

**We make industrial
heat clean and
affordable.**



Industrial heat is everywhere.

Almost everything you touch, eat or wear was made using very high heat in a factory.



Your food

Frying, baking,
pasteurizing



Your clothes

Drying, dyeing
and pressing



Your packaging

Plastic is melted and
molded, paper is dried



Your house

Bricks, steel
and glass making



Your meds

Chemical synthesis,
drying, waste treatment



And many more !

Carbon capture,
sustainable aviation fuel,
fertilizer production etc.

The "Death Valley" of Industrial Heat

0-150°C
Crowded

Solved by conventional Heat Pumps.

150-550°C

The Gap - 3% of Global Emissions

Too hot for heat pumps. Too expensive for electric boilers.

550°C+

High Grade
Hydrogen / Furnaces

- **The Opportunity:** \$12B/year spent on steam & drying in Food, Paper, and Chemicals
- **The Pain:** Electric resistive boilers cost 50% more to operate than gas
- **The Void:** No viable electric solution exists for 150°C+ that makes economic sense



Airthium Heat Pump: High-Temperature & Hybrid

01

High Temperature Capability

- Electrifies industrial heat **up to 550°C**
- **4x higher** than conventional heat pumps

02

COP 1.5-3.0

- **1.5-3x more heat** per watt vs. resistive boilers
- **Competitive with natural gas**, no subsidies needed

03

No toxic refrigerant

- Uses **inert helium**, zero GWP
- Non-toxic, non-flammable, non-corrosive

Technical Milestones Achieved, Pilots in Pipeline

Growing Momentum

\$9M+ raised in venture capital, loans, and grants

Prototype Built

1kW / 145°C prototype **validated**. Working on a **10kW heat pump at 180°C**

In-House Prototyping

Full in-house **prototyping and testing platform** operational

Patent Pending

1st patent approved (PCT extension to major markets in process); **2nd patent filed**

First Pilot Customers

1st pilot LOI; 100kW 200C paid unit at a **chemical plant in France** planned for 2028



Clear Path to Commercial Launch



Team

Expert Team to Execute



Andrei KLOCHKO
CEO, Co-founder

Ph. D. plasma physics,
Ecole Polytechnique



Franck LAHAYE
COO, Co-founder

Ex-Sales Director EMEA,
Intelsat. Entrepreneur

With **15 employees**, including **7 PhDs** from top European institutes, we have a deep expertise in **mechanical engineering, physics** and **numerical simulation**.

Our Advisors



Cédric ROBERT

Co-founder
PF Invest
Manufacturing
partner



John O'DONNELL

Founder
Rondo
Thermal Energy Storage
Expert, startup founder



Jonathan HOWES

Former CTO
Isentropic Ltd.
Engine designer and
Mechanical Expert



Jérôme PECRESSE

CEO
RioTinto Aluminium
Industrial expert



Laurent CARLIER

CEO
LCI Group
Boiler Manufacturer



Philippe KAVAFYAN

Former CEO
Aker Offshore Wind
Energy expert

Unlocking \$3.8M in Non-Dilutive Grant Funding



Airthium is a **France 2030 grant recipient** (as of April 2025), including a **\$3.8M grant from ADEME**, the French equivalent of the U.S. Department of Energy.

We are currently “testing the waters” on
<https://wefunder.com/airthium>

Airthium is "testing the waters" to gauge investor interest in an offering under Regulation Crowdfunding. No money or other consideration is being solicited. If sent, it will not be accepted. No offer to buy securities will be accepted. No part of the purchase price will be received until a Form C is filed and only through Wefunder's platform. Any indication of interest involves no obligation or commitment of any kind.