



Issue #1, February 2016

JOPRAD Newsletter

Towards a Joint Programming on Radioactive Waste Disposal

JOPRAD aims to prepare the setting up of a Joint Programming on Radioactive Waste Disposal that would be established to coordinate at the European level, national research programmes and the associated research and development activities on geological disposal for high activity long lived radioactive waste.

JOPRAD is a Coordination and Support Actions co-funded by the European Commission under the Euratom Research and Training Programme on Nuclear Energy within the Horizon 2020 Framework Programme. It started in June 2015 and will last 30 months with an hold point at month 15 (Mid-Term Workshop).

JOPRAD NEWSletter aims to keep all interested parties informed on the JOPRAD activities

JOPRAD In Brief

The ultimate goal of JOPRAD is to prepare a proposal for the setting up of a "Joint Programming on Radioactive Waste Disposal". Such Joint Programming (JP) would bring together at the European level, those aspects of R&D activities implemented within national research programmes where synergy from Joint Programming is identified.

The aspects of R&D activities brought together concern **geological disposal of spent fuel and other high activity long lived radioactive waste, including waste management aspects linked with their disposal and accompanying key activities** (Education and Training, as well as Knowledge Management). Thus it is understood that the project will embrace all research-relevant issues and not be restricted to any particular sub-area.

The added-value of the project is that it enables "programme owners" and "programme managers" in the Member States to determine on a qualified basis to which extent the benefits from joining efforts in Joint Programming will outweigh potential drawbacks, and if Joint Programming is implemented it enables cross-European joint R&D carried by all key actors with all the benefits in effective use of resources, high-quality top R&D results, and in particular broad acceptance of the scientific-technical basis for implementing Geological Disposal.

At the highest level, "the programme owners" are the ministries in charge of the setting up of the national programmes. In this project, where it is considered the technical part of the research and development programme associated with the national programme, the "programme owners" and "programme managers" are nationally mandated actors of research ("mandated actors"). They are financing and operating R&D on radioactive waste management, including geological disposal, in their respective countries. There are three categories of key actors in this project: (i) Waste Management Organisations (WMOs), (ii) Technical Support Organisations ("TSOs"), and (iii) nationally funded Research Entities involved in the R&D of radioactive waste management, including geological disposal (Research Entities).



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This project has received funding from the Euratom research and training programme 2014-2018 under grant agreement n°653951

THE THREE STEPS OF JOPRAD

- Considering the central role of the governmental body to implement the Council Directive (2011/70/Euratom) in their respective countries, the first step of this project will be, in collaboration with the EC, to **engage in discussion with Member States representatives in order to clarify the organisation of their national R&D.**
- The second step will be to **identify existing (or developing) research programmes or research agendas** that could contribute to the identification of common scientific objectives and activities as well as specific aspects that the “mandated actors” would like to develop in the Joint Programme.
- The third step will be to draft the **joint “Programme Document”** that should be the technical background of the Joint Programming. The “Programme Document” will comprise programmes focused on key priorities of WMOs, TSOs, and of other public programmes led by Research Entities whose priorities according to a national context may not be oriented towards immediate implementation but of longer term perspective beyond 2025.



In order to prepare the implementation of this Joint Programming, a study will be carried out. The study will comprise of three aspects:

- ✓ evaluation of the potential commitment (finance and in-kind) in a JP of the mandated actors,
- ✓ guidelines for the governance of the JP. The governance should reflect expectations of different actors, while taking into account the expectations of the Civil Society; the governance should consider the challenges faced by the different actors as well as their level of commitment in the joint programme,
- ✓ legal scheme of the JP and especially: the legal status of all the organisations part of the JP, the commitments of the parties (in-kind and financial resources) and the legal binding documents to be prepared between on one hand the EC and on the other hand the participants (programmes owners and programme managers).

ANNOUNCEMENT JOPRAD Regional Meeting 3 – 4 February 2016

JOPRAD is organising a **Regional Meeting** on 3-4th February 2016 in Bucharest, Romania, in order to **inform on, engage and involve countries with less advanced geological disposal programmes (LAP) in the process of Joint Programming and its preparation within the JOPRAD project.**



In order for the LAP to get involve in the future Joint programming, the JOPRAD Regional Meeting will increase the awareness of decision makers concerning:

- General meaning of any future Joint Programming
- Possible means and methods for getting involved in JOPRAD, i.e. in the preparation phase for any future Joint Programming
- Means and methods for implementing Joint Programming as the outcome of JOPRAD
- Benefits of Joint Programming for meeting the Waste Directive requirements
- Eventually the meeting will help to stimulate national discussions in order to define Mandated Actors and the tasks assigned to them.

Target audience

New Members States governmental institutions; New Members States representatives from Waste Management Organisations, Technical Support Organisations and Research Entities; Civil Society representatives; nuclear fission community; platforms dealing with education and training

Practical information

Meeting venue: Marshal Garden Hotel, Bucharest,
Registration: Send the registration form to:
JOPRAD_Regional_meeting@joprad.eu
Further information on www.joprad.eu

Focus on Work Package 3 – Basis for the Joint Programme

The Work Package 3 of JOPRAD consists of identifying the key aspects (R&D topics and horizontal activities) that could be included in a future Joint Programming. Several activities are ongoing within this work package. First, three Working Groups have been created to discuss the key R&D topics:

- ✓ The Waste Management Organisations' Working Group (WMO WG)
- ✓ The Technical Support Organisations' Working Group (TSO WG)
- ✓ The Research Entities' Working Group (RE WG)
- ✓ A Working Group is also working on developing a programme on horizontal activities (e.g. education & training, guidance, dissemination, strategic studies, transfer of knowledge etc.)

Work Package 3 activities also consist of :

- ✓ Preparing the mechanisms for interacting with Civil Society
- ✓ Setting the boundary conditions that should be met for allowing a Joint Programming



Task 3.1 - WMO Working Group

The WMO WG represents the views of mandated actors responsible for R&D programming, planning and implementation of geological disposal at national level. The objectives of this WG are to **identify areas of R&D suitable for Joint Programming and investigate priority and urgency of each topic**. Then it will draw up a **timescale** for implementation of these potential topics and will liaise with other working groups (TSOs and Research Entities) and amalgamate potential projects together.

One first activity consisted to issue a questionnaire to elicit views of the European WMOs on the priority and urgency of the [IGD-TP](#) Strategic Research Agenda (SRA) topics and additional topics to be progressed for consideration for JP. A WMO WG meeting was organised in September 2015 in Ecurey, France to summarize the first inputs from the questionnaires and to ascertain more detail about each possible topic. Next WMO WG meeting was held in January 2016 to pursue the discussions.

Task 3.2 - TSO Working Group

The TSO WG started the discussions to identify the nature and the key aspects of the R&D needs and activities identified in [SITEX](#) that could be shared in the framework of a Joint Programme. The WG will:

- ✓ identify what would be the **added value of a JP** from a TSO perspective;
- ✓ identify the **boundary conditions** for JP from a TSO perspective;
- ✓ define, from a TSO perspective, the **level of independency** between the different actors which is required for the different types of research needs and activities identified in the SRA;
- ✓ identify **key aspects of SITEX's SRA that could be shared** in the framework of a JP and those that should remain independent from the other parties;
- ✓ identify the **timeframes** associated with potentially shared R&D priorities;
- ✓ **determine whether sufficient areas of interest and interested parties** to contribute to the "Programme Document" in Work Package 4 can be identified.

Task 3.3 - Research Entities Working Group

The goal of research entities (RE) in a future JP is to **develop an integrated fundamental scientific understanding for all concepts related to safe and environmentally sound disposal of long lived intermediate and high radioactive waste & spent nuclear fuel in repositories within Europe**. 23 European research organisations from 12 countries participated in the discussion on the creation of a prioritized strategic research agenda for discussion for a joint approach with WMO and TSO. The SRA includes a guiding long-term vision and the associated research roadmap. The vision of RE is that scientific understanding of safety relevant issues must remain credible, verifiable, shared by large scientific communities, open to civil society stakeholders at any given time in the hundred year lasting process from repository planning to construction, operation, monitoring and closure of the repository. Elements of the research roadmap are safety case related issues, cross-cutting scientific issues: well and ill defined, upscaling, systems couplings, validation strategies, disposal relevant waste management, waste forms: behavior and characterization, source terms, EBS, near field / farfield / biosphere, Monitoring, Social sciences.

Task 3.4 – Working Group developing a programme on horizontal activities

The Task 3.4 will make a proposal for a programme on cross-cutting/horizontal activities, i.e. those that are of concerns to all actors involved in R&D for radioactive waste management/geological disposal, but that are not directly R&D. Complementary to the R&D Strategic Research Agendas developed by the WMOs, TSOs, and Research Entities, the programme on horizontal activities will establish and implement an Integrated Knowledge Management System enabling present and future disposal programmes to benefit from the Knowledge generated through past, ongoing and future programmes and activities. The system would consist of: State-of-Knowledge handbook, Education, Training, Guidance, Strategic Studies, Mechanisms for Transfer of Knowledge, and Dissemination.

Task 3.5 - Preparing the mechanisms for interacting with Civil Society

The objective of Task 3.5 of the JOPRAD project is to interact with a group of Civil Society in order to assess the Joint Programming proposal and to determine the conditions and means for involving CS in the future, in the perspective opened by the Aarhus Convention. The work is divided in two sub-tasks:

- Establish the expectations and views of Civil Society regarding the conditions and means for setting a JP and regarding its potential involvement in the governance of the JP,
- Identify key research areas that Civil Society would like to see included into the research programmes.

Task 3.6 - Setting the boundary conditions for allowing a Joint Programming

The Task 3.6 aims at setting the conditions that should be met for allowing the construction and management of a joint scientific programme.

This will balance the interests of the parties involved in the research associated with radioactive waste management, fostering cooperation and coordination but without any prejudice of independency required between implementers, TSOs and public.

This task will also evaluate these conditions taking into account the constraints linked with the potential legal frameworks.



JOPRAD Coordination Meeting n°2, September 2015 in Ecurey, France



Visit of the Bure Underground Research Laboratory, September 2015