



Radioactive Waste Management

BEACON Kick-off / WP2 Meeting

19th – 20th June 2017

Lithuanian Energy Institute, Kaunas

Introduction to the BEACON project: Objectives & Planned Activities in WP2



This project has received funding from the Euratom research and training programme 2014-2018 under grant agreement No 745942



WP2 Collection and Compilation of Existing Data and Available Models

A substantial database of knowledge on issues potentially relevant to bentonite mechanical evolution is available from earlier and ongoing laboratory and Underground Research Laboratory (URL) experiments, complemented in some cases by modelling studies.

However, many such experiments / studies were not primarily focussed of the mechanical evolution of repository bentonite barrier material, and therefore a large part of the existing database needs to be re-evaluated to extract important information directly relevant to bentonite mechanical evolution, to compile the qualitative and quantitative observations and to develop the conceptual understanding.

This will be done as a joint effort between WMOs, experimentalists and modellers, all with previous experience in the field, in this BEACON work package.

WP2 Collection and Compilation of Existing Data and Available Models

The key objective of BEACON WP2 is therefore to collect such relevant information as produced from past and ongoing projects that provide knowledge relevant to understanding bentonite mechanical evolution in a repository context, and to process it to a level where it can be useful as input to the other BEACON work packages.

WP2 Collection and Compilation of Existing Data and Available Models

Tasks in WP2:

Task 2.1 Workshop to present and discuss relevant national and international extant information relating to bentonite mechanical evolution. (M1)

Task 2.2 Identification of relevant data/models, improvement of understanding of main processes associated to bentonite component evolution taking into account possible heterogeneities.

This will act as a source of information on which to base subsequent project WP3 and WP5 activities. The task will generate a report, D2.1. (M1-M6)

Task 2.3 Identification of captured knowledge (M6-M46)

WP2 Collection and Compilation of Existing Data and Available Models

Deliverables

D2.1 (Month 1): Workshop to present and discuss relevant national and international extant information relating to bentonite mechanical evolution.

D2.2 (Month 6): Report on identification of relevant data/models, improvement of understanding of main processes associated to bentonite component evolution taking into account possible heterogeneities. (Contributions from all WP2 participants, edited by Quintessa)

This will act as a source of information on which to base subsequent project WP3 and WP5 activities.

D2.3 (Month 46): Report on captured knowledge bentonite mechanical evolution gained over the duration of the BEACON project. (Contributions from all WP2 participants, edited by Quintessa).

WP2 Collection and Compilation of Existing Data and Available Models

For D2.2, to be available by **Month 6 in final form:**

- Input will be via completion of templates (already circulated to you)
- The aim is that these can be readily collated by Quintessa, in an editorial role, into two reports that collate data and understanding at Month 6 (for use by WPs 3 and 5 in particular as the project proceeds), and towards project end (as a mechanism of recording new understanding derived on the basis of work undertaken in the project)

WP2 Collection and Compilation of Existing Data and Available Models

For D2.2, to be available by **Month 6 in final form:**

- One of the primary objectives of the current workshop is the presentation and discussion of relevant extant information that is available from national and international projects relating to bentonite mechanical evolution.
- The workshop will therefore form an effective training mechanism to ensure transfer of knowledge and collaboration between the project participants and furthermore transfer of knowledge outside the project to the wider scientific community.

WP2 Collection and Compilation of Existing Data and Available Models

For D2.2, to be available by **Month 6 in final form:**

- Timescale is tight but necessary, given that this WP2 deliverable will be a key input to WP3 and WP5 work; a delay in WP2 delivery D2.2 is therefore intolerable, as it will detrimentally impact other aspects of the project.
- A funded participant cannot pick and choose which report they contribute to; input to both reports is required.
- Input from other organisations, including those not participating directly in BEACON, is highly desirable – hopefully we will receive the benefit of others' knowledge at the project outset.

WP2 Collection and Compilation of Existing Data and Available Models

Work package number	2		Lead beneficiary				RWM		
Work package title	Collection and compilation of existing data and available models								
Participant number	1	2	3	4	5	6	7	9	
Short name of participant	SKB	SURAO	Posiva	ANDRA	NAGRA	ENRESA	RWM	UPC	
Person months per participant:	3	1	1	2.3	1	0	2.6	3	
Participant number	10	11	12	13	14	15	16	17	
Short name of participant	GRS	CTU	CU	CEA	VTT	ULg	BGR	KITINE	
Person months per participant:	1.5	7.5	1.9	5.13	2	2	1.75	1.9	
Participant number	18	19	20	21	22	23	24	25	
Short name of participant	LEI	CIEMAT	CT	EPFL	ICL	Quintessa	NERC(BGS)	JYU	
Person months per participant:	0	5.4	1.5	2	2	6.2	1.6	1	
Start month	1			End month	48				

WP2 Collection and Compilation of Existing Data and Available Models

For D2.2, to be available by **Month 6 in final form:**

- To facilitate report being finished by Month 6, and noting Quintessa needs time to compile the templates into a coherent whole document, **suggest ALL templates are completed and with Quintessa by Month 2 (July 2017) at the very latest.**
- Template sections
 - Main objectives of the experiment or modelling study
 - General description
 - Main learning points concerning bentonite homogenization / mechanical evolution and relevance for the project
 - How could this work inform a new experimental or modelling study in BEACON?
 - Recommendations for BEACON project



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