Symposium on International Safeguards

Reflecting on the Past and Anticipating the Future

Please check the website for the updates
www.iaea.org/events/sg-2022

MONDAY 31 October

Board Room B

Time	Session
10:30-10:40	**Opening Remarks and Launch of 2022 Safeguards Glossary – DDG-SG Massimo Aparo**
10:40-10:45	**Safeguards Timeline – Movie**
10:45-11:30	**A Conversation with Director General Rafael Mariano Grossi on Safeguards, with Award-winning Journalist Barbara Serra**
11:30-12:15	**Reflecting on the Past – Keynote Address with Pulitzer Prize-winning Author and Historian Richard Rhodes**
12:15-13:30	**LUNCH BREAK**
13:30-14:45	**Reflecting on the Past – Panel Discussion**
14:45-15:30	**Anticipating the Future – Keynote Address with World Economic Forum's Saadia Zahidi**
15:30-16:30	**COFFEE BREAK**
16:30-17:45	**Anticipating the Future – Panel Discussion**
17:45-18:00	**The Week Ahead – Scientific Secretary Jenni Rissanen**
18:00-18:15	**Opening of Special Event by DDG-SG Massimo Aparo**
18:15-18:45	**Special Event: Celebrating Progress in Strengthening the Legal Framework with Director General Rafael Mariano Grossi**
18:45-21:00	**Celebrating Progress – Reception (Sponsored by USA)** M-building, Ground Floor

TUESDAY 1 November

Time	Session
09:00-10:15	**Introduction to Futures** Board Room B / **Foresight in Practice – A View from Singapore** Board Room B / **Anticipating the Future – Drivers** Board Room B
10:15-10:45	**BREAK**
10:45-12:15	**Evolution of Safeguards – Big Picture Perspectives (DDG-SG, DIR-SGCP and SAGSI Chair, Panel of Directors)** Board Room B
Side Event	**NTI-CENESS Panel: The Future of IAEA Safeguards – Rebuilding the Vienna Spirit through Russia-USA Expert Dialogue** 12:20-13:10 Board Room A
12:15-13:30	**LUNCH BREAK + e-POSTER SESSIONS**
13:30 – 15:00	**Adaptation and Resilience in the Non-Proliferation Regime** Board Room B / **Laboratory-Based Sample Analysis Techniques – End User Perspectives** M4 / **Safeguards by Design for Innovative Reactors: The Big Picture** Board Room A / **ESPACE Special Demo: VR, AR and Online Learning (Part 1)** ESPACE Stage 3
15:00-15:30	**BREAK + E-POSTER SESSIONS**
15:30-17:00	**COMPASS** Board Room B / **Partnerships and Collaboration in Support of Safeguards with DDG-SG Massimo Aparo** M2 / **The IAEA's Partners in Laboratory-Based Analysis** M4 / **Safeguards Challenges and Safeguards by Design for Innovative Reactors: Approaches and Experiences** Board Room A
18:00-20:30	**Anniversary Reception at Vienna City Hall (Sponsored by Nuclear Threat Initiative)**

WEDNESDAY 2 November

Time	Session
09:00-09:30	**Anticipating the Future – Drivers** Board Room B
09:30-11:00	**25 Years of the Additional Protocol and Prospects for the Future** Board Room A / **Optimized Unattended NM Verification: Lessons from UMS during Covid-19 and Prospects for the Future** M2 / **Workshop Engaging Industry: Micro and Small Modular Reactors and Safeguards by Design** M4
11:00-11:30	**BREAK + E-POSTER SESSIONS** [RM 1]
11:30-13:00	**Strengthening Safeguards Today: Tools and Techniques for the Detection of Undeclared NM and Activities** Board Room B / **Diversity and Inclusion in International Safeguards** M4 / **Verification of Spent Fuel – Challenges and Solutions** M2 / **Technologies and References to Support Submission and Utilization of Information Provided by States** Board Room A
Special Event	**Book Signing: Translated Versions of 'Nuclear Law: The Global Debate', with Director General Rafael Mariano Grossi** 13:15-14:00 ESPACE Stage 2, 1st floor M building
13:00-14:00	**LUNCH BREAK + E-POSTER SESSIONS**
14:00-15:30	**Strengthening Confidence in the Absence of Undeclared Activities** Board Room B / **Advancements in In-Field Verification** M2 / **Safeguards for Geologic Repositories and Nuclear Material in Waste** Board Room A / **Help Desk – SGIM Applications (PR3, SDP, ITV)** M6
15:30-16:00	**BREAK + E-POSTER SESSIONS** [RM 2]
16:00-17:30	**Reflections on Safeguards – Experiences Implementing CSAs, APs and SQPs** M2 / **Post-Operational Facilities and Decommissioning** Board Room A / **Trade and Export Control** Board Room B / **Help Desk – SGIM Applications (PR3, SDP, ITV)** M6
17:45-20:30	**[MNC] Millennial Nuclear Caucus on Safeguards (Early Career Panel, Student Paper Awards and Speed Mentoring) and Reception (Sponsored by the UAE)** Board Room B
18:30-19:15	**Book Signing: 'Safeguards Glossary', with DDG-SG Massimo Aparo** ESPACE Stage 2, 1st floor M building

THURSDAY 3 November

Time	Session
09:00-09:30	**Anticipating the Future – Drivers** Board Room B
09:30-11:00	**Strategic Thinking in the Use of Open Source Information** M2 / **The Latest in Verification Instrumentation** Board Room A / **ESPACE Special Demo: VR, AR and Online Learning (Part 2)** ESPACE Stage 3
11:00-11:30	**BREAK + E-POSTER SESSIONS** [RM 3]
11:30-13:00	**Safeguards for New Frontiers: Nuclear Applications at Sea and in Space** Board Room B / **The Use of Open Source Information in Action** M2 / **The Latest in Verification Instrumentation** M4
Side Event	**EC Initiatives Supporting Safeguards Education and Training** 13:05-14:15 M6
13:00-14:00	**LUNCH BREAK + E-POSTER SESSIONS**
14:00-15:30	**Enhanced Cooperation and State Assistance** Board Room B / **Distributed Ledger Technology and Safeguards** M2 / **Strengthening Safeguards Culture and Performance** Board Room A
15:30-16:00	**BREAK + E-POSTER SESSIONS**
16:00-17:30	**Safeguards Vanguards: Methods and Practices for Training Today's and Tomorrow's Workforce** Board Room B / **Challenges to Safeguards from Emerging Technologies** Board Room A / **How Safeguards Benefits from Artificial Intelligence – Opportunities and Challenges** M2 / **Workshop Engaging Industry and Regulators: Decommissioning, Spent Fuel, Waste and Safeguards by Design** M4

FRIDAY 4 November

Board Room B

Time	Session
09:30-10:00	**Recap of Futures and Results of Crowdsourcing**
10:00-11:00	**Voices of the Future: Panel of Future Leaders with DDG-SG Massimo Aparo**
11:00-11:20	**Key Takeaways – DDG-SG Massimo Aparo**
11:20-11:30	**Closing Remarks – Scientific Secretary Jenni Rissanen**

Exhibitors

- AIRBUS Defence and Space SAS
- Algorand Foundation
- ANSTO Detection and Imaging
- BBC Monitoring
- CAEN SpA
- Canberra Packard Central Europe GmbH
- Elemental Scientific Instruments
- GBS Elektronik GmbH
- German Member State Support Programme (GER MSSP)
- H3D, Inc.
- IAEA – Department of Nuclear Safety and Security (NS)
- IAEA – Department of Safeguards (SG)
- IAEA – Department of Technical Cooperation (TC)
- IAEA Office of Legal Affairs (OLA)
- Image ONE Co.,Ltd
- innoRIID GmbH
- Institute of Nuclear Materials Management and the European Safeguards R&D Association
- Korea Institute of Nuclear Nonproliferation and Control (KINAC)
- MAXAR
- ORTEC/AMETEK
- Raylab s.r.l.
- Teledyne FLIR
- Thermo Fisher Scientific
- United Kingdom Department for Business, Energy and Industrial Strategy
- United States National Laboratories
- United States Support Program (USSP)
- Vienna Center for Disarmament and Non-Proliferation (VCDNP)
- Westinghouse Electric Company
- Women in Nuclear – IAEA
- World Nuclear Transport Institute (WNT)

Cooperating Organizations

- Asia Pacific Safeguards Network
- European Safeguards R&D Association
- Institute of Nuclear Materials Management
- World Nuclear Association

REGIONAL MIXER

- [RM 1] African Region (M6)
- [RM 2] Safeguards Networks (M6)
- [RM 3] Island Nations (M6)

E-POSTER SESSIONS By ESPACE Stages 1 and 2

Plenary Sessions | **Theme 1: Safeguards (SG)** | **Theme 2: Technology (TEC)** | **Theme 3: Nuclear (NUC)** | **Special Events/Side Events**

M Building – First and Second Floor – M01/M02

SG Exhibition
ESPACE
COFFEE CORNER
SECOND FLOOR
BOARD ROOM A
CONFERENCE ROOM M2
CONFERENCE ROOM M3
CONFERENCE ROOM BR-B / M1
COFFEE CORNER
ESPACE Area M01-2
ESPACE

M01 02, M01 04, M01 06, M01 10, M01 12, M01 13, M01 14, M01 16, M01 18, M01 20, M01 22, M01 23, M01 25, M01 27

22-02515E

M Building – Ground Floor – M0E

Conference Desk
TO CORRIDOR A BUILDING
COFFEE CORNER
Coat Check
COAT RACKS
Coat Check
M0E 61 Future, M0E 60 Future, M0E 59 Future, M0E 58
M0E 67 Conference Secretariat
M0E 69 Briefing Room
M0E 68 Security Secretariat
M0E 70 Past
PRESS ROOM
CLICK & COPY
CONFERENCE ROOM M6
CONFERENCE ROOM M7
CONFERENCE ROOM M4
CONFERENCE ROOM M5
ESPACE
E1

M0E 03, M0E 05, M0E 07, M0E 10, M0E 12, M0E 13, M0E 15, M0E 16, M0E 18, M0E 19, M0E 75, M0E 79, M0E 100, M0E23, M0E 24, M0E 26, M0E 27

Symposium on International Safeguards

Reflecting on the Past and Anticipating the Future

31 October–4 November 2022
Vienna, Austria

PROGRAMME

Organized by the

IAEA
International Atomic Energy Agency
Atoms for Peace and Development

25 YEARS Additional Protocols
50 YEARS Comprehensive Safeguards Agreements

#IAEASG2022

Programme of Daily ESPACE Presentations

MONDAY 31 October

Time	Presenter	Title	Room
12:15	IAEA	Safeguards Implementation during the COVID-19 Pandemic	E2
12:45	IAEA	SGIM Sneak Peek	
15:30	IAEA	30 Years after the first CSA inspection in the DPRK	
12:15	IAEA	IAEA-SGAS Sneak Peak Preview and IAEA-SGIM Sneak Peak Preview	E3
12:45	IAEA	IAEA-SGTS Sneak Peak and Movie Showing	
15:30	IAEA	Enabling Collaborative Analysis for Safeguards Implementation: Using the Collaborative Analysis Platform to Strengthen In-field Activities to Support State Evaluation	
16:00	IAEA	Addressing safety needs for the Department of Safeguards during the Pandemic	

TUESDAY 1 November

Time	Presenter	Title	Room
10:15	IAEA	IT Support for Safeguards Effectiveness Evaluation under the State Level Concept	E1
12:30	IAEA	Quantification of Uranium Retained in or Recovered from Equipment of the Enrichment Plant	
13:00	IAEA	Pathfinder – A Tool to Support Acquisition Path Analysis	
10:15	Exhibitor	ImageOne – Exhibitor Presentation	E2
12:30	IAEA	FIELD VERIFIABLE PASSIVE SEAL (FVPS), THE EVOLUTION OF A PASSIVE SEAL SOLUTION	
13:00	Sweden	Embedded Universal Seal Reader – The Release	
15:00	Exhibitor	The World Nuclear Transport Institute – Presentation and Sponsored Coffee Break	
10:15	IAEA	NGSR Demonstration: NGSR Deep Learning Capability	E3
12:30	IAEA	NPT Transit Matching Activities performed by the IAEA	
13:00	IAEA	Safeguards Equipment Monitoring Laboratory	
13:30	EC-JRC	Session: Nuclear Safeguards and Security trainings in the EC JRC Nuclear Security and Safeguards Department: Resilience in the pandemic constraints	
14:00	United States of America	Session: Adaptation of Los Alamos National Laboratory Non-destructive Assay Training to the COVID Landscape	
14:30	Japan	Session: Development of Mock-CA and DIQ exercises using virtual tour for online SSAC training	
15:00	IAEA	Optimization of the IAEA Safeguards Shipment Process	

WEDNESDAY 2 November

Time	Presenter	Title	Room
11:00	IAEA	Authorisation and Usage of the Next Generation Cerenkov Viewing Device in Japan	E1
13:00	IAEA	The Next Generation of Unattended Measurement Tools for IAEA Safeguards Verification	
13:30	IAEA	Future Safeguards Challenges at the Fukushima Dai-ichi Site	
15:30	Cooperating Organizations	ESARDA/INMM	
11:00	Cooperating Organizations	APSN/WNA	E2
15:30	Exhibitor	Westinghouse, Inc. – Exhibitor Presentation and Sponsored Coffee Break	
10:30 – 13:00	IAEA	Exhibition of the IAEA's Safeguards Analytical Laboratory Tools and Techniques for Measuring Nuclear Material and Environmental Samples	SG Booth
11:00	IAEA	Mitigation of Neutron Radiation Effects on Commercial off the shelf (COTS) SD flash memory cards via boron carbine (B4C)	E3
13:00	IAEA	Online Learning and Training Development in IAEA Safeguards	
13:30	IAEA	PROCESS ATTRIBUTE MONITORING AT GCEPS	
15:30	IAEA	The Nuclear Solar System: An Interactive Tool for Investigating Nuclear Fuel Cycle Data	

THURSDAY 3 November

Time	Presenter	Title	Room
11:00	IAEA	Detecting Nuclear Material at the State-level - An Example Based on Synthetic Data Using the Fictional Nuclear Solar System	E1
13:00	IAEA	Remote Data Transmission for Safeguards Verification	
13:30	Belgium	An innovative training course on sampling plans using virtual reality	
15:30	France	Experiences and challenges on doing remote training on nuclear Safeguards at IRSN.	
11:00	Exhibitor	Thermofisher - Exhibitor Presentation and Sponsored Coffee Break	E2
13:00	IAEA	Estimating Aggregate Detection Probabilities via Stochastic Simulation	
13:30	Finland	Demonstration of the Distributed Ledger Technology application 'SLAFKA' developed by STUK in Finland	
15:30	Exhibitor	The Brazilian-Argentine Agency for Accounting and Control – Presentation and Sponsored Coffee Break	
09:30	United States of America	Session: Technical Virtual Engagements – Live Streaming for Optimal Impact	E3
10:00	Japan	Session: Virtual Training Development and Implementation and Potential Application of Outcome to Future Trainings in Post-COVID-19 Era	
10:30	Belgium	Session: Developing a virtual reality research reactor in support of safeguards education and training	
11:00	IAEA	First Use of Overhead Imagery at the IAEA	
11:15	IAEA	From Argentic Films to Data Science: 20+ Years of Satellite Imagery in support of Safeguards	
13:00	IAEA	IAEA SG and NE Collaboration: Enhancing Nuclear Safeguards Infrastructure to Support Introduction of Nuclear Power	
13:30	IAEA	Safeguards considerations for post-operational facilities	
15:30	UK	Realizing the Benefits of Digital in Nuclear Waste Handling Processes	