

Update on relevant recent and future work and activities in OECD / Nuclear Energy Agency

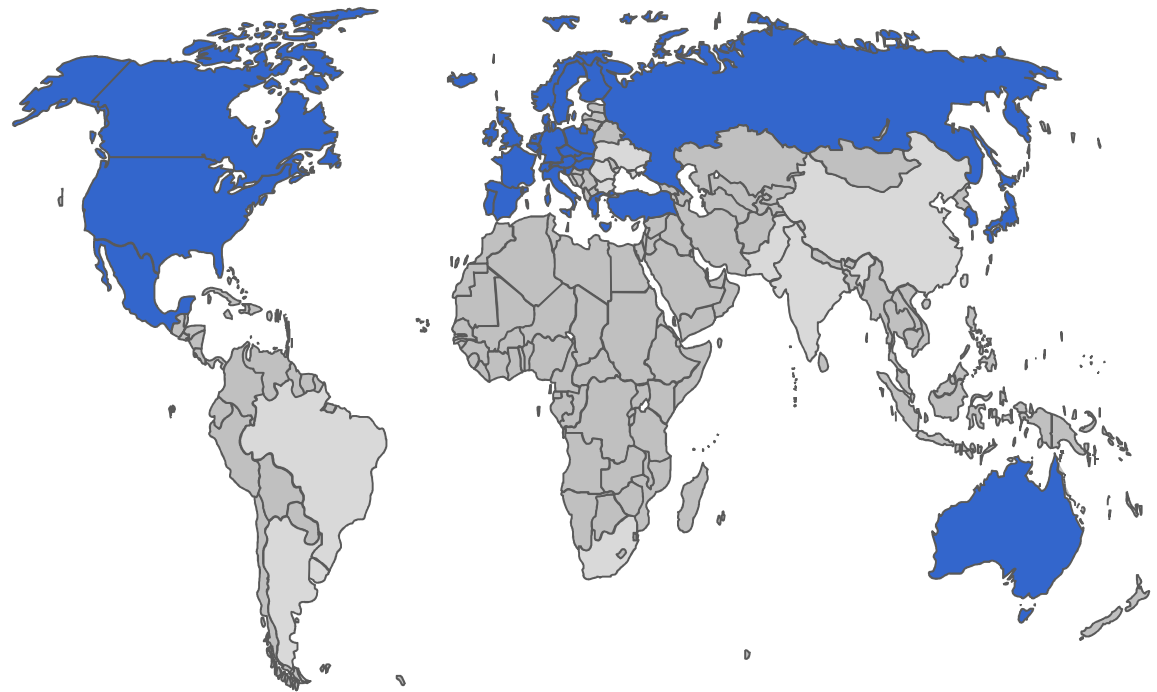
Michael Siemann
**Head of Division Radiation Protection
and Radioactive Waste Management**



Session 70; Panel: International Deep Repository Progress

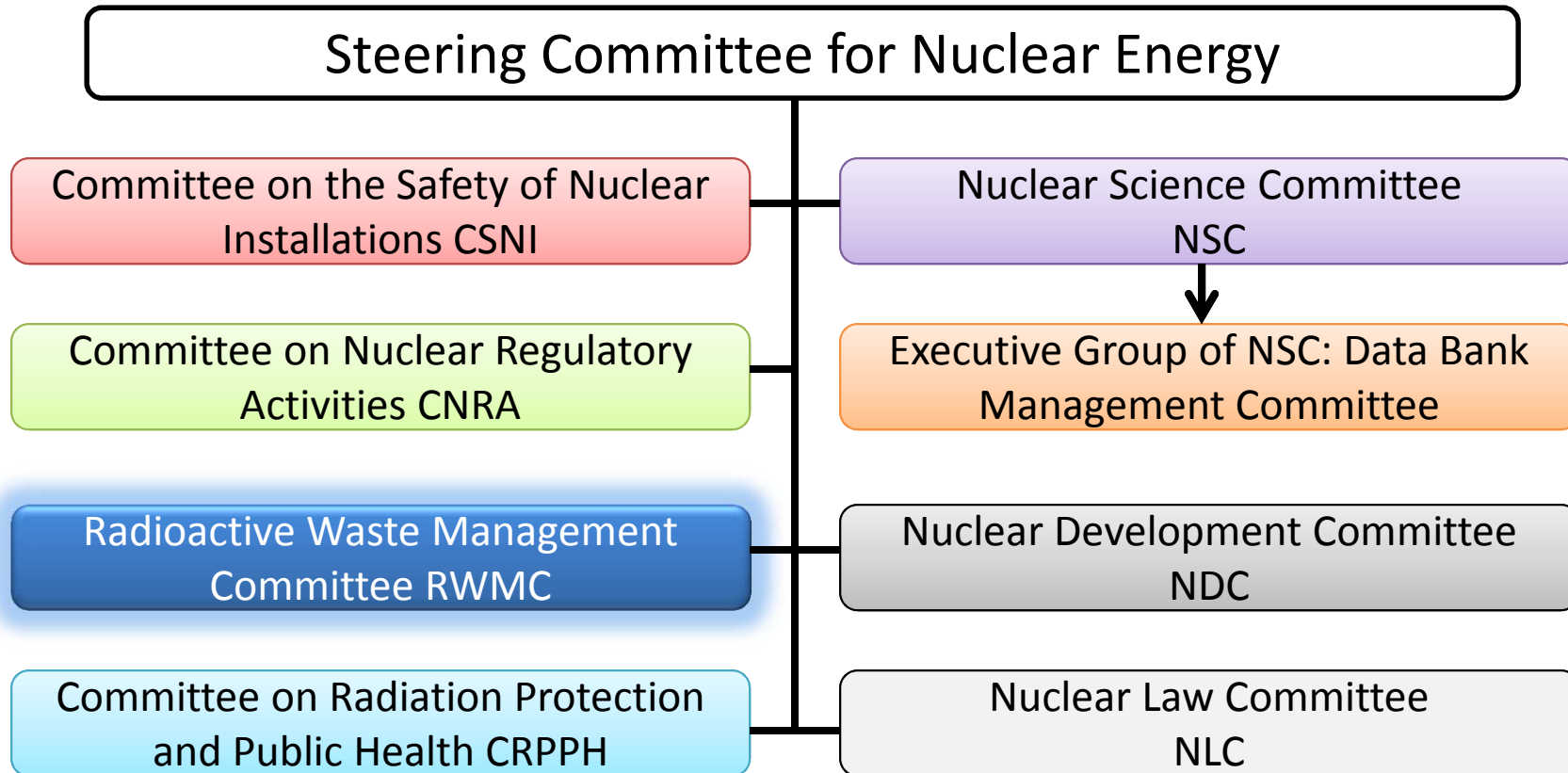
NEA member countries and mission

- To assist its member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes.
- To provide authoritative assessments and to forge common understandings on key issues as input to government decisions on nuclear energy policy and to broader OECD policy analyses in areas such as energy and sustainable development.



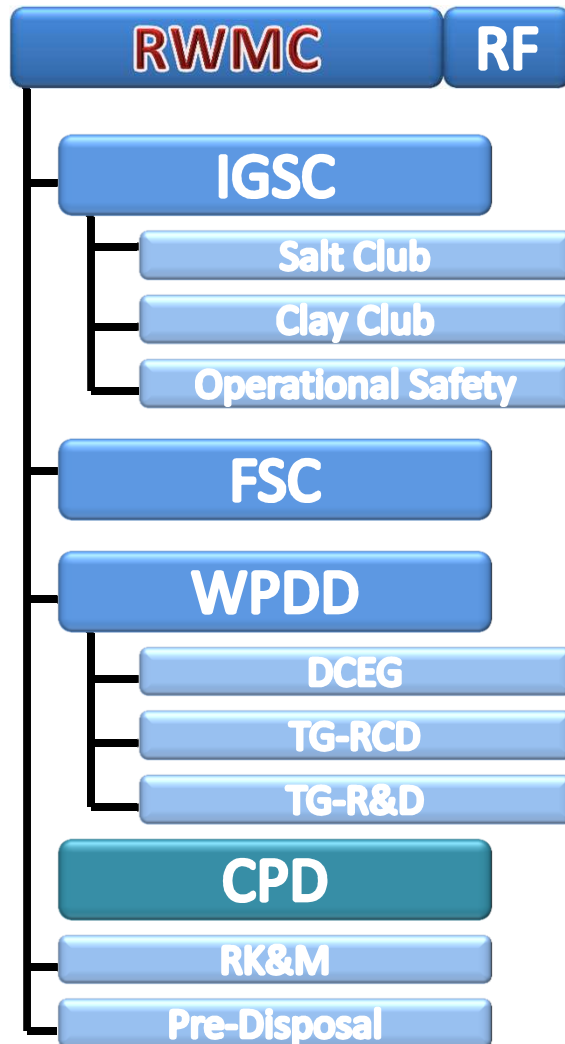
The NEA's current membership consists of 31 countries in Europe, North America and the Asia-Pacific region. Together they account for approximately 85% of the world's installed nuclear capacity.

NEA committee structure



Radioactive Waste Management Committee

ICGR 4 - National Commitment, local and regional involvement



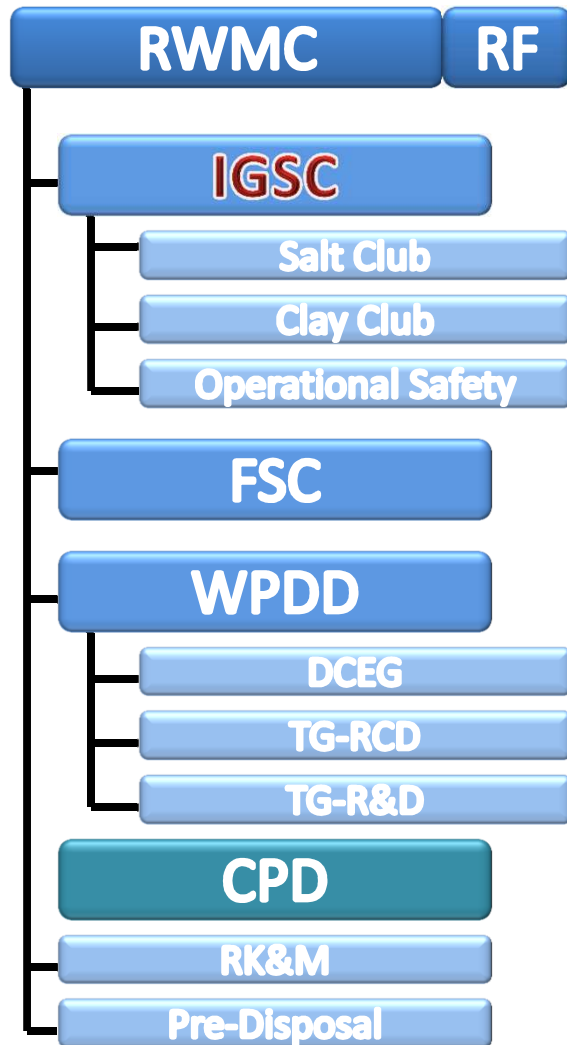
Key observations

1. Deep geological disposal of HAW and SF is accepted to be a safe and feasible solution
2. Strategies of "wait and see" or longtime storage are agreed to be unethical because this will just move the problem to the next generations
3. Separation and transmutation can reduce waste volumes and are thus seen as a possible way of optimisation, but disposal is still necessary
4. Some national programmes are reaching industrial implementation, others defining their policy or siting process or resetting the scene
5. National commitment factors are national policy, framework, programme and funding mechanism
6. Regional and local involvement factors are time for understanding each other and building bridges between different people with different interests

Conclusion: There is a huge diversity of approaches to realise this and no standard recipe can be given

Major challenges include profound cost estimation of geological disposal, operational safety conforming to nuclear and mining safety requirements as well as continuing R&D

Integration Group for the Safety Case



Mandate (2000)

Assist member countries to develop effective safety cases supported by robust scientific technical basis. Provide a platform for international dialogues between safety experts to address strategic and policy aspects of repository development.

Recent activity

International Symposium on “**The Safety Cases for Deep Geological Disposal of Radioactive Waste**”,
October 7 – 9, Paris, OECD CC

Session 2: International Activities

Session 3: National safety case presentations giving a view on all steps from building generic safety cases to those for license application for final repositories (UK, U.S., KOR, BEL, CH, F, SWE, FIN).

Session 4: Specific issues (invited presentations)

Session 5: Keynote lecture

Session 6: Technical Session (open, Deadline for abstracts March 1)

Session 7: Stakeholder issues and the safety case

The Salt Club



Mandate (approved April 2012)

Promote the exchange of information and shared approaches / methods to develop and document an understanding of salt formations as a host rock for a high-level radioactive waste repository.

Programme of Work (approved December 2013)

1. Natural analogues issue for rock salt
2. Create a FEP catalogue for a HLW repository in rock salt
3. Create a Salt Knowledge Archive
4. Create a Safety Case Archive
5. Concept for publishing common or co-authored papers on natural and anthropogenic analogues and on granular salt backfill
6. Investigate microbial activities in rock salt

Recent activities

1. Workshop on "Natural Analogues for Safety Cases of Repositories in Rock Salt", September 4-6, 2012, in Braunschweig
2. ABC Salt III: Actinide and Brine Chemistry in a Salt Repository Workshop, April 15 -17, 2013, in Santa Fe, NM
3. Next project meeting is scheduled for September 2013 (week 38) in Berlin (together with 4th U.S.-German workshop on Salt).

Expert Group on Operational Safety in Repositories



Motivation

There is an interest that developers of the safety case foster the development of a consensus on best practices, need for guidelines, harmonization or accepted differences among member states on operational safety in repositories

Fields of risk management:

1. Regulatory framework, in particular the nuclear regulation synergies and potential conflicts with conventional mining regulation
2. Risk assessment methodology, in particular performance objectives, design basis accidents definition in accordance with the defense in depth principle
3. Technical solution to manage the risks (ventilation, containment options during handling transfer, fire detection...),
4. Monitoring aspects

Risks

1. Fire
2. Explosion
3. Handling of waste
4. Co-activity (construction and nuclear operations)
5. Gaseous release (radioactive and non-radioactive).

Forum on Stakeholder Confidence



Motivation

The Forum on Stakeholder Confidence (FSC) facilitates the sharing of experience in addressing the societal dimension of radioactive waste management. It explores means of ensuring an effective dialogue with the public with a view to strengthening confidence in the decision-making processes.

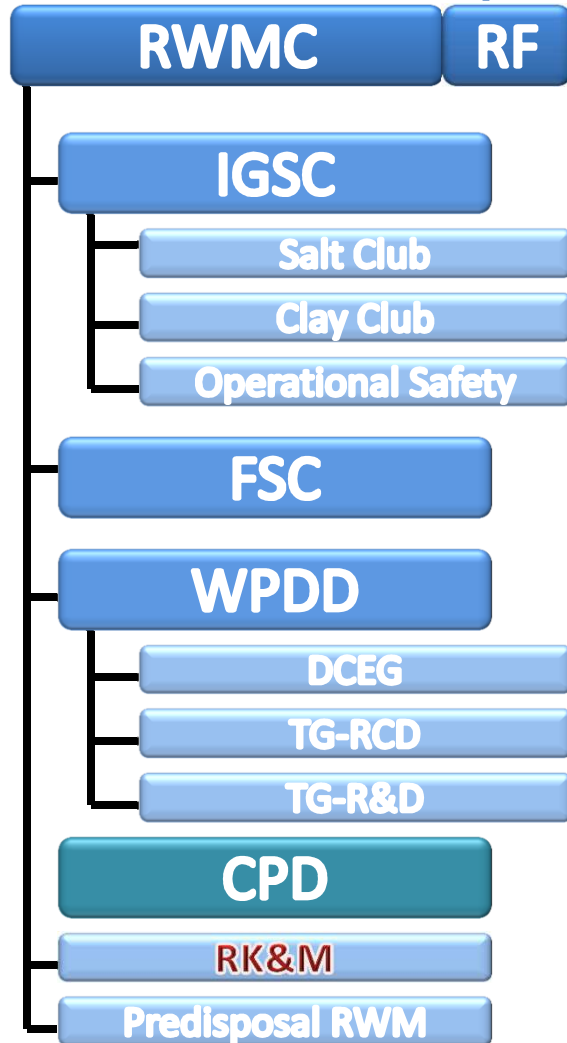
National Workshops and Community visits

The first workshop in a national context was held in Finland (2001). Since then, the list includes: Canada (2002), Belgium (2003), Germany (2004), Spain (2005), Hungary (2007), France (2009), Sweden (2011) and Czech Republic (2012).

Publications (Selection)

1. Partnering for Long-Term Management of Radioactive Waste
2. The Partnership Approach to Siting and Developing Radioactive Waste Management Facilities
3. Towards Transparent, Proportionate and Deliverable Regulation for Geological Disposal
4. Decision making for radioactive waste management: Principles, action goals, confidence factors
5. Stepwise approach to the long-term management of radioactive waste

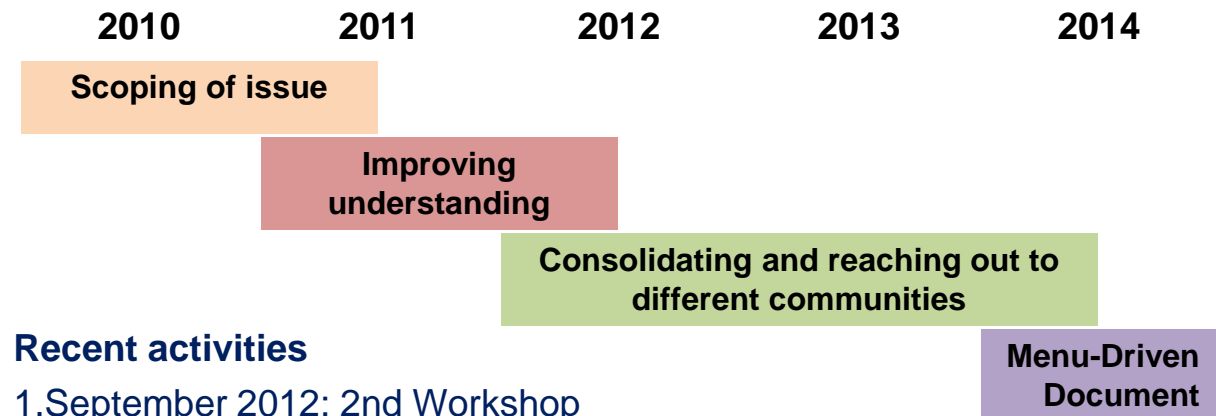
Preservation of Records, Knowledge and Memory (RK&M) Across Generations



Mandate

Develop Strategies and techniques how to preserve the records, knowledge and memory of DGR's. The RK&M project will work towards a 'Menu-driven document that will allow people to identify the elements of a strategic action plan for RK&M preservation'.

Programme of Work



Recent activities

1. September 2012: 2nd Workshop
2. April 2013 Project Meeting
3. Commissioned Studies:
 - e.g. The causes of memory loss; the use of supranational mechanisms; the intersection with monitoring.
4. Raising the profile of the project