

International Conference on Effective Nuclear

and Radiation Regulatory Systems:

Strengthening Competence, Agility, and

Connection in the Modern Era

IAEA Headquarters Vienna, Austria

27-30 April 2026

Organized by the International Atomic Energy Agency (IAEA)

Announcement and Call for Papers

A. Background

The International Conference on Effective Nuclear and Radiation Regulatory Systems: Strengthening Competence, Agility, and Connection in the Modern Era is being organized by the International Atomic Energy Agency (IAEA) from 27 to 30 April 2026.

The conference is the seventh in a series of conferences on effective nuclear and radiation regulatory systems. The six preceding conferences were held in Abu Dhabi, United Arab Emirates in 2023, in the Hague, the Netherlands in 2019, Vienna, Austria in 2016, Ottawa, Canada in 2013, Cape Town, South Africa in 2009, and Moscow, the Russian Federation in 2006. These conferences have served as platforms for regulators to thrive in their independent roles, strengthening international cooperation, and facilitating the exchange of information and experiences among regulators from large and small, nuclear and non-nuclear power countries across all regions. At the most recent edition of the Conference, in Abu Dhabi in 2023, the main focus was on how regulators can best prepare for the future in a rapidly changing environment.

Three years later, in a world facing complexities such as energy crises, geopolitical challenges, climate change and the need for decarbonization of energy systems, and rapid technological advancements, the challenges of tomorrow have already arrived. In this context, discussions on how regulators are forging strong and credible pathways for effective nuclear and radiation regulatory systems are more urgent and vital than ever.

The IAEA continues to provide support to Member States in establishing or enhancing a fit-for-purpose regulatory framework for nuclear and radiation safety and for security of nuclear and other radioactive material. It assists Member States in their response to emerging challenges and priorities through the safety standards and security guidance, peer reviews and advisory services, and capacity-building efforts. Recent international conferences, such as the International Conference on Nuclear Security (ICONS) 2024 held in Vienna in May 2024, the International Conference on Small Modular Reactors and their Applications, held in Vienna in October 2024, and the International Conference on Enhancing Nuclear Safety and Security Through Technical and Scientific Support Organizations (TSOs), held in Vienna in December 2024, have also underscored regulatory frameworks and the importance of robust practices in regulation and national and international efforts made to ensure the effectiveness of nuclear and radiation safety and security regulatory systems.

In addition to the series of conferences dedicated to strengthening effective nuclear and radiation regulatory systems, the IAEA addresses critical global challenges and promotes sustainable development through the peaceful use of nuclear technology. To this end, the Agency has launched numerous projects and special initiatives including Rays of Hope, Atoms4Food, NUTEC Plastics, Atoms4NetZero, and the Nuclear Harmonization and Standardization Initiative (NHSI), among others. As evident within these initiatives, the role of the regulator in enabling the sustainable use of nuclear and radiation technologies is critical, through strengthening safe, secure and effective national capabilities and enabling innovation and progress.

The conference will underscore the critical competencies needed for regulators to think and act effectively, while addressing emerging challenges with the agility required in the modern era. It will also highlight the importance of connection among regulators, regional networks and intergenerational dialogue with global diverse perspectives, concerns, and interests of stakeholders.

B. Purpose and Objectives

The objective of the conference is to build on the conclusions and deliberations of the previous conferences, and to consider developments in regulatory systems to further enhance nuclear and radiation safety and security globally. The conference will play a vital part in the global efforts of senior nuclear and radiation safety and security regulators to review, identify and propose paths forward for issues that are important to the global regulatory community.

These issues will be discussed with consideration of regulatory 'ecosystems' and the diverse perspectives, concerns, and interests of stakeholders worldwide, to effectively address emerging challenges with the agility required for regulators to thrive in the modern era.

Specifically, the conference aims to:

- Highlight the key characteristics of a competent regulator and outline strategies to sustain these essential qualities;
- Promote the sharing of information and good practices related to improving effectiveness of nuclear and radiation safety and security regulatory systems;
- Identify and share good practices for becoming an agile regulator;
- Share knowledge of a wide range of strategies to ensure strengthened regulatory ecosystems; and
- Share experiences from the Call for Action from the 2023 Regulatory Effectiveness Conference and identify next steps to build on.

C. Themes and Topics

A preliminary programme will be made available on the conference web page well in advance of the conference. The IAEA welcomes high quality contributions that fall under the umbrella of the three cross-cutting topics listed below.

Topic No. 1: Regulatory competence: thinking and acting as an effective regulator.

This topic will explore the essential qualities regulators need to possess to work effectively, with emphasis on regulatory culture and workforce development.

Topics for discussion include:

- a) Critical competencies for modern regulators, encompassing resilience, accountability, traceability and commitment to continuous learning;
- b) Fostering a robust nuclear and radiation safety and security culture within regulators' organizations and among regulated entities;
- c) Implementing effective and sustained human resource management, including knowledge management, developing career and competency frameworks, retention of professionals, incorporation of gender perspective, promotion of diversity and inclusion initiatives, and onboarding processes to integrate new staff;
- d) Strengthening leadership and management for safety and security;
- e) Developing strategies to perform environmental scans, forecast workload, and identify gaps and mitigating strategies to be ready for future demands; and

f) Establishing systems for managing regulatory experience feedback and evaluating regulatory effectiveness, including through peer review and advisory missions, and self-assessments.

Topic No. 2: Agility: Growing as a regulator to address emerging challenges

This topic will explore strategies and approaches for regulators to enhance agility, and effectively respond to and anticipate changes driven by modern innovation and new technologies.

Topics for discussion include:

- a) Cybersecurity, machine learning (ML), and artificial intelligence: regulating the use of AI and utilizing AI and machine learning for more effective regulation;
- b) Regulating emerging technologies: new radiation and medical imaging technologies, advanced nuclear reactors including small modular reactors (SMRs), floating and transportable nuclear power plants, the peaceful uses of nuclear power for propulsion of ships and fusion energy;
- c) Addressing specific challenges for regulators from small non-nuclear States, including the Pacific and the Caribbean Islands States, and regulators from countries newly embarking on nuclear power programmes; and
- d) Supporting the growth of regulatory capabilities through IAEA assistance, international and regional cooperation and peer collaboration between States with similar existing infrastructure, capabilities and needs, to enhance nuclear and radiation safety and security, and regulatory frameworks.

Topic No. 3: Strengthening connection in the regulatory 'ecosystem'

This session will discuss how regulators, through enhanced connections within their 'ecosystem', can be drivers supporting the sustainable use of nuclear and radiation technologies and also how an enabling environment is necessary for effective regulation.

Topics for discussion include:

- a) The legislative framework for nuclear and radiation safety and security, including legally binding and non-legally binding international instruments, such as IAEA international conventions, codes of conduct, safety standards and nuclear security guidance, and best practices that facilitate compliance with such instruments;
- b) Enhanced bilateral and multilateral, regional and international cooperation and good practices in radiation protection of workers and patients, radioactive waste management, nuclear installation safety, emergency preparedness and response, and nuclear security;
- c) Effective interactions of regulators with industry/licensees, government, TSOs and the public; challenges and opportunities for effective communication between national authorities with responsibilities relating to nuclear and radiation safety and security; strategies for effective stakeholder engagement and building stakeholder trust;
- d) The essential role of government and policy makers in ensuring effective and independent regulatory frameworks; and
- e) Regulators as drivers of progress, enabling harmonization and effective cooperation to support technological innovations.

D. Structure

The conference will comprise an opening plenary session, several technical sessions and panel discussions addressing the topical areas outlined in Section C. It will conclude with a closing session.

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

The conference will feature presentations by invited keynote speakers and topical presentations by conference participants. Depending on the abstracts received, poster sessions displaying state-of-the-art and innovative approaches will also be organized.

A special cross-cutting session will be organized presenting the findings from the Call for Action launched at the preceding conference in 2023. Furthermore, the conference will include a session on challenges for small non-nuclear States, including small island States; a dialogue with policy makers and the public; and a session on challenges faced by regulators in maintaining independence amid competing pressures.

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

E. Expected Outcomes

٠

The expected outcomes of the conference are as stated below:

- **Regulatory competence:** Identification and promotion of critical competencies required for modern regulators, ensuring continuous learning and ethical regulatory practices; recognition of best practices on strategic planning and workload forecasting, including to sustain a competent and diverse regulatory workforce and to develop the next generation of regulatory professionals and leaders; and open dialogue on the adoption of integrated approaches to manage the safety-security interface and to enhance cooperation during emergencies.
- Agile regulatory frameworks: Exchange of insights and good practices on agile regulatory frameworks capable of adapting the regulation and licensing process to new technologies such as AI and ML, proton therapy, SMRs, the peaceful uses of nuclear power for propulsion of ships and fusion energy; sharing of insights into the development of regulatory strategies to support countries embarking on new nuclear and radiation technologies; cybersecurity; consideration of the nuclear and radiation safety and security implications of the use of AI and ML; and identification of best practices for effective regulation and support for innovation.
- **Enabling environments and cooperation:** Sharing of experiences on the development of strategies to create and sustain environments in which the safe, secure and sustainable use of nuclear and radiation technologies is supported, to strengthen the 'ecosystem' in which the regulator acts, including robust legislative frameworks and governmental support, to foster sustainable development; strengthening of international cooperation and support, including regional and peer collaboration between States with similar existing infrastructure, capabilities, and needs, to enhance regulatory effectiveness and consistency; identification of methodologies for building and maintaining stakeholder confidence through effective communication and interaction with licensees/industry, government, TSOs and the public.

Building on the Call for Action from the RegCon2023: Highlighting of achievements and sharing of learning from the responses to the Call for Action from the previous edition of the conference, and development of measures to build further on it.

F. Target Audience

The conference is directed at a broad range of experts in the area of nuclear and radiation safety and nuclear security regulation, bringing together the world's regulators responsible for the areas of nuclear and radiation safety and nuclear security.

Participation of other interested individuals and organizations, such as policy makers, TSOs, professional associations, research and academic institutions, young professionals, as well as technical and scientific experts working or interested in all areas of regulatory functions is also welcome.

The IAEA highly encourages the participation of women, early career professionals, and individuals from developing countries.

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 500 to 600 words on one or a maximum of two A4 pages, 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 (<u>IAEA-INDICO</u>), which is accessible from the conference web page (see Section Q). The abstract can be submitted through this system from **6 May 2025** until **1 September 2025**. 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 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 September 2025**.

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 **1 December 2025** 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.

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.

Registration through the InTouch+ platform:

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

- Persons with an existing NUCLEUS account can <u>sign in here</u> 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 (EVT2405904) 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 <u>InTouch+ Help</u> page. Any other issues or queries related to InTouch+ can be sent to <u>InTouchPlus.Contact-Point@iaea.org</u>.

Page 8

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: <u>Conference.Contact-Point@iaea.org</u>.

Participants are hereby informed that the personal data they submit will be processed in line with the <u>Agency's Personal Data and Privacy Policy</u> 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 <u>Data Processing Notice</u> 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 submitted by **15 December 2025**.

Applications must be accompanied by Participation Form (Form A) and Grant Application Form (Form C) which are autogenerated in the InTouch+ platform.

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 <u>RegCon2026@iaea.org</u> by **1 September 2025**.

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 <u>https://www.iaea.org/events</u>. 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	1 September 2025
Submission of Form B (together with Form A) through the InTouch+ platform	1 September 2025
Notification of acceptance of abstracts for oral or poster presentation	1 December 2025
Submission of Form C (together with Form A) through the InTouch+ platform	15 December 2025
Submission of Form A only (no paper submission, no grant request) through the InTouch+ platform	21 April 2026

P. Conference 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: <u>Official.Mail@iaea.org</u>

Scientific Secretary of the Conference:

Ms Katherine Elizabeth Asfaw

Head of the Programme and Strategy Coordination Section Office of Safety and Security Coordination Department of Nuclear Safety and Security Tel.: +43 1 2600 26031 Email: <u>RegCon2026@iaea.org</u>

Administration and Organization:

Mr Tom Danaher

Conference Services Section Division of Conference and Document Services Department of Management IAEA-CN-340; EVT2405904 Tel.: +43 1 2600 21317 Email: <u>Conference.Contact-Point@iaea.org</u>

Subsequent correspondence on scientific matters should be sent to the Scientific Secretary 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.