Objectives of the 4th Exchange Forum

The research leading to these results has received funding from the European Union’s European Atomic Energy Community’s (Euratom) Seventh Framework programme FP7 (2007-2013) under grant agreements n°249396, SecIGD, and n°323260, SecIGD2.

October 29-30th, 2013, Prague
Several EU Members are close to implementation of geological repositories

- shift towards demonstration i.e. operational issues, industrialisation, optimisation, etc. (RD&D)
- challenge for all interested parties

At the same time, numerous newcomer EU Members are at very early stages of development

- need to build their own expertise while maximizing the transfer of knowledge from more advanced programmes

Acknowledgement of the need to involve the public as early as possible, i.e. in the definition of R&D activities
Shift in R&D multilateral cooperation mode

- from national based projects to shared priorities, pooling of human and research resources as well as to reducing overlapping work

Increasing awareness of the need to continue RD&D well after licensing

- Evolving safety & regulatory concerns
- Expectation of state-of-the-art sciences and technologies use
- Optimization of repository, i.e. REX, test new devices or designs, ...
- Safety case / license updates
- Preparation of (partial) sealing and closure
High risk of a shortage, at European level and at short to medium timescales, of skilled human resource

- Not only for the waste management organizations but also authorities, research organizations, academia and supplier industries
- Probably one of the most acute challenges

2011/70/Euratom which fosters policy decisions and implementation

- National programmes
- Common understanding of the Directive’s requirements (e.g. passive safety)

IGDTP’s priorities (1)

- Strategic Research Agenda: shared RD&D priorities
  - RD&D priorities shared by “end-users” (i.e. the industry in charge of developing and implementing geological repositories)
  - With an important cooperative added value
  - Of benefit to all disposal programmes
  - Balance between fundamental science, implementation-driven R&D, safety case support and technological demonstration

→ Contribute to a sound, shared transparent scientific and technological basis for geological disposal
→ Should continue to be used as a basis for the Euratom programme
→ Open to new ideas and cross fertilization with other interested parties
Pooling of resources
- Joint activities (not limited to EC Euratom projects)
- Competence maintenance, education and training

Networking
- WMO’s, TSO’s, NMS’, SNETP, EESC ...

Synergies with other international forums

Knowledge mapping

Build trust amongst members

well established tool
The **aims** of this 4\textsuperscript{th} Exchange Forum are:

- Network
- Inform on new EC programme
- Bring forward new projects in a bottom-up approach in the framework of the deployment of activities described in the SRA/DP and beside these (WG)
- Identify new subject of collaboration related with SNETP future needs (WG)
- Identify subject of common interest with TSOs through SITEX (Sustainable network of Independent Technical EXpertise for radioactive waste Disposal) (WG)
- Develop way forward towards relationships between R&D and stakeholder involvement (in plenary)
### AGENDA - Plenary Session 1

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<td>R&amp;D programme to support Deep Geological Disposal Development in the Czech Republic</td>
<td>Jiri Slovak, RAWRA</td>
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<td>Key Note: SNETP Chair&lt;br&gt;Nuclear development and waste management from the SNETP perspective</td>
<td>Frantisek Pazdera, SNETP Chair</td>
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<td>Key Note: European Commission&lt;br&gt;News and Expectations for future disposal RD&amp;D programmes</td>
<td>Christophe Davies, EC DGRI</td>
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<td>Key Note: EESC&lt;br&gt;Perspectives on Public Participation and Civil Society Involvement</td>
<td>Brian Curtis, EESC</td>
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<td>InSOTEC: Scenarios for improving stakeholder involvement within the IGD-TP. Insights from InSOTEC</td>
<td>Meritxell Martell, Merience</td>
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<td>NEWLANCER: Steps towards a broader participation of the New Member States in EURATOM research</td>
<td>Daniela Diaconu, INR</td>
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Five parallel Working Groups (1)

WG1: “Cement“

✓ The aim is to determine the potential scope for future joint studies and/or experiments on cement materials interactions with other repository components
✓ Based on input from WMOs in relation to their needs
✓ Emphasis is on long-term performance rather than engineering aspects.
Five parallel Working Groups (2)

WG2: “Monitoring”

✓ Based on MoDeRn (Monitoring Developments for Safe Repository Operation and Staged Closure) project
✓ ➔ need of further development of in situ technologies to match specific repository requirements
✓ 4 major themes:
  1. Strategy aspects
  2. Technology development
  3. Practical implementation
  4. Communication & stakeholder involvement
Five parallel Working Groups (3)

**WG3: “New Waste Type” in collaboration with SNETP**

- Key to consider ASAP the waste issue when developing new R&D and technologies
- Expected changes in waste forms may have implications for geological disposal and needed R&D
- In line with IGD-TP’s vision, focus on changes expected in the coming two decades (e.g. higher burnups, change of cladding materials, use of fuel form other than UO2, increased separation and recycling, change in the reprocessing end-product, GenIII reactors...)
- This includes also the waste from R&D for advanced nuclear cycles
Five parallel Working Groups (4)

WG4: “RD&D needs from TSOs” in cooperation with SITEX

The aim of this Working Group (WG) is to present the TSO’s RD&D needs and discuss some of these priorities which may meet WMOs needs as expressed in the SRA and DP. This WG offers a forum that could foster, where possible, and considering the deontological issues linked with the respective role and missions of assessors and implementers, the identification of possible joint activities linked with the joint programming strategy to be developed in the EC framework of H2020.
WG5: “Microbiological Studies”

✓ Microbial processes have been investigated for up to two decades or more (mostly by WMO’s)
✓ Baseline microbial processes are the same
✓ Nevertheless, knowledge remains with individual WMOs
✓ ➔ The aim of this WG is to bring together the competence and knowledge on microbiological processes and form a long-lasting international community within which new results, projects and proposals can be shared and discussed.
<p>| Proposal for IGD-TP Knowledge Management Search Portal* | Juhani Palmu, Posiva |
| WP2 SecIGD2 RD&amp;D dissemination Working Group | Ray Kowe, NDA |
| The PLATENSO Project | Kjell Anderson, Karita (by Meri Martell) |
| SAFEROCK Project | Gunnar Buckau, JRC |
| How to improve EF organisation? | Jacques Delay IGD-TP |</p>
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<td>Conclusion and way forward for IGD-TP in 2013-2016</td>
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