

M-TES



ABOUT “M-TES”

The M-TES project “Metallic phase change material-composites for Thermal Energy Management” addresses energy saving issues by tackling **heat recovery, storage and heat managing** in processes which produce or re-use energy in form of heat by designing **metal-based composites for Thermal Energy Storage (TES) and Thermal Energy Management (TEM)**.

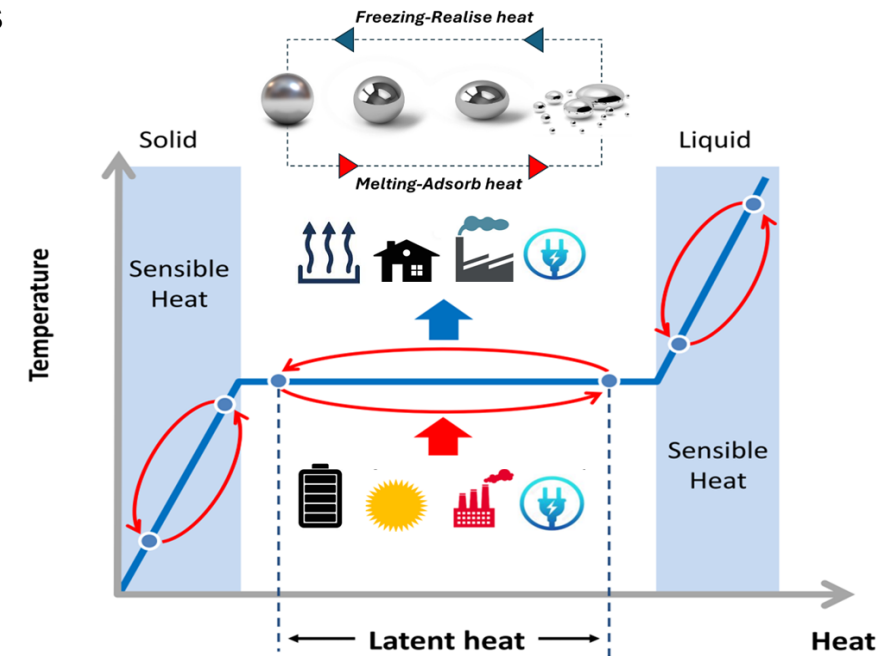
Basically, heat stored/released during metal phase transitions (the so-called **Phase Change Material**) will be exploited. m-PCMs will provide both functional (thermal) and structural (mechanical) properties. Suitable compositions will be investigated by targeting recycling of waste materials in line of the Circular Economy pillars for future applications in energy and industrial fields: implementing cost-less manufacturing processes combined with near net-zero use of critical raw materials.

M-TES Project proposes a development of a lab-scale validated innovative technology enabling Energy Integration and Energy Storage based on a cost-effective and eco-friendly thermal energy storage technology.

Objective 1: Identification of potential Miscibility Gap Alloys (MGA) for TES and TEM Technologies

Objective 2: Successful fabrication of microstructural stable m-PCM materials

Objective 3: M-TES proof-of-concept of m-PCMs composites for a cost less and eco-friendly technology.



Project in a nutshell M-TES Project proposes a development of a lab-scale validated innovative technology enabling Energy Integration and Energy Storage based on a cost-effective and eco-friendly thermal energy storage technology.

Project partners





Project information:

Start date: 01/10/2023

End date: 30/09/2026

Budget: € 2,347,871

Project website:

<https://www.m-tes.eu/>

Cordis Link:

<https://cordis.europa.eu/project/id/101115307>



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