

# **International Conference on Nuclear Security: Shaping the Future**

## **Nuclear Security Delegation for the Future Statement**

**Vienna, 20-24 May, 2024**

The Nuclear Security Delegation for the Future is a diverse team of twenty-four young nuclear security professionals from nineteen countries, identified by the International Atomic Energy Agency (IAEA) through a competitive application process as part of an inaugural initiative organized for the 4th International Conference on Nuclear Security (ICONS) 2024: Shaping the Future.

We, the Nuclear Security Delegation for the Future, acknowledge that the ICONS 2024 theme of “Shaping the Future” provides an opportunity for intergenerational dialogue and cooperation in order to achieve peace and security worldwide. We believe that including young, early career professionals into the heart of these discussions is essential.

We collaborated closely for three months, drawing on our individual academic and professional backgrounds to discuss the future of nuclear security, to harmonize our perspectives and to ultimately present our deliberations at ICONS 2024. Through this joint effort, our Delegation tangibly demonstrates cooperative global leadership among young nuclear security professionals while actively contributing to the international discussion on nuclear security.

The Nuclear Security Delegation for the Future Statement addresses four sub-areas: global communication; emerging technologies and artificial intelligence; capacity building; and how to make nuclear security inclusive for all.

### **Global Communication for Nuclear Security**

1. We urge the international community to endeavor to amend global perceptions on nuclear technologies through education and knowledge sharing, both about these technologies’ benefits and about the measures that are taken to manage the risks.
2. We advocate for the recognition of nuclear safety, security, and safeguards as unavoidably connected and as critical for the protection of the people, environment and society.
3. We call upon Member States to facilitate transparency in the field, and to continue public engagement through effective communication strategies and outreach programs in order to facilitate the understanding of nuclear risks and related mitigation strategies implemented by the global community.
4. We reassert the need for international cooperation across borders, which encompasses sharing knowledge, best practices and lessons learned from incidents, as well as taking collective

action to enhance nuclear security, thereby ensuring a safer and more secure world for generations to come.

5. We recognize the importance of academic research, collaborations, and training to advance nuclear security. These contributions drive innovation, foster interdisciplinary approaches, develop cutting-edge technologies and prepare the next generation of professionals to address emerging threats. These efforts are essential for ensuring the continued protection of nuclear material and facilities.

6. We stress the importance of international treaties, agreements, and regulatory frameworks in promoting global nuclear security standards and best practices. We also acknowledge the persistent challenges posed by the evolving nature of international relations. We call upon Member States to ensure the peaceful use of nuclear technology through the strengthening of international legal frameworks in order to meet the shifting needs of the global community.

7. We uphold the value of intergenerational discussion and call for the next generation of nuclear professionals to become stakeholders in nuclear security policy and decision-making discussions.

## **Emerging Technologies and Artificial Intelligence for Nuclear Security**

8. The development of novel designs of Small Modular Reactors (SMRs) and Advanced Modular Reactors (AMRs) raises important security considerations in many areas, including facility operations, transportation, and waste storage. Security requirements and recommendations must evolve alongside technological advancements. Addressing these evolving challenges presents opportunities for young professionals to influence the future of nuclear security.

9. The pivotal role that SMRs and AMRs will play in shaping our sustainable energy future will be driven by young nuclear security professionals whose essential expertise will ensure these transformative technologies can be deployed safely and securely.

10. We firmly believe in empowering young professionals to actively participate in the forefront of nuclear security research and to engage in conferences, seminars, and webinars dedicated to nuclear security, SMRs, and advanced reactors in order to stay apprised of latest developments in the field.

11. We highlight the importance of international cooperation. We, the next generation, are eager to foster collaboration and knowledge-sharing on SMR/AMR technologies, safety standards, nuclear security guidance and non-proliferation efforts globally.

12. We similarly recognize the dual nature of Artificial Intelligence (AI). AI could greatly benefit the field of nuclear security if designed, developed, and deployed securely; however, the speed and scale at which AI is developing poses a potential grave threat which needs to be addressed.

13. We call upon Member States to cooperate to mitigate this potential threat, and to jointly pledge to utilize technologies like AI solely for peaceful purposes. We advocate for the promotion of the peaceful uses of emerging technology through the strengthening of international legal frameworks, and urge states to never use such technology to target critical infrastructure.

14. We urge the international nuclear security community to continue to invest in and maintain analogue and legacy security systems in order to ensure continued operability, sustained security, and the diversity of operational technology.

15. We ask that the next generation of nuclear security professionals be involved in decision-making on the use of emerging technologies. We, the next generation, will inherit the consequences of their development. As such, we must be given the power and resources to guide and influence this process.

### **Capacity Building for Nuclear Security**

16. We consider attracting young talent to nuclear security to be a priority.

17. We believe that through targeted outreach and engagement strategies, young individuals at various educational levels should be presented with opportunities to join the nuclear security sector and be introduced to pathways into this field.

18. We recognize that recruiting, retaining and developing talented individuals, particularly the younger generations entering the nuclear field, can be a challenging endeavor. We call for the IAEA and Member States to explore how to tailor engagement strategies to recruit the next generation into nuclear security. This includes utilizing educational games, social media outreach, and other opportunities beyond conventional governmental frameworks.

19. We need to ensure that young talent has the support and resources to forge pathways into leadership roles. As the workforce is maturing, youth voices will become the decision-making bodies of the future, and equipping them with the tools to effectively lead is essential.

20. We ask that the efforts which are put into training and educating these individuals reflect the importance of their presence in the nuclear security field. Technical exchanges, cross-sector collaborations and other developmental opportunities need to be plentiful and made available to everyone entering the field. Younger generations should have equitable access to nuclear security training and workshops.

21. We encourage interdisciplinary collaboration by integrating young professionals from adjacent fields, including IT and engineering, into roles associated with nuclear security. This approach not only broadens perspectives but also fosters sustainable solutions to nuclear security challenges. The future of nuclear security requires a variety of disciplines working in parallel and across safety-security interfaces in order to create a unified approach. Such collaborative efforts will enable technological applications that were previously thought not possible.

## **Nuclear Security For All**

22. We, the Delegation for the Future, highlight that nuclear security should be a priority national concern due to its global implications. Existing and newly developed national standards and regulations should be oriented towards upholding international legal instruments, to include the Convention on the Physical Protection of Nuclear Material (CPPNM) and its Amendment. If we allow discrepancies in implementation to increase, there exists the likelihood for potential threats to endanger current and future generations.

23. We, as a transnational delegation, are driven by a vision that transcends borders and which emphasizes cooperative approaches that bolster nuclear security for all. We note the importance of building upon the foundations of traditional approaches to Nuclear Security while also adapting to confront new and emerging challenges.

24. We encourage a holistic approach to nuclear security which above all else empowers all communities, thereby guaranteeing their rightful inclusion in the nuclear security dialogue.

25. We plead with Member States to deepen cooperation to assure the continued safe and secure operations of nuclear power plants, even in extraordinary circumstances. It is equally important to learn from these consequential incidents and establish comprehensive nuclear security guidelines with the appropriate oversight and direction to continue learning from these experiences.

26. We urge Member States to increase international nuclear security personnel training. These collaborative efforts will ensure that technical staff (including first responders and security forces) are prepared with pre-established cooperation frameworks to counter myriad scenarios and threats to critical nuclear infrastructure. Collaboration fosters a sense of shared responsibility and increases knowledge sharing, thereby enhancing the overall security landscape.

27. Increased diversity is an essential part of our future strategy as it leads to better decisions and more positive outcomes. The global community must continue on its upward trajectory of increasing diversity in the nuclear security sector in pursuit of a world in which all can benefit from nuclear technologies, and in which no one is left behind.

**We implore you to consider our appeals as it is our future at risk.**

We are thankful for the IAEA for launching this exceptional opportunity for young professionals to gain real world experience in leadership, diplomacy, and international nuclear security. We extend our heartfelt gratitude to the staff of the Division of Nuclear Security and the Conference Secretariat: Mr. Bryan Denehy, Mr. Christian Deura, Ms. Sara Mroz and Mr Sanjai Padmanabhan for their exceptional support through the Delegation for the Future deliberations and development of this Statement.

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