



IAEA

International Atomic Energy Agency

Atoms for Peace and Development

**International Symposium on Uranium Raw
Material for the Nuclear Fuel Cycle: Innovation
for Sustaining Future Resources and Production
(URAM-2023)**

IAEA Headquarters

Vienna, Austria

8–12 May 2023

Organized by the

International Atomic Energy Agency (IAEA)

**In cooperation with the
World Nuclear Association**

Announcement and Call for Papers

A. Background

Adequate services, expertise and modern technologies are needed to ensure a sustainable supply of uranium raw materials to fuel both operating and future nuclear power reactors. Effective regulation, sound environmental management, training and education are required to minimize the impact of uranium mining and production and to contribute to public acceptance of the global nuclear industry in general.

In 2005, 2009, 2014 and 2018, the International Atomic Energy Agency (IAEA) hosted International Symposia on Uranium Production and Raw Materials for the Nuclear Fuel Cycle at its Headquarters in Vienna, Austria, to discuss all aspects of uranium raw materials for the uranium fuel cycle to ensure the long term sustainability of nuclear power programmes.

As the historical spot price for uranium has experienced long-term valleys and short term peaks, the industry continually seeks new innovative ways to improve efficiencies in producing uranium. Based on a number of national policies for clean energy, there is an expectation for the maintenance and growth of nuclear power worldwide, leading to an increase in uranium demand in both the near-term and mid-term. It is expected this will have a positive impact on the price of uranium. In the last few years uranium supply has approximately matched consumption, with low spot prices for uranium oxide, the placing of some mines on care and maintenance and decreased exploration activity. However, with decreasing availability of secondary supplies, and the exhaustion of current mines, the uranium resource base and production need to be further extended. The current over supply could potentially lead to under supply in the medium to long term future. Due to long lead times from discovery to production, re-evaluation of uranium resources is required now.

B. Purpose and Objectives

The long-term sustainability of nuclear power will depend on, among several factors, an adequate supply of uranium resources that can be delivered to the marketplace at competitive prices.

The purpose of the event is to analyse supply–demand scenarios and to present and discuss the latest developments and innovations in uranium geology, exploration, mining, processing and site decommissioning to ensure a sustainable supply of uranium for use as nuclear fuel. The presentations and discussions at URAM-2023 will:

- Lead to a better understanding of the adequacy of uranium supply to meet future demand;
- Provide information on geological models, new exploration concepts, knowledge and technologies that may potentially result in the discovery and development of new uranium resources;
- Describe new mining and processing technologies that have the potential to support a more efficient and sustainable development of uranium and related resources; and
- Consider the environmental compatibility of uranium production and the overall effectiveness of progressive waste management, decommissioning and remediation of production facilities.

C. Themes and Topics

Contributed papers will be accepted on the following topics:

1. Nuclear power and energy markets
 - Energy policies and trends
 - Future energy markets, considering climate change (COP-27) and UN sustainable development goals
 - Uranium Supply and Demand
 - Secondary uranium supplies and inventories
 - Nuclear Market trends
 - Uranium production economics
2. Geology and metallogeny of uranium deposits
 - Uranium deposit types and recognition criteria
 - Geochemistry and mineralogy of deposits and tailings
 - Uranium provinces
 - Genetic models
3. Advances in uranium and thorium exploration
 - Geological, geophysical, geochemical methods
 - Case studies for uranium exploration stories including lessons learned
 - Resource estimation techniques
 - Regional spatial and quantitative uranium modelling
4. Project management and evaluations of uranium and thorium projects
 - Conceptual, scoping, pre-feasibility and feasibility studies
 - Project priority, maturity ranking and timelines
 - Case studies of projects
 - Socio-economics
 - Financing of uranium projects
 - National projects
5. Underground and open pit uranium mining and processing
 - Advances in uranium mining technologies and applications
 - Techniques for mining and processing low grade uranium ores including ore beneficiation and processing
 - New and emerging innovations and technologies in uranium mining and milling

- Advances in heap leaching
- 6. Uranium production by the in situ recovery (ISR) process
 - ISR exploration and resource estimation
 - ISR mining and processing – current practices and innovations for the future
 - ISR closure and remediation
 - ISR case studies
- 7. Thorium and associated resources
 - Thorium resources
 - Thorium utilization scenarios and policies
 - By-product thorium and associated metals
- 8. Health, safety, environment and social responsibility
 - Advances in radon management and radiation exposure reduction
 - Risk-based assessments
 - Regulatory issues
 - Managing legacy issues
 - Stakeholder communications, engagement and public hearings
 - Indigenous aspects
 - Social and community return
 - Environmental assessment and management
- 9. Education and training in the uranium production cycle
 - National and regional training programmes
 - E-learning opportunities
 - Professional registration
- 10. Uranium from unconventional resources
 - Unconventional uranium resources (e.g. extraction of uranium from phosphates)
 - Production of uranium as a by- and co-product
 - Uranium from salt water
- 11. Tailings and waste management
 - Progressive end-of-life remediation
 - Evaluation of tailings
 - Mine site regeneration
- 12. Uranium newcomers

- Update of uranium exploration and mining activities, newcomers
- Opportunities and challenges

D. Structure

The symposium programme will consist of plenary sessions, parallel technical sessions (as required), a poster session and closing uranium industry panel discussions.

The opening session will include opening statements delivered by the Symposium President and the IAEA, and presentations from invited speakers and experts.

Depending on the number of abstracts/synopses received, poster sessions will also be organized.

The closing session will include a summary of the main conclusions of the symposium, delivered by the Symposium President, and closing remarks from the IAEA.

E. Expected Outcomes

The outcome of the Symposium will be a book of abstracts issued in the second half of 2023, which highlights the key insights and ideas for action. The proceedings, to be placed on the Symposium website, will also provide an important compilation in innovations for sustaining future uranium resources and production.

F. Target Audience

URAM-2023 is intended to bring together scientists, managers, exploration and mining geologists, mineral economists, engineers, operators, regulators, community representatives, social scientists, nuclear fuel cycle and environmental specialists and young professionals to exchange information and discuss updated research and current issues related to uranium geology and deposits, exploration, mining and processing, production economics and environmental and legal issues.

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 Synopses

Synopses (approximately 500 to 600 words on one or a maximum of two printed A4 pages) 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 a synopsis in electronic format using the symposium's file submission system ([IAEA-INDICO](#)), which is accessible from the

symposium web page (see Section Q). The synopsis can be submitted through this system from **1 July 2022** until **1 December 2022**. Specifications for the layout will be available on IAEA-INDICO. The system for electronic submission of synopsis, IAEA-INDICO, is the sole mechanism for submission of contributed synopsis. Authors are encouraged to submit synopsis as early as possible. The IAEA will not accept submissions via email.

In addition, authors must register online using the InTouch+ platform (see Section H). The online registration together with the auto-generated Participation Form (Form A) and Form for Submission of a Paper (Form B) must reach the IAEA no later than **1 December 2022**.

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

G.2. Acceptance of Synopses

The Secretariat reserves the right to exclude synopses 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 **3 February 2023** as to whether their submission has been accepted, either orally or as a poster, for presentation at the symposium. Accepted synopses will also be reproduced in an unedited electronic compilation of Abstracts which will be made available to all registered participants of the symposium.

Authors will be offered an opportunity to provide an extended synopsis (3 to 5 pages) by **3 March 2023**. 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 synopsis will be available on IAEA-INDICO.

G.3 Proceedings

Following the symposium, 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.

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 (**EVT2102334**) 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);
- 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.

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.

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 symposium. 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 symposium.

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 **1 December 2022**;
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 symposium web page (see Section Q) prior to the start of the conference. The electronic compilation of synopses will be accessible free of charge to participants registered for the symposium.

K. Working Language

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

L. Venue and Accommodation

The symposium 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.

M. 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>.

N. Key Deadlines and Dates

Submission of synopses through IAEA-INDICO	1 December 2022
Submission of Form B (together with Form A) through the InTouch+ platform	1 December 2022
Submission of Form C (together with Form A) through the InTouch+ platform	1 December 2022
Notification of acceptance of synopses for oral or poster presentation	3 February 2023
Electronic submission of extended synopses through IAEA-INDICO	3 March 2023
Notification of review of extended synopses	31 March 2023
Deadline for submission of revised extended synopses submitted through IAEA-INDICO	21 April 2023
Submission of Form A only (no paper submission, no grant request) through the InTouch+ platform	No deadline

O. Symposium Secretariat

General Postal Address and Contact Details of the IAEA:

International Atomic Energy Agency
 Vienna International Centre
 PO Box 100
 1400 VIENNA
 AUSTRIA
 Tel.: +43 1 2600
 Fax: +43 1 2600 2007
 Email: Official.Mail@iaea.org

Scientific Secretaries of the Symposium:

Mr Brett Moldovan
 Division of Nuclear Fuel Cycle and Waste Technology
 Department of Nuclear Energy
 Tel.: +43 1 2600 22758
 Email: uram-2023@iaea.org

Ms Adrienne Hanly

Division of Nuclear Fuel Cycle and Waste Technology

Department of Nuclear Energy

Tel.: +43 1 2600 26353

Email: uram-2023@iaea.org

Mr Mark Mihalasky

Division of Nuclear Fuel Cycle and Waste Technology

Department of Nuclear Energy

Tel.: +43 1 2600 22757

Email: uram-2023@iaea.org

Administration and Organization:

Ms Nancy Herter

Conference Services Section

Division of Conference and Document Services

Department of Management

IAEA-CN-311; EVT2102334

Tel.: +43 1 2600 21315

Email: Conference.Contact-Point@iaea.org

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

P. Symposium Web Page

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