

## 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	<b>Opening session</b> <ul style="list-style-type: none"> <li>Master of Ceremonies (TBC)</li> </ul> <b>Welcome address and introductory remarks</b> <ul style="list-style-type: none"> <li><b>William Magwood, IV</b>, NEA Director-General – <i>Impact of Geological Repositories Development on Supporting for Nuclear Energy Policy</i></li> <li>Ministry of Economic Affairs and Employment, Finland (TBC)</li> </ul>	
9:45 – 10:45	<b>Press conference</b>	<b>BREAK</b>
10:45 – 13:00	<b>Session 1: Present status of national geological disposal projects (Webstreaming)</b>  <b>1A. Status of national geological repository projects</b>	<b>Younger Generation Session</b> <u>Chair</u> (5 min session introduction + 1 min intro./speaker + 5 min summary) <ul style="list-style-type: none"> <li><b>Rebecca Tadesse</b>, Head of NEA Division of Radioactive Waste Management and Decommissioning</li> </ul> <u>Speakers</u> (12 min ppt each + 5 min Q&A)

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

<p><b>14:15 – 16:10</b></p>	<p><b>1B. Panel debate on progress achieved</b></p> <p><u>Chair</u> (5 min session introduction + 1 min intro./speaker + 5 min summary)</p> <ul style="list-style-type: none"> <li>• <b>Johan Anderberg</b>, Director, Department of Radioactive Materials, Swedish Radiation Safety Authority (SSM), Sweden</li> </ul> <p><u>Panellists</u> (5 min ppt each + 40 min panel + 20 min Q&amp;A w/ audience)</p> <ol style="list-style-type: none"> <li>1. Posiva Oy, Finland – <i>Addressing Scientific and Technical Considerations in Preparing for Operation in Finland</i> (TBC)</li> <li>2. Radiation and Nuclear Safety Authority (STUK), Finland – <i>Addressing Regulatory Considerations in Preparing for Operation in Finland</i> (TBC)</li> <li>3. <b>Frédéric Launeau</b>, Director of Cigéo Project, French National Radioactive Waste Management Agency (Andra), France – <i>Cigéo Update and Completion of the Licensing Applications</i></li> <li>4. <b>Ryo Nasu</b>, 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></li> <li>5. <b>Maurus Alig</b>, Coordinator Major Project Sectoral Plan Stage 3 / General Licences, Member of the Executive Board, National Cooperative for the Disposal of Radioactive Waste (Nagra), Switzerland</li> <li>6. Radioactive Waste Repository Authority (SÚRAO), Czech Republic – <i>Challenges of Radioactive Waste Disposal in Czech Republic</i> (TBC)</li> <li>7. Co-Chair, IFNEC Reliable Nuclear Fuel Services Working Group (RNFSWG) (TBC)</li> <li>8. European Commission (EC) – <i>Overview of EURATOM activities and policy on Geological Repositories</i> (TBC)</li> </ol> <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> <li>• Swedish Radiation Safety Authority (SSM), Sweden (TBC)</li> </ul>
<p><b>16:10 – 16:55</b></p>	<p><b>Outcomes of the Younger Generation Session</b></p> <p><u>Chair</u> (5 min session introduction + 5 min summary)</p> <ul style="list-style-type: none"> <li>• <b>Rebecca Tadesse</b>, Head of NEA Division of Radioactive Waste Management and Decommissioning</li> </ul> <p><u>Speakers</u> (8 min ppt each + 8 min Q&amp;A w/ audience)</p> <ol style="list-style-type: none"> <li>1. Representatives of each group</li> </ol> <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> <li>• TBC</li> </ul>
<p><b>16:55 – 17:15</b></p>	<p><b>BREAK</b></p>
<p><b>17:15 – 17:30</b></p>	<p><b>Master of Ceremonies: End of day remarks</b></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><b>11:30 – 12:45</b></p>	<p><b>2B. Panel debate on demonstrating technical reliability</b></p> <p><u>Chair</u> (5 min session introduction + 1 min intro./speaker + 5 min summary)</p> <ul style="list-style-type: none"> <li>Chair of International Association for Environmentally Safe Disposal of Radioactive Materials (EDRAM) (TBC)</li> </ul> <p><u>Panellists</u> (5 min ppt each + 20 min panel + 5 min Q&amp;A w/ audience)</p> <ol style="list-style-type: none"> <li><b>Hiroyuki Umeki</b>, 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></li> <li>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)</li> <li><b>Emily Stein</b>, Technical Manager, Sandia National Laboratories, United States – <i>Geologic Disposal Systems Analysis (GDSA)</i></li> <li><b>Daniel Delort</b>, Head of the International Affairs department, French National Radioactive Waste Management Agency (Andra), France – <i>Technical Reliability and Readiness of DGR Projects</i></li> <li>Radioactive Waste Management Limited (RWM), United Kingdom – <i>Demonstrating Technical Reliability for Operational and Long-term Safety in the UK</i> (TBC)</li> <li><b>Tim Vietor</b>, 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></li> <li><b>Ju Wang</b>, Vice President, Beijing Research Institute of Uranium Geology (BRIUG), China – <i>Achievements and Prospects in Beishan Underground Research Laboratory</i></li> <li><b>Graduate Student Representative</b> (TBC)</li> </ol> <p><u>Co-ordinator</u></p> <ul style="list-style-type: none"> <li>TBC</li> </ul>
<p><b>13:00 – 14:00</b></p>	<p><b>LUNCH</b></p>
<p><b>14:00 – 16:40</b></p>	<p><b>Session 3: Elements for building and maintaining competence (from siting to construction to operation)</b></p> <p><b>3A. Elements for building and maintaining competence</b></p> <p><u>Chair</u> (10 min session introduction + 1 min intro./speaker + 5 min summary)</p> <ul style="list-style-type: none"> <li>Directorate-General for Research &amp; Innovation, European Commission (EC) (TBC)</li> </ul>

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

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

### Wednesday, 11 November 2020

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



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

**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.**