SPIRIT

Implementation of sustainable heat upgrade technologies for Industry

Miguel Ramirez (TNO)

EHPA and CEPI Networking Event

This project has received funding from the European Union’s Horizon Europe research and innovation programme under grant agreement No. 101069672 (SPIRIT).
SPIRIT Objectives

1. Demonstrate 3 full-scale HPs in the food and paper industrial sectors, with 3 different technologies.

2. Improve technical and economic performance of HTHPs to enable an increase in their market uptake.

3. Develop HP repeatable concepts and modular design to ensure that HP manufacturers can replicate the construction of HP units after Project completion.


5. Create awareness of the challenges and benefits of heat upgrading technology in the industry for reducing energy costs and GHG emission.

This project has received funding from the European Union’s Horizon Europe research and innovation programme under grant agreement No. 101069672 (SPIRIT).
Demo-site 1: Corrugated packaging plant
(Location: Smurfit Kappa, Morava CZ)

- Demonstration of Spilling heat pump technology at Smurfit Kappa corrugated packaging plant in Morava, CZ
- Demonstration case targeting the flashing of condensate return to boiler and upgrading of temperature with MVR system
- Spilling is developing standardized (containerized) 4-cylinder piston compressor units as a low cost solution for this application
- Incorporating waste heat sources the next step in the pathway towards a CO₂ neutral process

This project has received funding from the European Union’s Horizon Europe research and innovation programme under grant agreement No. 101069672 (SPIRIT).
Follow SPIRIT on Social Media!
Thank you!

info@spirit-heat.eu
miguel.ramirez@tno.nl

www.spirit-heat.eu