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The AGRITECH-EU project: Digital agriculture for sustainable development¹

To support and emphasize the need to integrate knowledge of digital technologies into agricultural education, the AGRITECH-EU project, co-funded by the European Union (Project 101123258, responding to Digital Europe call topic [DIGITAL-2022-SKILLS-03-SPECIALISED-EDU](#)), brings together a consortium of universities, experts, researchers, and industry partners dedicated to advancing digital agriculture for sustainable development.

At the heart of the project is a steadfast commitment to integrating state-of-the-art technologies into agricultural practices, thereby enhancing productivity, efficiency, and environmental sustainability. Through the development of digital applications, training programs, and simulation laboratories, AGRITECH-EU aims to equip specialists with the skills and knowledge needed to navigate the intricacies of contemporary agriculture successfully. Through collaborative efforts in curriculum development and strategic partnerships, the project seeks to prepare future agricultural professionals with the knowledge and skills required to thrive in a digitalized agricultural landscape. Follow along as the project progresses toward its goal of fostering sustainability and technological advancement in the agricultural sector.

More information on the project is available at: <https://www.agridigital-skills.eu> and <https://agecon.ugent.be/agritech-project/>

Objectives of the AGRITECH-EU

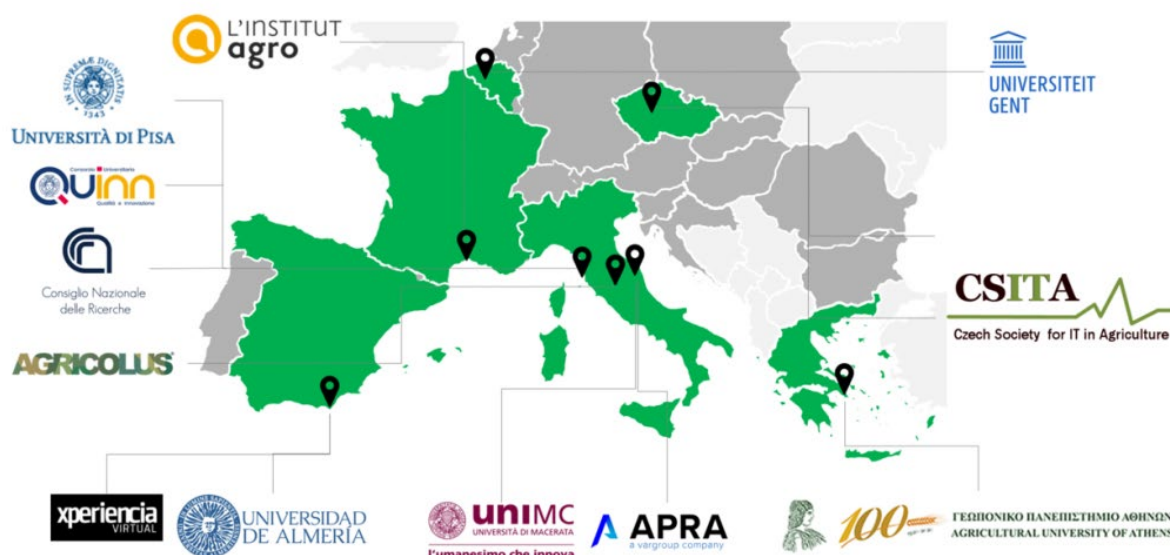
The AGRITECH-EU project aims to:

- design and deliver higher education programme(s) – I level master (at ISCED LEVEL 7 or equivalent) on digitalization in agriculture
- enrich existing bachelor's and master's degrees
- develop related self-standing modules/courses, which are online or in-person
- ultimately, train specialists in digital transition for farms and food companies, leading to recognized certifications.

¹ Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Health and Digital Executive Agency (HADEA). Neither the European Union nor the granting authority can be held responsible for them.

Partners in the AGRITECH-EU

The 13 international partners include seven higher education institutions, five businesses (SMEs and large companies), and one research and excellence center. The project is coordinated by the Department of Agricultural, Food and Agro-environmental Sciences at the University of Pisa.



Each of the seven higher education institutions has its own focal area and is involved in master level course programmes or post-graduate studies.

Country	Programme	Integration into existing programmes	Outcome
Italy	I Level University Master	New	Diploma of University Master
Belgium	Lifelong learning module on rural digitalization	-	Certificate
Czech Republic	Master Programme	Yes	Master Degree
France	Agricultural Sciences Engineering Master Degree	Yes	Certificate / Master Degree
Greece	Master degree in Agricultural Engineering	Yes	Bachelor degree / Master Degree
Spain	Master degree in Agronomy and Industrial Field	Yes	Bachelor degree / Master Degree

A catalogue of the different modules developed at each of the partner institutions is available on this website: <https://www.agridigital-skills.eu/the-catalogue/>. All partners contribute lecture material to this catalogue, which allows them to exchange knowledge, experience and teaching approaches.

Role of Ghent University



The Department of Agricultural Economics (Faculty of Bioscience Engineering) of Ghent University, through the AGRITECH-EU project, develops and launches Lifelong Learning Modules. In particular, two modules are designed for graduates of international programs to help them stay connected with their alma mater: Research and Digitalization: Applications for Rural Development, and Digitalization in Global Agricultural Development. Both modules are organized in collaboration with the postgraduate academy for engineers, UGain, of Ghent University (<https://www.ugain.ugent.be/>).

The first module, Research and Digitalization: Applications for Rural Development, offers a beginner-friendly guide to digital tools for rural development research, with a focus on practical, user-to-user understanding. This module trains

researchers to recognize key digital tools and concepts in agricultural research, including AI, GIS, and drones, and to understand the principles and applications of digitalization and its impact on rural development. The module consists of lectures, readings, videos, and hands-on exercises, which participants can follow at their own pace. The module is ongoing, and more information is available at <https://www.ugain.ugent.be/DigiRural2025.htm>.

The second module on digitalization in global agricultural development explores how digital technology is increasingly impacting agriculture. It begins by laying out a theoretical foundation, providing an overview of the Internet of Things (IoT) and machine learning. From there, it examines different applications in agriculture. In doing so, it builds on previous research at the Department of Agricultural Economics on sensors and mobile devices, as well as on the focus areas of partners within the AGRITECH-EU consortium. Joint lectures are currently being developed.