“This is not just the start of a new year, but a time of new beginnings for the Agency. [...] Our Member States have agreed that the Agency should be the global focal point for nuclear security. Demands for our assistance are constantly increasing. But I believe more could be done to make us a real focal point in practice and not just in name.

We are in a position to integrate and bring together the many valuable – but often scattered – efforts being made throughout the world to guard against nuclear terrorism and other threats, not just by governments, but also by think tanks, NGOs and others. Let us bring all such efforts home to the Agency.”

IAEA DIRECTOR GENERAL RAFAEL MARIANO GROSSI’S NEW YEAR’S ADDRESS
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman's Report</td>
<td>2</td>
</tr>
<tr>
<td>The WINS Board</td>
<td>3</td>
</tr>
<tr>
<td>Executive Director's Report</td>
<td>4</td>
</tr>
<tr>
<td>2019 Highlights &amp; Achievements</td>
<td>6</td>
</tr>
<tr>
<td>Membership</td>
<td>8</td>
</tr>
<tr>
<td>Membership growth</td>
<td>8</td>
</tr>
<tr>
<td>2019 membership survey results</td>
<td>9</td>
</tr>
<tr>
<td>Events &amp; Workshops</td>
<td>10</td>
</tr>
<tr>
<td>Workshops</td>
<td>10</td>
</tr>
<tr>
<td>Webinars</td>
<td>11</td>
</tr>
<tr>
<td>Integrated Nuclear Safety and Security Training Course</td>
<td>12</td>
</tr>
<tr>
<td>Sustainable nuclear security training in Mexico</td>
<td>14</td>
</tr>
<tr>
<td>Security of Small Modular Reactors</td>
<td>16</td>
</tr>
<tr>
<td>INFCIRC 901 anniversary panel discussion</td>
<td>18</td>
</tr>
<tr>
<td>WINS Special Report on Gender and Nuclear Security</td>
<td>20</td>
</tr>
<tr>
<td>Knowledge Centre</td>
<td>22</td>
</tr>
<tr>
<td>WINS Academy</td>
<td>24</td>
</tr>
<tr>
<td>Training &amp; certification</td>
<td>24</td>
</tr>
<tr>
<td>WINS Alumni in their own words</td>
<td>25</td>
</tr>
<tr>
<td>WINS Academy Alumni networking event</td>
<td>26</td>
</tr>
<tr>
<td>Celebrating the 100th woman in nuclear to become a WINS CNSP</td>
<td>28</td>
</tr>
<tr>
<td>Support Processes</td>
<td>30</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>31</td>
</tr>
<tr>
<td>WINS Staff Members</td>
<td>32</td>
</tr>
<tr>
<td>2020 Targets</td>
<td>34</td>
</tr>
</tbody>
</table>
2019 was an enormously productive year for the World Institute for Nuclear Security. WINS membership grew by 18 percent. Workshops and Best Practice Guide production and revision continued apace. The WINS Academy offered a new Certification for Radioactive Source Security Management, and the Academy now has enough alumni to conduct a networking event. Rigorous International Organization for Standardization (ISO), donor government, and financial audits all demonstrated that WINS continues to be well and prudently managed. For all that, the WINS team deserves great credit.

With the onset of the COVID-19 pandemic, 2020 is already challenging, not only for WINS, but of course for the entire world. International cooperation and meetings, two important features of our work, may be altered for an extended period. Yet, WINS is up to the challenge. A core WINS capability is to help people to assess, prepare for, and mitigate risks. Moreover, distance learning is a WINS Academy forte. All of us will need to reflect creatively on how 2020’s challenges will alter old ways of doing business, but we can already see opportunities for greater efficiencies and continue to look for deeper connections.

Last year Duncan Hawthorne stepped down from the WINS board after a decade of service. His profound expertise, management skill, sound judgment, industry leadership, and unshakeable commitment to excellence in nuclear security made enormous contributions to WINS. This was especially true in the early years of his service as a founding board member of a fledgling organisation. The board and I are grateful for his work and his companionship. We will miss him.

The board is also grateful to the diverse array of organisations supporting WINS—governments, corporations, national laboratories, and philanthropic organisations, world leaders all. The diversity and credibility of these organisations speaks directly to the importance and effectiveness of WINS’ work.

WINS has set ten important targets for 2020 and is already hard at work to meet them. Moreover, we look forward to working with and supporting the International Atomic Energy Agency and Director General Grossi as they reinvigorate the nuclear security agenda.

With the onset of the COVID-19 pandemic, 2020 is already challenging, not only for WINS, but of course for the entire world. International cooperation and meetings, two important features of our work, may be altered for an extended period. Yet, WINS is up to the challenge. A core WINS capability is to help people to assess, prepare for, and mitigate risks. Moreover, distance learning is a WINS Academy forte. All of us will need to reflect creatively on how 2020’s challenges will alter old ways of doing business, but we can already see opportunities for greater efficiencies and continue to look for deeper connections.

Last year Duncan Hawthorne stepped down from the WINS board after a decade of service. His profound expertise, management skill, sound judgment, industry leadership, and unshakeable commitment to excellence in nuclear security made enormous contributions to WINS. This was especially true in the early years of his service as a founding board member of a fledgling organisation. The board and I are grateful for his work and his companionship. We will miss him.

The board is also grateful to the diverse array of organisations supporting WINS—governments, corporations, national laboratories, and philanthropic organisations, world leaders all. The diversity and credibility of these organisations speaks directly to the importance and effectiveness of WINS’ work.

WINS has set ten important targets for 2020 and is already hard at work to meet them. Moreover, we look forward to working with and supporting the International Atomic Energy Agency and Director General Grossi as they reinvigorate the nuclear security agenda.
Welcome to our 2020 Annual Report, which looks back on 2019 and sets out our objectives and aspirations for the new decade and the opportunities that it will bring.

We are a data- and evidence-driven organisation. We want to know how, and why we are making an effective contribution to the global nuclear security regime and its implementation. We share with the IAEA — and Director General Rafael Mariano Grossi — a passion for improvement and the establishment of global norms for nuclear security to help prevent a terrorist or serious criminal act from undermining the beneficial uses of nuclear and other radioactive materials. We have seen in recent months how a new virus can adversely affect global society, rapidly creating new restrictions and concerns worldwide. Too could a major nuclear safety or security incident, which is why we must work together to avoid it happening.

Based on data and evidence, 2019 was an exceptional year for WINS. Another 919 security practitioners joined us as members, and members now come from 146 countries. But these figures are not the most important measure of our impact or contribution, because of WINS. This feedback provides objective evidence that WINS is making a difference, but how and why?

In 2019 we ran 22 international events, almost one a fortnight, and more than 900 participants attended. In each case we aim to address current and relevant issues – SMR and advanced reactor security, rationalisation and violent extremism, gender and diversity issues, radioactive source security and professional development – to name but a few. All of our events are professionally facilitated and we assess the feedback from participants. A total of 93% of participants thought the events innovative and time well spent. We research why a few participants didn’t vote so positively so we can make continuous improvements.

We publish documents including Best Practice Guides and Special Reports on subjects that matter to our members, who believe they add real value, including self-assessment questionnaires to help practitioners assess their current performance. We added to that Knowledge Centre during the year and consolidated some of our guides. The Highlights section of this report describes the progress we made against our published targets, and we believe we have made solid advances. We also did a great deal of work during the year that didn’t feature in our original targets, and those key activities and developments feature in this report.

I wish to thank everyone for their contribution: our funders, the WINS Board and our staff, our members that provide their time and professional perspectives, consultants, facilitators, partner organisations, workshop attendees and speakers. It is genuinely a global team effort.

We look forward to the opportunities that exist in the next decade. At the time of writing, the world is gripped with a pandemic, and almost all social gatherings and business travel have been banned by governments. Inevitably, this is impacting on WINS’ 2020 schedule of events, and we are working to reschedule our programme to serve our members as effectively as possible. But the situation also offers some opportunities. First, many of our members have to work from home or have time available because of disrupted schedules, and WINS Academy professional development courses are available remotely. We have an extensive range of bursaries available, especially for women, and are offering a 25% discount on purchased courses to encourage people to use this time for professional development.

We are also planning a “new look WINS” for 2020 with much more interactive activities and opportunities for engagement without travel. As well as launching new Academy courses and new publications, including Quick WINS, we will be introducing more video, competitions, podcasts and online security clinics, as well as providing incentives for engagement. We intend to stay agile, relevant and effective and we welcome all the support and ideas that you have.

And finally, I wish to return to the intention of the IAEA Director General to “build on the great political impetus seen in nuclear security in recent years, expand our support to all Agency Member States and work to transform our nuclear security guidance into mainstreamed norms.” WINS has spent two years researching the approach of the civil aviation and nuclear sector to security and how the international bodies – ICAO and the IAEA – have been given authority by their member states to implement global security strategies and plans. Our conclusion, published in our Research Summary, is that the IAEA, through no fault of its own, is some 20 years behind the security policies, standards and procedures that are implemented worldwide in the aviation sector.

There is no bigger or more important objective than to support the IAEA and its Director General in making nuclear security mainstreamed norms a reality and no better time than now, when we can focus on policies and strategies rather than travel and events. We look forward to making a significant contribution to this objective with the support of key stakeholders.
The WINS Board published their first Annual Assurance Report in June 2019 in accordance with the revised Governance Statute.

We delayed the launch of the new Standalone Module on Operational Security to await the results of our other new standalone certification programme.

The new report on small modular reactors will be completed as part of a Special Report on Security by Design for Advanced Reactors in 2020.

We published the Security in the Civil, Nuclear and Aviation Sectors benchmarking study in February 2020.

We prepared a new document in February 2020 on our Purpose, Objectives, Approach and Values to replace the existing Mission and Vision statements.

We hosted 22 events, and 45% were held with a partner organisation. A total of 820 people participated. We also delivered nine webinars, including two in Spanish.

The new report on return on investment will be completed in April 2020.

We reached our 2019 target of 25% women as WINS Academy participants and Certified Nuclear Security Professionals, however we fell short of our target for 25% participants and subject matter experts at our events (24%).

We relaunched the WINS Academy Ambassador Programme in February 2020 seeking 25 new WINS Academy Ambassadors from around the globe.

The new report on small modular reactors will be completed as part of a Special Report on Security by Design for Advanced Reactors in 2020.
**Membership growth**

WINS is a member-based professional institute. In 2019, our membership grew to more than 6,000 members from 146 countries.

- **6,014** registered WINS members (as of 31.12.2019)
- **146** countries that members indicated they were from
- **+ 919** new members in 2019
- **+ 4** countries in 2019 (Brunei, Guyana, Liberia & Comoros)

**2019 membership survey results**

- **92%** have modified their approach to security because of WINS
- **94%** agree WINS is a valuable forum
- **94%** agree WINS best practice guides cover relevant topics
- **95%** agree the WINS website is well designed and easy to navigate
- **83%** benefit from WINS membership
- **83%** agree that WINS is very service oriented for its members
- **92%** have or will recommend a WINS workshop to others
- **93%** agree that the workshop was worth their time
- **96%** agree that WINS workshops are innovative
- **96%** agree WINS Academy certification was time well invested
- **94%** agree their competence in nuclear security has improved because of WINS Academy courses
- **94%** agree WINS best practice guides are effective for self-assessment
- **93%** agree that WINS workshops are innovative
- **93%** agree the workshop was worth their time
EVENTS & WORKSHOPS

Workshops

WINS hosts workshops, roundtables and training courses around the world to promote and develop nuclear security competence. In addition to benefiting from presentations by subject matter experts, attendees actively participate through anonymised surveys, small group discussions and table-top exercises. Our interactive approach facilitates both learning and networking, giving participants an opportunity to share their experiences and best practices. While the percentage of women who are participants and subject matters experts is still low, we are actively promoting their attendance and contribution through the WINS Gender Champions Programme, and we expect to see continued improvements in their participation rates in 2020.

Participants feedback

Participant Satisfaction

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was well informed about the objectives of this workshop in advance</td>
<td>45.2%</td>
</tr>
<tr>
<td>I believe the workshop accomplished its objectives</td>
<td>44.0%</td>
</tr>
<tr>
<td>The content shared during the workshop is relevant to my current position</td>
<td>9.3%</td>
</tr>
<tr>
<td>The pace of the workshop was appropriate</td>
<td>1.5%</td>
</tr>
<tr>
<td>I was able to express my opinion and actively contribute to the workshop</td>
<td>8.2</td>
</tr>
<tr>
<td>I valued the networking opportunity</td>
<td>8.1</td>
</tr>
<tr>
<td>I will use the information discussed during the workshop to suggest security improvements</td>
<td>8.0</td>
</tr>
<tr>
<td>Average</td>
<td>8.3</td>
</tr>
</tbody>
</table>

Webinars

In 2019, WINS conducted nine webinars. Participants registered for the event from a wide range of countries including Myanmar, Pakistan, Russia, Kazakhstan and Turkey. WINS also held two webinars in Spanish, one presenting the Foundation Module in Spanish for the first time and the other detailing radioactive source security.

Event participants by sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and training organisations</td>
<td>25.5%</td>
<td>22.6%</td>
</tr>
<tr>
<td>Industry and end-users</td>
<td>19.2%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Regulators and technical support organisations</td>
<td>7.7%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Law enforcement agencies</td>
<td>5.5%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Other governmental bodies</td>
<td>4.4%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Vendors and consultants</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>International organisations</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Others</td>
<td>25%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Top 7 countries of origin of event participants

<table>
<thead>
<tr>
<th>Country</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>134</td>
<td>132</td>
</tr>
<tr>
<td>India</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Japan</td>
<td>65</td>
<td>57</td>
</tr>
<tr>
<td>UK</td>
<td>57</td>
<td>57</td>
</tr>
<tr>
<td>Canada</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Mexico</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Libya</td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>

Webinar participant by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>53%</td>
</tr>
<tr>
<td>Asia</td>
<td>11%</td>
</tr>
<tr>
<td>Latin America</td>
<td>8%</td>
</tr>
</tbody>
</table>

Number of webinars conducted in 2019: 9
Average number of viewers: 25
Total number of views: 229
Integrated Nuclear Safety and Security Training Course

From 4-6 September, 55 participants attended an Integrated Nuclear Safety and Security Training Course held by Pandit Deendayal Petroleum University (PDPU), WINS and Los Alamos National Laboratory at PDPU in Gandhinagar, India. Throughout the three-day course, participants listened to lectures from Indian subject matter experts, engaged in discussion sessions led by WINS and LANL, and participated in multiple table-top exercises to reinforce their learning.
Sustainable nuclear security training in Mexico

Since 2016 and through July 2020, the Government of Canada has been contributing through WINS and the Mexican Secretariat of Energy to the development and sustainability of the nuclear security learning services offered by the ININ Nuclear Security Training Centre and to the development of nuclear security training and professional development in Central America and the Caribbean.

Under this agreement WINS conducted several events in 2019 such as webinars, regional training courses, international best practice workshops and a national roundtable on radioactive source security, addressing a wide range of topics such as transport, emergency response and capacity building and competencies. In addition, WINS partnered with the VII Pan-American Conference on Non-Destructive Testing (VII PANNDT) to conduct a parallel event and raise awareness about nuclear security in the region. Moreover, WINS has continued to support the operation and maintenance of the ININ Nuclear Security Training Centre, the ININ ISO 29990 and the translation into Spanish of a new WINS Academy module.

Thanks to the Nuclear Security Training Centre, ININ not only has a professional certification programme, but also has contributed to the enrolment of more than 120 professionals in an international nuclear security certification that will demonstrate their proficiency and validate their qualifications. As a result, it will prepare professionals in Central America and the Caribbean region to adapt to new professional changes while being able to protect nuclear and other radiological materials and facilities effectively.
WINS conducted a workshop on the Security of Small Modular Reactors (SMRs) in Ottawa, Canada, on 20–21 November 2019. The event was co-sponsored by the CANDU Owners Group, Natural Resources Canada, Canadian National Laboratories and the Canadian Nuclear Safety Commission.

President Rumina Velshi of CNSC set the scene at the opening: This workshop can play an important role in shaping the future. It can:

1. Set the path forward toward the effective integration of safety, security and safeguards requirements for SMRs;

2. Drive the evolution of prescriptive security requirements to a goal-oriented, graded approach commensurate with the risks of SMRs;

3. Imagine the next best steps in international harmonisation; and

4. Develop concrete recommendations toward modern security requirements.

The workshop highlighted the importance of security in relation to the design, commissioning and operation of SMRs. The workshop also addressed cybersecurity matters and the interfaces between safety, safeguards and security for small modular reactor design.
WINS and the Permanent Mission of Canada co-hosted a panel discussion on the links between gender parity and demonstrable competence in honour of the third anniversary of Information Circular 901 at the Vienna Centre for Non-Proliferation and Disarmament.

“The human factor is a key way we have to improve nuclear security,” Ambassador Hulan said, adding that certified training is an important step in promoting security culture. She also pointed out that certification boosts participants’ confidence and promotion prospects, which is especially relevant for women.

Dr Howsley spoke about the importance of replacing the common practice of relying on “presumed” competence during recruitment. “All organisations must examine their recruitment practices for security-related positions and make sure that they are recruiting people that fulfil the needs of the organisation looking forwards, without a gender bias,” Dr Howsley said. “That means using well-designed competency frameworks for security management to support hiring, promotion and retention.”

“Gender parity requires leadership,” Ambassador Andersen said, adding that Norway’s high level of gender parity was brought about by deliberate policies, strong cross-party networks and dedicated politicians. She noted that recruiting candidates with the right background could still be challenging. “We need leaders at every level who understand the dynamics of how we choose whom we hire.”

Canada and WINS welcome more countries to subscribe to INFCIRC 901 and make concrete commitments to both demonstrable competence and gender parity in the field of nuclear security.

Following the formal remarks, IAEA Deputy Director General Mary-Alice Hayward announced that newly appointed IAEA Director General Rafael Mariano Grossi has made gender parity a priority for the organisation during his tenure.
SURVEY

In April 2019, WINS conducted a survey on gender and nuclear security to capture the opinions and experiences of WINS members and to provide a baseline for the WINS Gender Champions Programme. The results of the survey enable us to align our efforts with issues prioritised by our members.

Do you think women are under represented in nuclear security?

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>82.0%</td>
<td>71.3%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>13.0%</td>
<td>21.0%</td>
</tr>
<tr>
<td>No</td>
<td>5.0%</td>
<td>9.0%</td>
</tr>
</tbody>
</table>

Do you think under representation of women in nuclear security is an issue that should be addressed?

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>88.0%</td>
<td>70.0%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>7.0%</td>
<td>21.0%</td>
</tr>
<tr>
<td>No</td>
<td>5.0%</td>
<td>9.0%</td>
</tr>
</tbody>
</table>

ROUNDTABLE

During our roundtable in May 2019, participants discussed best practices, lessons learned and initiatives on how to increase the representation of women in areas of under-representation.

Ambassador Bonnie Jenkins, founder of Women of Color Advancing Peace, Security and Conflict Transformation (WCAPS), stressed the importance of a significant and sustained voice representing and advancing women of colour. She said that it is important to discuss and develop strategies for targeting issues of diversity and inclusion in the fields of foreign policy and conflict resolution because women of colour are often the most affected by threats to peace and security.

Women of colour are also community leaders in many parts of the world and can meaningfully and compellingly contribute to the leadership and professional development of other women. People need to see people that look like them, Ambassador Jenkins added, in order to recognise that they, too, have a place at the table.

“When women are on the board, it seems to add assurance, because the nuclear field can have a negative connotation. As a scientist, I have seen how having women join nuclear sciences adds to the notion that it is safe and secure. Perceptions matter.”

WINS is taking specific actions to implement the Gender Champions Programme

- Dedicating scholarships for women to increase their participation in the WINS Academy Programme.
- Dedicating financial support for women to participate in WINS events.
- Targeting invitations to female experts to ensure better gender balance among expert presenters at WINS events.
- Convening events with key experts to discuss and explore additional initiatives we can take to increase the participation of women in nuclear security.
- Highlighting the full range of roles and competency profiles that reflect the diversity of the nuclear security sector.
- Identifying areas where women are under-represented and measures that will improve their participation based on a competency framework.

WINS Special Report on Gender and Nuclear Security

WINS is taking specific actions to implement the Gender Champions Programme

- Dedicating scholarships for women to increase their participation in the WINS Academy Programme.
- Dedicating financial support for women to participate in WINS events.
- Targeting invitations to female experts to ensure better gender balance among expert presenters at WINS events.
- Convening events with key experts to discuss and explore additional initiatives we can take to increase the participation of women in nuclear security.
- Highlighting the full range of roles and competency profiles that reflect the diversity of the nuclear security sector.
- Identifying areas where women are under-represented and measures that will improve their participation based on a competency framework.

Women of colour are also community leaders in many parts of the world and can meaningfully and compellingly contribute to the leadership and professional development of other women. People need to see people that look like them, Ambassador Jenkins added, in order to recognise that they, too, have a place at the table.

“When women are on the board, it seems to add assurance, because the nuclear field can have a negative connotation. As a scientist, I have seen how having women join nuclear sciences adds to the notion that it is safe and secure. Perceptions matter.”

WINS is taking specific actions to implement the Gender Champions Programme

- Dedicating scholarships for women to increase their participation in the WINS Academy Programme.
- Dedicating financial support for women to participate in WINS events.
- Targeting invitations to female experts to ensure better gender balance among expert presenters at WINS events.
- Convening events with key experts to discuss and explore additional initiatives we can take to increase the participation of women in nuclear security.
- Highlighting the full range of roles and competency profiles that reflect the diversity of the nuclear security sector.
- Identifying areas where women are under-represented and measures that will improve their participation based on a competency framework.
WINS publishes International Best Practice Guides and special reports for professionals working with nuclear and other radioactive material.

In 2019, WINS added a new Best Practice Guide on Nuclear Security Governance and Liabilities. This guide describes the role that a strong corporate governance framework can play in helping to mitigate security risks and vulnerabilities. It also highlights how governance best practices could reduce liability considerations if a malicious event takes place. We published a new Best Practice Guide on Security of Radioactive Sources Used in Industrial Radiography and Well-Logging Applications and we revised the BPG on Security of Radioactive Sources Used in Medical Applications and Security of High Activity Sources in Use and Storage in 2019. These guides are designed to arm medical and industrial professionals who use radioactive sources with the latest international standards for security planning. Finally, we published our new Guidelines for Conducting Peer Reviews of Nuclear Security Training and Support Centres.

WINS publications in 2019

**PRINTS**

BPGs & Special Reports **1,511**

**DOWNLOADS**

BPGs & Special Reports **688**

**Average BPG rating in 2019**

on a 1–9 scale **7.6**

**Top 5 BPG downloads in 2019**

1.4 Nuclear Security Culture

1.1 Effective Security Regulation

1.5 Security Performance Metrics

4.1 Security by Design

4.8 Electronic Tracking for the Transport of Nuclear and other Radioactive Materials
Training & certification

The WINS Academy programme results in learners achieving the status of Certified Nuclear Security Professionals through a comprehensive online learning programme. Learners first complete the Foundation Module and then specialise in one of nine elective modules to complete their certification. All of our certification exams are delivered in partnership with Pearson VUE. The 400th Certified Nuclear Security Professional graduated from the WINS Academy in 2019.

We have introduced end of Module Knowledge Tests (MKT) across the range of Academy learning programmes. The MKT available online and are effectively ‘practice exams’ so participants can self-test their module knowledge, understanding, preparation and readiness to sit the formal Pearson VUE proctored exam.

NEW RADIOACTIVE SOURCE SECURITY MANAGEMENT PROGRAMME

In 2019, WINS finalised the new WINS Academy Certification for Radioactive Source Security Management. The new programme including the external proctored examination is available in both Spanish and English. The programme is designed to better meet the needs of professionals with responsibilities for managing the security of radioactive sources.

The module explores security threats and the risks arising from those threats. It also examines the security systems—including administrative and technical measures—that are put in place to protect and secure radioactive sources, mitigate the threats, and minimise the risks of harmful events. In addition, the module emphasises the crucial role of security culture and human reliability programmes as well as the interface between safety and security in the protection and security of radioactive sources.

Our new programme for radioactive sources has different requirements for certification, including the study of only one extended WINS Academy Module, as well as a new designation: Certified Radioactive Source Security Professional (CRSP).

WINS Alumni in their own words

“On a personal level, I learned to believe more in myself. My achievement proved to me that I am a risk taker who is able to challenge my abilities. Today, when I look in the mirror, I believe in the woman who is staring back at me. Creating milestones has become a daily pursuit, designing small wins that keep me moving forward, and the knowledge that turning around isn’t an option anymore. I have more achievements waiting for me!”

- SARA AH (UAE) -

“The CNSP has given me the competency I need to handle emergencies and improve security measures.”

- MOHAMED G (NIGERIA) -

“I am now able to communicate to others about the need for nuclear security.”

- KAVALPREET K. (INDIA) -

“Becoming a CNSP marks a huge step for my career and a turning point for nuclear security education in my home university.”

- DEBORAH T (BRAZIL) -

“On a personal level, I learned to believe more in myself. My achievement proved to me that I am a risk taker who is able to challenge my abilities. Today, when I look in the mirror, I believe in the woman who is staring back at me. Creating milestones has become a daily pursuit, designing small wins that keep me moving forward, and the knowledge that turning around isn’t an option anymore. I have more achievements waiting for me!”

- SARA AH (UAE) -

“The CNSP has given me the competency I need to handle emergencies and improve security measures.”

- MOHAMED G (NIGERIA) -

“I am now able to communicate to others about the need for nuclear security.”

- KAVALPREET K. (INDIA) -

“Becoming a CNSP marks a huge step for my career and a turning point for nuclear security education in my home university.”

- DEBORAH T (BRAZIL) -
Our first networking event for WINS Academy Alumni brought together 12 women and 11 men from around the world who have achieved the status of Certified Nuclear Security Professional (CNSP).

The objectives of the event were:

- To connect CNSPs from around the globe
- To enable CNSPs to reflect on their journey toward certification, recertification and beyond
- To consider how the status of nuclear security management can be further enhanced
- To identify additional opportunities for strengthening the CNSP community
- To review current challenges and opportunities for strengthening the CNSP community
- To review current challenges and opportunities for nuclear security professionals

Ms Jean Llewellyn, OBE, delivered the keynote address. Ms Llewellyn is the former CEO of the UK National Skills Academy Nuclear, as well as a WINS Board Member. While sharing stories about her own learning and career journey, Ms Llewellyn emphasised that alumni should seize every opportunity and seek to recognise and appreciate when they are in the right place at the right time to advance their career.

"As a security professional, WINS programmes and certification are key tools for success."

Ms Jessica Fahey, security advisor and inspector for the Canadian Nuclear Safety Commission (CNSC), presented a regulatory perspective. She said security is a major topic of discussion worldwide; however, people seldom talk about the training, qualifications and experience that make security professionals competent to discharge their duties and responsibilities. This is why WINS plays such an important role.

"The WINS Academy programme gave me insight into the world of nuclear security and the confidence to ask the right questions and know what tools to use in the field."

Richard Asare, who is employed in the Human Resources Department at the Ghana Atomic Energy Commission (GAEC), discussed the role of certification within a national security framework. He said WINS certification had improved his confidence in helping to draft and implement key policies as well as enabling him to better carry out a systematic analysis to identify risks and threats.

"WINS’ approach to security management is that of strategic and performance based and not only on prescriptive rules like in the usual military command or gate manning. Security now involves all in the organisation – Human Resources inclusive from the board of directors to the departmental assistant or even cleaner."
Celebrating the 100th woman in nuclear to become a WINS CNSP

DR. KAREN VENTURA

"Never stop learning; the world never stops changing."

Dr. Karen Ventura is the 100th woman to earn her designation as a WINS Academy Certified Nuclear Security Professional. Dr. Ventura is a Programme Manager at the National Nuclear Security Administration’s (NNSA) Pantex Plant in the US. She works within the Global Security and Strategic Partnerships division, which is accountable for planning and management of nuclear non-proliferation and global security programmes.

Why did you decide to enrol in a WINS Academy learning programme?

I was accepted into the NNSA Graduate Fellowship Program for my post-doc. During the fellowship, I worked in the NNSA Office of Defense Nuclear Nonproliferation Research and Development. In August 2019, I joined the Consolidated Nuclear Security family at Pantex, beginning my second year in the nuclear security sector.

When I first started the fellowship, I was fascinated by the nuclear security world, however, my scientific expertise was in another field. To help prepare us more, the fellowship coordinators introduced us to the WINS Academy learning programmes. I was delighted to be awarded a scholarship, which led me to getting my certification.

How did you choose the elective module Nuclear Security for Scientists, Technicians and Engineers?

I chose the module Nuclear Security for Scientists, Technicians and Engineers because of my technical background and the nature of my job, which includes a fair amount of scientific research.

If the opportunity is presented, I will continue to take the remaining modules of the WINS Academy programme.

How have you put into practice the material you learned in the course?

CNS plays an integral role in helping the US sustain a strong nuclear deterrent and develop capabilities to neutralise global nuclear threats through unique security and non-proliferation research. The material I learned at WINS serves as useful guidance to produce safer and more secure outcomes.

What did you find most rewarding about the certification programme?

The most rewarding part of taking the certification programme was learning the information. The material is very clear, and it helps you make a connection with your everyday work. I was always excited to learn new perspectives, not only from the United States, but from around the world.

What advice do you have for current Academy learners?

Our mission, as Academy learners, is to make the world a safer place. Knowing and learning the most we can about our trade will result in high quality outcomes. Never stop learning; the world never stops changing.

How has being a woman in the field impacted your career, and do you have a message for other women entering or working in the sector?

Despite nuclear security being a male-dominated field, my experiences have been positive. During my time in the NNSA and at Pantex, I often find myself surrounded by male co-workers. However, my opinions are always heard and my suggestions taken. At the end of the day, we are all professionals with a lot to offer to the mission.

Nonetheless, we women in this field are an example of courage, hard work and perseverance. We have broken barriers that in the past were deemed unbreakable. We should never forget that we are role models for young women in STEM [Science, Technology, Engineering and Math].

In your view, how can gender balance strengthen nuclear security?

In my opinion, we are at a point in time where we can and should look past gender prejudices and focus on what matters. In this case, we all want a safer world. We all have different backgrounds and expertise; we all have something to contribute. Let our differences make us stronger.

"We all have different backgrounds and expertise; we all have something to contribute. Let our differences make us stronger."
WINS’ support processes include our internal controls, quality management arrangements, financial services and human resources/professional development processes. It is important to us that we adopt an “outside-in” attitude, meaning that we seek external and independent assurances about the quality of our systems, and wherever possible pursue external certification. Examples include the Board Assurance Statement that is published on an annual basis, ISO standards for quality management, external financial and programme audits by a leading international audit company, external IT penetration testing of our systems and an external review of our remuneration policy and job evaluation.

The WINS Board Assurance statement was published in June 2019 in accordance with the revised Board Governance Manual.


WINS’ 2019 financial accounts were independently audited by Deloitte in February 2019 and found to be fully satisfactory. The audit extended to both the financial systems and controls, as well as to the programmatic controls. At the time of publication of this report, the 2020 financial audits have been completed, achieving the same independent assurances over financial compliance.

WINS conducts periodic IT penetration tests using external certified consultants. Any recommendations are implemented as a matter of priority in the continuous effort to address new threats. We consider this a matter important for our reputation, not because WINS holds or processes classified information.

WINS assets (A)
- Restricted funding for programme deliverables €3,549,962
- Unrestricted funding for corporate development €287,872
- Outstanding liabilities and provisions €823,212

Total liabilities (L) €4,686,046
Operating reserves (A-L) €25,000

OVERVIEW OF INCOME AND EXPENSES IN 2019

Income from delivered programme €3,561,171
Corporate donations and other income €199,666
WINS income €3,683,137
WINS expenses €3,414,592
ROLAND FLETCHER joined as Academy and Communications Manager. He is building a global community of Certified Professionals for nuclear and radioactive material security, while engaging with WINS members, Academy participants and alumni. He also performs outreach to interested parties.

SUZANNE CARLSON joined as writer/editor. Taking over the position from Clarice Dankers, she contributes her writing and editing skills to all WINS publications, including our WINS Academy modules, best practice guides and special reports for clear and precise communication on the full range of important topics in nuclear security.

BETHANY WOODWARD joined as in-house graphic and website designer. She is responsible for the creation and maintenance of WINS print and digital materials to ensure that they are visually appealing and memorable.

CLARICE DANKERS our long-time writer, editor and learning technologist, retired to write fiction in a stunning landscape. We look forward to her first volume.
01. Adapt our programme to address the implications of the COVID-19 epidemic.

02. Re-launch the WINS “brand” to ensure WINS remains relevant, transparent, exciting and responsive to practitioners.

03. Energise our WINS community through social media, interactive content, competitive quizzes, videos, podcasts and incentives for engagement.

04. Revamp the Knowledge Centre and introduce “Quick WINS” as brief, engaging overviews of key topics.

05. Initiate the nuclear security norms project in partnership with the aviation and nuclear security sector.

06. Fulfil our target of 30% women in our WINS Academy programme and as participants and subject matters experts at all of our events.

07. Inaugurate 25 new institutional partnerships to promote the WINS Academy and advance its goals of professionalism and demonstrable competence.

08. Launch the revised WINS Academy Elective on Cybersecurity for the Nuclear Industry.

09. Launch the revised WINS Academy Elective on Transport Security.

10. Launch our remote online proctored examination so learners have the option to take their WINS Academy exams in their own home.
Our primary purpose is to improve the professionalism and competence of all those involved in nuclear security so that nuclear and other radioactive materials are not used for terrorist or other criminal purposes. This requires confidence that the management and regulatory systems that support nuclear security are effective against the postulated threats to nuclear materials and facilities including physical, cyber and insiders, as well as combinations thereof. We support this objective by sharing best security practices and advocating for the professional certification of all personnel with responsibilities for nuclear security.