Theresa S. Mayer is the executive vice president for research and partnerships at Purdue University, where she oversees the \$670 million research enterprise of the university and supports holistic engagements with federal, industry, and global strategic partners. Prior to this role, she was the vice president for research and innovation at Virginia Tech. During her 22-years at Penn State University, she served as the associate dean for research and innovation in engineering, the site director of the NSF National Nanotechnology Infrastructure Network and director of the Materials Research Institute Nanofabrication Laboratory, which enabled cutting-edge materials and techniques to be shared among researchers in academia and industry. She is widely recognized for her work in advanced manufacturing of nanoscale electronic, optical, and biomedical devices, which has been supported by the NSF, DOD, DOE, NIH, and industry. Mayer has over 350 technical publications, invited presentations and tutorials, and holds ten patents in these areas. Several of her inventions have been transitioned into commercial and military systems. She is actively engaged in service to her profession and the nation, including the U.S. President's Council of Advisors on Science and Technology, PCAST. She is a fellow of the Institute for Electrical and Electronics Engineers, and has received numerous awards for her teaching and research, including the NSF CAREER award. Mayer received a B.S. in electrical engineering from Virginia Tech, and a M.S. and Ph.D. in electrical engineering from Purdue University. Throughout her career, she has supported the advancement of women in science and engineering.