Energy Management

Alba Iulia is deploying smart energy monitoring at Dorin Pavel Technological High School to enhance energy efficiency. It is installing digital infrastructure, upgrading PV systems, integrating a Building Management Energy System, and preparing for RES-powered EV charging.

Cities require integrated digital solutions to efficiently manage data, energy or mobility.

In the ASCEND project, Solution Package 1 focuses on digital infrastructures & ICT tools that support the transition to climate neutrality through real-time, data-driven decision-making tailored specifically to urban systems:

- Design of the PCED with digital tools
- Use of district Energy Management Systems
- Digital monitoring through a KPI engine
- Digital infrastructure for energy communities