

3rd Announcement for the IGD-TP's Eighth Exchange Forum

3rd and 4th December, BMWi, Berlin, Germany

We are delighted to announce that the IGD-TP's eighth Exchange Forum will be hosted by BMWi in Berlin this December and is open to all IGD-TP members and stakeholders (technical or not) interested in geological disposal of radioactive waste.

For eight years now the IGD-TP Executive Group, comprising European waste management organisations (WMOs) and organisations responsible for implementation-related RD&D programmes representing eleven different nations, have been meeting three times per year to progress joint radioactive waste management RD&D. During this timeframe the IGD-TP has implemented working groups which have discussed, initiated and, in many cases, now delivered technical projects aligned around our commonly-agreed priorities that are documented in our Strategic Research Agenda (SRA). To date, achievements of our platform include:

- Following up nine FP7 projects (totalling 61M€/28M€ EC) all of which have successfully completed and the majority of which have been debriefed back to the community via previous exchange fora (e.g. PEBS, MODERN, FIRST-NUCLIDES, REDUPP, BELBaR, DOPAS and LUCOEX);
- Led scope development and needs driven alignment of four Horizon 2020 projects in WP 2014-2015 (MODERN2020, CEBAMA, MIND and JOPRAD), totalling 21M€/15M€ EC funding;
- Led scope development and needs driven alignment of a further four Horizon 2020 projects in WP 2016-2017 (~16M€ EC funding), which started in June 2017 (THERAMIN, BEACON, DISCO and CHANCE).
- Contributed towards the scope development and needs driven alignment of many of the developing European Joint Programme Work packages, particularly GAS, CORI, HITEC, SFC, UMAN and ROUTES.

Forum Structure

The IGD-TP's eighth Exchange Forum (EF8) will be a two-day event, with a dual focus. The first day will be dedicated to the developing European Joint Programme on Radioactive Waste Management (EURAD). Representatives of the future EURAD Project Management Office (PMO) will lead sessions dedicated to:

- Presenting the R&D topics, strategic studies and knowledge management activities that

- comprise the initial scope of EURAD.
- Presenting the shared EURAD Strategic Research Agenda (SRA) and collaboratively identifying possible additional topic suggestions.
 - Brainstorming possible future projects/scope for a second wave of EURAD-1 (noting that the outputs of this brainstorming session would be sent to the future EURAD Governance Team for their consideration/use).
 - Updating the community on the expected EURATOM Call WP2019-2020.

The change to a Joint Programme approach for EC-funded research means that the IGD-TP Executive Group will now focus more intently on direct implementation-related opportunities for collaboration between members and their common research needs that sit outside of the scope of EURAD. Therefore, the IGD-TP Executive Group will lead sessions on the second day of EF8 that aim to:

- Communicate the changing needs and drivers for radioactive waste management research (in light of the complimentary and parallel EURAD project).
- Update IGD-TP members on the platform's activities during 2017 and 2018.
- Collectively explore collaborative opportunities for implementation-related research projects that are complementary, but separate to, the common areas of interest being addressed via EURAD. Initially, we will do this by discussing the current status, challenges and potential solutions in three specific technical topic areas (see below).

This Exchange Forum will therefore help to prepare for future collaborative implementation-related RD&D that is complimentary to EURAD activities and which can be progressed in parallel. The three technical topic areas that the Executive Group would like to focus on in dedicated break-out sessions at EF8 are:

Technical topic 1: "Technical issues in support of retrievability"

Retrievability is a regulatory requirement in a number of national programmes. This session will present the scientific and technical knowledgebase and seek to highlight potential issues associated with implementing retrievability. It will also seek to discuss and highlight any associated RD&D areas, including: the ability to model and monitor the evolution of waste packages and disposal vaults over operational timeframes; the technical provisions that can be included in the design to enhance retrievability; and potential retrieval techniques. Phenomenological processes that may need to be taken into account include temperature increase, desaturation/resaturation, gas accumulation, mechanical deformations, corrosion and radiolysis.

Technical topic 2: "Heat generating waste containers"

This technical topic will focus on reviewing the technology readiness and development of alternative, 'next generation' disposal container materials/designs. The aim will be for the session to help to support concept selection/development for earlier stage disposal programmes and also concept optimisation for the more advanced disposal programme concepts. We will seek to highlight the state-of-the-art in container materials and design, covering ceramic containers,

supercontainer concepts and alternative candidate container materials. The session will aim to develop areas of commonality in terms of future WMO RD&D needs.

Technical topic 3: “Advanced site characterisation techniques”

A geological disposal site characterisation programme will need to meet the information requirements of the design and disposal system safety assessments and also contribute towards the development of a site descriptive model. Typically, a site characterisation team will need to define the parameters to be measured to provide this information. This technical session will seek to address advanced site characterisation techniques. It will cover investigation and modelling of the biosphere and geosphere according to typical higher-strength rock and lower-strength sedimentary rock repository requirements. We will also address the process for site selection before and after advanced site characterisation, and site characterisation during construction and operation phases. The session will aim to develop areas of commonality in terms of future WMO RD&D needs.

At the end of day 1, the IGD-TP will host an evening poster session that aims to showcase cutting-edge radioactive waste management RD&D that aligns to the IGD-TP’s SRA. Exchange Forum participants are strongly encouraged to submit poster applications that are consistent with this goal.

Why you should attend

There are many reasons why you should attend including:

- Find out the latest information on the EURAD proposal and other EC calls.
- Explore the potential for future collaborative research with IGD-TP members.
- Informally discuss new issues and the current status of WMO programmes.
- See what is happening at the EU level.
- Discover emerging RD&D developments.
- Take advantage of great networking opportunities.

Draft Agenda

Time	Item	Lead
Monday 3rd December – EURAD Morning Session		
0830	Registration	
<i>Session Chair: IGD-TP Chair</i>		
0900	Opening Session Welcome, opening remarks and meeting objectives	IGD-TP Chair
0915	National policy in Germany	BMW i
<i>Session Chair: EURAD PMO</i>		
0930	European Joint Programme	EC Representative
0940	EURAD Overview and Organisation	EURAD PMO
1000	RD&D WP: Development and Improvement Of NUmberical methods and Tools for modelling coupled processes (DONUT)	DONUT Representative
1020	RD&D WP: Assessment of Chemical Evolution of ILW and HLW Disposal Cells (ACED)	ACED Representative
1040	RD&D WP: Mechanistic understanding of gas transport in clay materials (Gas)	Gas Representative
1100	Tea/coffee break	
1130	RD&D WP: Influence of temperature on clay-based material behaviour (HITEC)	HITEC Representative
1150	RD&D WP: Cement-Organics-Radionuclides-Interactions (CORI)	CORI Representative
1210	RD&D WP: Fundamental understanding of radionuclide retention (FUTuRE)	FUTuRE Representative
1230	RD&D WP: Spent Fuel Characterization and Evolution Until Disposal (SFC)	SFC Representative
1250	Lunch	
Monday 3rd December – EURAD Afternoon Session		
<i>Session Chair: EURAD PMO</i>		
1430	SS WP: Uncertainty Management multi-Actor Network (UMAN)	UMAN Representative
1450	SS WP: Waste management routes in Europe from cradle to grave (ROUTES)	ROUTES Representative
1510	Knowledge Management Activities	KM Representative(s)
1530	EURAD Strategic Research Agenda and discussion of possible future topics	EURAD PMO
1700	Close of the EURAD day	
Monday 3rd December – Evening Poster Session		
<i>Session Chair: IGD-TP Chair</i>		
1700-1900	IGD-TP Poster Session Showcasing cutting edge RD&D that aligns to the IGD-TP's Strategic Research Agenda	All

Tuesday 4 th December – IGD-TP Morning Session		
0830	Registration	
<i>Session Chair: IGD-TP Chair</i>		
0845	Opening Session Welcome, opening remarks and meeting objectives	IGD-TP Chair
0900	Vision for the IGD-TP Reflecting current needs, research drivers and changing approaches	IGD-TP Secretariat
0915	WMO areas of interest outside of the EURAD scope	IGD-TP Secretariat/Chair
Technical Break-out Sessions (see separate agenda)		
0930	1: Technical issues in support of retrievability Chair: Frédéric Plas (Andra) Rapporteur: Jean-Michel Hoorelbecke (Andra)	2: Heat generating waste containers Chair: Jon Martin (RWM) Rapporteur: Michelle Cowley (RWM)
		3: Advanced site characterisation techniques Chair: Irina Gaus (Nagra) Rapporteur: Assen Simeonov (SKB)
1300	Lunch	
Tuesday 4 th December – IGD-TP Afternoon Session		
<i>Session Chair: IGD-TP Chair</i>		
1430	Technical session report back – 1: Technical issues in support of retrievability	Jean-Michel Hoorelbecke (Andra)
1500	Technical session report back – 2: Heat generating waste containers	Michelle Cowley (RWM)
1530	Technical session report back – 3: Advanced site characterisation techniques	Assen Simeonov (SKB)
1600	Open discussion on possible future IGD-TP research and the way forward for the IGD-TP	Jon Martin (RWM) and Irina Gaus (Nagra)
1645	IGD-TP EF8 closing remarks	IGD-TP Chair and BMWi representative
1700	Meeting close	

Day 2 Technical Session Break-out Agendas

Technical Session 1: Technical issues in support of retrievability

Agenda tbd

Technical Session 2: Heat generating waste containers

Time	Item	Lead
0930	Introduction - Objectives	Michelle Cowley (RWM)

	<ul style="list-style-type: none"> - Recap on EF7 - Knowledge management 	
1000	Manufacture of thick ceramic components and associated welding challenges	Nathalie Texier – Mandoki (Andra)
1020	Discussion session	Jon Martin (RWM)
1050	Alternative coatings for disposal canisters	Nikitas Diomidis (Nagra)
1110	Tea/coffee break	
1130	Discussion session	Jon Martin (RWM)
1155	<i>TBC</i>	<i>TBC</i>
1215	Discussion session	Jon Martin (RWM)
1245	Wrap up, summary of key points and future actions	Jon Martin (RWM) and Michelle Cowley (RWM)
1300	Lunch	

Technical Session 3: Advanced site characterisation techniques

Time	Item	Lead
0930	Introduction	Irina Gaus (Nagra)
0940	“Setting the scene” <ul style="list-style-type: none"> - Advanced site characterisation in crystalline rock (initial and complete) - Investigation and modelling - Databases , QA - Process for site selection (before and after advanced site characterisation) - Site characterisation during construction and operation 	Assen Simeonov (SKB)
1010	Site characterisation in sedimentary/clay rock	Emilia Huret (Andra)
1030	Plans for site characterisation activities	Jonathan Turner (RWM)
1050	Site characterisation in an early-stage programme	Balint Nos (tbc) (Puram)
1110	Tea/coffee break	
1130	Discussion – focus on potential future cooperation	All /input from those organisations at early stage of site characterisation activities should be highlighted
1230	Wrap up, summary of key points and future actions	Irina Gaus (Nagra) and Assen Simeonov (SKB)
1300	Lunch	

Practical Information and Key Dates

Registration: Participation is free of charge, but registration of participants is mandatory. Registration is open via the IGD-TP website (www.igdtp.eu).

Venue: German Federal Ministry for Economic Affairs and Energy (BMWi), Invalidenstraße 48, 10115 Berlin (for directions see <https://www.bmwi.de/Navigation/EN/Ministry/Getting-to-the-Ministry/getting-to-the-ministry.html>)

Hotels: There are many hotel options in the proximity of BMWi's office, including the following possibilities:

- Mercure Hotel Berlin City (<https://www.accorhotels.com/gb/hotel-5341-mercure-hotel-berlin-city/index.shtml>)
- Hotel ibis Berlin Hauptbahnhof (<https://www.accorhotels.com/gb/hotel-8601-ibis-berlin-hauptbahnhof/index.shtml>)
- IntercityHotel Berlin Hauptbahnhof (<https://www.intercityhotel.com/en/hotels/all-hotels/germany/berlin/intercityhotel-berlin-hauptbahnhof>)
- Hotel Motel One Berlin Hauptbahnhof (<https://www.motel-one.com/en/hotels/berlin/hotel-berlin-hauptbahnhof/>)
- Hotel Augustinenhof (<https://www.hotel-augustinenhof.de/en/>)
- Hotel Grenzfall (<http://en.hotel-grenzfall.de/bernauer-strasse/>)

Key Dates:

11 July 2018 – First announcement

1 August 2018 – Registration opens

12 September 2018 – Second announcement

30 September 2018 – Poster abstract submission deadline

31 October 2018 – Registration deadline and draft agenda published

23 November 2018 – Final agenda published

3-4 December 2018 – Exchange Forum 8

Further information will be added to the IGD-TP website as it becomes available (www.igdtp.eu).
For any other questions please contact secretariat@igdtp.eu