

RETHINKING INDUSTRIAL HEAT SYSTEMS: HOW HYBRID SOLUTIONS ARE DRIVING INDUSTRIAL HEAT DECARBONISATION



TOP NEWS

FLEXHYON Consortium Meets in Saint-Malo for General Assembly!

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Why Industrial Process Heat Matters for Europe's Climate Goals?

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Industrial heat decarbonisation is essential to reduce emissions from energy-intensive sectors. Today, most industrial heat is still generated using fossil fuel-based systems, which results in high CO₂ emissions and strong dependency from resources from outside Europe.

At the same time, transitioning to electrification is not always straightforward. Many industrial processes require different types of heat and flexible operation, which traditional systems are not designed to provide.

FLEXHYON introduces a new approach based on hybrid electrified heating systems. By combining technologies such as microwave heating, heat pumps and ultrasound, the project aims to support the transition towards low-carbon and renewable energy sources in industry.

These hybrid systems are designed to improve energy efficiency and enable more flexible production, including on-demand and on-site operation. This makes them suitable for a wide range of industrial processes and evolving production needs.



FLEXHYON is currently developing and validating, in real industrial environments, three low-temperature heating prototypes for ultrafast drying of compact materials, drying of granular materials, and distillation and extraction of solid materials.



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