



# INFERNO

## SUSTAINABLE ENERGY HARVESTING FROM INDUSTRIAL WASTE HEAT



**INFERNO aims to develop a system to turn industrial waste heat into electricity. This system will use three advanced technologies:**

- **thermophotovoltaics (TPV),**
- **metasurface collectors** (a heat-capturing surface),
- **thermoelectrics generators (TEG).**

With an innovative design strategy, these components will be integrated to develop a modular hybrid energy harvesting system that can be easily integrated into the production lines for converting industrial waste heat into usable electricity.

The project's ultimate goal is to create an efficient and easy-to-install system that helps reduce greenhouse gas emissions.

# PROJECT GOALS



Advance thermoelectrics and thermophotovoltaics, and develop a hybrid and highly modular TPV-TEG system combined with a Metasurface-based Collector with a unique design.



Develop a system that can be easily and cost-effectively retrofitted and integrated to generate electricity from industrial waste heat, and test and validate this system as the first of its kind in real industrial settings.



Reduce energy consumption and greenhouse gas emissions, thus improving citizen's quality of life &, ultimately, benefiting society.



[infernoproject.eu](http://infernoproject.eu)



[infernoproject](https://www.linkedin.com/company/infernoproject)

## Partners



Funded by  
the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.