

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Dr. Harry Atwater**

*Howard Hughes Professor of Applied Physics and Materials Science  
California Institute of Technology*

Harry Atwater is the Howard Hughes Professor of Applied Physics and Materials Science at the California Institute of Technology. Professor Atwater currently serves as Director of the DOE Joint Center for Artificial Photosynthesis. Atwater's scientific interests have two themes: photovoltaics and solar energy as well as plasmonics and optical metamaterials. His group has created new high efficiency solar cell designs, and have developed principles for light management in solar cells. Atwater is an early pioneer in nanophotonics and plasmonics; he gave the name to the field of plasmonics in 2001. He has authored or co-authored more than 400 publications cited in aggregate > 33,000 times and his group's advances in the solar energy and plasmonics field have been reported in *Scientific American*, *Science*, *Nature Materials*, *Nature Photonics*

and *Advanced Materials*.

He is co-founder and chief technical advisor for Alta Devices, a venture-backed company in Santa Clara, CA, that holds the current world record for 1 Sun single junction solar cell efficiency and that is currently transitioning high efficiency/low cost GaAs photovoltaics technology to manufacturing and large-scale production. He serves as Editor in Chief for the journal *ACS Photonics*, and is Associate Editor for the *IEEE Journal of Photovoltaics*, and in 2006 he founded the Gordon Research Conference on Plasmonics, which he served as chair in 2008.

Harry Atwater is a Fellow of the Materials Research Society, and Member of US National Academy of Engineering. Atwater has been honored by awards, including: (2016) APS David Adler Lectureship for Advances in Materials Physics, (2014) Julius Springer Prize in Applied Physics, (2014) ISI Highly Cited Researcher, (2013) Fellowship from the Royal Netherlands Academy of Arts and Sciences, (2012) ENI Prize for Renewable and Non-conventional Energy, SPIE Green Photonics Award (2012), MRS Kavli Lecturer in Nanoscience (2010), the Popular Mechanics Breakthrough Award (2010). He received the Joop Los Fellowship from the Dutch Society for Fundamental Research on Matter (2005), the A.T. & T. Foundation Award (1990). He won the NSF Presidential Young Investigator Award (1989) and the IBM Faculty Development Award in 1989-1990.

Professor Atwater has worked extensively as a consultant for industry and government, and has actively served the materials community, including Material Research Society Meeting Chair in 1997, AVS Electronic Materials and Processing Division Chair in 1999, Materials Research Society President in 2000, and Board of Trustees of the Gordon Research Conferences. He also teaches graduate level Applied Physics classes at Caltech in optoelectronics, solid-state physics and device physics.

Professor Atwater received his B. S., M. S. and Ph.D. degrees from the Massachusetts Institute of Technology respectively in 1981, 1983 and 1987. He held the IBM Postdoctoral Fellowship at Harvard University from 1987-88, and has been a member of the Caltech faculty since 1988.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Dr. Katherine Ayers**

*Vice-President of Research & Development*  
Proton OnSite

Katherine Ayers is Vice President of Research and Development at Proton OnSite, with responsibility for Proton's commercial cell stack designs as well as advanced technology strategy and execution. She also manages many of Proton's external research collaborations with universities and national labs. Dr. Ayers is recognized as a strong technical leader in electrochemical technologies, particularly hydrogen generation. She has served as Principal Investigator on many successful programs leading to commercial implementation of R&D advancements, and provides technical expertise for multiple scientific advisory boards as well as serving on the Hydrogen and Fuel Cells Technical Advisory Committee (HTAC) to the Secretary of Energy.

Under her leadership, Proton has been highlighted as an SBIR success story, and recognition of her work includes awards from DOE, ACS, ECS, and the Fuel Cell Seminar. Prior to joining Proton OnSite, Dr. Ayers worked in the battery field for 10 years. She received her Bachelor of Science degree in Chemistry/Chemical Physics at University of California, San Diego, and her Ph.D. in Chemistry at the California Institute of Technology.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Mr. John H. Davis**

*Creator/Host/Senior Executive Producer  
MotorWeek*

As Emmy Award-winning producer, host and creator of MotorWeek, television's original and longest running automotive series, John Davis can be seen and heard throughout the U.S. on PBS broadcast and the Velocity cable networks. Through media appearances, Davis' automotive industry expertise is tapped by commercial radio and television programs nationwide (CNN, Weekend Today and Live with Regis and Kelly) as key industry developments arise. A sought-after speaker, Davis frequently addresses automotive executives, consumer groups, automotive enthusiasts and students interested in the field.

As MotorWeek's host for the show, now celebrating its 35th season, Davis has the opportunity to put all of the new car models through extensive road tests and to judge their practicality for buyers. He also

acts as final editor on all of the new car road test segments and writes many of the test opinions as well as other portions of the program. MotorWeek offers him that rare chance to bring the enjoyment of a hobby to his professional life, and to use his broadcasting, engineering and analytical expertise to bring information and insight to those who enjoy cars.

As outreach, Davis and MotorWeek have worked in recent years with the U.S. Department of Energy (DOE) to promote public awareness of alternative fuels. During 2004 and 2005, he served as spokesperson for North Carolina Department of Transportation's initiative promoting annual automotive emissions inspections. In 2002, Davis was spokesperson for the "Smooth Operator" public awareness campaign on aggressive driving in the tri-state area of Maryland, Northern Virginia and Washington, D.C.

Davis is one of the founders of the North American Car & Truck of The Year Awards, the only independent journalistic automotive award in North America. He served on its executive board from 1994 to 2010. He is also one of the organizers and an original member of the Washington Automotive Press Association. Davis is a former president of the International Motor Press Association, the oldest and most prestigious organization of automotive journalists in North America.

Davis has received some of the highest awards in automotive journalism and television, including two Emmy® Awards. In 2007, he won an Emmy® Award from the National Academy of Television Arts & Sciences (NATAS) National Capital Chesapeake Bay Region, and in 1998 from the NATAS Chicago-Midwest Chapter. Davis also received an International Automotive Media Award in 2005 from the International Society for Vehicle Preservation. He was honored with International Wheel Awards in 2004 and 2003, and two Golden Wheel Awards in 1999, including the grand award, from the Detroit Press Foundation which recognizes the best in automotive journalism

A 1970 mechanical and aerospace engineering graduate of North Carolina State University, Davis also holds a master of business administration degree from the University of North Carolina. He was the

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### **SPEAKER BIOGRAPHIES:**

1969-1970 recipient of the W.D. Cartwright Memorial Engineering Scholarship and a member of the Pi Tau Sigma honorary scholastic fraternity. Prior to joining Maryland Public Television, Davis worked for the Wall Street brokerage firm of Kidder, Peabody and Company as a transportation analyst. Upon joining MPT, John served as Producer, Executive Producer, and finally Senior Executive Producer on the iconic PBS television series Wall Street Week with Louis Rukeyser for most of the show's thirty year run.

Davis has owned a variety of high performance cars, including several vintage Ford Mustangs, Chevrolet Corvettes, and a deTomaso Pantera.



### **Mr. Anthony Eggert**

*Program Director*  
Climate Works

Anthony Eggert directs the Oil portfolio at ClimateWorks which supports policies for cleaner and more efficient vehicle and fuel technologies, increased availability and accessibility of transit, biking, and walking, and public support for a transition away from oil and toward low-carbon alternatives. Anthony comes to ClimateWorks with over 18 years of public and private sector experience working on clean energy technologies and policies.

Prior to ClimateWorks Anthony served as the founding director of the UC Davis Policy Institute for Energy, Environment and the Economy dedicated to leveraging university expertise to inform better policy. Anthony public sector experience includes serving as an appointee of Governors Jerry Brown and Arnold Schwarzenegger helping to implement California's landmark clean energy and climate policies.

Anthony's started his career as an automotive engineer and program manager at Ford Motor Company working on regulatory compliance and advanced vehicle technology development. Anthony received a bachelor degree in mechanical engineering at University of Wisconsin-Madison and master degree in transportation technology and policy at UC Davis.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Mr. Justin Fishkin**

*Chief Strategy Officer*

Local Motors

Justin Fishkin is Chief Strategy Officer of Local Motors, a technology company that has decentralized the development, production and commercialization of vehicles. Local Motors' platform combines open co-creation with local micro-manufacturing to bring hardware innovations (like the world's first 3D-printed cars) to market at unprecedented speeds. Justin marries a lifelong dedication to sustainability and making a difference in the world with a background in finance and investing.

Prior to joining Local Motors, he served as the Senior Portfolio Manager of Carbon War Room, an organization founded by Sir Richard Branson to incubate and scale profitable solutions to climate change. He began his career in investment banking at Goldman Sachs and later became an investor. He graduated with a degree in

economics from Duke University in Durham, North Carolina and is a native of Washington, D.C.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Dr. David Friedman**

*Acting Assistant Secretary for Energy Efficiency and Renewable Energy*

U.S. Department of Energy

As Acting Assistant Secretary for the Office of Energy Efficiency and Renewable Energy (EERE), David Friedman leads the organization to transition the nation to a clean energy economy. He oversees six major technology and strategic areas, including Energy Efficiency, Renewable Power, Sustainable Transportation, Strategic Programs, Financial Management, and Business Operations. In addition, he represents EERE before national, state, and local audiences to reinforce EERE's mission and leverage partnerships to transform the nation's economic engine to one powered by clean energy.

Before being named as EERE's Assistant Secretary, David served as the organization's Principal Deputy, overseeing day-to-day operations and a broad energy portfolio. He also served as both Deputy and Acting Administrator of the National Highway Traffic Safety Administration, where he led the agency's mission to save lives, prevent injuries and reduce economic costs due to road traffic crashes, through education, research, safety standards, and enforcement activity.

David has been an influential sustainable transportation and clean energy technologies expert for more than two decades, including service on several National Academies committees and the President's Hydrogen Technical Advisory Committee.

Specifically, David worked 12 years at the Union of Concerned Scientists (UCS) in several different capacities, including senior engineer, research director, and deputy director of their clean vehicles program. He engaged in research and policy issues regarding conventional fuel economy technology, mass-size-safety interactions, and the energy and environmental impacts of hybrid, battery, and fuel cell electric vehicles. In 2007, his team's efforts helped lead to the first legislative increase in corporate average fuel efficiency standards since its creation in 1975. In recognition of that and other work, he was named an Automotive News All-Star and one of Washingtonian Magazine's 30 People Changing the Environment in Washington in 2008.

In addition, before joining UCS in 2001, he worked for the University of California, Davis in the Fuel Cell Vehicle Modeling Program and also volunteered on the UC Davis FutureCar team that built a plug-in hybrid electric family car that doubled its fuel economy.

A Rhode Island native, he earned his B.S. degree in mechanical engineering from Worcester Polytechnic Institute and is a Ph.D. candidate at the University of California, Davis, with a focus on modeling and optimizing automotive fuel cell vehicle systems and their fuel efficiency.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **The Honorable Jennifer M. Granholm**

Former Governor of Michigan  
*Senior Research Fellow, Berkeley Energy and Climate Institute (BECI)*  
University of California – Berkeley

Former two-term governor of Michigan Jennifer M. Granholm, who is credited with leading Michigan through a period of unprecedented economic challenge and change, is an authority on leadership; politics; economic diversification; clean energy policy; advanced manufacturing; and industrial clusters.

Granholm became the first woman to be elected as governor of Michigan in 2002, and in 2006 she was re-elected with the largest number of votes ever cast for governor in the state. Due to the meltdown in the auto industry and the global shift in manufacturing jobs, Michigan had the toughest economy in the nation and Granholm worked relentlessly to diversify, add new jobs and add

emerging sectors, such as clean energy, to Michigan's economic portfolio. As a result of her leadership, Michigan led the country in the improvement of job market conditions between 2009 and 2010, according to the Gallup Job Creation Index

As governor, Granholm pioneered clean energy policies, working with business and labor, Republicans and Democrats to create new economic opportunities and jobs in Michigan. She led an aggressive strategy to make Michigan the hub of clean-energy development in North America by developing entire supply chains in Michigan, fostering critical partnerships between industry, government and researchers and by creating economic incentives that made Michigan the place to locate. Granholm's plan included specific clustering strategies targeted at battery manufacturing, bio-energy, solar, and wind power.

In addition to diversifying Michigan's economy, Granholm focused on creating jobs, attracting international investment, improving education, and training Michigan's workers to promote the state's long-term economic health. She pushed Michigan to double the number of college graduates and signed into law a college prep curriculum for every high school student in Michigan, in addition to some of the toughest turnaround requirements for low-performing schools in the nation. In 2007, she launched the No Worker Left Behind program, which gave unemployed and under-employed citizens the opportunity to attend community college or technical school and receive training for high-demand jobs by offering state-paid tuition to Michigan's displaced adults.

Prior to her tenure as Governor, Granholm served as Michigan's attorney general, from 1998-2002. After her last term as Governor, Granholm began teaching courses in law and public policy at UC Berkeley, where she continues to serve as faculty. In addition, Granholm is a senior research fellow at the Berkeley Energy and Climate Institute, a project scientist at the Lawrence Berkeley National Laboratory, a senior advisor to Correct the Record, and an ABC News contributor. She is also co-author

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:

of the political bestseller, *A Governor's Story: The Fight for Jobs and America's Economic Future* and an avid supporter of Hillary Clinton's 2016 presidential campaign, where she is a senior partner on energy policy.

Granholm is an honors graduate of UC Berkeley and Harvard Law School. She and her husband have three children.



### **Dr. Jennifer Holmgren**

*Chief Executive Officer*  
LanzaTech

Jennifer Holmgren is the Chief Executive Officer of LanzaTech. Jennifer has over 20 years of experience in the energy sector including a proven track record in the development and commercialization of fuels and chemicals technologies. Prior to joining LanzaTech, she was Vice President and General Manager of the Renewable Energy and Chemicals business unit at UOP LLC, a Honeywell Company. In that role, she led UOP's renewable business from its inception through to the achievement of significant revenues from the commercialization of multiple novel biofuels technologies.

Dr. Jennifer Holmgren holds a B.Sc. degree from Harvey Mudd College, a Ph.D. from the University of Illinois at Urbana-Champaign and an MBA from the University of Chicago. She currently serves on multiple external advisory boards. She is the author or co-author of

50 US patents, 20 scientific publications and is the 2003 recipient of the Council for Chemical Research's (CCR) Malcolm E. Pruitt Award.



# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Dr. Mark Johnson**

*Director, Advanced Manufacturing Office, Office of Energy Efficiency & Renewable Energy (EERE)*

U.S. Department of Energy

Mark Johnson, Ph.D., serves as the Director of the Advanced Manufacturing Office (AMO) in the Office of Energy Efficiency and Renewable Energy (EERE). AMO is focused on creating a fertile innovation environment for advanced manufacturing, enabling vigorous domestic development of new energy-efficient manufacturing processes and materials technologies to reduce the energy intensity and life-cycle energy consumption of manufactured products.

Previously, Mark served as a Program Director in the Advanced Research Projects Agency–Energy (ARPA-E) where he had the longest tenure in that post—from ARPA-E’s formation in 2010 to mid-2013. At ARPA-E, Mark led initiatives to advance energy

storage and critical materials, as well as projects in small business, advanced semiconductor, novel wind architectures, superconductors and electric machines.

He also served as the Industry and Innovation Program Director for the Future Renewable Electric Energy Delivery and Management (FREEDM) Systems Center. This is a National Science Foundation Gen-111 Engineering Research Center targeting the convergence of power electronics, energy storage, and renewable resource integration and information technology for electric power systems.

Mark joins EERE on assignment from North Carolina State University, where he is an Associate Professor of Materials Science and Engineering. His research has focused on crystal growth and device fabrication of compound semiconductor materials with electronic and photonic applications. Mark also taught in the Technology, Entrepreneurship and Commercialization program jointly between the NC State Colleges of Management and Engineering. In addition to his academic career, Mark is an entrepreneur and early stage leader in Quantum Epitaxial Designs (now International Quantum Epitaxy), EPI Systems (now Veeco) and Nitronex (now GaAs Labs).

Mark has a bachelor’s degree from MIT and a Ph.D., from NC State, both in Materials Science and Engineering.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Dr. Amory Lovins**

*Co-Founder*

Rocky Mountain Institute

Physicist Amory Lovins, 68, FRSA, is cofounder and Chief Scientist of Rocky Mountain Institute ([www.rmi.org](http://www.rmi.org)); energy advisor to major firms and governments in 65+ countries for 40+ years; author of 31 books and 600 papers; and an integrative designer of superefficient buildings, factories, and vehicles. He has received the Blue Planet, Volvo, Zayed, Onassis, Nissan, Shingo, and Mitchell Prizes, the MacArthur and Ashoka Fellowships, the Happold, Benjamin Franklin, and Spencer Hutchens Medals, 12 honorary doctorates, and the Heinz, Lindbergh, Right Livelihood (“alternative Nobel”), National Design, and World Technology Awards. In 2016, the President of Germany awarded him the Officer’s Cross of the Order of Merit (*Bundesverdienstkreuz 1. Klasse*). A Harvard and Oxford dropout, former Oxford don, honorary US architect, and Swedish engineering academician, he

has taught at ten universities, most recently Stanford’s Engineering School and the Naval Postgraduate School (but only on topics he’s never studied, so as to retain beginner’s mind).

He is a member of the U.S. National Petroleum Council and an advisor to the U.S. Chief of Naval Operations. *Time* has named him one of the world’s 100 most influential people, and *Foreign Policy*, one of the 100 top global thinkers. His latest books include *Natural Capitalism* (1999, [www.natcap.org](http://www.natcap.org)), *Small Is Profitable* (2002, [www.smallisprofitable.org](http://www.smallisprofitable.org)), *Winning the Oil Endgame* (2004, [www.oilendgame.com](http://www.oilendgame.com)), *The Essential Amory Lovins* (2011), and *Reinventing Fire* (2011, [www.reinventingfire.com](http://www.reinventingfire.com)). His main recent efforts include supporting RMI’s collaborative synthesis, for China’s National Development and Reform Commission, of an ambitious efficiency-and-renewables trajectory to inform the 13<sup>th</sup> Five Year Plan, and exploring how to make integrative design the new normal, so investments to energy efficiency can yield expanding rather than diminishing returns.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **The Honorable Dr. Ernest Moniz**

*Secretary*

U.S. Department of Energy

As United States Secretary of Energy, Dr. Ernest Moniz is tasked with implementing critical Department of Energy missions in support of President Obama's goals of growing the economy, enhancing security and protecting the environment. This encompasses advancing the President's all-of-the-above energy strategy, maintaining the nuclear deterrent and reducing the nuclear danger, promoting American leadership in science and clean energy technology innovation, cleaning up the legacy of the cold war, and strengthening management and performance.

Prior to his appointment, Dr. Moniz was the Cecil and Ida Green Professor of Physics and Engineering Systems at the Massachusetts Institute of Technology (MIT), where he was a faculty member since 1973. At MIT, he headed the Department of Physics and the Bates

Linear Accelerator Center. Most recently, Dr. Moniz served as the founding Director of the MIT Energy Initiative and as Director of the MIT Laboratory for Energy and the Environment where he was a leader of multidisciplinary technology and policy studies on the future of nuclear power, coal, nuclear fuel cycles, natural gas and solar energy in a low-carbon world.

From 1997 until January 2001, Dr. Moniz served as Under Secretary of the Department of Energy. He was responsible for overseeing the Department's science and energy programs, leading a comprehensive review of nuclear weapons stockpile stewardship, and serving as the Secretary's special negotiator for the disposition of Russian nuclear materials. From 1995 to 1997, he served as Associate Director for Science in the Office of Science and Technology Policy in the Executive Office of the President.

In addition to his work at MIT, the White House and the Department of Energy, Dr. Moniz has served on a number of boards of directors and commissions involving science, energy and security. These include President Obama's Council of Advisors on Science and Technology, the Department of Defense Threat Reduction Advisory Committee, and the Blue Ribbon Commission on America's Nuclear Future.

A member of the Council on Foreign Relations, Dr. Moniz is a Fellow of the American Association for the Advancement of Science, the American Academy of Arts and Sciences, the Humboldt Foundation, and the American Physical Society.

Dr. Moniz received a Bachelor of Science degree summa cum laude in Physics from Boston College, a Doctorate in Theoretical Physics from Stanford University, and honorary degrees from the University of Athens, Boston University, the University of Erlangen-Nuremberg, Iowa State University, University of Massachusetts Dartmouth, Michigan State University and Universidad Pontificia de Comillas.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Mr. Chunka Mui**

*Author*

*“Driverless Cars: Trillions Are Up For Grabs”*

Chunka Mui is a best-selling author on business strategy and innovation. He has written extensively on the disruptive potential of connected and driverless cars, including 28 articles at Forbes, the eBook, *Driverless Cars: Trillions Are Up For Grabs*, and his most recent book, *The New Killer Apps: How Large Companies Can Out-Innovate Start-Ups*.

Chunka is also the managing director of the Devil’s Advocate Group, a consulting group that helps organizations design and stress test their business innovation strategies. He was previously a managing partner and chief innovation officer at Chicago-based Diamond Technology Partners (now part of PWC). He cofounded and directed Vanguard, Computer Science Corporation’s multinational executive research program on emerging technologies (now TTI Vanguard).

He began his career at Andersen Consulting (now Accenture), where he was an early member of that firm’s Artificial Intelligence group and a founding member of its Center for Strategic Technology

Research (now Accenture Technology Labs). Chunka holds a B.S. in computer science and engineering from MIT. He was born in Hong Kong, grew up on the South Side of Chicago and resides in Shelburne, Vermont.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



**Mr. Russell A. Musgrove**

*Managing Director, Global Vehicles*  
FedEx Express

Russell Musgrove is the Managing Director of Global Vehicles for FedEx Express, the world's largest express transportation company providing delivery to every address in the U.S. and more than 220 countries and territories around the world. In this role, Musgrove oversees all aspects of the company's global fleet of over 78,000 vehicles including vehicle planning, analysis and asset management. His scope of responsibility includes improving efficiencies and ensuring fleet safety through the strategic program management of the company's ground support equipment, engineering, warranty and training.

A passionate advocate on the environmental and economic benefits of greater fuel efficiency, Musgrove is a driving force behind the company's ongoing commitment to connect the world in more responsible ways while minimizing its effect on the environment. Musgrove played an instrumental role in integrating over 750 hybrid and all-electric vehicles and over 9,500 more fuel efficient diesel trucks into the FedEx fleet. He currently serves in a mentoring position for EMBARQ, an organization committed to implementing environmentally and financially sustainable transport solutions to improve quality of life in cities worldwide.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Dr. Vassilis Papayannoulis**

*Vice President of Urban Analytics*  
Metropia, Inc.

Even though he spends his spare time on his feet—walking and playing tennis—mastering New York's famously sticky traffic is Vassilis' specialty. The transportation operations expert has worked on several projects to improve transportation and traffic flow in the Big Apple, as well as serving an advisory role for traffic projects in San Francisco and for Arizona's highways. Being at the forefront of transportation is one of the Vassilis' favorite things about his profession—along with the interesting people with whom he gets to work. Metropia's Principal, Vassilis has contributed to numerous technical studies, including analyzing localized operations at work zones, the relationship between traffic operations and land development, multi-modal corridors, and large-scale complex transportation networks.

Vassilis received his PhD and his MS in Transportation Planning and Engineering from the NYU Polytechnic School of Engineering. He also has an MS in Highway and Transportation Engineering from the University of Birmingham and a BS in Civil Engineering from the National Technical University of Athens.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



**Mr. Mark Platshon**

*Former Senior Advisor*

BMW i-Ventures

*Managing Director*

The Autonomous World Fund

Mark Platshon is the Managing Director and co-founder of The Autonomous World Fund. This new multicorporate ecosystem fund invests in the technologies and businesses that create electric, connected, autonomous and shared mobility and all the new businesses that this “autonomous world” enables.

Mark spent the past 5 years as Senior Investment Advisor of the BMW i-Ventures fund, and as Partner with Birchmere Ventures. Previously Mark was a serial Silicon Valley CEO and then a partner at Trident Capital and VantagePoint Capital Partners.

He is co-founder of Amprius, a Lithium-ion battery company spun out of Stanford. He was an early investor in Tesla. He has served as CEO or on the Boards of numerous companies that have exited, including: ELO, the Raychem subsidiary that pioneered the touchscreen; Synxis (acquired by Sabre); Everdream (Dell); Idetek (Idexx); Zing (Sony); and Ancore (Rapiscan).

He is an investor, expert and frequent speaker on advanced mobility. His current automotive/transport investments include: Peloton, Nauto, Amprius, RideCell, Zendrive, Zirx, ChargePoint, PolyPlus, Ionic Materials and Seurat. He is also an investor in Eargo, Estimote, Bloomboard, Life 360, Weld, PerceptiMed, PredPol, CodeHS, and TapResearch. Mark earned a BSE in Naval Architecture and Marine Engineering at the University of Michigan and an MBA from Stanford University. As a Lieutenant in the Navy, Mark served on Admiral Rickover’s nuclear submarine engineering staff.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### **SPEAKER BIOGRAPHIES:**



#### **Dr. Maya Shankar**

*Senior Advisor for the Social and Behavioral Sciences, Office of Science and Technology Policy  
The White House*

Maya Shankar, Ph.D., serves as a Senior Advisor at the White House Office of Science and Technology Policy. She founded and is now Chair of the White House Social and Behavioral Sciences Team (SBST) – a cross-agency group of applied behavioral scientists that translates findings from behavioral science into improvements in Federal programs and policies for the benefit of the American people. Building on SBST’s first year of work, in

2015 President Obama signed Executive Order 13707 entitled “Using Behavioral Science Insights to Better Serve the American People” that institutionalizes SBST and codifies the practice of applying behavioral science insights to Federal policy.

In 2016, Maya was asked to serve as the first Behavioral Science Advisor to the United Nations. She completed a post-doctoral fellowship in cognitive neuroscience at Stanford, after receiving a Ph.D. from Oxford on a Rhodes Scholarship and a B.A. from Yale in cognitive science. Maya is a graduate of the Juilliard School of Music pre-college division and a former private violin student of Itzhak Perlman.



# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Dr. Daniel Sperling**

*Distinguished Professor of Civil Engineering and Environmental Science and Policy*

*Founding Director of the Institute of Transportation Studies*

University of California – Davis

Dr. Sperling is Distinguished Professor of Civil Engineering and Environmental Science and Policy, and founding Director of the Institute of Transportation Studies at the University of California, Davis. He continues to hold the transportation seat on the California Air Resources Board that he was appointed to in 2007, and served as Chair of the Transportation Research Board of the US National Academies in 2015-16.

In June 2013, he was named recipient of the Blue Planet Prize from the Asahi Glass Foundation, described as the Nobel Prize for the environmental sciences. He has testified 7 times to the US Congress, provided 40 keynote presentations in the past five years, and has authored or co-authored over 250 technical papers and 12 books, including *Two Billion Cars* (Oxford University Press, 2009). He is an international expert on transportation technology, fuels and policy, with a focus on energy and environment.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Dr. Mary Beth Stanek**

*Director, Vehicle Technologies & Government Relations*  
General Motors

Dr. Stanek leads advanced technology activities and supports government relations in the areas of technology, climate and energy. In addition, Mary Beth works with several agencies and trade organizations on advancing environment and energy initiatives. She previously led regulatory affairs for GM in Brussels and has had several positions in DC and Detroit leading advanced technology and energy related activities. She also directed the fuel cell vehicle demonstration program. In addition, Mary Beth continues to lead many bio-based fuel policy and commercial efforts.

She is also a frequent contributor to MCB University Press. Her articles can be found in *Management Decision*, *European Business Review*, *Journal of Workplace learning* and *Management Research*

*News*. Dr. Stanek was a 2002 recipient of the Wall Street Journal Achievement award and was previously a Renewable Fuels Commissioner for the State of Michigan. Dr. Stanek is on the Institute for Physical Research and Technology Board at Iowa State.

Dr. Stanek holds a Doctor of Business Administration from the University of Sarasota. Her concentration areas are international business, alliances and partnerships.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Eric J. Toone**

*Vice Provost and Professor of Chemistry  
Director, Duke Innovation and Entrepreneurship Initiative  
Duke University*

Dr. Toone serves as the leader of the Duke Innovation and Entrepreneurship Initiative. He received his doctoral degree in organic chemistry from the University of Toronto, studying applied enzymology under the supervision of Professor J. Bryan Jones. Following post-doctoral studies at Harvard University with George Whitesides he began his independent career at Duke in 1990, and is currently professor of chemistry and professor of biochemistry.

Professor Toone has authored more than 220 original papers, reviews, book chapters and abstracts in physical organic and biophysical chemistry, including applied and mechanistic enzymology, ligand binding in aqueous solution and the chemistry and biology of nitric oxide. He is also listed as an inventor on more than 20 patents in a range of biomedical fields. With Professor Jonathan Stamler Toone founded Vindica Pharmaceuticals, which leveraged fundamental research in novel C-nitroso donors of nitric oxide to develop NO-eluting coatings for medical devices. In 2006, working with Professor David Epstein, Chair of Ophthalmology and Director of the Duke Eye Center, and Casey Kopczynski, Toone founded Aerie Pharmaceuticals. Aerie, which became publically traded in 2013, is currently advancing novel kinase inhibitors through Phase III trials for the treatment of glaucoma.

From 2009 to 2012 Professor Toone was detailed to the U.S. Department of Energy where he was a founding member of the Advanced Research Projects Agency – Energy (ARPA-E). During that time, he served both as program director and deputy director for technology before leaving the Agency in 2012. As a program director, Professor Toone devised and implemented ARPA-E's Electrofuels program, which explores the use of non-photosynthetic autotrophic organisms for the production of energy-dense, infrastructure-compatible liquid fuels.

# Sustainable TRANSPORTATION



Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy

## 2016 Sustainable Transportation Summit: July 11-12, 2016

### SPEAKER BIOGRAPHIES:



#### **Dr. Ken Washington**

*Vice President, Research and Advanced Engineering*  
Ford Motor Company

Dr. Ken Washington is vice president of Research and Advanced Engineering at the Ford Motor Company. Appointed in August 2014, Washington leads Ford's worldwide research organization, overseeing the development and implementation of the company's technology strategy and plans.

Prior to joining Ford, he was vice president of the Space Technology Advanced Research and Development Laboratories at Lockheed Martin Space Systems Company. In this role, Washington was responsible for leading an organization of approximately 700 scientists and engineers in performing research and development in space science and related R&D.

Previously, he served as Lockheed Martin Corporation's first chief privacy officer, a role in which he built the company's privacy program, set the privacy strategy direction and established a team of privacy professionals to execute the strategy. Washington also previously served as the vice president and chief technology officer for the Lockheed Martin internal IT organization, where he was responsible for shaping the future of the corporation's information technology enterprise.

Prior to joining Lockheed Martin in February 2007, Washington served as chief information officer for Sandia National Laboratories, where he also previously served in a variety of technical, management, and program leadership positions.

Washington was born in October 1960. He has a bachelor's, masters and doctorate degree in Nuclear Engineering from Texas A&M University and is a fellow of the MIT Seminar XXI program on International Relations.