John Roberts has been Executive Director of MIT Corporate Relations (Interim) since February 2022. He obtained his Ph.D. in organic chemistry at MIT and returned to the university after a 20-year career in the pharmaceutical industry, joining the MIT Industrial Liaison Program (ILP) in 2013. Prior to his return, John worked at small, medium, and large companies, holding positions that allowed him to exploit his passions in synthetic chemistry, project leadership, and alliance management while growing his responsibilities for managing others, ultimately as a department head. As a program director at MIT, John built a portfolio of ILP member companies, mostly in the pharmaceutical industry and headquartered in Japan, connecting them to engagement opportunities in the MIT community. Soon after returning to MIT, John began to lead a group of program directors with a combined portfolio of 60-80 global companies. In his current role, John oversees MIT Corporate Relations which houses ILP and MIT Startup Exchange.

Mr. Glickman joined the Industrial Liaison Program in January 2000, serving as the MIT liaison for companies worldwide, and joined the senior management of the office in 2005.

Prior to joining ILP, Todd was Assistant Executive Director of the American Meteorological Society (AMS), the professional society for meteorologists, which is based in Boston. At AMS, Todd's responsibilities included strategic planning for conferences, headquarters' liaison with AMS member boards and committees, support to the AMS Council, and public relations. In addition, Todd was Managing Editor for the AMS Glossary of Meteorology (2nd edition).

From 1979 to 1994, Todd held a variety of positions with WSI Corporation of Billerica, MA, including Manager, New Product Development, Media Marketing Manager, and Manager of the Government Program Office. WSI was a pioneer in the development of real-time weather information, providing value-added information and workstations for clients in media, aviation, industry, academia, and government. Some of Todd's projects included development of the weather data/information infrastructure for The Weather Channel; the introduction of digital satellite and radar imagery for television; planning and implementation of a network of weather briefing systems for the Federal Aviation Administration; and serving as liaison with the National Weather Service and professional organizations. In addition, Todd was instrumental in helping to develop the public-private partnership between the weather information industry and the Federal government.

Concurrently, Todd has a more than 30-year career as a radio meteorologist, and has been heard on dozens of stations nationwide. Today, he can be heard occasionally on all-news WCBS Newsradio-88 in New York City. He has chaired numerous meteorological conferences and symposia, and served on a number of boards and committees for the American Meteorological Society (AMS). He was awarded the AMS Seal of Approval for Radio Weathercasting in 1979, and was elected a Fellow of the AMS in 1997.

Todd's interests include transportation systems of all types, and he is an officer and past-trustee of the Seashore Trolley Museum of Kennebunkport, Maine. At MIT, Todd an officer and trustee of the Technology Broadcasting Corporation, which oversees the campus radio station WMBR-FM. He also volunteers as the academic advisor to a group of MIT freshman.
Invited Keynote: The Impact of National Sustainability Policy on Industry

Tina Bahadori, M.S., B.S. MIT  
Executive Director, Division of Engineering and Physical Sciences  
The National Academies of Sciences, Engineering, and Medicine
Elsa Olivetti is the Jerry McAfee (1940) Professor in Engineering in the Department of Materials Science and Engineering (DMSE) co-director of the MIT Climate and Sustainability Consortium at the Massachusetts Institute of Technology. Her research focuses on reducing the significant burden of materials production and consumption through increased use of recycled and waste materials; informing the early stage design of new materials for effective scale up; and understanding the implications of policy, new technology development, and manufacturing processes on materials supply chains. Dr. Olivetti received her B.S. degree in Engineering Science from the University of Virginia in 2000 and her Ph.D. in Materials Science Engineering from MIT in 2007.

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The MIT Climate and Sustainability Consortium (MCSC) fosters deep collaboration with companies across the global economy alongside leading experts at MIT as we all work towards necessary and aggressive climate and sustainability goals. This presentation will provide the latest cross-institute, cross-sector efforts of the MCSC to decarbonize tough transportation sectors, carbon removals, material and product circularity as well as value chain resilience.

Dava Newman
Director, MIT Media Lab

Jinhua Zhao
Edward and Joyce Linde MIT Associate Professor of City and Transportation Founder and Faculty Director, MIT Mobility Initiative

Jinhua Zhao is the Edward and Joyce Linde Associate Professor of City and Transportation Planning at the Massachusetts Institute of Technology (MIT). He integrates behavioral and computational thinking to decarbonize the global mobility system. Prof. Zhao founded and directs the MIT Mobility Initiative, coalescing the Institute’s efforts on transportation research, education, entrepreneurship, and civic engagement. He hosts the MIT Mobility Forum, curating cutting-edge transportation research across the globe. Prof. Zhao directs the JTL Urban Mobility Lab and Transit Lab at MIT. He leads long-term collaborations with transportation authorities and operators worldwide, including London, Chicago, Washington DC, and Hong Kong and enables cross-culture learning between cities in North America, Asia and Europe. He develops methods to sense, predict, nudge, and regulate travel behavior, and designs multimodal mobility systems that integrate autonomous vehicles, shared mobility, and public transport. He is the co-founder and chief scientist for TRAM Global, a mobility decarbonization venture.

Link: web.mit.edu/jinhua/www

View full bio

Randy Field
Executive Director, Future Energy Systems Center, MIT Energy Initiative

The Future Energy Systems Center examines the accelerating energy transition as emerging technology and policy, demographic trends, and economics reshape the landscape of energy supply and demand. The Center conducts integrated analysis of the energy system, providing insights into the complex multisectoral transformations that will alter the power and transportation systems, industry, and built environment. Our work draws
Across the globe, there’s never been greater energy and investment to drastically reduce greenhouse gas emissions in the transportation industry — and leading this charge is the electric vehicle (EV) revolution. Vontier believes in the immense potential of electrification to transform the mobility sector and are proud to have over 40,000 plugs under management across the globe through our Drivz business. Electrification is not enough, however. Reaching both short and long-term decarbonization targets requires a more holistic and multi-energy approach. This is because electrification is only one piece of the larger puzzle, particularly when one looks across all modes of transportation and all geographies. A successful transition to zero-emissions will require multiple technologies and alternative fuels, like renewable natural gas and clean hydrogen. Katie will share Vontier’s unique point of view as a multi-energy solutions providers, including lessons learned and sustainability program implications.
Catarina Madeira joined Corporate Relations in May 2021 as Program Director, Startup Exchange.

Madeira has been working with the Cambridge/Boston startup ecosystem for the past 10 years and joins Corporate Relations with a solid network in the innovation and entrepreneurial community. In 2010, she joined the startup accelerator IUL MIT Portugal working in Lisbon and working with the Cambridge team on all aspects related to the accelerator’s launch. She held positions including Operations Coordinator, Program Manager, and Business Developer. The accelerator soon achieved steady growth in large part due to the partnerships that Catarina led with regional and global startup ecosystems. Most recently she worked at NECEC, leading a program that connects cleantech startups and industry. In this role, she developed and built a pipeline of startups and forged strong relationships with both domestic and European companies. She has also held positions in Portugal and France including at L’Oréal and Saboaria e Perfumaria Confiança as Pharmacist and Technical Director.

Madeira earned her Bachelor in Chemistry at the University of Porto and her Bachelor in Pharmaceutical Sciences at the University of Coimbra in Portugal. She went on to earn her Master of Engineering for Health and Medicines at University Lyon 1 and EM Lyon in France.
Leslie Norford is Professor of Building Technology and Associate Head of the Department of Architecture at MIT. His research focuses on reducing building energy use and associated resource consumption and carbon emissions and his teaching includes project-based efforts to improve schools in developing countries and promote the use of simulation-enhanced building design workflows. He has developed fault detection and optimal control strategies for HVAC equipment and explored design options for low-energy space-conditioning systems based on the use of desiccants and membranes for latent cooling. Working with mechanical and electrical engineering colleagues and students at MIT, he has studied how control of HVAC systems can help electric utilities mitigate the impact of power fluctuations associated with wind and PV systems through provision of such services as power reserves and frequency regulation. Active internationally, he has conducted measurement campaigns and numerical analyses of building energy consumption in Russia, China, Pakistan, the UK and Norway. Recent work in India focused on indoor and ambient air quality, with emphasis on mitigating the impact of cooking and land-clearing fires in agricultural areas that surround cities. Over a decade of leading a research group in Singapore, under the auspices of the Singapore-MIT Alliance for Research and Technology and related work with colleagues in Abu Dhabi produced measurements and models of urban microclimates, with a focus on identifying strategies to improve human thermal comfort in outdoor urban areas.
Scalable Energy Storage in Concrete – All Buildings A Battery
Franz-Josef Ulm
Faculty Director, Concrete Sustainability Hub
Professor, Construction Management, Civil and Environmental Engineering, MIT
Department of Civil and Environmental Engineering

Dr. Franz-Josef Ulm is a Professor of Civil & Environmental Engineering at the Massachusetts Institute of Technology. A structural engineer by training, he is the faculty director of the Concrete Sustainability Hub at MIT, an academia-industry partnership between MIT and the North-American Cement and Ready Mix Concrete Industry to advance the industry’s 2050 carbon neutrality goals through sustainable development of resilient solutions from materials scale to infrastructure solutions. He is recognized as a leading expert worldwide in the nanoengineering of concrete and its implementation at the industry scale. He is an elected member of the US National Academy of Engineering, the European Academy of Science and Arts, and the Austrian Academy of Science; and Chief Editor of the Journal of Engineering Mechanics of the American Society of Civil Engineers.

Admir Masic
Esther and Harold E. Edgerton Assistant Professor of Civil and Environmental Engineering, MIT Department of Civil and Environmental Engineering
Admir Masic is an Esther and Harold E. Edgerton Career Development Assistant Professor in the Department of Civil and Environmental Engineering (CEE) at the MIT. He is also an archaeological materials faculty fellow for the Department of Materials Science and Engineering (DMSE) at the Center for Materials Research in Archaeology and Ethnology (CMRAE) and founder of the MIT Refugee Action Hub (MIT ReACT). His research focuses on the development of high performance, in situ and multiscale characterization techniques to investigate complex biological and archaeological materials. His group explores ancient technologies as a source of inspiration for the development of a new generation of more durable and sustainable building materials. In 2019, Masic received the CEE Masheeh Excellence Teaching Award. From 2008-2015, Masic, was an independent group leader at the Max Planck Institute of Colloids and Interface in Potsdam, Germany. He completed his physical chemistry MS and PhD degrees at University of Turin.

Day 2 | Wednesday September 27, 2023

9:00 AM Opening Remarks
Invited Keynote: The Impact of Massachusetts Energy And Environmental Policy on Industry

Rebecca Tepper
Massachusetts Secretary
Executive Office of Energy and Environmental Affairs

Sustainability for National Defense
Deborah Campbell
Senior Staff: Climate Change Initiative Lead-Humanitarian Assistance and Disaster Relief
Group, MIT Lincoln Laboratory

Networking Break

Bio-Inspired Technologies for Sustainability and Clean Energy
Ariel L. Furst
Paul M. Cook Career Development Professor, MIT Department of Chemical Engineering

Ariel L. Furst received a B.S. degree in Chemistry from the University of Chicago working with Prof. Stephen B. H. Kent on the chemical synthesis of proteins. She then completed her Ph.D. in the lab of Prof. Jacqueline K. Barton at the California Institute of Technology developing new cancer diagnostic strategies based on DNA charge transport. She was then an A. O. Beckman Postdoctoral Fellow in the lab of Prof. Matthew Francis at the University of California, Berkeley. She is now an assistant professor in the Chemical Engineering Department at MIT. She is passionate about STEM outreach and increasing participation of underrepresented groups in engineering.

MIT Energy & Climate Club Launchpad Program
Charlotte Ross
Co-founder
MITEC Launchpad
Trent Weiss
Co-founder
MITEC Launchpad
Jim Owens
Co-founder and Vice President External Relations
MITEC Launchpad

MIT Climate Grand Challenges
David Babson
Executive Director, Climate Grand Challenges
Bringing Computation to the Climate Challenge
Center for Electrification and Decarbonization of Industry
Preparing for a New World of Weather and Climate Extremes
Climate Resiliency Early Warning System (CREWSnet)
Revolutionizing Agriculture With Low-Emissions, Resilient Crops

Closing