

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

**Fall 2020 Sustainability Webinar Series:
Plastics and Circular Economy**

Monday, November 9, 2020
(All times are Eastern Time)

- 11:00 am **Welcome Remarks**
David Dzombak (NAE), Carnegie Mellon University; Chair, National Academies Roundtable on Science and Technology for Sustainability
- 11:10 am **Presentations: Plastics and Circular Economy**
- Jacqueline McGlade, University College London (Global and Academic Perspectives)
 - Craig McLean, National Oceanic and Atmospheric Administration, U.S. Department of Commerce (National Perspective)
- 11:40 am **Q&A and Discussion**
Moderator: David Dzombak (NAE), Carnegie Mellon University and Roundtable Chair
- 12:00 pm **Adjourn**

Speaker Biographical Information

DAVID DZOMBAK (NAE) (Roundtable Chair) is the Hamerschlag University Professor and Head of the Department of Civil and Environmental Engineering at Carnegie Mellon University. The emphasis of his research and teaching is on water resources and water quality engineering, and energy-environment issues. Dr. Dzombak is a member of the National Academy of Engineering, a registered Professional Engineer in Pennsylvania, a Board Certified Environmental Engineer, and a Diplomate Water Resources Engineer. His professional service activity has included the U.S. Environmental Protection Agency (EPA) Science Advisory Board (2002-2016); the U.S. Department of Defense (DOD) Strategic Environmental Research and Development Science Advisory Board (2013-2016); the EPA National Advisory Council for Environmental Policy and Technology, Environmental Technology Subcommittee (2004-2008); the National Research Council (various committees, boards, and roundtables, 2000-present); Editorial Advisory Board for Sustainable Chemistry & Engineering (2012-2016); Associate Editor of Environmental Science & Technology (2005-2012); chair of committees for the American Academy of Environmental Engineers and Scientists, American Society of Civil Engineers, Association of Environmental Engineering and Science Professors, and Water Environment Federation; and advisory committees for the Commonwealth of Pennsylvania and many other organizations. Dr. Dzombak received his Ph.D. in Civil Engineering from the Massachusetts Institute of Technology in 1986. He also holds an M.S. in Civil Engineering (1981) and a B.S. in Civil Engineering (1980) from Carnegie Mellon, and a B.A. in Mathematics from Saint Vincent College (1980).

JACQUELINE MCGLADE is currently Professor of Resilience and Sustainable Development at the University College London Institute for Global Prosperity and Faculty of Engineering, and Professor and Director of the Sekenani Research Centre of the Maasai Mara University, Kenya. She was Executive Director of the European Environment Agency from 2003-2013, where she was on leave from her post as Professor of Environmental Informatics at University College London. Between 2014 and 2017 she was

Chief Scientist and Director of the Science Division of the United Nations Environment Programme based in Nairobi. Over the past 40 years Professor McGlade has worked at the interface of sustainable development, science, society and policy. She has established and led science and research initiatives across the United Nations (UN), European Union (EU) and around the world. Professor McGlade is known for her research on data and informatics and the use of earth observation, and assessments on biodiversity, climate change, ecosystems, oceans, social dynamics and indigenous knowledge, sustainable development, and non-linear dynamics. She is an author of more than 200 publications, including as lead author and editor in chief of more than 45 major EU and UN publications and research reports. Professor McGlade completed her B.S.c in Marine Biology, Biochemistry and Soil Science at Bangor University (then known as the University College of North Wales), UK, in 1977. She obtained her Ph.D. degree in 1980 on aquatic sciences and zoology from the University of Guelph in Canada. In 1987, she obtained a M.A. degree from the University of Cambridge.

CRAIG MCLEAN is the Assistant Administrator for Oceanic and Atmospheric Research at the National Oceanic and Atmospheric Administration (NOAA) within the U.S. Department of Commerce. He is responsible for NOAA's research enterprise including a network of research laboratories and programs including the Climate Program, National Sea Grant, Ocean Exploration, and Weather Research. Internationally, Mr. McLean serves as the U.S. Representative to the Intergovernmental Oceanographic Commission (IOC), and as the Co-chair of the U.S. European Union Marine Working Group, and in the US-Canada-EU North Atlantic Ocean Research Alliance under the Galway Statement. Mr. McLean has previously served as NOAA's Acting Chief Scientist, Acting Deputy Assistant Administrator of the National Ocean Service, and was the founding Director of NOAA's Office of Ocean Exploration and Research and served in uniform for nearly 25 years in NOAA's Commissioned Corps, attaining the rank of Captain. Mr. McLean served aboard hydrographic, oceanographic, and fisheries research ships. Mr. McLean led NOAA's innovation and planning for the Smithsonian Institution's Sant Ocean Hall, and achieved a National Ocean Action Plan goal of securing a permanent, dedicated US ship for the ocean exploration, the NOAA Ship Okeanos Explorer. Mr. McLean is also an attorney and has practiced marine resource law for NOAA. He is a Fellow of the Explorers Club, the Marine Technology Society, a 250th Anniversary Fellow of Rutgers University, and a past-president of the Sea-Space Symposium.