

## Learning Management System

The Agritech 4.0 curriculum will be available in 3 modules, in 3 languages (English, Hungarian, Macedonian) online in the Moodle

### AGRITEACH

Connecting VET teachers to Agriculture 4.0

## E-learning system based on the open source Moodle

The project implemented an e-learning system, based on the open source Moodle (Modular Object-Oriented Dynamic Learning Environment) software. This incorporates the functionalities of learning and content management. The topic-oriented course structure built along a well-planned time-line. The course will be highly structured, It not just a store of online learning contents, where the participants are left alone (to learn in their own pace). The educational partners will develop a carefully guided learning structure, involving the support of a tutor to facilitate the learning process, and to look for the need for intervention.

This development will respect the fact that the environment and its content is not about technology, but about support for effective learning. All technological components of the course, as well as the actual course components themselves, will be determined and driven by specific pedagogical aims. These will include: motivating; involvement in collaboration; knowledge sharing; online communication; facilitating participant activities. These are the primary requirements of the learning environment.

The course will be developed around Learning Objectives, that meet the needs of the Learning Outcomes, and these will be supported by functional activities such as self-assessment tools, forums, glossary, games, video tutorials.

The implementation of the Moodle platform will also establish support for social learning and collaboration.

Moodle is open source software, but chosen for its infinite flexibility and capabilities to support an appropriate pedagogy. This activity will establish a user friend learning environment with all possible support for effective, collaborative and constructive learning. Guides, navigation tools: learners' guide, tutoring guide, module introduction videos, presentations, glossary, assessment components, communication and collaboration tools also support online learning. Where possible the course will be developed around openly available OER resources.

The learning activities within the online training will be led by tutors. In this activity the project will involve 2 persons from Macedonia and 3 from Hungary.

### Open Educational Repositories

Open educational resources (OER) are freely accessible, openly licensed text, media, and other digital assets that are useful for teaching, learning, and assessing as well as for research purposes.

Educational repositories are online libraries for storing, managing, and sharing digital learning resources. The learning resource can be a quiz, a presentation, an image, a video, or any other kind of document or file or learning materials for educational use. Fortunately, there are now some specialist agrarian repositories, where free to use resources are available. See the following links:

[National Agricultural Library of the United States](#)

One of the world' s largest and most accessible agricultural information collections

[FAO Capacity Development](#)

FAO's capacity building portal provides access to almost 600 learning resources, lists over 65 learning services offered by the Organization, and contains a database of funding sources for fellowships. FAO's array of e-learning resources and programmes to date has reached more than 100 000 people.

[Organic Eprints](#)

Organic Eprints is an international open access archive for papers and projects related to research in organic food and farming.



## Pilot training starts in Hungary Information day

**Pilot Training in agricultural informatics in agricultural vocational education** will be launched for interested VET teachers and consultants, which will be followed by two meetings.

**Date:** 15. February 2019. 10-14

**Location:** iTStudy Hungary Educational and Research Centre, 2100 Gödöllő, Testvérvárosok útja 28.

The training is provided online with tutors from institutions involved in curriculum development. Participation in the training is free. The pilot training is expected to begin in early March 2019, with a closing meeting in Mako scheduled for 14. June 2019.

Planned topics

- Introduction of the Agritech 4.0 project
- 21st Century Education, methodological renewal in vocational schools
- Agromechatronics, New Trends (Industry 4.0 - Farming 4.0)
- Data collection in precision agriculture
- Introduction of the Agritech 4.0 training program
- Web-based tools in education

Participation is limited to a maximum of 45 people, persons, registration is needed, please submit your application as soon as possible by filling out the following form:

<https://goo.gl/BiHYH6>

## Pilot training in Macedonia Information day

The target country of the Agritech 4.0 project is Macedonia, besides Hungary, so the curriculum is also available in Macedonian and pilot training is also being launched in the country, with the participating of agricultural VET teachers and advisors, who testing the developed online curriculum.

The training starts with a contact day.

**Date:** 21.12.2018

**Location:** Hotel Kontinental, Skopje

Event topics

- Introduction of project aims, objectives, general overview
- Presentation of the Project results
- Introducing Learning Management System and further training program
- Presentation of Syllabus and learning content
- Presentation of the 3 modules of the training in details

The Information Day is hosted by 2 Macedonian organizations from the Agritech 4.0 Partnership:

Fondacija Agro Centar za Edukacija AG  
Futura Technologies



## Education for Farming 4.0

IT is being increasingly employed within agriculture to increase production, offer efficiencies and protect the environment. The impact of the different approaches that can be offered through IT and technology can have a significant effect on national economies.

However in agriculture, as in other parts of national economies, there is a shortage of quality manpower and human resource. This is one of the main obstacles to a more widespread adoption of IT solutions in the Hungarian agriculture sector which, according to the Digital Agrarian Strategy (DAS), counts nearly 3,000 "agro-informatics" missing from the sector. There is a great need for specialists who are: skilled in IT and agricultural production; able to design applications and operate them; able to educate users and provide counselling.

This brings a new challenge to the education system now, and problems for the future, as it not only requires agrarian engineers and IT professionals, but also the intersection of the two.

The situation of VET schools as providers of that education is made more difficult by the fact that many of these tools are expensive, and without tools it is difficult to solve the practical training problems facing students. Quality skills are also a target need as poorly configured systems can cause damage and lead to poor outcomes.

Source: [Agrarszektor - Hungary](#)

## 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

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Erasmus+

## Teachers for Farming 4.0 online course

## Contact us

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## 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



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