# PRELIMINARY AGENDA

## DAY 1 – 9 April 2019

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:30</td>
<td>Arrival and registration</td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>Welcome &amp; Opening ceremony</td>
<td>Frédéric Plas, Andra (FR)</td>
</tr>
<tr>
<td>10:15</td>
<td>EURATOM programme</td>
<td>Christophe Davies, DG-RTD, EC</td>
</tr>
<tr>
<td>10:30</td>
<td>Overview of the Modern2020 project</td>
<td>Johan Bertrand, Andra (FR)</td>
</tr>
</tbody>
</table>

### Session 2: Key conclusion from the Modern2020 project (Chair: Johan Bertrand)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:50</td>
<td>Monitoring strategies (WP2) - Approach and Key Messages</td>
<td>Mansueto Morosini, SKB (SE)</td>
</tr>
<tr>
<td>11:10</td>
<td>Monitoring technologies (WP3) - Approach and Key Messages</td>
<td>José Luis García-Siñeriz, Amberg (SP)</td>
</tr>
<tr>
<td>11:35</td>
<td>Demonstration (WP4) - Approach and Key Messages</td>
<td>Jan Verstricht, Euridice GIE (BE)</td>
</tr>
<tr>
<td>11:55</td>
<td>Engaging local citizens (WP5) - Approach and Key Messages</td>
<td>Anne Bergmans, Antwerpen University (BE)</td>
</tr>
<tr>
<td>12:15</td>
<td>Discussion</td>
<td>All</td>
</tr>
<tr>
<td>12:30</td>
<td>Lunch (90 minutes)</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Institute</th>
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</thead>
<tbody>
<tr>
<td>14:00</td>
<td>Monitoring During the Operational Period to Provide Further Confidence in the Post-Closure Safety Case: Strategies and Parameters</td>
<td>Matt White, Galson Sciences (UK)</td>
</tr>
<tr>
<td>14:20</td>
<td>Derivation of monitoring parameters based on the safety assessment as a contribution for a monitoring concept until closure of a high-level waste GDF</td>
<td>Paul Smith, SAM Ltd. (UK)</td>
</tr>
<tr>
<td>14:40</td>
<td>Monitoring Concept Development for a HLW Repository in Germany in Close Relation to the Safety Case</td>
<td>Michael Jobmann, BGETEC (DE)</td>
</tr>
<tr>
<td>15:00</td>
<td>Cigéo project: definition of monitoring strategy and application in link with major milestones of development (licensing application, industrial pilot phase...)</td>
<td>Sylvie Voinis, Andra (FR)</td>
</tr>
<tr>
<td>15:20</td>
<td>Break (30 minutes)</td>
<td></td>
</tr>
<tr>
<td>15:50</td>
<td>Monitoring programme for the Olkiluoto repository, Finland</td>
<td>Tuomas Pere, Posiva (FI)</td>
</tr>
<tr>
<td>16:10</td>
<td>SKB Monitoring Strategy</td>
<td>David Luterkort, SKB (SE)</td>
</tr>
<tr>
<td>16:30</td>
<td>Discussion</td>
<td>All</td>
</tr>
<tr>
<td>17:00</td>
<td>Break (30 minutes)</td>
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### Session 4: Poster session

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>17:30</td>
<td>Poster session</td>
</tr>
<tr>
<td>19:00</td>
<td>Cocktail</td>
</tr>
</tbody>
</table>
## DAY 2 – 10 April 2019

### Session 5: Citizen stakeholder participation (Chair: Anne Bergmans)

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
<th>Institute/University</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00</td>
<td>Building Trust and Improving Safety? A Four-Nation Comparison of Public Participation in Monitoring of Nuclear Waste</td>
<td>Axelle Meyermans</td>
<td>Antwerpen University (BE)</td>
</tr>
<tr>
<td>09:20</td>
<td>Trust, mistrust and citizen vigilance in radioactive waste management policies: a historical analysis of four forerunner countries</td>
<td>Markku Lehtonen</td>
<td>Universitat Pompeu Fabra, Barcelona (SP)</td>
</tr>
<tr>
<td>09:40</td>
<td>Stakeholder participation in the FoTRRIS project: main insights and experiences</td>
<td>Nele D’Haese</td>
<td>VITO (BE)</td>
</tr>
<tr>
<td>10:00</td>
<td>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</td>
<td>Achim Brunnengräber</td>
<td>Universität Berlin (DE)</td>
</tr>
<tr>
<td>10:20</td>
<td>Discussion</td>
<td></td>
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<tr>
<td>10:35</td>
<td>Break (25 minutes)</td>
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### Session 6: Summaries of Monitoring Technologies (Chair: Juan Carlos Mayor)

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
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<th>Institute/University</th>
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</thead>
<tbody>
<tr>
<td>11:00</td>
<td>Current state of the art of wireless data transmission systems for repository monitoring</td>
<td>Thomas Schröder</td>
<td>NRG (UK)</td>
</tr>
<tr>
<td>11:15</td>
<td>Electric power sourcing of wireless repository monitoring sensors</td>
<td>Esko Strömmer</td>
<td>VTT (FI)</td>
</tr>
<tr>
<td>11:30</td>
<td>Overview of optical fiber technologies for radioactive waste disposal site monitoring</td>
<td>Patrice Mégret</td>
<td>University of Mons (BE)</td>
</tr>
<tr>
<td>11:45</td>
<td>Geophysical monitoring of high-level radioactive waste repositories</td>
<td>Hansruedi Maurer</td>
<td>ETH Zurich (CH)</td>
</tr>
<tr>
<td>12:00</td>
<td>Methodology for qualifying the monitoring components)</td>
<td>Jean-Michel Matray</td>
<td>IRSN (FR)</td>
</tr>
<tr>
<td>12:15</td>
<td>Discussion</td>
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<tr>
<td>12:30</td>
<td>Lunch (90 minutes)</td>
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</table>

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
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<th>Institute/University</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00</td>
<td>How to reveal the underground: through data, over time and in the present?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14:20</td>
<td>Rock mechanics monitoring programme at Olkiluoto repository site, Finland</td>
<td>Sophie Haapalehto</td>
<td>Posiva (FI)</td>
</tr>
<tr>
<td>14:40</td>
<td>Non-intrusive geo-electrical ERT monitoring of high-level radioactive waste experiments in Tournemire URL</td>
<td>Bruna De Carvalho</td>
<td>University of Strathclyde (UK)</td>
</tr>
<tr>
<td>15:00</td>
<td>What we can learn from a full-scale demonstration experiment after 4 years of DTS monitoring– the FE experiment</td>
<td>Tobias Vogt</td>
<td>NAGRA (CH)</td>
</tr>
<tr>
<td>15:20</td>
<td>Niches of fibreoptic sensing: from large-strain applications to acoustic emission monitoring</td>
<td>Pavol Stajanca</td>
<td>BAM (DE)</td>
</tr>
<tr>
<td>15:40</td>
<td>Break (30 minutes)</td>
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### Session 7b: New Developments in Repository Monitoring Technologies (Chair: José Luis García-Siñeriz)

<table>
<thead>
<tr>
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<th>Institute/University</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:10</td>
<td>WIPP monitoring programme</td>
<td>Amelia Hayes</td>
<td>SANDIA (US)</td>
</tr>
<tr>
<td>16:30</td>
<td>Monitoring the Full Scale Emplacement Experiment (FEBEX) over 18 years: lessons learned for future repository monitoring</td>
<td>Florian Kober</td>
<td>NAGRA (CH)</td>
</tr>
<tr>
<td>16:50</td>
<td>Lessons learnt after more than 7 years of monitoring the Full-Scale Emplacement Experiment at the Mont Terri URL</td>
<td>Herwig Müller</td>
<td>NAGRA (CH)</td>
</tr>
<tr>
<td>17:10</td>
<td>Feedback from more than 20 years of monitoring of underground research laboratory, site and experiments</td>
<td>Emilia Huret</td>
<td>Andra (FR)</td>
</tr>
<tr>
<td>17:30</td>
<td>Monitoring programme of geological repository for short lived radioactive waste in Sweden</td>
<td>Magnus Odén</td>
<td>SKB (SE)</td>
</tr>
<tr>
<td>17:50</td>
<td>The Long Term Rock Buffer Monitoring (LTRBM) in situ test, assessing under realistic conditions the performances of monitoring devices developed in Modern2020</td>
<td>Pierre Dick</td>
<td>IRSN (FR)</td>
</tr>
<tr>
<td>18:10</td>
<td>Discussion</td>
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End of Day 2
# DAY 3 – 11 April 2019

## Session 9: Decision making process (Chair: Mansueto Morosini)

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
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</thead>
<tbody>
<tr>
<td>09:00</td>
<td>Planning for Evaluating and Responding to Monitoring Results, and Use of Monitoring in Decision Making</td>
<td>Matt White, Galson Sciences (UK)</td>
</tr>
<tr>
<td>09:20</td>
<td>The IAEA prospective on use of the monitoring programmes in the safe development of geological disposal facilities for radioactive waste</td>
<td>Gerard Bruno, AIEA (AU)</td>
</tr>
<tr>
<td>09:40</td>
<td>Passive trust or active mistrust? The Finnish and French approaches to monitoring of radioactive waste repositories</td>
<td>Matti Kojo, University of Tampere (FI)</td>
</tr>
<tr>
<td>10:00</td>
<td>Do we need a nuclear steward? Monitoring as task for a long-term governance institution</td>
<td>Peter Hocke, Karlsruhe Institute of Technology (DE)</td>
</tr>
<tr>
<td>10:20</td>
<td>Community Modelling making sense of monitoring data</td>
<td>Catharina Landström, Chalmers University of Technology (SE)</td>
</tr>
<tr>
<td>10:40</td>
<td>Strategic monitoring- a proposal for the integrative surveillance of complex disposal systems</td>
<td>Thomas Flüeler, ETH Zurich (CH)</td>
</tr>
<tr>
<td>11:00</td>
<td>Discussion</td>
<td>All</td>
</tr>
<tr>
<td>11:20</td>
<td>Break (30 minutes)</td>
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</table>

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

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:50</td>
<td>Regulatory perspective about monitoring dedicated to geological disposal facilities for radioactive waste (title under development)</td>
<td>Jaakko Leino, STUK (FI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thomas van Stiphout, ENSI (CH)</td>
</tr>
<tr>
<td>12:15</td>
<td>Rapporteur on Strategies and Technologies</td>
<td>Frank Hansen, independent (US)</td>
</tr>
<tr>
<td>12:30</td>
<td>Rapporteur on Stakeholder involvement</td>
<td>Peter Simmons, University of East Anglia (UK)</td>
</tr>
<tr>
<td>12:45</td>
<td>Rapporteur on the overall Modern2020 conference</td>
<td>Piet Zuidema, Zuidema Consult GmbH (CH)</td>
</tr>
<tr>
<td>13:15</td>
<td>Closure of the meeting</td>
<td>Johan Bertrand, Andra (FR)</td>
</tr>
<tr>
<td>13:30</td>
<td>End of Day 3</td>
<td></td>
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</tbody>
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