VITALISING ICT RELEVANCE IN AGRICULTURAL LEARNING

From VIRAL to real project achievements
Florin Stanica USAMV, Miljan Cvetković UNIBL

"The role and importance of ICT in Agriculture future development"
VIRAL workshop

Disclaimer: The European Commission support for the production of this presentation does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.
Figure 1: Role of ICT in agriculture

ICTs assist with implementing regulatory policies, frameworks and ways to monitor progress.

ICTs bridge the gap between agricultural researchers, extension agents and farmers thereby enhancing agricultural, production.

ICTs improve access to climate-smart solutions as well as appropriate knowledge to use them.

ICTs provide actionable information to communities and governments on disaster prevention, in real-time, while also providing advice on risk-mitigation techniques.

ICTs help deliver more efficient and reliable data to comply with international traceability standards.

ICTs facilitate market access for inputs as well as product marketing and trade in a variety of ways.

Source: FAO-ITU
E-agriculture Strategy Guide
Partners
(universities, private companies, NGOs)
PROJECT AIM

Overall project aim of VIRAL to support university and business collaboration (UBC) through accelerating the use of ICT across Western Balkans agro-communities. The concept is led by relevant regional AET facilities and based on enabling the use of different ICT solutions/techniques/tools in the classroom and outside of it in order to obtain desired integration of agriculture and it engineering which in effect reinforces UBC across regional agro communities.
SO1: to increase the capacity of HEIs to apply and generate ICT in AET and practice

SO2: to improve effectiveness and employability of AET graduates

SO3: to boost academic-business cooperation regional platform for sustainability, networking and exchange within agricultural and technological communities
Work packages

WP 1 – Preparation
WP 2 – Building competences in AIT
WP 3 – Development of Student pitching competitions - hackatons
WP 4 – Creation of University-Business cooperation platform
WP 5 – Knowledge transfer across Agri-community
WP 6 – Quality assurance
WP 7 – Results dissemination & exploitation
WP 8 – Management

slide 8
From VIRAL...
WP1.1. Comparative analysis report (link)
WP1.2. Needs assessment report (link)

Both reports were carried out. The input data was collected through the questionnaire surveys which were carried out in all participating countries (BA, ME, RS, SI, RO, NL). Surveyed population include: 256 farmers, 89 extension service providers, 164 professors i 643 students.

WP1.3. Web http://viralerasmus.org/
WP1.4. Introduction conference (link), (link), (link), (link)
WP2.1. Educational seminar on ICT in agriculture

Introduction seminar on ICT in agriculture was prepared and delivered by WU online. 87 persons applied and 77 attended the seminar. (link)

WP2.2. Training sessions

First ToT training session focusing on training in ICT and agriculture, was held in Tuzla. 47 persons attended the training, out of which 25 were online (link).

Second ToT training session focusing on training in ICT and agriculture, was held in Mostar. 39 persons attended the training, out of which 16 were online (link).
WP2.3. Creation of University ToT

Following the completion of 2 training sessions cross-institutional ToT teams of educators were constituted for all 5 disciplines: IoT; Mobile Applications; Drones in Agriculture; Robotics in Agriculture; GIS.
WP2.4. Development of ToT course toolkits

The partner HEIs also created some materials for 5 ToT toolkits to be used in educations delivered in 5 training disciplines.

The sets of courses/toolkits (incomplete) (link)

28 video lectures with presentations
WP2.6. Practical Guide for the use of ICT in AET

Practical guide for the use of ICT in agriculture in English (link)
Practical guide for the use of ICT in agriculture in Serbian (link)
Practical guide for the use of ICT in agriculture in Croatian (link)
Practical guide for the use of ICT in agriculture in Bosnian (link)
Practical guide for the use of ICT in agriculture in Montenegrin (link)
WP2.7. Creation of crash course on ICT in agriculture

In the period covered by this report the structure of the crash courses has been developed. The structure covers 5 specific fields: IoT; Mobile Applications; Drones in Agriculture; Robotics in Agriculture; GIS). The structure of each specific field has also been developed, along with design and training materials for educators and learners.
WP.3.1. DEVELOPMENT OF STUDENT PITCHING COMPETITIONS – HACKATONS

Video guide for organizing student pitching competitions (link)
Guidelines for organizing student pitching competitions (link)
Manual for organizing student pitching competitions (link)
The total of **18,100 EUR** raised from businesses by project partners for rewards.
WP4.1. Introduction seminar on university-business cooperation

The Introduction academic-business cooperation (ABC) seminar was held online via ZOOM with participation of more than 60 professors, business representatives and stakeholders (link).
Development workshops on university-business cooperation

Chamber of Commerce and Industry of the Republic of Serbia and participants in the “Scaleup4europe” project (link).

Developing a model of a multifunctional robot for use in protected areas (link).

HORIZON 2020 project “Scaleup4europe” (link).

Project AgroLIFE is funded by GIZ (German Technical Assistance Agency) and implemented by NALED (National Alliance for Local Economic Cooperation) and TeleGroup doo (link).

Cooperation agreement in the field of ICT application in agriculture was signed between the Faculty of Agriculture, University of Banja Luka, and the Association for Unmanned Systems in the Economy (Agrodron Consortium (link)).
WP5.1. Implementation of student crash courses

Agrodrone lecture for students about the use of drones in agriculture (link)

The workshop was intended for students of the II and III cycle of the Faculty of Agriculture.
WP5.2. Knowledge transfer seminar for extension service providers

On 26/03/2021 within the VIRAL project, the Faculty of Agriculture of the University of Banja Luka and the Ministry of Agriculture, Forestry and Water Management of the Republic of Srpska organized the practical demonstration of the use of drones for extension service providers ([link](#)). The activity is realized in cooperation with the company “Agrodron” from Serbia and “Agrovooće” from Laktaši. More information is available at the following ([link](#)).
WP5.3. Knowledge transfer seminar for agriculture businesses

The seminar about the challenges of agricultural production in 2021, was organized by the Faculty of Agriculture of the University of Bijeljina on 10/03/2021 within the “Viral” project and co-organized by the Ministry of Agriculture, Forestry and Water Management of Republika Srpska and the City of Bijeljina. The seminar was attended by more than 50 participants, mostly farmers from Bijeljina. More information is available at the following (link).
Project dissemination

Presentation of results of the work of the Viral project at the MECO conference 2021

This year, the Viral project will be presented at the MECO conference. Project partners from the company "3. Juri Pankradt", Montenegro Association for New Technologies (MANA), University of Banja Luka, and University of Ljubljana, present a paper entitled "A Feasible IoT-based System for Precision Agriculture". The paper presents the development of the application of digital technologies in the field of agriculture with new applications and design solutions, which contributes to the development of technologies that support smart computers. The authors of the paper are: Radovan Strajnić, Vokica Mesić, Sanja Radonjić, Anita Martinčič, Sasa Bulić, Katarina Pavlović, Vasilja Mršević, and Mladen Cvejić.

Presentation of results of the work of the Viral project at the MECO conference 2021

31/05/2021
Alka Habić-Džajić presented the results of the work on the topic "Viral" at the AgroViva 2021 conference.

31/05/2021
ICT in agriculture is an important but still-underdeveloped segment.

31/05/2021
AGRO+ workshop - The role and impact of ICT in Agriculture future development.

26/05/2021
Panel session on the role of ICT in agriculture at AgroViva 2021.
We are halfway to reaching reality...
...equipment...

...training toolkits...

...regional hakaton...

...EXPO online event...

...trainings...

...dissemination...
...traveling to...
Join in the journey - it’s not too late...
You are welcome!
Thank you!

VITALISING ICT RELEVANCE IN AGRICULTURAL LEARNING