



World Institute for
Nuclear Security

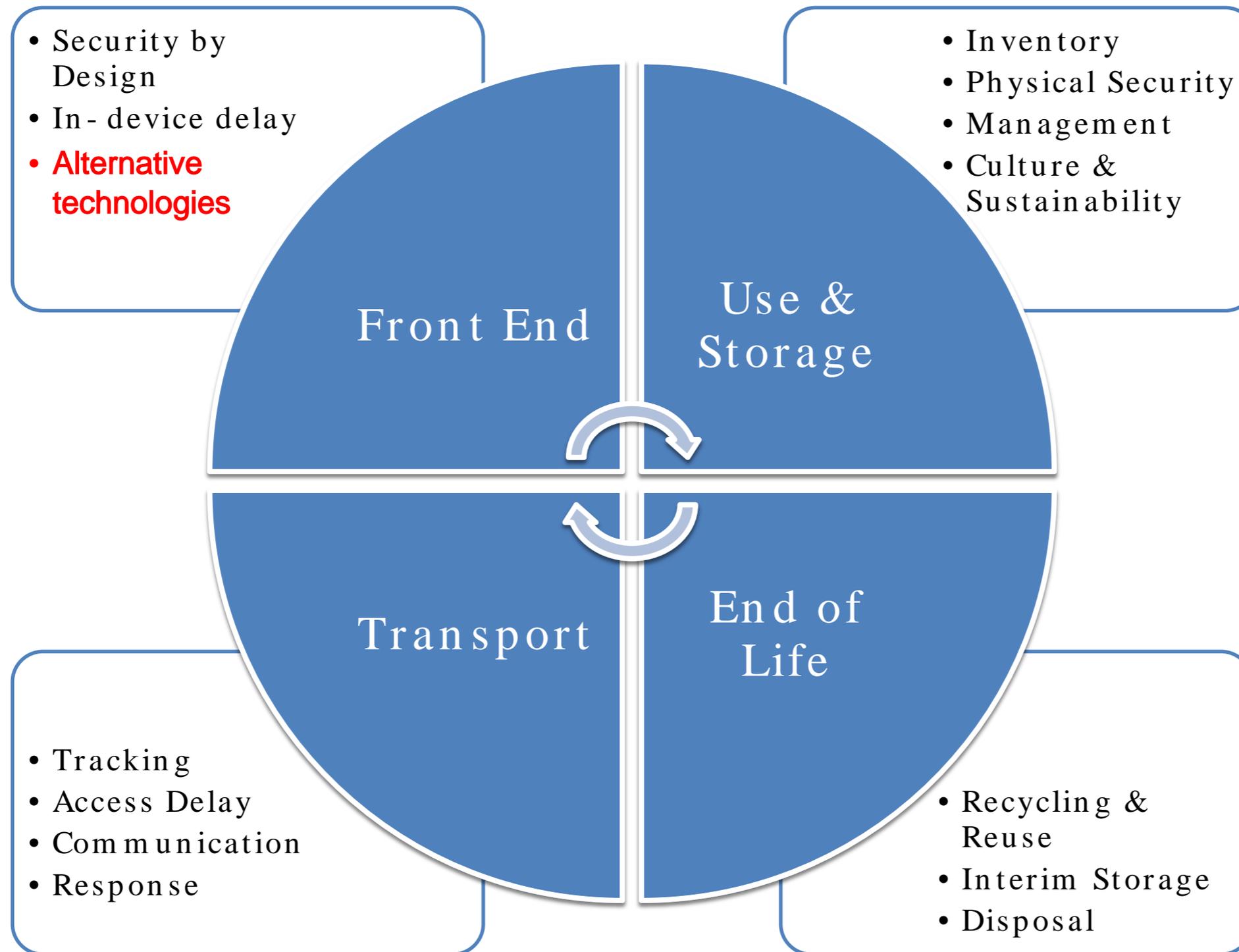
WINS Perspective on Alternative Technologies

**National Academies of Sciences,
Engineering, and Medicine**

Virtual meeting 26 June 2020

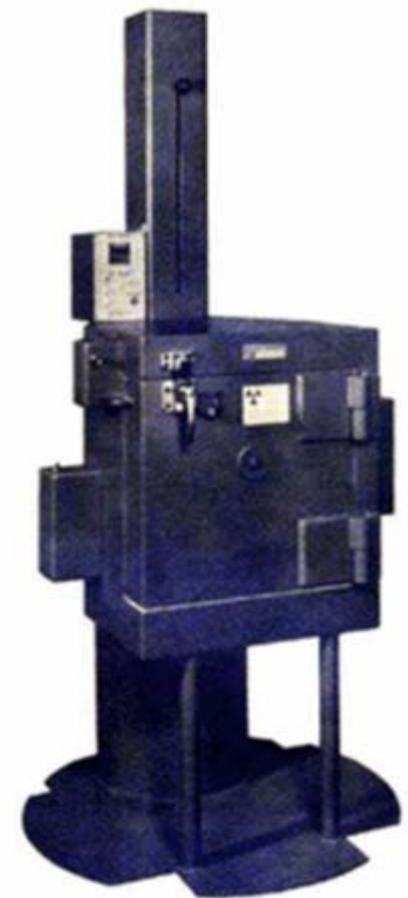
Our primary purpose is to improve the professionalism and competence of all those involved in nuclear security so that nuclear and other radioactive materials are not used for terrorist or other criminal purposes

Radioactive Sources Security



Where do we focus our efforts?

- ❑ Cat 1-3 sources (and prudent security practices for Cat 4-5)*
- ❑ All stakeholders (different expectations)
- ❑ All countries (different challenges)
- ❑ Global outreach and funding-driven activities



* WINS does not consolidate information on source inventory

Listening to practitioners

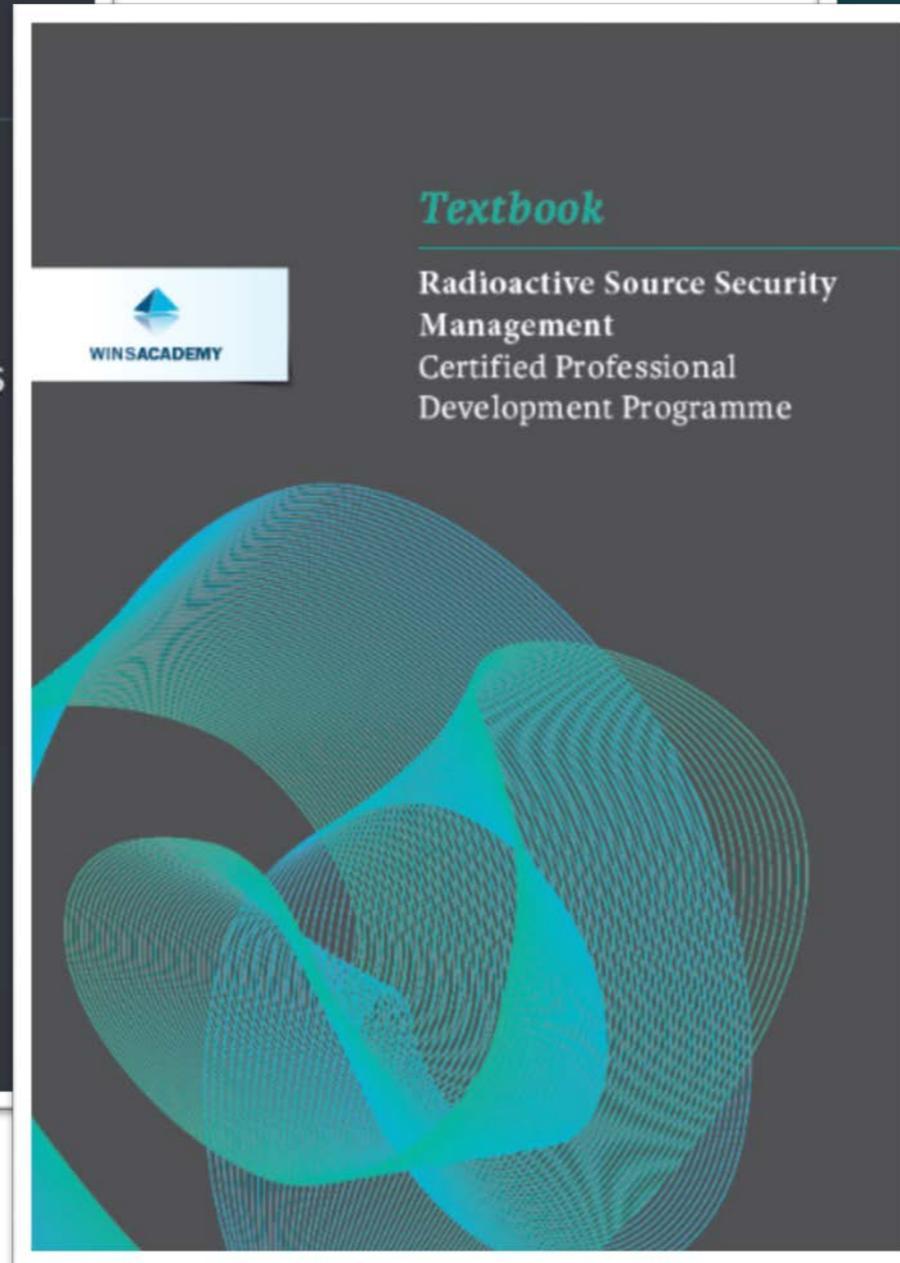
- PRESENTATIONS
- PLENARY DISCUSSIONS
- GROUP DISCUSSIONS
- E-VOTING



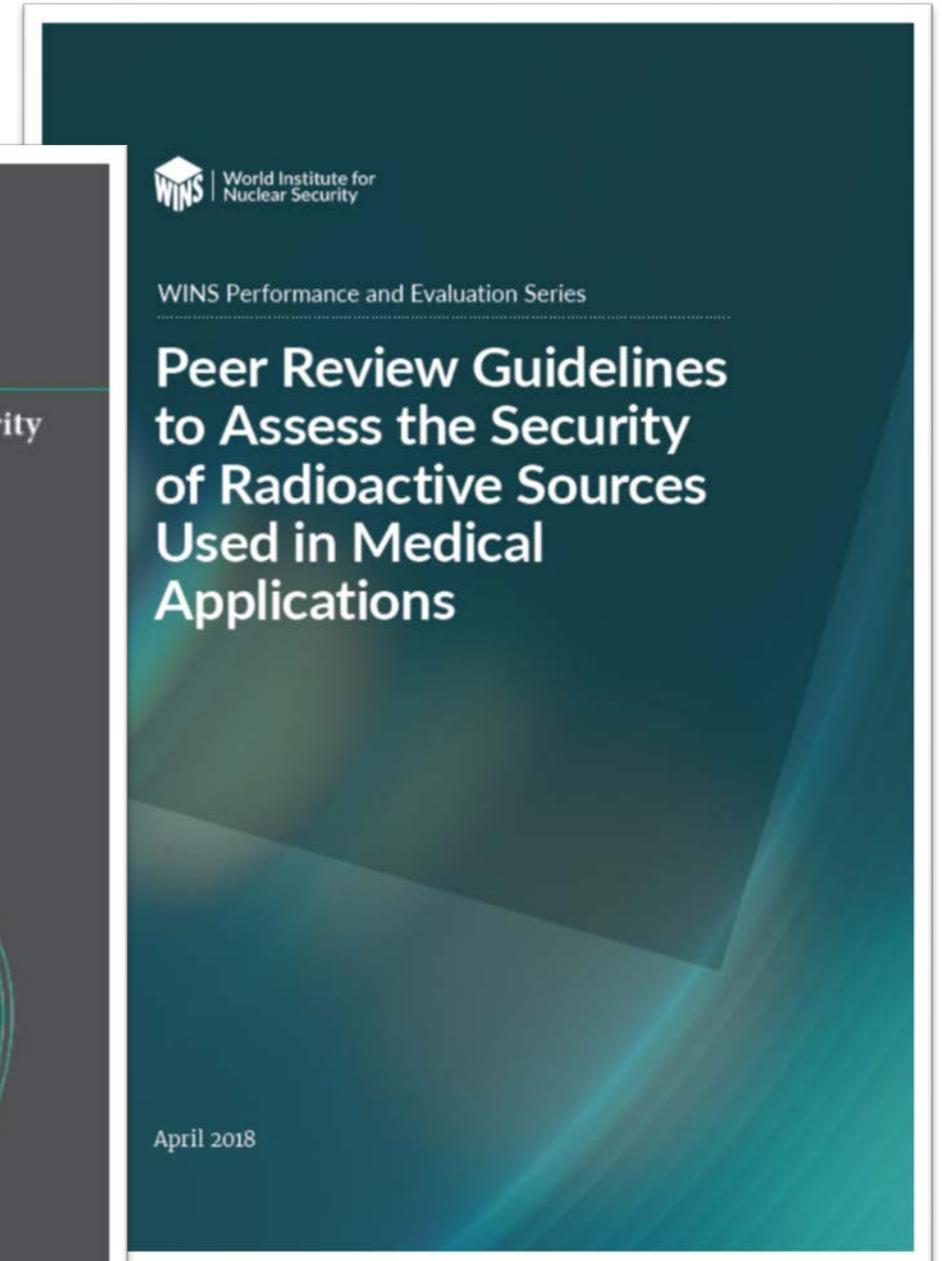
Sharing our findings and supporting change



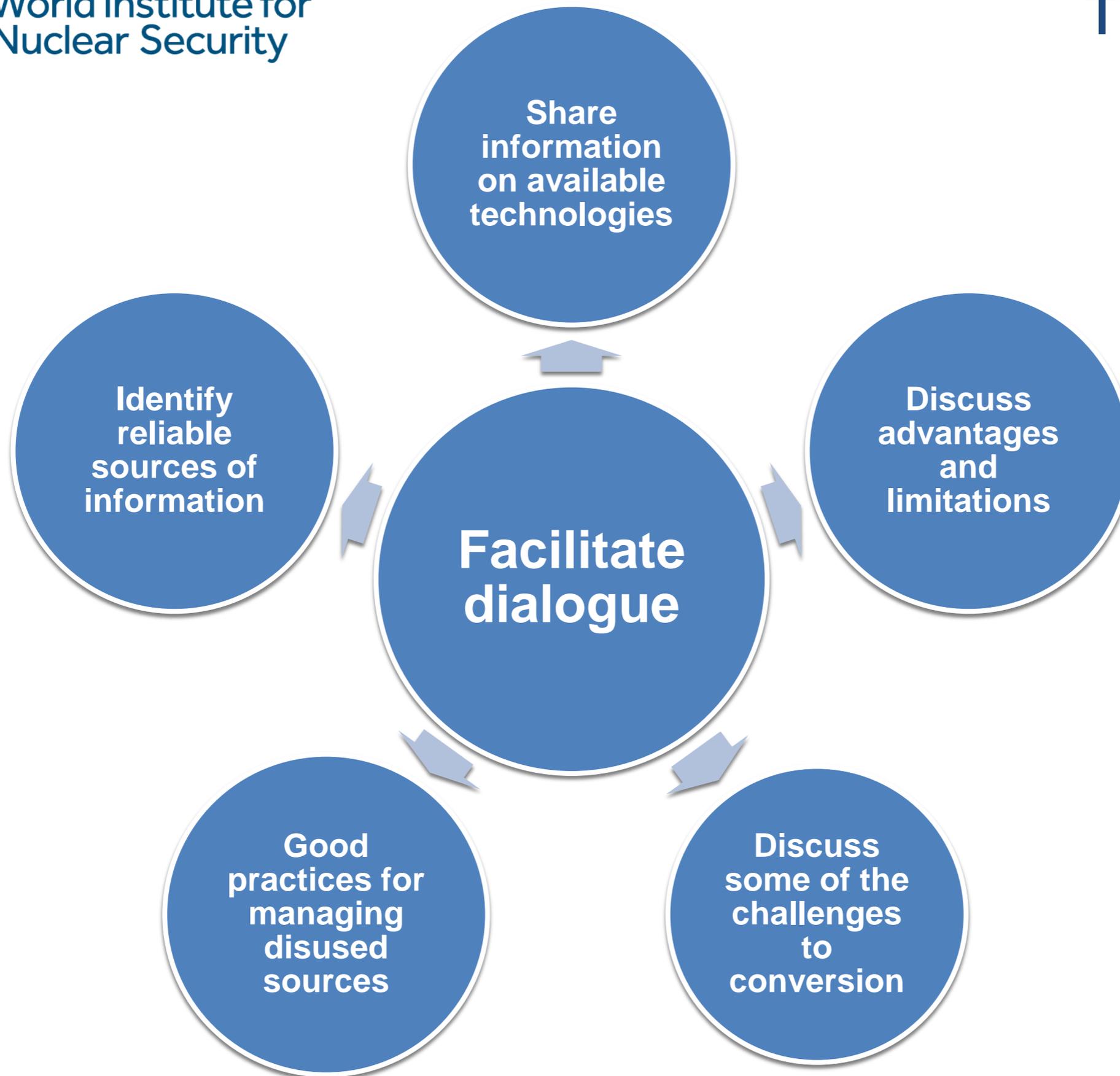
Best Practices Guides

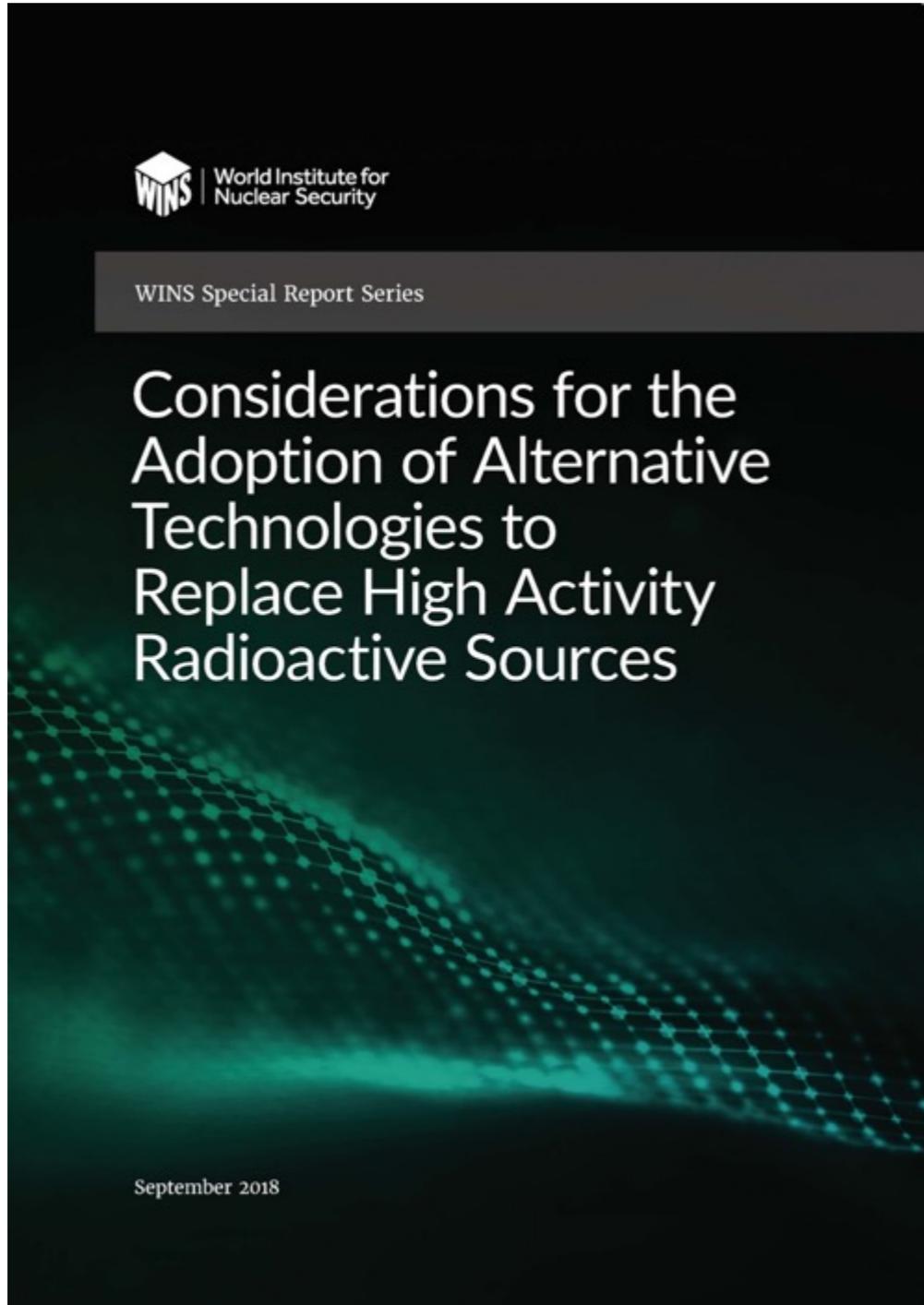


Training and Certification



Security Assessment



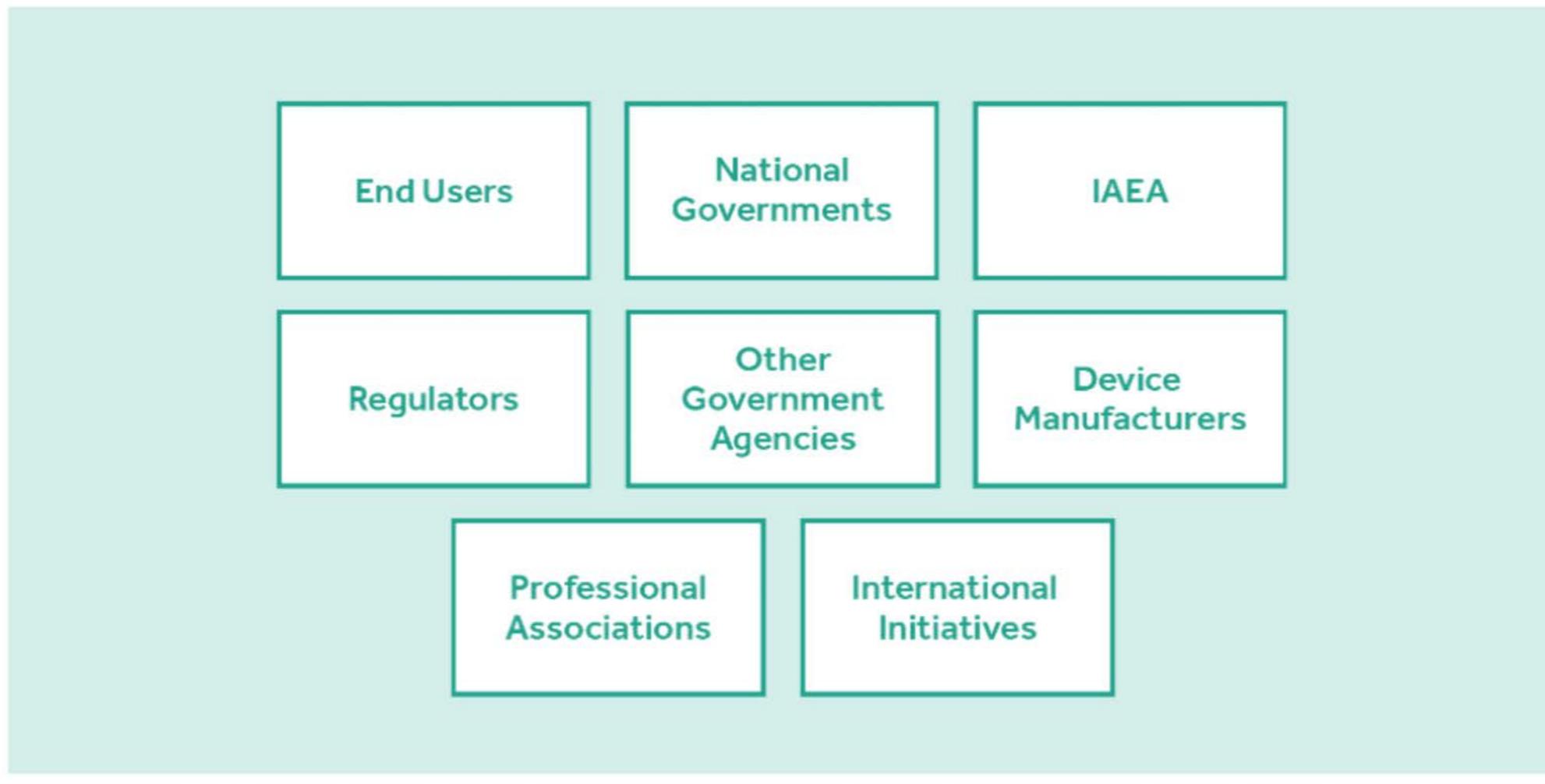


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THE ROLE OF KEY STAKEHOLDERS

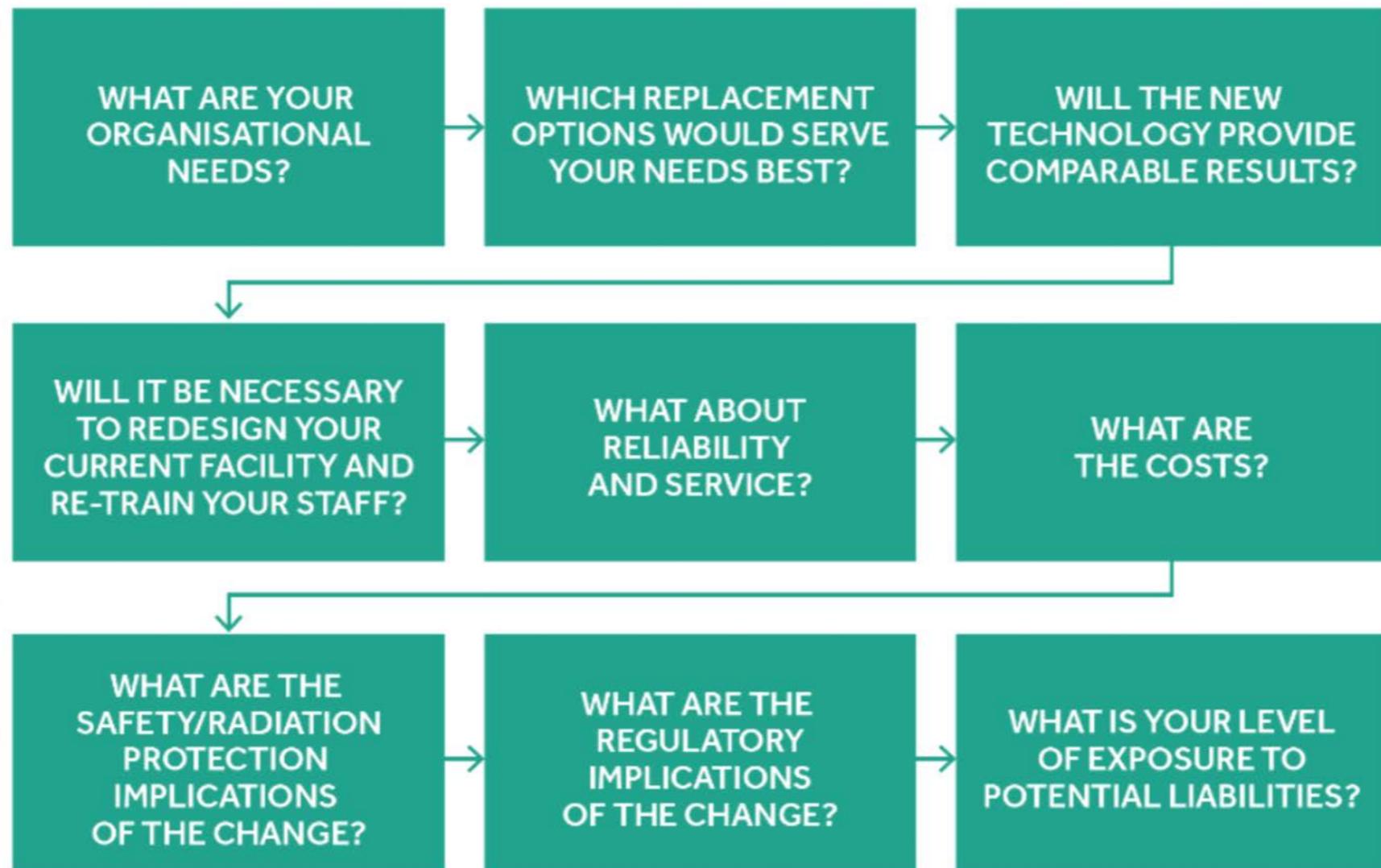
When it comes to developing, adopting and promoting alternative technologies, many different stakeholders play a role. Examples include:



EVALUATING ALTERNATIVE TECHNOLOGIES FOR YOUR NEEDS

Questions to Consider

Following are some important questions to consider in this evaluation process.



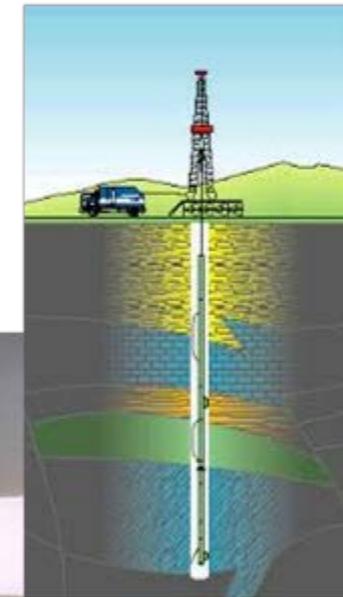
Alternative Technologies: Reducing the security risk?

- ❑ A risk transfer, not a risk elimination
 - Requires a proper end of life management
- ❑ Some security concerns still remain with alternative technologies
- ❑ Some devices using radioactive sources continue to be appealing to practitioners



Alternative technologies are available!

Most practices benefit of possible non-isotopic alternatives (excl. brachytherapy)
Some remaining questions on performance (e.g. radiosurgery)
Obtaining reliable unbiased information might be challenging



What technology to select?



Vs.



Influencers:	
Performance? Availability?	Competencies of staff?
Purchase costs? Maintenance costs?	Benchmarking with past studies?
Security?	Adequate infrastructure?
Regulatory constraints?	International support opportunity?

Facilitating the adoption of alternative technologies

1. Develop national approaches, involve all stakeholders and clarify roles and responsibilities
2. Raise awareness on advantages of alternative technologies (e.g. performance, reduced security and disposal costs)
3. Share success stories. Identify selected organisations as references for others (Ambassadors for supporting the change).
4. Regulatory incentives (e.g. regulatory ban)
5. Implement transparent procurement processes
6. Fund R&D for areas where alternative are not yet fully available
7. Coordinate international support programmes
8. Develop effective plan for managing disused sources (Repatriation of sources in the procurement process whenever possible)

Some relevant WINS reports

- ❑ Special Report on *Considerations for the Adoption of Alternative Technologies to Replace High Activity Radioactive Sources*
- ❑ 6TH Regional Review Meeting (RRM) - Colombo, Sri Lanka. 06 - 09 March 2018. Report of the WINS Session on Alternative Technologies
- ❑ BPG 5.4 on *Security of Radioactive Sources Used in Medical Applications*
- ❑ BPG 5.5 on *Security Management of Disused Radioactive Sources*

Conclusion: Knowledge is key!

- ❑ Many of our participants expressed a lack of knowledge on the topic.
- ❑ Need for access to reliable and comprehensive information so they can better understand the benefits and challenges involved in adopting alternative technologies.
- ❑ Share success stories
- ❑ Identify relays (Ambassadors) to disseminate the message



Thank you for your attention.

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