



Study on the characterization and valorization of waste heat sources

What is waste heat?

This is the residual heat generated by industrial processes, which is often lost or little recovered.

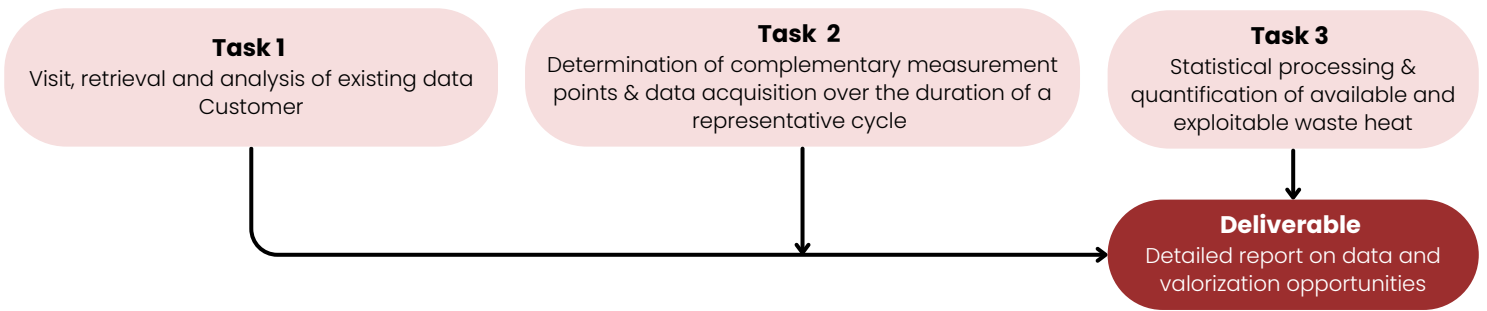
Examples of possible uses : Production of electricity with cogeneration (electricity and heat/cooling) to meet internal needs (drying of inputs, injection into the process, heating of buildings, etc.) or external needs (heating or cooling networks).

According to ADEME, in France, **52.9 TWh of fuel is lost each year** at temperatures above 100°C.

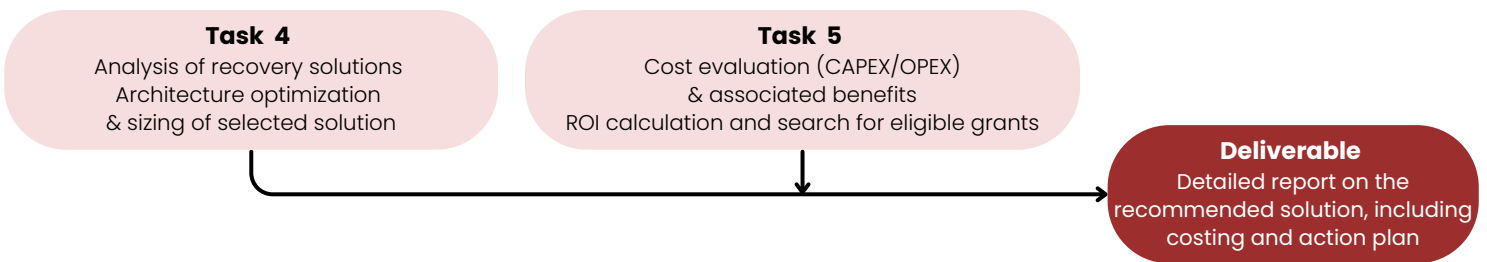
Our proposal

5-step study of your heat source and your needs

Phase 1 Characterization of heat sources and needs



Phase 2 Evaluation, optimization and valorization



Reduce your electricity and gas bills and your carbon footprint



Industrial furnaces



Waste Incineration & VOCs



Gensets

Target applications

Our methodology & tools



Minimally intrusive measurement tools for reliable data collection



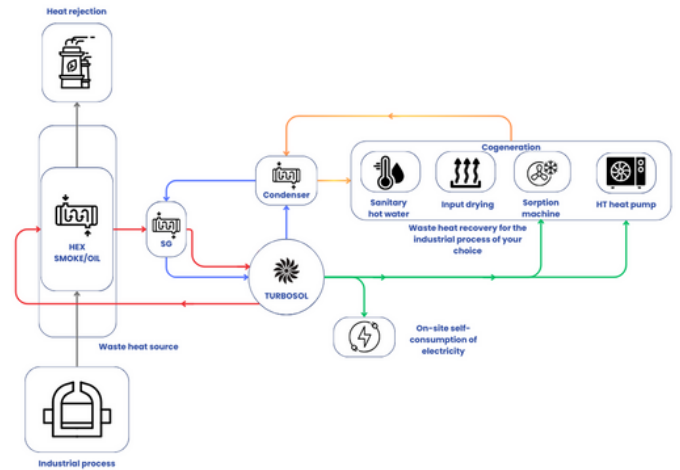
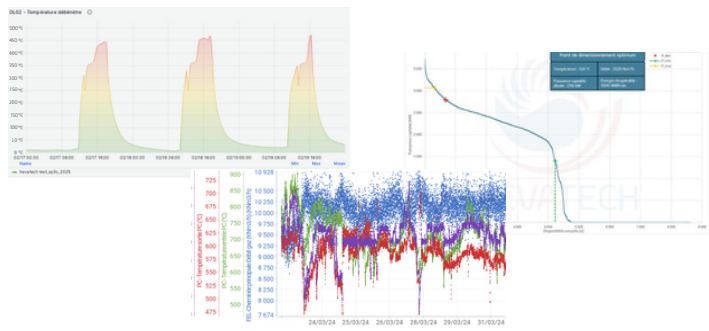
Wireless connectivity and remote analysis to monitor measurement quality throughout the campaign



High-performance sizing tools to select recovery solutions with the best value creation



Reliable financial tools for pre-costing selected solutions and calculating associated ROI



Business Case



Converting waste heat into electricity and heat for drying

Heat source of **1.2 MWth** at **500°C**

Net electrical power : **70 kWe**

Cogeneration heat output : **630 kWth** (hot water at 85°C)

Annual electricity production



+600 MWh

Annual heat recovery



+5,8 GWh

Annual CO₂ emissions avoided



+1550 T

- Annual energy recovery from heat : +60%
- Coverage of input drying requirements : +85%

+400,000€ in annual savings generated

Anticipate future environmental standards