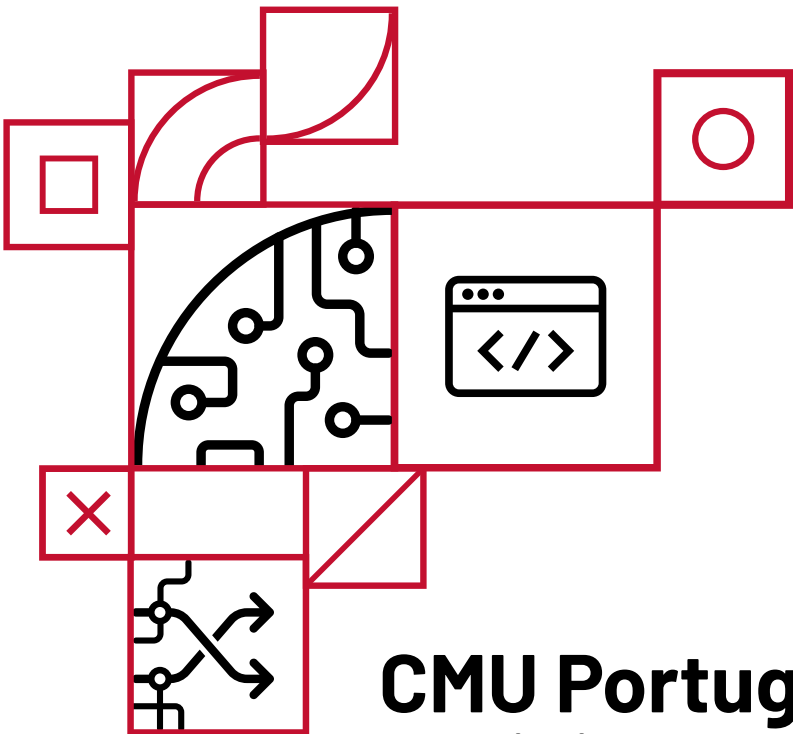
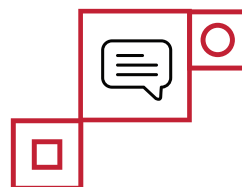




CMU Portugal Activity Report 2024-2025



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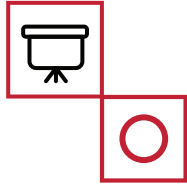


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CMU Portugal Partnership: A Strategic Initiative

As a unique strategy of the Portuguese Government, and with the support of Fundação para a Ciência e Tecnologia (FCT), the international partnerships with key American Universities and the Portuguese ecosystem have been running for almost 20 years, since 2006, with Carnegie Mellon University (CMU). The CMU Portugal Program (CMU Portugal) is designed to support the internationalization of Information and Communication Technologies (ICT), drawing on the experience and organizational culture of CMU. CMU Portugal has created opportunities for integration into world-class thematic research and innovation networks, fostering a culture of excellence and entrepreneurship within Portuguese universities. It also promotes an ecosystem that supports research, technological development, and innovation activities by national companies, in close collaboration with academia.

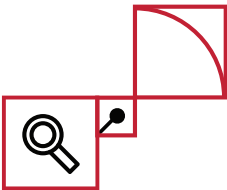




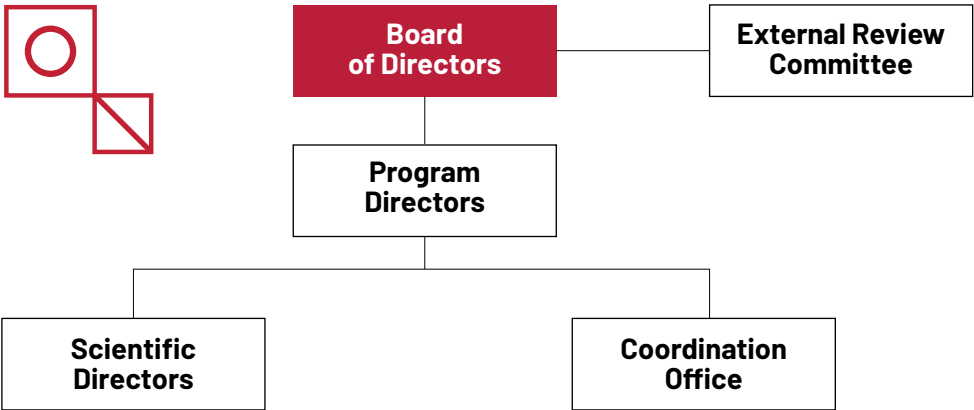
CMU Portugal plays a crucial role in enhancing research capabilities and modernizing the national R&D system's structure. It supports researchers in advancing their work and building new competencies through training and mobility initiatives at US Universities; helps establish enduring relationships between Portuguese entities, American universities, and private sector partners; opens doors to ambitious and sophisticated projects that would have been difficult to carry out independently; and benefits from the collaboration between American and Portuguese universities and industry stakeholders.

The collaborative fabric of the CMU Portugal network extends across Portuguese universities, represented by the Council of Rectors of Portuguese Universities (CRUP), Associate Laboratories in the ICT domain, and many other research institutions, a network that spans 11 CMU departments, nearly 150 companies, and a combined total of over 400 faculty and senior researchers across Portugal and Carnegie Mellon. The partnership was implemented across three main pillars: **Talent Development** through dual degree Professional Master and dual-degree and affiliated Ph.D. programs; **Knowledge Creation** through joint collaborative research projects between Carnegie Mellon, several Portuguese universities and ICT companies; and **Innovation and Entrepreneurship** catalyzing innovation and technological ventures through entrepreneurial projects, ultimately leading to the establishment of numerous start-ups, two of which achieved "Unicorn" status.

Governance



The CMU Portugal Program is built upon a formal agreement between Carnegie Mellon University and the Portuguese Science and Technology Foundation (FCT). Its governance structure includes the Board of Directors (BoD), the External Review Committee (ERC), the CMU Portugal Program Directors (PD), Scientific Directors (SD), and the Coordination Office (CO). These entities work cohesively as a unified team of leaders and administrators, ensuring the effective functioning of the international partnership.



The Board of Directors (BoD) plays a pivotal role in the program’s governance, bringing together key stakeholders such as FCT, Carnegie Mellon University, the Council of Rectors of the Portuguese Universities, and major participating companies, and is Chaired by the FCT President or a designated representative. The BoD holds responsibility for overseeing policies, approving the annual plan of activities, and allocating the budget. The External Review Committee (ERC) conducts periodic evaluations of the program, comprising five independent members from the global scientific community, none of whom are affiliated with FCT or CMU. The ERC’s primary role is to provide advisory insights through impartial assessments of the yearly endeavors carried out by the Carnegie Mellon Portugal Program. FCT provides funding and support for the ERC.

Overseeing the program's strategic trajectory are the CMU Portugal Directors, located at both CMU and in Portugal. They collaborate closely to guide the program's day-to-day operations. Assisting them is a coordination team in Portugal and at CMU that leads the operational management of the key Instruments of the international partnership. CMU Portugal's Scientific Directors are selected from a pool of nominations submitted by the scientific community. They contribute to refining the strategic research domains within the broad field of ICT, which are relevant to the program's educational, research, innovation, and entrepreneurial activities.



The Scientific Directors represent a diverse array of technical expertise and regional affiliations within Universities, Research Units, and Associated Laboratories, serving as program ambassadors across various academic and research entities related to ICT. Their involvement ensures the broad dissemination of initiatives throughout the scientific and academic networks.

João Magalhães, Full Professor at FCT NOVA and coordinator of the Multimodal Systems Group at NOVA LINCS, was appointed in October 2024 as National Co-director of the CMU Portugal Program by FCT, joining Inês Lynce and succeeding Nuno Nunes, both Full Professors at Instituto Superior Técnico. In October 2025, Professor Lynce and Magalhaes were reconfirmed in their roles, while Professor José M.F. Moura remains the Program Director at Carnegie Mellon University.

In the fourth phase of CMU Portugal (2025 to 2030), a new governance model will be implemented, including the establishment of a new mission structure that is expected to take office in 2026. The mission structure is to be chaired by Professor José Manuel Mendonça from Faculdade de Engenharia da Universidade do Porto. This will involve various governmental areas, aimed at promoting these partnerships and maximizing their impact for Portugal.

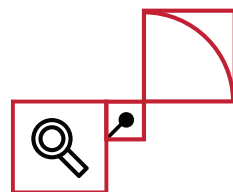


**João
Magalhães**

National Co-director
of the CMU Portugal
Program

2024

CMU Portugal Activities



January 10

Kickoff Meeting of CMU Portugal's new Exploratory Research Project (ERP) Signo at Fraunhofer Portugal AICOS

February 1

Open Applications for up to 8 CMU Portugal Dual Degree Ph.D. Scholarships

February 7

CMU Portugal Spring Lunch Welcomes Students Back to Pittsburgh Campus

February 29

Irene Fonseca, Kavčič-Moura University Professor of Mathematics and faculty member of the Carnegie Mellon Portugal program, has been elected vice president of the American Mathematical Society (AMS) for 2025-2027.

February 21

The CMU Portugal Program joins again as a partner of the "Building The Future" 6th edition, one of the leading Portuguese annual Conferences on Digital Transformation, by Microsoft.

March 4

MH-1, the first satellite totally developed in Portugal, was launched into space. Born from the collaboration of 12 national entities, the final product was coordinated by two CMU Portugal Industry affiliates: CEiiA and Thales Edissoft Portugal.

March 6

Applications are open for the 2024 CMU Portugal Mobility Initiatives Visiting Faculty & Researchers and Visiting Students aimed for research periods at Carnegie Mellon University in 2024.

2024

March 19

Isabel Trancoso, CMU Portugal faculty and researcher, was recognized as the 2024 recipient of the International Speech Communication Association's (ISCA) Medal for Scientific Achievement for her "pioneering contributions to speech coding and resources for the Portuguese language and sustained service to the speech community."

March 23

Launch of the fourth edition of the CMU Portugal Affiliated Ph.D. Programs - applications from March 25th to May 2nd, 2024, to offer up to 12 Scholarships for the 2024/2025 academic year.

April 5

CMU Portugal Celebrates Graduate and Professional Student Appreciation Week with Students and Faculty at CMU. The US national event aims to recognize and celebrate the contributions, impact, and value of graduate and professional students on campuses throughout the United States.

March 26

CMU Portugal Info Session: "How to apply to the 2024 Call for Mobility Programs"- the application process for both CMU Portugal Mobility initiatives.

April 9

CMU Portugal Info Session: "How to apply to CMU Portugal 2024 Affiliated Programs"- application guidelines and main requirements.



April 9 - 10

CMU Portugal Patient Innovation Accelerator Launch Event and Inaugural initiative of the new CMU Portugal Patient Innovation Accelerator

2024

CMU Portugal Activities

April 14

CMU Portugal Invites Carol J. Smith, AI Division Trust Lab Lead and a Principal Research Scientist at CMU, as one of the keynote speakers at the International Conference on Software Engineering (ICSE 2024).

May 8

Manuel Reis Carneiro, CMU Portugal dual degree Ph.D. Student was among the winners of the 2024 edition of Acelera@UC, an acceleration program promoted by UC Business, the Technology Transfer Office at Universidade de Coimbra (UC).

May 13

Alexandra Mendes, a 2023 CMU Portugal Visiting Faculty & Researcher from FEUP, has been recognized with the FLAD Atlantic Security Award, promoted by Fundação Luso-Americana para o Desenvolvimento (FLAD) for her winning project idea that emerged after her time at Carnegie Mellon University, visiting Professor Nicolas Christin at the Software and Societal Systems Department (S3D).

May 8

Patient Innovation team visits Carnegie Mellon University to explore partnerships with CMU's Tepper School of Business and Heinz College of Information Systems and Public Policy.

May 10

CMU Portugal hosts 14 Carnegie Mellon Undergraduate students for a networking event with the current dual degree and affiliated Ph.D students and alums and a visit to the Institute for Systems and Robotics (ISR).



May 16

The CMU Portugal Academy was officially launched at the event "Partnerships for Tomorrow's Education: Building Future Jobs for a Digital Portugal" held at the Unicorn Factory, Hub Criativo do Beato, and included the presence of the Portuguese Minister of Education, Science, and Innovation, Fernando Alexandre

May 16

FCT appointed CMU Portugal alumnus André Martins to EuroHPC Advisory Group on Supercomputing.

2024

May 22

CMU Portugal dual degree Ph.D. Student Manuel Carneiro and his Ph.D. supervisor, Mahmoud Tavakoli, FCTUC, won 2nd place in the Sustainability category of the 12th edition of ArriscaC, a business idea competition promoted by Universidade de Coimbra.



June 26

Invited Talk on Gender Balance: Breaking Barriers in Technology by Jeria Quesenberry (CMU) - Lisbon

June 10

CMU Fence was painted in Portuguese colors by CMU Portugal students on the evening of June 10th in honor of Portugal Day. For 70 years, painting The Fence has been a staple in Carnegie Mellon University culture and is now a way for students and organizations to express themselves artistically.

June 27

The CMU Portugal Program at CMU hosted a networking event over Ice Cream Social for students currently studying in Pittsburgh.

June 28

Invited Talk on Gender Balance: Breaking Barriers in Technology by Jeria Quesenberry (CMU) - Porto



2024

CMU Portugal Activities

July 3

Encontro Ciência 2024: Collaborative projects within the scope of Portugal's partnerships with CMU, MIT, and UT Austin, with two panels: "International Partnerships and Talent Development" & "International Partnerships and their Contribution to Scientific and Technological-Based Innovation and Entrepreneurship".

July 10

CMU Portugal welcomes a visit from the Innovation College of Korea. The researchers, entrepreneurs, and senior administrators were in Europe to explore research and development opportunities and collaborative initiatives such as the Carnegie Mellon Portugal Program.

July 11

The 5cm cubic satellite "PROMETHEUS-1" developed under the CMU Portugal Exploratory Research project Prometheus, will soon be launched into Space. Alba Orbital, the world's leading PocketQube company, has announced that seven pocket-sized satellites from six countries, including "PROMETHEUS-1", will lift off as part of flight SpaceX's Transporter-12 Rideshare mission.

July 11-17

MH-1, the first satellite totally developed in Portugal, was launched into space. Born from the collaboration of 12 national entities, the final product was coordinated by two CMU Portugal Industry affiliates: CEiiA and Thales Edisoft Portugal.

August 26

The CMU Portugal Program has opened a Call for PRR (Plan for Recovery and Resilience) Collaborative Research Grants to promote CMU research teams to collaborate with Portuguese universities, faculty, and researchers at companies involved in the PRR Mobilizing Agenda projects.

July 12

Announcement of CMU Portugal Mobility Visits: in 2024, the program will host 18 research visitors from Portuguese Institutions at Carnegie Mellon University (CMU) in the Information and Communication Technologies (ICT) field: 8 faculty & researchers and 10 master's students & recent master's graduates.

2024



September 11

CMU Portugal Students participate in CMU Day at PNC Park. Every year, the Pittsburgh Pirates host CMU Day at PNC Park—this year, with the participation of the CMU Portugal students.

September 13-14

CMU Portugal Academy Kicks Off with a Bootcamp, bringing together over 40 students during the two-day event. Participants took part in hands-on case studies and collaborative group exercises, interacting with experts from both academia and industry.

September 16

The CMU Portugal Program welcomes 7 new Dual Degree Ph.D. candidates for the 2024/2025 academic year in Computer Science (2), Languages Technologies (2), Engineering and Public Policy (2), and Software Engineering (1).

September 9

CMU Portugal welcomes 11 new Affiliated Ph.D. students for 2024/2025 in (4) Computer Science, (1) Engineering and Public Policy, (3) Human-Computer Interaction, and (3) Machine Learning.

October 1

CMU Portugal Researchers at Universidade de Coimbra (UC), Mahmoud Tavakoli and Manuel Reis Carneiro, currently pursuing a Dual Degree Ph.D., were honored with the J. Norberto Pires Innovation Prize in recognition of their contributions to the field of wearable electronics.

October 7

João Barros, former national director of CMU Portugal (2009-2012) and Faculty Member, was appointed associate director of Carnegie Mellon University Africa (CMU-Africa).

2024

CMU Portugal Activities



October 30

Network event at CMU for CMU Portugal Dual Degree and Affiliated Ph.D. students, Visiting Students, and Visiting Faculty and Researchers currently studying in Pittsburgh.



October 24

Tamás Karácsony, CMU Portugal Affiliated Ph.D. Student at the FEUP have received the "Innovation and Contribution to the Field of AI" award from the IEEE AI Research Hub Competition at GITEX GLOBAL, the Largest Tech & Startup Show in the World.

October 18

João Magalhães is nominated CMU Portugal National co-director

October 17-18

"Bridge AI Conference: Portugal at the Forefront of AI Regulation" workshop. CMU Portugal is one of the academic institutions participating in Bridge.AI

November 10- 12

CMU Portugal Summit at CMU 2024 . Portuguese Minister of Education, Science and Innovation Fernando Alexandre, accompanied by Secretary of State for Science Ana Paiva, visited Carnegie Mellon University for the 2024 CMU Portugal Summit, a two-day event fostering dialogue on the program's future and strengthening ties between Portuguese and CMU communities. The Portuguese delegation counted with program directors and scientific leaders that met with over 30 CMU faculty, and dozens of Ph.D. students—for discussions on the partnership's future

November 15

CMU Portugal Board Meeting

2024



December 5

CMU Portugal Dual Degree and Affiliated Ph.D. students network event and workshop at CMU and in Portugal

November 19

CMU Portugal Info Session: "How to apply to CMU Portugal 2025/26 dual degree"- application guidelines and main requirements.

December 15

Daniela Lopes, a CMU Portugal Affiliated Ph.D. student at INESC-ID and Instituto Superior Técnico, was awarded the "Best Portuguese Internet Research of the Internet Society 2024" paper for her work developed under the DAnon project, CMU Portugal project.



2025

CMU Portugal Activities

January 14

Prometheus-1, Portugal's first PocketQube, developed at the University of Minho under the CMU Portugal project Prometheus, was successfully launched into space from California, USA.



January

CMU Portugal faculty member Claire Le Goues was one of the three recipients of the Presidential Early Career Award for Scientists and Engineers (PECASE).

January 21

Interview with Manuel Reis Carneiro, a CMU Portugal Dual Degree Ph.D. student in Electrical and Computer Engineering at FCTUC and CMU, was featured on Antena 1's "90 Segundos de Ciência" (90 Seconds of Science) podcast.

January

Ying Xu, CMU Portugal Affiliated Ph.D. student in Human-Computer Interaction at Instituto Superior Técnico and Interactive Technologies Institute (ITI-LARSyS) is the author of the winning poster of the PhD DEI 2024 – Best Poster.

February 11

CMU Portugal Spring Lunch in Pittsburgh welcomed students back to campus, marking the beginning of the new semester.

February

CMU Portugal Faculty Erica Fuchs was named Kavčić-Moura Professor of Engineering and Public Policy Department at CMU

2025



March 4–5

CMU Portugal students Beatrice Maggipinto and Mathilde Gouin (ITI) participated in the 2025 International Conference on Tangible, Embedded, and Embodied Interaction (TEI'25).

February 12

Networking event in Lisbon brought together members of the CMU Portugal Alumni Community, featuring Isabelle Bajoux-Besnainou, Dean of the Tepper School of Business, and Mimi Fairman, Executive Director of International Advancement at Carnegie Mellon University.

March 17

André Duarte, a CMU Portugal Dual Degree Ph.D. student in Language Technologies, was a speaker at the Priberam Lab Seminar.

March 18

Announcement of the 12 projects selected under the 2024 CMU Portugal PRR Call for Collaborative Research Grants, supporting collaboration between CMU research groups and Portuguese research teams engaged in the Portuguese Recovery and Resilience Plan (PRR) Mobilizing Agendas.

February 12

Networking event in Lisbon brought together members of the CMU Portugal Alumni Community, featuring Isabelle Bajoux-Besnainou, Dean of the Tepper School of Business, and Mimi Fairman, Executive Director of International Advancement at Carnegie Mellon University.

March 21

A CMU Portugal research team led by David Semedo and João Magalhães (National Co-Director of the CMU Portugal Program and both researchers at NOVA LINCS) was selected for the 2025 Amazon Nova AI Challenge.

2025

CMU Portugal Activities



April 7-11

Six teams that took part in the Patient Innovation (PI) Bootcamp visited CMU for a week-long residency designed to prepare them for entry into the U.S. market.

April

CMU Portugal startup and industry partner Feedzai acquired data company Demyst.

April 11

CMU Portugal joined the annual CMU Graduate and Professional Student Appreciation Week celebrations with a dedicated luncheon event.

April 30

José M. F. Moura, Philip L. and Marsha Dowd University Professor and Director of the CMU Portugal Program at CMU, received the IEEE Haraden Pratt Award "for sustained leadership, global service, and outstanding contributions enabling new opportunities for IEEE and its members."

May

CMU Portugal Affiliated company Tekever, specialized in AI-driven Autonomous Systems, joined the list of Portuguese unicorn companies, since it reached a valuation above one billion pounds (1.173 million euros) after a new funding round.

May 7

Announcement of the eight new exploratory projects selected under the CMU Portugal 2024 Call.

May 3

CMU Portugal Dual Degree Ph.D. students in Software Engineering — Catarina Gamboa, Cláudia Mamede, Daniel Ramos, and Paulo Canelas — received the Best Paper Award at the 2nd International Workshop on LL Models for Code (LLM4Code).

May

Addvolt, a Portuguese innovator in transport electrification technology, has been acquired by Carrier Global Corporation, a U.S.-based leader in intelligent climate and energy solutions. The company was founded by four alumni of the Faculty of Engineering at the University of Porto (FEUP).

May 12

Launch of the fifth edition of the CMU Portugal Affiliated Ph.D. Programs: open applications from May 12 to June 15, 2025, offering up to 12 scholarships for the 2025/2026 academic year.



May 22

CMU Portugal Info Session: “How to Apply to the 2025 CMU Portugal Affiliated Programs” — an online session outlining application guidelines and main requirements.

May 27

Announcement of the opening of applications for the 2025 CMU Portugal Mobility Initiatives for Visiting Faculty & Researchers, and Visiting Students, enabling research periods at CMU during 2025.

2025

CMU Portugal Activities

June

The College of Engineering at CMU published in the Fall Magazine the news article “How CMU Portugal Primes startups”, highlighting the CMU Portugal Program’s innovation and entrepreneurial initiatives since its launch in 2006.

June

Alexandra Mendes (FEUP | INESC TEC) and João F. Ferreira (Técnico | INESC ID), both former participants of the CMU Portugal Visiting Faculty & Researchers initiative, were among the winners of the Fall 2024 Amazon Research Awards.

June 5

Mariana Nunes, CMU Portugal Affiliated Ph.D. student, won the SPARK Research Challenge: Kid-Friendly Poster Competition.



June 4

CMU Portugal Info Session: “How to Apply to the 2025 Call for Mobility Programs” — overview of the application process for both CMU Portugal Mobility Initiatives.

June 5–6

CMU Portugal Patient Innovation Accelerator Program two-day workshop at NOVA Medical School in Lisbon, concluding the Program’s inaugural edition.

June 17

Announcement of CMU Portugal Program 10 new candidates for the Dual Degree Ph.D. programs.

June 15–18

CMU research team visit led by Shinji Watanabe, Associate Professor at the LTI Institute (CMU), to Lisbon under the scope of the CMU Portugal-supported project “ACE-FM: Adaptive Conversational Engine powered by Foundation Models.”



June 23

Announcement of the opening of applications for the 2nd Edition of the CMU Portugal Academy.

June 26–27

Team RedTWIZ, representing NOVA FCT and featuring CMU Portugal Ph.D. students Diogo Silva (team leader) and Diogo Tavares, secured 2nd place at the 2025 Amazon Nova AI Challenge – Trusted AI, a global university AI competition.



2025

CMU Portugal Activities

July 9

Encontro Ciência 2025: the CMU Portugal Program participated once again in the annual Summit, joining forces with the MIT Portugal and UT Austin Portugal programs for the session titled “FCT’s Partnerships with U.S. Universities: Shaping the Future Through Impactful Science.”



July 19–25

LxMLS 2025 – 15th Lisbon Machine Learning Summer School, held with CMU Portugal support.

July 25

CMU Portugal students visited Fallingwater, one of the most iconic architectural landmarks designed by Frank Lloyd Wright.



August 20

Announcement of the 12 visiting research scholars selected under the 2025 CMU Portugal Mobility Initiatives – Visiting Students and Visiting Faculty & Researchers.

August 20

The CMU Portugal Program hosted an End of Summer Event in Pittsburgh, bringing together CMU Portugal students studying at CMU.

September

João Ribeiro (Instituto Superior Técnico | Instituto de Telecomunicações), and CMU Portugal Project PI, was awarded a European Research Council (ERC) Starting Grant, worth approximately €1.5 million.

October

Feedzai, a CMU Portugal start-up and industry-affiliated partner, was chosen by the European Central Bank (ECB) to safeguard the digital euro with its fraud detection and prevention mechanism.

October 1

Launch of the CMU Portugal Call for Dual Degree Ph.D. Programs, offering up to 10 scholarships for the 2026/2027 academic year.

September

João Vilalonga, a CMU Portugal Affiliated Ph.D. student in Computer Science at NOVA FCT and researcher at NOVA LINCS, received the "Rising Star Research 2025" Award from the Free and Open Communications on the Internet (FOCI) community.

October 13

CMU Portugal members are among Forbes Portugal's Most Powerful Women in Business: Irene Fonseca and Manuela Veloso. The list also recognizes Isabel Capelo Gil, member of CMU Portugal's Board of Directors.

September 7

Celebrations of CMU Day 2025 with CMU Portugal students at a Pittsburgh Pirates game.

October 14

CMU Portugal Info Session: "How to Apply to the CMU Portugal 2026/27 Dual Degree Ph.D. Programs" — overview of application guidelines and main requirements.

2025

CMU Portugal Activities

December 3

CMU Portugal Networking Event with Dual Degree and Affiliated Ph.D. Students, alongside Visiting scholars, held simultaneously at CMU and in Portugal.

November 5

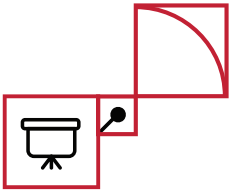
CMU Portugal Board of Directors Meeting.

October 15

CMU Portugal at CMU hosted a Halloween-themed networking event with Dual Degree Ph.D. and Affiliated Ph.D. students currently studying in Pittsburgh.

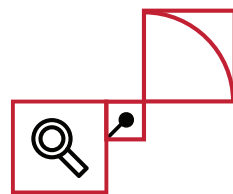
January 2024 – November 2025

- Supporting Outreach and Networking activities, as well as other initiatives related to CMU Portugal's scientific areas.
- Promoting engagement through the website, online platforms, newsletters, and media.





Knowledge Creation



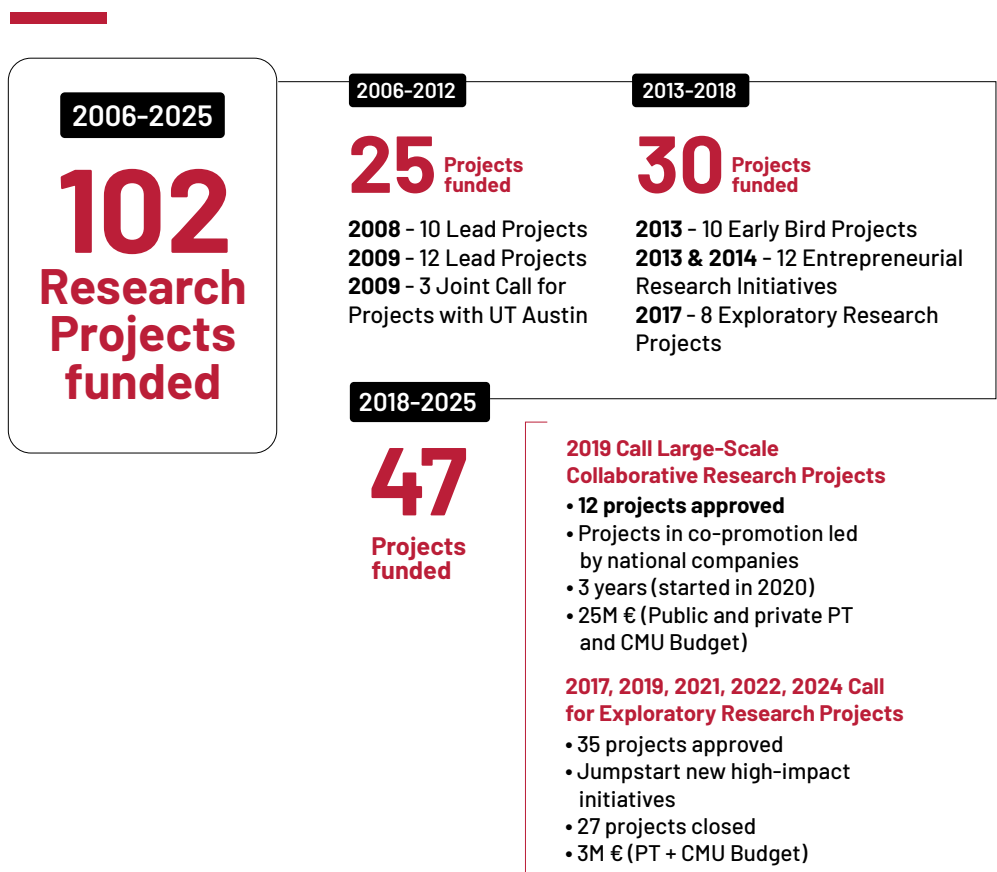
Since 2006, the Program has fostered **102 projects** spanning a diverse spectrum of research domains from data science and engineering for large-scale data sets to artificial intelligence, robotics, and machine learning that extract value from data or the sociotechnical systems and applications catalyzed through these technologies.

During CMU Portugal's third phase (2018-2024), different typologies of projects were underway:

Entrepreneurial Research Initiatives - ERIs are projects that originated during Phase 2 of the CMU Portugal Program but were implemented in Phase 3. These initiatives span science, engineering, management, and policy, combining research, innovation, and advanced training in collaboration with industry partners. ERIs place a strong emphasis on the commercialization of technology, aiming to generate both economic and societal impact through applied research and strategic partnerships.

Exploratory Research Projects - The ERPs are short-term projects of 12 months designed to assist teams of researchers from Portuguese institutions, Carnegie Mellon University, and Industry partners in bootstrapping high-impact potential research activities of strategic relevance.

Large-Scale Collaborative Research Projects - The Large-Scale Collaborative Research Projects (LSCRPs) are the flagship initiative of CMU Portugal's Phase 3, supported by Compete 2020, ANI, and FCT under the "Go Portugal" program. These projects mark a shift in leadership, placing national ICT companies at the forefront to drive innovation, strengthen networks, and collaborate with Portuguese R&D institutions and Carnegie Mellon University. Twelve new projects involving 39 Portuguese entities and eight CMU departments were funded, covering areas from online privacy to healthcare and energy. With €20.5M in public funding and €4.5M in industry investment, LSCRPs represent the largest public-private research collaboration in the program's history.

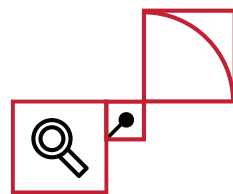


Overall, these projects led to palpable scientific accomplishments with **249 publications in international peer-reviewed journals, 663 peer-review conference papers, 129 Ph.D. and 350 Master theses.** In the area of innovation, the projects reported the development of 106 prototypes and the submission of **17 new patents.**

In addition to Dual-Degree and Affiliated Ph.D. students, the CMU Portugal research projects have directly funded, totally or partially, 172 Ph.D. students and the mobility of 58 researchers between the two countries.

All projects supported by the CMU Portugal Program are selected through competitive calls and subjected to evaluation by international committees of experts appointed by FCT. The evaluators scrutinize proposals and convene (online or in person) for their final evaluation, ranking, and final recommendations for funding.

Exploratory Research Projects



Exploratory Research Projects (ERPs) are designed to assist teams of researchers from Portuguese institutions, Carnegie Mellon University, and industry partners in bootstrapping high-impact potential research activities of strategic relevance. The institutions engaged in the ERPs illustrate the diverse spectrum of research areas and collaborations the Program fosters, from robotics to artificial intelligence, language processing, healthcare technologies, cybersecurity, and more.



The 6 ERPs from the 2022 call, which started in early 2024, focus on a diverse set of research areas ranging from digital health technologies to internet intervention to detect, treat, and monitor anxiety and depression in breast cancer survivors, bioelectronic implants, neural probes, distributed networks, and automatic evaluation of graphics based on machine learning. The 2022 call featured a total of **36 proposals**, **6 of which were recommended for funding in late 2023**. The winning projects are led by **4 Portuguese research Institutions**: two projects headed by Associação Fraunhofer Portugal Research, two by INESC ID, one by Universidade de Aveiro and one by Universidade de Coimbra. The projects are in collaboration with **4 different departments at Carnegie Mellon University**: Electrical and Computer Engineering, Human-Computer Interaction Institute, Software and Societal Systems, and Computer Science. In addition to the leading Institutions, other institutions have joined the projects: Centro Hospitalar Universitário de S. João, Instituto Português de Oncologia do Porto Francisco Gentil, Universidade do Porto (Faculdade de Letras da Universidade do Porto) and Instituto de Telecomunicações. The **6 ERPs running from 2024 to early 2025** represent an **investment of €685K across Portuguese research institutions and the CMU Departments**.

AutoEvaVis:

Automatic Evaluation of Visualizations – a Machine Learning Approach

Principal Investigator in Portugal:

Evgheni Polisciuc

Principal Investigator at CMU:

Dominik Moritz

Partner Institutions:

Universidade de Coimbra, Human-Computer Interaction Institute (CMU)

iNOV Sensing:

a pilot cognitive-behavioral internet intervention to detect, treat, and monitor anxiety and depression in breast cancer survivors based on multimodal active and passive sensing data

Principal Investigator in Portugal:

Cristina Mendes Santos

Principal Investigator at CMU:

Mayank Goel

Partner Institutions:

Associação Fraunhofer Portugal Research, Centro Hospitalar Universitário de S. João, Instituto Português de Oncologia do Porto Francisco Gentil, Software and Societal Systems Department and Human-Computer Interaction Institute (CMU).

PHEASANT:

Integrated photonic neuronal probes towards neuromorphic computing

Principal Investigator in Portugal:

Maria Rute André

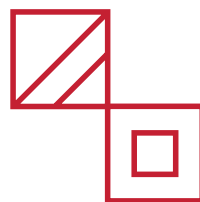
Principal Investigator at CMU:

Maysam Chamanzar

Partner Institutions:

Universidade de Aveiro, Instituto de Telecomunicações and Department of Electrical and Computer Engineering (CMU)





mm-Size Stimulator Implants

Principal Investigator in Portugal:

Jorge Fernandes

Principal Investigator at CMU:

Marc Dandin

Partner Institutions:

INESC ID, Electrical and Computer Engineering Department (CMU)

SALAD-Nets:

Synthesizing Adaptive Large-scale Accelerated and Distributed Network Functions

Principal Investigator in Portugal:

Luís Pedrosa

Principal Investigator at CMU:

Srinivasan Seshan

Partner Institutions:

INESC ID, Computer Science Department (CMU)

Signo:

Value systems in digital health technologies Investigation

Principal Investigator in Portugal:

Ricardo Melo

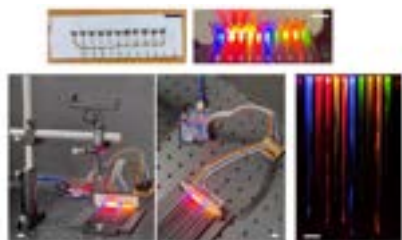
Principal Investigator at CMU:

Sarah E. Fox

Partner Institutions:

Associação Fraunhofer Portugal Research, Universidade do Porto – Faculdade de Letras da Universidade do Porto, Software and Societal Systems Department (CMU)

Complete reports of activities of the 2022 ERPs as of November 2025.



PHEASANT: Integrated photonic neuronal probes towards neuromorphic computing Fig 4. Photographs of the circuit utilized to control the LEDs (1 – 10) coupled to the waveguides. Scale bars, 1 cm.

In **2024, FCT and CMU Portugal launched a new competitive Call for Exploratory Research Projects**. The evaluation process was completed in April 2025. The call for proposals featured a total of 40 proposals, **8 of which were recommended for funding** by FCT under the scope of the CMU Portugal Program. The yet provisional results are led by four Portuguese Institutions: IST-ID with three projects, INESC-ID and Instituto de Telecomunicações (IT) both with two, and INESC-TEC with one. The projects will collaborate with 5 different departments at Carnegie Mellon University: Computer Science, Electrical and Computer Engineering, Human-Computer Interaction, Language Technologies, and Robotics. The projects are planned for a period of 12 months, starting in 2025, with an **overall 770K€ supporting teams in Portugal and CMU**.

Adaptive Query Optimization Architectures to Support Heterogeneous Data Intensive Applications

Principal Investigator in Portugal:

José Orlando Roque Nascimento Pereira

Principal Investigator at CMU:

Andy Pavlo

Partner Institutions:

INESC-TEC; Computer Science Department (CMU)

Fully-Homomorphic Encryption from Post-Quantum Code Based Assumptions

Principal Investigator in Portugal:

João Miguel Lourenço Ribeiro

Principal Investigator at CMU:

Aayush Jain

Partner Institutions:

IT; Computer Science Department (CMU)

Minimally-invasive deep-brain stimulation for treating treatment-resistant depression

Principal Investigator in Portugal:

Patrícia Figueiredo

Principal Investigator at CMU:

Pulkit Grover

Partner Institutions:

IST-ID; Electrical and Computer Engineering Department (CMU)

Body Motion Foundation Model for Human Activity Analysis

Principal Investigator in Portugal:

José Santos-Victor

Principal Investigator at CMU:

Artur Dubrawski

Partner Institutions:

IST-ID; Robotics Institute (CMU)

DIME-FS A Decentralized File System

Principal Investigator in Portugal:

David Rogério Póvoa de Matos

Principal Investigator at CMU:

Seth Goldstein

Partner Institutions:

INESC-ID; Computer Science Department (CMU)

Exploring Robotlike RObot behavioRs in users' Mental Models

Principal Investigator in Portugal:

Filipa Isabel Nogueira Correia

Principal Investigator at CMU:

Nikolas Martelaro

Partner Institutions:

IST-ID; Human-Computer Interaction Institute (CMU)

Machine Unlearning in Speech Foundation Models: Learning to Forget

Principal Investigator in Portugal:

Francisco Saraiva Sepúlveda Teixeira

Principal Investigator at CMU:

Bhiksha Raj Ramakrishnan

Partner Institutions:

INESC-ID; Language Technologies Institute (CMU)

Neuromorphic quantum-inspired computing

Principal Investigator in Portugal:

Emmanuel Zambrini Cruzeiro

Principal Investigator at CMU:

Elias Towe

Partner Institutions:

IT; Electrical and Computer Engineering Department (CMU)

Abstract summary of the 8 ERPs 2024 that begun on October/ November 2025.

During CMU Portugal's Phase 3, a total of **35 ERPs** were supported, covering five calls for proposals (2017, 2019, 2021, 2022, and 2024), with a total financial commitment of **4.3M€** for research groups in Portugal and CMU.

Call for PRR (Plan for Recovery and Resilience) Collaborative Research Grants

During CMU Portugal's Phase 3, a total of **35 ERPs** were supported, covering five calls for proposals (2017, 2019, 2021, 2022, and 2024), with a total financial commitment of **4.3M€** for research groups in Portugal and CMU.

In 2024, the CMU Portugal Program, launched at CMU, a new initiative- a call open to CMU research teams to foster and enable the collaboration of CMU faculty with Portuguese universities, faculty, and researchers at companies involved in the Portuguese PRR Mobilizing Agenda, funded by the EU Plan for Recovery and Resilience (PRR). Selected proposals are funded for up to 12 months, with funding up to \$75,000 per project for the CMU team to cooperate with Portuguese Partners. The Call received 22 applications from CMU faculty and researchers, and **12 projects have been awarded**, with research to be carried out over the next 12 months at CMU and in Portugal. The participating CMU research teams are affiliated with **11 departments**, including CMU-Africa, Electrical and Computer Engineering, Engineering and Public Policy, Heinz College of Information Systems and Public Policy, Human-Computer Interaction Institute, Entertainment Technology Center, Language Technologies Institute, Mechanical Engineering, Psychology, Robotics Institute, and Software and Societal Systems. The collaborative research projects will be developed in partnership with **16 Portuguese academic & research institutions**: Católica Lisbon School of Business & Economics, dst Center, Faculty of Engineering of the University of Porto, Flowbotic, Fraunhofer Portugal AICOS, Institute for Systems and Robotics / LARSyS – Lisboa (ISR), Institute for Systems and Robotics – University of Coimbra, Instituto de Engenharia de Sistemas e Computadores: Investigação e Desenvolvimento (INESC-ID), Instituto de Telecomunicações (IT), Instituto Superior Técnico, Interactive Technologies Institute (ITI-LARSyS), Nexar, Unbabel, University of Aveiro, University of Madeira, and WOWSystems.



A Virtual Reality Game To Transform Attitudes About Climate Change

Principal Investigator at CMU:

Laurie M. Heller

Collaborating PRR Project:

eGames Lab

Principal Investigator in Portugal:

Ana Pires

Supporting Faculty in Portugal:

Pedro F. Campos

Collaborating Institutions:

Department of Psychology (CMU); ITI/LARSyS, Instituto Superior Técnico, Universidade de Lisboa; University of Madeira; WOWSYSTEMS – Informática Lda;

ACE-FM: Adaptive Conversational Engine powered by Foundation Models

Principal Investigator at CMU:

Shinji Watanabe

Collaborating PRR Project:

Accelerat.AI

Principal Investigator in Portugal:

Alberto Abad

Collaborating Institutions:

Language Technologies Institute (CMU); Instituto Superior Técnico (IST)

AI and Human Capital Opportunity Atlas for Portugal

Principal Investigator at CMU:

Christophe Combemale

Supporting Faculty at CMU:

Nikhil George, Ramayya Krishnan, Rahul Telang

Collaborating PRR Project:

Center for Responsible AI

Principal Investigator in Portugal:

Miguel Matos & Paulo Dimas

Collaborating Institutions:

Department of Engineering and Public Policy (CMU); Heinz College of Information Systems and Public Policy (CMU); Católica Lisbon School of Business & Economics; Unbabel

AI-mediated Augmented and Assistive Communication Interfaces for ALS: Decoding Movement and Movement Intent Through High-Density EMG and EEG Signals

Principal Investigator at CMU:

Pulkit Grover

Collaborating PRR Project:

Center for Responsible AI

Principal Investigator in Portugal:

Hugo Plácido da Silva

Supporting Faculty in Portugal:

Catarina Farinha

Collaborating Institutions:

Department of Electrical & Computer Engineering (CMU); Instituto de Telecomunicações; Instituto Superior Técnico, Universidade de Lisboa; Unbabel

CAMCITY – Connected and AI-Driven Mobility for Global Cities

Principal Investigator at CMU:

João Barros

Collaborating PRR Project:

Route 25: Agenda for Autonomous, Intelligent, Interoperable and Inclusive Mobility

Principal Investigator in Portugal:

Ana Aguiar

Supporting Faculty in Portugal:

Dr. Ricardo Matos

Collaborating Institutions:

CMU-Africa; Department of Electrical and Computer Engineering (CMU); Heinz College of Information Systems and Public Policy (CMU); Faculdade de Engenharia da Universidade do Porto; Nexar

Creative Connect: A Data Platform for Climate Action Research

Principal Investigator at CMU:

Jessica Hammer

Collaborating PRR Project:

eGames Lab

Principal Investigator in Portugal:

Pedro Campos

Supporting Faculty in Portugal:

Valentina Nisi; Nuno J. Nunes

Collaborating Institutions:

Human-Computer Interaction Institute & Entertainment Technology Center (CMU); Interactive Technologies Institute, University of Lisbon; University of Madeira

Designing Digital Documentation for Occupational Safety & Health

Principal Investigator at CMU:

Jodi Forlizzi

Collaborating PRR Project:

HfPT – Health from Portugal

Principal Investigator in Portugal:

Ana Correia de Barros

Supporting Faculty in Portugal:

Maria Miguel Costa

Collaborating Institutions:

Human-Computer Interaction Institute (CMU); Fraunhofer Portugal AICOS; dst center

FastCAM: Fast Computation of Optimal Collision-Avoidance Maneuvers

Principal Investigator at CMU:

Zachary Manchester

Collaborating PRR Project:

NEURASPACE – AI Fights Space Debris

Principal Investigator in Portugal:

Rodrigo Ventura

Collaborating Institutions:

Robotics Institute (CMU); Institute for Systems and Robotics – Lisboa, LARSyS, Instituto Superior Técnico

Safe Speech Models (SSM)

Principal Investigator at CMU:

Bhiksha Raj

Collaborating PRR Project:

Accelerat.AI

Principal Investigator in Portugal:

Isabel Trancoso

Collaborating Institutions:

Language Technologies Institute; Instituto Superior Técnico; INESC-ID Lisboa

SAFE3D-AI: Safety Assurance for 3D Vision AI Systems

Principal Investigator at CMU:

David Garlan

Collaborating PRR Project:

GreenAuto: Green innovation for the Automotive Industry

Principal Investigator in Portugal:

Luís Conde Bento

Supporting Faculty in Portugal:

Abel Mendes

Collaborating Institutions:

**Software and Societal System Department (CMU); Institute of Systems and Robotics
– University of Coimbra; Flowbotic**

SSPaM – Sustainable Sensorized Packaging Materials

Principal Investigator at CMU:

Carmel S. Majid

Collaborating PRR Project:

Embalagem do Futuro (Future of Packaging)

Principal Investigator in Portugal:

Mahmoud Tavakoli

Collaborating Institutions:

Department of Mechanical Engineering (CMU); Department of Electrical & Computer Engineering (CMU); Instituto de Sistemas e Robótica (ISR), University of Coimbra

TOWARD COST-EFFECTIVE PROVABLE SAFETY IN AUTONOMOUS DRIVING

Principal Investigator at CMU:

John M. Dolan

Collaborating PRR Project:

Route 25: Agenda for Autonomous, Intelligent, Interoperable and Inclusive Mobility

Principal Investigator in Portugal:

Susana Sargento

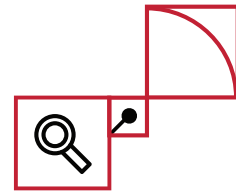
Supporting Faculty in Portugal:

Elisa Bacelo; João Neves

Collaborating Institutions:

Robotics Institute (CMU); University of Aveiro

Talent Development



The **CMU Portugal Dual Degree Ph.D.** programs are a highly competitive initiative designed to cultivate talent by combining the strengths of Portuguese universities and Carnegie Mellon University. Students are enrolled at their Portuguese universities and Carnegie Mellon University, conducting their studies in both Portugal and the United States. Through the FCT, the CMU Portugal Program provides scholarships that cover up to five years of funding: **three years in Portugal and two years at CMU.** These students benefit from **co-advisors** who are faculty members from both Carnegie Mellon University and their partner higher education institutions in Portugal. Upon successful completion, graduates receive **Dual Degrees awarded by CMU and the affiliated Portuguese University.** Candidates first apply directly to CMU, where their applications are evaluated alongside those from other global applicants to their specific Ph.D. Program. Those who meet the minimum admission requirements advance to the next stage, which involves an admissions committee in Portugal. This committee, comprising faculty members from various Portuguese higher education institutions and CMU, is chaired by the Program directors. Its role is to evaluate applications and determine eligibility for the FCT – CMU Portugal scholarship. If a candidate achieves the required evaluation for consideration, they will be recommended for admission to the relevant CMU and Portuguese University departments, as well as to FCT for scholarship funding.

In recent years, the dual degree areas have expanded to include **new Ph.D programs** such as Machine Learning and Societal Computing in 2023, and Cognitive Neuroscience and Neural Computation in 2025. These additions enhance the educational offerings of Dual Degrees, reflecting the Program's commitment to adapting to evolving interests in industry and academia, and ensuring the continuous improvement and updating of CMU Portugal's educational programs.

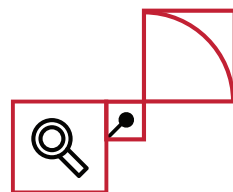


Launched in 2021, the **CMU Portugal Affiliated Ph.D. programs** are a new initiative offering doctoral degrees. Through this mechanism, CMU Portugal and FCT provide Ph.D. scholarships in cutting-edge Information and Communication Technologies (ICT) areas. Ph.D. students are **hosted by a Portuguese University** and can undertake a **research period of up to one year at Carnegie Mellon University**. They must have a supervisor affiliated with a Portuguese higher education institution and a co-supervisor affiliated with CMU. Both virtually all higher education institutions in Portugal and all CMU departments are eligible for student affiliation, provided their research areas align with CMU Portugal's focus. This flexibility and diversity are key attributes of the initiative. From 2024 to 2025, six new research areas were added to the Affiliated Ph.D. Programs: Biomedical Engineering, Computational Cognitive Neuroscience, Machine Learning, Materials Science and Engineering, Mechanical Engineering, and Societal Computing. A crucial aspect is **industry collaboration**, with students encouraged to develop part of their Ph.D. work plan with a Portuguese ICT company. Upon completion, candidates are awarded their **degree by their respective Portuguese host University**. The CMU Portugal Program coordination office manages the admissions process. Candidates apply through a dedicated online platform. Applications are evaluated by a jury chaired by the Program's Directors and comprised of specific committees for each main research area. These committees include faculty members from Portuguese higher education institutions and at least one faculty member from CMU.

CMU Portugal's Mobility Initiatives offer invaluable opportunities for doctorate holders, Ph.D. students, and Master's students to immerse themselves in Carnegie Mellon University's educational, research, and cultural environment. These initiatives, which include the **Visiting Faculty and Researchers Program** and the **Visiting Students Program**, are crucial for strengthening research partnerships between CMU Portugal and Portuguese universities. The Visiting Faculty and Researchers Program specifically targets **researchers with doctoral degrees**, offering extended exposure to global best practices in research and education at CMU. This program also plays a vital role in integrating Portuguese universities into international knowledge networks. Similarly, the Visiting Students Program provides talented **master's students and recent graduates** with a chance to gain in-depth experience at Carnegie Mellon. Participants develop research knowledge and skills, and explore new perspectives for their future graduate studies and career paths. Overall, both initiatives enable participants to engage in collaborative research projects, interact with leading research teams, and directly experience CMU's academic culture and best practices.

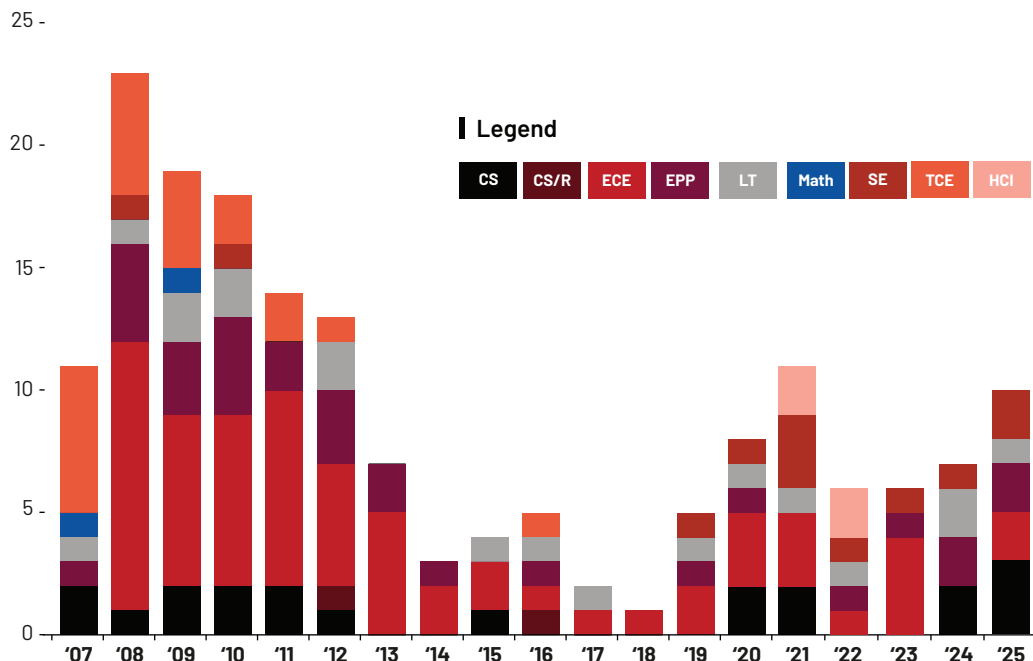
In addition to Dual-Degree and Affiliated Ph.D. students, the CMU Portugal research projects have directly funded, totally or partially, 172 Ph.D. students and the mobility of 58 researchers between the two countries.

Dual Degree Ph.D. Programs



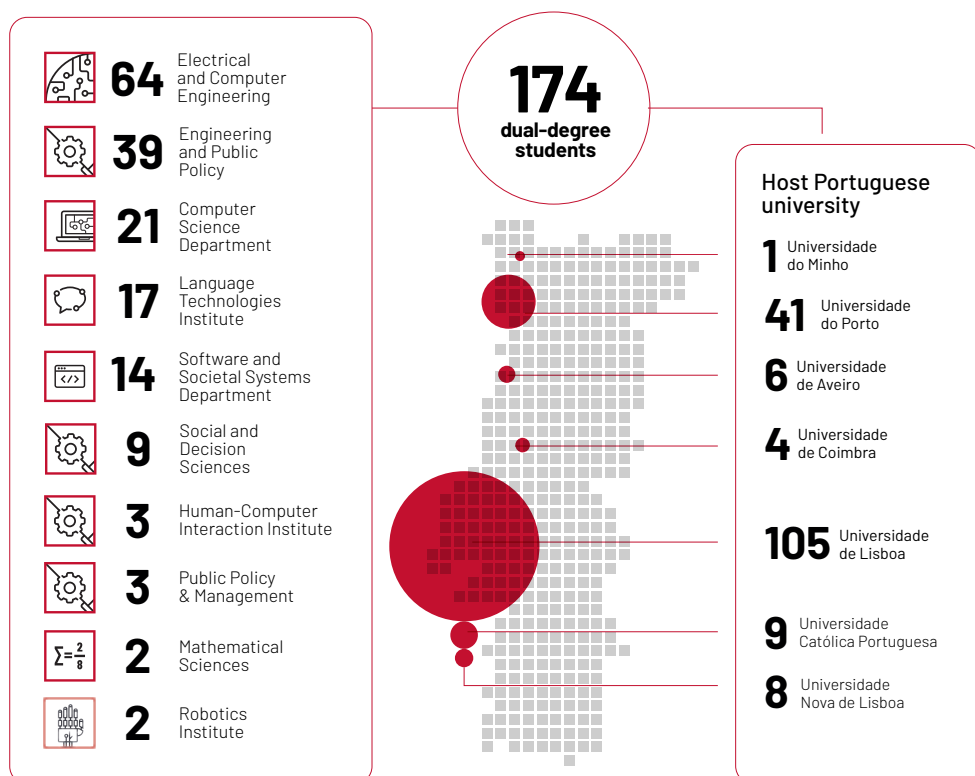
In 2024 CMU Portugal launched **two calls for CMU Portugal Dual-Degree Doctoral Programs** between Portuguese universities and Carnegie Mellon University: a first call in February 2024 for the academic year of 2024/ 2025; and a second call in November 2024 for the academic year 2025/2026. The selection process for these candidates was overseen by a committee composed of faculty members from Portuguese Universities and Carnegie Mellon University, with selected candidates spending 2 years at Carnegie Mellon University (CMU) and 3 years at a Portuguese university.

With an overall acceptance rate of 7%, the 17 scholarships awardees cover diverse areas of study, specializing in Computer Science (5), Languages Technologies (3), Electrical and Computer Engineering (2), Engineering and Public Policy (4) and Software Engineering (3).

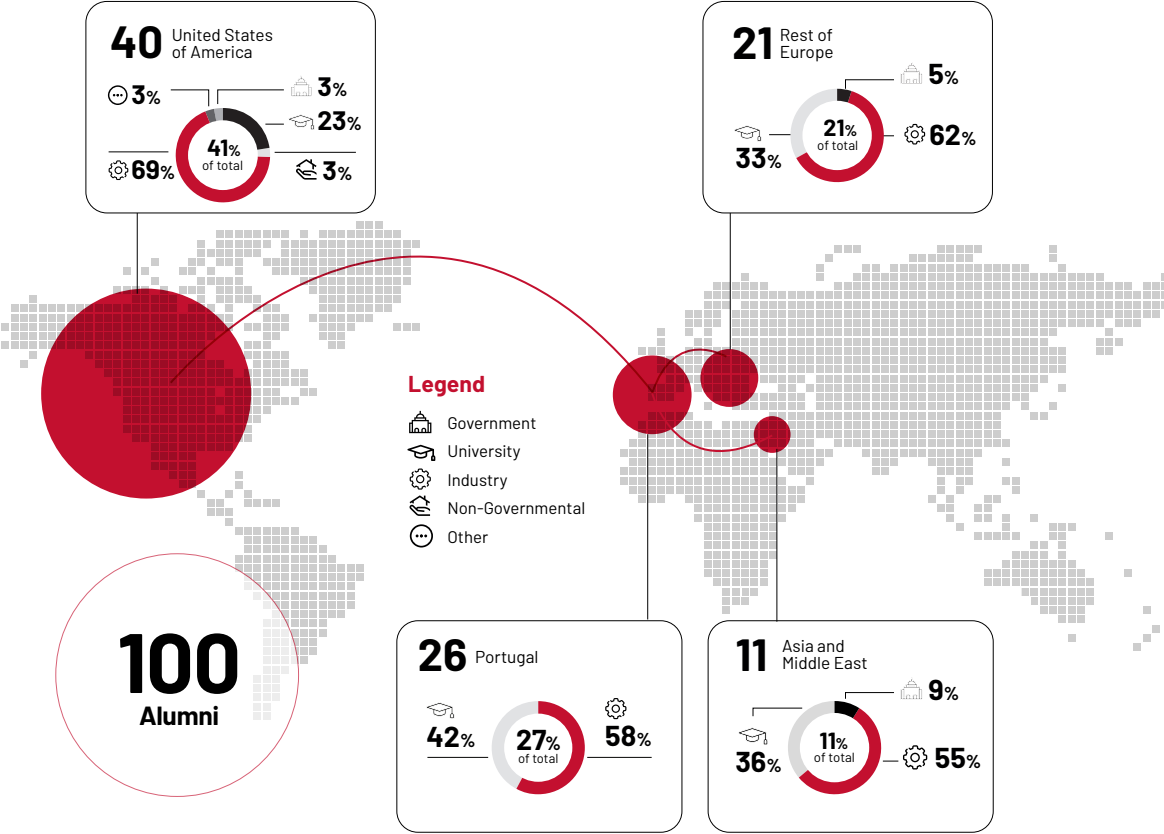


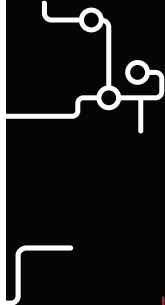
In **Portugal**, the **host institutions** for these scholars are: Faculty of Engineering – University of Porto (FEUP) (4), Instituto Superior Técnico (9), NOVA School of Science and Technology (FCT NOVA) (1), Faculty of Sciences – University of Porto (FCUP) (1), Universidade de Aveiro (1), and Universidade do Minho (1). At CMU they will be hosted in **5 different Departments**: Computer Science Department – CMU School of Computer Science (5), Engineering and Public Policy Department – CMU College of Engineering (4), Language Technologies Institute – CMU School of Computer Science (3), the Software and Societal Systems Department – CMU School of Computer Science (3), and the Electrical and Computer Engineering Department – CMU College of Engineering (2).

The group includes students from **27 different countries**: of whom 103 are Portuguese nationals. The CMU Portugal Program has enrolled a total of **174 dual-degree students** across **7 Portuguese Universities** and 10 CMU departments, with **100 graduates** so far.



In 2025, we've reached the milestone of 100 dual-degree PhD graduates. The CMU Portugal Alumni Community spans the globe, showcasing the program's international impact. Of the 100 alumni, we've tracked career paths for 98, with 41% working in the United States, including 16 Portuguese nationals. These alumni are thriving in top-tier companies like IBM, Apple, Google, Meta, and Amazon, and at world-renowned universities such as Carnegie Mellon University, UC Berkeley, and Johns Hopkins University. In the U.S., 69% work in industry, 23% in academia, and the remainder in government or non-profit roles. Portugal remains a strong hub, with 27% of alumni employed locally. Among them, 58% are in leading ICT companies like Feedzai, Unbabel, and Cloudflare, while 42% contribute to top Portuguese universities. Across Europe, 21% of alumni are making an impact in institutions such as Utrecht University, Rotterdam School of Management, and Eindhoven University, and companies like Huawei, Amazon, and the European Commission. In Asia and the Middle East, alumni are advancing innovation at companies like Alibaba and Mujin, and teaching at universities such as The Hong Kong University and KAUST.





Call for

Dual Degree

All information at:
cmuportugal.org



10 Ph.D. Scholarships are available in:

School of Computer Science
 From Oct 1st to Dec 10th
 (03:00 p.m. EST)

- Computer Science
- Human-Computer Interaction
- Language Technologies
- Machine Learning
- Robotics
- Societal Computing
- Software Engineering

College of Engineering
 From Oct 1st to Dec 15th
 (11:59 p.m. EST)

- Electrical and Computer Engineering
- Engineering and Public Policy

Dietrich College of Humanities and Social Sciences
 From Oct 1st to Dec 1st
 (11:59 p.m. EST)

- Cognitive Neuroscience
- Neural Computation

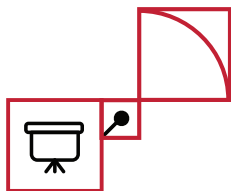
Ph.D. Programs 2026/2027

2 years
 at Carnegie Mellon University (CMU)

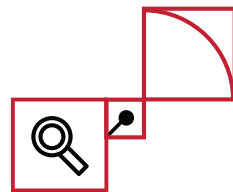
+ 3 years
 at a Portuguese university




A new call for 10 Ph.D. CMU Portugal dual degree scholarships is currently open until December 2025 for the academic year 2026/2027. This year, two new Ph.D. programs, Cognitive Neuroscience and Neural Computation resulting from new MoUs between CMU's Psychology Department and Neuroscience Institute and Universidade de Coimbra and Instituto Superior Técnico.

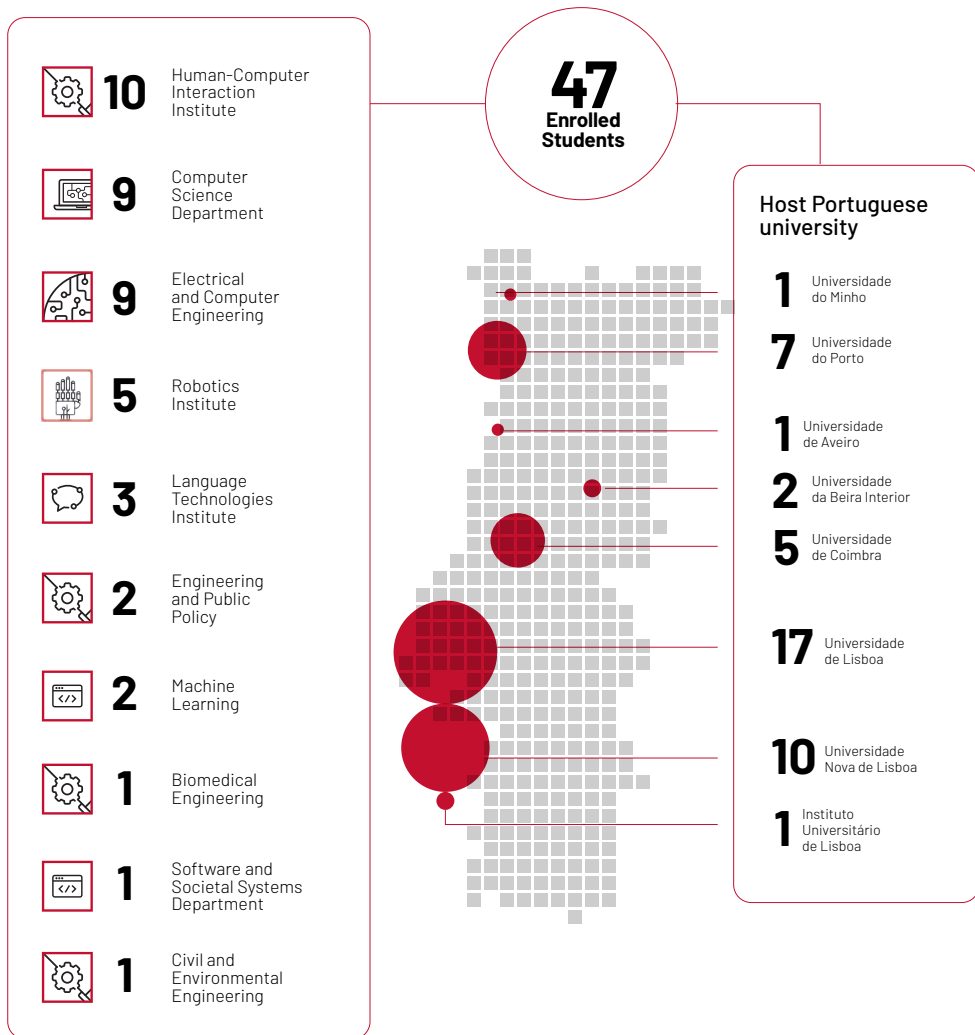


Affiliated Ph.D. Programs



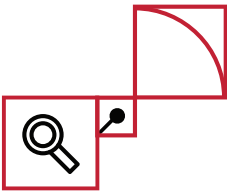
In 2024 and 2025 the Program launched two calls **for the CMU Portugal Affiliated Ph.D. Programs**. Under this initiative, currently on its 5th edition, **47 Ph.D. candidates were admitted** having the opportunity of spending a research period at Carnegie Mellon for up to 1 year and co-supervision by CMU and Portuguese Faculty. Upon completing their Ph.D. studies, these candidates will receive a diploma from their Portuguese host University. A key aspect of this initiative is the collaboration with Industry since candidates are encouraged to **develop part of their Ph.D. work plan with a Portuguese ICT company**. The new cohort of students will work closely with companies such as TEKEVER, VOID Software, or MEO.

Under the umbrella of this initiative and between 2024-2025, 24 Scholarships were granted to students in the following CMU Portugal **research areas**: (8) Computer Science, (3) Electrical and Computer Engineering, (1) Engineering and Public Policy, (6) Human-Computer Interaction and (4) Machine Learning and (2) in Materials Science and Engineering. In Portugal, the Ph.D. candidates will be hosted by 7 **different institutions**: (10) Instituto Superior Técnico, (4) Faculty of Engineering – University of Porto (FEUP), (3) NOVA School of Science and Technology (FCT NOVA), (1) Universidade da Beira Interior, (1) Universidade de Coimbra, (4) Universidade do Minho, and (1) Universidade de Aveiro. During their one-year research period at CMU, candidates will be hosted at **9 CMU Departments**: (2) Civil and Environmental Engineering, (2) Computer Science, (8) Electrical and Computer Engineering, (1) Engineering and Public Policy, (6) Human-Computer Interaction, (2) Machine Learning, (1) Materials Science and Engineering, (1) Mechanical Engineering, (1) Robotics Institute. All candidates were selected after a rigorous selection process by a committee of faculty members from Portuguese Universities and CMU.



Since 2021, this initiative has enrolled 47 Ph.D. candidates, 53% of whom are pursuing their Ph.D. in collaboration with a Portuguese IT company, across 8 Portuguese universities and 12 CMU departments.

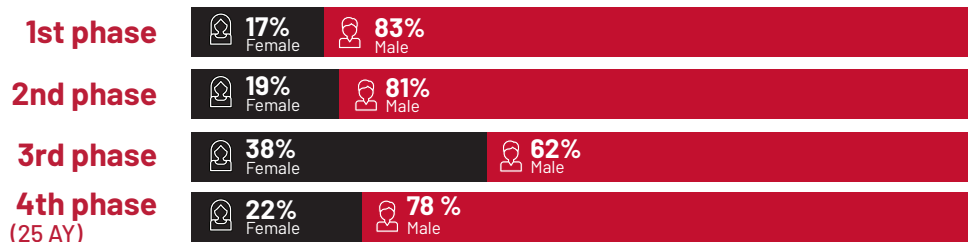
Gender dimension on graduate studies



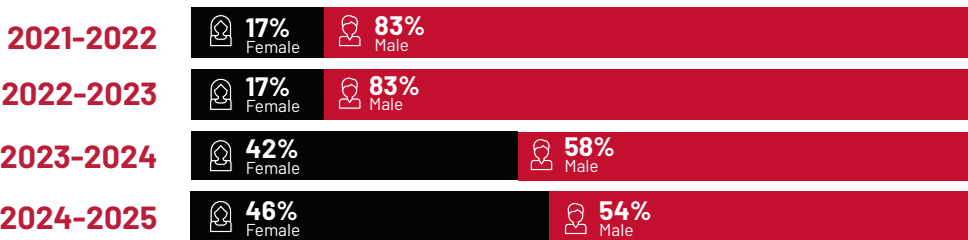
Regarding gender balance, the Program has made significant progress. The CMU Portugal Program has actively promoted gender balance in ICT through initiatives such as invited talks by CMU experts Jeria Quesenberry (2024) and Lenore Blum (2019), awareness campaigns on Girls in ICT Day and International Days for Women and Girls in Science, and social media engagement highlighting role models and personal stories. These efforts, combined with targeted actions, contributed to a significant increase in female representation in doctoral programs.

It's worth highlighting that, overall, and considering both the Dual Degree Ph.D. and Affiliated Ph.D. Programs, 24% of the students are women. However, there has been a positive trend towards increased gender diversity. When considering students who enrolled in the 1st phase of the Program, the representation of women was 17%, and it increased to 19% during the 2nd phase. The 3rd phase has witnessed substantial progress, with the enrollment of women at 38%. **This signifies a remarkable doubling of the share of women pursuing the Dual Degree Ph.D. when compared to the previous phase**, showcasing an encouraging evolution toward gender balance within these initiatives.

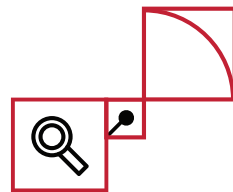
Dual-Degree Ph.D. Programs (% Gender F vs M)



Affiliated Ph.D. Programs (% Gender F vs M)



CMU Portugal Mobility Initiatives



Under the CMU Portugal mobility initiatives “Visiting Students” and “Visiting Faculty & Researchers”, CMU Portugal hosted 17 research visitors in 2024 and 12 in 2025 from Portuguese Institutions at Carnegie Mellon University (CMU) in the Information and Communication Technologies (ICT) field.

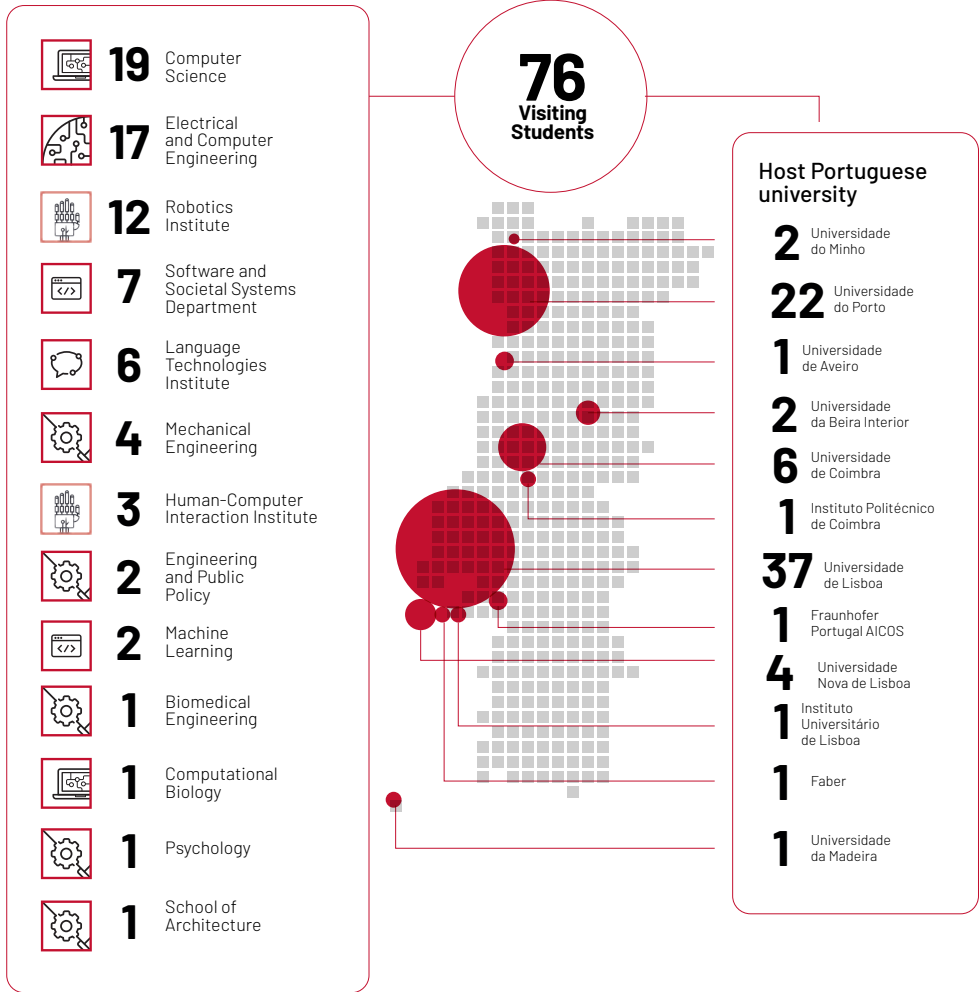
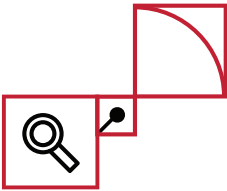
The 12 selected candidates under the **Visiting Faculty & Researchers** Program spent up to 2 months engaging in ICT research, education, and innovation. They collaborated with peers at Carnegie Mellon University, gaining valuable insights into the university’s culture and best practices. They represent **8 different Portuguese Institutions**: (3) INESC-ID, (3) INESC-TEC, (1) ITI-LARSyS, (1) CUBE, (1) NOVAMATH, (1) CISTER, (1) Universidade Lusófona, (1) Associação Fraunhofer Portugal Research AICOS. They were hosted in **7 CMU Departments**: (1) Robotics Institute, (2) Computer Science, (3) Electrical and Computer Engineering, (2) Software and Societal Systems, (1) Information Technology and Public Policy, (2) Human-Computer Interaction Institute, (1) Mathematical Sciences. This program has already benefited **98 faculty members from Portuguese research centers**.

The CMU Portugal **Visiting Students** Program supported **17 master students or recent graduates to CMU**. The participants had the opportunity to spend up to three months working in research in ICT at CMU, mentored by leading faculty and researchers, fully immersing themselves in Carnegie Mellon’s culture. These selected candidates represent **4 different Institutions**: (4) INESC-ID, (5) ISR, (1) ISR-Coimbra, and (1) Instituto Português de Oncologia. They were hosted in **9 CMU Departments**, including the (3) Computer Science Department, (1) the Language Technologies Institute, (5) the Robotics Institute, (2) the Human-Computer Interaction Institute, (1) Biomedical Engineering, (1) Mechanical Engineering, (1) Psychology, (2) Electrical & Computer Engineering, and (1) Software and Societal Systems. This initiative has already benefited **76 students from Portuguese Universities**.

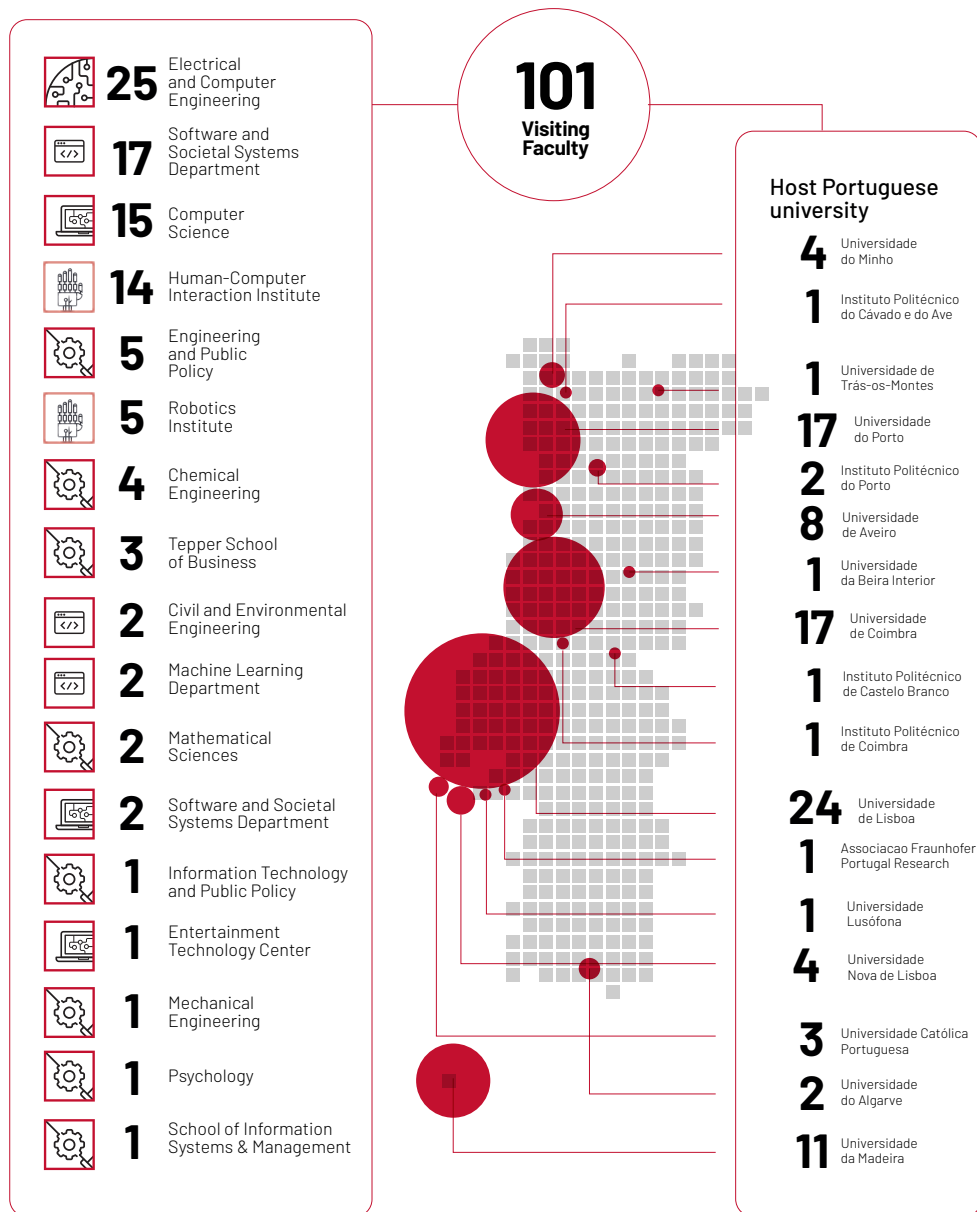
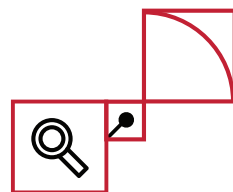
Complete reports are available of activities of **Visiting Students** and **Visiting Faculty** in 2024. Selected candidates in 2025, are initiating their immersion periods at CMU between November and December 2025.

Overall, 99 faculty and 76 students or recent graduates have benefited from CMU Portugal mobility initiatives.

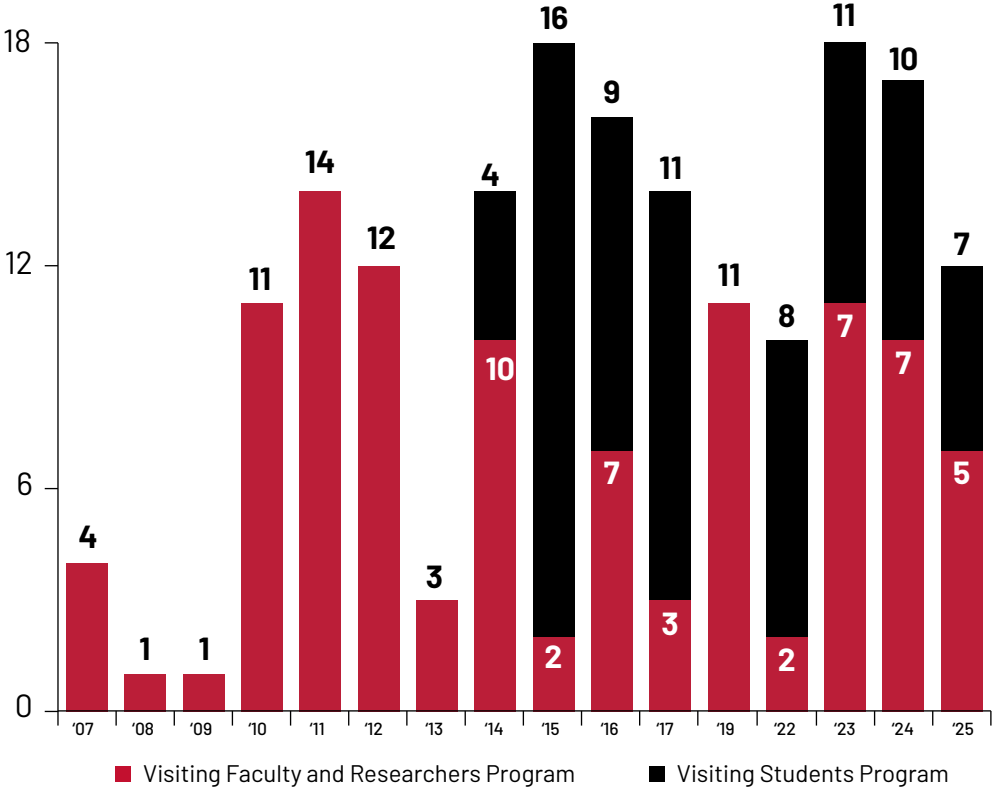
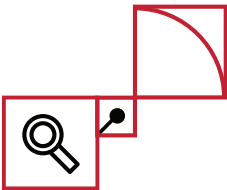
Visiting Students



Visiting Faculty



Mobility Programs



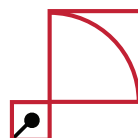
The CMU Portugal Program at CMU also supports Carnegie Mellon University faculty research visits to Portugal, taking place between June through December 2025. These research visits provide opportunities for CMU faculty to develop collaborations with Portuguese colleagues, students, and explore research topics for future project calls and co-advising relationships. Visits will be conducted by faculty from CMU's Human-Computer Interaction Institute, the Department of Psychology, the Neuroscience Institute, and the School of Architecture. These faculty are hosted in Portugal by faculty at the Interactive Technologies Institute, Técnico - U. Lisbon, ITI/LARSyS, University of Madeira, and the Natural Intelligence Group and Theoretical Neuroscience Group at the Champalimaud Foundation.

CMU PORTUGAL

Professional Programs

• Advanced Training Programs CMU Portugal Academy

After a soft launch in 2022, CMU Portugal rethought the format of these initiatives, and with the support of the Santander Foundation, a new edition was launched in 2024 under the name CMU Portugal Academy. The **CMU Portugal Academy** is a training platform dedicated to advancing digital technologies through specialised post-graduate and PhD programs situated in Lisbon. This initiative is a collaborative effort between the Interactive Technologies Institute, Instituto Superior Técnico, and the CMU Portugal program and is powered by the Santander Portugal Foundation. The Academy leverages the expertise of renowned faculty from Portuguese institutions such as Instituto Superior Técnico, Faculty of Sciences, Faculty of Fine Arts, University of Lisbon, and NOVA School of Science and Technology, along with faculty members from Carnegie Mellon University. The primary objective of the CMU Academy is to amplify the influence of digital technologies while emphasizing the role of citizens as co-designers in shaping Portugal's digital society and economy with three advanced programs: **AI, Data Science, and Machine Learning; Product Management; and User Experience and Service Design.**





In its first year, the CMU Portugal Academy successfully enrolled 49 students from a competitive pool of 265 applications and in its second edition 36 students were competitive selected from 385 applications, reflecting strong interest and selectivity and contributing to workforce development of professionals, directly addressing skill gaps in the tech and design sectors. The Academy hosted a series of engaging talks and masterclasses featuring distinguished faculty from Stanford University and Carnegie Mellon University, alongside industry leaders from companies such as Feedzai, Farfetch, Waze, WY Group, and AppFlyer's founder, a Forbes Council Member. These masterclasses were recorded and will be made available through the Santander Open Academy, significantly expanding the reach and long-term impact of the program. Faculty development efforts involved over 50 senior professors, teaching assistants, and national and international industry experts in shaping the curriculum across three programs.

A full report of the **CMU Portugal Academy activities** of the 1st year is available.

InRES CMU Portugal Patient Innovation Accelerator

• Patient Innovation Accelerator

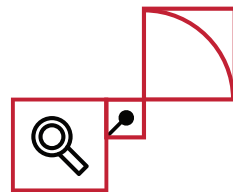
Under the scope of the CMU Portugal Program, an agreement was signed in 2024 between the **Fundação para a Ciência e a Tecnologia (FCT)** and **NOVA Medical School** and the **Nova School of Business and Economics (Nova SBE)** to launch the **CMU Portugal Patient Innovation Accelerator**. This joint initiative is a new milestone in the healthcare innovation landscape in Portugal, aiming to boost advanced healthcare solutions and foster entrepreneurship in the sector. The CMU Portugal Patient Innovation Accelerator will allow **Patient Innovation Bootcamp** participants to advance to an additional acceleration phase, during which they will receive support to expand and develop their businesses at the Swartz Center for Entrepreneurship at Carnegie Mellon University in Pittsburgh, USA. Collaborating with the CMU Portugal Program, the participants will engage in various activities, including workshops, product development support, mentoring, networking, investor presentations, expansion into the American market, corporate partnerships, and sustainability strategies. The initiative started in mid-2024, and with the development of a **pilot program adapted to the technological maturity and diversity of the projects and start-ups selected**. These projects reflect the reality of an ecosystem driven by the personal motivation of patients and caregivers, as well as by Portuguese universities. As such, the program was restructured and co-designed with Portuguese partner institutions—NOVA SBE and NOVA Medical School—throughout 2024.

The work continued in 2025, with the **6 teams travelling to Carnegie Mellon University** in Pittsburgh for a **week-long residency program** designed to prepare the participating teams to enter the U.S. market. The teams were hosted by Project Olympus, a CMU Incubator Program that provides resources and mentorship to help members of the CMU community to turn cutting-edge research into startups; and AlphaLab Health, Pittsburgh's leading life sciences accelerator, which has been supporting startups since 2008. The week featured expert-led workshops, tailored mentorship from Entrepreneurs in Residence (EIRs), and visits to key institutions such as Allegheny Health Network (AHN) and UPMC Enterprises. The program concluded with an **in-person workshop in Portugal** where participants showcased their progress and finalized their go-to-market strategies. By the end of the Patient Innovation Accelerator Program, teams are expected to have developed solid commercialization plans tailored to both US and EU markets.



The **Patient Innovation Platform (PI)** was launched in 2014 as an outcome of the CMU Portugal project TEIPL. The online platform allows patients and caregivers around the world to connect and share the solutions they developed themselves or had help from collaborators to cope with a health-related problem.

Innovation and Entrepreneurship



• CMU Portugal Industrial Affiliates

The CMU Portugal Program has created a close relationship with the Portuguese industry, fostering deep collaboration with the companies within its Industrial Affiliates Program. Since 2018, a cohort of **16 CMU Portugal Industrial Affiliates** has been committed to actively enhancing the Program's advanced educational and research undertakings, increasing their competitiveness by investing in R&D, advanced training of human resources, and fostering a highly-skilled workforce dedicated to innovation activities.

The CMU Portugal's Industry Affiliates community brings together leading Portuguese tech innovators—including unicorn companies like **Feedzai, Outsystems, Remote, Talkdesk, and Tekever**—alongside **Accenture, Altice, CEiiA, NOS, Priberam, REN, Thales, Uniplaces, and Veniam**. Furthermore, some of these companies reinforced their commitment to the Program by partnering with academic institutions in Portugal and CMU through the CMU Portugal LargeScale Projects. During 2024- 2025, Unbabel and Farfetch, previously part of the CMU Portugal Industry Affiliated were acquired by other international groups.

• A hub for international entrepreneurship

CMU Portugal has also been a hub for faculty members, students, and alumni to launch their entrepreneurial initiatives. The Program has supported the creation and development of twelve startups: **Dognaedis, Feedzai, Geolink, Mambu, Orange Bird, Prisma, Red Light, Sentilant, Streambolico, Veniam, Virtual Traffic Lights, and Unbabel**. In 2021, two of these ventures ascended to Unicorn status. **Mambu**, a startup company established by three alumni of the CMU Portugal Master's Program in HCI at Universidade da Madeira, is a leading SaaS banking platform, and the round of investment in early 2021 raised the company's valuation to over \$5.5B. **Feedzai**, the first startup created under the scope of the CMU Portugal Program by CMU Portugal faculty members at the University of Coimbra, is the market leader in fighting financial crime, providing today's most advanced cloud-based risk management platform using advanced machine learning techniques and is now valued at above \$2 billion and in 2025 was chosen by the European Central Bank (ECB) to safeguard the digital euro with its fraud detection and prevention mechanism.

Similarly, other CMU Portugal-supported companies have also attained global distinction and are references in their sector worldwide. **Unbabel**, founded by a graduate from CMU's Language Technology Institute (LTI) and a CMU Portugal project post-doctoral fellow, allows modern enterprises to understand their customers in dozens of languages by combining human expertise and artificial intelligence. In August 2025, Unbabel was acquired by TransPerfect.

Veniam, founded by faculty members at Universidade do Porto and Universidade de Aveiro, orchestrates vehicular mesh networking technologies to connect vehicles to the Internet. In 2022, Nexar, the Israel-based AI mobility company and the largest collector of vision data from vehicles in the US acquired Veniam for an undisclosed amount. Together, the companies will increase the reach and decrease the costs of rich mobility applications and the real-time mapping of the physical world. Also in 2025, **Addvolt**—one of the startups accelerated by the CMU Portugal Program's inRes initiative in 2014, part of the program's second phase (2012–2017) supporting ICT entrepreneurial teams—has been acquired by Carrier Global Corporation, a U.S.-based leader in intelligent climate and energy solutions. Addvolt's technology is already integrated into Carrier Transicold's Vector® eCool—the world's first fully autonomous electric trailer refrigeration system—currently deployed across Europe. This acquisition will further enhance Carrier's electrification capabilities, leveraging Addvolt's advanced power electronics, energy management software, and top-tier engineering talent.

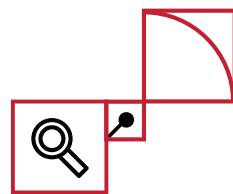
Additionally, the CMU Portugal Call for Large-Scale Research Collaborative Projects has proved instrumental in solidifying research alliances. This initiative has deepened connections with startups and innovation pioneers such as Feedzai, increased the commitment of existing industrial affiliates in R&D, including Unicorn companies like Farfetch and Outsystems, and fostered fresh collaborations with new partners like Capgemini Engineering (formerly Altran Portugal), Compta, DST Solar, First Solutions, Glintt, Ingeniarius, Hospital da Luz Learning Health, and Mobileum. These eminent ICT companies have not only championed research initiatives but have also as financial patrons, investing an impressive sum of **€4.5 million in the Program's Large-Scale Projects**.

How CMU Portugal Primes Startups

The College of Engineering at Carnegie Mellon published in the Fall Magazine the news article "How CMU Portugal Primes startups", highlighting the CMU Portugal Program's innovation and entrepreneurial initiatives since its launch.



Communication Strategy & Activities



The communication strategy for the Program focuses on the following key objectives:

- 1. Enhancing Visibility: Increase the Program's presence and visibility, particularly across online platforms, to reach a broader and more engaged audience.**
- 2. Support New Initiatives: Effectively positioning and strengthening awareness of the Program's new initiatives and activities, ensuring they are recognized and valued by target audiences.**
- 3. Promoting Stakeholders and key initiatives: Highlight and promote the key stakeholders and representatives involved in the Program, showcasing their contributions and reinforcing their roles.**
- 4. Strengthening Networks: Build and maintain a strong communication network with all CMU PT audiences to facilitate the sharing of initiatives, encourage collaboration, and expand the Program's outreach.**

Communication Activities

The use of web-based platforms is increasingly widespread among individuals and organizations. Through social media, CMU Portugal establishes dialogue, builds relationships, and engages with the public. Social Media is essential for promoting and disseminating the results achieved within the Program. Therefore, the program is strongly investing in updating its web-based platforms: website content, LinkedIn, X, Facebook, Instagram, and Youtube.

The growth of Social media present of the Program has been sustained through time with the recorded the following social media numbers (followers):



3979



2096



903



1009

Since the start of Phase 3, the Program has consistently published content on its web-site, which serves as the main repository for all CMU Portugal materials. From January 2024 through October 2025, **109 news articles** were published on the website and **30 events** were announced, related to the scope of the Program.



In addition to sharing regular updates, event highlights, and news on its social media channels, the Program also runs regular targeted campaigns to enhance visibility and foster engagement within its community. Examples include the annual **Girls in ICT Day** campaign and initiatives introducing new **Dual Degree** and **Affiliated Ph.D. candidates**, as well as **Mobility students**.

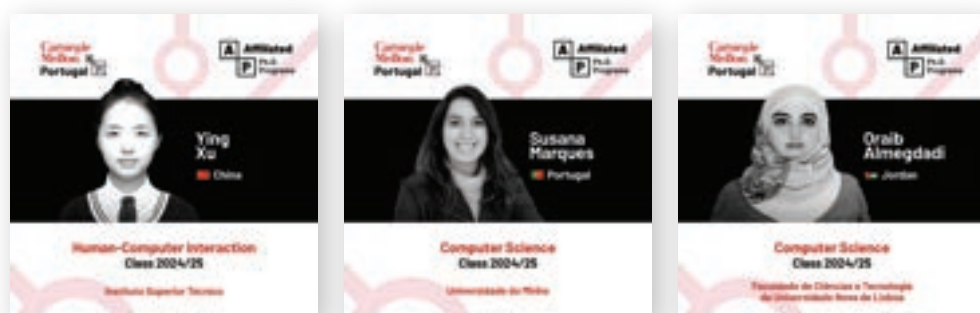
Girls in ICT Day 2024 Campaign:



Girls in ICT Day 2025 Campaign:



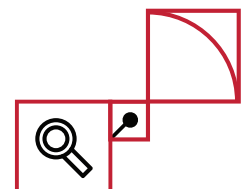
New Affiliated Ph.D. students Posts:



New Dual Degree Ph.D. students Posts:

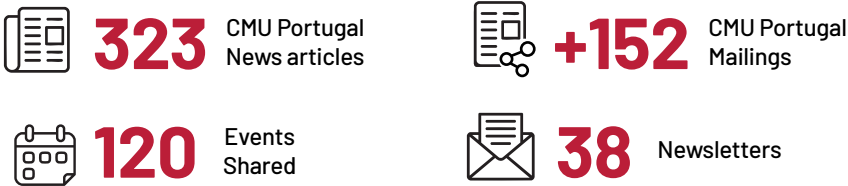


Recent CMU Portugal Graduates:



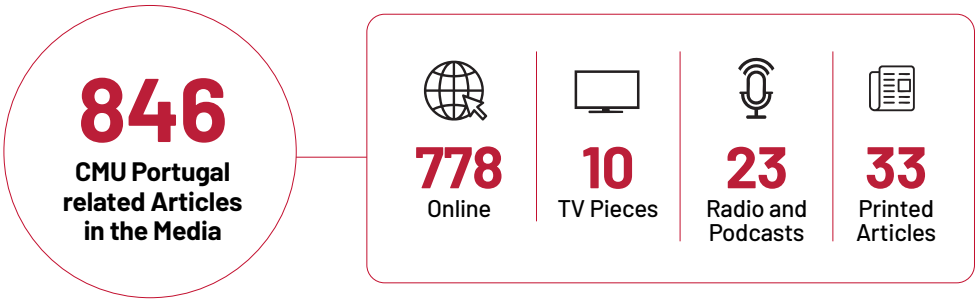
In addition to Social Media, the bi-monthly newsletter titled **"News from the Fence"** continued to be distributed to highlight the Program's latest initiatives, including news, events, and recent publications. **In 2025, 5 Newsletters** were issued.

Summary of CMU Portugal website/newsletter publications
(since 2018)

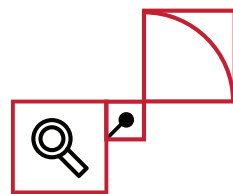


Media-Related Activities

Another essential part of communicating lies at the **interface with the media**. The communications team from the CMU Portugal Coordination Office works closely with the National Directors and other members of the CMU Portugal community (faculty, Industry partners, students, alumni, etc.) towards enhancing the media output related to science and technology arising from the Program throughout the year. Within this scope, a broad range of communication activities is aligned with the strategic objective of communicating CMU Portugal's research portfolio and educational achievements. Between 2024 and October 2025, a total of **229 media articles** referenced the CMU Portugal Program, including 217 online pieces, 3 television features, and 7 radio/podcast news



Events and Outreach



The CMU Portugal Program is strongly committed to fostering close collaboration between Portugal and CMU through high-level events involving the Portuguese Government and CMU leadership, while strengthening ties among students, faculty, and researchers on both sides of the Atlantic. Between **November 10 and 12, 2024, Portuguese Minister of Education, Science and Innovation Fernando Alexandre, accompanied by Secretary of State for Science Ana Paiva**, on a visit to CMU for the **2024 CMU Portugal Summit**.

The two-day CMU Portugal Summit brought together Portuguese and CMU communities for in-depth discussions and a comprehensive overview of the program, supporting the Minister's evaluation of the partnership's future. The event highlighted the strong network of supporters, including CMU Faculty, Provost and Chief Academic Officer James H. Garrett, and College of Engineering Dean Bill Sanders, who warmly welcomed the Portuguese delegation to Pittsburgh.

Participants included CMU Portugal Directors, alongside scientific directors, Portuguese faculty including Nova SBE Dean and Nova Medical School Dean, and industry representatives from Feedzai and Unbabel. More than 30 CMU faculty from 12 departments, 22 CMU Portugal Dual Degree and Affiliated Ph.D. students, and 18 visiting Ph.D. and MSc researchers actively engaged in the activities. The Summit served as a dynamic platform to shape a shared vision for the partnership, fostering networking, building new connections, and laying the groundwork for future collaborations.



Between 2024 and 2025, the CMU Portugal Program promoted **a total of 30 events** — including conferences, info sessions, networking events, high-level meetings, and participation in outreach initiatives — engaging both academic and industry stakeholders while increasing awareness of the Program.

Each year, the Program hosts **CMU Portugal Info Sessions** to announce the launch of its Mobility and Ph.D. Calls, guiding potential candidates on how to prepare a successful application for the Program's educational initiatives — including the **Affiliated Ph.D. Programs, Dual Degree Ph.D. Programs, and Mobility Initiatives**.



The Program also regularly organizes **Talks** featuring invited speakers. On June 26th and 28th, 2024, continuing its tradition of bringing CMU experts to Portugal to share best practices and insights on gender balance, the Program welcomed **Jeria Quesenberry**, Professor of Information Systems at CMU, as a guest speaker. During her visit, Professor Quesenberry delivered the talk “Breaking Barriers in Technology: Women in Computing at Carnegie Mellon and Global Perspectives” on two occasions (Lisbon and Porto).





Encontro Ciência 2025



The CMU Portugal also participates every year in some main outreach events such as “Encontro Ciência”, the major Portuguese Science Conference organized by the Portuguese Government through the Ministry of Science Technology and Higher Education (MCTES) and Fundação para a Ciência e a Tecnologia (FCT). It is held annually to gather Portugal’s scientific community and highlight Portugal’s main achievements in science and technology.

In both 2024 and 2025, the Program hosted a Session along with the MIT Portugal Program and UT Austin Portugal.



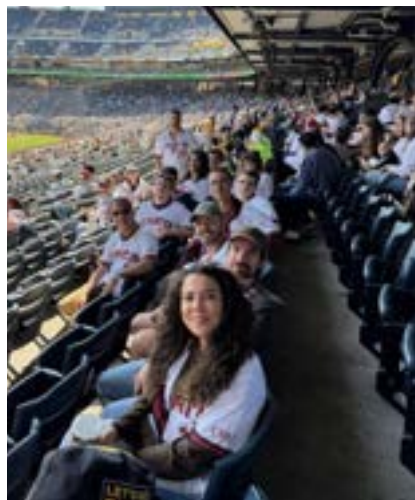
The CMU Portugal Academy was officially launched in May 2024 at the event “Partnerships for Tomorrow’s Education: Building Future Jobs for a Digital Portugal” held at the Unicorn Factory, Hub Criativo do Beato, and included the presence of the Portuguese Minister of Education, Science, and Innovation, Fernando Alexandre

In March 2024, the **CMU Portugal Patient Innovation Accelerator** was launched, followed by a visit to CMU in May to explore partnerships with the Tepper School of Business and the Heinz College. In April 2025, the first PI Bootcamp took six teams to CMU for a week-long residency preparing them for the U.S. market, concluding in June with a two-day workshop at NOVA Medical School in Lisbon.



One of CMU Portugal's primary objectives is to **foster a collaborative and supportive community among Ph.D. candidates**, offering opportunities for all to engage in insightful discussions with their peers. Every December, the CMU Portugal coordination offices — in Portugal and at CMU — host an annual **end-of-year networking event for Dual Degree and Affiliated Ph.D. students**, held simultaneously at both locations.

In Pittsburgh, **the Coordination Office also regularly organizes informal on- and off-campus gatherings for Ph.D. students, faculty, and researchers.** These events provide valuable opportunities to network, exchange experiences, and strengthen a supportive community among CMU Portugal Ph.D. candidates while at CMU.



The Program is also a **partner of some yearly ICT Summer Schools** such as the Lisbon Machine Learning Summer School both in 2024 and 2025 (LxMLS 2024 and LxMLS 2025), an early event focused on exploring the realms of machine learning (ML) and natural language processing (NLP).





#CMUPortugal

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