

ISSPA - WINS Workshop on the security of disused radioactive source

08 and 09 October 2019. Vienna, Austria

Pierre Legoux, WINS Head of Programmes



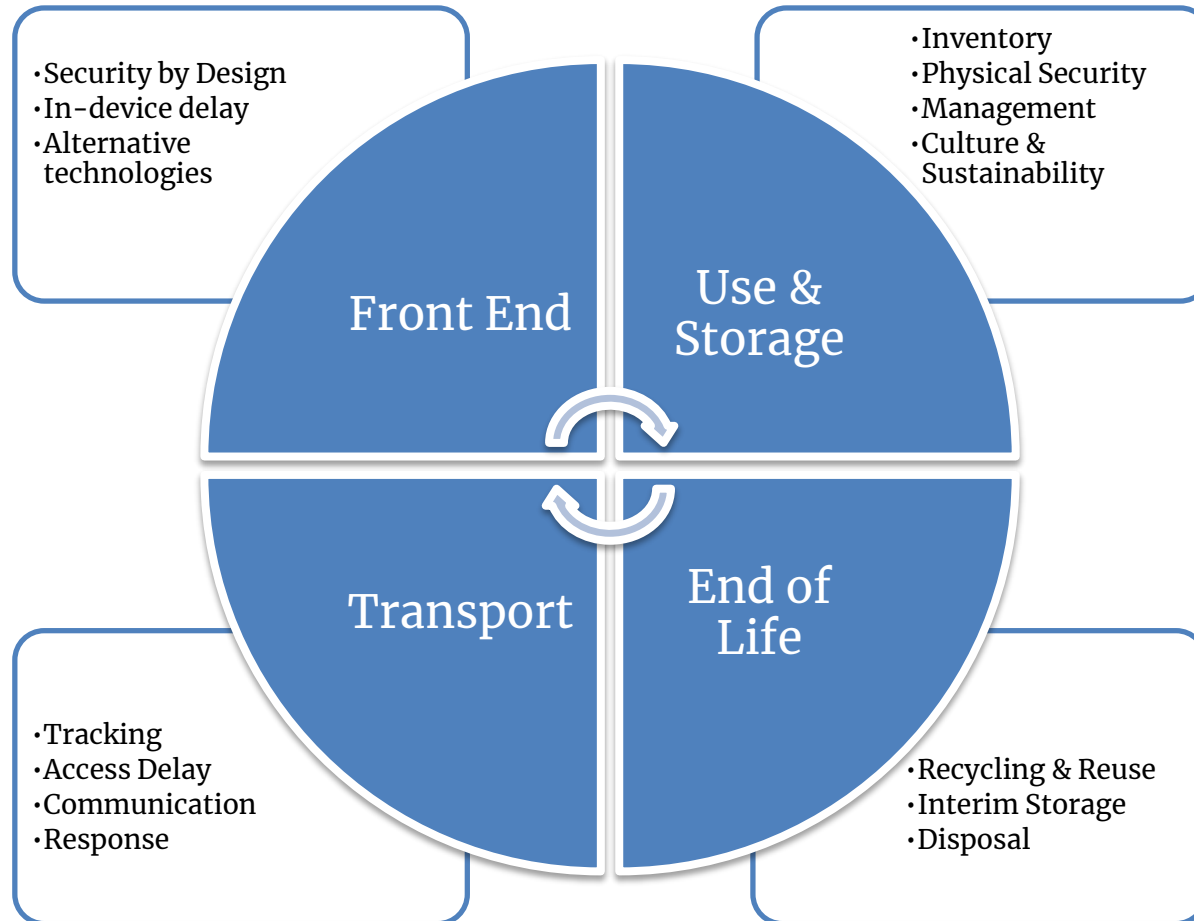
INTERNATIONAL SOURCE SUPPLIERS
AND PRODUCERS ASSOCIATION

The WINS Vision

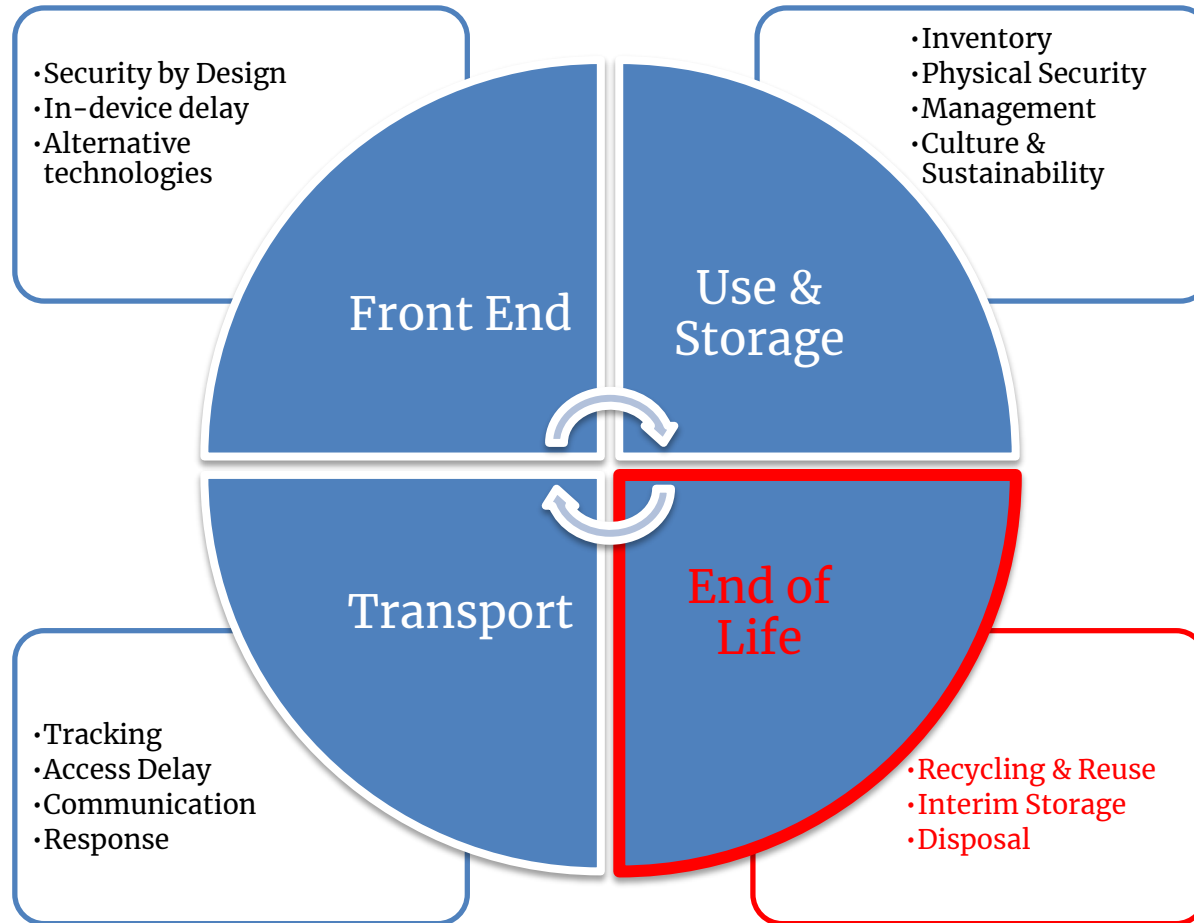
All nuclear and other radiological materials and facilities are effectively secured by demonstrably competent professionals applying best practice to achieve operational excellence.



A comprehensive approach to the security of sources



A comprehensive approach to the security of sources



WINS Activities Supporting the Strengthening of Radiological Security Worldwide



Sharing Operational Experience



Knowledge Centre



Training & Certification



Evaluation

WINS Knowledge Centre: International Best Practice Guides



A WINS International Best Practice Guide
GROUP 5: Security of Radioactive Sources

5.1 Security of High Activity Radioactive Sources

Version 3.1



A WINS International Best Practice Guide
GROUP 5: Security of Radioactive Sources

5.4 Security of Radioactive Sources Used in Medical Applications

Version 3.0



A WINS International Best Practice Guide
GROUP 5: Security of Radioactive Sources

5.5 Security Management of Disused Radioactive Sources

Version 1.1



A WINS International Best Practice Guide
GROUP 5: Security of Radioactive Sources

5.7 Security of Radioactive Sources Used in Industrial Radiography and Well-Logging Applications

Version 1.1

WINS Academy Certification



The 2014 Workshop

WINS WORKSHOP ANNOUNCEMENT END OF LIFE MANAGEMENT OF RADIOACTIVE SOURCES

GIP sources HA



An International Best Practice Workshop organised by the **World Institute for Nuclear Security (WINS)** in cooperation with the **GIP Sources HA**

17 and 18 September 2014
Location: Paris, France
(Novotel Paris Gare Montparnasse)

INTRODUCTION

This International Best Practice Workshop addresses a long-standing question most users of radioactive source need to face at some point - **what do I do with my radioactive sources once they are of no value to my operations?**

Each year, thousands of radioactive sources become disused worldwide. Many are exchanged for new ones to continue operation (e.g. industrial radiography, medical teletherapy). Some other disused sources are covered by agreements to return to their original supplier. However, many users cease operations or have no more use for their sources and are not aware of options for the adequate or affordable long-term storage or disposal of disused sources. In many instances poor management of disused high activity sources has led to significant incidents, which have caused severe damages, including human casualties.

Many users are unaware of the life-cycle costs associated with the management of radioactive sources when they become disused. They are unaware that the transportation and disposal costs might be comparable to the purchasing price of the source itself. When confronted with these costly options, some users opt to not declare their sources as disused and instead store them for extended period of time under substandard circumstances. This poses unnecessary safety and security risks as such sources could become orphan or vulnerable to theft, and could potentially be used to create a radiological dispersal device (RDD) or a radiation exposure device (RED).

OBJECTIVES AND STRUCTURE OF THE WORKSHOP

This 2-day workshop will aim at getting a better idea of what is happening in the area of end of life management and identifying the security issues and solutions related to the management of disused radioactive sources. This event will, as a priority, address sealed high activity radioactive sources (Cat. 1, 2 and 3). All countries use such sources: it may be in medical, research or industrial applications. The workshop will focus on what happens, or what should happen when a source is of no more use.

The national strategies may be very different from country to country, and the industrial and commercial approaches may be very different from supplier to supplier. For this reason, the workshop will try to identify the main steps that need to be followed for designing and implementing an effective end of life management strategy: these steps may include onsite storage of sources or transport for reuse or recycle, return to manufacturer, repatriation of legacy sources, consolidation at a storage facility, disposal as waste. Transport, import/export procedures, and identifying costs and funding must be considered for most of these steps.

Workshop sessions will be designed around each of these steps. Participants will identify the key stakeholders and the challenges they may encounter, and will explore possible options to overcome those identified. The workshop will also examine how each step contributes to a global improvement of safety and security, and will specifically focus on the security issues to identify existing good practices and areas for improvement.

Among others, the participants will be have the opportunity:

- To develop a common terminology and a better understanding of the magnitude of the problem associated with the management of disused sources;
- To identify and discuss each step of a comprehensive strategy for the management of disused sources;
- To review international recommendations for end of life management of radioactive sources;
- To understand how security awareness can facilitate the adequate management of disused sources; To identify and promote synergies between safety and security programmes;

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- ❑ *End of Life Management of Radioactive Sources*
- ❑ 17 and 18 September 2014 in Paris, France
- ❑ In cooperation with the GIP Sources HA
- ❑ 57 participants from 17 countries.
- ❑ 31 suggestions for next steps in 7 topical areas

Workshop Objectives

- ❑ Review the challenges associated with the management of disused sources
- ❑ Identify and discuss each step of a comprehensive strategy for the effective management of disused sources
- ❑ Share good practices for the secure management of disused sources and identify and promote synergies between safety and security programmes
- ❑ Discuss specific issues including, but not limited to, recycling, financial assurances, low cost storage solutions, processes for designating a source as a waste, and long-term storage and disposal opportunities
- ❑ Identify areas where further work is needed and propose solutions

DAY 1 – TUESDAY 08 OCTOBER 2019

- Opening: Developing a Common Understanding
- Session 1: Understanding the Risk and Developing National Strategies
- Session 2: Returning Disused Sources to the Suppliers

DAY 2 – WEDNESDAY 09 OCTOBER 2019

- Session 3: Interim Storage of Disused Radioactive Sources
- Session 4: Transport Challenges including Import/Export Requirements
- Session 5: Management of Disused Sources as Waste and their Final Disposal
- Closing: Key Findings and Way Forward

Workshop Process

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



Workshop Webpage

← → ↻ wins.org/event/wins-isspa-workshop-security-of-disused-radioactive-sources/ ☆ 📄 👤 ⋮

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WINS – ISSPA Workshop: Security of Disused Radioactive Sources

08-09 OCT 2019
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Background

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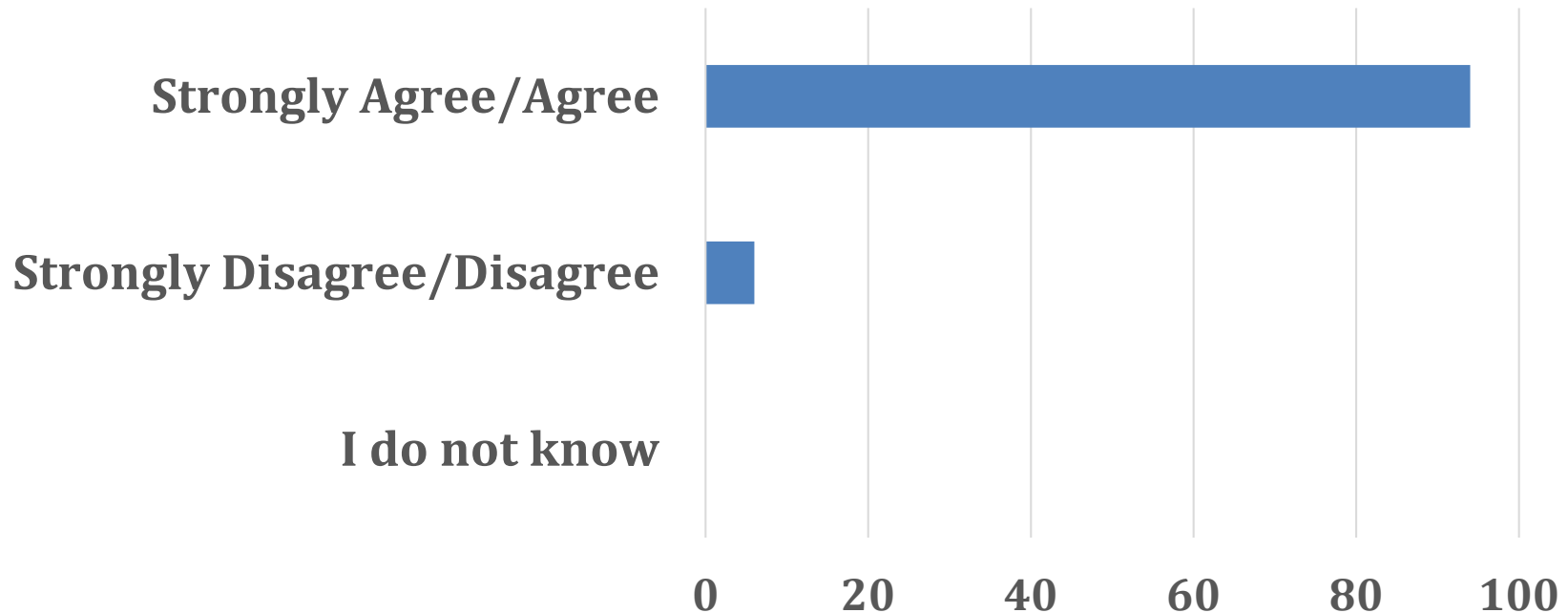
Accept

Each year, thousands of radioactive sources become disused worldwide. Many are abandoned for now, but

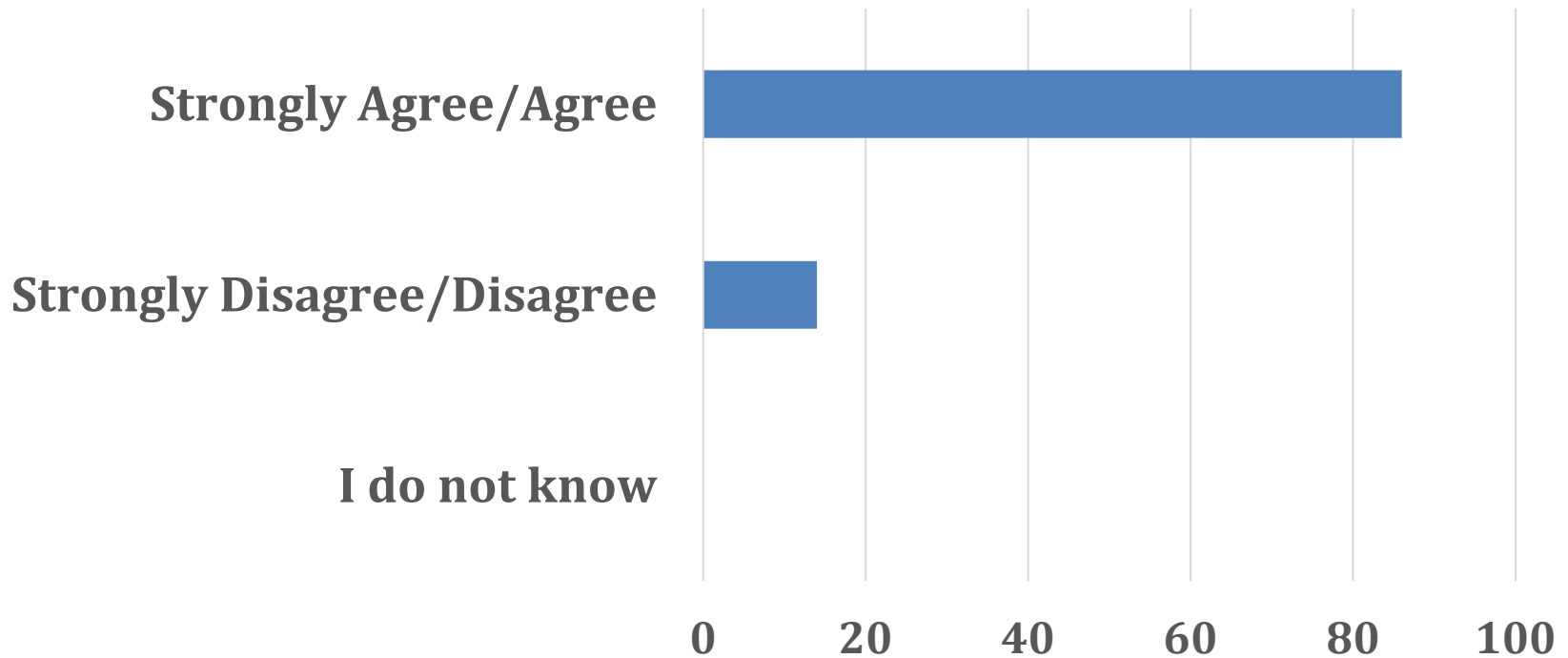
Survey Results



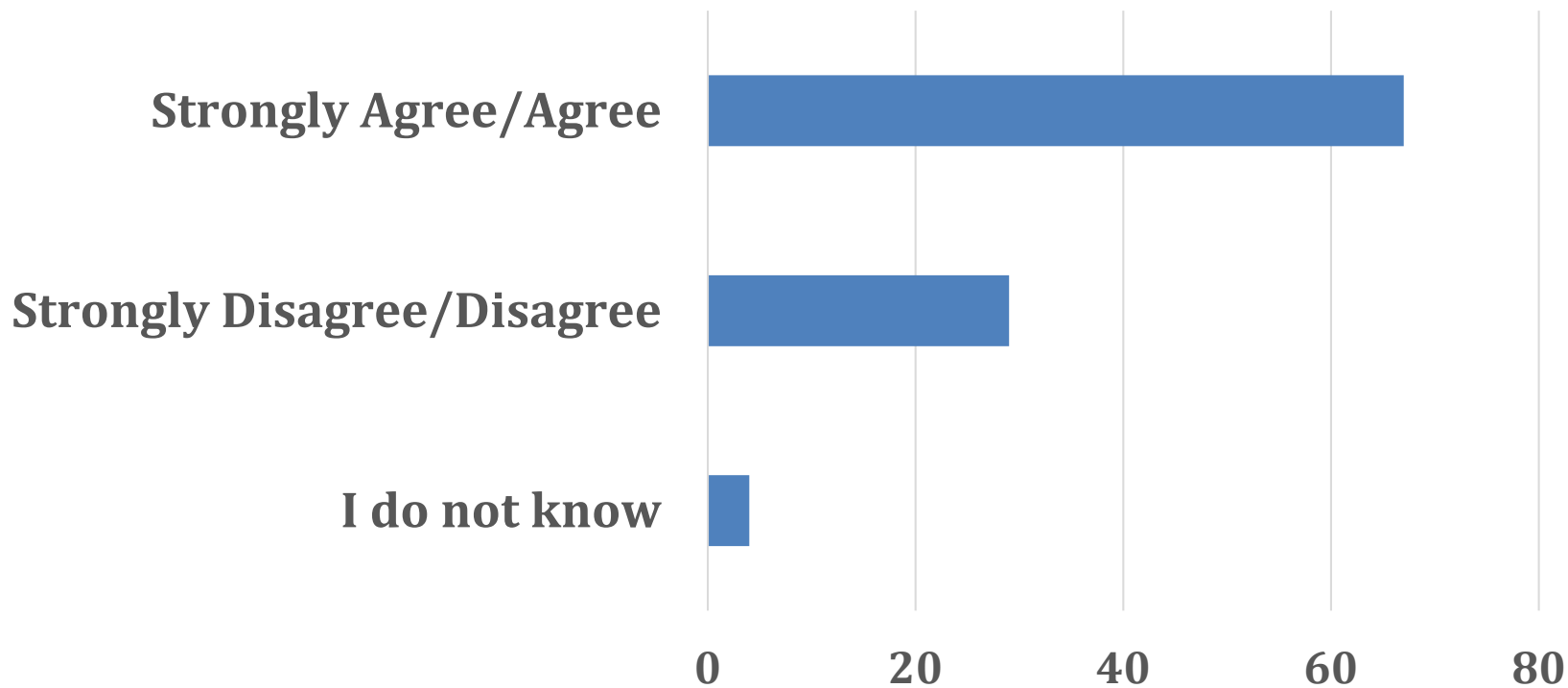
I am familiar with the IAEA recommendations and guidance for the management of disused sources



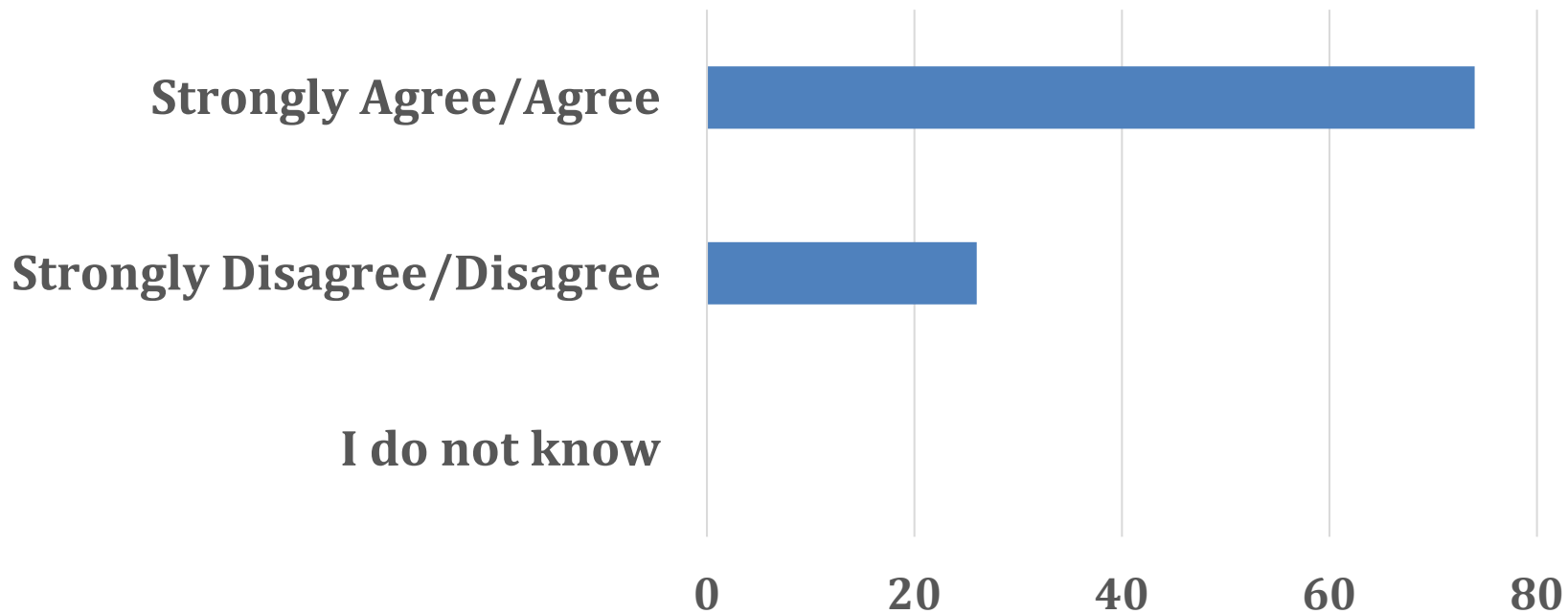
I believe IAEA recommendations and guidance are clear and comprehensive



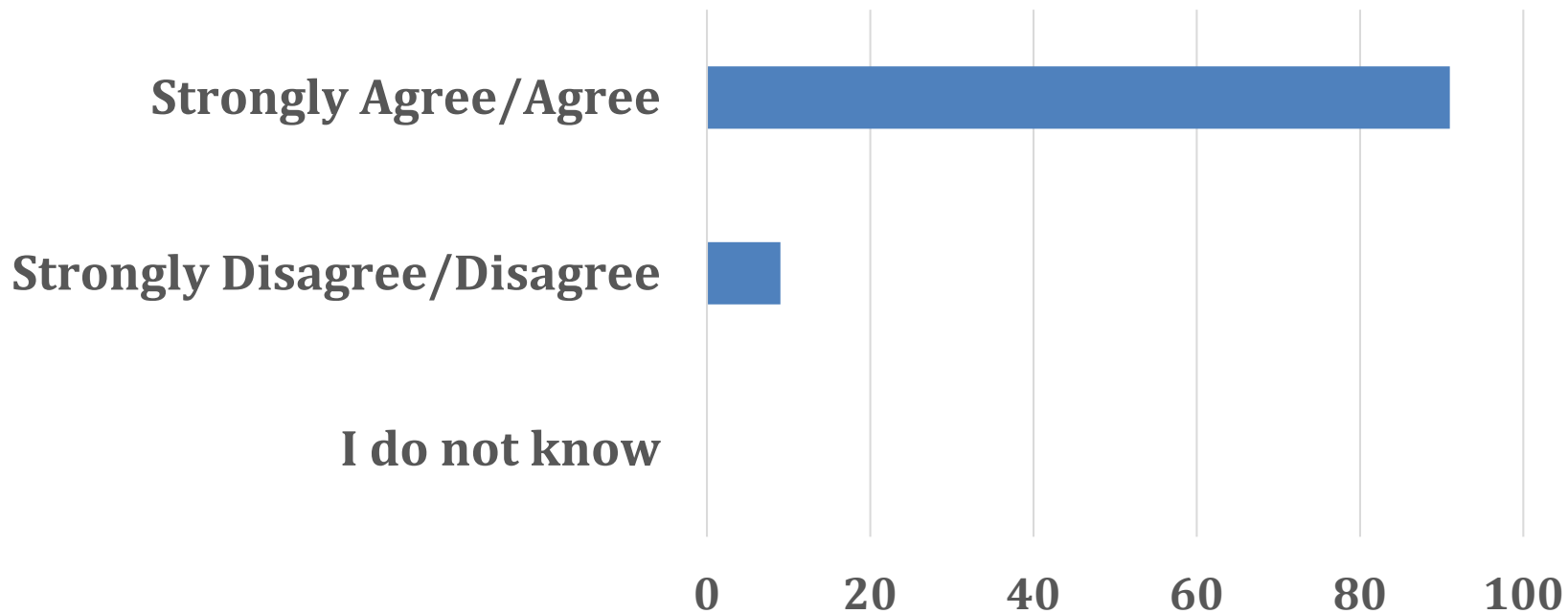
My country has a well-established national strategy for managing disused sources.



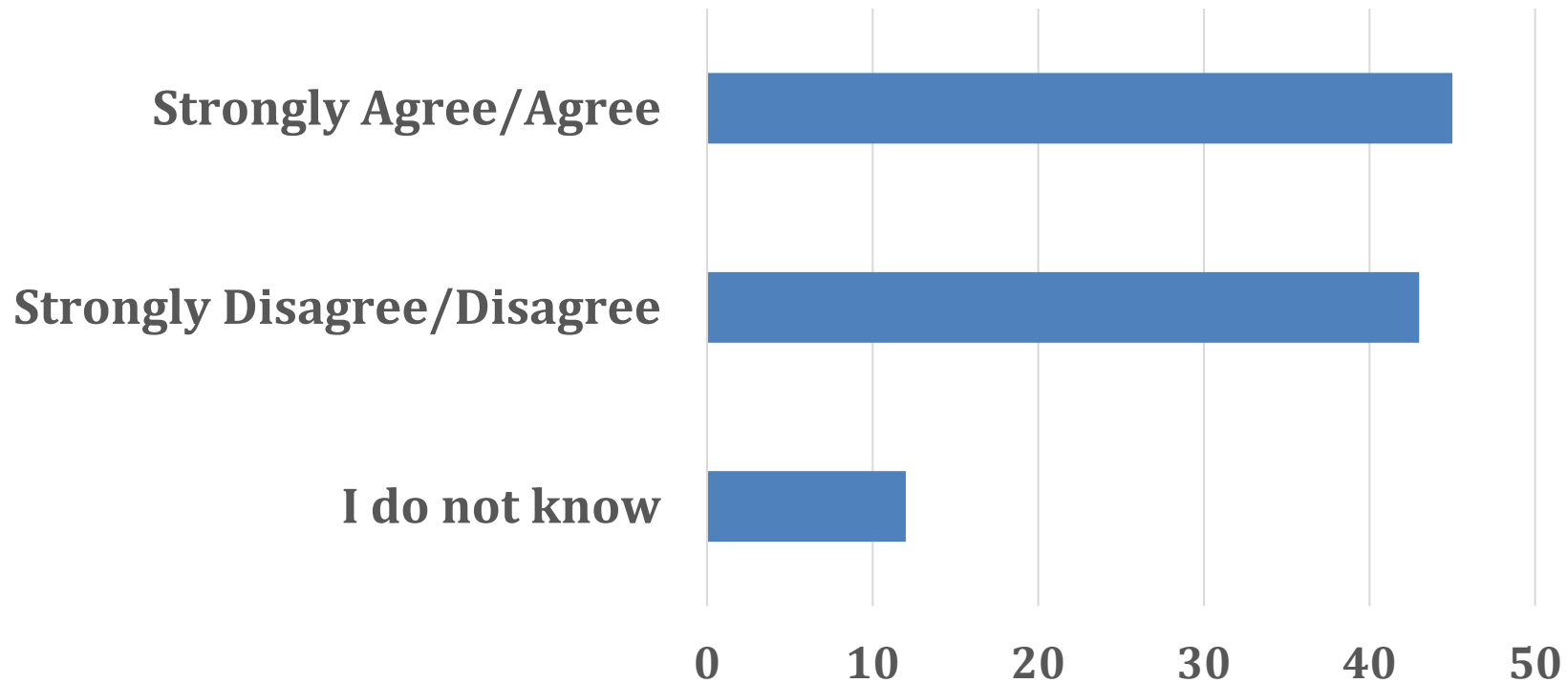
In my country, regulatory requirements effectively support the management of disused sources



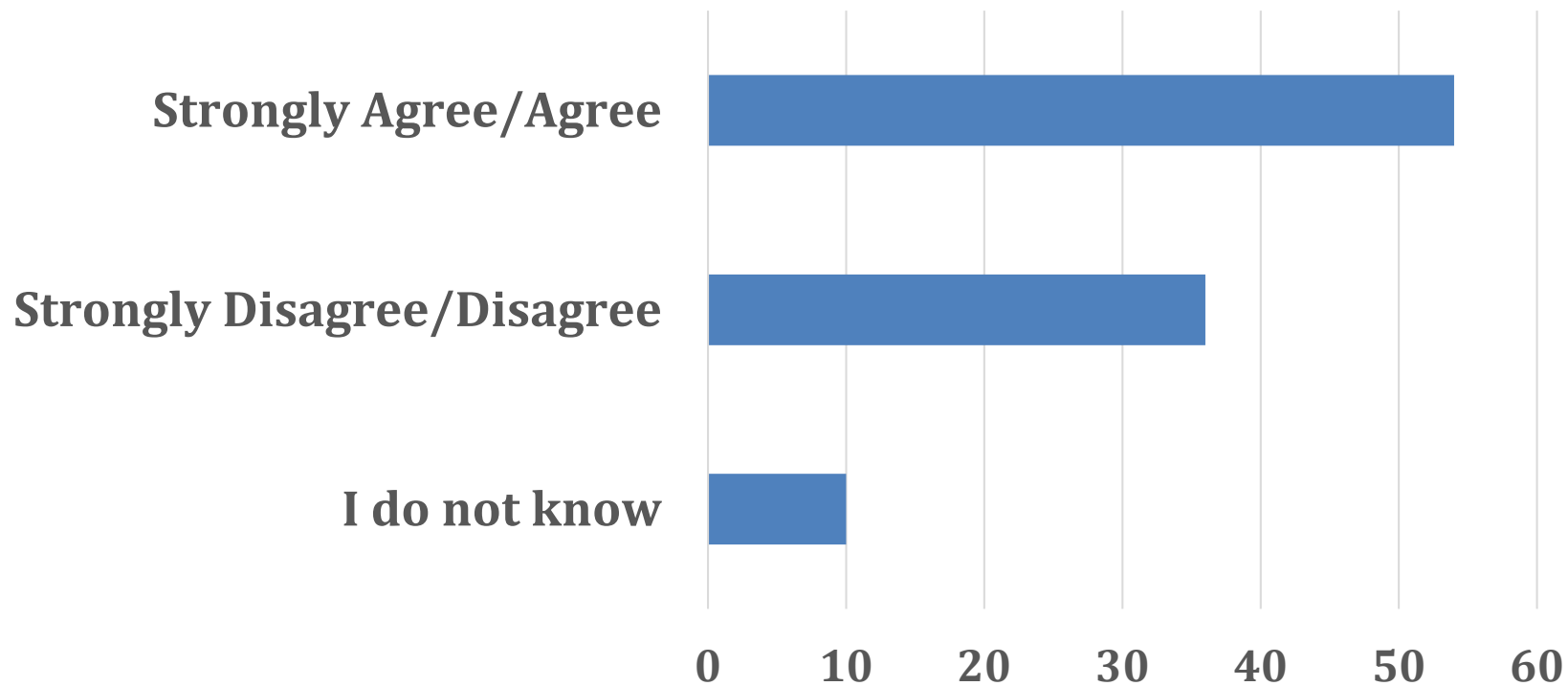
In my country, security of sources is addressed consistently at all stages of the life cycle of sources



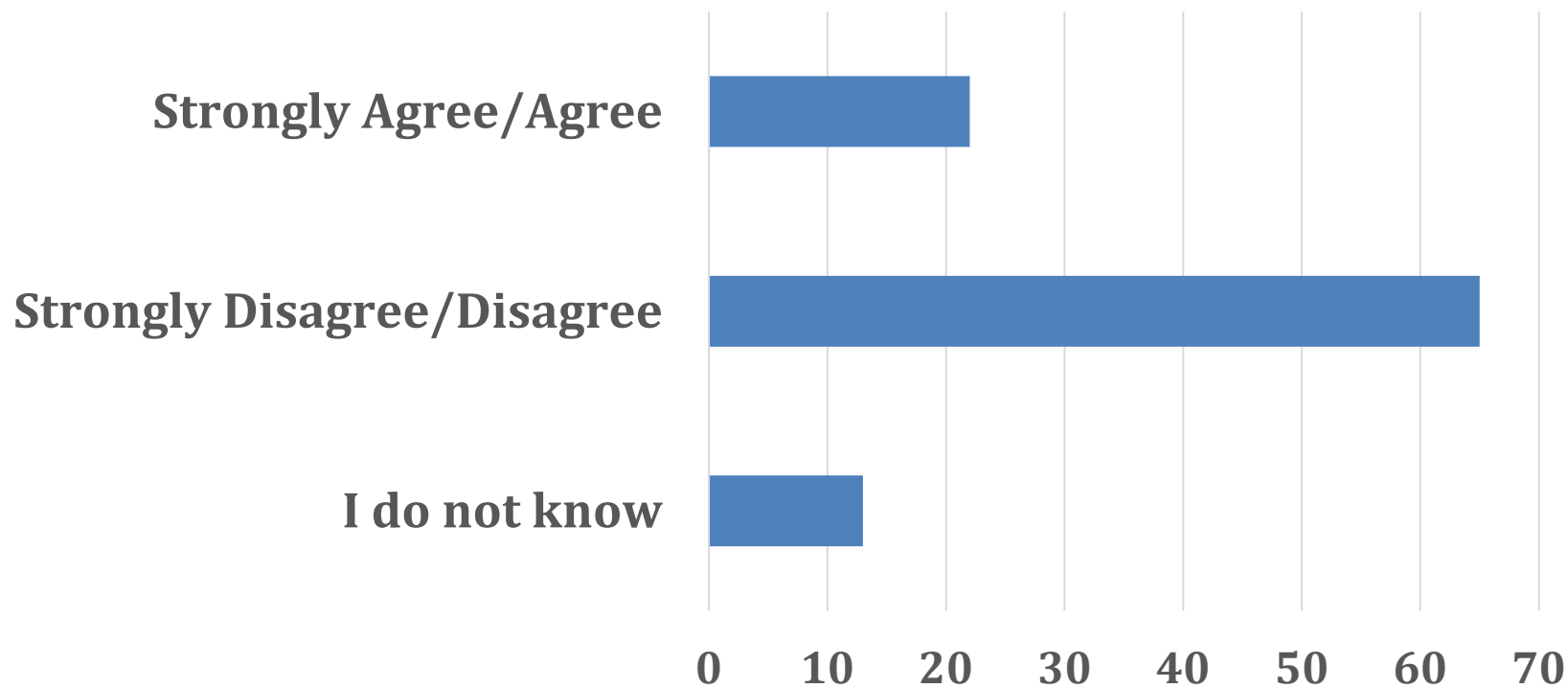
In my country, arrangements for returning sources to suppliers are effective



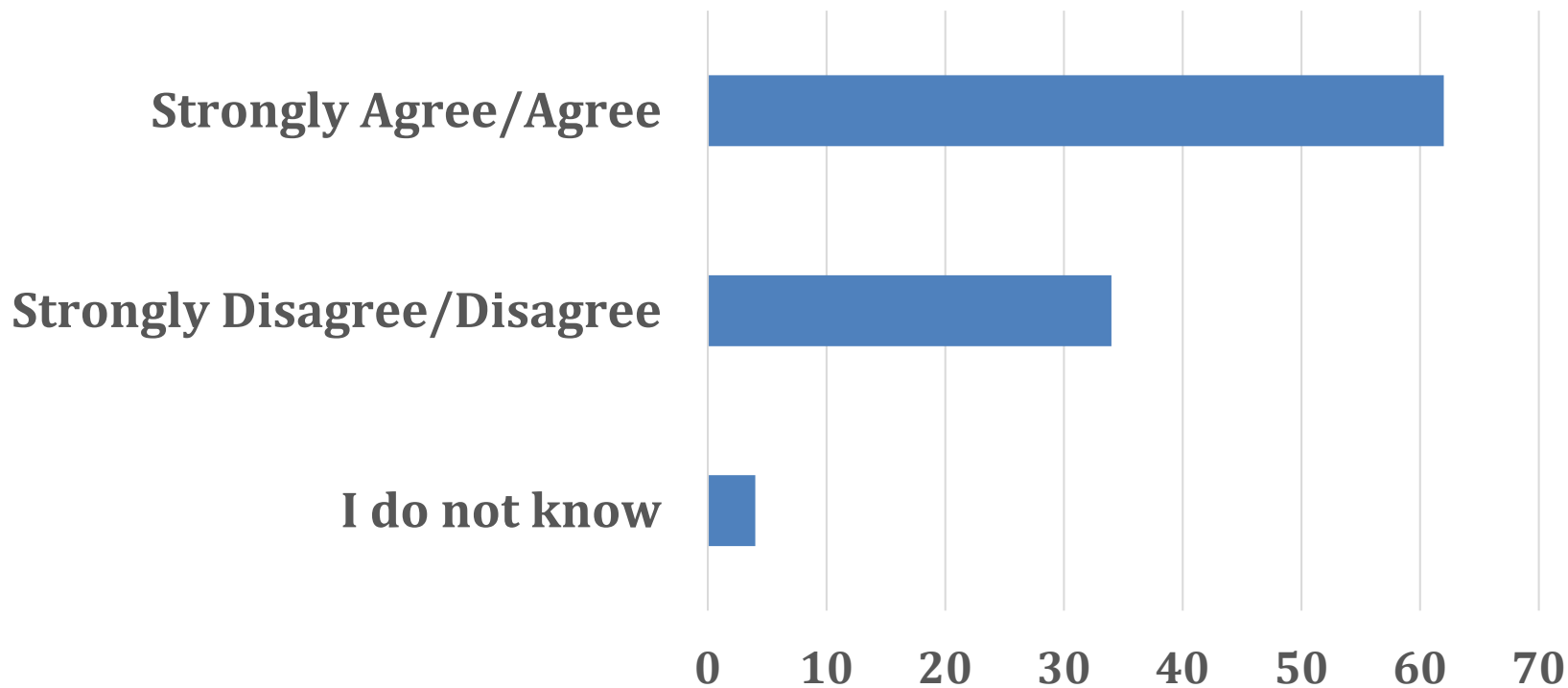
It is possible to anticipate and plan for the cost of end of life management



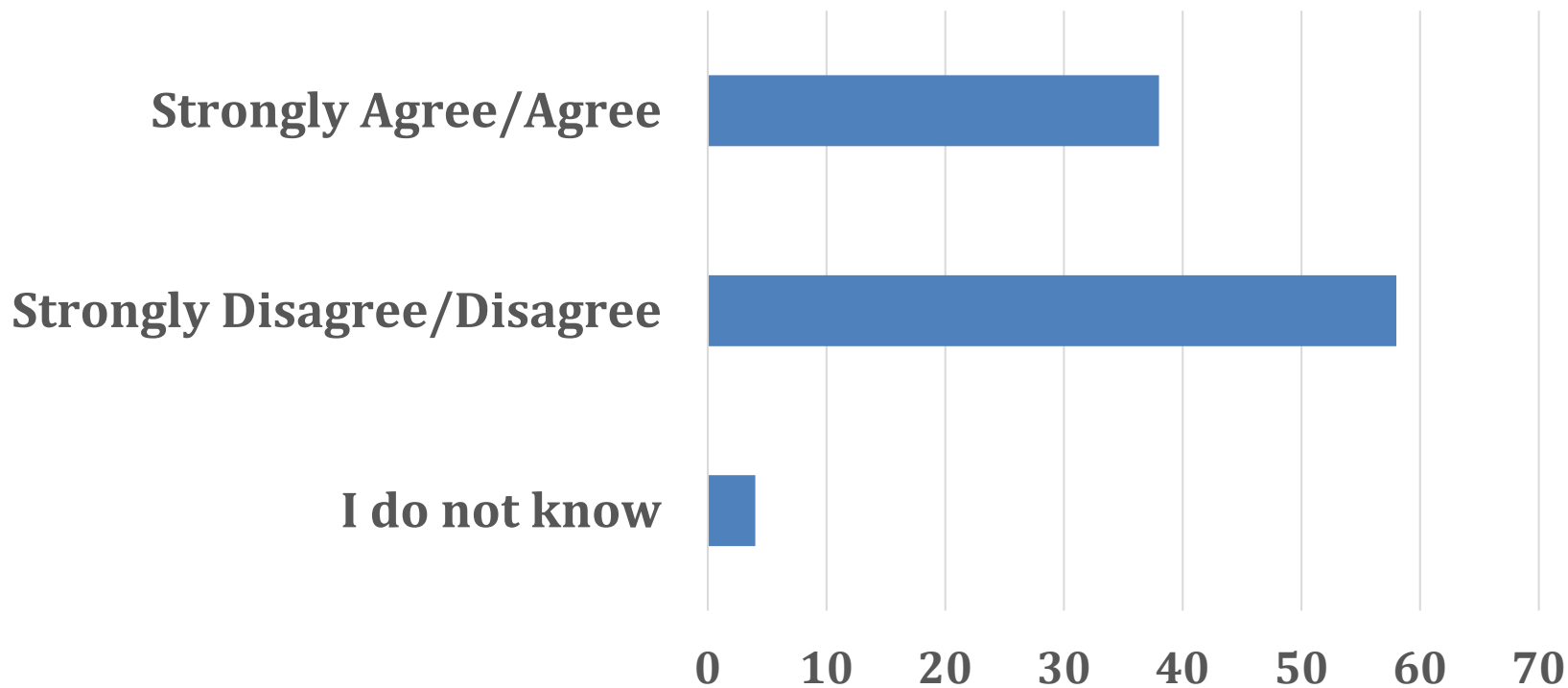
The re-use and recycling opportunities are sufficiently explored



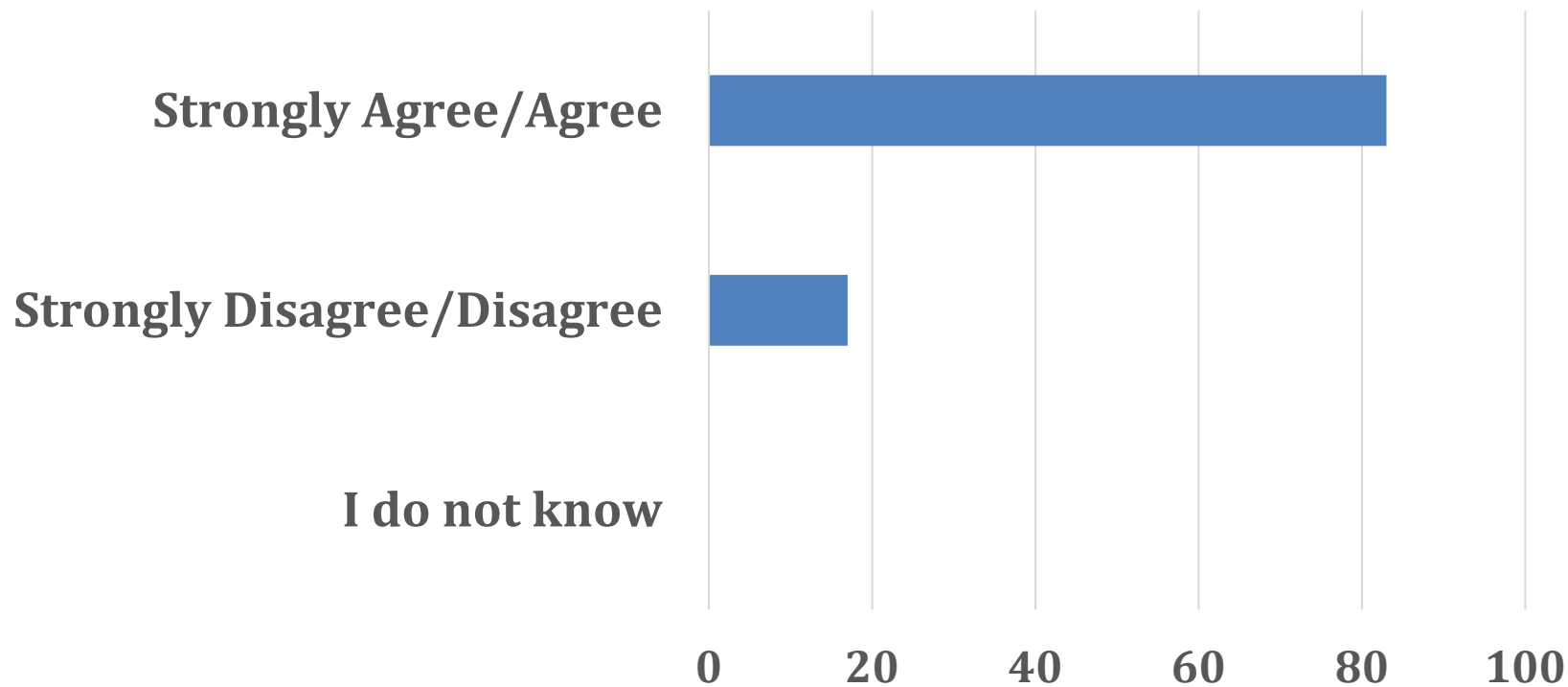
In my country, short term (interim) storage arrangements are effective and sustainable



In my country, we have a clear plan for long term storage and disposal of disused sources



Overall, I believe good progress has been made these last 5 years



Examples of achievements

- International regime has been strengthened (e.g. IAEA Supplementary Guidance). IAEA is providing a lot of support, bilateral programmes remain active. Many sources have been repatriated
- Several National Strategies have been promulgated. Multiple regulatory frameworks have been established or improved and include end of life planning requirements. Improved collaboration amongst stakeholders
- Short and long-term storage facilities have been built. Inventory credibility has augmented. Increased awareness of the need to protect sources. PPS of storage facilities have been upgraded.
- Better understanding of cost structure for final disposal. Some funding has been made available.
- On-going R&D efforts to support management of DSRS. Alternative technologies are considered to remove end of life issues.

Remaining challenges

- Not all national strategies are in place, not all regulations have been issued or do not support proper end of life management planning.
- Some countries still need to select a national operator for the management of DSRS. Many countries lack of any disposal options. Borehole projects are late and do not cover cat 1
- Strategies for returning of sources to suppliers are not always effectively implemented. Sometimes "return to supplier" requirements are misunderstood. Returning sources to supplier is expensive. Forecasting future disposal / return / storage needs and costs are not considered early enough.
- Some DSRS have minimum security measures. Some security systems face sustainability issues
- Lack skilled man power for conditioning characterization of DSRS. A lot of turnover amongst staff in charge.
- Necessary information on sources is sometimes missing. What do we do with sources without valid special forms? What do we do for bankrupted end users?
- Transportation matters remain challenging

Your Expectations

- Open discussions and interactions. Interact with a range of professionals and increase my knowledge. **Get better at my job!**
- Learn from best international experiences (on developing a national approach, complying with regulations, ensuring security, identifying recycling opportunities, etc.)
- Express my needs and challenges. **Explore possible solutions, not just admire the problem!**
- Understand remaining gaps and how my company can contribute
- Develop a comprehensive and consistent approach for all steps of the life cycle of sources
- **End the workshop with actions we can take back to improve end of life management!**

LEARN, SHARE, CONTRIBUTE

MEET & NETWORK

ENJOY YOUR TIME

FOLLOW UP ACTIONS

- Do something yourself !
- Do something with others !



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