

**Monday 19 June 2017**

- 8:15-10:00 Coffee and registration
- 09:00-09:40 Beacon Kick off: Beacon partners, EARB and WP6-involved only
- 10:00-10:25 Workshop starts**
- 10:00-10:05 Welcome to the workshop and practicalities Mary Westermark
- 10:05-10:10 Welcome to LEI Mr. Sigitas Rimkevicius
- 10:10-10:25 EC information Athanasios Petridis
- 10:25-11:45 Introduction to the Beacon project:** background, objectives planned activities
- 10:25-10:35 WP2 – Collection and compilation of existing data and available models Simon Norris
- 10:35-10:45 WP1 – Definition of assessment case/Application to the assessment cases Olivier Leupin
- 10:45-10:55 WP3 – Model development Antonio Gens
- 10:55-11:05 WP4 – Laboratory testing Klaus Wieczorek
- 11:05-11:25 **Coffee**
- 11:25-11:35 WP5 – Testing, verification and validation of models Jean Talandier
- 11:35-11:45 WP6 – Civil society interaction Johan Swahn
- 11:45-12:45 Invited talks**
- 11:45-12:15 Invited speaker/Background Beacon Antonio Gens, UPC
- 12:15-12:45 Invited speaker - Considerations on the significance of the pre-hydration state on the long-term safety functions of bentonite from the implementer's perspective Paul Marschall, Nagra
- 12:45-14:00 **Lunch**
- 14:00-16:20 Plenary presentations** (each 15 min + questions)
- 14:00-14:20 EB - Engineered Barrier Emplacement Experiment Antonio Gens, UPC for ENRESA
- 14:20-14:40 Homogenisation of bentonite- Laboratory test results Ann Dueck, Clay Technology
- 14:40-15:00 Research activities at RWMC on the bentonite re-saturation process – (3) A box-type cell experiment to evaluate buffer material homogenization during the process of saturation Ichizo Kobayashi, Kajima RWMC

**Mechanical properties of bentonite barriers**

15:00-15:20 **Coffee**

15:20-15:40 Some insights on the swelling pressure development of compacted bentonite upon wetting and its long term evolution Olivier Cuisinier,  
Un. de Lorraine

15:40-16:00 Homogenisation of laboratory scale plugs: development of porewater pressure and stress Jon Harrington,  
BGS

16:00-16:20 Swelling pressure acting to the constraining material with slight deformability Yasutaka  
Watanabe, Criepi

**16:20-17:30 Poster introductions** (3 slides each: title and two describing, white background)

**17:30-20:00 Extensive poster session** (finger food/buffet served)

**POSTERS**

HYDRAULIC EVOLUTION OF THE LONG-TERM IN-SITU TEST AT THE GRIMSEL TEST SITE AND SUPPORTING EXPERIMENTS	Rinderknecht (KIT INE)
THE APPROACHES FOR SIMULATION OF PROCESSES IN THE ENGINEERED BARRIERS OF THE RADIOACTIVE WASTE REPOSITORY	Balvin et al (Technical University of Liberec)
SWELLING PROPERTIES OF MX-80 BENTONITE MATERIALS	Bernachy-Barbe et al (CEA)
DENSITY REDISTRIBUTION IN COMPACTED BENTONITE EXPOSED TO EXTERNAL WATER PRESSURE DIFFERENCE	Birgersson (Clay Technology)
LARGE SCALE GAS INJECTION TEST (LASGIT): HYDRATION AND HYDRAULIC TESTING	Harrington (BGS/SKB)
THE CZECH CONSORTIUM'S PLAN FOR THE BEACON PROJECT	Hausmannova (SÚRAO)
RESEARCH ACTIVITIES AT RWMC ON THE BENTONITE RE-SATURATION PROCESS (1) OVERVIEW	Ishii (RWMC)
RESEACH ACTIVITIES AT RWMC ON THE BENTONITE RE-SATURATION PROCESS (2) LABORATORY AND NUMERICAL EVALUATION	Ito, Tachibana (Kobe University/ RWMC)
PROTOTYPE REPOSITORY – MASS REDISTRIBUTION IN THE BUFFER AND THE TUNNEL BACKFILL	Johannesson et al (SKB)
SWELLING PRESSURE AND HYDRAULIC CONDUCTIVITY - INFLUENCE OF SALINE SOLUTIONS	Karland (Clay Technology)
BLOCK-PELLET HOMOGENIZATION IN KBS-3V BUFFER – LABORATORY SCALE TEST	Lavikainen et al (Posiva)
BUFFER AND BACKFILL INTERACTION	Luterkort et al (SKB)
ROCK STRESS- AND TIME-DEPENDENCY IN OVERPACK DISPLACEMENT AND BENTONITE PRESSURE BY CENTRIFUGE PHYSICAL MODELLING TEST IN PREDICTING FUTURE OF NEAR-FIELD	Nishimoto (Criepi)



**Mechanical properties of bentonite barriers**

LEI - STATUS OF WASTE MANAGEMENT IN LITHUANIA, ONGOING WORK AND WORK PLANNED IN BEACON	Poskas, Justinavicius (LEI)
HETEROGENEOUS DRY DENSITY OF GRANULATED BENTONITE MIXTURES EMPLACED BY SCREW FEEDERS: A DIRECT MEASUREMENT USING A DIELECTRIC METHOD	Sakaki/LEUPIN (Nagra)
HANDLING OF THE MECHANICAL EVOLUTION OF THE BENTONITE BUFFER IN THE SR-SITE SAFETY ASSESSMENT	Sellin (SKB)
MOCK-UP-CZ	
MOCK-UP-JOSEF	
LABORATORY DATA FROM PERMEAMETERS (WATER IN-FLOW AND SWELLING PRESSURE EVOLUTION ON BENTONITE SAMPLES – USEFUL FOR MODEL VALIDATION AS THEY CAPTURE SATURATION & PRESSURE EVOLUTION ON CONFINED, INITIALLY DRY SAMPLE)	Svoboda et al (CTU, Surao)
HETEROGENEITIES AND HYDRO-MECHANICAL BEHAVIOR OF BENTONITE-BASED STRUCTURE: LESSONS LEARNT FROM LARGE SCALE EXPERIMENTS	Talandier (Andra)
THM MODELLING OF BENTONITE: AN APPROACH TESTED ON MX-80 AND FEBEX BENTONITE	Thatcher (Quintessa)
HYDROMECHANICAL MODELLING OF BENTONITE HOMOGENISATION	Åkesson (Clay Technology)
IN-SITU PRACLAY SEAL TEST IN URF HADES, BELGIUM	Chen (Mol team)
CODE COMPARISON OF COUPLED THM PROCESSES IN ENGINEERED BARRIERS PERFORMED WITHIN THE TASK FORCE ON ENGINEERED BARRIER SYSTEMS	Schäfers et al (BGR)



**Tuesday 20 June 2017**

**09:00-12:40 Plenary presentations** (each 15 min + questions)

09:00-09:20	Effects of heterogeneities on the hydromechanical behaviour of bentonite-based engineered barriers: results and current works at Laboratoire Navier	Benjamin Darde, Andra
09:20-09:40	X-ray imaging measurement of water transport and swelling deformation in bentonite	Markku Kataja, JYU
09:40-10:00	EPFL - lab programme on bentonite	Aldo Madaschi, EPFL
10:00-10:20	Febex and Febex-DP projects at the Grimsel test site	Maria Victoria Villar, CIEMAT
10:20-10:40	Upscaling homogenization experiments of block-pellet systems for KBS-3V Finland application	Erika Holt, VTT
10:40-11:00	Coffee	
11:00-11:20	Canister Retrieval Test, a large scale experiment made at Äpö Hard Rock Laboratory with well-defined hydraulic and mechanical boundaries	Lars-Erik Johannesson, SKB
11:20-11:40	Re-saturation and gas release of bentonites	Klaus Wiczorek, GRS
11:40-12:00	Czech B75 bentonite: its application in physical experiments of bentonite barrier, mechanical properties and constitutive and numerical modelling	David Mašín, Univerzita Karlova
12:00-12:20	Water retention behaviour of compacted bentonites: experimental observations and constitutive model	Robert Charlier, ULg
12:20-12:40	Numerical modelling of bentonite mechanical evolution at Imperial College	David Potts, ICL
12:40 – 13:40	Lunch	
13:40-13:55	About the Beacon training course	Antonio Gens, UPC
13:55-15:15	Summary discussion	Simon Norris, Beacon WP2
15:15	<b>End of workshop</b>	

Coffee and snack available

