

MIT Portugal Program

The MIT Portugal Program is a multi-phase strategic international collaboration, launched in 2006 between MIT; Portuguese universities and research institutions; and the Portuguese Ministry of Science, Technology, and Higher Education. Program funding is provided by the Fundação para a Ciência e Tecnologia (FCT). The collaboration has evolved over a sequence of phases. In the first phase, partners focused on developing a research platform for cutting-edge concepts in emerging areas of science and technology including Bioengineering, Sustainable Energy, Transportation Systems, Engineering Design, and Advanced Manufacturing, as well as setting up PhD and (Executive) Masters programs to students from Portugal and around the world. In the second phase, which began in 2013, the research program continued with both large test bed projects and smaller research projects, as well as new entrepreneurship and innovation programs. The MIT Portugal Partnership 2030 (MPP2030) was launched in June 2018, not as a third phase, but as a novel strategic partnership between MIT and FCT. Building on the successes of phases one and two, MPP2030 continues to support joint research projects between individual faculty in the strategic areas of data science, climate science & climate change, earth systems: oceans to near space, digital transformation in manufacturing, and sustainable cities, designed to significantly impact the development of the Portuguese innovation ecosystem and workforce. MPP2030 also touches on MIT-strategic areas such as the environment, climate change, and manufacturing.

Research and Outreach Activities

Collaborative research continues to be a cornerstone of the MIT Portugal Program. This year, new research projects were launched via MIT Portugal Program Seed Grants, and the existing MPP2030 Flagship projects continued, both in the program's strategic research areas.

MIT Portugal Program Seed Grants support innovative research projects that include collaboration with Portuguese researchers. This year, seed grants have been awarded to 13 new projects for one year, to researchers from across MIT. In addition, three existing seed projects have been extended and received additional funding to help finish the research.

MPP2030 Flagship Projects are part of a research and development initiative under FCT's international partnership with MIT, Carnegie Mellon University, and the University of Texas at Austin. The objective of the flagship projects is to promote the internationalization of Portuguese universities, research centers and companies, taking advantage of the experience and organizational culture of universities from the United States, specifically MIT. The MPP2030 flagship projects involve industrial research and experimental development activities, leading to the creation—or significant improvements in existing—products, services, processes, and systems. Seven three-year flagship projects that were awarded in 2020, continued this year.

Visiting students from Portuguese Universities have been hosted at MIT this year, helping to strengthen collaboration and ties between MIT and Portuguese universities. Two visiting students from Portugal were hosted by MIT PI's, as part of collaborative research projects between MIT and Portuguese researchers.

Joint MIT Portugal Conferences and Events

A foundational core collaborative activity fundamental to our goal of growing interactions between Portuguese researchers and those at MIT, is the co-sponsorship and co-organization of joint academic conferences. The MIT Portugal Program held its annual conference on September 20, 2022 at the Aveiro Congress Center – in Aveiro. The theme of the one-day conference was “Education, Research, and Innovation: tomorrow’s pillars.” The conference featured a keynote address by Brent Minchew, Professor at Earth, Atmospheric and Planetary Sciences (EAPS) at MIT.

MIT Portugal Program together with LSTS – Underwater Systems and Technology Laboratory (FEUP), and the University of Azores, organized a Marine Robotics Summer School which took place at Faial Island, in the Azores, between July 11 and 22. The course featured a packed program of hands-on activities including drifters design, AUV and ROV operations, and sea safety activities. Four MIT students and 16 Portuguese students participated in the course.

The MIT Portugal Program organized two Flagship Projects Status meetings on December 5th and July 20th. The meeting featured presentations by MIT and Portuguese faculty on their joint research projects.

On November 28 and 29, MIT Portugal Program hosted Elvira Fortunato, Minister of Science, Technology and Higher Education of Portugal, and Madalena Alves, President of Board of Directors at FCT. Together with Pedro Arezes, National Director of MIT Portugal Program in Portugal, they met with MIT’s senior leadership, MIT faculty involved with MPP, and toured several MIT labs.

For the 2023 edition of Space Week, the MIT Portugal Program invited and supported 3 students from Portuguese universities to join Space Week at MIT, which was held from March 15–17.

Program Governance

The MIT Portugal Program Governing Committee has overseen the progress achieved by the cooperative activities between MIT and Portugal. The MIT Portugal Program Governing Committee members are Richard K. Lester, Japan Steel Industry Professor and Associate Provost for International Activities; Maria Zuber, E. A. Griswold Professor of Geophysics and Vice President for Research; Dava Newman, Apollo Program Professor of Astronautics and Director MIT Media Lab; Madalena Alves, President of the Board of Directors of FCT; António M. Cunha, President of Norte Portugal Regional Coordination and Development Commission; Isabel Furtado, CEO of TMG Automotive; and Paulo Ferrao, Professor at Instituto Superior Tecnico. The annual governing committee meeting took place on March 23rd.

The MPP2030 External Review Committee, an independent review committee, has overseen the program’s research activities and made recommendations to the Directors and the Program Governing Committee. The MPP2030 external review committee members are John Beddington, former UK Government Chief Scientific Adviser; Pascale Ehrenfreund, chair of the DLR executive board; Mohan Munasinghe, former vice-chair,

UN Intergovernmental Panel on Climate Change; Melany Hunt, Caltech Dotty and Dick Hayman Professor of Mechanical Engineering. The annual MPP2030 external review committee meeting took place on March 3.

The MIT Collaboration Directors, R. John Hansman, T. Wilson Professor of Aeronautics and Astronautics, and Douglas P. Hart, Professor of Mechanical Engineering, oversee the program's activities at MIT and coordinate with the Portugal Collaboration Directors, Pedro Arezes, Professor Human Factors Engineering University Minho, and Zita Martins, Associate Professor Instituto Superior Tecnico (Zita Martins stepped down as Director in Spring 2023). The MIT Portugal Program is supported by area leaders with expertise relevant to the program's thematic research areas. The area leader for digital transformation in manufacturing is John Hart, Professor of Mechanical Engineering; for sustainable cities is Christoph Reinhart, Professor of Architecture; for Earth Systems: Oceans to Near Space is John Leonard, Samuel C. Collins Professor of Mechanical and Ocean Engineering.

The MIT Portugal Program has coordination offices both at MIT and at the University of Minho, in Portugal. Both offices worked closely together in managing the program's joint activities. MIT Portugal Program staff at MIT consisted of Deliana Ernst, administrative lead, Natalie Billings, program coordinator, and Chrissy Mullin, financial administrator. The program has been headquartered in building 33.

In addition to the coordination with the MIT Portugal Program office in Portugal, the program staff at MIT has been responsible for managing the relationship with Portuguese collaborators, MIT Portugal Program's grant processes, and organization of joint activities.

R. John Hansman
Co-Director MIT Portugal Program

Douglas P. Hart
Co-Director MIT Portugal Program

Deliana Ernst
Administrative lead, MIT Portugal Program