

International Conference on Geological Repositories (ICGR 2020)

Advancing Geological Repositories from Concept to Operation

Draft Agenda

08-12 November 2020
Venue: Sirkus Hall, Paasitorni
Helsinki, Finland

Sunday, 08 November 2020		
14:00 – 18:00	Registration and badge pick-up	
16:00 – 17:30	Ice breaker for the younger generation	
18:00 – 23:00	Tentative reception/dinner	
Monday, 09 November 2020		
08:30 – 09:00	Registration and badge pick-up	
09:00 – 9:45	Opening session <ul style="list-style-type: none"> Master of Ceremonies (TBC) Welcome address and introductory remarks <ul style="list-style-type: none"> William Magwood, IV, NEA Director-General – <i>Impact of Geological Repositories Development on Supporting for Nuclear Energy Policy</i> Ministry of Economic Affairs and Employment, Finland (TBC) 	
9:45 – 10:45	Press conference	BREAK
10:45 – 13:00	Session 1: Present status of national geological disposal projects (Webstreaming) 1A. Status of national geological repository projects	Younger Generation Session <u>Chair</u> (5 min session introduction + 1 min intro./speaker + 5 min summary) <ul style="list-style-type: none"> Rebecca Tadesse, Head of NEA Division of Radioactive Waste Management and Decommissioning <u>Speakers</u> (12 min ppt each + 5 min Q&A)

	<ul style="list-style-type: none"> • Chair (10 min session introduction + 1 min intro./speaker + 5 min summary) <ul style="list-style-type: none"> • Hiroyuki Umeki, NEA RWMC Chair; Executive Director, Nuclear Waste Management Organization of Japan (NUMO) <p>Speakers (15 min ppt each + 10 min Q&A)</p> <ol style="list-style-type: none"> 1. Posiva Oy, Finland (TBC) 2. William J. Boyle, Acting Deputy Assistant Secretary, Office of Spent Fuel & Waste Disposition, U.S. DOE, United States 3. Frédéric Launeau, Director of Cigéo Project, French National Radioactive Waste Management Agency (Andra), France 4. Svensk Kärnbränslehantering AB (SKB), Sweden (TBC) 5. Karen Wheeler CBE, CEO, Radioactive Waste Management Limited (RWM), United Kingdom 6. Nuclear Waste Management Organisation (NWMO), Canada (TBC) 7. Thomas Lautsch, Technical Managing Director, Federal Company for Radioactive Waste Disposal (BGE), Germany <p>Co-ordinator</p> <ul style="list-style-type: none"> • Jinfeng Li (Jinfeng.Li@oecd-nea.org) 	<ol style="list-style-type: none"> 1. International Atomic Energy Agency (IAEA) – <i>IAEA Activities to Support Education and Career Development in Nuclear Field</i> (TBC) 2. European Commission (EC) – <i>EC Activities to Support Education and Career Development in Nuclear Field</i> (TBC) <p>Group Discussion (80 min)</p> <ul style="list-style-type: none"> • Participants: University students and young professionals with 0-5 years' work experience and under 30 years old; High school students from Finland (TBC) <p>Facilitators</p> <ol style="list-style-type: none"> 1. Richard S. Jayne, R&D Geosciences Engineer, Applied Systems Analysis & Research Department, Nuclear Energy Fuel Cycle Program, Sandia National Laboratories, United States 2. Shogo Nishikawa, Technology Integration Group (International Coordination), Science and Technology Department, Nuclear Waste Management Organization of Japan (NUMO), Japan 3. TBC 4. TBC <p>Co-ordinator</p> <ul style="list-style-type: none"> • TBC
<p>13:00 – 14:15</p>	<p>LUNCH</p>	

<p>14:15 – 16:10</p>	<p>1B. Panel debate on progress achieved</p> <p><u>Chair</u> (5 min session introduction + 1 min intro./speaker + 5 min summary)</p> <ul style="list-style-type: none"> • Johan Anderberg, Director, Department of Radioactive Materials, Swedish Radiation Safety Authority (SSM), Sweden <p><u>Panellists</u> (5 min ppt each + 40 min panel + 20 min Q&A w/ audience)</p> <ol style="list-style-type: none"> 1. Posiva Oy, Finland – <i>Addressing Scientific and Technical Considerations in Preparing for Operation in Finland</i> (TBC) 2. Radiation and Nuclear Safety Authority (STUK), Finland – <i>Addressing Regulatory Considerations in Preparing for Operation in Finland</i> (TBC) 3. Frédéric Launeau, Director of Cigéo Project, French National Radioactive Waste Management Agency (Andra), France – <i>Cigéo Update and Completion of the Licensing Applications</i> 4. Ryo Nasu, Director, Radioactive Waste Management Policy Division, Electricity and Gas Industry Department, Agency for Natural Resources and Energy (ANRE), Ministry of Economy, Trade and Industry (METI), Japan – <i>The Role of Government and Public Acceptance – Outcomes from International Roundtable</i> 5. Maurus Alig, Coordinator Major Project Sectoral Plan Stage 3 / General Licences, Member of the Executive Board, National Cooperative for the Disposal of Radioactive Waste (Nagra), Switzerland 6. Radioactive Waste Repository Authority (SÚRAO), Czech Republic – <i>Challenges of Radioactive Waste Disposal in Czech Republic</i> (TBC) 7. Co-Chair, IFNEC Reliable Nuclear Fuel Services Working Group (RNFSWG) (TBC) 8. European Commission (EC) – <i>Overview of EURATOM activities and policy on Geological Repositories</i> (TBC) <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> • Swedish Radiation Safety Authority (SSM), Sweden (TBC)
<p>16:10 – 16:55</p>	<p>Outcomes of the Younger Generation Session</p> <p><u>Chair</u> (5 min session introduction + 5 min summary)</p> <ul style="list-style-type: none"> • Rebecca Tadesse, Head of NEA Division of Radioactive Waste Management and Decommissioning <p><u>Speakers</u> (8 min ppt each + 8 min Q&A w/ audience)</p> <ol style="list-style-type: none"> 1. Representatives of each group <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> • TBC
<p>16:55 – 17:15</p>	<p>BREAK</p>
<p>17:15 – 17:30</p>	<p>Master of Ceremonies: End of day remarks</p>

Tuesday, 10 November 2020

09:00 – 11:00

Session 2: Demonstrating technical reliability for operational and long-term safety (including peer-reviews)

2A. The role of underground research laboratories and international collaboration

Chair (10 min session introduction + 1 min intro./speaker + 5 min summary)

- **Geoff Freeze**, Technical Manager, Sandia National Laboratories, United States

Speakers (15 min ppt each + 10 min Q&A)

1. **Teruki IWATSUKI**, Director, Horonobe Underground Research Department, Horonobe Underground Research Center, Japan Atomic Energy Agency (JAEA), Japan – *RD&D at Horonobe URL for Disposal Technology in Geological Environments Affected by Relatively Active Tectonics*
2. **Frédéric Plas**, Director of the Research and Development Division, French National Radioactive Waste Management Agency (Andra), France – *Andra's URL in Bure: Major Role in Progressive Development of Cigéo Safety Case and License Application*
3. Svensk Kärnbränslehantering AB (SKB), Sweden – *The Role of Underground Research Laboratory: Perspective from Äspö Hard Rock Laboratory* (TBC)
4. **Anzhelika Khaperskaya**, Senior Manager, Project Office for Spent Nuclear Fuel Management, State Atomic Energy Corporation (ROSATOM), Russian Federation – *Transforming Research Results into Practical and Reliable Technologies for the Long-term Implementation of Geological Repositories* (TBC)
5. **Stratis Vomvoris**, National Cooperative for the Disposal of Radioactive Waste (Nagra), Switzerland – *Grimsel Underground Rock Laboratory as an International Collaboration Platform* (TBC)
6. **Young Professional Representative:** Richard S. Jayne, R&D Geosciences Engineer, Applied Systems Analysis & Research Department, Nuclear Energy Fuel Cycle Program, Sandia National Laboratories, United States

Co-ordinator

- **Evaristo Jose (Tito) Bonano**, Senior Manager, Sandia National Laboratories, United States

11:00 – 11:30

BREAK

<p>11:30 – 12:45</p>	<p>2B. Panel debate on demonstrating technical reliability</p> <p><u>Chair</u> (5 min session introduction + 1 min intro./speaker + 5 min summary)</p> <ul style="list-style-type: none"> Chair of International Association for Environmentally Safe Disposal of Radioactive Materials (EDRAM) (TBC) <p><u>Panellists</u> (5 min ppt each + 20 min panel + 5 min Q&A w/ audience)</p> <ol style="list-style-type: none"> Hiroyuki Umeki, Chair of NEA Radioactive Waste Management Committee (RWMC); Executive Director, Nuclear Waste Management Organization of Japan (NUMO) – <i>RWMC Peer Review for Safety Case of National Programmes</i> Posiva Oy, Finland – <i>Use of Information from Different Types of Facilities to Demonstrate Technical Reliability (e.g. Äspö Hard Rock Laboratory, surface domo facilities, on-site underground research laboratory - ONKALO)</i> (TBC) Emily Stein, Technical Manager, Sandia National Laboratories, United States – <i>Geologic Disposal Systems Analysis (GDSA)</i> Daniel Delort, Head of the International Affairs department, French National Radioactive Waste Management Agency (Andra), France – <i>Technical Reliability and Readiness of DGR Projects</i> Radioactive Waste Management Limited (RWM), United Kingdom – <i>Demonstrating Technical Reliability for Operational and Long-term Safety in the UK</i> (TBC) Tim Vietor, Division Head Safety, Geology and Radioactive Materials, Member of the Executive Board, National Cooperative for the Disposal of Radioactive Waste (Nagra), Switzerland – <i>Demonstrating Technical Reliability in Switzerland: Experience from both Grimsel Test Site and Mont Terre Project</i> Ju Wang, Vice President, Beijing Research Institute of Uranium Geology (BRIUG), China – <i>Achievements and Prospects in Beishan Underground Research Laboratory</i> Graduate Student Representative (TBC) <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> TBC
<p>13:00 – 14:00</p>	<p>LUNCH</p>
<p>14:00 – 16:40</p>	<p>Session 3: Elements for building and maintaining competence (from siting to construction to operation)</p> <p>3A. Elements for building and maintaining competence</p> <p><u>Chair</u> (10 min session introduction + 1 min intro./speaker + 5 min summary)</p> <ul style="list-style-type: none"> Directorate-General for Research & Innovation, European Commission (EC) (TBC)

	<p><u>Speakers</u> (15 min ppt each + 20 min Q&A)</p> <ol style="list-style-type: none"> 1. Haidy Tadros, Chair of NEA Committee on Decommissioning of Nuclear Installations and Legacy Management (CDLM); Director General, Canadian Nuclear Safety Commission (CNSC); 2. Evaristo Jose (Tito) Bonano, Senior Manager, Sandia National Laboratories, United States – <i>Knowledge Management Pilot Project</i> 3. <i>Spanish</i> Radioactive Waste Management Organization (ENRESA), Spain (TBC) 4. Felix Altorfer, Director, Radioactive Waste Management Division, Swiss Federal Nuclear Safety Inspectorate (ENSI), Switzerland – <i>Competency Management of Regulators</i> 5. Irina Gaus, Head of Research and Development, National Cooperative for the Disposal of Radioactive Waste (Nagra), Switzerland – <i>Competency Management of Implementers</i> 6. Chair of NEA Expert Group on Building Constructive Dialogues between Regulators and Implementers in Developing Disposal Solutions for Radioactive Waste (RIDDD) – <i>Constructive Dialogues between Regulators and Implementers</i> (TBC) 7. Waste Technology Section, Division of Nuclear Fuel Cycle and Waste Technology, International Atomic Energy Agency (IAEA) – <i>IAEA Activities to Build and Maintain Capacity</i> (TBC) 8. Graduate Student or Young Professional Representative (TBC) <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> • Directorate-General for Research & Innovation, European Commission (EC) (TBC)
16:40 – 16:50	BREAK
16:50 – 18:00	<p>3B. Panel debate on building and maintaining human capacity</p> <p><u>Chair</u> (5 min session introduction + 1 min intro./speaker + 5 min summary)</p> <ul style="list-style-type: none"> • Chair of Management Board of NEA Nuclear Education, Skills and Technology (NEST) Framework (TBC) <p><u>Panellists</u> (5 min ppt each + 20 min panel + 5 min Q&A w/ audience)</p> <ol style="list-style-type: none"> 1. European Commission (EC) (TBC) 2. School of Nuclear Science and Engineering, Oregon State University, United States (TBC) 3. Klaus-Jürgen Röhlig, Professor, Clausthal University of Technology (TUC), Germany – <i>Building and Maintaining Competence in Germany</i> 4. National Research Nuclear University MEPhI (Moscow Engineering

	<p>Physics Institute), Russian Federation (TBC)</p> <p>5. Tsinghua University, China (TBC)</p> <p>6. Graduate Student or Young Professional Representative – What does Younger Generation Need (TBC)</p> <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> • Fabrice Puyade, Director of the Human Resources Division, French National Radioactive Waste Management Agency (Andra), France
18:00 – 18:10	Master of Ceremonies: End of day remarks

Wednesday, 11 November 2020

09:00 – 11:30	<p>Session 4: Building and maintaining trust</p> <p>4A. Best practices to build and maintain trust</p> <p><u>Chair</u> (10 min session introduction + 1 min intro./speaker + 5 min summary)</p> <ul style="list-style-type: none"> • Pascale Künzi, Chair of NEA Forum on Stakeholder Confidence (FSC); Regional Participation Specialist (Stakeholder Involvement Specialist), Swiss Federal Office of Energy (SFOE), Switzerland <p><u>Speakers</u> (15 min ppt each + 10 min Q&A)</p> <ol style="list-style-type: none"> 1. Jo-Ann Facella, Director of Community Well-Being, Assessment and Dialogue, Nuclear Waste Management Organization (NWMO), Canada – <i>Added Value in Radioactive Waste Management</i> 2. Sigrid Eeckhout, Communications Manager, Belgian Agency for Radioactive Waste and Enriched Fissile Materials (ONDRAF/NIRAS), Belgium – <i>Approaches to Youth Engagement</i> 3. Nuria Prieto Serrano, Lawyer, Technical Division, Department of International Relations, Spanish Radioactive Waste Management Organization (ENRESA), Spain – <i>Various Methods of Building Trust while Communicating Uncertainty</i> 4. Annabelle Quenet, Head of Public Involvement Department, French National Radioactive Waste Management Agency (Andra), France 5. European Economic and Social Committee (EESC) (TBC) 6. Local Community Representative in Finland – <i>Involvement of Local People in the Development of Geological Repositories</i> (TBC) 7. Jorina Suckow, Graduate Student, Member of Nationales Begleitgremium (National Civil Society Board), Germany <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> • Kamishan Martin (Kamishan.Martin@oecd-nea.org)
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11:30 – 11:50	BREAK
11:50 – 13:00	<p>4B. Panel debate on communicating uncertainty from the scientist to the community</p> <p><u>Chair</u> (5 min session introduction + 1 min intro./speaker + 5 min summary)</p> <ul style="list-style-type: none"> • KTH Royal Institute of Technology, Sweden (TBC) <p><u>Panellists</u> (5 min ppt each + 20 min panel + 10 min Q&A w/ audience)</p> <ol style="list-style-type: none"> 1. Two experts supporting the choice of using geological repositories to manage radioactive waste – Peter Hocke-Bergler, Head of Research Group “Radioactive Waste Management as a Socio-Technical Project”, Institute for Technology Assessment and Systems Analysis (ITAS), Karlsruhe Institute of Technology, Germany; United Kingdom (TBC); 2. Two academics providing their perspectives on geological repositories and the science that needs to be communicated – Gaston Meskens, Centre for Ethics and Value Inquiry, University of Ghent, Belgium; Neil Chapman, Emeritus Professor in environmental geology, risk assessment and radioactive waste management, Department of Materials Science and Engineering, The University of Sheffield, United Kingdom 3. Two NGOs / public community organisations which have concerns / questions specific to the use of geological repositories as opposed to other options of permanent waste management solutions – Philip Matthews, Executive Director, Nuclear Legacy Advisory Forum (NuLeAF), United Kingdom; Local Finnish community representative (TBC) <p>4. Young Professional Representative</p> <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> • Kamishan Martin (Kamishan.Martin@oecd-nea.org)
13:00 – 14:00	LUNCH
14:00 – 16:00	<p>Session 5: Outcome Session</p> <p><u>Rapporteur</u> (20 min pre-summary + 10 min final summary)</p> <ul style="list-style-type: none"> • Consultant (TBC) <p><u>Session Chairs</u> (5 min ppt each + 25 min panel + 20 min Q&A w/ audience)</p> <ol style="list-style-type: none"> 1. 1A: Hiroyuki Umeki, Chair of NEA Radioactive Waste Management Committee (RWMC); Executive Director, Nuclear Waste Management Organization of Japan (NUMO) 2. Younger Generation Session: Rebecca Tadesse, Head of NEA Division of Radioactive Waste Management and Decommissioning 3. 1B: Johan Anderberg, Director, Department of Radioactive Materials, Swedish Radiation Safety Authority (SSM), Sweden

	<ol style="list-style-type: none"> 4. 2A: Geoff Freeze, Technical Manager, Sandia National Laboratories, United States 5. 2B: Chair of International Association for Environmentally Safe Disposal of Radioactive Materials (EDRAM) (TBC) 6. 3A: Directorate-General for Research & Innovation, European Commission (EC) (TBC) 7. 3B: Chair of Management Board of NEA Nuclear Education, Skills and Technology (NEST) Framework (TBC) 8. 4A: Pascale Künzi, Chair of NEA Forum on Stakeholder Confidence (FSC); Regional Participation Specialist (Stakeholder Involvement Specialist), Swiss Federal Office of Energy (SFOE), Switzerland 9. 4B: KTH Royal Institute of Technology, Sweden (TBC)
16:00 – 16:30	BREAK
16:30 – 16:45	<p>Session 6: Summary and Closing Session</p> <p>Closing addresses</p> <ul style="list-style-type: none"> • Hiroyuki Umeki, Chair of NEA Radioactive Waste Management Committee (RWMC); Executive Director, Nuclear Waste Management Organization of Japan (NUMO) • Ministry of Economic Affairs and Employment, Finland (TBC)

Thursday, 12 November 2020

A site visit has been made available to pre-registered participants to a low and intermediate level waste repository with an exhibition on the underground rock characterisation facility (ONKALO) at Olkiluoto, Finland.