

Discover our labelled projects







LEad fast reactor Safety design and TOols

Overview and objectives

• EURATOM2027:

Partners

Safety of advanced and innovative nuclear designs

- Duration: **4 years** (until October 2028)
- EU contribution: ~ 4 M€
- Recognized expertise: key universities, research centers and industrial partners

Main topics



 Integration of LFR technology with renewable energy sources (RES) and life cycle of LFR reactor fuels



 post-accident long-term management and decay heat removal

- **Integration**: LFR technology in energy mix including RES
- Viability: materials compatibility and coolant control
- **Safety**: mitigation/prevention of accidental scenarios with in- and ex- vessel passive systems
- European LFR technology platform:
 - experimental facilities (e.g. ATHENA, CIRCE, SIRIO)
 - up-to-date numerical simulation tools
- **Public**: Increase the interest through dissemination activities





 coolant purification, oxygen detection and control for a pool-type configuration, release and transport of fission products



• corrosion protection in Pb at high temperatures (up flow-induced erosion and fretting 650°C), to phenomena



• building up of a representative database for LFR pool thermal-hydraulic for V&V of numerical approaches (STH, CFD, multiscale approach) for large pools both in steady state and transient conditions









This project has received funding from Horizon Europe – Euratom programme under grant agreement No 101166337.