Veolia

Energy recovery unexploited heat to heat eco-districts

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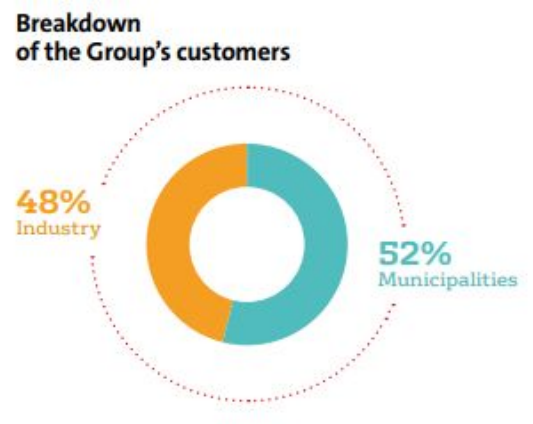
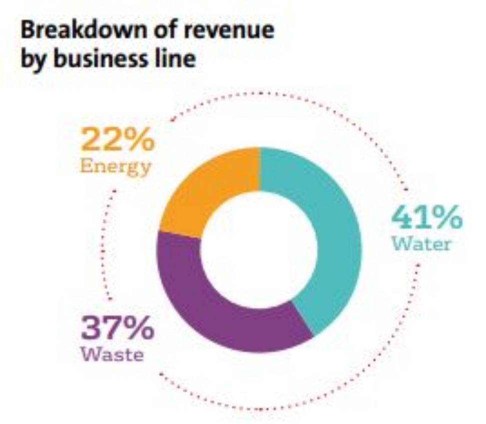
Veolia way

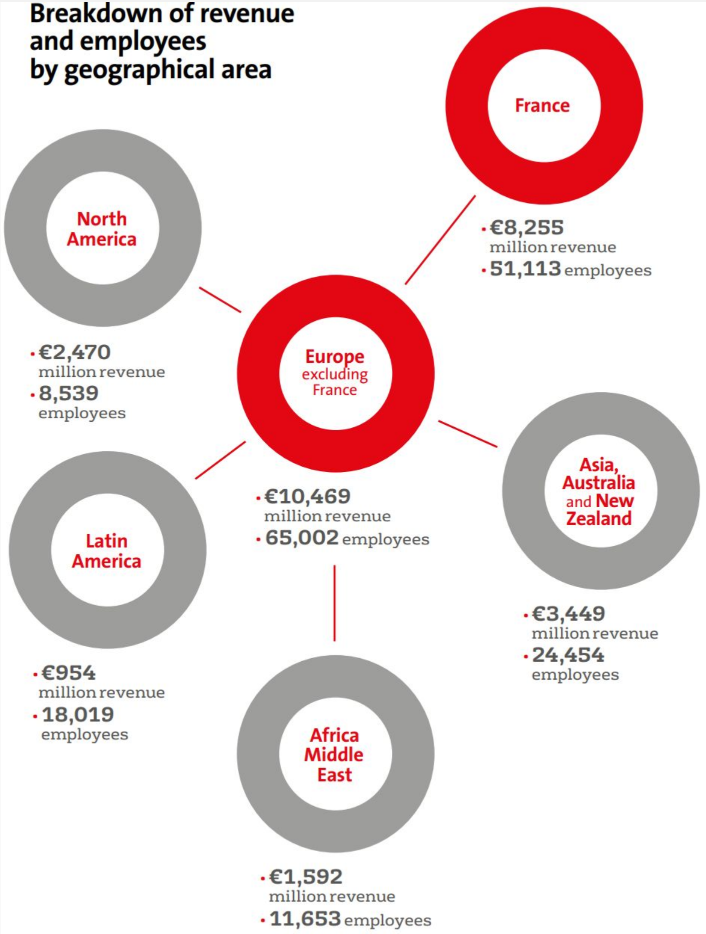
Worldwide presence

€27,189
million revenue worldwide
in 2019

178,780
employees worldwide
in 2019







Our mission :
“Resourcing the world”

We contribute to developing access to resources, preserving them and replenishing them.

IMPROVING ACCESS TO RESOURCES

Veolia offers operational solutions that consume fewer environmental resources and are more economically efficient, so as to expand both the potential and the accessibility of the resources available.

PRESERVING RESOURCES

Veolia develops solutions to conserve resources and optimize their use, while protecting their quality and efficiency throughout the usage cycle.

REPLENISHING RESOURCES

Veolia provides solutions for creating new “secondary” resources that will gradually offset the increasing scarcity of natural “primary” resources, generating new opportunities for social and economic development that protect the environment.

WATER

98 million people supplied with safe drinking water
67 million people connected to wastewater systems
3,548 drinking water production plants managed
2,835 wastewater treatment plants managed

WASTE

42 million people provided with collection services on behalf of municipalities
50 million metric tons of treated waste
519,046 business clients
675 waste processing facilities operated

ENERGY

41 million MWh produced
45,097 thermal installations managed
2,357 industrial sites managed
591 heating and cooling networks managed

2019 figures

Our value creation model: balancing our impact for our different stakeholders

- 5 stakeholders
- 18 objectives
- All KPIs audited

Veolia’s & the energy recovery

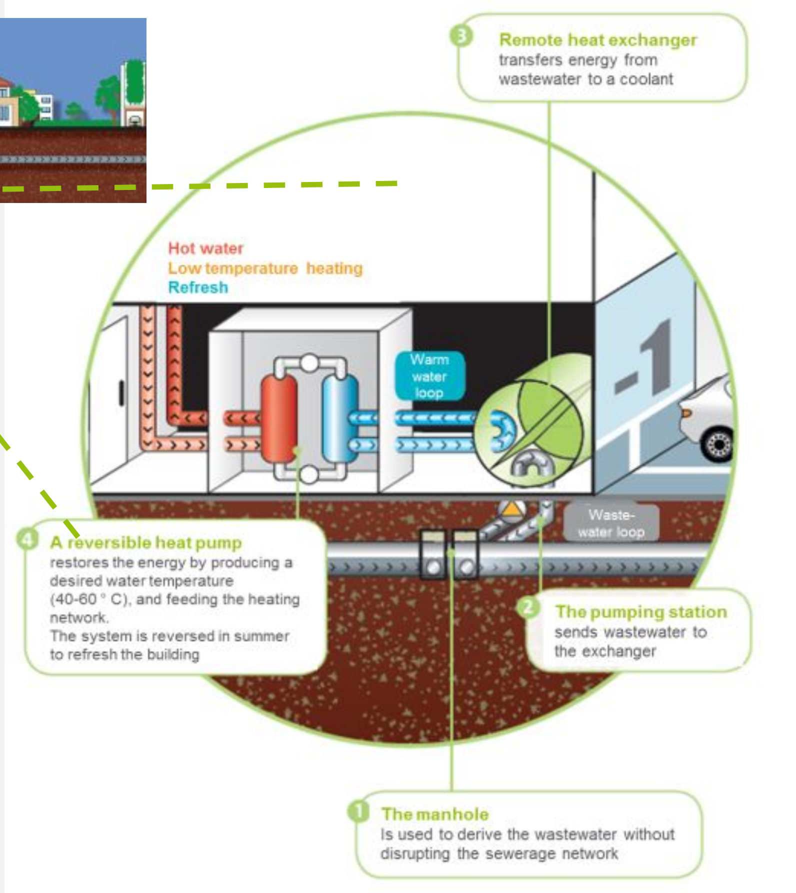
Unexploited heat to heat eco-districts Veolia’s objectives

Veolia believes Waste heat recovery is the greener and most appropriate solution to support the sustainable growth of cities and businesses. The offer is able to enhance local synergies and an integrate management strategy at a local level.

- Valorizes Local Energies : Allows the linking of emitters & receivers
- Improves Energy Efficiency of the facility
- Financial and competitive gain thanks to substantial energy
- Reduction of greenhouse gas emissions
- Deliver local reliable & robust system
- Creates storage capacity
- Improved industry and responsible citizen image
- Answering the Energy Transition context

Case studies

Heat recovery from Sewage water



Energido, an Innovative solution built by Veolia, recovers waste water's calories on networks or sewage stations, and thereby allows the recovery of wastewater into energy and heat power where it is available and usable.

Heat recovery from Sewage water

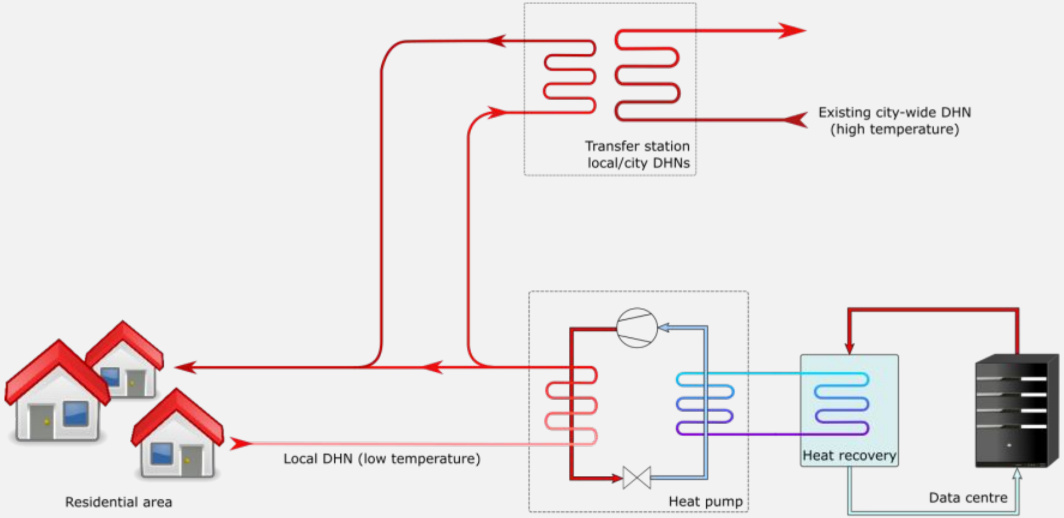
Energido implementation in ROQUEBRUNE-CAP-MARTIN:

- Eco district of 18,700 m² - CAP-AZUR
- Project manager Bouygues Immobilier
- 279 apartments including a tourist residence with swimming pool
- 700 m² tertiary center
- A nursery
- 800 kW installed to ensure 1200 MWh / year of heating / cooling and domestic hot water needs

ReUseHeat project

Datacenter heat recovery in Brunswick to local District Heating Network :

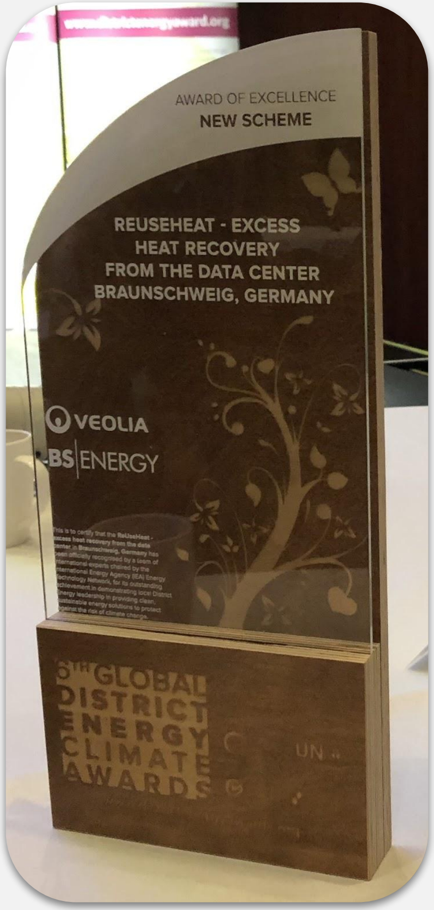
- Project Reuseheat H2020, it demonstrated an innovative system in Germany (Brunswick) for the recovery and reuse of waste heat from data centre enabling heat recovery.
- This heat is delivered through a new low temperature DHN covering the base load demand of new residential building area.
- A smart and flexible control strategy, based on the supply temperature requirements, enables the direct supply to the end-users of the heat produced by the new system.



ReUseHeat project

Datacenter heat recovery in Brunswick to local DHN:

- Total heat demand: 2,100 MWh/year
- Supply via the heat pump: 1,750 MWh/year (Electricity consumption 580 MWh)
- Primary energy savings: 1,284 MWh/year
- CO_2 emissions savings: 304 t CO_2/year
- Heat pump with a thermal output from 300 to 600 kW (COP 3.6) + connection to the city district heating network
- CAPEX: 460,000 € (network investments not part of the ReUseHeat scope)
- OPEX: 104,000 €/year
- Global District Energy Climate Award 2019



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Thank you for attention