



**IAEA**

**International Atomic Energy Agency**

*Atoms for Peace and Development*

**International Conference on Nuclear Knowledge  
Management and Human Resources  
Development: Challenges and Opportunities**

**IAEA Headquarters**

**Vienna, Austria**

**1–5 July 2024**

**Organized by the  
International Atomic Energy Agency (IAEA)**

**Announcement and Call for Papers**

## **A. Background**

Nuclear knowledge management and human resources development present both challenges and opportunities for the nuclear industry due to its unique nature and evolving global landscape. Opportunities arise in addressing these challenges and enhancing the effectiveness and sustainability of the nuclear operations.

An appropriate knowledgeable and experienced multigenerational workforce, with strong safety and security culture, is required by the long lifecycle of a nuclear facility. One of the major challenges is, therefore, the preservation and transfer of knowledge from experienced professionals to the subsequent generations. When a significant portion of the nuclear workforce approaches retirement, there is a risk of losing critical expertise and institutional memory. The capture, documentation, and transfer of this knowledge is needed to ensure continuity and prevent knowledge gaps.

Another challenge is keeping pace with technological innovations. The nuclear industry is continually evolving, with advancements in reactor designs, instrumentation and control systems, digitalization and other new technologies. Human resources development programmes are required to adapt to provide professionals with the necessary skills and competencies to navigate and utilize these technologies effectively.

Additionally, changing demographics and increased workforce mobility pose challenges in recruitment and retention. Attracting and retaining a diverse talent pool with the required technical knowledge and scientific background is essential for the long-term success of the industry. Organizations need to develop strategies that promote diversity, inclusivity and equal opportunities, ensuring a sustainable pipeline of skilled professionals.

Furthermore, maintaining a strong safety culture and regulatory compliance is a critical challenge. Human resources development programmes must emphasize safety training, risk awareness and a strong commitment to safety values and practices. Continuous training and development are necessary to meet regulatory requirements and ensure a culture of safety throughout the workforce.

The International Atomic Energy Agency (IAEA) plays a crucial role in addressing these challenges and enhancing the nuclear industry operational efficiency, safety performance and sustainability.

The IAEA as a global hub for the exchange, dissemination and preservation of nuclear knowledge and information, has previously organized six International Conferences on Nuclear Knowledge Management (NKM) and Human Resources Development (HRD), including education and training and capacity building.

## **B. Purpose and Objectives**

The purpose of the event is to review global developments related to nuclear knowledge management and human resources development; consider the current and future challenges and opportunities; provide participants with practical solutions that they can use at organizational, national and international level; and develop and maintain the human resources needed to support safe and sustainable nuclear power programmes.

## C. Themes and Topics

The following topics will be addressed during the conference:

### **1. NKM and HRD for Building and Sustaining Capacity in Nuclear Organizations to support national nuclear programmes**

- How a synergic approach between NKM and HRD can be effectively implemented to leverage their combined efforts and resources, ultimately fostering greater cooperation, and driving innovation within a nuclear organization;
- What are the key NKM and HRD challenges and opportunities when implementing a nuclear power programme;
- How a nuclear organization develops and implements NKM policies and methodologies to identify, preserve and disseminate critical knowledge (including the fostering of a knowledge sharing culture);
- What strategies and practices are employed in nuclear organizations for effective human resource management, encompassing aspects such as: monitoring and improving human performance, retaining professionals, training and certifying professionals, developing career and competency mapping, planning succession, and developing functional leadership.

### **2. Nuclear education and new NKM and HRD approaches to ensure a skilled workforce for the future**

- How crucial are collaborative efforts between academia, industry and government for innovative programmes and beneficial outcomes that drive the advancement of nuclear education and outreach;
- How nuclear academia and industry can overcome the lack of a skilled workforce, gain insight into strategies and initiatives to engage and inspire the younger generation (at national and international level), and build diverse, gender balanced and inclusive teams;
- How vocational education programmes can be tailored for nuclear power initiatives and facilitate the successful reskilling of professionals transitioning from other industries into nuclear organizations;
- What are the latest innovations and advancements in smart digital tools and technologies to successfully meet the upcoming challenges in NKM and HRD for sustainable nuclear organizations.

### **3. Enabling NKM and HRD to support sustainable development of advanced technologies**

- What the role of NKM and HRD for R&D and innovation is to ensure a safe and sustainable nuclear programme, including nuclear power, the nuclear fuel cycle, nuclear science and applications;
- What are the challenges and opportunities in recognizing the gaps and links between NKM and HRD for harmonized approaches to support organizations in adapting to a changing environment;
- What are the vital elements of effective NKM in facilitating long-term operation and decommissioning of nuclear power plants, non-power nuclear science and applications, fusion activities and other advanced technologies.

## **D. Structure**

The conference will consist of an opening plenary session, topic-specific technical tracks and panel discussions which will provide information about cross-cutting aspects in NKM and HRD. It will cover specific applications of nuclear technologies that will emphasize the increasing reliance on a systematic and more effective approach to enhance the safe and economical operation of nuclear facilities.

The conference will include presentations from invited international experts, selected oral presentations, panel discussions, poster presentations, side-events and exhibitions. The detailed programme will be made available on the conference web page in advance of the conference.

## **E. Expected Outcomes**

It is expected that the conference will support Member States in reviewing the current state of NKM, including nuclear education and training, HRD activities and will address the availability and opportunities for the sharing of relevant infrastructure.

The best practices and practical guidance used at organizational, national and international levels will be shared and recommendations will be provided to support sustainable strategies for NKM and HRD.

## **F. Target Audience**

The conference is directed mainly at the staff of utilities, research and design organizations, regulatory bodies and manufacturing and service companies, universities and training centres, as well as government decision makers concerned with near, medium- and long-term nuclear energy needs, including:

- Government officials responsible for the introduction or expansion of nuclear power programmes;
- Managers, human resource managers and specialists, training managers and specialists from the organizations that operate, regulate or support nuclear power plants and other nuclear facilities;
- Administrators, department chairs and faculty of universities, polytechnic institutes and training centres;
- Education and training specialists, knowledge management specialists and trainers from supplier organizations to the nuclear industry;
- Representatives of technical support organizations, vendors and supplier trade organizations that support the nuclear industry;
- Leaders of national and international organizations that establish policies and programmes in areas related to HRD of importance to the nuclear industry;
- Managers and specialists of organizations that communicate with nuclear industry stakeholders, particularly potential future employees in the nuclear industry;
- Representatives of the next generation of nuclear professionals.

## G. Call for Papers

Contributions on the topics listed in Section C are welcome as oral or poster presentations. All submissions, apart from invited papers, must present original work, which has not been published elsewhere.

### G.1. Submission of Abstracts

Abstracts (approximately 150 to 200 words on one printed A4 page, may contain any charts, graphs, figures and references) should give enough information on the content of the proposed paper to enable the Programme Committee to evaluate it. Anyone wishing to present at the conference must submit an abstract in electronic format using the conference's file submission system ([IAEA-INDICO](#)), which is accessible from the conference web page (see Section Q). The abstract can be submitted through this system from **5 September 2023** until **30 November 2023**. Specifications for the layout will be available on IAEA-INDICO. The system for electronic submission of abstracts, IAEA-INDICO, is the sole mechanism for submission of contributed abstracts. Authors are encouraged to submit abstracts as early as possible. The IAEA will not accept submissions via email.

In addition, authors must electronically submit the following two forms to their appropriate governmental authority using the InTouch+ platform (see Section H) for transmission to the IAEA. These forms must be received by the IAEA no later than **30 November 2023**.

**IMPORTANT:** The Programme Committee will consider uploaded abstracts only if these two forms have been received by the IAEA through the established official channels (see Section H).

### G.2. Acceptance of Abstracts

The Secretariat reserves the right to exclude abstracts that do not comply with its technical or scientific quality standards and that do not apply to one of the topics listed in Section C.

Authors will be informed by **28 February 2024** as to whether their submission has been accepted, either orally or as a poster, for presentation at the conference. Accepted abstracts will also be reproduced in an unedited electronic compilation of Abstracts which will be made available to all registered participants of the conference.

Authors will be asked to provide an extended abstract (3 to 5 pages) by **30 April 2024**. Longer manuscripts will only be accepted at the discretion of the Secretariat and only in exceptional cases. Guidelines and a template for the preparation and submission of the extended abstract will be available on IAEA-INDICO.

### G.3 Proceedings

Following the conference, the IAEA will publish a summary report. The proceedings will be made available to read online.

## H. Participation and Registration

All persons wishing to participate in the event must be designated by an IAEA Member State or should be a member of an organization that has been invited to attend. The list of invited organizations is available on the event web page (see Section Q).

### Registration through the InTouch+ platform:

1. Access the InTouch+ platform (<https://intouchplus.iaea.org>):

- Persons with an existing NUCLEUS account can [sign in here](#) with their username and password;
- Persons without an existing NUCLEUS account can [register here](#).

2. Once signed in, prospective participants can use the InTouch+ platform to:

- Complete or update their personal details under ‘Basic Profile’ (if no financial support is requested) or under ‘Complete Profile’ (if financial support is requested) and upload the relevant supporting documents;
- Search for the relevant event (**EVT23000041**) under the ‘My Eligible Events’ tab;
- Select the Member State or invited organization they want to represent from the drop-down menu entitled ‘Designating authority’ (if an invited organization is not listed, please contact [Conference.Contact-Point@iaea.org](mailto:Conference.Contact-Point@iaea.org));
- If applicable, indicate whether a paper is being submitted and complete the relevant information;
- If applicable, indicate whether financial support is requested and complete the relevant information (this is not applicable to participants from invited organizations);
- Based on the data input, the InTouch+ platform will automatically generate Participation Form (Form A), Form for Submission of a Paper (Form B) and/or Grant Application Form (Form C);
- Submit their application.

Once submitted through the InTouch+ platform, the application together with the auto-generated form(s) will be transmitted automatically to the required authority for approval. If approved, the application together with the form(s) will automatically be sent to the IAEA through the online platform.

**NOTE:** Should prospective participants wish to submit a paper or request financial support, the application needs to be submitted by the specified deadlines (see section O).

For additional information on how to apply for an event, please refer to the [InTouch+ Help](#) page. Any other issues or queries related to InTouch+ can be sent to [InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org).

If it is not possible to submit the application through the InTouch+ platform, prospective participants are requested to contact the IAEA’s Conference Services Section via email: [Conference.Contact-Point@iaea.org](mailto:Conference.Contact-Point@iaea.org).

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency’s Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. Further information can be found in the [Data Processing Notice](#) concerning IAEA InTouch+ platform.

## I. Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the conference. The IAEA has, however, limited funds at its disposal to help cover the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the conference.

If participants wish to apply for a grant, they should submit applications to the IAEA using the InTouch+ platform through their competent national authority (see Section H). Participants should ensure that applications for grants are:

1. Submitted by **30 November 2023**;
2. Accompanied by Grant Application Form (Form C); and
3. Accompanied by Participation Form (Form A).

Applications that do not comply with the above conditions cannot be considered.

Approved grants will be issued in the form of a lump sum payment that usually covers **only part of the cost of attendance**.

## J. Distribution of Documents

A preliminary and final programme will be made available on the conference web page (see Section Q) prior to the start of the conference. The electronic compilation of abstracts will be accessible free of charge to participants registered for the conference.

## K. Exhibitions

A limited amount of space will be available for commercial vendors' displays/exhibits during the conference. Interested parties should contact the Scientific Secretariat by email [NKM-HRD2024@iaea.org](mailto:NKM-HRD2024@iaea.org) by **31 January 2024**.

## L. Working Language

The working language of the conference will be English. All communications must be sent to the IAEA in English.

## M. Venue and Accommodation

The conference will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Participants must make their own travel and accommodation arrangements. Hotels offering a reduced rate for participants are listed on <https://www.iaea.org/events>. Please note that the IAEA is not in a position to assist participants with hotel bookings, nor can the IAEA assume responsibility for paying fees for cancellations, re-bookings and no-shows.

## N. Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria as early as three months but not later than four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question. For more information, please see the Austria Visa Information document available on <https://www.iaea.org/events>.

## O. Key Deadlines and Dates

Submission of abstracts through IAEA-INDICO	<b>30 November 2023</b>
Submission of Form B (together with Form A) through the InTouch+ platform	<b>30 November 2023</b>
Submission of Form C (together with Form A) through the InTouch+ platform	<b>30 November 2023</b>
Notification of acceptance of abstracts for oral or poster presentation	<b>28 February 2024</b>
Electronic submission of extended abstracts through IAEA-INDICO	<b>30 April 2024</b>
Submission of Form A only (no paper submission, no grant request) through the InTouch+ platform	<b>24 June 2024</b>



## **P. Conference Secretariat**

### **General Postal Address and Contact Details of the IAEA:**

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### **Scientific Secretaries of the Conference:**

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### **Administration and Organization:**

#### **Mr Tom DANAHER**

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretaries and correspondence on administrative matters to the IAEA's Conference Services Section.

## **Q. Conference Web Page**

Please visit the IAEA conference [web page](#) regularly for new information regarding this conference.