Implementing Geological Disposal of Radioactive Waste Technology Platform (IGD-TP)

Strategic Research Agenda

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What is a Technology Platform (TP)?

“aims to bring together R&D-relevant stakeholders with various backgrounds who would develop a long-term R&D strategy in areas of interest to Europe”

“industry lead is important to gain commitment and momentum”.

WMOs endorsing the Vision and involved in SRA development
IGD-TP Vision work process (2008-2009)

• CARD (Co-ordination Action on Research, Development and Demonstration Priorities and Strategies for Geological Disposal, FP6 project) final workshop in 2008

• Vision Report draft was prepared and the draft consulted in 2009

• The Implementing Geological Disposal of Radioactive Waste Technology Platform (IGD-TP) was launched on November 12, 2009

• Published document available: http://www.igdtp.eu/
OUR SHARED VISION

Our vision is that by 2025, the first geological disposal facilities for spent fuel, high-level waste, and other long-lived radioactive waste will be operating safely in Europe.
Objectives of the IGD-TP

- Initiate and carry out collaborative actions in Europe to facilitate the stepwise implementation of safe, deep geological disposal of spent fuel, high-level waste, and other long-lived radioactive waste by solving the remaining scientific, technological and social challenges, and thereby to support the waste management programmes in the Member States.
- Enhance confidence in the solutions, to reduce overlapping work, to produce savings in total costs of Research, Development and Demonstration (RD&D) and implementation of geological disposal.
- Make better use of existing competences and research infrastructures.
IGD-TP’s organisation

Technology Platform Exchange Forum
Exchange of information, questions, discussion & advice.

All stakeholders in Europe endorsing the Vision
(e.g. waste management organisations, industry, research organisations, research centres, academia, technical safety organisations, non-governmental organisations, ...)

Executive Group & TP Secretariat

Working groups with specified mandates, e.g.
- Development of Strategic Research Agenda
- Co-ordination with EC Programme

Collaborative working projects and activities, e.g.
- Deployment: RD&D topic orientated projects
- Support functions: e.g. education and training and KM

Technology Platform Development & Implementation

Source: IGD-TP’s Vision Report
IGD-TP SRA work process (2010-2011)

- A FP7 support action project proposal for an IGD-TP Secretariat (SecIGD) was submitted in 2009
- An Interim Executive Group (IEG) was formed
- SRA working group formed comprising of WMO representatives
Systematic and structured approach to developing the SRA

Step 4: Prioritization of Topics within each Key Topic

Step 3: Identification of common RD&D needs

Step 5: Information & Consultation Process

Step 1: Compilation of RD&D issues important to implementers

Step 2: Classification of vision related RD&D issues

IGD-TP
Co-operation and technology transfer
Example of RD&D required by programmes striving for licensing before 2025
Systematic and structured approach to developing the SRA

Key topics:
- Safety case.
- Waste forms and their behaviour.
- Technical feasibility and long-term performance of repository components.
- Development strategy of the repository.
- Safety of construction and operations.
- Monitoring.
- Governance and Stakeholder involvement.
Prioritisation of topics within a key topic

The scope of each topic was developed with a standard structure:
- Definition
- Objectives
- Rationale and benefits
- Priorities
  • Importance
Cross-cutting and programme specific activities

Cross-cutting Activities
• Dialogue with the regulators;
• Competence maintenance, education and training;
• Knowledge management; and
• Communication and use of research results.

Waste management programme-specific activities
• Site characterisation issues;
• Transportation;
• Requirements management systems;
• Waste acceptance (quality assurance and safeguard issues);
• Industrial scheme; and
• Costing.
Summary and SRA use in Deployment

Summary:
• The SRA aims to set out some priority areas where
  – enhanced cooperation could support the vision;
  – practical achievements may be possible; and
  – programmes implementing both in ~2025 and much later will benefit.
• The SRA group is aware of many ongoing relevant activities and has tried to avoid giving priority to topics already well served by other forums
• The SRA will need continuing consideration and revision as programmes progress

Deployment:
• Pilot projects
Second phase of the Secretariat aimed at further deepening integration and coordination of the activities of the IGD-TP.

4 work packages planned for 2013-2015:

• Work Package 1 - Continue Secretariat management and coordination of IGD-TP activities (lead: ANDRA 2013-2014, NDA 2015);

• Work Package 2 - Support for networking, structuring and developing RD&D competences in countries with less advanced geological disposal programmes, including conference in Manchester in 2014, and workshop in 2015 (lead NDA);

• Work Package 3 - Support for the development, implementation and coordination of Competence Maintenance, Education and Training (CMET) (lead Posiva Oy);

• Work Package 4 - Project management and quality assurance of the SeclGD2 project (lead ANDRA).
Joining the IGD-TP

Implementing Geological Disposal Technology Platform

IGD-TP - How to join the platform

All stakeholders endorsing the vision of IGD-TP are welcome to participate in the platform and will be able to express their interest by sending in the application form.

Current participants

Members in the Executive Group are written in bold.