SUSTAINABLE NUCLEAR SECURITY GOVERNANCE: BEYOND THE 2016 NUCLEAR SECURITY SUMMIT

Report from an International Atomic Energy Agency General Conference Side Event
September 15, 2015
Vienna, Austria

The 2016 Nuclear Security Summit (NSS) is the last in a series of summits initiated by US President Barack Obama in 2010. Each successive summit has built on previous pledges to secure nuclear materials, ratify international legal instruments, and provide support for global efforts to improve nuclear security oversight and governance. The NSS process has also built a community of trusted stakeholders: sherpas from governments and international organizations, nuclear industry leaders, and representatives of nongovernmental organizations.

On September 15, 2015, on the margins of the International Atomic Energy Agency's (IAEA) 59th General Conference in Vienna, Austria, the World Institute for Nuclear Security (WINS) and the Stanley Foundation co-organized a side event supported by the US Mission to International Organizations in Vienna.[1] The purpose of the event was to bring together stakeholders from government, industry, and civil society to discuss the challenges of maintaining the momentum and achievements of

Moderated by Mark Webster, a broadcast journalist from the United Kingdom who was formerly employed by Independent Television News, the event brought together three distinguished panelists representing the three areas of the summit process:

- Laura Holgate, senior director, WMD terrorism and threat reduction, US National Security Council, and US sherpa, Nuclear Security Summit 2016.
- Jack Edlow, president, Edlow International Company, and chairman, international board of advisors, Nuclear Industry Summit 2016.
- Andrew Bieniawski, vice president, material security and minimization, Nuclear Threat Initiative, and member, Steering Committee of the Fissile Materials Working Group.

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the NSS process beyond the final summit in 2016. The discussion also focused on how the nuclear industry can organize itself beyond 2016 to deliver on its commitments from the past six years and how civil society can contribute to positively advancing nuclear security governance in the future.

The event drew approximately 100 participants from a diverse international audience with varying levels of knowledge about the NSS process. It also featured electronic voting that enabled almost immediate responses to various questions posed to participants. In a preliminary poll, 25 percent of respondents indicated they were experts on the NSS process, 42 percent indicated they were well informed, 25 percent indicated they were somewhat informed, and 9 percent indicated they had no prior knowledge. This event report presents highlights of remarks from the panel, audience responses, and resulting discussion.

Background on the 2016 Summits

In 2016, world leaders will gather in Washington, DC, for the last in a series of heads-of-state meetings on nuclear security. Following a tradition established by past NSS events, representatives of industry and civil society will also gather in Washington for events that highlight their respective engagement on nuclear security issues. To facilitate coordination, memorandums of understanding have been signed among these stakeholders.

The Nuclear Industry Summit (NIS), organized by the Nuclear Energy Institute, will be held March 29–30 at the Grand Hyatt Washington Hotel.[2] The Nuclear Knowledge Summit comprises members of the civil society/nongovernmental community; its event is being organized by the Fissile Materials Working Group, a coalition of 80 US and international nongovernmental organizations. The event will take place March 30, 2016, at the JW Marriott Hotel. A joint event involving industry and civil society participants will be held March 31. The NSS itself will take place March 31–April 1, 2016, at the Walter E. Washington Convention Center.[3]

The 2014 NSS communiqué notes that policy preparations have focused on ways to develop a stronger nuclear security architecture that includes institutions such as the United Nations and the UN Security Council committee that was established pursuant to Resolution 1540. It also includes the Global Initiative to Combat Nuclear Terrorism, the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, and legal instruments such as the Convention on the Physical Protection of Nuclear Material (CPPNM), the 2005 CPPNM Amendment, and the International Convention for the Suppression of Acts of Nuclear Terrorism. At the heart of this architecture is the IAEA, including its support for national efforts to improve nuclear security, its review and advisory services, and its important role in coordinating the institutions and legal instruments of the architecture.[4]

Following the 2014 NIS in Amsterdam, the Netherlands, the NIS board of advisors, which includes representatives of every continent, created three working groups for the 2016 NSS:

- The Role of the Nuclear Industry in the Security of its Materials and Technologies.
- Dealing With the Cyber Threat.
- Securing the Use, Storage and Transport of Strategic Nuclear and Radiological Materials.

These groups are preparing recommendations ahead of the NSS. An NIS statement drawing on these recommendations will soon be completed and discussed with the sherpa community.

Following the 2014 Nuclear Knowledge Summit, the steering committee of the Fissile Materials Working Group identified

the need for policy development groups on three major topics:

- Elimination of Highly Enriched Uranium in Civilian Applications.
- Enhancing the Security of Military Nuclear Materials.
- Information Sharing, Standards and Best Practices, and Security Culture.

These groups produced a joint recommendations report in June 2015 that was distributed to the NSS sherpa community at the June 2015 sherpa meeting in Vilnius, Lithuania.[5]

The Fissile Materials Working Group has also highlighted additional priorities for the 2016 NSS:

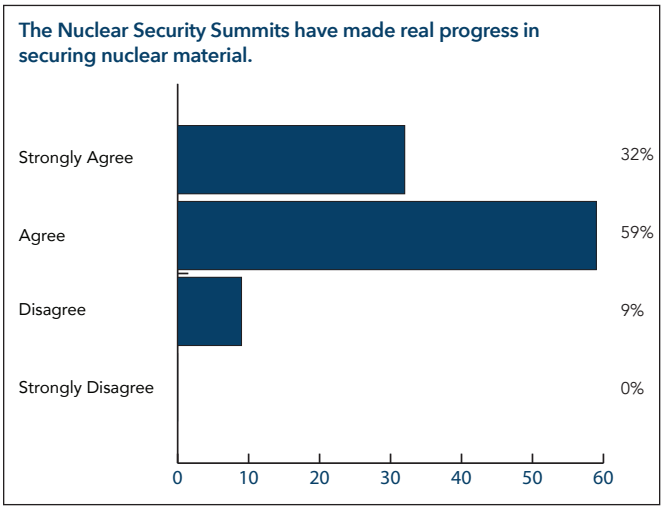
1. Make the global nuclear security regime comprehensive.
2. Share information to build global confidence.
3. Implement measurable best practices and standards.
4. Create a sustainable mechanism for continuous progress.
5. Offer plans for eliminating civil highly enriched uranium and reducing plutonium.

A social media campaign focused on these priorities is now under way.

Making and Measuring Progress

During introductory remarks at the side event to the IAEA's 59th General Conference, the panelists noted that the NSS process has strengthened various elements of the nuclear security architecture, including an increase in the number of countries that have ratified the 2005 Amendment to the CPPNM, an increase in funding for IAEA activities, and improvements in collaboration with regulators. The NSS process has attracted the attention of leaders, created a platform for national progress reports, engaged civil society and industry, empowered sherpas, and led to a network of conversations and communications. It has also led to increasing use of tabletop exercises and discussions that have identified gaps.

When Webster asked audience members whether they thought the summits had made real progress in securing nuclear material, 91 percent either agreed or strongly agreed; only 9 percent disagreed. Edlow commented on how important it is to convince the 59 percent who said they agree to move into the "strongly agree" category (which is where he voted).



Bieniawski agreed and noted that as a direct result of the NSS process, all highly enriched uranium materials have been removed from 12 countries. This enormous effort entailed arranging for more than 60 shipments of highly enriched uranium from donor countries and transporting the materials to countries capable of disposing of them safely. In total, 3,000 kg were removed—enough to build 120 nuclear bombs.

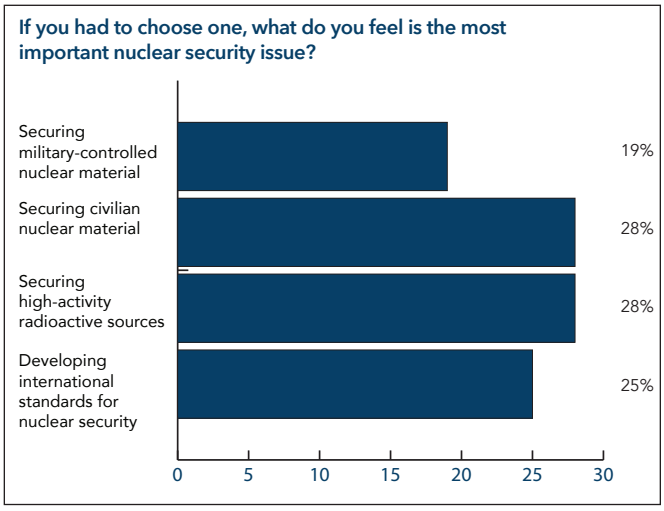
Holgate said the NSS process has been effective because it has brought world leaders together and helped them understand how important

their individual actions are to contributing to the broader nuclear security goal. In fact, a 2012 report published by two nongovernmental organizations found that approximately 80 percent of the 67 national commitments made by 30 global leaders at the 2010 summit were completed by the 2012 NSS.[6]

During the discussion, an audience member said that measuring the progress of nuclear security in the future would be more challenging because it would be hard to have confidence that success is actually taking place. The panel agreed but also pointed out that the development of effective metrics like the NTI Index are making an important contribution in this regard.[7]

The Most Important Nuclear Security Issue

Participants were also asked to vote electronically on what they believe the most important nuclear security issue is. As shown in the graphic below, audience members said they believed that all four options were important, but the two most important were securing civilian nuclear material and high-activity radioactive sources.



Edlow noted that industry isn't involved in securing military material. However, he added that security is quite robust for civilian nuclear materials and that security for high-activity radioactive sources has improved greatly.

Bieniawski pointed out the challenge of choosing among the four options and said there was a need for an "all of the above" response. He added that while removals and security improvements of civilian nuclear materials have been one of the major successes of the NSS process, more remains to be done. The nongovernmental community is also focusing on the security of military materials, as well as on the effort to expand the 2014 NSS gift basket on the security of radioactive sources. He added that developing standards is crucial.

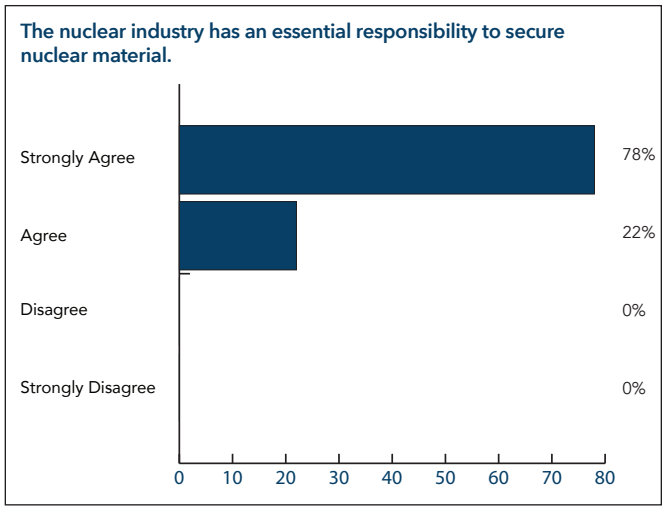
Holgate noted that developing international standards provides a solid platform on which to improve the security of military-controlled and civilian materials, as well as high-activity radioactive sources. She also said that improvements must continue taking place while the standards are being developed and recommended that the quality and quantity of IAEA guidelines be improved. She praised WINS for its contributions to nuclear security, as well as the gift basket that 35 countries at the 2014 summit committed to in regard to strengthening nuclear security implementation.

Importance of Industry and Civil Society Engagement

Webster also asked the audience if the nuclear industry has an essential responsibility to secure nuclear material. One hundred percent of respondents either agreed or strongly agreed with this statement.

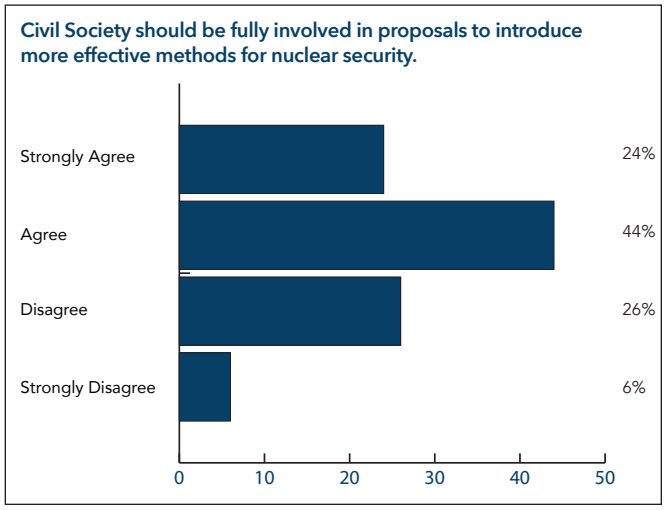
Participants noted that in some cases, industry is able to go beyond existing security measures. They also noted that the NIS process has enabled participants to not only discuss compliance but also culture and governance. The panel's consensus was that additional incentives need to be created in the architecture to provide a business-oriented

benefit for nuclear security. Industry also needs to consider additional steps that could be taken, such as consolidating operations and incorporating security by design.



Edlow noted the incredible challenge of cybersecurity since the threat doesn't change every year, month, or week, but every hour. Because of this, he said that the nuclear industry is actively developing protection against cyberattacks.

When Webster asked whether civil society should be fully involved in proposals to introduce more-effective methods for nuclear security, 68 percent of respondents either agreed or strongly agreed, whereas 32 percent either disagreed or strongly disagreed.



Bieniawski noted the important role civil society plays in developing innovative ideas and solutions for the NSS process. He also said civil society has the ability to check accountability and facilitate a more transparent and open process. He cited a 2014 speech written by Dutch Foreign Minister Frans Timmermans, who praised the achievements of civil society in the NSS process.[8]

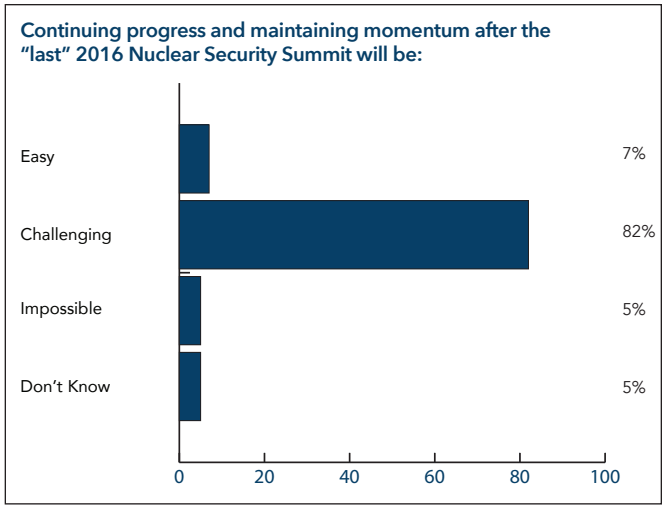
Holgate remarked that to engage effectively, especially with industry and government stakeholders, there is a need for qualified experts. She added that classification for some aspects of security is important but so is transparency—especially in issues pertaining to regulations and security guidance. Such information, she said, should be publicly available.

An audience member noted that interactions between participants at the nuclear industry summits and those at the nuclear security summits had been challenging, including in the Netherlands in 2014. Some audience members had the perception that participants in the industry summits were a nuisance to the NSS process. The panelists responded that bringing these communities together effectively in 2016 is vital. As a positive model, Edlow mentioned the successful 2014 US-Africa Leaders Summit in Washington, DC, which successfully brought together government, industry, and nongovernmental participants.[9]

Challenges of Maintaining Momentum

The panelists also talked about the challenges of maintaining momentum after the NSS process has concluded. They stressed that it is important to have adequate resources at the national level and in international organizations to carry this work forward. One entity, such as the IAEA, cannot take on the role alone. Additional challenges include maintaining sherpa connectivity and securing

the involvement of all countries, not just those in the NSS process.



When Webster asked the audience members how difficult it would be to maintain momentum following 2016, 82 percent concurred with the panelists that it would be challenging.

In the discussion that followed, additional challenges identified were how to make the process more comprehensive by including radioactive sources and military materials in the framework, as well as how to increase the number of countries involved.

Panelists suggested that the IAEA ministerial process could provide a mechanism through which to develop ideas. In terms of industry, it will be important to keep the focus on nuclear security and put a comprehensive system in place that includes standards and best practices (such as those developed by the World Association of Nuclear Operators and WINS). They admitted, however, that it will be challenging to do this in a way that captures all aspects in one process or mechanism.

Additional discussion topics included the need to continually reiterate that the threat is real, especially since leaders, circumstances, and threats can change rapidly. (For example, there is now much greater concern about Islamic State and a dirty bomb.) The metrics of success were also mentioned; one participant talked about the challenge of measuring how effective the IAEA is in improving nuclear security, especially considering the perceived lack of transparency to actors outside of governments and member states. The media were also discussed, including the important role that the IAEA's press office plays in sharing effective, credible communications on nuclear security.

Conclusion

The full scope of the global nuclear security architecture is still under development; it is important that the institutions, treaties, and norms that do exist are sufficiently robust in order to be able to sustain the momentum and achievements of the NSS process. There is a need to implement the CPPNM and work toward the entry into force of its 2005 Amendment, as well as to improve coordination among the UNSCR 1540 Committee, the Global Initiative to Combat Nuclear Terrorism, the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, the Nuclear Suppliers Group, WINS, and others. While the IAEA may not be the appropriate forum for the continuation of some NSS initiatives, they are at the heart of international efforts to improve nuclear security and play an important coordinating role.

The NSS process has made tremendous progress in strengthening the international nuclear security architecture. However, there are still gaps and a need for states to implement their commitments. The Strengthening Nuclear Security Implementation initiative, a gift basket supported by 35 states at the 2014 NSS, provides an effective platform for facilitating implementation among all states, not just those in the NSS process.

The Global Nuclear Security Architecture

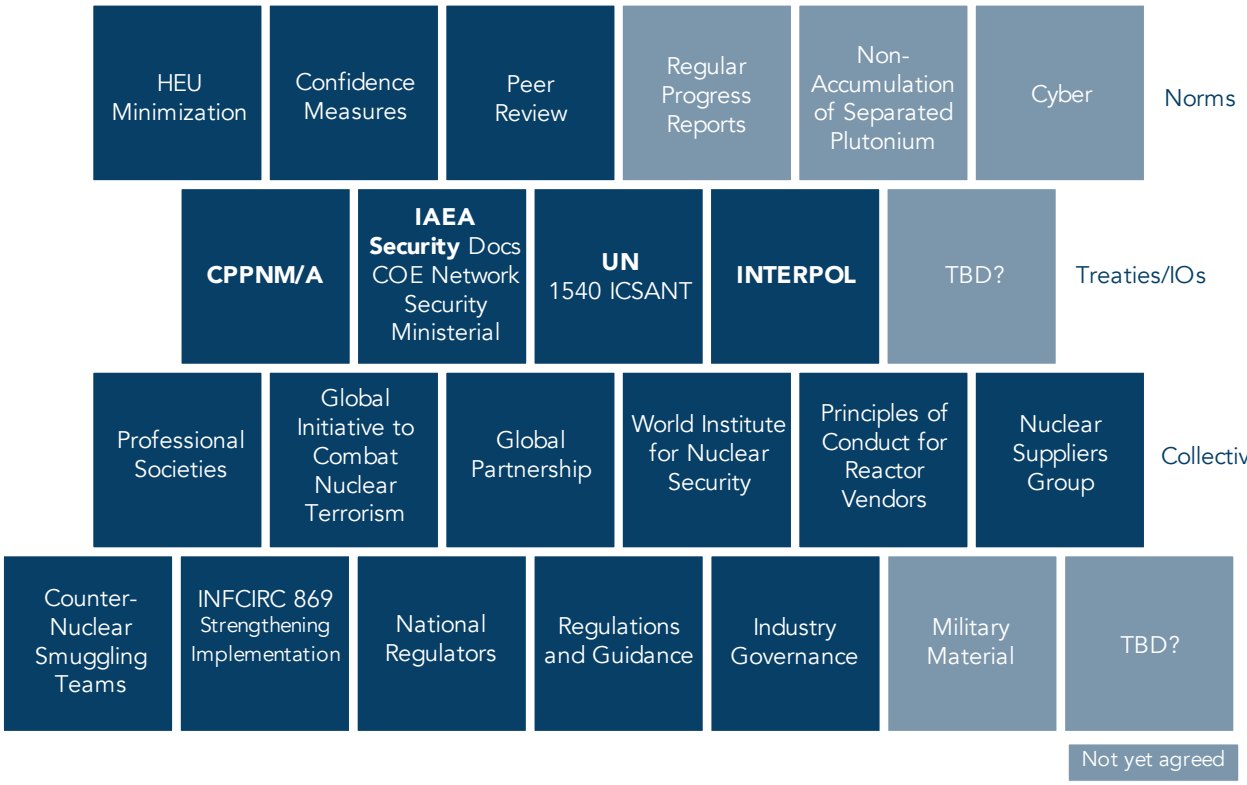


Image courtesy of Laura Holgate

Endnotes

1 For additional background, see *Integrating the Nuclear Security, Industry and Knowledge Summits*, a report from an event hosted by WINS and the Vienna Center for Disarmament and Non-Proliferation on September 23, 2014, *https://www.wins.org/files/event_report-integrating_the_nss_nis_and_nks-cd-6_oc_14.pdf*.

2 Nuclear Industry Summit 2016, *https://www.nis2014.org/nuclear-industry-summit-2016.html*.

3 White House Office of the Press Secretary, "Statement by the Press Secretary on the 2016 Nuclear Security Summit," August 10, 2015, *https://www.whitehouse.gov/the-press-office/2015/08/10/statement-press-secretary-2016-nuclear-security-summit*.

4 The Hague Nuclear Security Summit Communiqué, March 25, 2014, *https://www.government.nl/documents/directives/2014/03/25/the-hague-nuclear-security-summit-communique*.

5 Fissile Materials Working Group, *The Results We Need: Policy Recommendations for the Nuclear Security Summit*, *http://www.fmwg.org/FMWG_Results_We_Need_in_2016.pdf*.

6 Michelle Cann, Kelsey Davenport, and Margaret Balza, *The Nuclear Security Summit: Assessment of National Commitments, Arms Control Association and Partnership for Global Security*, March 2012, *https://www.armscontrol.org/files/ACA_NSS_Report_2012.pdf*.

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8 Frans Timmermans, speech on behalf of Foreign Minister Frans Timmermans by Secretary General Renée Jones-Bos, Ministry of Foreign Affairs, for the Nuclear Knowledge Summit in Amsterdam, March 21, 2014, *https://www.government.nl/documents/speeches/2014/03/21/speech-nuclear-knowledge-summit-amsterdam*.

9 US-Africa Leaders Summit, August 2014, Washington, DC, *https://www.whitehouse.gov/us-africa-leaders-summit*.

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