

Circularity and Plastics--A Workshop

Committee

Rajesh Buch

Chair

Rajesh Buch is the Director of Circular Economy Practice and Business Development and a Professor of Practice at Arizona State University (ASU) Thunderbird School of Global Management. He co-creates and advances ethical circular economy knowledge and develops applied solutions, by building collaborative networks of ASU experts, funders and implementing partners. As a Professor of Practice he has created content and taught global entrepreneurship, sustainable business classes and ethical circular economy for professional and academic classes and workshops. His applied research focuses on transforming regional waste and recycling systems. He has also researched the effectiveness of ocean plastics extraction/removal technologies. Buch is a committee member on the State of Arizona Department of Environmental Quality Arizona Recycling Advisory Committee, commissioned to grant funds to advance recycling and circular economy in Arizona. He received a B.S. in mechanical engineering from the University of Illinois at Urbana-Champaign, an MBA from the ASU W.P. Carey School of Business, and a Ph.D. in sustainability from the ASU School of Sustainability. He is a member of the National Academies of Sciences, Engineering, and Medicine's Roundtable on Plastics.

Rajesh's team at ASU is developing a small scale distributed and decentralized waste plastic processing and remanufacturing facility, with the goal to develop scalable networks of these facilities that can help reduce plastic pollution and create jobs. The team is also working on a project to evaluate the Arizona-wide economic impact of the recycling industry, to identify opportunities for growing the industry based on waste flow, geospatial distribution and logistical analyses.

Anthony Xavier Clerc

Member

Anthony Clerc is a Senior Director of Research and Development at Procter & Gamble (P&G). He is responsible for a broad range of sustainability technologies including the development of new raw materials and recycling technologies. Clerc has over 30 years of experience developing and scaling up new technologies in a broad range of industries including beauty care (skin creams), food (chocolate with Mars), baby care (diapers) and insecticide products. In 2023, he was appointed to his current role with focus on Sustainability to help P&G deliver several critical materials and recycling technologies to scale and to markets. He has received internal awards for Excellence in Delivery for technology start-ups in Europe, Russia, the Middle East and the United States. Clerc received a Diplome D'Ingenieur from Ecole Superieure de Physique et Chimie Industrielles de Paris (ESPCI Paris Tech) and M.S. in chemical engineering with Distinction from Imperial College London. He is an ex officio member of the National Academies of Sciences, Engineering, and Medicine's Roundtable on Plastics.

Mridula Kapur

Member

Mridula (Babli) Kapur is a Principal Research Fellow at the Dow Chemical Company. During her 30+ year Dow career Kapur has significantly contributed to business growth through new technology and differentiated performance product development. She has led technology development from conception to commercialization, as exemplified by a novel, multifunctional quality control analyzer implemented globally in manufacturing plants. By combining catalyst-process-materials science expertise with market needs insight, she has designed polymers for flexible and rigid packaging, durable goods, pipe, wire and cable applications. She has 49 granted U.S. patents. Kapur was appointed to leads the Dow Packaging and Specialty Plastics R&D Safer Materials Platform encompassing substances of concern, microplastics, and recycling stewardship. Kapur is a Fellow of the Society of Plastics Engineers and a former member of the Texas A&M Materials Science and Engineering Department industrial advisory board. Recent external recognition of her work includes a 2022 R&D 100 Award, Gold Edison award, the American Chemical Society Heroes of Chemistry award, and the 2024 Society of Asian Scientists and Engineers Career Achievement award. She received a Ph.D. in physical chemistry from Texas A&M University, College Station. She is a member of the National Academies of Sciences, Engineering, and Medicine's Roundtable on Plastics.

Rachel Karasik

Member

Rachel Karasik is a Research Scientist with the Norwegian Institute for Water Research (NIVA), in the section on International Environment and Development. Karasik previously worked for Duke University's Nicholas Institute for Energy, Environment & Sustainability, and held a one-year appointment with the White House Council on Environmental Quality. Her research interests include broadly assessing the global environmental policy landscape, with a focus on identifying gaps in current approaches, and measuring social and economic outcomes of policy implementation. Karasik has developed expertise on both the global plastics policy landscape, by creating the Plastics Policy Inventory, as well as in federal decision-making in the United States as it relates to plastic. Recently, her plastic research included assessing environmental justice considerations across the lifecycle and in plastics policy, developing a tool to measure the socioeconomic and environmental impact of local interventions to address plastic, and diving into governance of agricultural plastics and chemical additives in plastic. She received a B.S. from New York University in environmental biology and MEM with a concentration on coastal environmental management from Duke University. She is a member of the National Academies of Sciences, Engineering, and Medicine's Roundtable on Plastics.

Rachel Meidl

Member

Rachel Meidl is a distinguished fellow in energy and sustainability at Rice University's Baker Institute for Public Policy and a strategic advisor on circular economy for MSCI, Inc. Her research focuses on sustainability; circular economy; life cycle management; environmental justice; safety and environmental regulations of the treatment, storage, disposal, and transportation of hazardous materials and wastes; and understanding the environmental, economic, and social impacts across energy supply chains. Meidl was previously appointed Deputy Associate Administrator of the Pipeline and Hazardous Materials Safety Administration in Washington, D.C. Prior to her service in government, she was Director of Regulatory & Technical Affairs at the American Chemistry Council. She has 28 years of experience in industry, academia, government, finance, and international relations. Meidl is a Certified Hazardous Materials Manager, received a B.S. in conservation biology and zoology & animal physiology from the University of Wisconsin-Madison, a M.S. in environmental policy and management, a M.Ed. in applied science and technology with certifications in chemistry and physics, and a Ph.D. in law and public policy from Northeastern University. She is a member of the National Academies of Sciences, Engineering, and Medicine's Roundtable on Plastics.

Nabil Nasr

Member

Nabil Nasr is the associate provost for academic affairs and founding director of Rochester Institute of Technology's (RIT) Golisano Institute for Sustainability (GIS). Nasr is also the founding CEO of the REMADE Institute. He launched RIT's Center for Remanufacturing and Resource Recovery (C3R®). His research focuses on remanufacturing, circular economy, life-cycle engineering, clean production, and sustainable product development. He is a member of the International Resource Panel of the U.N. Environment Programme (UNEP) and serves on the board of trustees for the Ellen MacArthur Foundation. He has served as a US expert and expert delegate in international forums such as the Asia Pacific Economic Cooperation, United Nations, World Trade Organization, and the Organization for Economic Co-operation and Development (OECD). He received a M.S. in Industrial and Systems Engineering from Rutgers University, a M. Eng. in Industrial Engineering from Pennsylvania State University, and a Ph.D. in Industrial and Manufacturing Engineering from Rutgers University. He is a member of the National Academies of Sciences, Engineering, and Medicine's Roundtable on Plastics.

Veena Singla

Member

Veena Singla is an Adjunct Assistant Professor and Associate Director with the Agents of Change in Environmental Justice Program at Columbia University. She was previously a Senior Scientist with the Natural Resources Defense Council and an Associate Director with the Program on Reproductive Health and the Environment at University of California, San Francisco. Her research investigates how toxic chemicals and pollution related to systems of materials use, production, and disposal, including plastics, threaten the health of impacted communities, especially those experiencing environmental injustices. Her work seeks to address health disparities linked to harmful environmental exposures using an interdisciplinary approach incorporating environmental health, exposure science, public health, and policy expertise. Singla focuses on advancing comprehensive solutions in collaboration with communities that center public health, racial and health equity. She received a B.S. from the University of California, Berkeley in chemistry and a Ph.D. in cell biology from the University of California, San Francisco. She is a member of the National Academies of Sciences, Engineering, and Medicine's Roundtable on Plastics.

Imari Walker-Franklin

Member

Imari Walker-Franklin is a Research Scientist at RTI International, actively contributing to research aimed at assessing human and environmental exposure to potentially harmful substances. Walker-Franklin's research interests span across critical areas such as plastic pollution, microplastics, emerging contaminants, analytical chemistry, and environmental justice. One of her key projects involves investigating the release and impact of microplastics and microplastic-associated chemicals within simulated human fluids and tissues. Previous research focused on comprehending the release, transformation, and effects of polymer-associated chemicals in aquatic environments. Passionate about science communication and outreach, Walker-Franklin has established a dedicated YouTube channel focused on plastic pollution, engaged in podcasts, offered scientific expertise for journal articles, and actively participated in public speaking events tailored for general audiences. She received a B.S. in marine science from the University of California, Berkeley and a Ph.D. in civil and environmental engineering from Duke University. She is a member of the National Academies of Sciences, Engineering, and Medicine's Roundtable on Plastics.

Imari co-published the article "The impacts of plastics' life cycle" in One Earth in 2023 which provides an overview of plastics production, use, and end of life, and associated challenges to the environment.

Caroline Bell

Staff Officer

Liana Vaccari

Staff Officer