NICOLE & PROMISCES Joint Spring Workshop 2025

27 & 28 March 2025
Frankfurt, Germany

DECHEMA | Theodor-Heuss-Allee 25, 60486 Frankfurt am Main

Working towards solutions for emerging, persistent mobile industrial contaminants

Circular Economy in the Soil-sediment-water system

Increasing water consumption, shortage of land in densely populated areas and the impacts of climate change pose challenges to an industrially coordinated sustainable land and water management in Europe.
To address these challenges, it is necessary to strengthen circular economy within the Soil-sediment-water system. The circular routes are wide-ranging from water reuse to material recovery, groundwater and soil treatment. Emerging, persistent and mobile industrial contaminants pose a serious threat to sustainable management of these routes. To tackle the problems these contaminants are causing today and the risks emerging contaminants might pose in the future, several fields of action must work in tandem:

- Monitoring, modelling, and risk assessment
- (Non)technical actions
- Policy, regulatory, and financial frameworks

These actions need to align with innovative solutions and provide foresight into emerging contaminants beyond today's most pressing challenges, such as PFAS.
For more than three years, the EU funded project PROMISCES has developed solutions to enable circular economy routes within the soil-sediment-water system, a project which will end April 2025. A system that is at the heart of NICOLE's industrially coordinated sustainable land and water management. It is therefore obvious to initiate this joint event to connect these two communities.

This workshop will explore the topic through the following sessions:

1. Monitoring, modelling and risk assessment
2. Taking action
3. Innovation – Advancing solutions
4. Exploring challenges beyond PFAS - emerging concerns, policy and regulatory frameworks

Final Workshop Program	
08:30–09:00	Registration
09:00–09:10	**Opening & Welcome** Session Chairs: Horst Herzog & Thomas Track
09:10–09:40	Introduction to PROMISCES, NICOLE & NICOLE Foundation
09:40–10:05	**Keynote** *Analytical methods for PFAS: from research to regulatory framework and remaining challenges* Anne Togola, BRGM
10:05–10:30	**Keynote** *Journey from a hazard to risk based approach in remediation* Peter Vermeulen, 3M
10:30–10:35	Introduction to poster pitches
10:35–10:40	Poster pitches
10:40–11:10	**Coffee break**
Technical Session 1: Monitoring, Modelling, and Risk Assessment I Session Chairs: Johan van Leeuwen & Mariska Ronteltap	
11:10–11:25	*Advancing Passive Sampling for Organic Micro-Pollutants in Complex Water Matrices* Frederik Zietzschmann, Berliner Wasserbetriebe
11:25–11:40	*Validation of an Equilibrium Passive Sampler for PFAS Quantification at the Groundwater – Surface water interface* Lawrence Borden, Geosyntec Consultants
11:40–11:55	*Towards a toolbox for modelling/predicting the fate and hazards of PBT chemicals* Willie Peijnenburg, RIVM
11:55–12:10	*PFAS pollution in fish and water from the United Kingdom and Spain temporal trends and implications for human dietary exposure* Eva Junqué, School of Geography, Earth and Environmental Sciences, University of Birmingham
12:10–12:25	Discussion
12:25–12:30	Poster pitches
12:30–14:00	**Lunch break**

Technical Session 2: Taking Action I Session Chairs: Klaus Schnell & Pascal Endres	
14:00–14:15	*Applied Machine-Learning Tools to Enhance PFAS Analytics and Support More Effective Site Management* Paul Hurst, WSP Canada
14:15–14:30	*The PFAS Risk Explorer – A Digital Solution for National Risk Prioritisation* Jane Thrasher, Jacobs
14:30–14:45	*A Systemic Approach for PFAS Remediation Prospects from the LIFE PFASTER Project* John van Tol, TAUW
14:45–15:00	*Innovative on-site remediation strategies for PFAS-contaminated groundwater: LIFE SOuRCE's modular treatment approach* Carme Bosch, Eurecat
15:00–15:15	Discussion
15:15–15:20	Poster pitches
15:20–15:50	**Coffee break**
Technical Session 3: Innovation – Advancing Solutions I Session Chairs: Eric van Hullebosch & John Wilson	
15:50–16:05	*From soil to leaf. Investigating PFAS pathways in vegetation and their environmental effects* Iris van der Veen, TAUW
16:05–16:20	*Phytoremediation of PFAS polluted sites - Issues and opportunities* Dirk Dubin & Mario Clemmens, Bio2clean
16:20–16:35	*Control and removal of PFAS during treatment of dredged sediments for material recovery* Massimiliano Sgroi, Marche Polytechnic University (UNIVPM)
16:35–16:50	*Innovative technologies approach to treat landfill leachate aimed at near zero PFAS discharge* Ali Hydar, Marche Polytechnic University (UNIVPM)
16:50–17:05	Discussion
17:05–17:10	Poster pitches
17:10–17:15	Closing of the day
18:30–21:30	**Conference dinner at DECHEMA**

PARALLEL SESSION Room Max Buchner Hall	09:00–09:05	Good morning
	Technical Session 4: Taking Action II Session Chairs: Jan Haemers & Massimiliano Sgroi	
	09:05–09:20	*Removing per- and polyfluoroalkyl substances (PFAS) from groundwater with high concentrations of natural organic matter* Frederik Zietzschmann, Berliner Wasserbetriebe
	09:20–09:35	*Treating 1,4-Dioxane with Activated Persulfate* Josephine Molin, Evonik Corporation, USA
	09:35–09:50	*Evaluating the Sustainability of Soil Air Remediation* Dennis Lemke, Evonik Real Estate GmbH & Co. KG
	09:50–10:05	*How to Navigate Technical and Non-Technical Challenges during Large Scale Remediation* James Baldock, ERM
	10:05–10:20	Discussion
	10:20–10:50	**Coffee break**
	Technical Session 6: Exploring Challenges Beyond PFAS - Emerging Concerns, Policy and Regulatory Frameworks Session Chairs: Ken Scally & Malte Rebentisch	
	10:50–11:05	*How policymakers can move the circular economy forward regarding persistent and mobile substances in the soil-sediment water system Policy Recommendations from the Horizon 2020 Project PROMISCES* Millaray Sierra Olea, DECHEMA
	11:05–11:20	*6PPD Quinone in Stormwater Implications for Aquatic Life and Human Health* Ken Scally, Normec DETS and Latis Scientific
	11:20–11:35	*PFECHS – just a curiosity, or a PFAS of Emerging Concern?* Jane Thrasher, Jacobs
	11:35–11:50	*Towards Zero Pollution – what could Risk-informed Governance mean, and are PFAS already a tipping point?* Dietmar Müller-Grabherr, COMMON FORUM
	11:50–12:05	Discussion
	12:10–12:40	Closing of the workshop
	12:40–13:40	**Lunch**

PARALLEL SESSION Room Manfred-Eigen Hall	09:00–09:05	Good morning
	Technical Session 5: Monitoring, Modelling, and Risk Assessment II Session Chairs: Julie Lions & Gerlinde De Moor	
	09:05–09:20	*From Catchment to Drinking Water Combining Monitoring and Modelling to Assess the Risks of Emerging Pollutants in the Upper Danube* Ali Obeid & Meiqi Liu, Vienna University of Technology
	09:20–09:35	*Environmental fate of PFAS and its impact on water and soil management* Tom Bosma, Deltares
	09:35–09:50	*Environmental Source Tracking of Per- and Polyfluoroalkyl Substances in lake water, storm water, groundwater and sediments at Lake Flughafensee in Berlin (Germany)* Christoph Sprenger, Kompetenzzentrum Wasser Berlin (KWB)
	09:50–10:05	*Advancing PFAS Detection, Remediation, and Risk Assessment: Innovations from the SCENARIOS Project* Francesco Dondero, Department of Science and Technological Innovation (DISIT) Università del Piemonte Orientale
	10:05–10:20	Discussion
	10:20–10:50	**Coffee break**
	Technical Session 7: Innovation – Advancing Solutions II Session Chairs: Tonia Gnoerich & Thomas Track	
	10:50–11:05	*Sonochemical elimination of Per- and polyfluoroalkyl substances (PFAS) present in groundwater: Comparison to simulated water removal efficiency and AFFF formulation* Debabrata Panda, BRGM
	11:05–11:20	*Mobilization of poly- and perfluoroalkyl substances (PFAS) from heterogeneous soils: Desorption by ethanol/xanthan gum mixture* Eric van Hullebusch, Institut de Physique Du Globe de Paris, Université de Paris
	11:20–11:35	*Advancing Circular Water Solutions: Integrated eAOPs and constructed wetlands for Sustainable Irrigation Practices* Sandra Valero, CCB Serveis Mediambientals SAU
	11:35–11:50	*Evaluating Energy Efficiency and Carbon Footprint in Soil Treatment Technologies the case of In Situ Thermal Desorption* Jan Haemers, Haemers Technologies
	11:50–12:05	Discussion
	12:05–12:10	Room change to Max Buchner Hall
	12:10–12:40	Closing of the workshop
	12:40–13:40	**Lunch**

Organizing Committee

Carme Bosch – Eurecat
Claudia Neculau
Eric van Hullebusch – IPGP
Horst Herzog – Infraserv
Jan Haemers – Haemers Technologies
Johan van Leeuwen – KWR water
John Wilson – Scidev
Julie Lions – BRGM
Ken Scally – Normec
Klaus Schnell – ERM
Malte Rebentisch – Ramboll
Mariska Ronteltap – Delfland
Massimiliano Sgroi – UNIVPM
Pascal Endres – Evonik
Thomas Track – DECHEMA
Tonia Gnoerich – Jacobs
Ulf Miehe – Kompetenzzentrum Wasser Berlin

NICOLE Secretariat

Please complete the workshop registration form.
NICOLE members can register through the NICOLE Portal.
Non-members, please contact the NICOLE Secretariat: chayenne.vandijk@nicole.org
Deadline for registration is 14th of March 2025.

For further information on NICOLE membership, workshop programs, registration, or any other practical issue regarding the workshop, please contact:
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