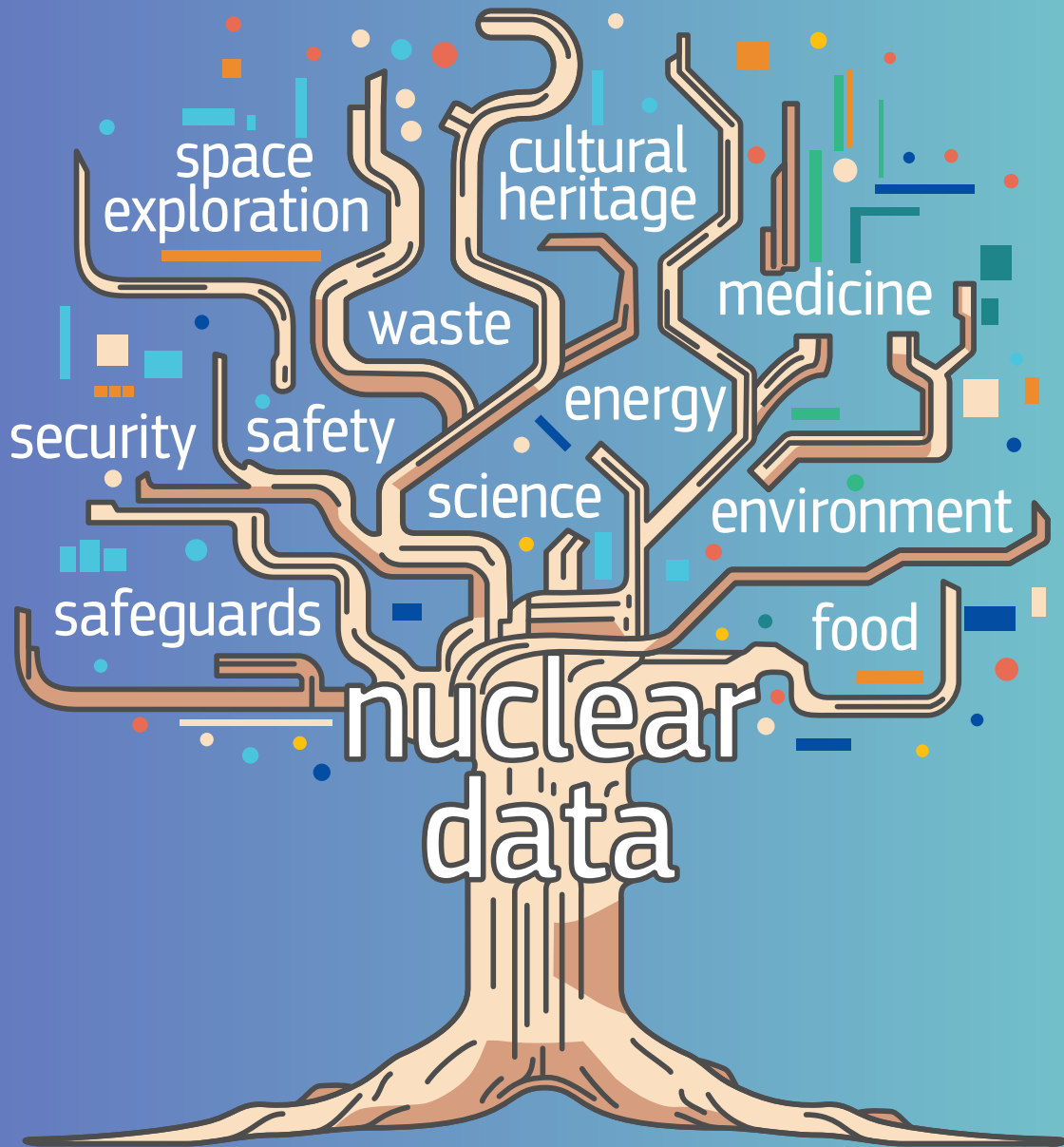




# Providing the best nuclear data for tomorrow's nuclear solutions challenges and opportunities

Side Event at the 67th IAEA General Conference  
26th September 2023 | 14:00 to 15:30 | Room M7



# Providing the best nuclear data for tomorrow's nuclear solutions: challenges and opportunities

Side Event at the 67th IAEA General Conference 2023  
Tuesday 26 September 2023 | 14:00 to 15:30 | Room M7

## Description

Advances in nuclear technologies for energy, waste, medicine, environment, earth and space exploration, security, safeguards, and cultural heritage rely on quality-assured nuclear data characterizing nuclear reactions and decay radiation. Progress depends strongly on the latest scientific insights promptly incorporated into the databases. The competencies, research infrastructures, and best practices required for data development transcend the resources of a single application, calling for a coordinated and concerted effort at the national and international levels. A panel of experts presents challenges and opportunities in transforming the best scientific knowledge to quality-assured nuclear data, ready for use in developing new nuclear solutions.

## Background

The progress of nuclear technologies is contingent upon modelling and operations, and relies heavily on code, data, and expertise. Accurate quantification of nuclear reaction and radioactive decay data is crucial for establishing fundamental parameters with a high level of confidence. Although nuclear technology organizations possess knowledgeable professionals to handle nuclear data, there are obstacles associated with its development, primarily stemming from constrained budgets and divergent priorities.

To overcome this obstacle and guarantee the accessibility of high-fidelity nuclear data for future challenges, it is vital to have united funding and collaborative endeavours spanning various applications and transcending national programs. The establishment of a framework that bolsters competencies, infrastructures, and enhancements in nuclear data is indispensable.

## Agenda

Moderated by Ulla ENGELMANN (European Commission, Joint Research Centre, Director)

- **Innovation, research and development for tomorrow's nuclear solutions (20')**
  - Yolanda BENITO (CIEMAT, Director General)
  - Héloïse GOUTTE (CEA, Scientific Director for Energy)
  - Michael FLEMING (OECD-NEA, on behalf of the DG)
- **Opportunities, challenges and ways forward for nuclear data (50')**
  - **Introducing nuclear reaction and decay data**, Arjan KONING (IAEA)
  - **A European perspective**, Arjan PLOMPEN (JRC)
  - **A United States perspective**, Keith JANKOWSKI (US DOE)
  - **A Japanese perspective**, Tokio FUKAHORI (JAEA)
  - **A Chinese perspective**, Nengchuan SHU (CIAE)
- **Round table on resources, competences, research infrastructures, new technology, organisation, and cooperation (15')**
- **Closing (5')**