



## Civil Nuclear Energy Workshop: Partnering for Implementation

OCTOBER 8-9, 2024 | KNOXVILLE, TN

### **Ondrej Benes**

*Project Leader*

*European Commission - Joint Research Centre*

Dr. Ondřej Beneš earned his PhD in 2008 from the Institute of Chemical Technology in Prague, focusing on the thermodynamic properties of molten salt fuel systems. His research was conducted under an EU grant at the Joint Research Centre in Karlsruhe. Following his PhD, he joined CEA Saclay in France as a Postdoctoral fellow, where he worked on first principle simulations of solid fluoride salt systems and thermodynamic equilibrium simulations of oxide fuel systems.



In 2009, he became a full-time scientist at the European Commission's Joint Research Centre in Karlsruhe, where he continues to work today. He is responsible for investigating the high-temperature properties of nuclear fuels and developing new experimental setups. His research focuses on solid oxide, molten fluoride, and chloride nuclear fuels, including post-irradiation experiments. He leads the laboratory that investigates the high-temperature properties of molten salt reactor fuel and oversees the development of a related thermodynamic nuclear database, which is used globally to assess nuclear fuel safety. Additionally, he leads multiple international and institutional projects on innovative reactor systems, including small modular reactors.

#### Organization Overview:

Safety of Innovative Nuclear Fuels

#### Delegate Interests:

Listed topics are sufficient as of now.

#### Topics / subjects the delegate wishes to be included in the Workshop and site visits :

Molten Salt Reactor Technology