Joined SedNet Workgroup Session on Sediment Quality Guidance and Sediment Quality Assessment (Quality) and Circular Economy Sediment as a Resource (CE) and Meeting of Working Group Education-Science-Policy Interfacing & Sediment Management Concepts (ESPI-SMC)

Workshop Overview

Monday, 3rd of June 2024	
13:00–17:00	Workshop Sediment Quality Location: BUKEA, Neuenfelder Str. 19, 21109 Hamburg
19:00	Gathering in Hamburg's City Center Location: Restaurant D. José, Ditmar-Koel-Straße 11, 20459 Hamburg
Tuesday, 4th of June 2024	
09:00–09:30	Reception at Hamburg Port Authority Location: Hamburg Port Authority, Speicher X, Brooktorkai 1, 20457 Hamburg
09:30–12:30	Working Group on Education-Science-Policy Interfacing & Sediment Management Concepts (Part 1)
09:30–12:30	Joined Session: WG Sediment Quality & Circular Economy (Part 1 & 2)
12:30–14:00	Lunch
14:00–17:00	Working Group on Education-Science-Policy Interfacing & Sediment Management Concepts (Part 2)
14:00–17:00	Joined Session: WG Sediment Quality & Circular Economy (Part 3 & 4)
Wednesday, 5th of June 2024	
09:30–18:30	Site visit to METHA Plant, landfill, dewatering fields, S25 Project and boat tour Location: Aluminiumstraße, 21129 Hamburg
19:00	SedNet Dinner at “Störtebeker Fischrestaurant” Location: Bernhard-Nocht-Straße 68, 20359 Hamburg

Workshop Program

Monday, 3rd of June 2024

Meeting of the Working Group Sediment Quality

Location: BUKEA, Neuenfelder Str. 19, 21109 Hamburg

12:00–13:00	**Arrival at BUKEA**
13:00–17:00	**Workshop Sediment Quality** Topics: 1. Evaluating the Effectiveness of EQS for Sediments: Deciphering Sense from Nonsense, Unveiling Their Utilization or Misuse in Environmental Protection Strategies. 2. Exploring the Nexus between Sediment Toxicity Testing and Benthic Communities: Amplifying the Significance of Multispecies, Multimatrix Assessments. Shining a Spotlight on Sublethal Effects, such as Behavioral Studies, for Deeper Insight. 3. Unveiling the Smoking Gun: Demonstrating the Profound Impact of Contaminated Sediments on Surface Water Quality.
19:00	**Gathering in Hamburg's City Center** Location: Restaurant D. José, Ditmar-Koel-Straße 11, 20459 Hamburg

Tuesday, 4th of June 2024

Working Group on Education-Science-Policy Interfacing & Sediment Management Concepts

Location: Hamburg Port Authority, Speicher X, Brooktorkai 1, 20457 Hamburg

09:00	**Reception at Hamburg Port Authority**
09:30–09:45	**Welcome and Short Presentation by WG ESPI-SMC Chairs** **Cristina Lira & Edward Van Keer** Speicher X, Level 5, Rm. 24
09:45–11:00	**Increase Sediment Literacy (Part 1)** Create 'Sediment Stories' Together. If you attended the last SedNet Conference, you might recall the presentation about the story of 'Sandy' and the innovative ideas to incorporate stories featuring 'Clay' and other sediment heroes. Now is YOUR opportunity to contribute your ideas and build upon the ideas of others. Workshop Objectives: Develop one or more sediment stories (including storyline, text, and illustrations), translate them into several languages, and formulate a communication plan.
11:00–11:30	**Coffee break**
11:30–12:30	**Increase Sediment Literacy (continued)**
12:30–14:00	**Lunch**
14:00–15:30	**Designing a 'Sediment Management Game' for high school, university students, policymakers, and stakeholders (Part 2)** The objective of the game is to be enjoyable while also educating players about the principles of effective sediment management in a river basin. We have already gathered ideas for this game during a previous workshop. This time, our goal is to thoroughly develop these ideas (as well as any new ones)! By the end of the workshop, we aim to have a draft of the game, nearly ready for testing.
15:30–16:00	**Coffee break**
16:00–17:00	**Designing a 'Sediment Management Game' for high school, university students, policymakers, and stakeholders (continued)**
17:00	**Closing remarks**

Tuesday, 4th of June 2024

Joined Session: WG Sediment Quality & Circular Economy (Part 1 & 2)

Location: Hamburg Port Authority, Speicher X, Brooktorkai 1, 20457 Hamburg

09:00	**Reception at Hamburg Port Authority**
09:30	**Workshop Part 1: Joined Session** **Session Chairs: Julia Gebert & Susanne Heise** How can we enhance sediment risk assessment, and what strategies can we adopt for future sediment use if EQS standards become stricter?
09:35–09:50	**Presentation** Implications for the sediment compartment of the Proposal for a Directive amending the Water Framework Directive, the Groundwater Directive and the Environmental Quality Standards directive with special focus on the proposed EQS for sediments for Priority Substance No. 30 Tributyltin. *Carmen Casado, Ecotox Centre, Switzerland*
09:50–10:05	**Presentation** The establishment of stricter EQS according to the Proposal for the Directive amending the WFD and its possible consequences for dredging and disposal for the Port of Hamburg. *Maja Karrasch, Hamburg Port Authority, Germany*
10:05–10:20	**Presentation** How to Overcome Limits Based on Rigid Sediment Standards: A Case Study Based Site-Specific Assessment of Risks for Judging the Problem of Potential Landfill Leachate Reception by the Underlying Soil. *Julia Gebert, Delft University of Technology, The Netherlands*
10:20–11:00	**Discussion** Drawing from the two presentations and the CIS document titled 'Integrated Sediment Management: Guidelines and Good Practices in the Context of the Water Framework Directive', the following questions arise: • How can we develop enhanced EQS standards for sediments? • What strategies can be employed to mitigate risks linked to Circular Economy (CE) applications? • Considering that BU is presently constrained by existing standards, how do these standards restrict BU in Europe, and what measures can be taken to overcome these limitations?
11:00–11:30	**Coffee break**
11:30–12:30	**Workshop Part 2: Parallel Sessions**

WG Circular Economy
Session Chair: Julia Gebert
The 2023 EU Soil Strategy and soil monitoring law.

WG Sediment Quality
Session Chair: Susanne Heise
How can we make sediment toxicity testing safer?

- Are in vitro models in toxicity testing just more of the same?
- Should we place more emphasis on multispecies, multimatrix tests when relating sediment toxicity testing to benthic communities? What is the relevance of sublethal studies, e.g., behavioral studies?
- How can we demonstrate the impact of contaminated sediments on surface water quality? Is there a 'smoking gun'?

12:30–14:00	**Lunch**

Tuesday, 4th of June 2024

Joined Session: WG Sediment Quality & Circular Economy (Part 3 & 4)

14:00	**Workshop Part 3: Joined Session** **Session Chairs: Carmen Casado & Arjan Wijdeveld** The Exploration of Other Emerging Substances in Sediments, Particularly Those Associated with the Energy Transition.
14:05–14:20	**Presentation** Potential new emerging substances related to the energy transition (solar, wind, but also H2 transport and NH3 fuels). *Susanne Heise, Hamburg University of Applied Science, Germany*
14:20–14:35	**Presentation** Impact of emerging substances in the BU of sediments. Different approaches taken within different programs within the USA (CERCLA versus Great Lakes Legacy Act) and EU (Water Framework Directive versus Waste Framework Directive). *Arjan Wijdeveld, Deltares, The Netherlands*
14:35–15:30	**Discussion** • What is our understanding of the toxicity and behavior of chemicals in sediments related to the energy transition? • Could the placement of windmills or solar panels on water affect sediment quality to an extent where Circular Economy (CE) practices become unfeasible? • How to deal with emerging substances within different frameworks: a comparison of strengths and weaknesses within the Waste and Water Framework Directive, CERCLA versus the Great Lakes Legacy Act.
15:30–16:00	**Coffee break**
16:00–17:00	**Workshop Part 4: Parallel Sessions** **WG Circular Economy** **Session Chair: Arjan Wijdeveld** • Definitions of beneficial use (BU) concepts; reflection on the US goal of 70% BU use, and how to reach that goal in the EU? • Beyond the initial mass balance, the need for defining 'value'; are there new drivers (positive or negative) for BU of sediments – as in the EU Green Deals? • Incorporating CO2 and CH4 in sediment in circular economy (CE); progress from CEDA workgroup. • Setting up a synthetic catalog of beneficial use options; progress on CEDA contributions. **WG Sediment Quality** **Session Chair: Carmen Casado-Martinez** *Emerging substances in times of the energy transition* • Technologically critical elements – Do we expect an impact on sediment quality? Setting priorities for future research. • PFAS: Ongoing activities for the sediment compartment and setting priorities for future research.
17:00	**Closing of the day**

Wednesday, 5th of June 2024	
Site Visit	
9:30–10:00	**Reception at METHA Plant** Location: METHA Plant, Aluminiumstraße, 21129 Hamburg
10:00–11:30	**Tour METHA Plant**
11:30–12:00	**Coffee break**
12:00–13:00	**Visit to landfill**
13:00–14:00	**Lunch**
14:00–14:30	**Travel to dewatering fields and S25 site by bus**
14:30–15:30	**Tour dewatering fields and S25 project**
15:30–16:00	**Travel to boat**
16:00	**Boat tour starting from Finkenwerder**
18:30	**End of boat tour at the Landungsbrücken**
19:00	**SedNet Dinner at "Störtebeker Fischrestaurant"** Location: Bernhard-Nocht-Straße 68, 20359 Hamburg (close to the Landungsbrücken)

Contact Persons

Sediment Quality	Susanne Heise (Hamburg University of Applied Science, Germany) Carmen Casado (Ecotox Centre, Switzerland)
Circular Economy	Arjan Wijdeveld (Deltares, The Netherlands) Julia Gebert (Delft University of Technology, The Netherlands)
Management and Literacy	Edward (Edward Van Keer (Flemish Government, Belgium) Christina Ponte Lira (University of Lisbon, Portugal)
Site Visit	Karsten Lehmann (Port of Hamburg, Waterside Infrastructure, Germany)