

## 2<sup>nd</sup> International Conference on Monitoring in Geological Disposal of Radioactive Waste

9-11 April 2019

Cité Universitaire (Espace Adenauer), 17 boulevard Jourdan, 75014 Paris, France

### AGENDA

#### DAY 1 – 9 April 2019

##### Session 1: Opening Session (Chair: Johan Bertrand)

09:30	Arrival & Registration	
10:00	Welcome & Opening ceremony	Frédéric Plas, Andra (FR)
10:15	EURATOM Programme	Christophe Davies, DG-RTD, EC
10:30	Overview of the Modern2020 Project	Johan Bertrand, Andra (FR)

##### Session 2: Key Conclusion from the Modern2020 Project (Chair: Johan Bertrand)

10:50	Monitoring Strategies (WP2) - Approach and Key Messages	Mansueto Morosini, SKB (SE)
11:10	Monitoring Technologies (WP3) - Approach and Key Messages	José Luis García-Siñeriz, Amberg (SP)
11:35	Demonstration (WP4) - Approach and Key Messages	Jan Verstricht, Euridice GIE (BE)
11:55	Engaging Local Citizens (WP5) - Approach and Key Messages	Anne Bergmans, Antwerpen University (BE)
12:15	Discussion	All
12:30	Lunch (90 minutes)	

##### Session 3: Monitoring Strategies (Chair: Bernd Frieg)

14:00	Monitoring During the Operational Period to Provide Further Confidence in the Post-Closure Safety Case: Strategies and Parameters	Matt White, Galson Sciences (UK)
14:20	Derivation of Monitoring Parameters based on the Safety Assessment as a Contribution for a Monitoring Concept until Closure of a High-Level Waste GDF	Paul Smith, SAM Ltd. (UK)
14:40	Monitoring Concept Development for a HLW Repository in Germany in Close Relation to the Safety Case	Michael Jobmann, BGETEC (DE)
15:00	Cigéo Project: Definition of Monitoring Strategy and Application in link with major Milestones of Development (Licensing Application, Industrial Pilot phase...)	Sylvie Voinis, Andra (FR)
15:20	Break (30 minutes)	
15:50	Monitoring Programme for the Olkiluoto Repository, Finland	Tuomas Pere, Posiva (FI)
16:10	SKB Monitoring Strategy	David Luterkort, SKB (SE)
16:30	Discussion	All
17:00	Break (30 minutes)	

##### Session 4: Poster session

17:30	Poster Session	
19:00	Cocktail	

## DAY 2 – 10 April 2019

### Session 5: Citizen Stakeholder Participation (Chair: Anne Bergmans)

09:00	<b>Building Trust and Improving Safety? A Four-Nation Comparison of Public Participation in Monitoring of Nuclear Waste</b>	Axelle Meyermans, Antwerpen University (BE)
09:20	<b>Trust, Mistrust and Citizen Vigilance in Radioactive Waste Management Policies: a Historical Analysis of Four Forerunner Countries</b>	Markku Lehtonen, Universitat Pompeu Fabra, Barcelona (SP)
09:40	<b>Nuclear Culture and Citizen Participation: Networked and distributed artworks</b>	Ele Carpenter, Goldsmiths University of London (UK)
10:00	<b>Learning from Socio-Technical Analogues for Monitoring of DGD. A Comparative Perspective on Wind Power, Fracking, Carbon Capture and Storage (CCS) and Deep Geological Nuclear Waste Disposal</b>	Dörte Themann, Freie Universität Berlin (DE)
10:20	<b>Discussion</b>	All
10:35	<b>Break (25 minutes)</b>	

### Session 6: Summaries of Monitoring Technologies (Chair: Juan Carlos Mayor)

11:00	<b>Current State of the Art of Wireless Data Transmission Systems for Repository Monitoring</b>	Thomas Schröder, NRG (NL)
11:15	<b>Electric Power Sourcing of Wireless Repository Monitoring Sensors</b>	Esko Strömmer, VTT (FI)
11:30	<b>Overview of Optical Fiber Technologies for Radioactive Waste Disposal Site Monitoring</b>	Patrice Mégret, University of Mons(BE)
11:45	<b>Geophysical Monitoring of High-Level Radioactive Waste Repositories</b>	Hansruedi Maurer, ETH Zurich (CH)
12:00	<b>Methodology for Qualifying the Monitoring Components</b>	Jean-Michel Matray, IRSN (FR)
12:15	<b>Discussion</b>	All
12:30	<b>Lunch (90 minutes)</b>	

### Session 7a: Stakeholders Roundtable (Chair: Ele Carpenter)

### Session 7b: New Developments in Repository Monitoring Technologies (Chair: José Luis García-Siñeriz)

14:00	<b>How to Reveal the Underground: through Data, over Time and in the Present?</b>	14:00	<b>Application of Ultrasonic Techniques for Quality Assurance of Salt Concrete Engineered Barriers: Shape, Cracks and Delamination</b>	Ernst Niederleithinger, BAM (DE)
		14:20	<b>The Long Term Rock Buffer Monitoring in Situ Test, Assessing under Realistic Conditions the Performances of Monitoring Devices Developed in Modern2020</b>	Pierre Dick, IRSN (FR)
		14:40	<b>Non-intrusive Geo-electrical ERT Monitoring of High-Level Radioactive Waste Experiments in Tournemire URL</b>	Bruna De Carvalho, University of Strathclyde (UK)
		15:00	<b>What We Can Learn from a Full-Scale Demonstration Experiment after 4 Years of DTS Monitoring – the FE Experiment</b>	Tobias Vogt, NAGRA (CH)
		15:20	<b>Niches of Fibreoptic Sensing: From Large-Strain Applications to Acoustic Emission Monitoring</b>	Pavol Stajanca, BAM (DE)
15:40	<b>Break (30 minutes)</b>			

### Session 8: Long-term Integrated Monitoring System (Chair: Jan Verstricht)

16:10	<b>Monitoring the Full Scale Emplacement Experiment (FEBEX) over 18 Years: Lessons Learned for Future Repository Monitoring</b>	Florian Kober, NAGRA (CH)
16:30	<b>Lessons Learnt after more than 7 Years of Monitoring the Full-Scale Emplacement Experiment at the Mont Terri URL</b>	Herwig Müller, NAGRA (CH)
16:50	<b>Feedback from more than 20 years of Monitoring of Underground Research Laboratory, Site and Experiments</b>	Emilia Huret, Andra (FR)
17:10	<b>Difficulties of Monitoring in the Rock Formations</b>	Vsevolod Igin, NORAO (RU)
17:30	<b>Rock Mechanics Monitoring Programme at Olkiluoto Repository Site, Finland</b>	Sophie Haapalehto, Posiva (FI)
17:50	<b>Discussion</b>	All
18:10	<b>End of Day 2</b>	

## DAY 3 – 11 April 2019

### Session 9: Decision Making Process (Chair: Mansueto Morosini)

09:00	Planning for Evaluating and Responding to Monitoring Results, and Use of Monitoring in Decision Making	Matt White, Galson Sciences (UK)
09:20	The IAEA Prospective on Use of the Monitoring Programmes in the Safe Development of Geological Disposal Facilities for Radioactive Waste	Gerard Bruno, AIEA (AU)
09:40	Passive Trust or Active Mistrust? The Finnish and French Approaches to Monitoring of Radioactive Waste Repositories	Matti Kojo, Tampere University (FI)
10:00	Do We Need a Nuclear Steward? Monitoring as Task for a Long-Term Governance Institution	Peter Hocke, Karlsruhe Institute of Technology (DE)
10:20	Community Modelling making Sense of Monitoring Data	Catharina Landström, Chalmers University of Technology (SE)
10:40	Strategic Monitoring - a Proposal for the Institutional Surveillance of Complex and Long-term Disposal Systems	Thomas Flüeler, ETH Zurich (CH)
11:00	Discussion	All
11:20	Break (30 minutes)	

### Session 10: Closing Session (Chair: Johan Bertrand)

11:50	Regulatory perspective about monitoring dedicated to geological disposal facilities for radioactive waste in Finland	Jaakko Leino, STUK (FI)
12:05	Regulatory Perspective about Monitoring dedicated to Geological Disposal Facilities for Radioactive Waste in Switzerland	Thomas van Stiphout, ENSI (CH)
12:20	Rapporteur on Strategies and Technologies	Frank Hansen, independent (US)
12:35	Rapporteur on Stakeholder Involvement	Peter Simmons, University of East Anglia (UK)
12:50	Rapporteur on the Overall Modern2020 Conference	Piet Zuidema, Zuidema Consult GmbH (CH)
13:20	Closure of the Meeting	Johan Bertrand, Andra (FR)
13:30	Lunch - End of Day 3	

