AI-based optimization of industrial heat energy – offered to manufacturing SMEs within GreenMantis Cascade call

Summary

Profile type	Company's country	POD reference
Research & Development Request	**Germany**	**RDRDE20260415018**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Research and development cooperation agreement**	**• All countries**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**15 Apr 2026** **15 Apr 2027**	**15 Apr 2026**

General Information

Short summary

A German SME provider of energy efficiency technology for production processes, that can be integrated in existing infrastructures, seeks industrial SME interested in adopting net-zero technologies and in teaming up for a research partnership in the GreenMantis cascade call to implement the solutions in their processes and benefit from a significant reduction in use of fossile fuels as well as in energy consumption.

Full description

Industrial SMEs face significant, largely unexploited inefficiencies in heat energy usage, driven by fossil-based systems, lack of transparency, and static control of heating and process interactions. Energy losses from production cycles, ventilation, and reheating remain unquantified and unmanaged. A financial support option facilitates partnering with a relevant technology provider.

GreenMantis is an EU-funded Eurocluster project that aims to help European SMEs to develop and adopt new Net-Zero-Technologies relative to energy efficiency to boost their green transition and improve their resilience through electricity grid technologies, energy system-related energy efficiency technologies or transformative industrial technologies leading to decarbonization. The objective of this financial support action is to support SMEs from manufacturing sectors to adopt new net-zero technologies solutions, and team up with energy focused SMEs that will provide these solutions.

Within this framework a German SME offers a TRL 7 AI-based monitoring and optimization system that they are developing. The system:

- identifies and quantifies heat losses in real time
- predicts energy demand based on process and environmental data
- enables adaptive control of heating and process systems

The system integrates into existing infrastructures (e.g. SCADA/BMS, EMONI) and is validated in an industrial pilot.

An industrial partner interested in integrating the solution is sought. The partners would submit a proposal to the GreenMantisCall.
The industrial partner can benefit from

- 10–30% reduction in energy consumption
- decreased fossil energy use (gas)
- improved operational efficiency and resilience
- scalable Net-Zero solution for industrial SMEs

Advantages and innovations

The project would enable shifts from passive monitoring to active, AI-driven optimization by:

- detecting energy-intensive events (e.g. ventilation, load peaks)
- modelling heat losses in real time (kWh)
- applying predictive and self-learning control strategies

Enabling dynamic, process-level energy optimization in manufacturing environments.

Technical specification or expertise sought

Stage of development

Under development

Sustainable Development goals

- **Goal 12: Responsible Consumption and Production**
- **Goal 13: Climate Action**
- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 7: Affordable and Clean Energy**

IPR Status

IPR Notes

Partner Sought

Expected role of the partner

While the German SME will be technology provider, the partner sought is a manufacturing SME looking for tailored energy efficiency technology and industrial decarbonization solutions for their processes.
This would be implemented within a research partnership agreement for the GreenMantis cascade call.
The partner could be a manufacturing SME from across the EU or associated to the SMP COSME (non-German).

Type of partnership

Research and development cooperation agreement

Type and size of the partner

- **SME 50 - 249**
- **SME <=10**
- **SME 11-49**

Call Details

Framework program

Horizon Europe

Call title and identifier

GreenMantis Innovation Support Scheme

Submission and evaluation scheme

Anticipated project budget

100000

Coordinator required

No

Deadline for EoI

14 May 2026

Deadline of the call

20 May 2026

Project duration in weeks

36

Web link to the call

https://www.b2match.com/e/greenmantis-matchmaking-2026/components/67204/hg1tuig8Zk9z

Project title and acronym

Dissemination

Technology keywords

- **04007006 - Low, zero and plus energy rating**
- **04007001 - Energy management**
- **04007003 - Process optimisation, waste heat utilisation**

Market keywords

- **06010003 - Energy for Industry**

Targeted countries

- **All countries**

Sector groups involved

- **Renewable Energy**