



Program

Workshop on Sustainable Wastewater Management in Africa and Europe

Advancing Technologies and Inclusive Strategies



18th to 20th November 2024

Venue: Karlon,
Am Fürstenbahnhof 3 - 4,
64295 Darmstadt

Dear participants,

Climate change will undoubtedly lead to a shrinking supply of safe drinking water and other vital resources. It is important to recognize that the challenges may vary from country to country, with some facing much greater obstacles. By embracing new technologies and innovative solutions, we can ensure that drinking water remains abundant and accessible for future generations.

The scope of the workshop is about sharing latest research results, experiences, and stories, as well as showing tailored solutions that help us cope with the upcoming challenges. This gathering brings together academia, policymakers, and industry from both continents to deliberate on critical issues related to wastewater treatment, resource recovery, and environmental sustainability.

Why Focus on Africa and Europe?

Africa and Europe share common wastewater management challenges, but their contexts are very different. With rapid urbanization, industrial growth and population expansion, both regions must explore advanced technologies while ensuring inclusiveness and equitable access to clean water resources.

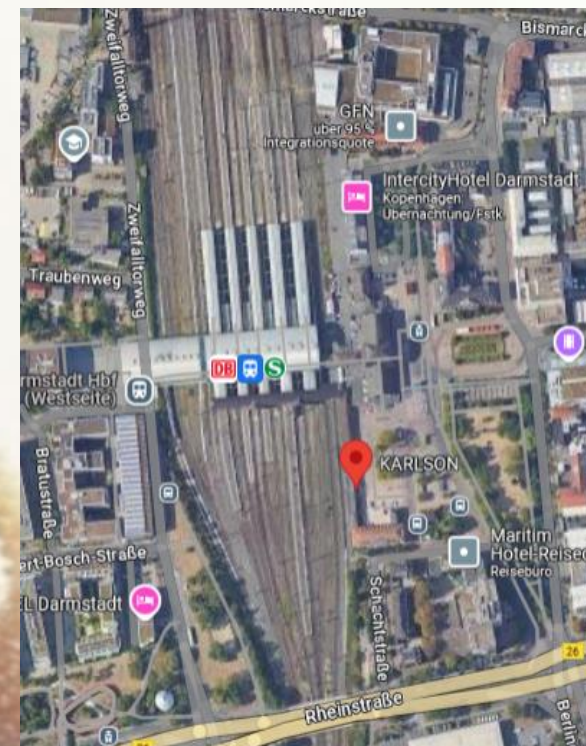
Key Topics

- **Health and Well-being:** Address waterborne diseases through efficient treatment.
- **Resource Recovery:** Explore circular economy and maximize value from wastewater.
- **Innovation and Collaboration:** Learn from global best practices and foster partnerships.

Venue & Directions

Karlon

Am Fürstenbahnhof 3 - 4, 64295 Darmstadt



Contact details

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Organizing Committee

Prof. Holger Lutze
Chair UAS, TU Darmstadt, Germany

Dr. Alessio Campitelli
Chair UAS, TU Darmstadt, Germany

Prof. Theodore N'Dede Djeni
University Nangui Abrogoua, Abidjan, Côte d'Ivoire

Prof. Naaila Ouazzani
University Cady Ayyad, Marrakech, Morocco

Prof. Mostafa Stitou
University Abdelmalek Essaadi, Tétouan, Morocco

Day 1: 18th November 2024

08:30 – 09:00 Check-in & Light Breakfast

09:00 – 09:30 Opening Ceremony
Prof. Holger Lutze
Environmental Analytics & Pollutants, TU Darmstadt

Prof. Theodore N'Dede Djeni
University Nangui Abrogoua, Abidjan (Côte d'Ivoire)

SESSION I

Moderator: Dr. habil. Jan Kannengießer

09:30 – 10:10
Optimize Wastewater Inputs to Stimulate the Production of MCFA from Household Waste Leachate
M.Sc. Frank Orlando Yebouet
University Nangui Abrogoua, Abidjan (Côte d'Ivoire)

10:10 – 10:50
Cassava Processing Effluents as Alternative Electron Donor for Acid Chains Elongation Using Fresh Leachate as Substrate
M.Sc. Akeyt Richmond Herve Koffi
University Nangui Abrogoua, Abidjan (Côte d'Ivoire)

10:50 – 11:10 COFFEE BREAK

11:10 – 11:50
Reduction of Phenols in Olive Mill Wastewater through Co-digestion and Chain Elongation
Dr. Lamia Saadoun
University Cady Ayyad, Marrakech (Morocco)

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Day 1: 18th November 2024

11:50 – 12:30
Co-Digestion of Olive By-Products and Municipal Leachate for Improved Polyphenol Degradation and MCFA Elongation in Anaerobic Bioreactors
M.Sc. Haitam Madouani
University Cady Ayyad, Marrakech (Morocco)

12:30 – 13:30 LUNCH BREAK

SESSION II

Moderator: Prof. Theodore Djeni

13:30 – 14:15
Integration of Sewage Sludge Biochar Mixed with Iron Scraps in Constructed Wetlands: A Sustainable Strategy for Removing Organic Matter and Nutrients from Municipal Wastewater
M.Sc. Sara Mrhari Derdag
University Cady Ayyad, Marrakech (Morocco)

14:15 – 14:55
Investigation of the reactive species formed in O3/PMS process using probe compounds
M.Sc. Jie Ji
Environmental Analytics & Pollutants, TU Darmstadt

14:55 – 15:35
ClO₂ Oxidation of DNA Nucleobases and their Model Aromatic N-containing Heterocycles
Dr. Sajjad Abdighahroudi
Environmental Analytics & Pollutants, TU Darmstadt

15:35 – WRAP UP & DISCUSSION DAY 1

16:00 – End of Workshop DAY 1

Day 2: 19th November 2024

08:30 – 09:00 Check-in & Light Breakfast

09:00 – 09:10 Welcoming

Prof. Naaila Ouazzani

University Cady Ayyad, Marrakech (Morocco)

09:10 – 09:30 Key Note Speech

Prof. Susanne Lackner

Water & Environmental Biotechnology, TU Darmstadt

SESSION III

Moderator: Prof. Mostafa Stitou

09:30 – 09:55

Sustainable wastewater management in the Maghreb regions

tba

GKW Consult GmbH

10:00 – 10:25

Wastewater reclamation and reuse: Marrakech experience

Prof. Naaila Ouazzani

University Cady Ayyad, Marrakech (Morocco)

10:30 – 10:55

A case study of an Industrial WWTP – Had Soualem, Morocco

Ghislain Juvanon

PWT Wasser- und Abwassertechnik GmbH

11:00 – 11:20 COFFEE BREAK

11:25 – 11:50

Transport & Treatment - Efficient wastewater collection with vacuum and reliable treatment solutions for fast growing communities

Dr. Volker Zang

Aqseptence Group GmbH

Day 2: 19th November 2024

SESSION IV

Moderator: Prof. Holger Lutze

11:55 – 12:20

Reform of the Existing Regulatory Framework to improve Indirect Discharge Management

Torsten Lingner (*online*)

GIZ GmbH

12:25 – 12:50

Trends in industrial water management in Europe

Dr. Thomas Jäger

GKW Consult GmbH

12:50 – 13:55 LUNCH BREAK

14:00 – 14:25

Application of Membrane Bio Reactors to Further Purify Wastewater

M.Sc. Max Werner

MANN + HUMMEL, Universität Duisburg Essen

14:30 – 14:55

The 4th Purification Stage - Applied to a Chemical Plant

M.Sc. Luka Gebhard

Merck KGaA

15:00 – 15:25

Active Adsorption in Focus: Electrochemically Driven Adsorption for Effective PFAS Removal from Water

Dr. Navid Saeidi

Helmholtz Centre for Environmental Research - UFZ

15:30 – WRAP UP & DISCUSSION DAY 2

16:30 – End of Workshop DAY 2

Day 3: 20th November 2024

08:45 – 09:00 Check-in & Light Breakfast

SESSION V

Moderator: Dr. Sajjad Abdighahroudi

09:00 – 09:40

Biopolymer Solutions for Pesticide Adsorption

M.Sc. Ibtissam Boussaksou

University Abdelmalek Essaadi, Tétouan (Morocco)

09:40 – 10:20

Emissions and Control of Micropollutants from Bituminous Roof Sheets: A Pilot Study in CO-UDLabs

M.Sc. Amir Asadi

Environmental Analytics & Pollutants, TU Darmstadt

10:20 – 11:00

Occurrence of Pesticides and Other Organic Pollutants in Small Hessian Streams and the Influence of Rain Events

M.Sc. Marcel Reusing

Environmental Analytics & Pollutants, TU Darmstadt

11:00 – 11:40

Closing the Loop: Recycling Nutrients from Sewage Sludge Ash with LCA Insights

M.Sc. Chunyu Miao

Material Flow Management and Resource Economy, TU Darmstadt

11:40 – WRAP UP & DISCUSSION DAY 3

12:00 – 13:00 LUNCH BREAK

13:00 – Travel to Merck KGaA

14:00 – Excursion to WWTP at Merck KGaA

16:00 – End of Workshop DAY 3
