

Aris Papadopoulos Distinguished Expert in Resilience, Extreme Events Institute Chair, External Advisory Board, FIU-EEI

In 2015 Aris founded Resilience Action Fund Inc., a 501(c)3 non-profit advancing greater aware- ness, transparency and education for greater resilience from natural and other hazards in the built environment. He is the Distinguished Expert in Resilience at Florida International University's Extreme Events Institute. He authored the book: 'Resilience-The Ultimate Sustainability: Lessons from Failing to Develop a Stronger and Safer Built Environment'. The book inspired the 2018 documentary BUILT TO LAST?, airing on Public Broadcasting (PBS). He serves on the global board of the UN Office for Disaster Risk Reduction's (UNDRR) private sector initiative (ARISE) and was its founding chair in 2011. He has advocated for resilience before five UN global conferences and played an active role in developing the 'UN Sendai Framework for DRR: 2015-30'. Aris has 35 years' experience in the construction and energy industries. After building the business and serving as CEO for 20 years, he retired from Titan America in 2014. Until 2019 he chaired the board of ST Equipment & Technology, a worldwide provider of mineral, foods and ash purification solutions. He chaired the Portland Cement Association and Concrete Joint Sustainability Initiative, receiving the 2013 American Concrete Institute's Sustainability Award. He also served on the boards of the US Green Concrete Council, MIT Concrete Sustainability Hub and CTL Group. Aris earned Bachelors and Masters Degrees from MIT in Chemical Engineering and an MBA from Harvard University. He is a World Trade Center 9-11 survivor.



Anne D. Cope, PhD, P.E. Chief Engineer Insurance Institute for Business & Home Safety

Dr. Anne Cope joined IBHS in 2009 just a few months before the groundbreaking for the construction of the IBHS Research Center in Richburg, South Carolina. As the Chief Engineer, she leads the development of research programs to improve the performance of structures in hurricanes, wildfires, severe thunderstorms, and hailstorms as well as the team of engineers, scientists, and skilled craftsman who conduct research on full-scale homes and commercial buildings. She is responsible for the team's implementation of research findings into building codes and standards.

Prior to joining IBHS, Dr. Cope was a project manager and structural engineer with Reynolds, Smith & Hills, Inc., designing projects for NASA, Department of Defense, and commercial launch operations. Dr. Cope's research encompasses topics ranging from the full-scale simulation of wind effects on buildings to detailed studies of the vulnerabilities of buildings to natural hazards and the development of damage prediction models. She is also a proud veteran of the United States Army. She earned her bachelor's and master's degrees in civil engineering from Clemson University, and her doctorate from the University of Florida. She is a registered professional engineer in Florida and South Carolina.



Dr. Louis (Lou) Gritzo Vice President, Research, FM Global

Lou is vice president and manager of research with FM Global, one of the world's largest commercial property insurers. He oversees FM Global's team of scientists, with expertise in fire, explosions, natural hazards (windstorms, flood, and earthquakes), risk and reliability, and cyber, who seek to understand property hazards and identify solutions that to prevent property and business interruption loss. He also oversees activities at FM Global's US\$250-million, 1,600 acres, Research Campus in West Glocester, the world's largest center for property loss prevention research as well as FM Global's International Codes and Standards activities to improve building codes and reduce risk in key markets. Prior to joining FM Global in 2006, Lou was manager of fire science and technology at Sandia National Laboratories in Albuquerque, NM and was a member of its Advanced Concepts Group think tank. He has served as Chair of the Board of Directors of the Innovation Research Interchange (formerly the Industrial Research Institute), chair of the American Society of Mechanical Engineers Heat Transfer Division Executive Committee, on the Governing Board of the Global Earthquake Model, on the Research Advisory Committee for the National Fire Protection Association, and on Advisory Committees for several universities. In 2015, he was as an invited panelist in two sessions at the UN World Conference on Disaster Risk Management in <u>Sendai, Japan. Lou h</u>as a Ph.D. in mechanical engineering, with a minor in applied mathematics, from Texas Tech University.



## Michael D. Berman President and CEO, M&T Realty Capital Corporation

Michael is responsible for leading M&T Realty Capital Corporation, a multifamily and seniors housing lender for Fannie Mae DUS, Freddie Mac, and FHA programs, as well as balance sheet, life insurance company, and CMBS loan programs for all commercial real estate property types. Headquartered in Baltimore, M&T RCC originated approximately \$5 billion of multifamily and commercial loans in 2018, and currently manages a servicing portfolio of over \$20 billion. From 2014-19, he engaged in housing policy work as a Fellow at the Harvard Joint Center for Housing Studies and the Wharton-Penn Institute for Urban Research, focusing on affordable rental housing and flood risk/resiliency. He is the author of an article to be published in October, 2019, by the Federal Reserve proposing a new approach to measuring flood risk as a basis for mitigation incentives. During that period, he was also a consultant to several best in class multifamily and commercial lenders working on corporate growth as well as digital strategies. From 2012 to early 2014, Michael served as Senior Advisor to HUD Cabinet Secretary Shaun Donovan, serving as his liaison to the White House and Congress on GSE reform and other housing issues. From 1991 to 2012, he was the co-founder, president and CEO of CW Capital, a national multifamily and commercial real estate lender. He led CW's growth in annual loan production from \$40 million to \$4 billion. In 2011, CW Capital was the third largest multifamily agency lender in the US. Michael was the Chairman of the Mortgage Bankers Association in 2010-11, and led their GSE reform efforts in 2008-11. He has testified before the Senate Banking Committee and House Financial Services Committee. He has been a frequent speaker for over 2 decades on real estate finance and public policy issues and has appeared on CNBC Squawk Box, Bloomberg Street Smart, and Fox Business News and has been frequently quoted in the press, including the NY Times, the Wall St Journal and many trade periodicals. He holds a B.A. in Government from Harvard University, and a J.D. from University of Pennsylvania's Law School.



Richard (Rick) Knabb, Ph.D. Hurricane Expert, The Weather Channel

Richard Knabb, Ph.D., was the Director of NOAA's National Hurricane Center in Miami, Florida for 5 years and is currently the Hurricane Expert with The Weather Channel. He is a meteorologist who served as the 11th Director of the National Hurricane Center from June 4, 2012 to May 12, 2017. On March 21, 2017, Knabb announced his return to The Weather Channel as the tropical weather expert which was the position he held from 2010 to 2012. Dr. Knabb received his Bachelor's Degree in Atmospheric Science from Purdue University (1990) and his Masters of Science and Doctorate in Meteorology from the Florida State University (1993, 1999). He completed his postdoctoral work at the University of Hawaii (2000). Dr. Knabb was a Research Meteorologist and Lead Forecaster at the Mauna Kea Weather Center from 1999 to 2001. He joined Risk Management Solutions, Inc., in Newark, California, in 2001 as an Assistant Product Manager for Weather Risk. Later that year, he joined NOAA's National Hurricane Center as the Science and Operations Officer, and was a senior hurricane specialist there in 2005-2008. In 2008, Dr. Knabb became the Deputy Director of NOAA's Central Pacific Hurricane Center in Honolulu, Hawaii. He served in that capacity until 2010, when he joined The Weather Channel in Atlanta, Georgia, as its on-air Hurricane Expert and Tropical Science Program Manager. He rejoined NOAA's National Hurricane Center in June 2012 as its Director. Dr. Knabb has worked toward NHC providing new products and services. This includes a strong emphasis on individual hazards such as the potential storm surge flooding graphic (2014) and the storm surge watch/warning graphic (2015). He continues to work closely with emergency managers, media partners, and the international community. Dr. Knabb is a member of the American Meteorological Society.



Maynard (Dale) Sands Principal, MD Sands Consulting Solutions LLC President, Village of Deer Park Global Co-Chair, UNDRR ARISE

Mr. Sands was elected to serve on the United Nations Disaster Risk Reduction (UNDRR) ARISE Board 2018-2020; Subsequently Mr. Sands was elected Co-Chair of ARISE with Ms. Mami Mizutori, Special Representative to the UN Secretary General. ARISE is the Private Sector Alliance for Disaster Resilient Societies, focused on the Sendai Framework disaster risk reduction goals. Mr. Sands is a contributing author to the Fourth National Climate Assessment Report: Climate Change Impacts, Risks and Adaptation in the United States (2018), Chapter 27 Adaptation. Previously Mr. Sands was Senior Vice President and Global Practice Director at CH2M, SVP Global Practice Director at AECOM (20 years) and Industrial Environmental Services. Worldwide Business Area Manager and President of ABB Environmental Services. Mr. Sands has served in various executive leadership positions including Managing Director positions in Europe, Middle East and Africa for the AECOM's Environmental Business Line. Mr. Sands has also served as Chair ARISE UNISDR US, Vice Chair of UN's Private Sector Advisory Group, and Principal Investigator for UN-funded "Disaster Resilience of Small to Mid-Size Businesses in New Orleans Historic Corridors (2016), codeveloped the first Disaster Resilience Scorecard an innovative tool to assess preparedness of communities to respond to, and recovery from, natural disasters. Mr. Sands, with others, is completing a disaster resilience scorecard for Industrial and Commercial Buildings which will be issued later this year. He has more than 45 technical publications and presentations and frequent invited speaker on resilience topics globally.