

Ongoing SMRs projects

co-funded by the Euratom R&T Programme

Research and Innovation Date: 08-02-23

On-going SMRs projects co-funded by the Euratom R&T Programme

Tangible impacts expected by 2030-2035:

- Light Water (LW): ELSMOR Towards European Licencing of Small Modular Reactors Duration 42 months, Start date 1 September 2019, End date 28 February 2023 EC contribution: EUR 3.5 million - Overall budget EUR 4.2 million Coordinated by VTT - Teknologian Tutkimuskeskus Oy (Finland) <u>https://cordis.europa.eu/project/id/847553</u>
- Light Water (LW):
 - High-Performance Advanced Methods and Experimental Investigations for the Safety Evaluation of Generic Small Modular Reactors Duration 36 months, Start date 1 September 2020 End date 31 August 2023 EC contribution: EUR 4 million - Overall budget EUR 4 million Coordinated by KIT - Karlsruher Institut fuer Technologie (Germany) https://cordis.europa.eu/project/id/945063
- Light Water (LW):

SASPAM-SA

McSAFER

Safety Analysis of SMR with Passive Mitigation strategies – Severe Accident Duration 48 months, Start date 1 October 2022, End date 30 September 2026. EC contribution : EUR 2.9 million - Overall budget EUR 3.8 million Coordinated by ENEA (Italy) https://cordis.europa.eu/project/id/101059853

Tangible impacts expected after 2035

- High Temperature Gas cooled Reactor (HTGR): GEMINI Plus Conceptual design for a HTGR for supply of process steam to industry, a framework for the licensing of such system and a business plan for a full-scale demonstration. Duration 42 months, Start date 1 September 2017 End date 28 February 2021 EC contribution: EUR 4 million - Overall budget EUR 4.5 million Coordinated by Narodwe Centrum Badan Jadrowych (Poland) <u>https://cordis.europa.eu/project/id/755478</u>
- Super Critical Water Reactor (SCWR): ECC-SMART
 Joint European-Canadian-Chinese Development of Small Modular Super-Critical
 Water-cooled Reactor Technology
 Duration 48 months, Start date 1 September 2020 End date 31 August 2024
 EC contribution: EUR 4 million Overall budget EUR 8.9 million
 Coordinated by Centrum Vyzkumu Rez Sro (Czech Republic)
 <u>https://cordis.europa.eu/project/id/945234</u>
- High Temperature Gas cooled Reactor (HTGR): GEMINI For Zero Emission Nuclear cogeneration, polygeneration, decarbonisation, high temperature reactor Duration 36 months, Start date 1 June 2022, End date 31 May 2025 EC contribution: EUR 3.1 million – Overall budget EUR 3.1 million Coordinator: FRAMATOME (France) <u>https://cordis.europa.eu/project/id/101059603</u>
- Liquid Metal: ANSELMUS
 Advanced Nuclear Safety Evaluation of Liquid Metal Using Systems
 Duration 48 months, Start date 1 September 2022, End date 31 August 2026
 EC contribution: EUR 3.4 million Overall budget EUR 4.3 million
 Coordinator: SCK-CEN (Belgium)
 <u>https://cordis.europa.eu/project/id/101061185</u>
- Sodium Fast Reactor: ESFR-SIMPLE
 European Sodium Fast Reactor Safety by Innovative Monitoring, Power Level flexibility and Experimental research
 Duration 48 months, Start date 1 October 2022, End date 30 September 2026
 EC contribution: EUR 3.3 million Overall budget: EUR 5.5 million
 Coordinator: CEA (France)
 https://cordis.europa.eu/project/id/101059543

- Molten Salt reactors:

MIMOSA

Multi-recycling strategies of LWR SNF focusing on Molten Salt technology Duration 48 months, Start date 1 June 2022, End date 31 May 2026 EC contribution: EUR 5.7 million - Overall budget: EUR 5.7 million Coordinator: ORANO (France) https://cordis.europa.eu/project/id/101061142

Hybrid projects

- Light Water SMRs and AMR: TANDEM
 Small Modular Reactor for a European safe and Decarbonized Energy Mix
 Duration 36 months, Start date 1 September 2022, End date 31 August 2025
 EC contribution: EUR 3.3 million Overall budget: EUR 3.6 million
 Coordinator: CEA (France)
 https://cordis.europa.eu/project/id/101059479
- Licensing of fusion and fission installations: HARMONISE
 Towards harmonisation in licensing of future nuclear power technologies in Europe
 Duration 36 months, Start date 1 June 2022, End date 31 May 2025
 EC contribution: EUR 2.5 million Overall budget: EUR 2.5 million
 Coordinator: Lietuvos Energetikos Institutas (Lithuania)
 https://cordis.europa.eu/project/id/101061643