



World Institute for
Nuclear Security

6th Regional Review Meeting

Session on Alternative Technologies to High Activity Radioactive Sources

Colombo, Sri Lanka. 07 March 2018



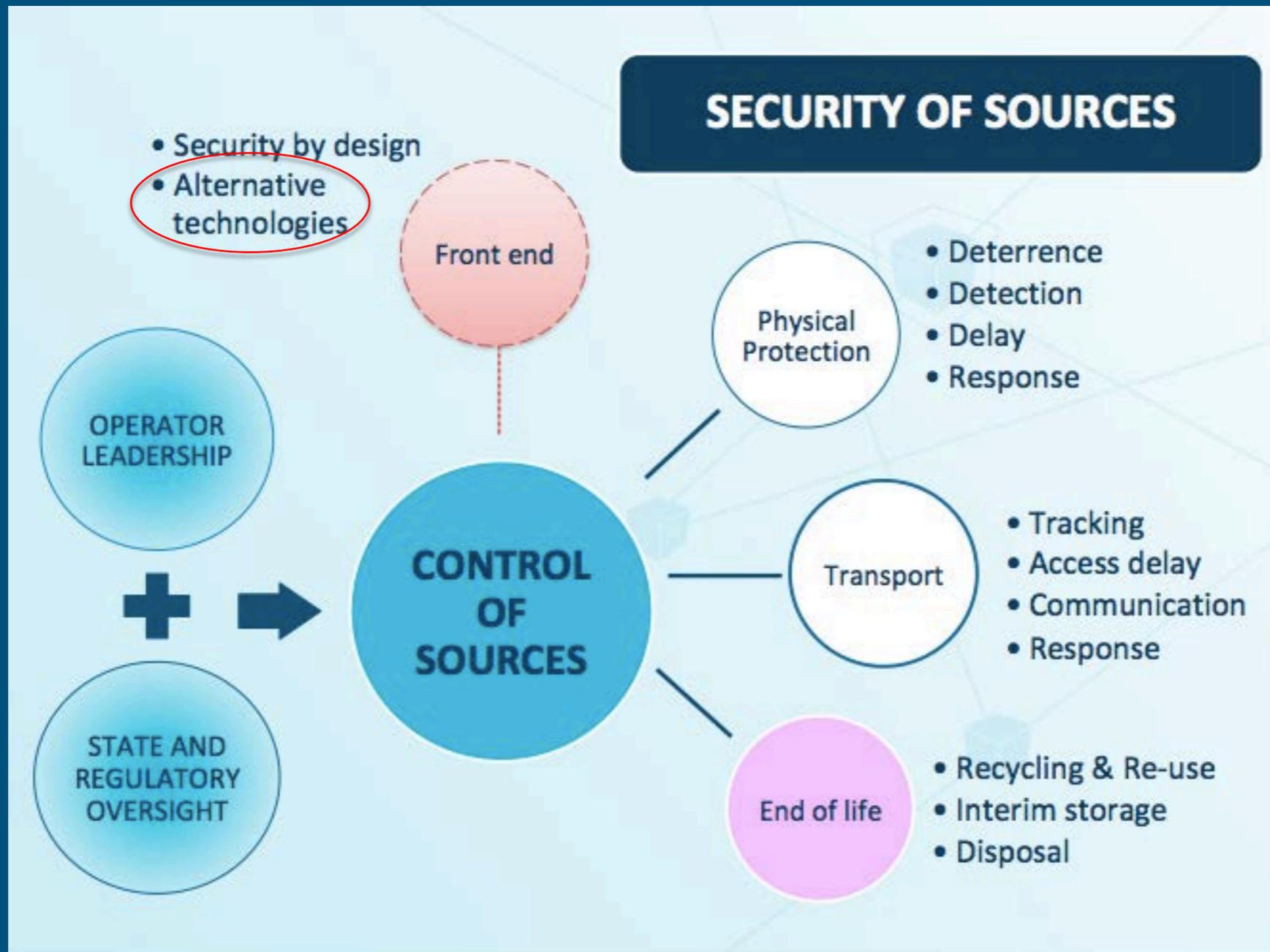
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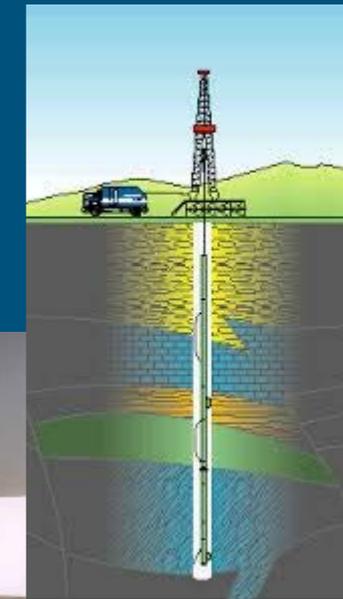
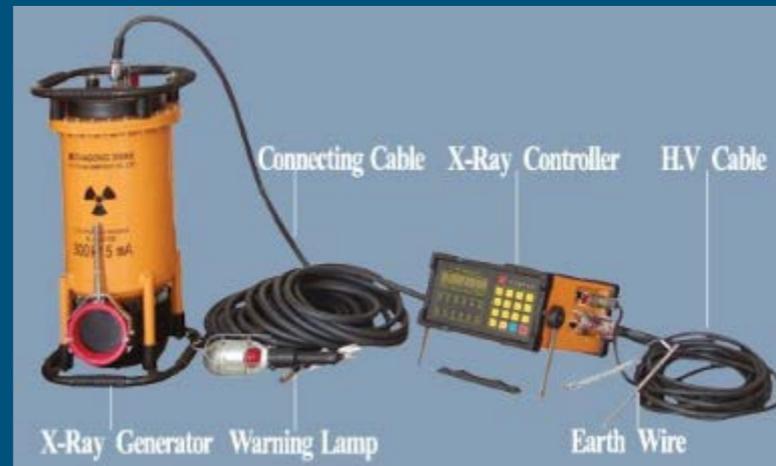
Session on Alternative Technologies to High Activity Radioactive Sources

**Pierre Legoux, WINS
Colombo, Sri Lanka. 07 March 2018**

SOME CONTEXT



PERMANENT RISK REDUCTION



WINS Vision and Mission



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

To be the leader in knowledge exchange, professional development and certification for nuclear security management

WINS Suite of Services



Sharing Operational Experience



Knowledge Centre



Training & Certification



Evaluation

WINS Achievements

80+

International
Best Practice
Workshops



30+

International
Best Practice
Guides

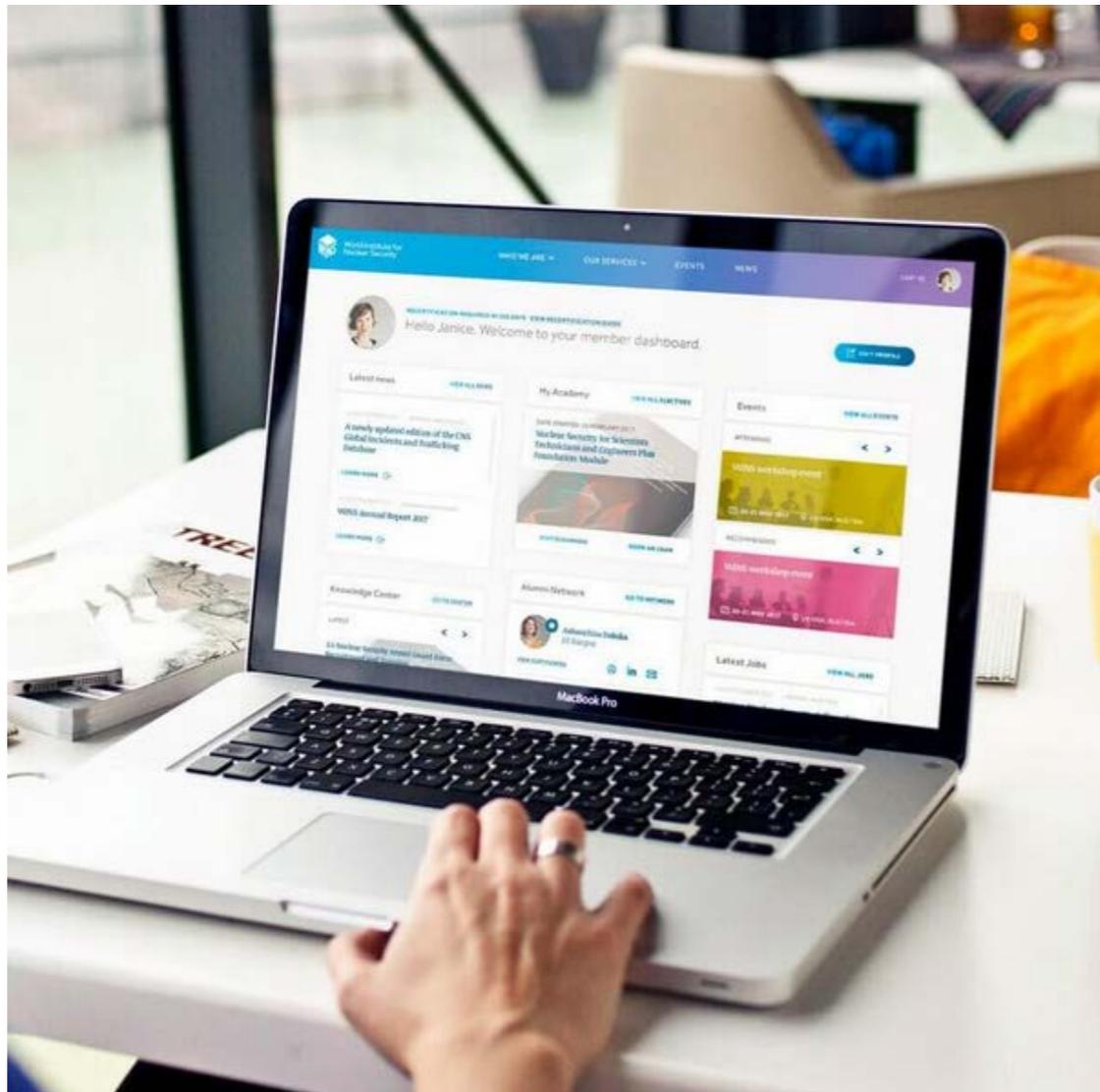


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Nuclear Security
Management
Certification
Modules



WINS Website



- All publications
- Workshop presentations and reports
- Networking (Alumni)

Objectives of the Session

- ❑ Share information on available alternative technologies
- ❑ Discuss their advantages and limitations
- ❑ Facilitate dialogue between those who have and those who are considering purchasing or converting to alternative technologies.
- ❑ Identify and discuss some of the challenges.
- ❑ Discuss good practices for managing the volume of disused radioactive sources that result from the adoption of alternative technologies.
- ❑ Identify sources of reliable information on the topic.

Agenda

SESSION 1: DEVELOPING A COMMON UNDERSTANDING

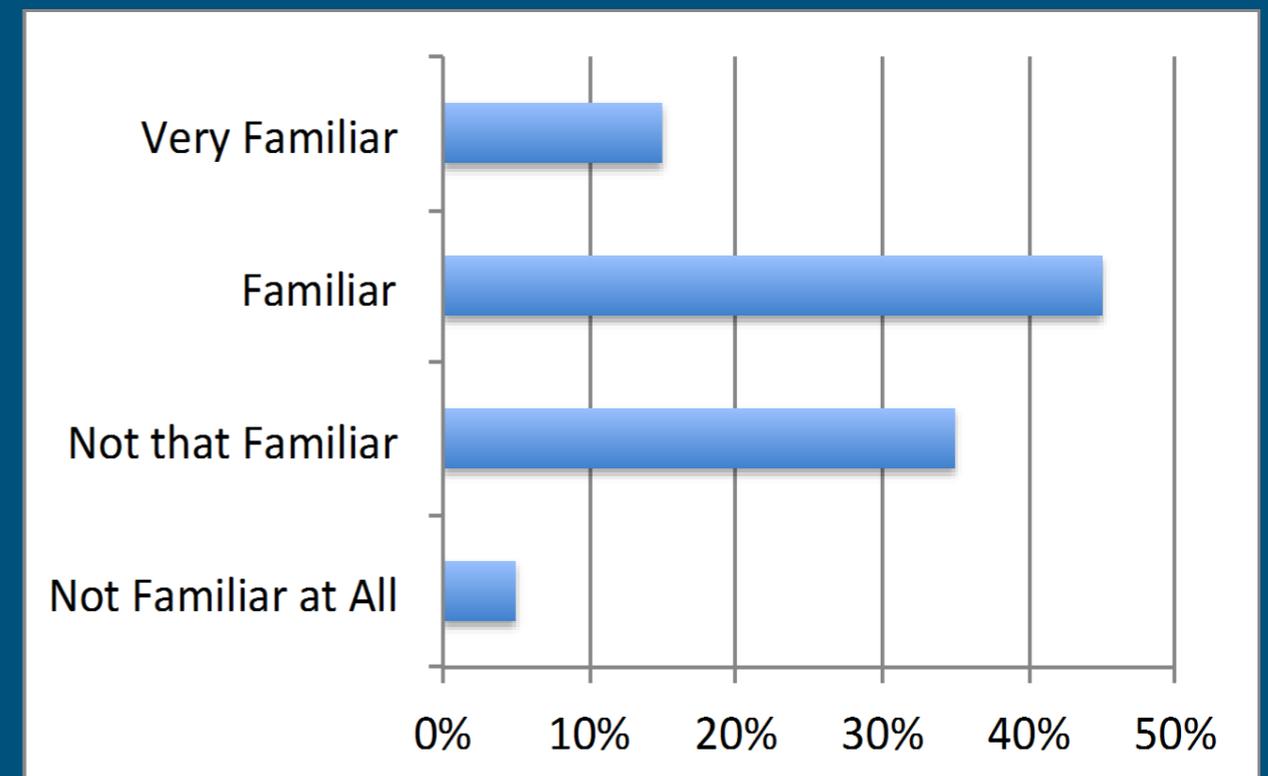
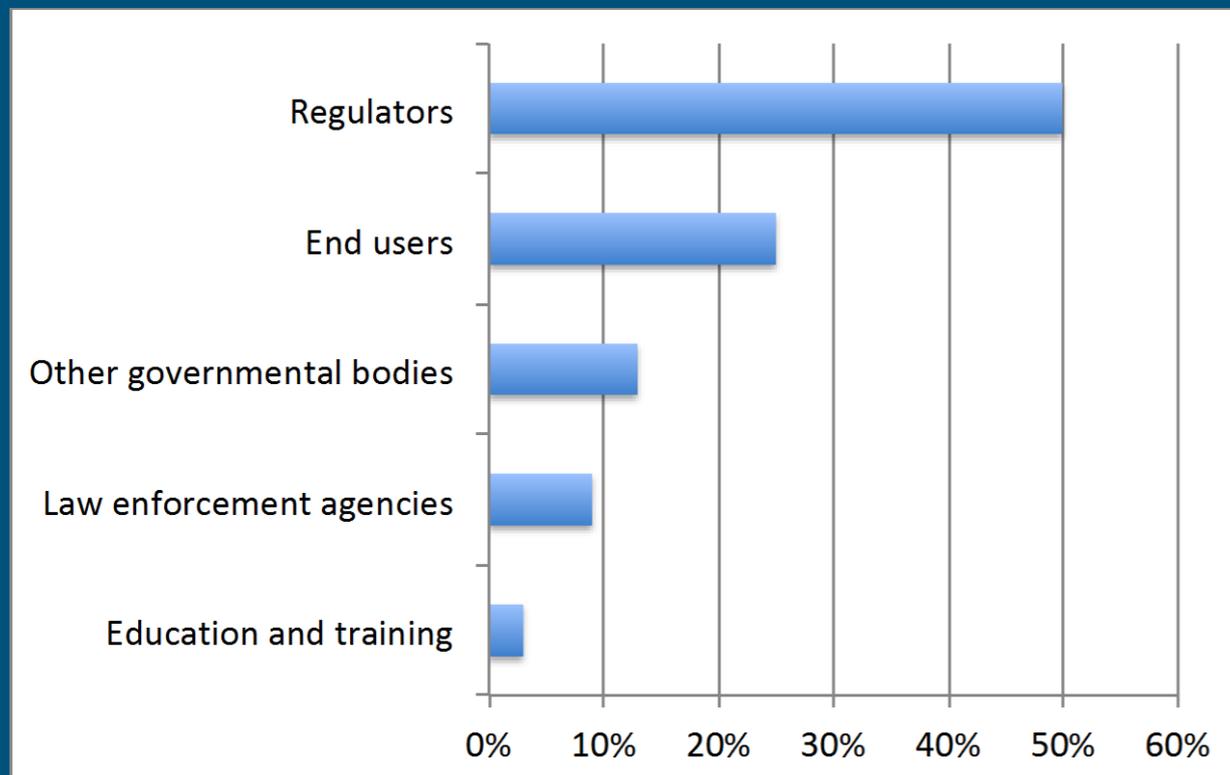
SESSION 2: AVAILABLE NON-ISOTOPIC ALTERNATIVE TECHNOLOGIES AND LESSONS LEARNED FROM USING THESE TECHNOLOGIES

SESSION 3: SUPPORTING THE TRANSITION TO ALTERNATIVE TECHNOLOGIES AND MANAGING ITS IMPACT ON RADIOACTIVE SOURCE END OF LIFE MANAGEMENT

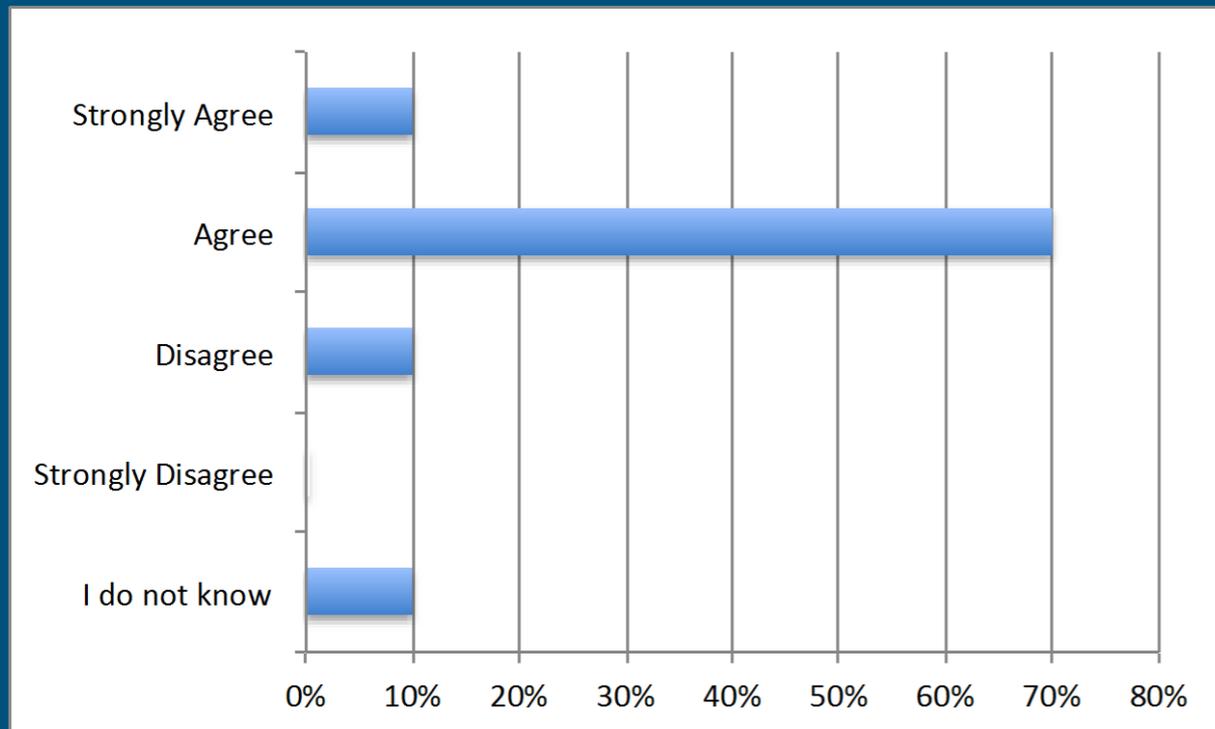
SESSION 4: THE WAY FORWARD

PRE-SESSION QUESTIONNAIRE

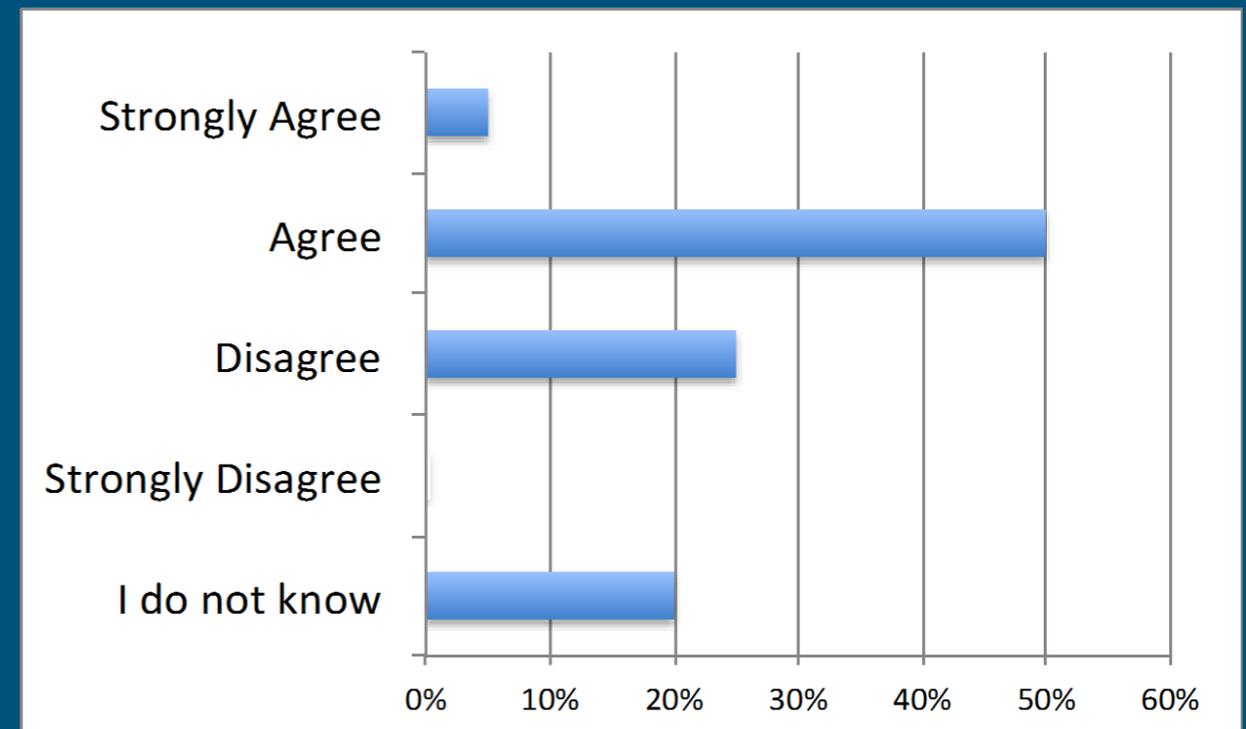
Participants and familiarity with alternative technologies



Availability of technologies and of information

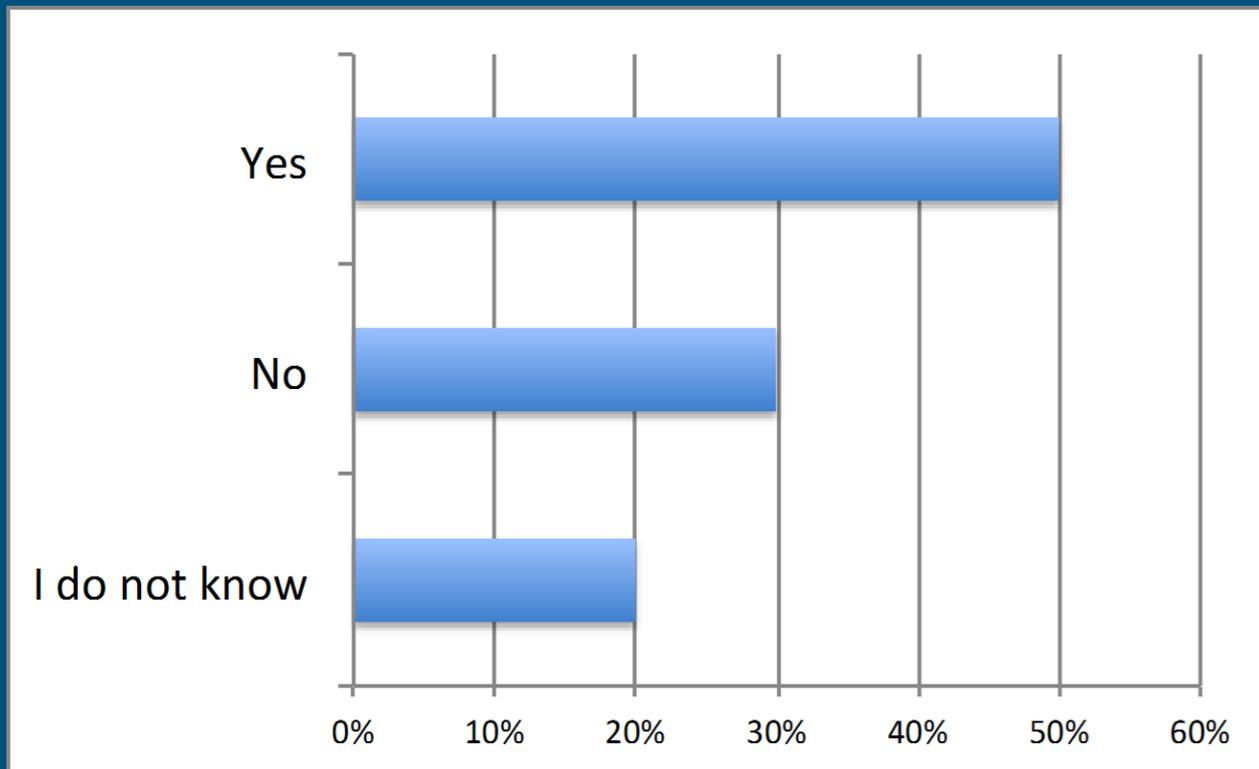


I believe that alternative technologies currently available are relevant to the need

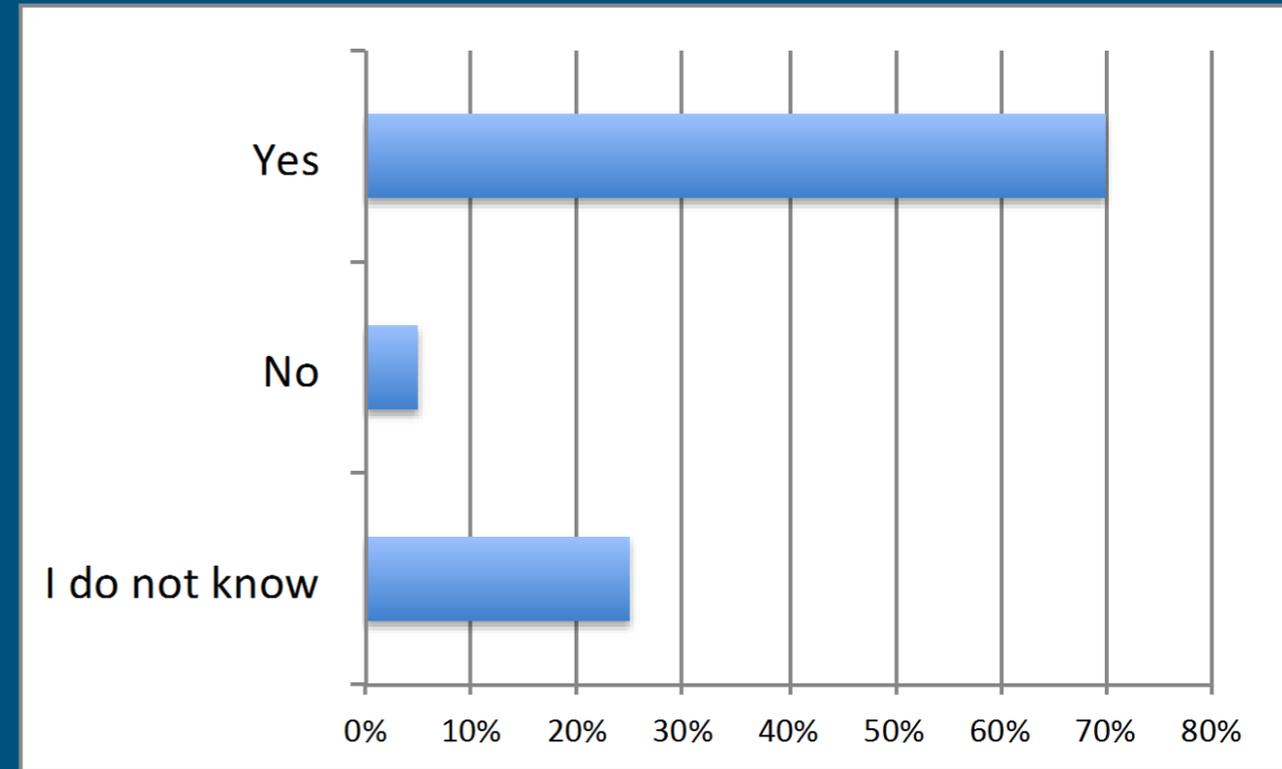


It is easy to find reliable information on alternative technologies

NATIONAL TRENDS AND INCENTIVES FOR END USERS



There is a clear trend to adopt alternative technologies in my country

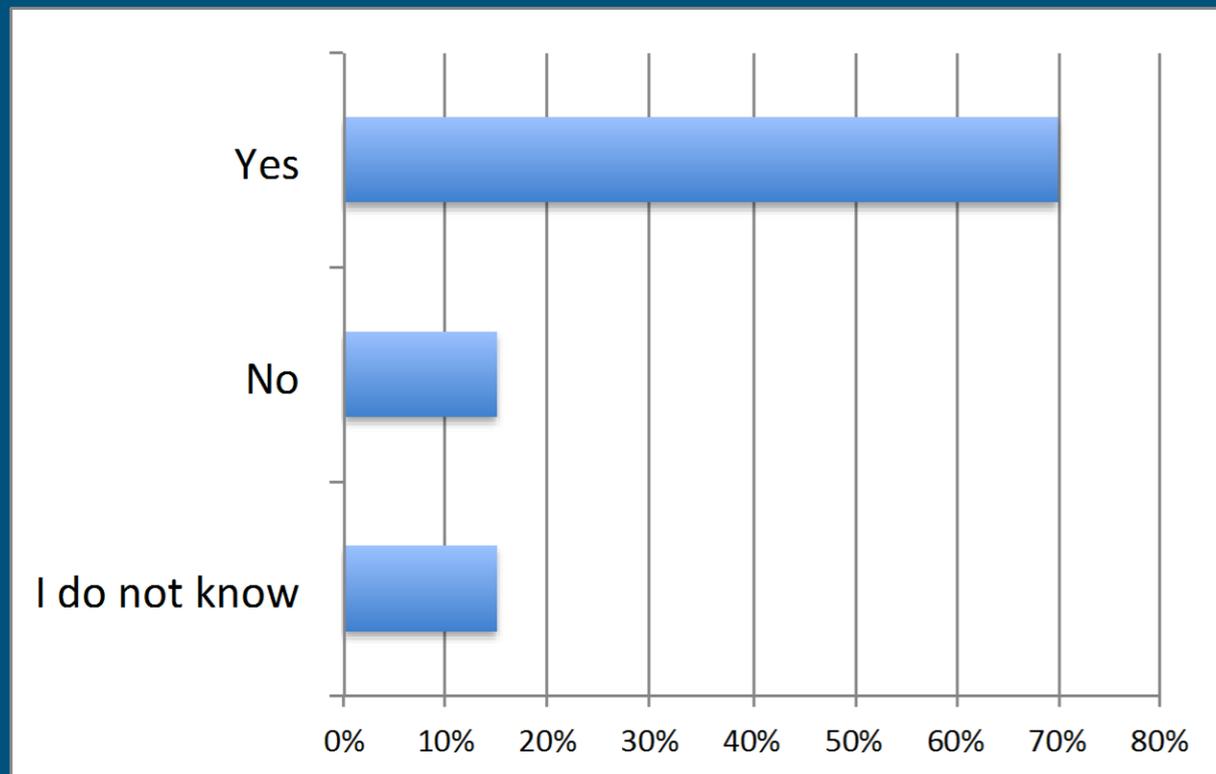


Do you believe that End Users should be further incentivised to adopt alternative technologies?

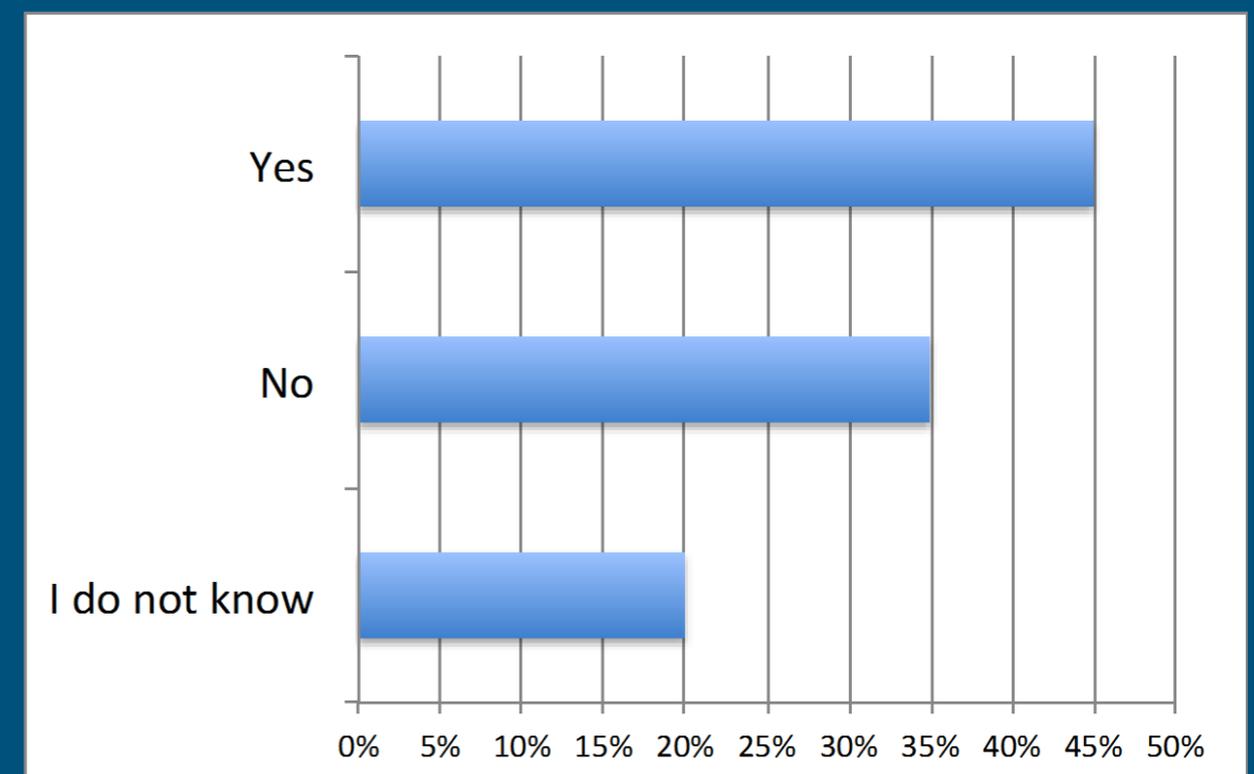
Suggested Incentives

- Clarify and communicate the roles and responsibilities of End Users.
- Raise awareness and education on advantages of alternative technologies (e.g. performance, reduced security and disposal costs)
- Share success stories of how alternative technologies have been effective in achieving the same end results
- Consider regulatory incentives
- Seek and secure government support and recognition
- National and international support programmes
- Fund R&D for areas when Alt Tech are not yet fully effective
- Products meeting the needs and constraints of the customers

Regulator engagement



Do you believe regulators should be engaged in the promotion and adoption of alternative technologies?



Do you believe that regulators are sufficiently engaged in the promotion and adoption of alternative technologies?

Suggested Incentives

- Ownership of new alternative technology
- Integration with other radiological security issues
- Regular workshops
- Advise the user, monitor them
- Sharing Knowledge
- National regulatory infrastructure should be enhanced to allow this adoption.
- Establish effective mechanism and procedures for radioactive waste management

Survey - Participants Expectations (Extract)

- Active interaction and exchange of views and experiences
- Gain more information (available technologies, international trends, new developments, etc.)
- Better understand the benefits & challenges when shifting towards alternative technologies (including cost, performance, relevance to the need and various local constraints and specifics, difference with sources...)
- Listen to those who are using them (success stories, more challenging situations). Learn more about other countries and their approaches
- Better understand how to make the shift towards alternative technologies
- Better understand my own role

Session materials

The screenshot shows the top navigation bar of the WINS website with links for HOME, WHO WE ARE, OUR SERVICES, EVENTS, NEWS, SIGN IN, and BECOME A MEMBER. The main content area features a blue header with the WINS logo and the text 'World Institute for Nuclear Security'. Below this, there is a navigation link '< BACK TO EVENTS' and the event title '6th Regional Review Meeting: Session on Alternative Technologies to Replace Radioactive Sources'. The event date and location are listed as '07 MAR 2018' and 'COLOMBO, SRI LANKA'. A note states 'This event is by invite only.' At the bottom, there is a 'SHARE THIS EVENT' section with icons for LinkedIn and Twitter.

Suggested Readings

In preparation of the session participants are strongly encouraged to read the WINS Special Report titled [Considerations for the Adoption of Alternative Technologies to Replace Radioactive Sources \(April 2017\)](#).

Further information on the topic can also be found in the following documents

- [Permanent risk reduction: A Roadmap for Replacing High-Risk Radioactive Sources and Materials](#)
- [Promoting Alternatives to High-Risk Radiological Sources: The Case of Cesium Chloride in Blood Irradiation](#)
- [Preventing a Dirty Bomb: Effective Alternative Technologies for Radiological Security](#)
- [Case Study: An Analysis of Several National Approaches to Alternative Technologies for Radioactive Sources](#)
- [A Comparison of Gamma, E-beam, X-ray and Ethylene Oxide Technologies for the Industrial Sterilization of Medical Devices and Healthcare Products](#)

Success criteria

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



IDEAS
into
A.C.T.I.O.N

- ❑ FOLLOW UP ACTIONS:
 - TWO SUGGESTIONS FOR YOUR ORGANISATION
 - ONE ACTION FOR YOURSELF



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Thank you

Any questions?

**Pierre Legoux, WINS
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