



SEAKNOT

# SEvere Accident research and KNOWledge management for LWRs

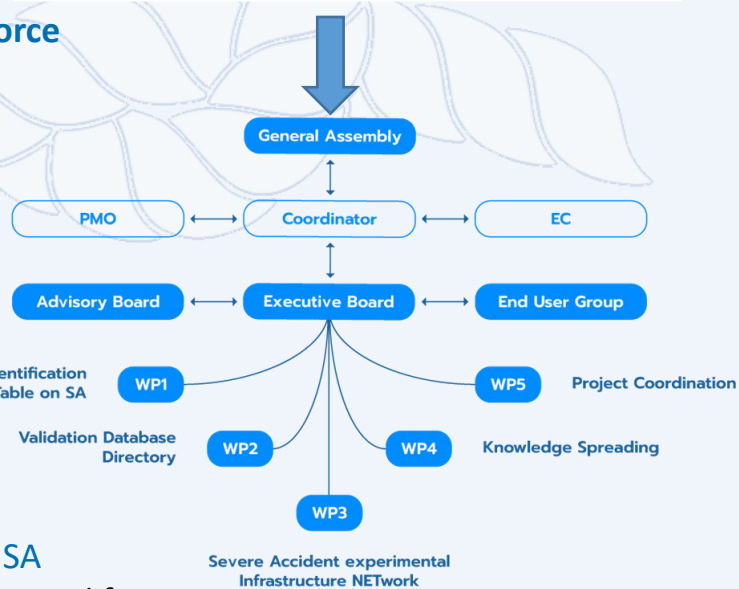
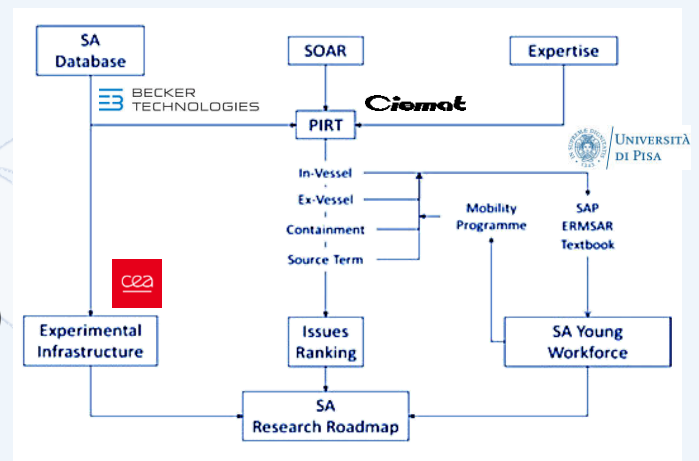
## Objectives

### Management, Exploitation and Assessment of Severe Accident Knowledge

- ❑ Carry out a critical analysis of the current knowledge on Severe Accidents (SA)
- ❑ Make recommendations for further reduction of risks associated with existing and forthcoming nuclear technologies (SMLWRs & ATFs)
- ❑ Identify experimental research needs to optimize SA mitigation measures
- ❑ Strengthen the transfer from senior scientist and engineers to the young generation

## Outcomes

- ❑ Roadmap for SA research based on
  - PIRT (Phenomena Identification & Ranking Table)
  - Validation Database Directory
  - Experimental infrastructure net
- ❑ Sound “know” transfer plan to young workforce
  - Textbook on SA
  - SAP Course (2 editions) – Summer camp
  - ERMSAR conferences (2 editions)
  - Mobility grants



## Impacts

- ❑ Enhancement of NPP safety
- ❑ Maintenance and expansion EU expertise in SA
- ❑ Strengthening abilities and skills of the young workforce
- ❑ Reinforcement education & training activities on SA






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## HIGHLIGHTS

- ❑ Strong benefit from previous EU and non-EU research
- ❑ Collaboration with NEA/CSNI and IAEA related Working Groups
- ❑ Strong link with  **NUGENIA**TA2  
Nuclear Generation III/III+ Alliance
- ❑ Creation of a "common space" for SA experts and young nuclear generations
- ❑ SA research needs reset based on what's known, what's unknown and what's safety significant

## PARTNERS

CIEMAT, IRSN, KIT, JSI, UPM, FZJ, UJV, TRACTEBEL, FRAMATOME, KTH, VTT, ENEA, CEA, UNIPI, BT, LGI, PSI

## DURATION & BUDGET

October 2022 to September 2026  
Budget €2,726,993.75

## CONTACTS

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## MAIN EVENTS

### Severe Accident Phenomenology (SAP) Course

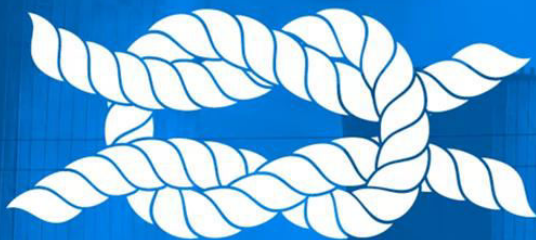
two editions planned in June 2023 (UPM Madrid) and 2025 (FZJ Julich)

### European Review Meeting on Severe Accident Research (ERMSAR Conference)

two editions planned in May 2024 (KTH Stockholm) and 2026 (CIEMAT Madrid)



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[www.seaknot-project.eu](http://www.seaknot-project.eu)

## THE SEAKNOT WEBSITE

The aim of the four-year project is two-fold: to shape up a roadmap for severe accident research in the coming 10 years by means of which to achieve both a substantial reduction of remaining uncertainties and a measurable progress in the practical elimination of radiological consequences; and, no less important, to efficiently manage the knowledge and knowhow transfer to the young generation of nuclear scientists and engineers who will be involved in its implementation.

Coordinated by CIEMAT (Spain), SEAKNOT is constituted by seventeen well-known organizations from ten countries.



Funded by  
the European Union



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