



# TANDEM

Small Modular Reactor for a European SAfe and Decarbonised Energy Mix

18



Partners

08



Countries

36



Months



## Objective 1

Assess the safety compliance of Small Modular Reactors (SMRs) to be integrated within the future European decarbonised energy mix.



## Objective 2

Provide guidance for the deployment of Small Modular Reactors (SMRs) and Advanced Modular Reactors (AMRs) and their integration into well-balanced hybrid energy systems.



## Objective 3

Create an enabling environment to pioneer the development of hybrid energy systems based on Small Modular Reactors (SMRs) and Advanced Modular Reactors (AMRs) for a decarbonised energy mix.

# About TANDEM

Coordinated by CEA, TANDEM is a 36-month project which aims to develop methodologies and tools to facilitate the safe and efficient integration of SMRs into smart low-carbon hybrid energy systems.

Taking a new approach to clean energy, Small Modular Reactors (SMRs) can be integrated into hybrid energy systems to work in tandem with other energy sources, storage systems, and energy conversion applications to provide not only electricity, but also heat and hydrogen to meet growing energy demands.

## What are SMRs?

SMRs are nuclear reactors smaller than current nuclear power reactors. With a power output between 100 and 1000 MWth, they incorporate, by design, higher modularisation and standardisation, bringing the idea of economies of series as well as easier construction and deployment. They provide a new approach to the nuclear power plant design, featuring a compact size allowing for assembly in-house and transport on-site.

SMRs can be coupled with...



...to create hybrid energy systems.

Coordinated by:



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