

# Tackling microplastics in the environment – evidence-based policy recommendations on textile fibres, tire abrasion, and pellet loss

09 March 2023 | 09:00-15:00 CET

Representation of the Free State of Bavaria to the European Union in Brussels  
Rue Wiertz 77, 1000 Brussels (Belgium)

## Speaker Bios

### Dr. Armin Hartmuth

**Position:** Deputy director

**Organisation:** Representation of the Free State of Bavaria to the European Union in Brussels

As deputy director of the Bavarian Representation in Brussels, the main focuses of Armin Hartmuth's work are Political priorities, the European Parliament, Press and Public Relations and EU Policies on Media.

### R. Andreas Kraemer

**Position:** Founder and Director Emeritus

**Organisation:** Ecologic Institute

Andreas Kraemer graduated from the Technical University Berlin with a diploma for environmental engineering. He also has a *Maîtrise* from the Université Paris Cité in environmental studies and a diploma from West Kent College for language and trade studies. Before the founding of Ecologic Institute, R. Andreas Kraemer worked for a range of policy institutes: the Science Center Berlin for Social Sciences, the Institut für ökologische Wirtschaftsforschung, and the Environmental Policy Research Center of the Free University of Berlin. From 1991 to its closure in 1995, he was Senior Fellow at the Bonn office of the Institute for European Environmental Policy. Since founding Ecologic Institute in 1995, he has first acted as its Scientific Director and Chief Executive Officer until 2015 and is now Director Emeritus and Chairman. He is currently Senior Fellow of the Centre for International Governance Innovation in Waterloo, Ontario, non-executive Director of the Fundação Oceano Azul in Lisbon, Portugal, and Visiting Assistant Professor of Political Science and Adjunct Professor of German Studies at Duke University. His research focuses on the role and functions of science-based policy institutes or "think tanks" in theory and the practice in different political systems, the interactions among policy domains and international relations, and global governance on environment, resources, climate and energy.

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**Dr. Frieder Kettemann****Position:** Desk Officer**Organisation:** Federal Ministry of Education and Research (BMBF)

Frieder Kettemann studied Chemistry at the Humboldt-University of Berlin. After his Diploma in Chemistry, he obtained a PhD in physical Chemistry at the Humboldt-University of Berlin and the Fritz-Haber Institute. His research focus was on the synthesis and catalytic properties of colloidal nanoparticles. He then worked at the Project Management unit of Forschungszentrum Jülich GmbH with a focus on energy research and Power-to-X-technologies. In 2019 she joined the Federal Ministry of Education and Research and is currently responsible for the development and implementation of research strategies and funding programs in areas such as geosciences and the digitalization in green technologies and recycling.

**Werner Bosmans****Position:** Policy Officer - Circular Economy**Organisation:** European Commission, DG Environment

Werner Bosmans graduated as a Bioengineer at the University of Ghent, Belgium, and obtained a Ph.D. in international economics in Montpellier, France. He also holds a degree in Public Management. After undertaken research at the University of Ghent and at the Belgium Ministry of Agriculture, he worked as assistant to the Secretary-General of the Belgian and then Flemish Ministry of Agriculture. In 2005, he joined the Directorate-General Environment of the European Commission in Brussels. He was responsible for Natural Resource policies, promoting life cycle thinking to reduce environmental impacts. He helped setting up the International Resource Panel together with UNEP. He is one of the authors of the Roadmap to a Resource Efficient Europe and coordinated the European Resource Efficiency Platform (EREP) and work around the Circular Economy. Today, he is team leader "Plastics" in DG Environment.

**Mag. Dr. Romana Hornek-Gausterer****Position:** Senior expert and lecturer**Organisation:** Environment Agency Austria (Umweltbundesamt Österreich)

Romana Hornek-Gausterer began her studies at the University of Vienna, from which she holds master's degree in microbiology. She obtained her PhD in biology at the University of Technology in Vienna, investigating optimization strategies of nitrification in wastewater treatment plant. Thereafter, she became a research assistant studying degradation processes of endocrine substances. A post-graduate course in toxicology completed her education. Since 2007, she works as ecotoxicologist at the Environment Agency in Austria, focusing on risk assessment of persistent chemicals under the chemicals legislation REACH. She is currently

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leading a project on tyre wear and substances of concern. In addition, she works as senior lecturer at the University of Applied Sciences gives lectures in ecotoxicology and supervises master theses on emerging topics.

### **Prof. Dr. Ing. Matthias Barjenbruch**

**Position:** Professor and department manager, director

**Organisation:** Technical University Berlin (Department of Urban Water Management)

Born in the Hanseatic city of Stade, Matthias Barjenbruch studied civil engineering in Hanover, specializing in urban water management, water resources management and solid construction. After graduating, he became a researcher at the Institute of Sanitary Engineering and Waste Management at the University of Hanover and received his doctorate in engineering. In 2006, he became the director of the Department of Urban Water Management at the Technical University Berlin. He is managing board of the DWA and the Head of the DWA Technical committee "Advanced waste water treatment".

### **Dr. Korinna Altmann**

**Position:** Scientist

**Organisation:** Bundesanstalt für Materialforschung und -prüfung (BAM)

Corinna Altmann graduated as a chemist at Freie Universität Berlin, Germany, and also obtained a Ph.D. in chemistry at the same university. She holds a degree in analytical chemistry from Leipzig University and is certified by the TÜV agency as a quality manager. She started working at BAM in 2010, where she also cooperated during her diploma and her doctorate. After becoming a postdoctoral researcher for BAM in 2016, she started as a full-time scientist in 2020. In the last years, she worked in the BMBF Research Focus "Plastics in the Environment" of the German Ministry for Education and Research, where she organized the RUSEKU-project on micro plastics in wastewater and the water cycle.

### **Nicklas Gustavsson**

**Position:** Lead Consultant

**Organisation:** Ramboll Consulting Engineering Group

Nicklas Gustavsson holds a master's degree in medical science in toxicology from Karolinska Institutet in Stockholm. He worked as an environmental analyst at the Swedish Museum of Natural History monitoring environmental contaminants in biota before changing to a traineeship at the European Food Safety Authority (EFSA) assessing risks from contaminants in food. As a consultant, his interest and participation in projects covering material use, recycling and hazardous substances has given him in-depth knowledge and experience of the challenges related to the circular economy and sustainable resource use. Nicklas has led and participated

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in several projects related to microplastics and textiles and was recently involved in developing policy measures to increase reuse and recycling of plastics for the Swedish Environmental Protection Agency. Nicklas has also assisted in the impact assessment for the Swedish government's report on extended producer responsibility (EPR) for textiles. During his career, Nicklas has participated in many investigations for public sector clients such as The European Commission, The European Chemicals Agency, The Nordic Council of Ministers, The Swedish Chemicals Agency, The Swedish Energy Agency and The Swedish EPA.

### **Felix Weber**

**Position:** PhD Student

**Organisation:** RheinMain University of Applied Sciences, TU Clausthal

Felix Weber graduated from the RheinMain University of Applied Sciences with a Master of Engineering in the field of environmental engineering in 2020. He started his PhD at TU Clausthal in 2021 and is set to finish it in 2025. He started working as a Research Assistant for the RheinMain University of Applied Sciences in 2019. After finishing his master's, his job there became full-time in 2021. His work focuses on microplastic analysis in industrial wastewater by  $\mu$ -Ramanspectroscopy (project EmiStop). Currently, he is investigating microplastics in wastewater, process water, and products from the paper industry (project MiPa). Besides, his research focuses on method development and validation, e.g. sampling recovery rates and machine learning for Raman spectra alignment.

### **Luisa Barkmann-Metaj**

**Position:** PhD Student

**Organisation:** TU Darmstadt

Luisa Barkmann-Metaj graduated from the RheinMain University of Applied Sciences with a Master's degree in Bio and Environmental Engineering. She started her Ph.D. at TU Darmstadt in 2021 and is set to finish it in 2024. In 2017, she started working in the field of microplastics as a research assistant at RheinMain University of Applied Sciences. In 2018 she changed working groups and started as a researcher at TU Darmstadt, focusing on microplastics in industrial wastewater and their losses along the process chain of plastics products.

### **Dr. Ulrike Braun**

**Position:** Head of department

**Organisation:** German Environment Agency (UBA)

Ulrike Braun is the Head of department at the German Environment Agency (UBA) for "Environmentally compatible technology – processes and products" as well as "Monitoring procedures and wastewater disposal". Before joining UBA, Dr. Braun worked at the German

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*Bundesanstalt für Materialforschung und -prüfung (BAM)*. At BAM, she led the joint research project RUSEKU ("Representative investigation strategies for an integrative system understanding of specific inputs of plastics into the environment"), which was funded by the BMBF as part of the research focus "Plastics in the Environment". The aim of RUSEKU was to optimise the procedures for taking representative samples from water and wastewater. Dr. Braun's expertise lies in the area of polymer degradation analytics, degradation mechanisms, and microplastics chemistry. She is member of the ISO Joint Working Group on Microplastics.

### **Dr. Nizar Benismail**

**Position:** Managing Director

**Organisation:** Nestlé Quality Assurance Center Vittel

Dr. Nizar Benismail is the Head of Nestlé Quality Assurance Center Vittel (NQAC) the central laboratory of Nestle Waters in the field of water, beverage & packaging quality since 2013.

He finished in 1999 his PhD in Chemistry at the Université Henri Poincaré in the field of polymer and analytical sciences. He has more than 25 years' experience leading teams in the field of analytical sciences, R&D and contaminants within different fields as petrochemical, food, feed, hospital health, animal health, environment and water fields.

He is an international expert at ISO/TC 147 "Water Quality" normalization committees and specialized in contaminants & analytical investigations. He is Co-convenor of the ISO/TC 147/SC 2/JWG 1 on Microplastics. He also participates in the EU EURAMET PlasticTrace project dedicated to harmonization of microplastic analytical methods and preparation of reference materials.

### **Dr. Saskia Ziemann**

**Position:** Project Manager

**Organisation:** Karlsruher Institut für Technologie, Projektträger Karlsruhe (PTKA)

Saskia Ziemann studied environmental sciences at University of Karlsruhe (now Karlsruhe Institute of Technology – KIT), where she earned her diploma degree. She started working for the KIT Institute for Technology Assessment and Systems Analysis (ITAS) as a Research Associate in 2007. Her research fields comprised issues of sustainability assessments, critical raw materials for key technologies with a focus on electrochemical storage systems, material flow analysis and life cycle assessments. She finished her PhD in civil and environmental engineering at the Technical University Darmstadt in 2017. The topic of her doctorate was the investigation and evaluation of raw material availability for electromobility. In the meantime, she was already working for the Project Management Agency Karlsruhe, where she has been managing the BMBF Research Focus "Plastics in the Environment" since 2017.

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## **Prof. Dr. Christian Laforsch**

**Position:** Professor at the chair for animal ecology

**Organisation:** University of Bayreuth

Christian Laforsch graduated from the LMU Munich with a diploma in biology. He then did his PhD in evolutionary ecology at the same university. After four years as a postdoc, he became a habilitated lecturer in 2009 and held the substitute professorship for aquatic ecology at the LMU Munich. In 2012, he came to the University of Bayreuth to start his professorship for animal ecology. His research focuses on aquatic ecology and evolutionary ecology, particularly how organisms adapt to a changing environment and on the phenomenon of phenotypic plasticity. He is working on the topic of microplastics for ten years and was among the first authors addressing the problem of microplastics in freshwater ecosystems. His expertise in the field of microplastics ranges from sampling, extraction and purification techniques to the quantification and identification of microplastics from different environmental matrices (water, soil, air) with a strong focus on method development. He has been working in the interdisciplinary collaborative project PLAWES of the BMBF Research Focus "Plastics in the Environment". He is partner in the EU-H2020-Projects PAPILLIONS - Plastics in agriculture: impacts, lifecycles & long-term sustainability and PlasticsFatE - Plastics Fate and Effects in the human body, speaker of the ITN-Training Network LimnoPlast - Microplastics In Europe's Freshwater Ecosystems: from sources to solutions as well as speaker of the DFG - Collaborative Research Centre CRC 1357 Microplastics - Microplastics - Understanding the mechanisms and processes of biological effects, transport and formation: From model to complex systems as a basis for new solutions.

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