Residual heat
renewable energy

Interreg North-West Europe
Co-funded by the European Union
RE-Greenhouse

ROOPTOP GREENHOUSE AGROTOPIA

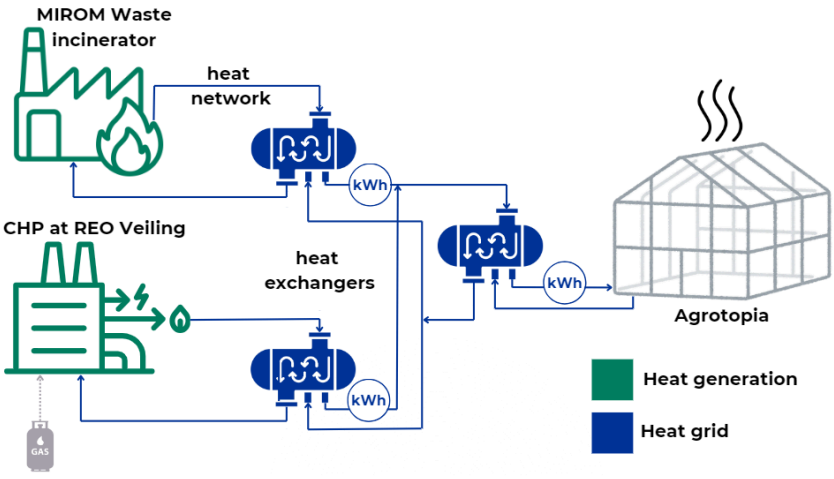
The surface area of Agrotopia is 9000 m², making it the largest rooftop greenhouse in Europe. The greenhouse is constructed from single glass (U-value 4 W/(m².K)) and is situated on top of the REO Veiling warehouse. The total glass surface area is approximately 1.25 hectares.

The greenhouse is internally divided into several compartments, including five compartments for leafy vegetables that require a lower growing temperature (about 14°C maximum in winter) and five compartments for fruiting vegetables that need a relatively higher growing temperature (about 22°C maximum in winter).

Each of these compartments is individually climate controlled and monitored.

Rooftop greenhouse Agrotopia, Inagro Belgium

RESIDUAL HEAT AS HEAT SOURCE



Agrotopia does not have an active heating system such as a gas boiler, it utilizes residual heat. Residual heat is the heat released as a byproduct of another process. The heat is supplied by the municipal waste incineration plant (MIROM) and the 509 kWel combined heat and power (CHP) unit at the REO Veiling.

The heat is available through two separate heat exchangers, one for MIROM and one for the CHP. Both heat sources can deliver hot water at a temperature of 90°C and each has a capacity of 1 MW, serving as a backup for one another.

RE-Greenhouse is an Interreg NWE project aimed at accelerating the transition from fossil fuels to renewable energy in greenhouse horticulture. Follow the project website for more information.

Publisher: Mia Demeulemeester • Inagro vzw • Ieperseweg 87 • 8800 Rumbeke-Beitem, Belgium