



World Institute for
Nuclear Security

6th Regional Review Meeting

Session on Alternative Technologies to High Activity Radioactive Sources

Some Findings

Some Participants Expectations

- ❑ Gain more information
 - Available technologies, international trends, new developments, etc.
 - 40% of the participants had limited or no knowledge at all of Alternative Technologies prior to their participation
- ❑ Better understand the benefits & challenges when shifting towards alternative technologies
 - Cost, performance, relevance to the need and various local constraints and specificities, difference with sources...)
 - 70% believed that end users should be further incentivized to shift
- ❑ Listen to those who are using them. Learn more about other countries and their approaches
- ❑ Better understand roles and responsibilities of each stakeholders

Available Technologies and Lessons Learned using them

- We focused on Medical Practices (Blood irradiation and Radiation therapy)
- Clear appetite for more information. There is a need to facilitate access to reliable and comprehensive information. There is a lack of confidence in available information.
- Alternative technologies are available and fulfill most of the needs (brachytherapy remains an issue)
- Multiple examples of success stories. We need to better share them.
- Misconceptions still exists (e.g. power supply requirements, costs...)

Available Technologies and Lessons Learned (Cont.)

- ❑ Increased performance was mentioned several times. It is often the main driver for shifting.
- ❑ Selection of the most appropriate service contract is essential
- ❑ Biggest challenges include infrastructure, costs and education (availability) of staff
 - Raise awareness on benefits of alternative technologies amongst decision makers in the organisation and at political level (especially for the medical sector).
 - Ensure initial and continuous training of staff (increase the contribution of vendors)

Supporting the transition

- ❑ Establish a mechanism involving all relevant stakeholders
- ❑ Clarify their roles and responsibilities
- ❑ Have a clear and transparent procurement process to specify the need and select the most suitable technology
- ❑ Consider better engaging with customers/clients as a possible driver for the change (mostly for industrial practices)
- ❑ Involve the regulator while maintaining its independence (communication vs. promotion)
- ❑ Regulators have a large panel of tools to support the shift, including banning certain equipment

Supporting the transition (Cont.)

- ❑ Engage decision makers through education and awareness
- ❑ Address medium and long term issues up front
- ❑ Ensure a proper management of disused sources. Do not create a risk somewhere else
- ❑ International programmes have an essential role to play (e.g. NNSA programme to replace Cs-137 blood irradiators)

Way forward

- ❑ Support the sharing of operational experiences. Communicate better on success stories. Identify champions/ambassadors to be used as references for others.
- ❑ Work with industry and all organisations involved in the supply chain to facilitate the procurement process.
- ❑ Help end users to evaluate their needs and select the most appropriate technologies (Guidance documents)
- ❑ Offer forums of exchange and opportunities to access reliable information (Regulators could advice their licensee to attend these events)
- ❑ Address end of life management
- ❑ Coordinate international programmes and develop regional approaches



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