



## First announcement

### European workshop on Sodium facilities design and safe operation

Enea, Casaccia, May 22-24, 2018



## **Objectives of the Workshop**

The Workshop is organized in the framework of the ESMR-SMART Project, and it is dedicated to topics covering coolant technology, facility design, data analysis and code validation with respect to the 4th Generation ESNII fast reactor demonstrators cooled with liquid metals. A special focus is done for sodium, but other HLM such as lead & lead-bismuth, will be also addressed for some items.

## **General context**

The 4th Generation ESNII fast reactor demonstrators represent an important cornerstone on the way to the corresponding commercial reactors. Design, safe operation and future decommissioning of Fast Reactors involve the necessity to master the coolant with regards to the related technologies. To perform research and development activities, i.e. validation of codes, qualification of systems and components, it is necessary to operate experimental facilities. The workshop will address guidelines and good practices for facility design and operation and more particularly specific issues related to sodium. A specific focus will be done on instrumentation required for safe operation. Functional analysis will be done for several selected facilities, dedicated to some research item. Finally, a feedback of existing sodium, lead, lead bismuth facilities will be done and case studies will be carried out in order to identify some key targets for future activities. Loops dedicated to specific safety systems with different coolants will be considered. The workshop will offer an opportunity to discuss and share ideas among the young generation and specialists. It will be mainly dedicated to researchers involved in experimental studies carried out on Na facilities.

## **To whom it is addressed**

The Workshop aims at providing a platform for discussing and exchanging ideas between students, young professionals and specialists involved in R&D or design activities. Participants from regulatory authorities, as well as from their scientific and technical support organizations, research institutes and consulting companies are welcome. The Workshop language will be English.

## **Topics**

- 1) Thermo-fluid-dynamic
- 2) Coolant chemistry and structural materials interaction
- 3) Instrumentation
- 4) Safety & Security
- 5) Main components
- 6) Decay heat removal systems
- 7) Experimental needed systems
- 8) Simulations and validations
- 9) Experimental data treatment; treatment of uncertainties and “propagation” on the simulation results

## **Venue**

The workshop will be held in Rome ENEA Headquarter and in ENEA Casaccia Research Center (conference shuttle bus available).

## **Fees**

The workshop is free of charge for all participants.

### **Contact information & Registration**

To apply for registration, fill the registration form before **March 31 2018**.

Questions related to the Workshop should be addressed to the Workshop Committee members.

### **Accommodation**

Hotel near ENEA Headquarter

Hotel Astrid - Largo Sarti, 4 - [www.hotelastrid.com](http://www.hotelastrid.com)

Hotel Villa Glori - Via Bernardo Celentano, 11 - [www.hotelvillaglori.it](http://www.hotelvillaglori.it)

River Chateau Hotel – Via Flaminia, 520 - [www.riverchateau.net](http://www.riverchateau.net)

### **Workshop scientific committee**

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### **Workshop Organizing committee**

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