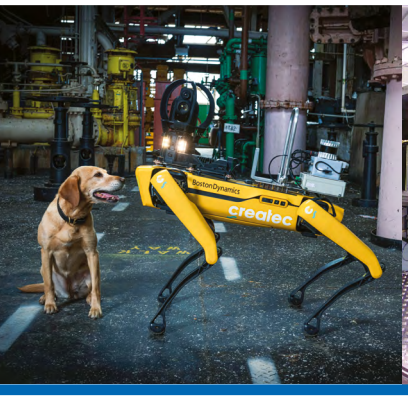

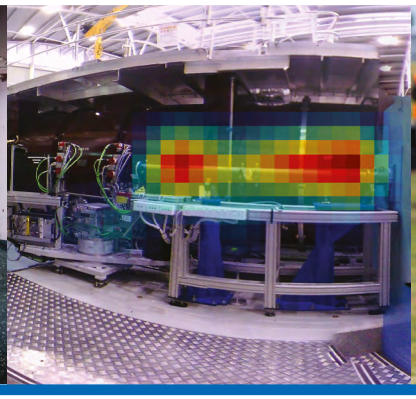

PROGRAMME

NEA Workshop on the Innovative Techniques and Technologies to Support Characterisation and Decommissioning of Complex and Legacy Sites

29 November to 1 December 2022
Boulogne-Billancourt, France

OECD
BETTER POLICIES FOR BETTER LIVES

NEA
NUCLEAR ENERGY AGENCY

Version: 4.0 (23.11.2022)

NEA Workshop on the Innovative Techniques and Technologies to Support Characterisation and Decommissioning of Complex and Legacy Sites

PROVISIONAL PROGRAMME

29 November – 1 December, 2022

The Nuclear Energy Agency (NEA) Working Party on Technical, Environmental and Safety Aspects of Decommissioning and Legacy Management (WPTES) is organizing an international workshop on Innovative Techniques and Technologies to Support Characterisation and Decommissioning of Complex and Legacy Sites. For more details, please consult the concept paper developed for this workshop.

Day 1 of the Workshop (29 November 2022)			
Registration from 09:00 to 10:00 - please plan early arrival -			
	1	***Opening Session***	
10:00	1.1	**Opening Remarks** *Rebecca TADESSE (NEA, Head of RWMD)*	10 min
10:10	1.2	**Welcome Remarks** *Cynthia BARR (Workshop Co-Chair)* - Background and Concept of the Workshop - Goals and Expected Outputs	10 min
10:20	1.3	**Introductory Session**	60 min

		Participants are requested to coordinate among themselves - Country based Tour-de-Table: providing insights of participants, their background and expectations for the workshop;	
11:20	1.4	**Status and Inputs by the Working Party WPTES** *Cynthia BARR (Workshop Co-Chair)* - Introduction to the Working Party on Technical, Environmental and Safety Aspects of Decommissioning and Legacy Management (WPTES) - Key Findings and Status of work	20 min
11:40	1.5	**Key Findings from Workshop Joint NEA and NDF on the Characterisation of Large Quantities of Unconventional and Legacy Waste – 31.08.-01.09.2022 Japan https://www.oecd-nea.org/jcms/pl_71354/** *Andrew FAIRHURST (NDA, UK) (TBC)*	20 min
12:00 Lunch Break (60 min)			
2		***Topical Session 1*** **Innovative Techniques and Technologies for Radiological and Site Characterisation**	
2.1		**Sub-Topic:** **General Session on Innovative Techniques and Technologies** **Session Chair:** *Thomas BRAUNROTH (GRS, Germany)*	
13:00	2.1.1	**Measurement of Difficult-to-Measure Radionuclides in the Nuclear Environment and Recent Developments in Accelerator-Mass Spectrometry** *Thomas BRAUNROTH (GRS, Germany)*	20 min
13:20	2.1.2	**Innovative ANSTO Gamma Imaging Technology To Support HIFAR Reactor Decommissioning And OPAL Operations** Mathew GUENETTE *(ANSTO, Australia)*	20 min
13:40	2.1.3	**Characterization of Radioactive Contamination under Post-Accidental Conditions at Unit 4 of Chornobyl NPP** *Maxim SAVELIEV (NASU, Ukraine) - virtual*	20 min

14:00	2.1.4	**Characterization of Waste at Fukushima Daiichi Nuclear Power Station: Experience and Prospect** *Yoshikazu KOMA (JAEA, Japan)- virtual*	20 min
14:20	2.1.5	**Innovative Techniques using UAV Technology to Support Characterisation at Fukushima** *Petr SLADEK (IAEA)*	
14:40	2.1.6	**Development of Technologies for the Rapid Determination of Tritium and C14 in Decommissioning Waste** *John KRASZNAI (COG, Canada)*	20 min
15:00	2.1.7	**Panel Discussion with Presenters**	40 min
15:40 Break (30 min)			
2.2		**Sub-Topic:** **Innovative Techniques and Technologies for Radiological Characterisation of Buildings and Structures** **Session Chair:** *Andrew FAIRHURST (NDA, UK)*	
16:10	2.2.1	**Robotic and Remote Technologies to Support Radiological and Site Characterisation and Decommissioning** *Leo LAGOS (FIU, USA)*	20 min
16:30	2.2.2	**Advances in Radiological Characterisation of Buildings and Structures** *Khalil AMGAROU (CEA, France)- virtual*	20 min
16:50	2.2.3	**Examples of Innovative CM&I (Condition Monitoring and Inspection) Technologies under Development at Sellafield Ltd** *Simon MALONE (Sellafield, UK)*	20 min
17:10	2.2.4	**The Benefits of Applying Innovative Techniques to Established Characterisation Technologies: A UK Case Study** *Alex JACKSON (Cyclife-EDF, UK)*	20 min
17:30	2.2.5	**Panel Discussion with Presenters**	40 min
Group Picture			

18:10		***End of Day 1***	
Reception (TBC)			

Day 2 of the Workshop (30 November 2022)			
Registration from 08:30 to 09:00			
2.3		**Sub-Topic:** **Innovative Technologies/Modeling/Tools to support D&D** **Session Chair:** *Emilio GARCIA NERI (ENRESA, SPAIN)*	
09:00	2.3.1	**Geo-Statistical Analysis and Integration of Soil Hydro-Geochemistry Data With Remote Sensing Information on Radiological and Site Characterization Studies** *Vanessa MONTOYA (SCK-CEN, Belgium) - virtual*	20 min
09:20	2.3.2	**The Use of GIS, BIMs, and Digital Twins to Assist with Decommissioning to Support Characterization and Decommissioning of Complex and Legacy Sites** *Matt DAROIS (RSCS, USA)*	20 min
09:40	2.3.3	**Airborne Sensoring and Deep Learning Mapping Methods for Safety Assessment and Optimisation of Remedial Measures in the Chornobyl Exclusion Zone** *Sebastian BRIECHLE, Peter KRZYSTEK, (MUAS, Germany) and Norbert MOLITOR (Plejades GmbH, Germany) - virtual*	20 min
10:00	2.3.4	**Autonomous and Inteligent Characterisation: Trends and Challenges for SME** *Matt MELLOR (CREATEC, UK)*	20 min
10:20	2.3.5	**Panel Discussion with Presenters**	30 min
10:50 Break (30 min)			
2.4		**Sub-Topic:** **Innovative Techniques and Technologies for Surveys of Subsurface Soils and Groundwater**	

		Session Chair: *Sofía LUQUE (CNS,SPAIN)*	
11:20	2.4.1	**Geostatistics to Help Optimize Subsurface Sample Design and Support Remedial and Final Status Survey Decision-Making on Several Case Studies** *Yvon DESNOYERS (Geovariances, FRANCE)*	20 min
11:40	2.4.2	**Case Studies on Use of Geostatistical Techniques to Facilitate Decommissioning Decision-Making** *Prof. Pierre GOOVAERTS (BioMedware, Inc.)*	20 min
12:00	2.4.3	**Advances in Non-Invasive Technologies for Subsurface Characterisation** *Frederick DAY-LEWIS and Tim JOHNSON (PNNL, USA) - virtual*	20 min
12:20	2.4.4	**A Geospatial Based Decision Framework for Extending MARSSIM Regulatory Principles into the Subsurface** *Robert STEWART (ORNL, USA)*	20 min
12:40 Lunch Break (60 min)			
2.5		**Sub-Topic:** **Innovative Techniques and Technologies for Radiological and Site Characterisation of Land** **Session Chair:** *Petr SLADEK (IAEA)*	
13:40	2.5.1	**Estimating Scan Minimum Detectable Activity for a Discrete Radioactive Particle** *David KING (ORAU, USA) - virtual*	20 min
14:00	2.5.2	**Case Study-Uncrewed Aerial Vehicle Gamma Survey in Central Asia: Results and Outlook of The DUBGEM Research & Development Project** *Sven ALTFELDER (IAEA)*	20 min
14:20	2.5.3	**Panel Discussion with Presenters (Session 2.4 & 2.5)**	60 min
3		***Topical Session 2*** **Innovative Decontamination and Decommissioning Technologies and Good Practices for Implementation of Technologies**	

3.1		**Sub-Topic:** **General Session Innovative Technologies to support D&D** **Session Chair:** *Arne LARSSON (Cyclife Sweden AB, SWEDEN)*	
15:20	3.1.1	**Advances in Decommissioning Technologies** *Lawrence E. BOING (ANL, USA) – virtual*	20 min
15:40	3.1.2	**Decontamination of Product Purification Cell (PPC) using Liquid Nitrogen Scabbling at the West Valley Demonstration Project (WVDP)** *Bryan BOWER (DOE, USA) – virtual*	20 min
16:00	3.1.3	**Panel Discussion with Presenters**	20 min
16:20 Break (30 min)			
4		***Group Activity***	
16:50	4.1	**Warm-up Exercise: Opinion Barometer** *All Participants*	10 min
17:00	4.2	**Breakout-Groups** *All Participants*	60 min
18:00		***End of Day 2***	

Day 3 of the Workshop (01 December 2022)			
Registration from 08:30 to 09:00			
5		***Topical Session 2 (cont'd)*** **Innovative Decontamination and Decommissioning Technologies and Good Practices for Implementation of Technologies**	
5.1		**Sub-Topic:** **Innovative Technologies to support D&D** **Session Chair:** *Vincent GORGUES (CEA, FRANCE)*	
09:00	5.1.1	**NEA workshop – Laser technology for PWR/BWR RVI segmentation** *Pierre DAGUIN (Onet Technologies, France)* *Ioana DOYEN (CEA,France)*	20 min
09:20	5.1.2	**Latest Advances in Semi-Autonomous Robotic Cutting and Disassembly** *Rustam STOLKIN (EGRRS Chair, UK)*	20 min
09:40	5.1.3	**Innovative Technologies for Soil Decontamination and Stablization** *Maxime FOURNIER (CEA, France)*	20 min
10:00	5.1.4	**Automatic Characterisation and Sorting of Large Quantities of Soil and Rubble** *Felix LANGER (NUKEM, Germany) - virtual*	20 min
10:20	5.1.5	**Policy, Strategy and Risk Assessment Methods for Sustainable Waste Management during Nuclear Site Regeneration** *Andrew FAIRHURST (NDA, UK)*	20 min
10:40 Break (30 min)			
11:10	5.1.6	**Characterisation Lessons Learned from Finland** *Anumaija LESKINEN (VTT, Finland)*	20 min

11:30	5.1.7	**Regulatory Challenges(and Opportunities) Associated with Implementation of Innovative Technologies** *Paolo PICCA (ONR, UK)-virtual*	20 min
11:50	5.1.8	**Panel Discussion with Presenters**	60 min
12:50 Lunch Break (70 min)			
6		***Collection Of Key Findings***	
14:00	6.1	**Key Findings of Breakout 1**	20 min
14:20	6.2	**Key Findings of Breakout 2**	20 min
14:40	6.3	**Key Findings of Topical Session 1**	20 min
15:00	6.4	**Key Findings of Topical Session 2**	20 min
15:20	6.5	**Plenary Discussion of the Findings** *All Participants*	60 min
16:20 Break (30 min)			
7		***Conclusion Session***	
16:50	7.1	**Main Outcome of the Workshop** *Report by Workshop Chairs* *Contributions and Confirmation by Participants*	20 min
17:10	7.2	**Definition of Next Steps** *All Participants*	40 min
17:50	7.2	**Closing Remarks** *Workshop Chairs* *Rebecca TADESSE (NEA, Head of RWMD)*	10 min
18:00		***Workshop Adjourn***	

Nuclear Energy Agency (NEA)
46, quai Alphonse Le Gallo
92100 Boulogne-Billancourt, France
nea@oecd-nea.org **www.oecd-nea.org**

Cover photos: Boston Dynamics' Spot robot (Create Ltd); CORIS360 spatz (ANSTO); Drone testing (PNNL); Robot milling tool (KIT).