



**IAEA**

International Atomic Energy Agency

# **Symposium on International Safeguards: Building Future Safeguards Capabilities**

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

**IAEA Headquarters  
Vienna, Austria**

**5–8 November 2018**

**Ref. No.: CN-267; EVT1701775**

**Announcement and Call for Papers**

## **A. Background**

International Atomic Energy Agency (IAEA) safeguards comprise a fundamental component of nuclear non-proliferation. They promote greater confidence among the international community by providing assurance that States are complying with their obligations under relevant safeguards agreements. IAEA safeguards also contribute to strengthening collective security and help to create an environment conducive to nuclear cooperation.

The demand for safeguards continues to grow, while funding levels remain largely unchanged. Therefore, it is essential that the IAEA Department of Safeguards improve its productivity by striving for greater efficiency without compromising the credibility of its safeguards conclusions. There are three main ways in which this challenge is addressed: first, by working smarter both in-house and in the field to improve effectiveness as well as bring efficiencies; second, by modernizing and finding innovative solutions to address challenges as well as to seize opportunities; and third, through improvements by States themselves to their performance in safeguards implementation.

The IAEA holds a Symposium on International Safeguards every four years in order to engage the broader safeguards community in addressing challenges and seizing opportunities to strengthen the effectiveness of safeguards implementation. The 2010 symposium focused on the theme ‘Preparing for Future Verification Challenges’, looking in-depth at the strategic areas identified in the strategic planning process of the Department of Safeguards. In 2014, the symposium pivoted to addressing the long term research and development needs of the Department, by focusing on the theme ‘Linking Strategy, Implementation and People’.

In 2018, the symposium will look ahead to emerging technologies and innovative approaches with potential for strengthening and streamlining the implementation of safeguards, and explore the partnerships needed to apply these advancements toward safeguards needs.

## **B. Objectives**

The objectives of the symposium are to:

- Innovate — by generating new ideas on methods and technologies to substantially improve the IAEA’s technical capabilities and achieve efficiencies in the way it works;
- Partner — by mobilizing partnerships to further explore new ideas, bring innovation into the work of the Department of Safeguards, and support long term safeguards research and development needs; and
- Improve — by engaging the safeguards community in sharing experiences, building capabilities, and finding ways to streamline, simplify and improve the implementation of safeguards in the field and at headquarters.

## C. Format and Topics

The 2018 symposium will follow a new format — emphasizing interaction and dialogue, the generation of new ideas and the achievement of results — and will be streamlined to look at greater depth into a smaller number of topics. The topics will be clearly defined in the web-based abstract submission system, INDICO.

A preliminary programme will be made available on the symposium web page (see Section M) well in advance of the symposium. The final programme and the contributed papers will be available upon registration at the symposium, through the IAEA Conferences and Meetings app.

The symposium will consist of an opening plenary session, several topical interactive sessions addressing four primary themes, and a closing plenary session. Three special events are also planned in conjunction with the symposium: a ‘Leading Women of Safeguards’ panel; a networking and recruitment event; and a workshop and tour of the Safeguards Analytical Laboratories that are located in Seibersdorf.

In order to meet the symposium’s objectives, topical sessions will be designed to facilitate interaction among the participants, with the following notional format:

- Short presentations by speakers and panellists
- Facilitated discussions to stimulate dialogue among participants; identify ideas and solutions; and collect key insights and promising opportunities for follow-up.

### Opening Plenary Session

This session will feature invited keynote speakers from inside and outside the IAEA who will address technical topics of interest and relevance to the entire safeguards community. It will be followed by technical and plenary sessions that address the following four themes.

#### **Theme 1: Addressing emerging safeguards challenges**

The sessions under this theme will look at a selected set of known challenges facing the safeguards community in the near term, including the potential impact on safeguards of advances and developments such as additive manufacturing, distributed supply chains, and transnational flows of goods and information. The human resource challenges of the safeguards community and innovative ways to address them will also be included. Finally, recognizing the increasing dependence on information technology infrastructure and digital data in safeguards, protecting against cybersecurity threats will be discussed.

#### **Theme 2: Leveraging technological advances for safeguards applications**

The sessions under this theme will build upon insights gained at the emerging technologies workshop organized by the Department of Safeguards in 2017 and seek to bring promising advances into the safeguards realm. The topics to be covered include: safeguards applications of advances in artificial intelligence; analysis, integration and visualization of multi-source data; shared ledger technology, image processing, business analytics and robotics.

### **Theme 3: Preparing for safeguards for new facilities, processes and campaigns**

The sessions under this theme will address safeguards considerations around two areas of nuclear industry development. First, the symposium will explore challenges and opportunities for safeguarding selected new reactor designs which are near the stage of commercial deployment and likely to come under safeguards in the next fifteen years. In addition, the sessions under this theme will look at practical strategies for efficient implementation of safeguards at nuclear new builds, such as vendor–buyer engagement, safeguards-by-design dialogue, and peer-to-peer consultations. The sharing of experiences and lessons learned will be a prominent feature within this theme. Second, safeguards challenges associated with increasing decommissioning activities, spent fuel transfer campaigns and long term disposition of spent fuel and waste will be discussed, and promising ideas, technologies and methods will be identified to address specific needs and opportunities.

### **Theme 4: Shaping the future of safeguards implementation**

The sessions under this theme will address the day-to-day implementation of safeguards, seeking new ways of working smarter, streamlining and simplifying, building capabilities, resolving challenges and creating effective cooperation. The focus will be on innovation and improvement, sharing of experiences and lessons learned, across the full range of safeguards activities and practitioners: from States with limited nuclear material to States with complex fuel cycle facilities. Some topics of interest include optimizing the use of reporting tools such as the State declaration portal and Protocol Reporter software; innovations in training, capacity building and knowledge management; the role of regional networks in safeguards and sharing of experiences among such networks; preparing for and implementing new safeguards obligations such as an additional protocol; and safeguards regulation and licensing.

### **Closing Plenary Session**

The closing session will include short presentations followed by a panel discussion. The key insights and ideas to take home from the symposium will be shared through a moderated panel discussion featuring selected session chairs and facilitators. A closing address will inspire sustained momentum towards the achievement of results.

## **D. Contributed Papers and Interactive Presentations**

Concise papers (four pages maximum) on issues falling within the topics outlined in Section C (and elaborated in the abstract submission system, INDICO) may be submitted as contributions to the symposium. All papers, apart from invited papers, must present original work and should not have been published elsewhere.

#### **(a) Submission of abstracts**

Anyone wishing to submit a paper to the symposium is requested to submit first an abstract of not more than 300 words. The abstract should give enough information on the contents of the proposed

paper to enable the Programme Committee to evaluate it. Authors should state to which of the topics outlined in Section C their contribution relates.

Instructions on how to upload the abstract to the symposium's web browser-based file submission system (IAEA-INDICO) will be made available on the symposium web page (see Section M) in **January 2018**. The abstract **must** be submitted through this system by Saturday, **31 March 2018**. No other form of submission will be accepted. The abstracts should also be submitted together with a completed Participation Form (Form A) and Form for Submission of a Paper (Form B) to the competent official authority (see Section E) for subsequent electronic transmission to the IAEA ([Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)), to be received by the IAEA by **31 March 2018**. In addition, the abstracts must be sent electronically to: [Safeguards2018@iaea.org](mailto:Safeguards2018@iaea.org). Introductory and general matters should not be included.

#### **(b) Acceptance of papers for oral or interactive presentation or for contribution**

The abstract will be considered only if the Participation Form (Form A) and Form for Submission of a Paper (Form B) have been received by the above-mentioned deadline and through the established official channels.

A limited number of abstracts will be selected for oral or interactive presentation; these authors will be invited to prepare slides or other forms of presentation media. Other abstracts may be accepted as session contributors, indicating that the author is invited to share the information during the interactive discussion part of the session programme. Authors of all accepted abstracts are invited to submit full papers, not longer than eight pages.

Oral presentations should be delivered during the sessions of the symposium and may include slides or be limited to remarks. An interactive presentation should provide concise information related to the proposed paper, and its delivery method can take the form of multimedia presentation, demonstration, simulation, model or video, together with handout material the author may wish to share.

Authors will be notified by **18 May 2018** as to whether their abstracts have been accepted and, if so, whether the full papers should be delivered as oral or interactive presentations or as contributions to a session discussion.

Authors will be asked to provide their full length paper (a maximum of eight pages) by **31 August 2018**. Guidelines and a template for the preparation and submission of full papers will be provided on the symposium web page and INDICO system.

The papers that have been accepted by the Programme Committee will be reproduced in unedited form in the *Book of Contributed Papers*, which will be made available to all participants on the IAEA Meetings and Conferences app and on the symposium web page.

The Secretariat reserves the right to exclude abstracts or papers that do not comply with its quality standards or that do not apply to one of the topics outlined in Section C above and elaborated more specifically in the INDICO system.

#### **(c) Proceedings**

The proceedings of the symposium will be published by the IAEA and made available on the IAEA website soon after the symposium.

## E. Participation and Registration

The focus of this symposium is on ‘Building Future Safeguards Capabilities’, both within the IAEA Secretariat and across the safeguards community. Certain specific technical domains will be of particular interest, in determining how to bring innovation into the daily safeguards work taking place at headquarters and in the field. Thus, potential attendees and relevant organizations would include:

- Technical experts in the areas to be discussed during the symposium as described in Section C;
- Safeguards practitioners in national authorities, nuclear facilities or other organizations;
- Researchers and academics in fields relevant to the symposium’s technical programme;
- Administrators and teaching/research staff from universities, institutes and research centres;
- Representatives of technical and scientific support organizations, vendors and supplier trade organizations that support verification activities and the nuclear industry more broadly;
- Leaders of national and international organizations that are concerned with topics related to international safeguards; and
- Representatives of the next generation of safeguards professionals.

All persons wishing to participate in the symposium have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend. The list of invited organizations can be requested from the Symposium Secretariat (see Section L).

In order to be designated by an IAEA Member State, participants are requested to send the following form(s) (as applicable) to their competent national authority (e.g. Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority):

- Participation Form (Form A): participation only; no deadline if only Form A is submitted.
- Form for Submission of a Paper (Form B): participants submitting a paper through INDICO have to send the completed and signed Form B together with Form A (and Form C, if applicable) to their competent national authority for onward transmission to the IAEA ([Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)).
- Grant Application Form (Form C): participants requesting financial support from the IAEA have to complete Form C and send it together with Form A (and Form B, if applicable) to the competent national authority for onward transmission to the IAEA ([Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)). Form C has to be stamped and signed by the competent national authority.

Participants who are members of an invited organization are requested to send the above form(s) through their organization to the IAEA ([Official.Mail@iaea.org](mailto:Official.Mail@iaea.org)).

Participants who registered in accordance with the above procedure will receive from the IAEA further information approximately three months before the opening of the symposium.

Please note that in 2018 it will become possible to manage the entire designation process electronically using the new InTouch+ platform (<https://intouchplus.iaea.org>). This platform is currently used for the IAEA’s technical cooperation events and will be available for regular programme meetings starting in 2018. Using InTouch+, prospective participants will be able to apply to participate in the symposium and submit all required documents online. National authorities will be able to use InTouch+ to review and approve these applications. The use of this system for the symposium is encouraged.

Interested parties that would like to use this new application should write to:

[InTouchPlus.Contact-Point@iaea.org](mailto:InTouchPlus.Contact-Point@iaea.org).

## F. 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 designated participants in the symposium. The IAEA has, however, limited funds at its disposal to help cover the cost of attendance of selected specialists from Member States eligible to receive technical assistance under the IAEA's technical cooperation programme. Such assistance may be offered upon specific request to normally one participant per country provided that, in the IAEA's view, the participant on whose behalf assistance is requested will make an important contribution to the symposium.

If governments wish to apply for a grant on behalf of one of their specialists, they should address specific requests to the IAEA to this effect. Governments should ensure that applications for grants are:

1. Submitted by **8 June 2018**;
2. Accompanied by a completed and signed Grant Application Form (Form C);
3. Accompanied by a completed 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**.

## G. Working Language

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

## H. Symposium Venue and Accommodation

The symposium will be held at the Vienna International Centre, M Building. Detailed information on accommodation and other relevant matters will be available on the symposium web page (see Section M) and provided to all designated participants approximately three months before the opening of the symposium.

## I. Exhibition

Limited space will be available for commercial vendors' displays/exhibits during the symposium. Further information will be posted soon on the symposium web page (see Section M).

## **J. Visas**

Designated participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least three months before they intend to travel.

## **K. Key Deadlines**

Submission of Form for Submission of a Paper (Form B) and abstract:	<b>31 March 2018</b>
Submission of Grant Application Form (Form C):	<b>27 April 2018</b>
Notification of acceptance of papers:	<b>18 May 2018</b>
Submission of accepted full paper (four pages max.)	<b>31 August 2018</b>

## **L. Symposium Secretariat**

### **General contact details of the Symposium Secretariat:**

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and/or the Deputy Scientific Secretary of the Symposium and correspondence on administrative matters to the IAEA Conference Services Section.

## **M. Symposium Web Page**

Please visit the following web page regularly for new information regarding this symposium:

<http://www.iaea.org/events/symposium-on-international-safeguards>