

Agenda

IGD-TP's Eighth Exchange Forum

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

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 of waste packages can be provided to support operational safety, more particularly in accidental situations. Regardless of operational safety needs, it may also be a regulatory requirement in a number of national programs, potentially incorporating consideration of some aging. The session addresses scientific and technical knowledge and potential issues associated to the implementation of retrievability as well as relating RD&D axes. This includes the ability to model and monitor the evolution of waste packages and disposal rooms over time during operating period, the technical provisions that can be included in the design to enhance retrievability, the retrieval techniques. Phenomenological processes that may need to be taken into account include temperature increase, desaturation / saturation, gas accumulation, mechanical stress-strain, corrosion, 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: “Progress in site investigation and 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.

Time	Item	Lead
Monday 3rd December – EURAD Morning Session		
Room: A2.027 (Aula)		
0800	Arrival, Security and Registration	
<i>Session Chair: IGD-TP Chair (Jon Martin)</i>		
0900	Opening Session Welcome, opening remarks and meeting objectives	Jon Martin (RWM)
0915	National policy in Germany	Ursula Borak (BMW i)
<i>Session Chair: EURAD PMO (Marie Garcia)</i>		
0930	Euratom programme (2014-2018/2019-20) - Status	Christophe Davies (EC)
0940	EURAD Overview and Organisation	Marie Garcia (Andra)
1010	RD&D WP: Development and Improvement Of NUMerical methods and Tools for modelling coupled processes (DONUT)	Francis Claret (BRGM)
1030	RD&D WP: Assessment of Chemical Evolution of ILW and HLW Disposal Cells (ACED)	Alexandre Dauzeres (IRSN)
1050	RD&D WP: Mechanistic understanding of gas transport in clay materials (GAS)	Xavier Sillen (ONDRAF)
1110	Tea/coffee break	
1140	RD&D WP: Influence of temperature on clay-based material behaviour (HITEC)	Markus Olin (VTT)
1200	RD&D WP: Cement-Organics-Radionuclides- Interactions (CORI)	Marcus Altmaier (KIT)
1220	RD&D WP: Fundamental understanding of radionuclide retention (FUTuRE)	Dirk Bosbach (FZJ)
1240	RD&D WP: Spent Fuel Characterization and Evolution Until Disposal (SFC)	Joaquín Cobos (CIEMAT)
1300	Lunch	
Monday 3rd December – EURAD Afternoon Session		
<i>Session Chair: EURAD PMO (Marie Garcia)</i>		
1430	SS WP: Uncertainty Management multi-Actor Network (UMAN)	Frank Lemy (Bel V)
1450	SS WP: Waste management routes in Europe from cradle to grave (ROUTES)	Virginie Wasselin (IRSN)
1510	Knowledge Management Activities - State of Knowledge WP - Guidance WP - Training WP	Gunnar Buckau (Independent) Panja Feuker (BGE) Dalibor Mateju (SURAO) Christophe Bruggeman (SCK-CEN)
1550	Interaction with Civil Society	Linda Delory (NTW) Julien Dewogéhaëre (Mutadis)
1600	EURAD Strategic Research Agenda and its Future Development	Tara Beattie (MCM)

	<ul style="list-style-type: none"> - Development of the EURAD SRA and current status - WMO College (IGD-TP) - TSO College (SITEX) - RE College 	Rob Winsley (RWM) Elisabeth Salat (IRSN) Christophe Bruggeman (SCK-CEN)
1700	Close of the EURAD day	
Monday 3rd December – Evening Poster Session		Room: A2.027 (Aula)
<i>Session Chair: IGD-TP Chair (Jon Martin)</i>		
1700-1900	IGD-TP Poster Session Showcasing cutting edge RD&D that aligns to the IGD-TP's Strategic Research Agenda	All
1700-1800	IGD-TP WMO College Meeting	<i>Closed meeting</i>

Tuesday 4th December – IGD-TP Morning Session		Room: A2.027 (Aula)
0800	Arrival, Security and Registration	
<i>Session Chair: Incoming IGD-TP Chair (Irina Gaus)</i>		
0845	Opening Session Welcome, opening remarks and meeting objectives	Jon Martin (RWM)
0900	Planning for the IGD-TP's second decade Reflecting current needs, research drivers and changing approaches	Irina Gaus (Nagra)
0915	WMO areas of interest outside of the EURAD scope	Jon Martin (RWM)
<i>Technical Break-out Sessions (see separate agenda)</i>		
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: Progress in site investigation and characterisation techniques Chair: Irina Gaus (Nagra) Rapporteur: Bernd Frieg (Nagra)
1300	Lunch	
Tuesday 4th December – IGD-TP Afternoon Session		
<i>Session Chair: Current IGD-TP Chair (Jon Martin)</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: Progress in site investigation and characterisation techniques	Bernd Frieg (Nagra)
1600	Panel discussion: Linking WMO RD&D programmes in different stages with the IGD-TP	Irina Gaus (Nagra)
1645	IGD-TP EF8 closing remarks	Jon Martin (RWM)
1700	Meeting close	

Day 2 Technical Session Break-out Agendas

Technical Session 1: Technical issues in support of retrievability

Time	Item	Lead
0930	Introduction <ul style="list-style-type: none"> - Reversibility and retrievability concepts; scope of the session - General discussion 	Jean-Michel Hoorelbecke (Andra)
1000	Technical aspects of retrievability in national programs (BGE TEC, RWM, Andra and SKB) <ul style="list-style-type: none"> - Knowledge and experience on retrievability of SF/HLW waste packages - UK's approach to retrievability - Demonstrator of HLW disposal canister retrieval - Canister retrieval – status of work at SKB 	Phillip Herold (BGE) Neil Carr (RWM) Jean-Michel Hoorelbecke (Andra) Anni Fritzell (SKB)
1120	Tea/coffee break	
1140	Technical topics for discussion <ul style="list-style-type: none"> - Removal techniques of buffer, plugs, seals and backfill (bentonite clay based, cementitious based, other...) - Retrieval techniques of waste packages within disposal cell - Knowledge of the phenomenological state of disposal cells (monitoring, modelling, KM) - Management of contamination and/or activation products if any - Lessons that could be learned on technical aspects from dismantling nuclear facilities - ... 	Frédéric Plas (Andra)
1250	Wrap up and summary	Frédéric Plas (Andra) and Jean-Michel Hoorelbecke (Andra)
1300	Lunch	

Technical Session 2: Heat generating waste containers

Time	Item	Lead
0930	Introduction <ul style="list-style-type: none"> - Objectives - Recap on EF7 - Knowledge management 	Michelle Cowley (RWM)
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	Belgian Supercontainer concept	Xavier Sillen (ONDRAF)
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: Progress in site investigation and characterisation techniques

Time	Item	Lead
0930	Introduction	Irina Gaus (Nagra)
0940	Site characterisation in the Hungarian early-stage programme	Peter Molnar (Puram)
1000	Preparation for site characterisation in the UK: a needs-driven exercise	Rob McLaverty (RWM)
1020	Site characterisation in the final stage of selecting the site in sedimentary clay rock in Switzerland	Bernd Frieg (Nagra)
1040	Discussion Part 1– which questions to answer, and how to answer them.	All /Nagra
1110	Tea/coffee break	
1130	Site characterisation in the Swedish crystalline rock before and after submitting the construction licence.	Peter Wikberg (SKB)
1150	Site characterisation in the French sedimentary/clay rock programme, close to construction licence submission	Jacques Delay (Andra)
1210	Discussion Part 2– which questions to answer, and how to answer them. Focus on future steps.	All /Nagra
1240	Wrap up, summary of key points and proposed actions	Irina Gaus (Nagra) and Bernd Frieg (Nagra)
1300	Lunch	

Practical Information

Venue: German Federal Ministry for Economic Affairs and Energy (BMWi), Invalidenstraße 48, 10115 Berlin.

For directions please see <https://www.bmwi.de/Navigation/EN/Ministry/Getting-to-the-Ministry/getting-to-the-ministry.html>

Please note that sufficient time will need to be allowed to gain entrance to the building each day and appropriate identification is required. As it might slow the security checks down, it is recommended that attendees store their luggage at the hotel if they are staying close by.

Presentations and Posters: Where possible, presentations and posters given at Exchange Forum 8 will be added to the event website in early December 2018 (<https://igdtp.eu/event/igd-tp-exchange-forum-8/>).

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/>)

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