



## SZAKTANÁROK FELKÉSZÍTÉSE AZ AGRÁRINFORMATIKA OKTATÁSÁRA

Agrárinformatikai ismeretek oktatása az agrár-szakképzésben



HOGYAN LEHET MEGÚJÍTANI A TANÍTÁSI MÓDSZEREKET A SZAKKÉPZÉSBE?

PROJEKT HONLAP: AGRITEACH.HU

## Agriteach 4.0 planning for valorization and sustainability

The aim of this Outcome is to ensure sustainability of the project in every partner country, not just the two target countries. In the first activity the project produced a digital textbook for all agricultural teachers, and based on the content developed during the project in three languages - EN, HU and MK.

Once tested and reviewed, the learning content is published in the form of digital textbook (licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) freely available for teachers and students alike. The derived language versions will be localised to comply with the particular characteristics within target countries. See books here: <http://agriteach.hu/en/content/o6-planning-valorization-and-sustainability> Within O6 the partnership elaborated a copyright agreement.

Activity 3: every partner summarized significant experiences and benefits gained during the work of the project. Each partner elaborated their particular plans for the sustainability of the work of the project beyond the projected finishing date.



## CONNECTING VET TEACHERS TO AGRICULTURE 4.0

Teaching agricultural informatics in agricultural vocational training



HOW CAN AGRICULTURAL VET TEACHERS REFORM THEIR TEACHING METHODS?

PROJECT SITE: AGRITEACH.HU

## Teaching agricultural informatics in agricultural vocational training

The rapid evolution of technology changed significant many practices in our lives today. The changes introduced by 20th century technology to everyday life and of course in agriculture. The rapidly changing economic and social environment requires a correspondingly constant adaptation from the actors of the economy. This includes vocational education, who prepare many of the workforce for the changing labour markets including agriculture. This brings a new challenge to the education system, and problems for the future, as agriculture not only requires agrarian engineers and IT professionals, but also the intersection of the two.

The situation for VET schools, as providers of that education, is made more difficult. Today, employers require workers-to-be to have the key competences that are necessary for employment, i.e. workers with a wide range of practical skills and experience, as well as theoretical knowledge. Economic changes are happening very quickly, so students need to be prepared to be able to adjust to new areas, roles and even new jobs at any time. In response to this, lifelong learning is an essential for tomorrow's workforce.

The Agriteach 4.0 project is intended to help you with exactly this. In Module 1 of the curriculum, a number of active learning support methods, ICT tools are presented, introducing Open Educational Resources and free online learning repositories. Module 2 provides up-to-date knowledge of the current European agricultural strategies and initiatives, and Module 3 introduces the key concepts, tools and machinery of Agriculture 4.0.

We hope all teacher readers will find useful information within the book that they can make use of in their own teaching practice. The book was created as a joint work of the Agriteach 4.0 project partners.



ПОВРЗУВАЊЕ НА НАСТАВНИЦИТЕ ВО СРЕДНОТО СТРУЧНО ОБРАЗОВАНИЕ И ОБУКА СО

## Земјоделство 4.0

Земјоделска информатика за земјоделска стручна обука



КАКО МОЖАТ ЗЕМЈОДЕЛСКИТЕ НАСТАВНИЦИ ЗА СТРУЧНО ОБРАЗОВАНИЕ И ОБУКА ДА ГИ РЕФОРМИРААТ СВОИТЕ НАСТАВНИ МЕТОДИ?

ВЕБ СТРАНА НА ПРОЕКТОТ: agriteach.hu

Dear Readers,

I am very pleased be able to present this online textbook to you, which highlights technical advances and innovations in the modernization of agricultural vocational training and modern agricultural solutions.

The technological advancements of agriculture have reached the point where IT tools and solutions have become a crucial and new branch of agriculture. The two professions are becoming more and more connected, forming a new central sector - agricultural informatics – knowledge of which is so important for all those working in agriculture.

A few years ago we started talking about precision agriculture, including precise soil cultivation techniques, nutrient management solutions, and harvest-related measurements in the crop production branch of agriculture. Nowadays, new IT-supported solutions are gaining ground in all sectors of agricultural production, such as precision animal husbandry, precision horticulture and gardening. Agricultural informatics has become a complex and constantly developing discipline, of which precision agriculture is only one component.

This book provides an insight into the field of this new discipline, which is fully expected to grow significantly in years to come.

The book attempts to introduce and demonstrate the wide range of IT tools that can be used to collect, process and control all-important data. This, in turn, is enabling the use of innovative technologies in the field of agro-informatics, taking into account – and minimizing - environmental impacts while, at the same time, proving their cost-effectiveness.

I hope that the results of our project help you on your path to learn more about these innovations and advances in agriculture, and with the critical thinking, planning and connections you might need for your own further development.

Zoltán Horváth - Agriteach 4.0 project manager

## Aim of the project

Guide agricultural VET teachers in the renewing of their teaching methods by providing them a freely available online course “Teachers for Farming 4.0” based on a networked learning pedagogical model.

The project will integrate the networked learning methodology of a successful Leonardo project [Tenegen](#) with the pedagogical innovations of learner-centred methods such as the Creative Classroom (CC) and the Flipped Classroom (FC) model.

The learning environment and teaching model applied by this project is aligned with the pedagogical innovations of the ET 2020 framework, focusing for the development of 21st century skills, creativity, and the digital entrepreneurship of students.

## Objectives

- A focused needs-analysis, and comparative study to identify the training needs by involving VET teachers and representatives of the beneficiaries - the agricultural companies.
- Developing a standard competency framework for agricultural workers and agricultural ICT practitioners aligned with EU standards such as the EQF and the e-Competence Framework.
- Curriculum Design based on the CAPDM methodology.
- Developing learning content for THREE MODULES:
  - M1 Reinventing agricultural education
  - M2 European Strategies and initiatives of e-Agriculture
  - M3 Digital systems within Agriculture 4.0
- Development of an online collaboration platform and the implementation of the components for “Teachers for Farming 4.0”
- Piloting the “Teacher for Farming 4.0” course (HU, MK).
- Refining the syllabus and the course components according to feedback from the participants.
- Planning for valorization and sustainability.

## Project basics

### TARGET GROUP

Agricultural VET teachers

### BENEFICIARIES

Students, farmers, advisors

### PARTICIPATING COUNTRIES

Hungary, Macedonia, Czech Republic, United Kingdom

### TARGET COUNTRIES

Hungary, Macedonia

### PROJECT START DATE

01-09-2017

### PROJECT DURATION

24 months

### COORDINATOR ORGANIZATION

Galamb József Agricultural Secondary School Hungary

This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Erasmus+

## Teachers for Farming 4.0 online course

## Contact us

### COORDINATOR

Galamb József Agricultural Secondary School Hungary

### CONTACT PERSON

Zoltán Horváth – director

Phone: +36 62 510-896

Email: [galambj.iskola@gmail.com](mailto:galambj.iskola@gmail.com)

Website: <http://www.agriteach.hu>

## Partners

- Galamb József Agricultural Secondary School – HU
- iTStudy Hungary Kft – HU
- Fondacija Agro Centar za Edukacija - MK
- AG Futura Technologies - MK
- GAK Education, Research and Innovation Centre – HU
- CAPDM Limited – UK
- Wirelessinfo - CZ



Connecting VET Teachers to Agriculture 4.0



<http://www.agriteach.hu>

Copyright © Agriteach 4.0 Consortium