

Compact REtrofit Advanced Thermal Energy storage

An economically affordable, compact and loss-free heat battery for existing buildings.

The **CREATE** system is an advanced thermal storage system based on **Thermo-Chemical** Materials (TCMs), that enables economically affordable, compact and loss-free storage of heat in existing buildings. The system consists of several storage modules containing salt, which is hydrated (charged) in summer and dehydrated (discharged) in winter. Schematic of the CREATE concept







The intermediate form of the composite salt

The final shape used in the 1 kg reactor which will be used in the CREATE system

## **CREATE** is focusing the following sub-objectives:



Stable & compact materials



Long lifetime



Affordable technology



Efficient and high power energy discharge

## Safe and reliable operation

Future value chain

## DEMONSTRATION

MOSTOSTAL will install a full scale solar TCS system delivered by the CREATE project in Warsaw, Poland. The system will be installed into  $\mathbf{C}$ orphanage where a land climate delivers winters cold and warm summers.

## PARTNERS





**AEE INTEC** 



LUVATA

Mostostal





Technische Universiteit **Eindhoven** University of Technology Where innovation starts





RINA. Excellence Behind Excellence.



Orphanage (provided by MOSTOSTAL by courtesy of the City of Warsaw)



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