

Online international workshop focusing on digital transformation, robotics and other game changing trends in nuclear decommissioning



### **DigiDecom Day 2 – 24.3.2021**

Innovation needs, solutions and initiatives related to digital transformation of decommissioning and waste management

- The Session will start at 11:00 (CET)
- Session is recorded to be put on website xxxxxxx (??)
- Please keep your microphone muted and camera off (unless presenting)



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#### Welcoming Words: Day 2 Session

# Innovation needs, solutions and initiatives related to digital transformation of decommissioning and waste management

Chairpersons: Ole Jakob Ottestad (NND, Norway) & Erika Holt (VTT, Finland)

### **General workshop session guidance**

- Please keep your microphone muted and turn off your camera (unless presenting)
- Everyone is encouraged to give Comments and Questions through Chat panel
- A bell tone will indicate to Speakers when they have 1 minute remaining (move to summary slide please)
- Session Chairpersons will raise questions to the Speakers from the Chat, as time allows
- Afternoon session will utilise breakout groups for more in-depth discussions
- Chairpersons will summarise the day's session at the end of the day
- In-session polling questions will be used, please provide feedback

### **AGENDA (first portion)**

11:00	Participants Admission		
11:30	Opening Remarks by Session Chairs		
11:40	NND on a journey towards digital decommissioning and waste management Ole Jakob Ottestad – NND, Norway		
12:00	Digital transformation of decommissioning István Szőke – IFE, Norway		
12:20	Computational personal dosimetry using flexible phantoms and staff tracking: possible applications in decommissioning Filip Vanhavere and Pasquale Lombardo– SCK-CEN, Belgium		
12:40	Towards an international nuclear decommissioning ontology – Results from work in PLEIADES and co-operation among IAEA collaborating centres <i>Franz Borrmann – iUS, Germany</i>		
13:00	Technical aspects of digital integrated decommissioning support systems and prospects with ISDC (International Structure for Decommissioning Costing of Nuclear Installations) based costing Dusan Daniska – WAI (Aquila Costing), Slovakia		
13:20	3D Digital Simulation of complex D&D projects - Use case: Chinon A2 dismantling project Paola Ontiveros – EDF, France		
13:40	20 min Break		

### **AGENDA (second portion)**

14:00	How BIM is used in the construction industry – prospects for use in nuclear decommissioning Dag Fjeld Edvardsen et. al. – Catenda, Norway		
14:20	Digital transformation – A TSO point of view Patrice François – IRSN, France		
14:40	How digital models and simulation are used by the Norwegian and Russian regulatory bodies in legacy management Malgorzata Sneve – DSA, Norway		
15:00	Up-to-date view of the site improves project performance – user study of Fortum's eSiteview in decommissioning Jere Luukkanen and Miko Olkkonen – Fortum Power and Heat Oy, eSite		
15:20	Towards digital tools for waste package and facility monitoring and prediction Ernst Niederleithinger – BAM, Germany		
15:40	A new IAEA Technical Document on Occupational Radiation Protection in Decommissioning of Nuclear Installations - Main Aspects of Management, Planning and Conduct Burcin Okyar - IAEA		
16:00	20 min Break		

### AGENDA (third portion)

16:20	Discussion of innovation needs and possible solutions related to digital transformation of					
	decommissioning					
	Chairs present of the objectives of the group sessions					
	Moderators shortly present the topic of their group and some food for thought (e.g. outcomes from PLEIADES)					
	Breakout to groups:					
	Group 1	Regulatory/TSO aspects for use of BIM based of modular integrated software systems				
		Moderators: Patrice Francois and Malgorzata Sneve				
	Group 2	Technical barriers and needs for implementation BIM based of modular integrated software systems				
		Moderators: Dušan Daniška, Dag Fjeld Edvardsen and Ole Jakob Ottestad				
	Group 3	Human and organisational barriers and needs for implementation of BIM and				
		digital twin based support systems for decommissioning and waste management				
		Moderators: Erika Holt and Martin Andreasson				
	Group 4	International nuclear decommissioning ontology				
		Moderators: Franz Borrmann and Maarten Becker (iUS)				
	Group 5	Use of digital models and simulations for international knowledge exchange				
		Moderators: Patrick O'Sullivan and István Szőke				
	Moderators will steer discussions and prepare final summary report from the session. A moderator will capture comments with on-line sharing of their screen.					
	Instruction for moderators: Focus on identifying user requirements (and, possibly, associated tech requirements)					
	for use of 3	D digital modes.				
17:20 –	Short sun	nmaries from the group discussions presented in Plenary by the Moderators (5 min				
18:00	each) & Plenary Discussion					
	Moderators and Session Chairs					
18:00 -	Final remarks of the Session Chairs					
18:15	Erika Holt and Ole Jakob Ottestad					



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#### Coffee / Stretch Break Resume at 14.00



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16:00	20 min Break	

### AGENDA (third portion)

See separate Teams/Calendar link to join Groups

16:20	decommi Chairs pro Moderate outcomes Breakout	esent of the objectives of the group sessions ors shortly present the topic of their group and some food for thought (e.g. s from PLEIADES) to groups: Regulatory/TSO aspects for use of BIM based of modular integrated software			
	Group 2	systems Moderators: Patrice Francois and Malgorzata Sneve Technical barriers and needs for implementation BIM based of modular integrated software systems			
	Group 3	Moderators: Dušan Daniška, Dag Fjeld Edvardsen and Ole Jakob Ottestad Human and organisational barriers and needs for implementation of BIM and digital twin based support systems for decommissioning and waste management Moderators: Erika Holt and Martin Andreasson			
	Group 4	International nuclear decommissioning ontology Moderators: Franz Borrmann and Maarten Becker (iUS)			
	Group 5	Use of digital models and simulations for international knowledge exchange Moderators: Patrick O'Sullivan and István Szőke			
	Moderators will steer discussions and prepare final summary report from the session. A moderator will capture comments with on-line sharing of their screen. Instruction for moderators: Focus on identifying user requirements (and, possibly, associated tech requirements) for use of 3D digital modes.				
17:20 – 18:00	Short summaries from the group discussions presented in Plenary by the Moderators (5 min each) & Plenary Discussion Moderators and Session Chairs				
18:00 – 18:15	Final remarks of the Session Chairs Erika Holt and Ole Jakob Ottestad				

### General guidance for Breakout Groups



#### DigiDecom 2021 – DIGITAL

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- Request to please keep your Camera ON
- Raise your virtual "hand" to speak/share
- Keep your microphone muted when not talking
- Welcome to give comments and Questions through chat
- Be active it is important to us to hear comments, suggestions, ideas, needs
- Moderators will summarise discussion at the end of the day



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#### **Coffee / Stretch Break Resume at 16.20 in Groups**





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#### Breakout Group Summaries (17.20) by Group Moderators



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## Concluding Remarks (18.00) by Chairpersons

### Key Take Away Messages

- Xx
- Yy
- ZZ

### **Identified Calls for Action**

- Xx
- Yy
- ZZ



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#### Thank you for your active participation!