

International Conference on Enhancing Nuclear Safety and Security Through Technical and Scientific Support Organizations (TSOs): Challenges and Opportunities in a Rapidly Changing World

Monday, December 2, 2024 - Friday, December 6, 2024

Vienna, AUSTRIA

Themes and Topics

The conference will highlight the importance of scientific and technical capabilities to support regulatory decision-making for enhanced nuclear and radiation safety and security. While addressing challenges to the development, maintenance and enhancement of such capacities, the conference will:

Enhance scientific and technical basis within the regulatory infrastructure for nuclear and radiation safety and security;

Exchange of best practices and enhance technical and scientific capacities between Member States including embarking countries;

Enhance scientific knowledge and adaptability for new technologies in a rapidly changing world;

Promote involvement of young generation in the TSO activities, including TSO awards for young professionals;

Encourage Member States to apply the methodology for self-assessment (TOSCA) and enhance their national capability;

Enhance networking of stakeholders with TSOs notably to foster international collaboration.

Session 1: Current Technical and Scientific Challenges

1.1: Long term operation, periodic safety review (PSR) and licensing beyond design life

1.2: Transition to decommissioning, challenges with legacy, unconventional waste management and remediation

1.3: Radiation protection and monitoring (including calibration of systems and equipment and record keeping)

Session 2: Emerging Technical and Scientific Challenges

2.1: New and emerging technologies (for example: Small Modular Reactors; Fusion; Gamma knife)

2.2: Innovative tools and techniques (for example: Artificial Intelligence; Harmonized analytical tools)

2.3: Dealing with disruptive events (for example: Pandemics; External hazards; National emergencies; Climate changes)

Session 3: Interaction of TSOs with Stakeholders

3.1: Regulators and public authorities

3.2: Public/civil society

3.3: Academia, research institutions and industry

Session 4: Scientific and Technical Capacity Building

4.1: Knowledge management and fostering involvement of young professionals

4.2: Equity, diversity, and inclusion

4.3: Education and training

4.4: Research and development (needs, priorities and infrastructure)

4.5: TSO self-capacity assessment adopted in different countries

Session 5: Role of TSOs in an International Context and for Embarking Countries

5.1: International cooperation (for example, the Technical and Scientific Support Organization Forum (TSOF)) and use of international experience feedback

5.2: Bilateral and multilateral cooperation (cross-border and regional approaches for example: Emergency Preparedness and Response (EPR); Transportation; Sources)

5.3: Supporting embarking countries and building national TSO capacities (for example: Competence; Technical independence; Conflict of interest)

Session 6: Holistic Approach to Risk and Hazard Management

6.1: Safety and security interface

6.2: Promoting and fostering safety and security culture

6.3 Initiatives on leadership and management

6.4 Graded approach and integrated safety assessment