



WM'2012
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Disposal of Radioactive Waste from Global Perspective

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Current situation

- Disposal of RW and SF/HLW recognized as the only final solution
- The progress in providing disposal solutions in Member States is slow:
 - 25 countries already have repositories for L/ILW
 - No repositories for SF and HLW yet
 - In many countries still no clear policies and strategies/programmes for waste disposal
- In newcomer countries main focus on power needs and NPP construction – little consideration of spent fuel and waste management needs

Disposal of LLW

- Disposal facilities for LLW successfully operating in many countries
- Different types of repositories: surface, near surface and underground (geological)
- But many nuclear and non-nuclear countries still need to develop repositories

EUROPE: (Belgium); Bulgaria; Czech R.; Finland; France; (Germany); Hungary; Latvia; Lithuania; Norway; Poland; Romania; Russian F.; Slovakia; (Slovenia); Spain; Sweden; (Switzerland); Ukraine; United Kingdom

AFRICA: (Egypt); (Ghana); South Africa

AMERICAS: (Argentina); (Brazil); (Canada); (Chile); Mexico; (Peru); United States of America

ASIA and the PACIFIC:(Australia); China; India; (Iran); (Iraq); Japan; (Jordan); (Rep. of Korea); (Malaysia); (Pakistan); (Philippines)

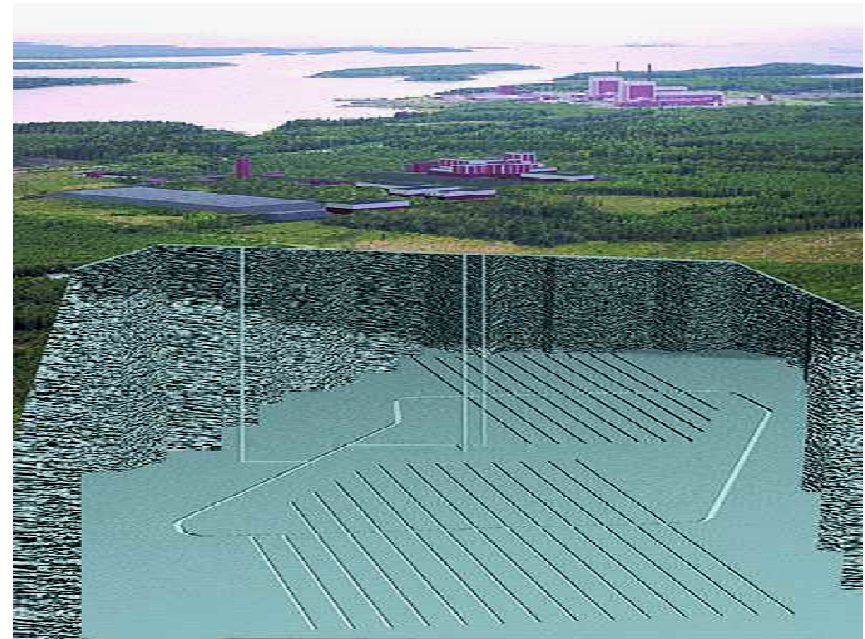
Management of LLW

- LLW management still needs attention of nuclear industry
- Many countries are still lacking facilities for LLW and VLLW management
- Some countries still missing clear responsibility structure for RWM
- Newcomer countries need to pay immediate attention to LLW



Geological disposal

- Technical solutions for geological disposal available
- Good progress in repository development for spent fuel and HLW in Finland, Sweden and France
- Research and general investigations in several other countries
- Strategy consideration in some countries
- Many countries still at initial stage



Eurajoki in Finland

Newcomer Countries

- Interest for new nuclear build remains but at a slower rate
- Complex infrastructure required for starting nuclear programme including RWM and SFM infrastructure
- Management of SF and waste requires:
 - adequate regulatory framework with clearly allocated responsibilities and necessary bodies/institutions
 - clear policies & strategies for managing SF and RW
 - necessary infrastructure for SFM and RWM
 - adequate funding for SFM and RWM
- Disposal of waste big challenge for newcomers
- Regional approaches and shared facilities for WM – an opportunity for newcomers

How can these challenges be addressed?

- International and regional cooperation in RWM can significantly contribute to the progress of RWM and disposal by:
 - Sharing and disseminating information and knowledge, R&D
 - Sharing lessons learned and experience with less developed programmes
 - Promoting implementation of good practices in RWM
- Co-operation beneficial for developed and developing programmes and for newcomer countries



The IAEA Assistance

- Joint Convention, Safety Standards and guides for harmonization of safety approaches
- Technical publications on specific topics with guides and recommendations
- Networks
- eLearning and Regional Training Centres
- International harmonization projects
- Technical cooperation programme

RWM Networks



In response to growing demand from Member States for assistance with radioactive waste management, the Networks have been established to **increase efficiency in worldwide sharing and transfer of experience and knowledge leading to safe, economic and timely solutions** in this field.



RWM Networks

- Five Networks focused on the following areas:
 - **URF Network** on geological disposal
 - **DISPONET** on near-surface disposal of LLW
 - **LABONET** on characterization of LILW
 - **IDN** on decommissioning of nuclear facilities
 - **ENVIRONET** on environmental remediation of sites

RWM Networks



Training and demonstration activities providing **hands-on, user-oriented experience** and disseminating proven technologies.



Opportunity to compare approaches and discuss evolving concepts with peers in the field.

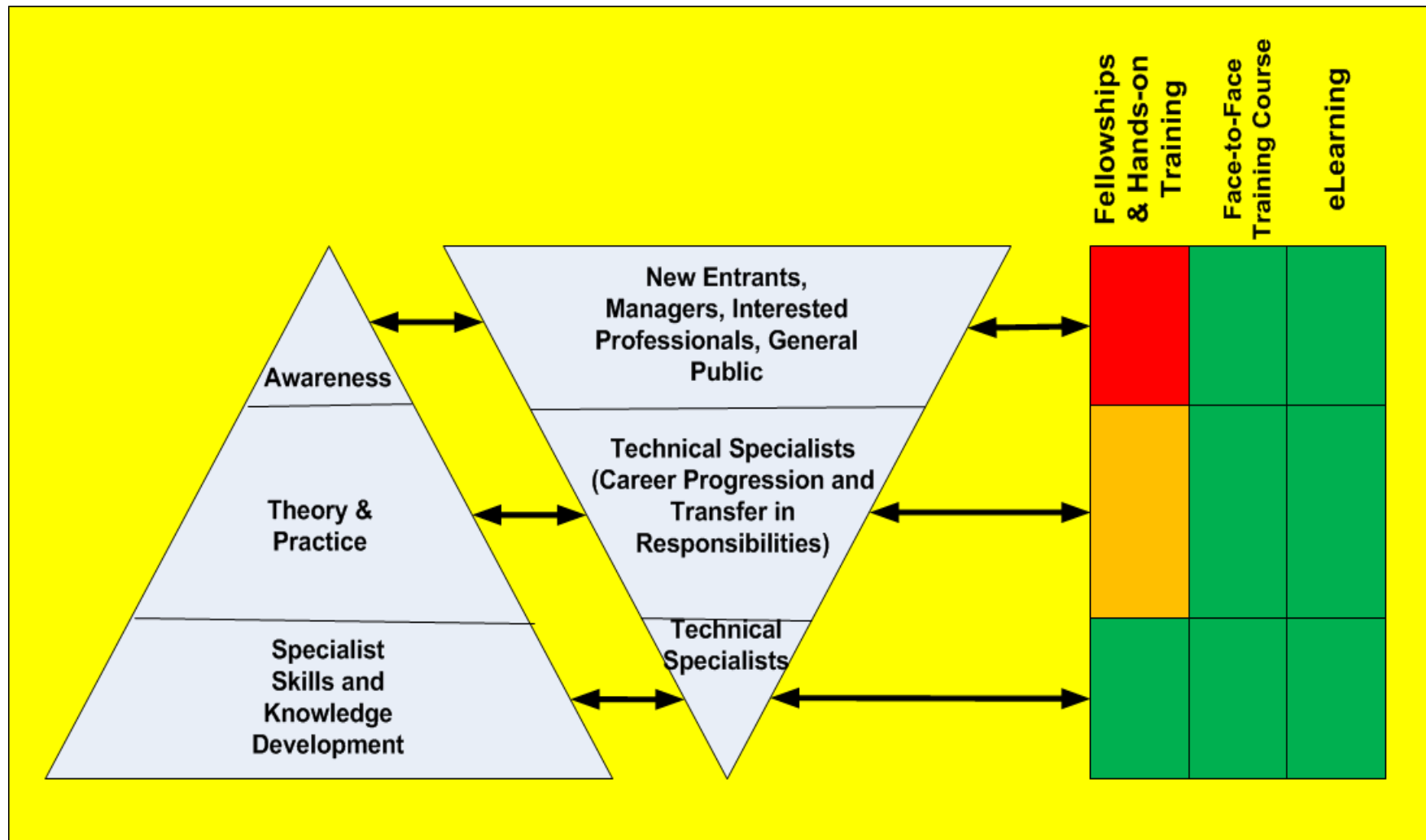


Access to potentially **lower-cost expertise** and testing facilities in **realistic work environments**.

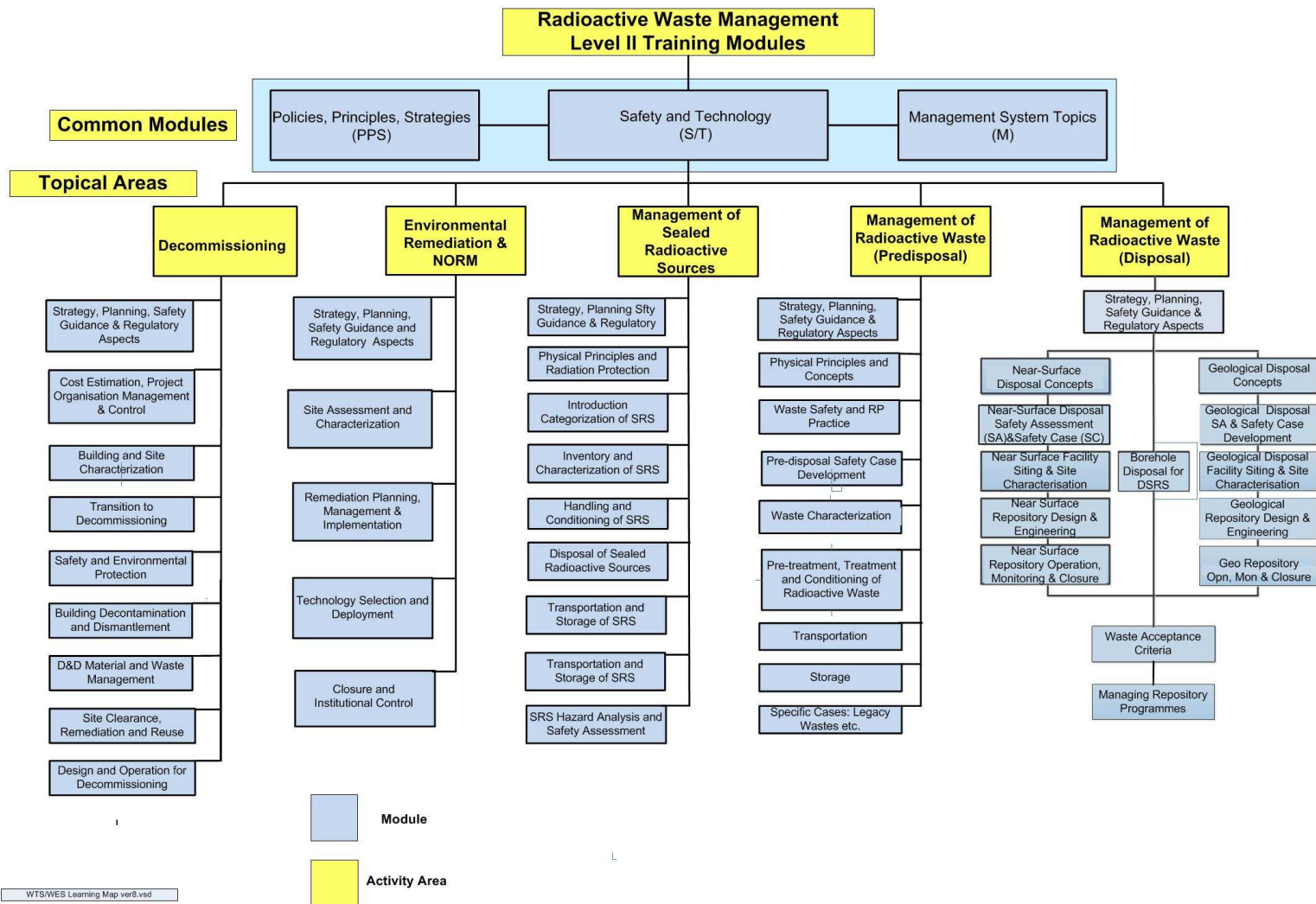


Enhanced recognition through international presence.

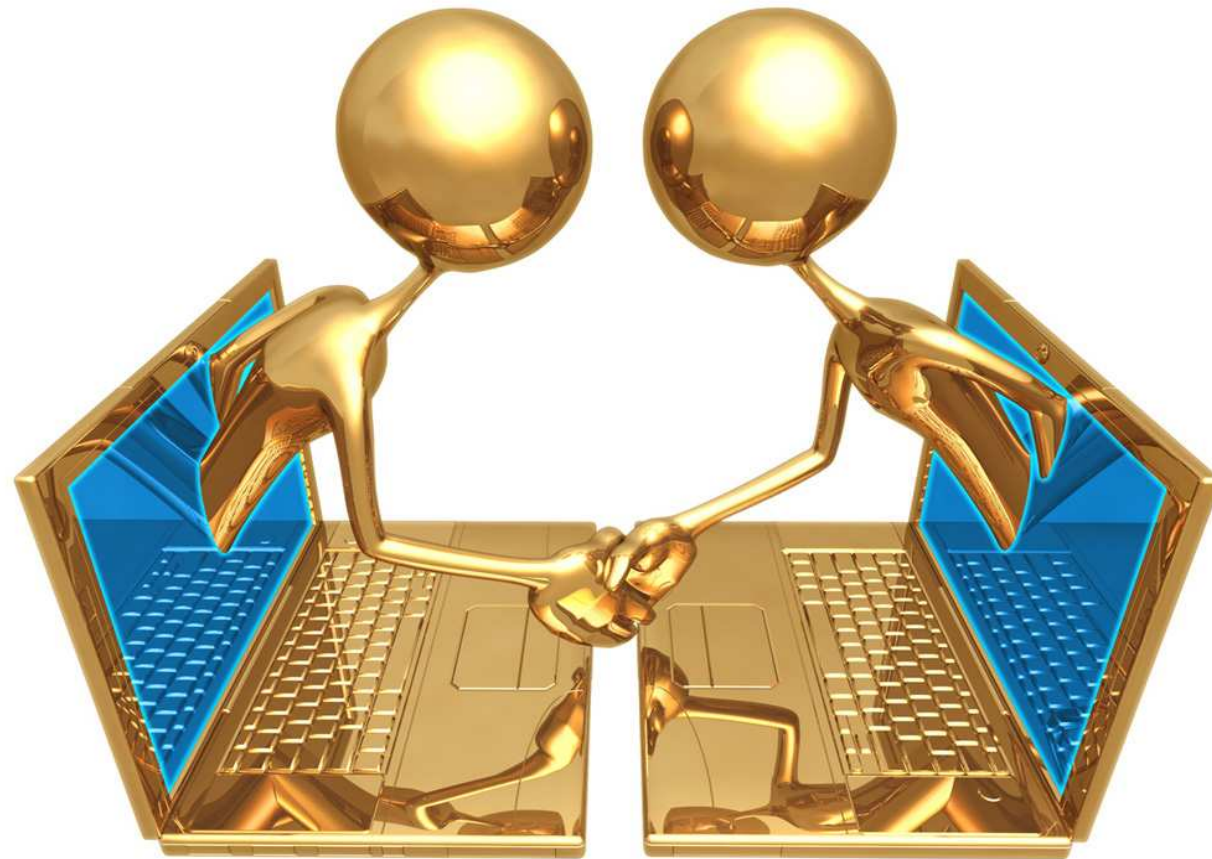
Training Levels, Audiences and Delivery for RWM



RWM Learning Map



Connecting the Network of Networks for Enhanced Communication and Training (CONNECT Platform)



CONNECT provides professionals in the IAEA's communities of practice (Networks) with access to **high-quality training materials** and a means to **share and collaborate on-line**.

CONNECT Platform

The screenshot shows the IAEA CONNECT website homepage. At the top, there is a blue header with the IAEA logo and the text "IAEA NUCLEUS" and "IAEA CONNECT". A search bar is located on the right side of the header. Below the header, there is a navigation menu with links for "Home", "ICT", "IDN", "NKM", and "URF". The main content area features a large image of the IAEA Headquarters in Vienna, Austria, with a caption "IAEA Headquarters in Vienna, Austria". To the right of the image, there is a text box with a link to add the site to browser bookmarks. Below this, there is a "News" section with a bullet point stating "The new CONNECT brochure is now available!" and a link to "Add new announcement". At the bottom, there is a "Networks" section with four icons and their corresponding descriptions: ICT (I&C Technologies), IDN (International Decommissioning Network), NKM (Nuclear Knowledge Management), and URF (Geological Disposal).

IAEA NUCLEUS

IAEA CONNECT

Search this site...

Home ICT IDN NKM URF

Welcome to IAEA CONNECT

For quick access to this site, [click here](#) to add it to your browser's bookmarks!

News

- The new CONNECT brochure is now available!

[Add new announcement](#)

IAEA Headquarters in Vienna, Austria

Welcome to IAEA CONNECT. The IAEA is the world's center of cooperation in the nuclear field. Since 2001, the IAEA has championed the concept and use of professional networks (Communities of Practice) to advance best practices in nuclear knowledge management, implementation of nuclear technology, radioactive waste management, decommissioning and environmental remediation across the globe. At the present time there are seven Networks sponsored by the IAEA and managed from within the Department of Nuclear Energy, with the support of the Technical Cooperation program and funding from the European Commission.

Networks

- ICT** I&C Technologies
Nuclear Instrumentation & Control Technology
- IDN** International Decommissioning Network
Decommissioning of Nuclear Facilities
- NKM** Nuclear Knowledge Management
Nuclear Knowledge Management
- URF** Geological Disposal
Underground Research Facilities for Geological Disposal

Kick-started by Sandia's donation of the basic platform, with strong internal and external (EC) support.

Eight IAEA Networks (~1000 MS professionals) have joined this initiative to revolutionize training and engagement of Member States.