



AGENDA

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- 9:00 Welcome coffee and registration
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- 9:30 **Opening Address**
Dr. **Jean-Christophe Niel**, Director General, Institute for Radiation Protection and Nuclear Safety (IRSN), President of European Technical Safety Organization (ETSON)
Mr. **Roger Garbil**, Head of Euratom Research Fission Sector, European Commission (EC/DG RTD)
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- 9:45 **Main Innovative Nuclear Reactor Safety Challenges: An Overview**
Ms. **Ulla Engelmann**, Director for Nuclear Safety and Security, Joint Research Center (EC/JRC)
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- 10:05 **Success Story Highlights of ASTEC's Development: Some Historical Reminders**
Ms. **Isabelle Duhamel**, Head of Major Accident Department, Institute for Radiation Protection and Nuclear Safety (IRSN)
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- 10:25 **Major Contributions of ASTEC in the Field of Expertise and Research**
Mr. **Gérard Cénérimo**, Mr. **Florian Fichot**, Major Accident Department Division, Institute for Radiation Protection and Nuclear Safety (IRSN)
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- 10:45 **ASTEC, an Asset for the Training of the Young Generation**
Dr. **Federico Rocchi**, Head of the Laboratory for the Safety of Nuclear Installations, National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)
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- 11:05 Coffee break
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- 11:30 **Addressing New Challenges in Nuclear Safety: ASTEC as the European Reference Code?**
Round table chaired by Ms **Karine Herviou**, Deputy Director General, in charge of Nuclear Safety - Institute for Radiation Protection and Nuclear Safety (IRSN)
Mr. **Jan Panek**, Nuclear energy, safety and ITER Director (DG ENER)
Mr. **Kresna At Khen**, Project Manager at Électricité de France (EDF)
Mr. **Philippe Dejardin**, Lead Engineer SMR in Nuclear Safety & Engineering, Key Expert in Severe Accidents, Tractebel-Engie
Prof. **Leon Cizelj**, President of the European Nuclear Society (ENS)
Dr. **Gabriel Pavel**, Executive Director of the European Nuclear Education Network (ENEN)
Mr. **Stephane Calpena**, Global Licensing Director of NEWCLEO
Mr. **Guillaume Bucher**, Severe Accident Project Architect, NUWARD
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- 12:30 Lunch
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14:00 USERS WORKSHOP - FROM ISSUES TO ACTIONS

ASTEC allows simulating accident scenarios, from the initial event up to the environmental releases. It serves various purposes, such as safety analyses, probabilistic safety assessments (PSA), emergency preparedness and response (EP&R), research and development, and education and training. Developed since the 1990s, it received significant support from several projects funded by the European Commission through the PCRD, H2020, SNETP programs, and more recently, the Horizon Europe program.

Up to 2022, 28 European members have collaborated within the ASCOM network, a SNETP project, without EC funding. This collaboration has expanded ASTEC's scope to include the progression and mitigation of major accidents in various types of facilities, including light water reactors (PWR, VVER, EPR, BWR, HPR1000), heavy water reactors (CANDU), experimental and naval reactors, and fuel cycle facilities.

The current ambition for ASTEC focuses on enhancing modeling and validation for small modular light water reactors (LWR SMRs), developing new capabilities to address safety issues with advanced modular reactors (AMRs), including micro-reactors, and integrating ASTEC into the training of the new generation of nuclear professionals and emergency preparedness and response actions.

The discussion will be divided into three key areas and moderated by **Laurent Guimier**, the head of IRSN Lab, specializing in innovative solutions through creative methods and design thinking.

1. **Setting a path for the integration of new reactor concepts: Exploring New Trajectories**
In response to the changing landscape and new challenges facing ASTEC, this discussion will address the needs of European partners, including safety organisations, utilities, vendors, and research institutions, in identifying new ASTEC developments.
2. **Enhancing European Nuclear Safety: The Key Role of the European Commission in Supporting Research and Industry**
Adapting and enhancing the European ASTEC NETWORK to align with evolving nuclear challenges in Europe is crucial. This discussion will focus on organizing the collaboration framework, securing funding, and facilitating developments, particularly with the introduction of various new technologies and new participants in the network.
3. **Preparing the Next Generation of Nuclear Safety and Emergency Preparedness Professionals with ASTEC and Similar Software.**
Recognizing the importance of training the next generation of nuclear safety professionals, this part of the discussion will focus on ASTEC's contribution to prepare skilled professionals for research and the safety management of various nuclear facilities.

15h30 Workshop's conclusion

16:00 Goodbye Coffee

Practical details



8 December 2023
9:30-14:00 Plenary
14:00-16:30 Users Workshop



MAISON IRÈNE ET FRÉDÉRIC JOLIOT-CURIE
100, rue du Trône
1050 Brussels
maison-joliot-curie.eu



[Contact](#)

