

ANNOUNCEMENT & CALL FOR PRESENTATIONS

IGD-TP 6th Exchange Forum

November 3-4, 2015

The Thistle Marble Arch hotel, London, UK

Proposal and/or ideas to be sent before **September 11, 2015**
to the Secretariat secretariat@igdtp.eu

In 2014, the IGD-TP has actively supported four internal technical and scientific working groups, which have led to four technical proposals submitted in the framework of the first H2020 call for proposals. Among these actions, 4 of them were successful.

Acknowledgement of the interest of subjects and the quality of proposals is a real encouragement for the teams that were involved in their preparation. The support from the European Commission will help to reach the objectives of the IGD-TP Vision Document.

Although the preparation of EC proposals has constituted the main activity of four Joint Activities, seven other activities helped to share knowledge and structure a common mind set across the European participants. In particular, the interaction with SNETP has been strengthened through the preparation of a common factsheet on nuclear developments and radioactive waste management and the organisation of a new working group at the last IGD-TP 5th Exchange Forum in Kalmar.

In 2015, in line with IGD-TP SRA priorities which have been reviewed by the IGD-TP Executive Group, the technical development of RD&D projects will continue.

Annually, the **IGD-TP Exchange Forum (EF)** gathers the geological disposal of radioactive waste community in order to i) informally exchange around common interests in RD&D, ii) highlight IGD-TP ongoing activities and EC projects, iii) initiate or deepen collaborations with other organisations, iv) explore new ideas that could complement the IGD-TP Strategic Research Agenda and v) prepare future activities and projects that may be developed in the framework of the EC Euratom work programme.

After the success of the last Exchange Forum held in Kalmar in 2014, the IGD-TP is now organising its **6th Exchange Forum on November 3-4, 2015 in London, UK**. EF6 will be organised around plenary sessions and parallel technical working group sessions.

This year, the IGD-TP intends to explore new domains of activities with:

- **The Radioprotection community which** proposes that the MELODI Association, as a well-advanced network, takes the lead in establishing the necessary structures able to manage the long-term European research programmes in radiation protection.
- **The Integration Group for the Safety Case (IGSC)** established in 2000 by NEA Radioactive Waste Management Committee (RWMC) to assist member countries to develop effective safety cases supported by robust scientific technical basis.

Specific key-notes speeches will be given in plenary session.

For this 6th edition, the EG has decided to review EC projects that were completed in 2014. These are PEBS, MODERN, FIRST-Nuclides and REDUPP projects. The aim is to present the outcomes and assess the achievements. A review will be carried out by an expert in the domain. Then, it will be presented how they have helped to reach the IGD-TP's vision.

Furthermore, the three technical project accepted by EC in the framework of the Horizon 2020, 2014-2015 Work programme *i.e.* MODERN 2020, CEBAMA and MIND will be presented.

In addition to the plenary session, four parallel technical sessions will be organised around four topics:

WG1: "Novel thermal treatments for waste"

Thermal treatments from the immobilisation of radioactive materials in a form suitable for geological disposal have been typically employed for the immobilisation of highly radioactive materials such as reprocessing liquors (i.e. High Level Waste, HLW). Progress is being made in some countries (e.g. in the US and, more recently, in the UK) to evaluate and deploy a variety of thermal treatment types to wastes traditionally treated through other routes (e.g. ILW sludges) or for which disposal concepts are not yet fully developed (e.g. plutonium residues). The application of thermal treatments to specific waste types has not only the potential to result in the production of highly stable wastefrom but also to achieve substantial reductions in volumes and chemical reactivity (for example for ILW with high organic content). This session will present key examples of thermal treatments being developed in the nuclear industry to achieve immobilisation of a variety of waste types and will provide a forum for information sharing and discussion.

WG2: "Bentonite homogenization"

The proposed project will address key technical issues related to bentonite mechanical time evolution and homogenization that must be tackled to support the implementation of planned geological disposal projects for higher-level radioactive wastes across the EU. The overall objective of the project is to evaluate the performance of an inhomogeneous bentonite barrier. This will be achieved by cooperation between design and engineering, science and performance assessment. The evolution from an installed engineered system to a fully functioning barrier will be assessed. This will require an increased understanding of material properties as well an increased understanding of the fundamental processes that leads to homogenization and improved capabilities for numerical modelling. The output will be a verification of the performance of current designs for buffers, backfills, seals and plugs and an improved handling of mass losses in long term assessments.

WG3: “Cement Organics Radionuclide Interactions”

Organic materials are present in nuclear waste repositories and potentially influence their functionality and performance. Especially in the context of low and intermediate level waste disposal, the amount and chemical diversity of organics will significantly increase relative to what is present as organic additives, e.g. superplasticizers, in the cementitious materials used in a repository. Highly alkaline conditions characteristic for cement based materials are expected to increase the potential impact of certain organics on repository performance. The TSWG CORI is currently discussing relevant issues in the context of Cement-Organics-Radionuclide-Interactions. As decided during the first meeting of CORI in March 2015 where 28 representatives from 4 WMOs and 16 research institutes participated, five topics are prioritized:

- Organics inventories in different countries. Identification of relevant organics in PA
- Degradation of organics => Result of hydrolysis and radiolysis
- Mobility of organics in cementitious environment and their interaction with Fe
- Mobility of organics-RN complexes in a cementitious environment
- Modelling, upscaling, TDB, application to PA

At the IGD-TP EF 6, the TSWG CORI will present the results and discussions on Cement-Organics-Radionuclide-Interactions, summarize the present state-of-knowledge and identify the most critical issues and data needs.

WG4: “Dissolution rate for spent fuels”

Within the Key Topic “Waste forms and their behaviour”, there is a need to improve understanding of modern fuel behaviour in realistic repository conditions. There is a current trend to change manufactured fuel characteristics in order to improve fuel performance. Experiments are needed to expand the data base to include fuels with dopants such as Cr, Al, and Si, and potentially also research reactor fuel. In addition, whatever groundwater type is expected to be present in a repository, it is required to properly address the interaction between the intruding water and the on-going canister corrosion which is expected to affect the real chemical environment inside a failed canister. Thus, having reached a certain consensus of expected standard fuel behaviour in truly reducing conditions, the idea is now to test the hypothesis that modern spent fuel, in a realistic chemical environment as envisaged inside a failed canister, will not deviate from the expected behaviour as determined from previous experiments. This session aims to bring together and discuss research ideas for further study in the area of dissolution of modern (doped) and non-standard fuel in a failed canister.

The Exchange Forum is open to all registered stakeholders (technical or not) interested in geological disposal of radioactive waste.

Exchange Forum participants are strongly encouraged to express their interest in participating to the Working Groups by proposing in their registration form subject of presentations, projects or ideas.

Registration & application form

In order to register and/or submit a presentation, please fill in this registration and application form for the 6th IGD-TP Exchange Forum and send it to the Secretariat at secretariat@igdtp.eu.

With this form, you must specify to the Secretariat:

- if you intend to participate to the 6th IGD-TP Exchange Forum ;
- the working group you are interested in participating in ;
- if you intend to submit a presentation/proposal or ideas;

Deadlines

Abstracts for the working groups presentations should be submitted **before September 11, 2015**.

Note that abstracts should be related to the scope of the working groups.

Registrations will be open until **September 30, 2015**.

For practical reasons the number of attendees to Working Group may be limited.

The formal invitation to the EF6 will be issued October 13, 2015 together with the final agenda.

We remind you that the participation is free of charge, but registration of participants is mandatory. A confirmation of your registration will be sent at the latest one month before the event.

Please note there is a large public event taking place on Friday November 5th in London. It would be wise to book your accommodation well in advance.

Information on the venue can be found at: The
Thistle Marble Arch hotel
http://www.thistle.com/en/hotels/united_kingdom/london/thistle_marble_arch

IGD-TP 6th Exchange Forum CALL FOR PRESENTATIONS & REGISTRATION

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Institution	<input type="text"/>	Country	<input type="text"/>
Position held	<input type="text"/>	Phone	<input type="text"/>
Email address	<input type="text"/>		

REGISTRATION

- Want to **register to the IGD-TP 6th EF** Registrations are opened until **September 30, 2015**

Select the **Working group(s)** I want to participate in (if several, indicate the order of priority)

- WG1 "Novel thermal treatments for waste"**
- WG2 "Bentonite homogenization"**
- WG3 "Cement Organics Radionuclide Interactions"**
- WG4 "Dissolution rate for spent fuels "**

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CALL FOR PRESENTATION

- Want to **submit a presentation** Call for presentations will close on **September 11, 2015.**

Title of presentation

Abstract

Related Working group: