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One page presentation:

1. Background and Research Experience:

MC holds a bachelor's degree, master's degree, PhD (2002), and habilitation (2021) in Agricultural Sciences (CA). Since 2020, he has been an Associate Professor at the Faculty of Sciences of the University of Porto (FCUP), Department of Geosciences, Environment, and Spatial Planning (DGAOT).

As a researcher at the associated laboratory INESCTEC-CRIIS-TRIBE¹, his work focuses on a broad range of Digital Technologies and Precision Agriculture (TDAP), a prominent area in the PAC, Horizon Europe, and "Portugal 2030". MC was an academic visitor at the Alterra Research Center, Wageningen University, Netherlands (3 months), and the Centre for Agricultural Economic Research (CAER), Reading University, UK (6 months), with funding from Foundation for Science and Technology (FCT). He is also a certificated remote pilot of unmanned aircraft systems (UAS/Drones), subcategory A1-A3 of the open category, with certification from the European Aviation Safety Agency (EASA) and the Portuguese Civil Aviation Authority (ANAC), valid until 2030.

2. Research activities and intellectual propriety:

MC has co-authored 126 indexed publications (JCR-WoS or SJR-Scopus), of which 99 (81%) are journal articles. Among these, 92% (published between 2020 and 2024) are ranked in Q1 journals. His research has involved collaborations with approximately 200 co-authors (32% non-Portuguese), amassing 2,900 citations and h-index of 30 (excluding self-citations). Additionally, he has contributed to nearly 200 other scientific publications and published 10 agronomy-related datasets (with DOI). He holds intellectual property rights for five agronomic technology applications, including the SprayImage®, acquired by Syngenta Crop Science (Switzerland), the SpecTom® (WO/2023/126532) patent for "in-situ tomography of plant organs", and Sharpematrix® (PCT/IB2024/060614), a "smartphone-assisted robotic scissors for improving harvest productivity, quality, and management".

3. Project leadership, technology transfer, and community engagement:

MC has actively contributed to 34 R&D projects, leading 16 as principal investigator, all funded through competitive national or international grants (e.g FCT, H2020, P2020, Aga Khan, LIFE, and PRR). Highlight the MC's participation, through INESCTEC, in the EU-funded large-scale project, DEMETER (Horizon 2020 topic DT-ICT-08-2019), focusing on agricultural digital integration platforms and currently, he leads two groundbreaking projects: OMICBOTS (<https://www.fc.up.pt/omicbots/>), a pioneering initiative at the intersection of omics sciences, smart-photonics and robotics and the project Wine4Cast (<https://www.fc.up.pt/Wine4Cast/Home.html>), a cutting-edge AI-driven digital technology project for wine yield forecasting (climate change included). MC has established international collaborations for advanced training programs ("IN and OUT") for 10 researchers and postgraduate students. He also supervised 10 postdoctoral researchers (4 international), 18 PhD candidates (4 ongoing, 4 international, one with a European PhD title), and 42 master's students. His current research team consists of four investigators (including himself), four PhD students, three master's students, and one technical assistant, with two postdoctoral researchers being hired.

He has driven technology transfer protocols through 120 community service agreements, engaging with 8 foreign (eg FAO, Syngenta) and 15 national (eg. Instituto do vinhos do Porto e Douro) institutions/companies. These collaborations generated substantial financial returns for FCUP with 68% of funding from foreign institutions/companies. MC serves on the editorial boards of four scientific journals (three Q1-ranked), has been a guest editor for nine special issues (seven Q1-indexed), and regularly participates in national and international R&D projects founding and research grant evaluation panels. He has organized, chaired, or moderated 46 scientific events (50% international) and has been an invited speaker 25 times. His research has earned several accolades, including the "Prize MyEUspace Competition by the European Union Agency for the Space Program" and the "António Coutinho Science Award by the Gulbenkian Institute of Science".

4. Academic Management:

Currently, he holds several academic management positions at FCUP and FCNAUP, notably: Director of the Doctoral Program in Agricultural Sciences, Co-Director of the MSc in Agronomic Engineering, and coordinator for the implementation of the MSc in Digital Technologies Applied to Agricultural and Veterinary Sciences, a program integrating five institutions.

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1. Institute for Systems and Computer Engineering, Technology and Science (INESCTEC), Centre for Robotics in Industry and Intelligent Systems (CRIIS), and Laboratory of Robotics and IoT for Smart Precision Agriculture and Forestry