



EURADWASTE'22

30 May - 3 June 2022
Lyon, France

Different Missions – Common Goals

IAEA, PREDIS & EURAD Working Together to Strengthen Radioactive Waste Management World-Wide

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10th European Commission Conference on EURATOM Research and Training in Radioactive Waste Management
30 May - 3 June 2022 | Lyon, France

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IAEA at a Glance

175
Member States
(as of May 2022)

2,500+ staff
from
over 100
countries

IAEA Mandate
“The Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity.”

IAEA Discriminators

- Global reach
- Convening power & longevity
- Safety standards
- Technical guidance



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IAEA – Waste Technology Section

Mission

To support Member States in strengthening their infrastructure and capabilities, and in improving their practices in RWM, towards a comprehensive RWM programme, which addresses their entire current and future national inventory.



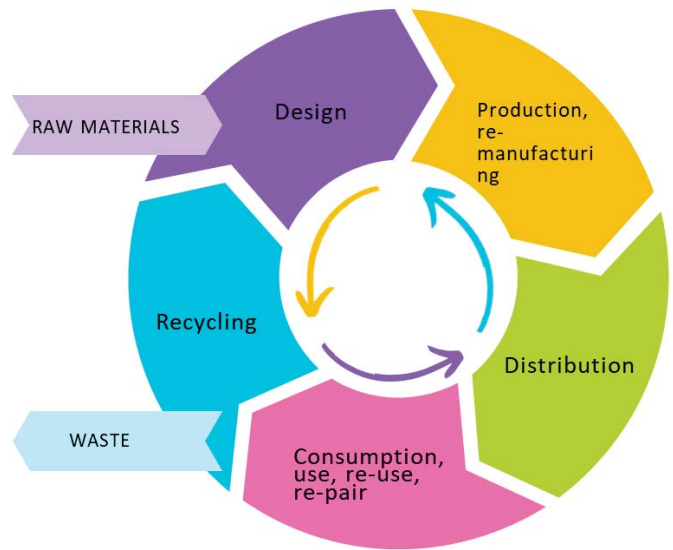
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The Future.....Radioactive Waste Management World-Wide

- **Life-cycle radioactive waste management planning** begins **before** any waste is generated
- **Sustainability principles** are adopted (avoid, minimize, recycle, reuse) throughout the nuclear fuel cycle to **minimize waste** going to disposal
- **End-of-life plans** are in place for all new sealed sources (i.e. reuse, recycle, return, disposal)
- All waste is **characterized** at the **point of generation**
- A **waste inventory** is created and tracked at **all life-cycle stages**
- **Fit-for-purpose** processing, storage and **disposal** solutions are selected and implemented in a timely manner
- Adequate **provision** is made for radioactive waste management **resources** at all stages – financial, technical and human



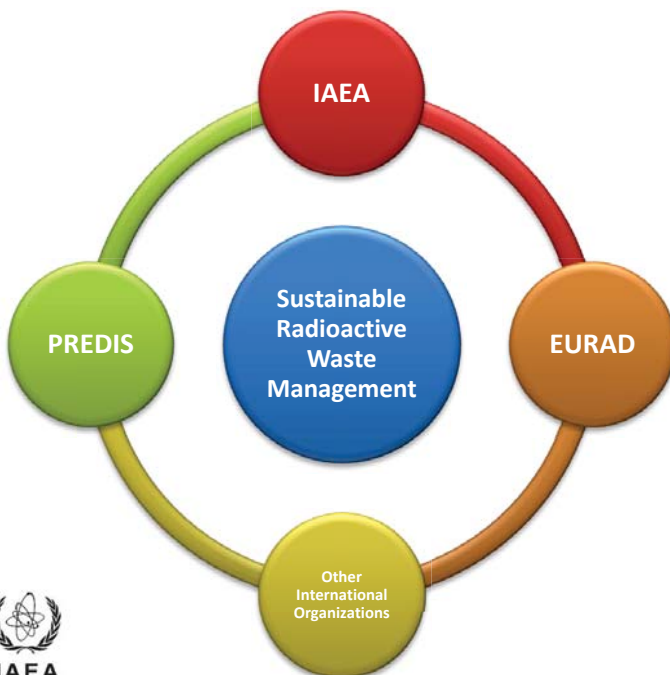
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Different Missions – Common Goals



IAEA WTS Vision

IAEA Member States are better able to advance their socio-economic progress by using radioactive technologies for peaceful purposes, through ready access to safe, low cost and effective solutions for radioactive waste management

EURAD Vision

A step change in European collaboration towards safe radioactive waste management (RWM), including disposal, through the development of a robust and sustained science, technology and knowledge management programme that supports timely implementation of RWM activities and serves to foster mutual understanding and trust between Joint Programme participant



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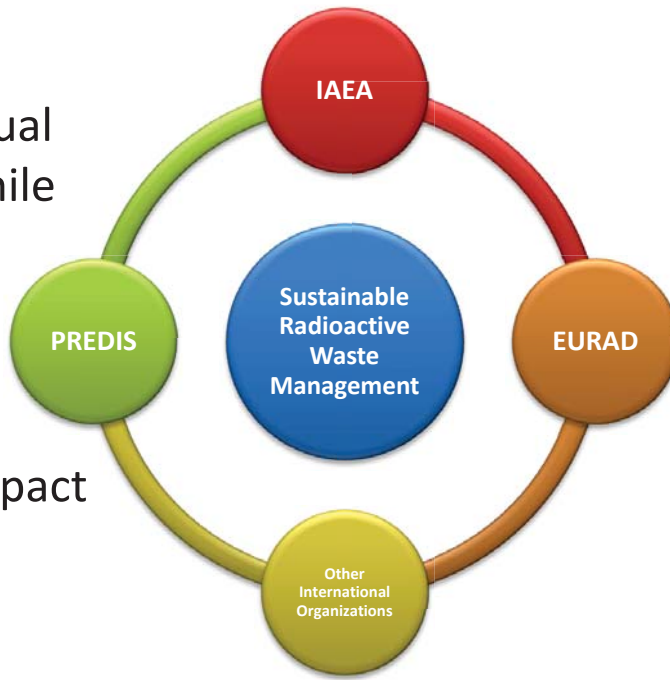


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Working Together - Sustainable Radioactive Waste Management

Philosophy

Fulfill individual mandates while optimizing synergies & leveraging outputs for maximum impact



Co-ordinate

Co-operate

Do not duplicate



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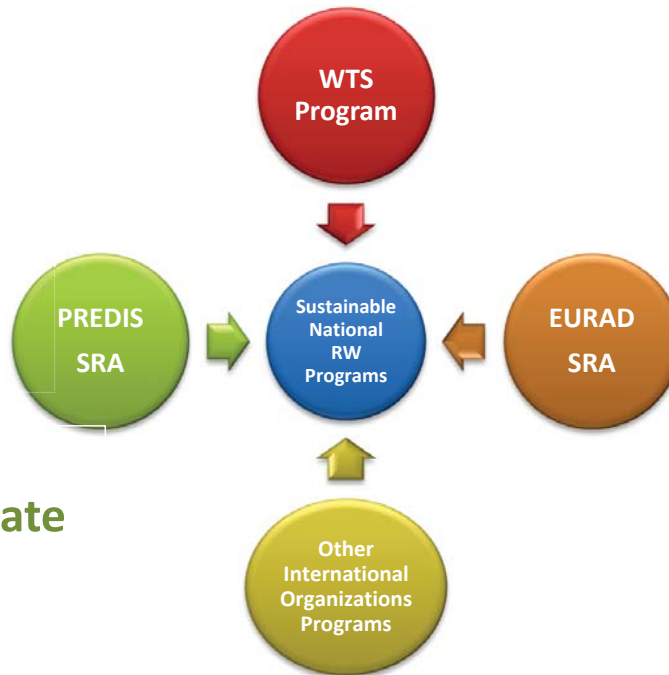
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Working Together - Sustainable Radioactive Waste Management

Co-ordinate

Co-operate

Do not duplicate



- Commitment to share information & future plans
- Use common terminology and ontologies
- Focus on strengths
- Recognize and leverage project strengths
- Provide mutually beneficial support
- Complementary approaches
- Amplify project outputs
- Integrate work programmes
- Foster an atmosphere of trust & transparency



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SRA – Strategic Research Agenda

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IAEA WASTE TECHNOLOGY SECTION PROGRAMME



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WTS Radioactive Waste Management Priorities



Fix the future



Address the past



Small inventory solutions



Share good practices



Facilitate societal acceptance



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Priority – Fix the Future



Address the past



Small inventory solutions



Share good practices



Facilitate societal acceptance



Fix the future



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Promote the concept of:

- Integrated cradle to grave waste management before activities begin to generate RWM
- Transition to **proactive** RWM rather than **reactive**
- Plan and assure that all waste has a clear, identified pathway to disposition
- Dialogue with designers of new reactor and fuel cycle facilities to raise awareness of downstream RWM liabilities



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Priority – Address the Past



Fix the future



Small inventory solutions



Promote good practices



Facilitate societal acceptance



Address the past



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- The large and complex legacy of waste from past activities leads to a negative perception of nuclear energy and its applications as well as presenting a significant safety hazard.
- Implementation of solutions to manage this legacy is essential to ensuring a sustainable future for nuclear technology
- Share proven approaches to overcome barriers to process legacy waste inventories to safe storage pending disposal
- Identify opportunities for technology needs and innovations



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Priority – Small Inventories Solutions



Fix the future



Address the past



Promote good practices



Facilitate societal acceptance



Small inventory solutions



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Strengthen MSs capacity to identify, plan and implement fit-for purpose programmes

- Raise awareness, understanding & selection of available implementation options
- Promotion of waste management strategies that maintain flexibility for future decisions/endpoints
- Scalable processing & storage solutions
- Raise awareness of technology gaps and limitations of existing technologies



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Priority – Facilitate Societal Acceptance



Fix the future



Address the past



Small inventory solutions



Promote good practices



Facilitate societal acceptance



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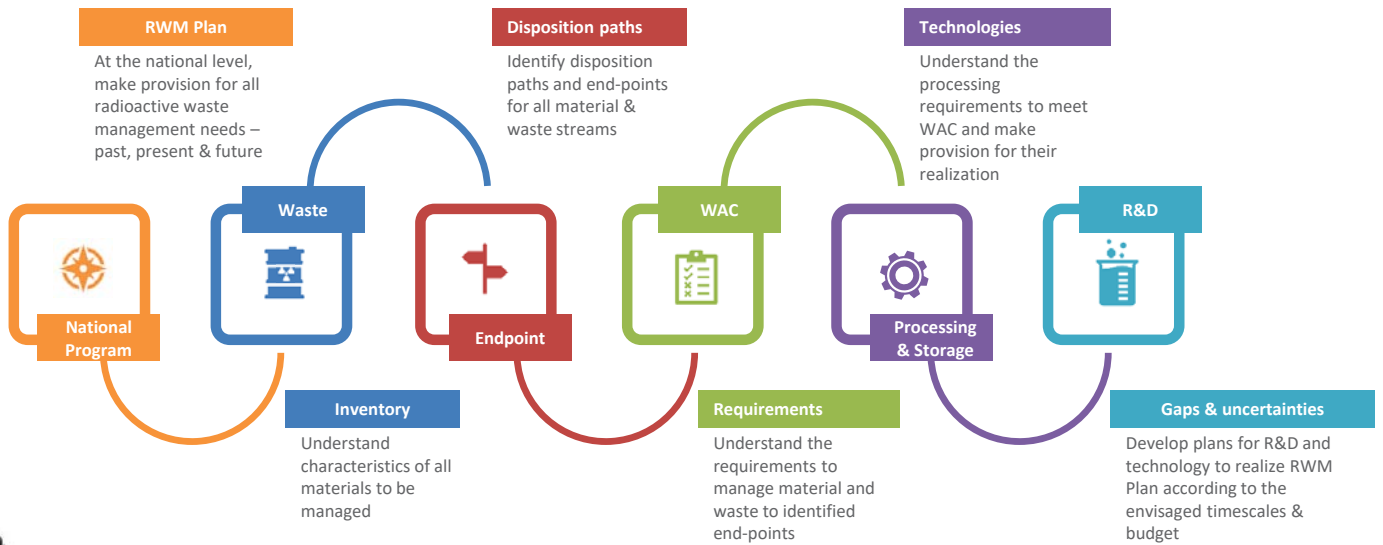
- Stakeholder involvement is an essential part of any complete, efficient and safe nuclear programme.
- “Context-specific” stakeholder engagement is a “make or break” component of any disposal programme, especially for a deep geological facility
- Needs:
 - Using sound approaches
 - Understanding local stakeholders' expectations
 - Getting policy makers on board



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End-point Informed Radioactive Waste Management

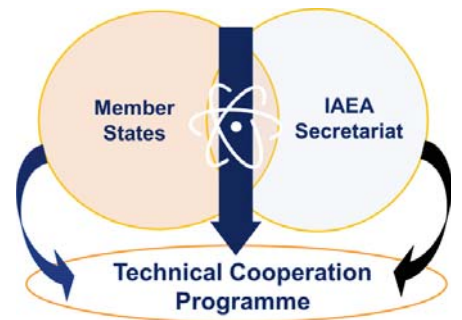
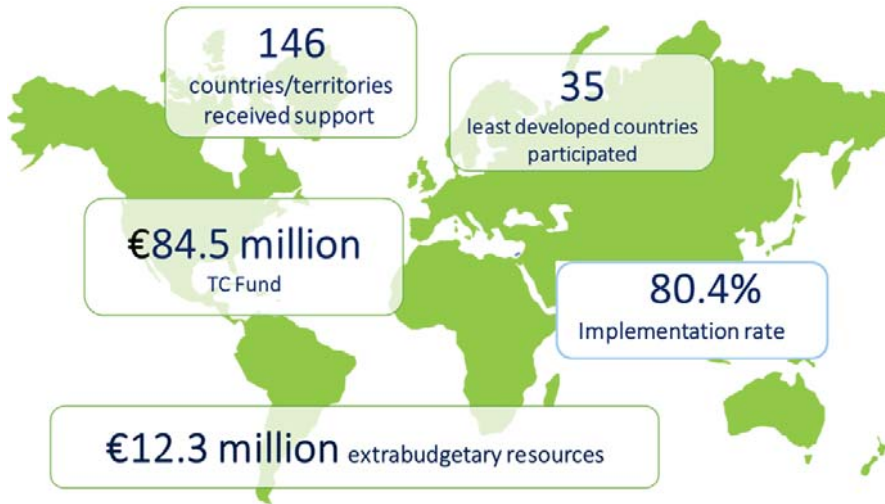


WTS Programme Products & Tools



IAEA Technical Cooperation Programme

Status: 2020



IAEA brings the ability to amplify and transfer collective information, knowledge & good practices in radioactive waste management world-wide



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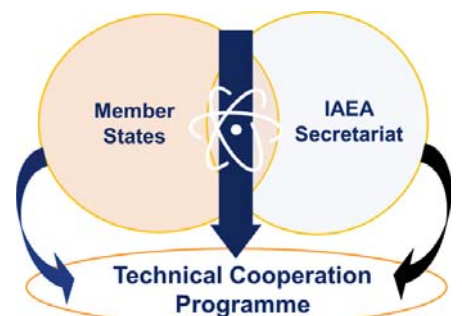
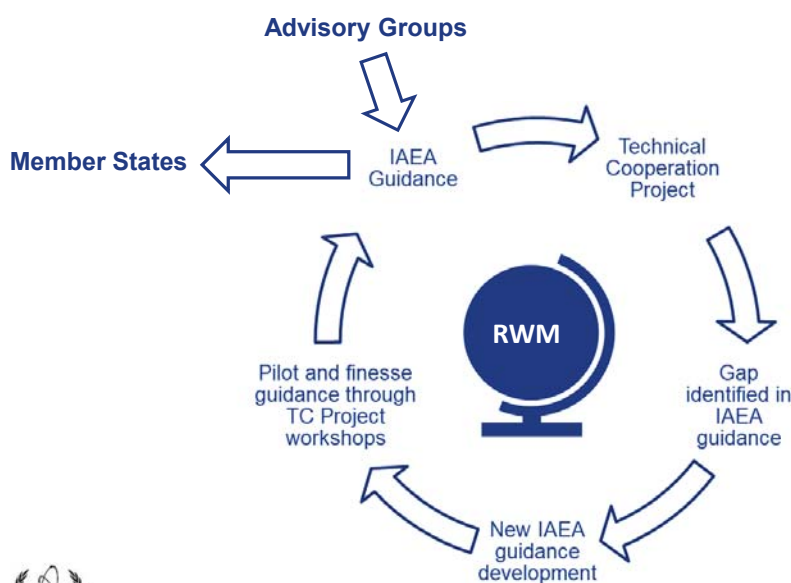
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IAEA WTS Programme Development



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IAEA – EURAD – PREDIS SYNERGIES



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Programme Synergies

EURAD & PREDIS

IAEA Waste Technology Programme

- Publish guidance on the fundamental principles, technologies & concepts underpinning radioactive waste management
- Compile up to date information on status & trends in radioactive waste management world-wide
- Identify and communicate gaps and needs across a broad range of programme types
- Provide forums and platforms for sharing information

Capacity building

- Facilitate EU member states working together towards a common goal
- Lead dialogue on EURAD Roadmap
- Oversight & implementation of radioactive waste management programmes
- Compile and share state-of-knowledge
- Consolidating science & technology
- Optimize predisposal programmes
- Mature technology solutions
- Develop innovative approaches and technologies
- Harmonization and standardization



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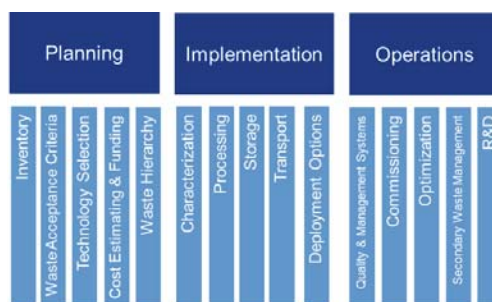


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Achievements to date

- Proactive sharing of current programmes, objectives and future plans
- Understanding of each organization's strengths
- Alignment of domains and terminology
- Participation in outreach events
 - IAEA's RWM Conference
 - PREDIS & EURAD workshops and webinars
- Sharing of approaches and tools for Knowledge Management



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Future Prospects



Sound fundamental approaches

Integrated mechanism to integrate IAEA global perspective with EUG feedback on challenges & lessons learned



Knowledge Management

Coordinated and optimized approach to knowledge management to preclude duplication



Capacity building

Fast-track progress by sharing real world-wide experience via case studies & lessons learned



Fostering and Targeting Innovation

Understanding of Member States' needs, technology gaps and implementation options to focus R&D and technology development activities



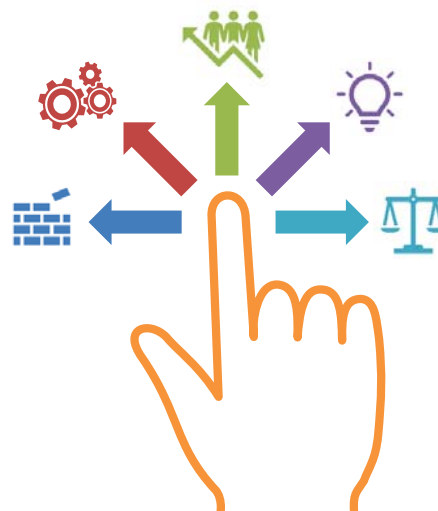
Harmonization

Common terminology and approaches to facilitate standardization of radioactive waste management practices between countries.

Co-ordinate

Co-operate

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Thank you!



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