



World Institute for  
Nuclear Security

# **Workshop on the Security of Small Modular Reactors (SMRs)**

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**WINS Executive Director**

**5-6<sup>th</sup> March, Vienna**

# The World Institute for Nuclear Security (WINS)

- A not-for-profit NGO based in Vienna, Austria
- Founded in December 2008
- 13 staff – 60% women
- 11 Nationalities
- Annual Budget ~ 3M Euro
- Funded by Governments, Foundations and Industry

# The WINS Vision

All nuclear and other radiological materials and facilities are effectively secured by demonstrably competent professionals applying best practice to achieve operational excellence.

# The Golden Thread



# WINS Membership



Data @ 25 Feb 2019

# WINS Programme



**Sharing Operational Experience**



**Knowledge Centre**



**Training & Certification**



**Evaluation**

**100+**

International  
Best Practice  
Workshops



**35**

International  
Best Practice  
Guides



**40,000+**

Downloads and  
distributed  
copies of Best  
Practice Guides  
and Special  
Reports



# Launch of the WINS Academy 2014

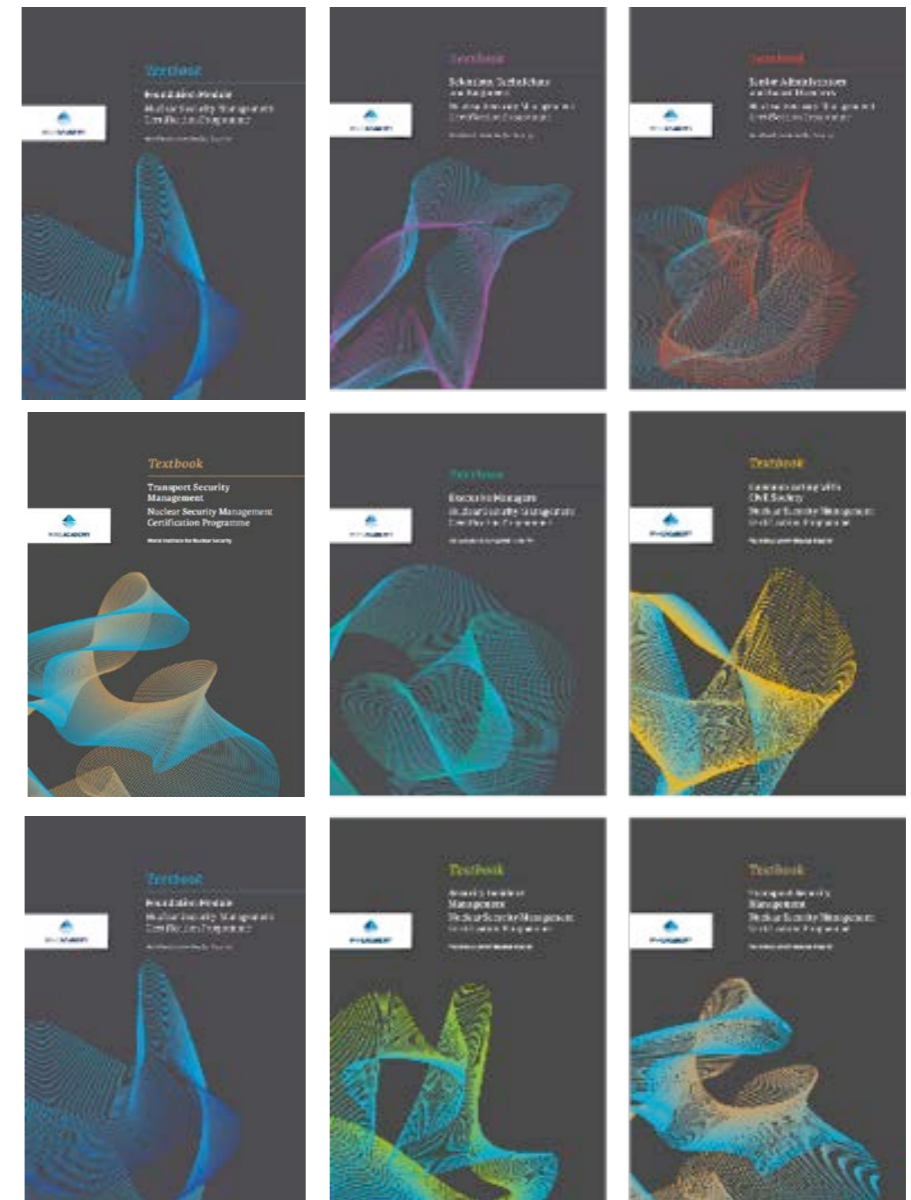
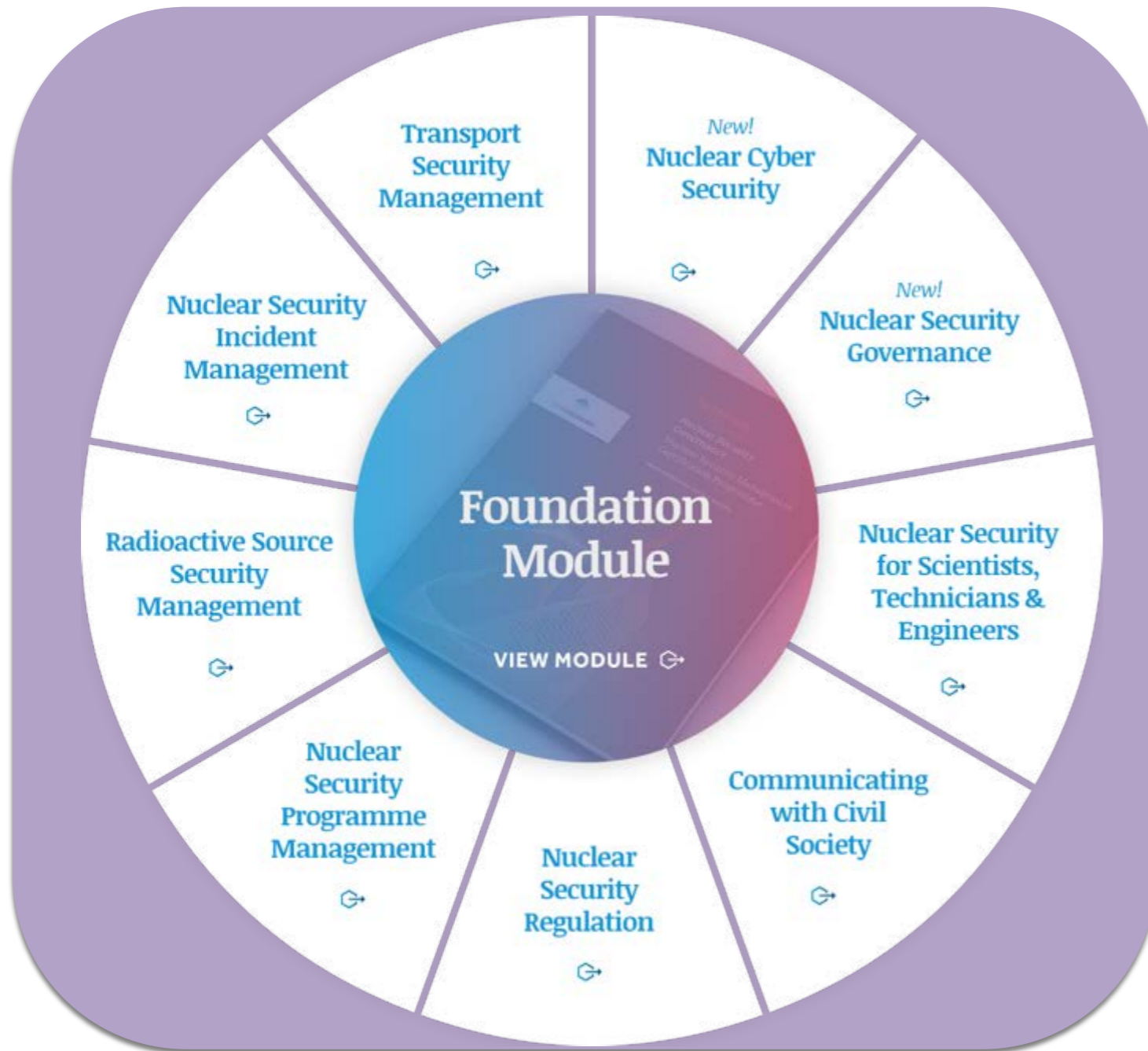
OUR SERVICES

## WINS Academy

The WINS Academy is the world's first international certification programme for nuclear security management. The programme is based on a core philosophy that views security as a fundamental aspect of risk management and corporate reputation.



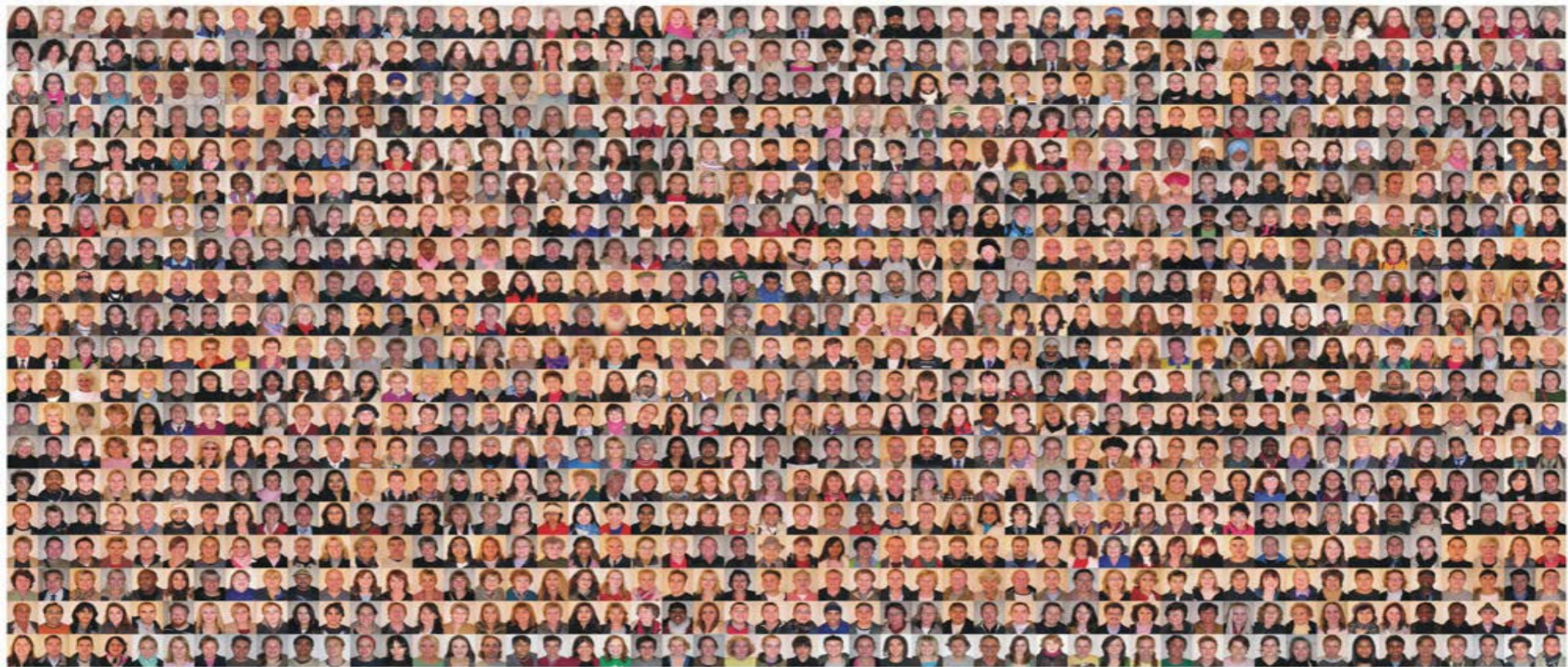
# WINS Academy



# Academy Statistics

**1,321** Participants from **90+** Countries

**355** Certified Nuclear Security Professionals



Data @ 25 Feb 2019

# Sustaining the Engagement – The WINS Professional Network



**79%**

of our participants are from developing countries



**96%**

of our Alumni say that WINS certification has positively impacted their professional image



**50%**

of our Alumni have received a significant increase in responsibility

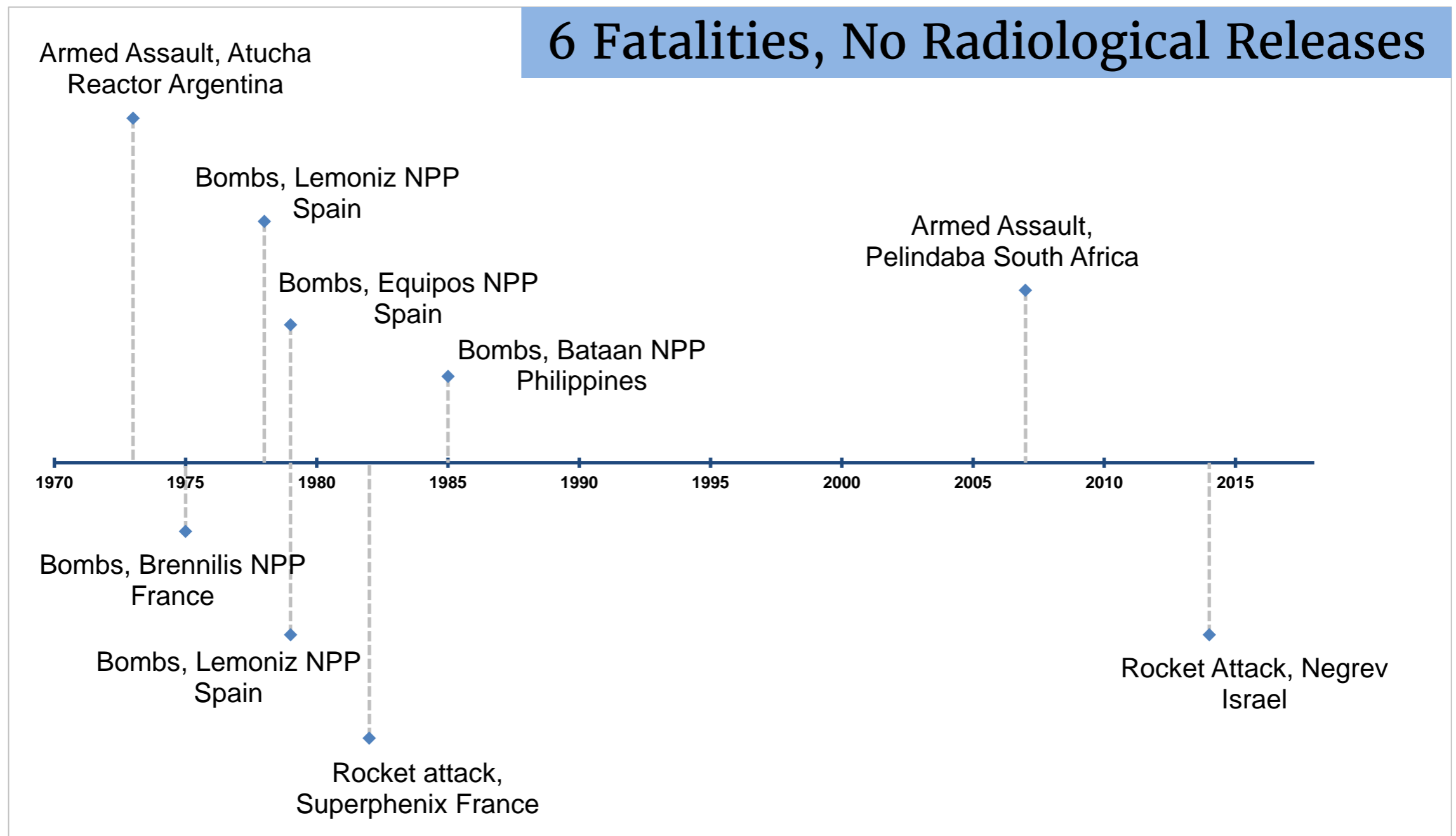
# WINS Gender Champions Initiative

WINS Programme will focus on identifying and overcoming the barriers to women's greater participation in nuclear security: we need greater diversity to address the evolving threats: women make up less than 20% of the nuclear security profession

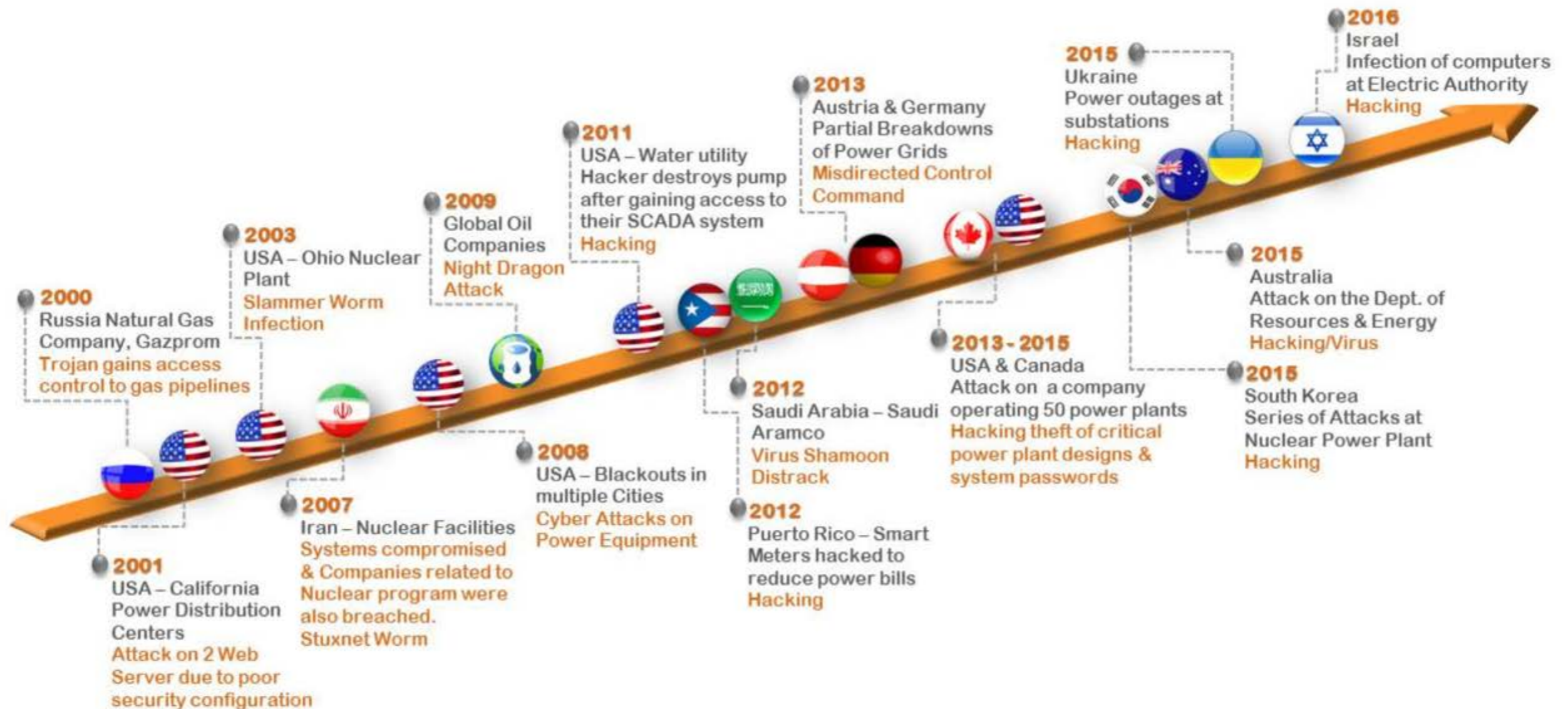


# Physical Assaults on Nuclear Facilities: 50 years

6 Fatalities, No Radiological Releases



# Cyber Attacks on Industrial Control Systems



# Workshop Objectives

- Review and discuss security matters related to the design, commissioning and operation of Small Modular Reactors including the following main points:
  - SMR technologies and the implications for security
  - Impact of SMRs on the security of the fuel cycle
  - Impact of SMRs on the regulatory framework

# Agenda

## **DAY 1 – TUESDAY 5<sup>th</sup> March 2019**

Opening: Security considerations for Small Modular Reactors

Session 1: The Impact of SMR Technology on Security

Session 2: Implementing Security by Design and Converging Nuclear Safety and Security

## **DAY 2 – WEDNESDAY 6<sup>th</sup> March 2019**

Session 3: Cybersecurity

Session 4: Impact of SMRs on the Security on the Fuel Cycle (Transport)

Session 5: Impact of SMRs on the Regulatory Framework

Closing: Key Findings and Next Steps. WINS Special Report



# Workshop Process

- ❑ PRESENTATIONS
- ❑ PLENARY DISCUSSIONS
- ❑ GROUP DISCUSSIONS
- ❑ E-VOTING
- ❑ FACILITATION



# Workshop Facilitator



**Diana  
Danziger**

# Survey Results

- ❑ >80% think that SMRs based on LWR technology are less intrinsically secure than other technologies
- ❑ 70% think that potential SMR customers view security as one of the key issues
- ❑ >50% believe that the cost of nuclear security will be lower for SMRs than for conventional NPPs
- ❑ 50% are not sure whether SMRs will be resilient to cyberattacks
- ❑ 70% consider that SMRs represent an opportunity to increase harmonisation of international security regulation

# What are the main security challenges with SMRs?

- ❑ Siting of SMRs near to urban areas
- ❑ Lack of communication among different stakeholders
- ❑ Creating a robust and sustainable manufacturing process with professionally competent workforce
- ❑ Cybersecurity resilience
- ❑ Fuel cycle implications in terms of nuclear security and non-proliferation
- ❑ Regulation and compliance

# Your Expectations (Extract)

- ❑ Get an overview of security issues and challenges specific for SMRs
- ❑ Gain knowledge of proposed security considerations including cyber security measures
- ❑ Learn from the perspective of designers and operators of SMRs.
- ❑ To inform stakeholders in nuclear security, to help breakdown the barriers which currently exist.
- ❑ Network, share experiences, benchmark and update knowledge.
- ❑ **Participate in interesting, expert level discussions! Get inspired!**

# Success Criteria

- ❑ LEARN, SHARE, CONTRIBUTE
- ❑ MEET & NETWORK
- ❑ ENJOY YOUR TIME
- ❑ FOLLOW UP ACTIONS



## Examples of outcomes

- WINS Special Report on Security of SMRs
- Future Workshops on the Security of SMRs
- Establish an international forum on Security of SMRs?

Thank You for Your Attention.  
Enjoy the Workshop!

Learn more at:  
[www.wins.org](http://www.wins.org)



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