NTI Radioactive Source Security Assessment

Briefing for the National Academies of Sciences, Engineering, Medicine

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The Economist INTELLIGENCE UNIT

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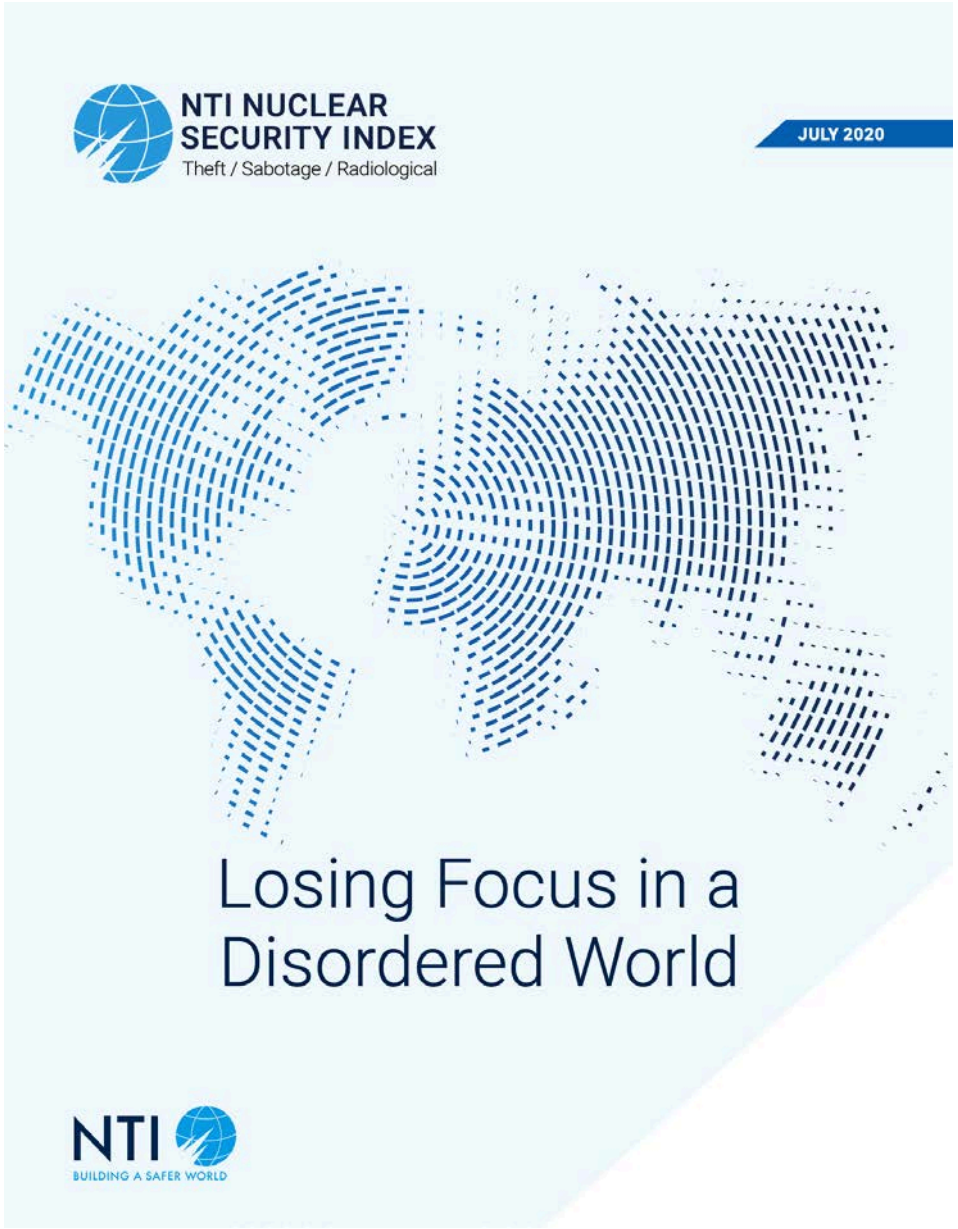
The NTI Index and Radioactive Source Security Assessment



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Assessment Goals

- Build greater awareness of the importance of radiological security
- Catalyze a dialogue about priorities for strengthening radioactive source security
- Promote progress on radiological security
- Highlight leading practices
- Set a baseline understanding of the status of global radiological security
- Promote reporting, information sharing, and benchmarking

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Assessment Methodology

- 176 countries in this first-of-its-kind assessment
- Assesses actions to prevent a dirty bomb
- Data gathered by the Economist Intelligence Unit
- Research based on existing publicly available databases or other consolidated information, not in-depth review of national laws and regulations
- Does not score or rank countries
- Advised by radiological security experts

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Assessment Framework

Framework for the Radioactive Source Security Assessment

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Top Findings

1. The international architecture for radiological security is extremely weak.
2. Most countries do not have adequate regulatory frameworks for regulating and providing oversight of radioactive sources.
3. There are significant gaps in the ability of countries to track and regulate the movement of radioactive sources, both nationally and transnationally.
4. Cradle-to-grave controls on radioactive sources remain insufficient.
5. Commitments to replace radioactive sources with alternative technologies are limited; and capacity to do so varies.

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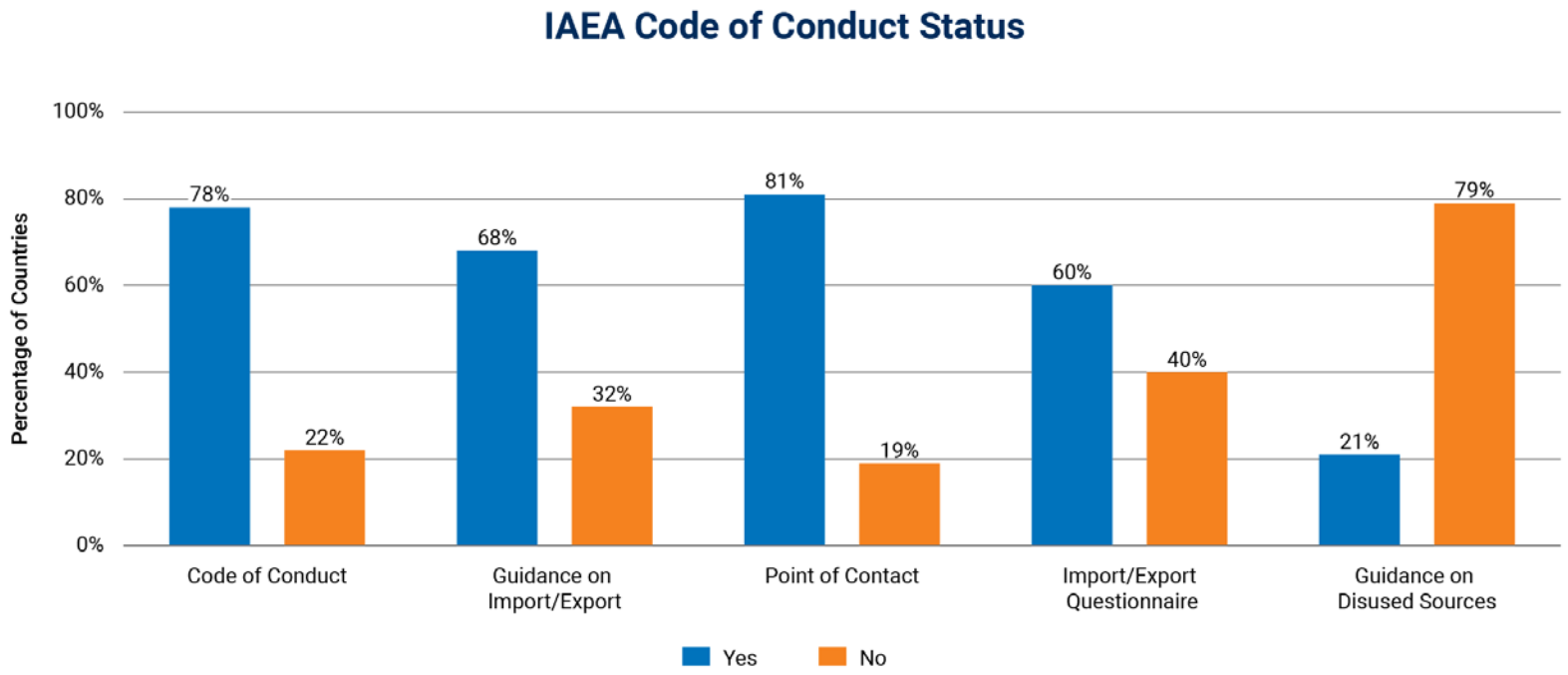
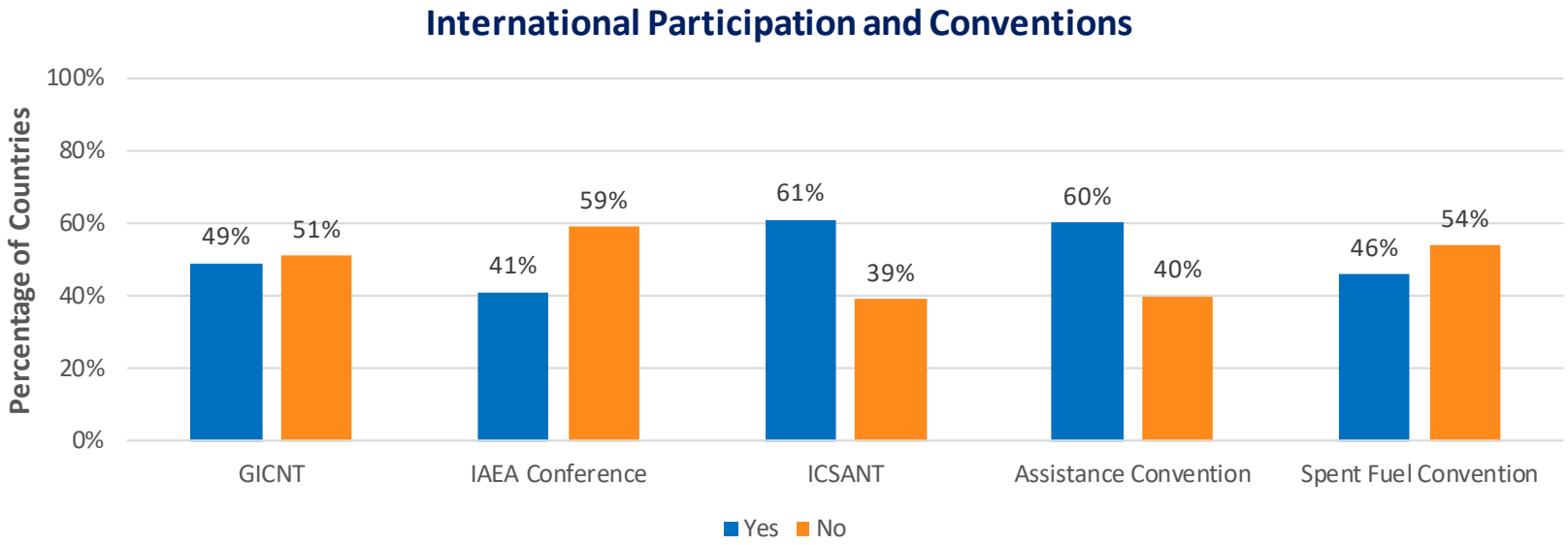
1. The International Architecture Is Weak





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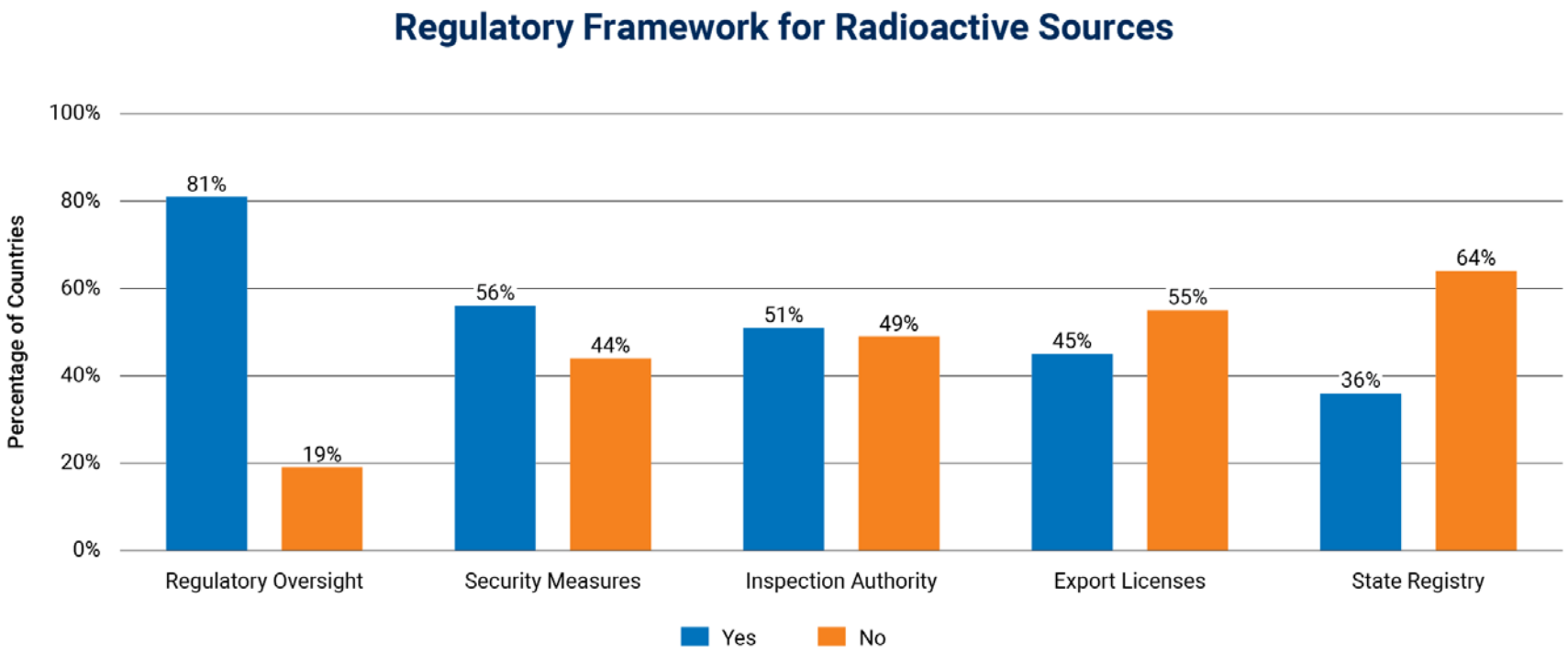
2. Regulatory Frameworks Are Inadequate



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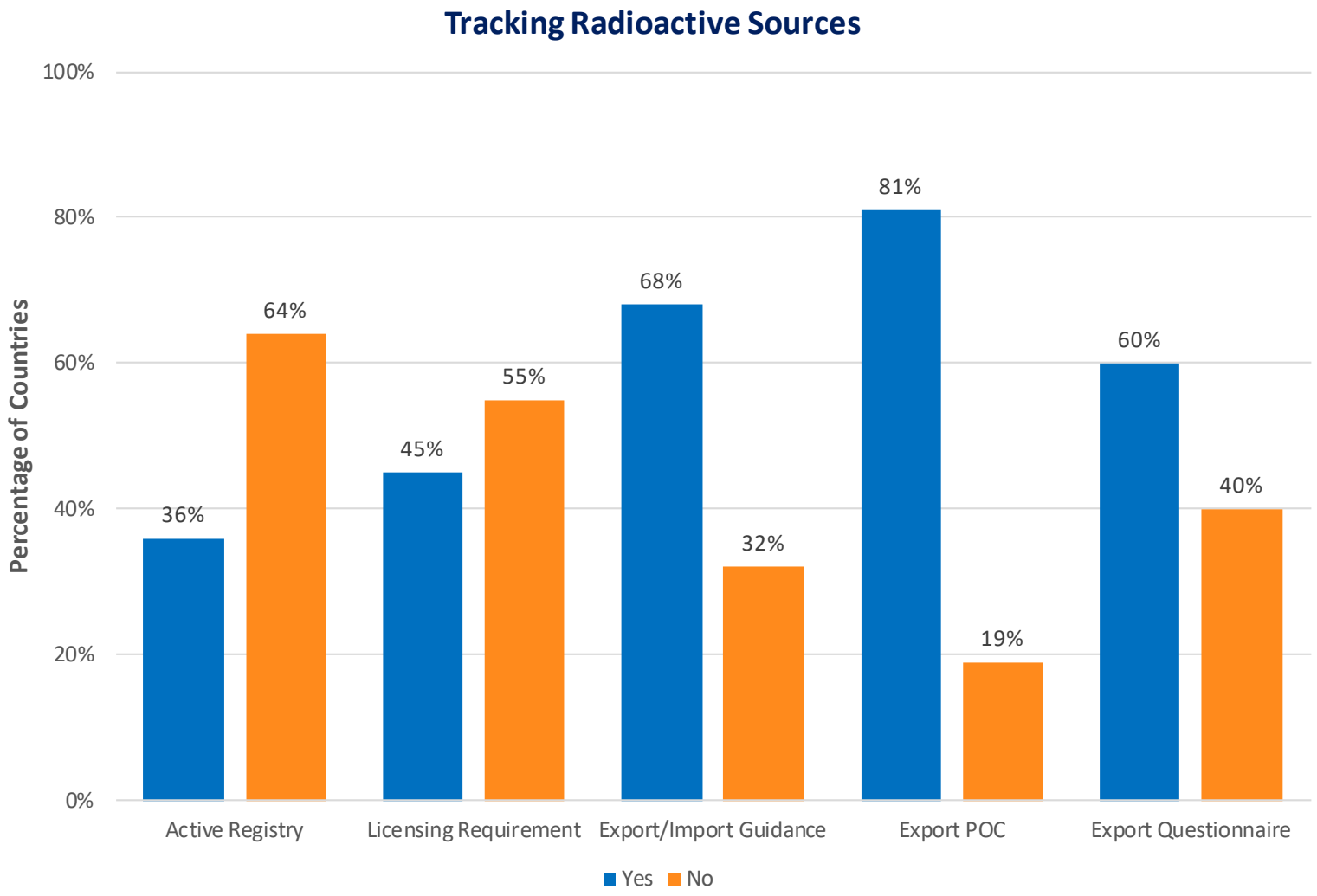
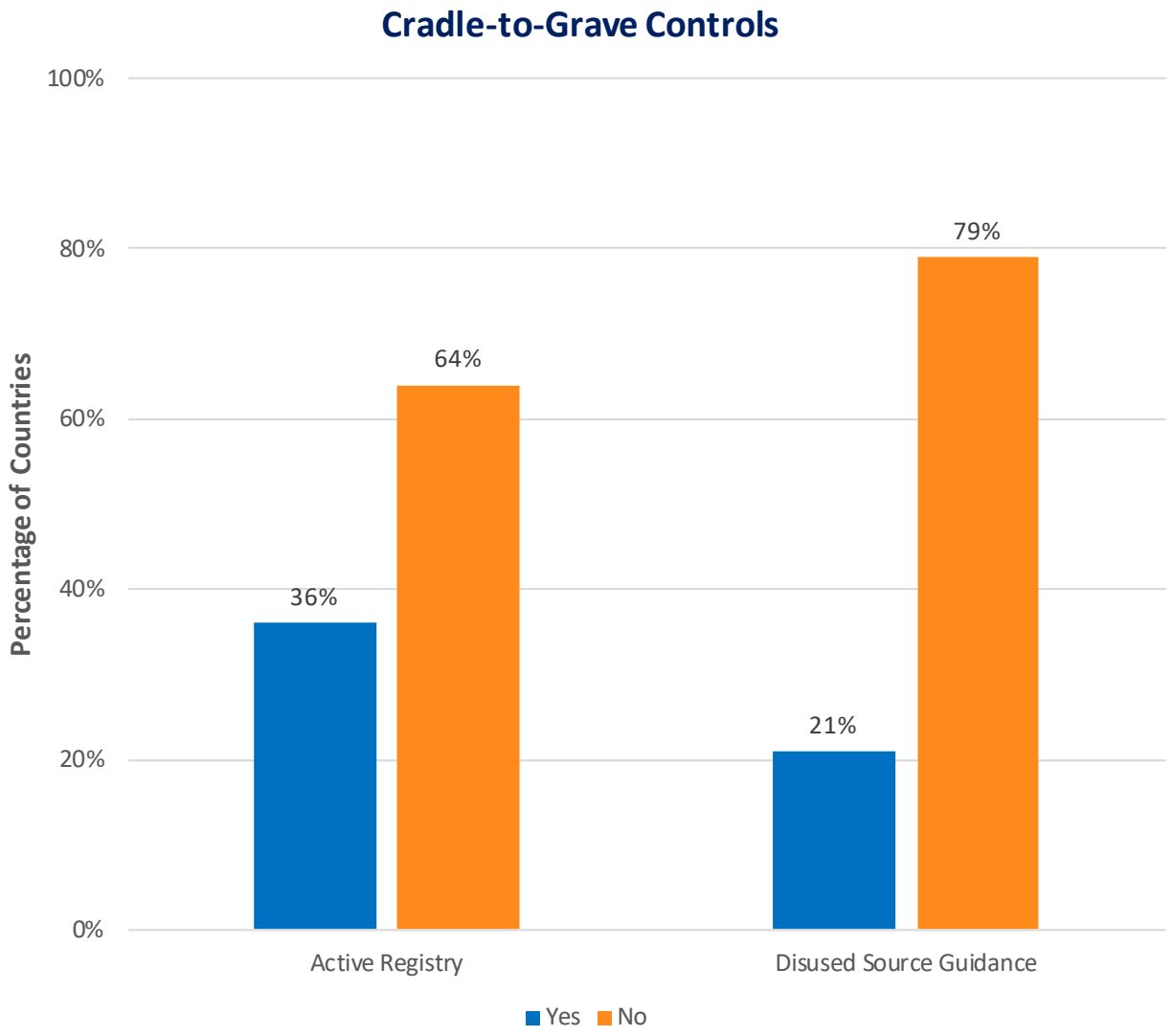
3. There Are Gaps in the Ability to Track and Regulate Sources



4. Cradle-to-Grave Controls Are Insufficient



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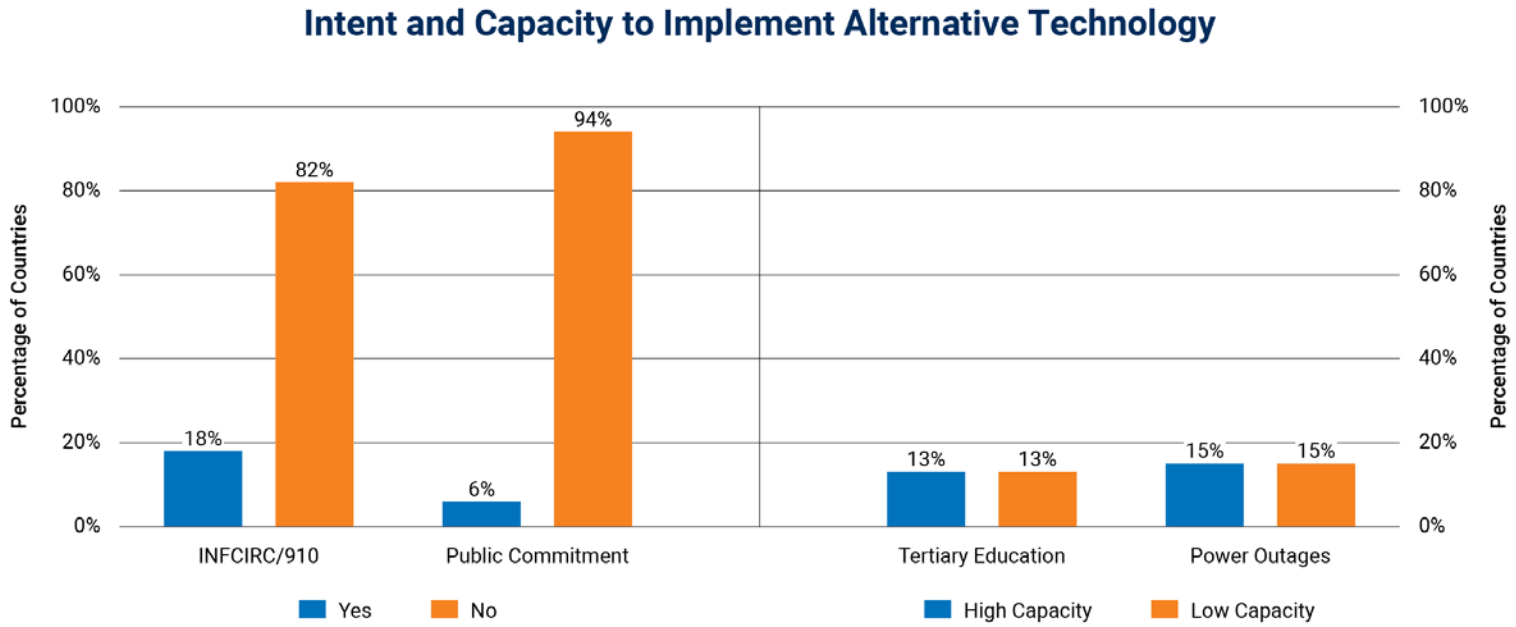
5. Alternative Technology Acceptance and Capacity Is Varied



Actions to Strengthen Global Radiological Security (1/2)

RECOMMENDATION	ACTIONS
Bolster the global radiological security architecture	• Universalize and strengthen Code of Conduct and Supplemental Guidance • Ratify and implement treaties • Join GICNT • Send delegations to key international conferences • Support the IAEA's work
Establish national legal framework	• Establish an oversight body • Bridge regulatory gaps and integrate safety and security • Establish minimum security levels • Empower oversight body to inspect and enforce • Maintain national registry of sources
Put in place measures to track and control movement of radioactive sources	• Maintain national registry of sources • Impose licensing requirements on Category 1 sources • Make political commitment to Supplemental Guidance on Import and Export • Nominate point of contact and make available responses to IAEA Importing and Exporting States Questionnaire
Establish regulatory measures and practices to track materials through their life cycle	• Establish robust and holistic regulatory framework for security and control of radioactive sources • Maintain national registry of sources • Develop national end-of-life policies and strategies • Make political commitment to Supplemental Guidance on Disused Radioactive Sources

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Actions to Strengthen Global Radiological Security (2/2)

RECOMMENDATION	ACTIONS
Commit to replacing high-activity radioactive sources with alternative technologies	• Move to permanent risk reduction by transitioning to alternative technologies • Subscribe to INFCIRC/910 • Put in place timelines to phase out high-activity radioactive sources and replace them with alternative technology
Work to identify and address challenges to adopting alternative technology	• Share information to overcome barriers • Support research and development to find solutions to infrastructure barriers, including training and education

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Discussion Questions and Next Steps

1. Is the NTI Radioactive Source Security Assessment a useful tool for key stakeholders?
2. How can NTI play a constructive role in promoting the key findings and recommendations?
3. How can NTI work with NAS and other stakeholders to identify and address challenges to adopting alternative technology?
4. Is there value in developing a full radiological index with country rankings in 2022?

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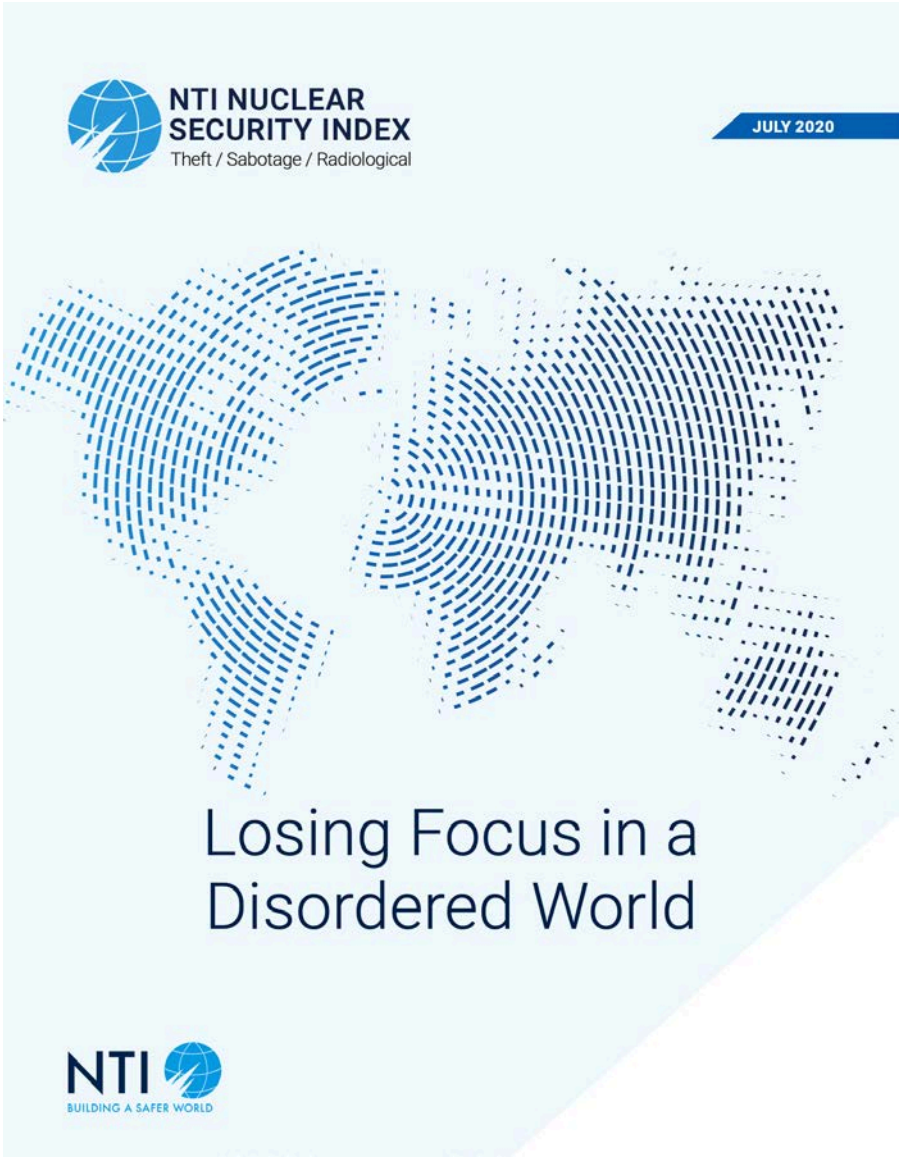

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