

Site characterization for sustainable land management State of the art and innovations

Land is a vitally important resource. Sustainable land management requires wellfounded and reliable information. Better information leads to better decisions and value for industry and stakeholders alike. The NICOLE Spring Workshop 2023 in Paris will focus on showcasing 'state of the art' site characterization and sustainable land management tools and practices.

Workshop location Tour Pacific La Défense 11/13 cours Valmy 92800 PUTEAUX FRANCE



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Opening Session		
8:30-9:00	Registration	
9:00-9:10	Opening & Welcome	
	by chairman Johan de Fraye	
9:10-9:20	NICOLE Sustainability	
9:20-9:40	Keynote	
	Dominique Guyonnet, Scientific Program Director, "Contaminated Land Management"(BRGM)	
9:40-10:40	NICOLE Innovation Awards	
10:40-11:10	Coffee break	
	Session 1	
New	v strategies for site characterization & monitoring	
	Session chairs: Corinne Merly & David Thomas	
11:10-11:30	High-resolution investigation of hydraulic anisotropies in contaminated groundwater systems with Intrasense® to enhance the effectiveness of in situ remediation Julian Bosch (Intrapore)	
11:30-11:50	NOD-Rapid Test for in-situ-oxidation Uwe Dannwolf (RiskCom GmbH)	
11:50-12:10	Gas flux at the soil-atmosphere interface with an automated flux chamber Pr. Olivier Atteia (EPOC-PROMESS)	
12:10-12:30	Isotopes meet mass flux – IsoFLUX as a new tool for precise quantification of pollutant degradation in contaminated aquifers Marjan Joris & Kevin Kuntze (iFLUX sampling & Isodetect GmbH)	
12:30-12:45	Q&A	
12:45-13:45	Lunch	



	Session 2
Innovative a	approaches for determination of soil health & biodiversity
Se	ssion chairs: Jean-Louis Seveque & Hubert Leprond
13:45-14:05	Encouraging the implementation of innovative technologies:
	Factsheets on contaminated land management
	Noémie Dubrac (Contaminated Land Unit, BRGM)
14:05-14:25	Impact of industrial activities on soil ecosystem services and
	regeneration
	Julie Estival & Jeroen Reimerink (TAUW (NL & FR))
14:25-14:45	Unravelling the living soil using microbiome analysis and bio -
	information technology to assess vital soil functions and
14.20-14.40	ecosystem services
	Eline Keuning (Bioclear Earth)
14:45-15:00	Q&A
	Poster presentations
	1. Innovative management of PFAS Contaminations by conceptual
	scheme based TERQ risk assessments & definition of site
	specific remediation goals and in-situ treatments by proteinic
	bio-polymers site case studies with presence of volatile PFAS =
	FTOH (Fluorotelomer Alcohols).
	2. Determination of groundwater to surface water emissions on
	basalt embankment with a novel partition sampler.
	3. Best practice site conceptualization to optimize remediation
	4. A novel sustainability scoring method for soil remediation
	technologies assessment.
15:00-15:20	5. RECAP: A practical definition of sustainable remediation.
	6. Thermoreact [®] - An innovative remediation product for in situ
	neutralization of halogens and sulphur during thermal
	desorption 7.A sustainable approach of mercury sequestration in sediments
	resulting in the reduction in concentration of methylmercury in
	sediment porewater and suppression of mercury
	bioaccumulation.
	8. Site-specific risk-based remedial objectives calculations at a site
	impacted by chlorinated hydrocarbons in groundwater, using
	empirically determined Henry's Constant.
	9. Energy-saving and cost-efficient: Sustainable in-situ thermal
	9. Energy-saving and cost-efficient: Sustainable in-situ thermal remediation (ISTR) of the petroleum port Hamburg.



Session 3			
Conceptual Site Model (CSM) insights			
S	Session Chairs: Marjan Joris & Simona Di Gregorio		
15:50-16:10	Use of geospatial analysis and direct analytical response (Hapsite®) for the evaluation of the vapor intrusion (Vi) - A case study		
	Andrea Gasparini (Jacobs)		
16:10-16:30	Assessment of natural attenuation and its stimulability at two former large-scale industrial sites based on the combination of innovative in situ monitoring methods		
	Kevin Kuntze (Isodetect GmbH)		
16:30-16:50	Advanced practice for vapour intrusion investigation and		
	assessment		
	Nick Roe (Geosyntec Consultants Ltd)		
16:50-17:10	Iterative development of a CSM to optimize remediation		
	David Thomas (Jacobs)		
17:10-17:25	Q&A		
17:25-17:30	Closing first workshop day		
20:00	Conference dinner (award ceremony)		
	Café la Jatte, 60 Bd Vital Bouhot, 92200 Neuilly-sur-Seine		



	Session 4
	Internet of Things (IoT) and digital tools
	Session chairs: Jean-Louis Seveque and t.b.c.
9:00-9:20	Field data management from a groundwater remediation plant
	through Power BI software
	Roberta Sauro Graziano (Ramboll Italy)
9:20-9:40	Automatic detection of vacant in the Basque Country (Spain)
	Laura del Val (Eurecat)
9:40-9:55	Q&A
	EU Projects Presentations
9:55-10:15	IMPEL - Water and Land Remediation
	Wouter Gevaerts (ISPRA, Arcadis)
10:15-10:45	Coffee break
	NWE-REGENERATIS - Regeneration of past metallurgical sites
	and deposits through innovative circularity for raw materials
	(Q&A after each presentation)
	1.Brief overview of NWE-REGENERATIS project (SPAQUE)
	2. Site screening to evaluate the site potential for materials
	recovery (ATRASOL)
	3. Innovative identification and characterization of metallurgical
	residues from a former industrial site using geophysical
10 / 5 10 15	imaging and resource distribution model (University of Liège)
10:45-12:15	4. How to take smart decisions to launch materials recovery
	project on your site? SMARTIX: a decision support tool based on artificial intelligence (SPAQUE)
	5. How to develop a business case for materials recovery?
	(ATRASOL)
	6. Materials recovery processes: mineral and metal recovery,
	hydro- and bio-metallurgy techniques, eco-catalyst production
	(Centre Terre Et Pierre, Materials Processing Institute,
	Cranfield University, Ixsane)
	Grannend Oniversity, instance
	7. Lessons learned and wrap-up (SPAQUE)
12:15-12:45	



Organization committee members

Corinne Merly – BRGM Daniel Alexander – EarthSoft David Cazaux – INEOS Inovyn David Thomas – Jacobs Elise Noël – Shell Hans-Peter Koschitzky – Senior, VEGAS, University Stuttgart Hubert Leprond - EDF Jean-Louis Seveque – AquaTerraSana Marjan Joris – iFlux Simona Di Gregorio – University of Pisa Pierre Jolly – WSP

NICOLE Secretariat

For further information on NICOLE membership, workshop programs, registration & fees, or any other practical issue regarding the conference, please contact: Chayenne van Dijk (DSBP Consultants) P.O. Box 28249 – 3003 KE Rotterdam, The Netherlands Phone: +31 (0)10 31 00 829 E-mail: chayenne.vandijk@nicole.org

Registration Fees

Please complete the conference registration form, available online through NICOLE.org and/or the NICOLE secretariat. Deadline for registration is 4 May 2023. conference dinner is at your own cost for 60 Euro per person.

Participation in the NICOLE Spring Workshop 2023 is free of charge for NICOLE members and workshop speakers. Information on admission fees for other participants can be obtained through the NICOLE secretariat.