



MINUTES: KICK-OFF MEETING OF AGRITEACH 4.0

Gödöllő, Hungary

11th and 12th September 2017

Attendees

Pavel Simek, Zbyněk Křivánek, Natasha Ognenoska, Ljupcho Toshev, László Papócsi, János Szabó, Zoltán Horváth, Aranka Köblös, Ken Currie, Ivana Atanasova, Blagoja Mukanov, Nikola Trendov, Anita Téring, Mária Hartyányi.

Day 1

Welcome

The partners were welcomed by Zoltán and Aranka from GJMSZI, the main meeting facilitators, to a project originally initiated by László at Saint Istvan University

Partners introduced themselves.

- P 1. Galamb József Agricultural College (GJMSZI), Makó, HU. One connected to the HU Ministry of Agriculture but now independent. Areas of interest: agricultural mechanism; agriculture; IT. Precision farming is seen as a new area, and one lacking in the current educational system. The school is connected in a network of 64 agricultural schools in Hungary.
- P 2. ITStudy (ITS), Gödöllő, HU. Originally founded as Prompt in 1989, and a veteran of a number of EU funded projects, including Tenegen, SME2, OpenQAaS and Flip-It. Heavily involved in project-based training for local industry and in the VET education sector.
- P 3. Foundation Agriculture Centre for Education (FACE), Skopje, MK. Founded by the Ministry of Agriculture in 2006 to transfer innovation into the educational system, particularly non-formal education. Its aim is to be a regional (old Yugoslavia) centre of expertise. It has been involved in some 30 projects in its 11 years, including Erasmus+ (see greenpop.mk, sovet-project.eu and the Regional Tourism Guide & qualification). FACE interfaces with other MK Ministries, e.g. Education and Labour.
- P 4. AgFutura (AGFT), Skopje, MK. Heavily involved in analytics and data, and in consulting, precision agriculture, and food & agriculture marketing. In precision agriculture AGF are involved in areas such as soil sampling and economic mapping. As marketing consultants (not agents) they work for food and agricultural industries promoting high quality food. AGF are experienced in preparing project proposals and see ICT as a horizontal activity within the company. FAO forum-mid November - Blagoja invites partners to this forum to Novi-Sad.
- P 5. Gödöllő Agricultural Centre (GAK), HU. Associated with Saint István University and established in 1995 to develop national and international relationships in agriculture. Have links to the UN FAO in areas of agricultural ontologies, semantic web, and thesaurus translations, e.g. ITEM project in 2005. GAK have a 'demonstration farm' near Gödöllő.
- P 6. CAPDM, Edinburgh, UK. An information management company with a long history in developing programmes and businesses in online and distance education. A veteran of a number of EU funded projects, but including Tenegen, SME2, OpenQAaS and Flip-It.

P 7. Wireless Info (WRLS), Litovel, CZ. A private, not-for-profit research association working in ICT for Agriculture & Forestry, GIS, Big Data, and telemetry – as well as in economic assessments of new agricultural methods.

The consortium has a breadth of experience in ICT, precision agriculture and VET training.

Project Overview - Mária Hartyányi - ITS

General guidelines for the project:

- be effective, keep the scope, be outcome oriented
- find OERs which can be used for the course

Coordinator organization:

Galamb József Agricultural College (GJMSZI), Makó, HU

- Project manager: Horváth Zoltán
- Project coordinator: Köblös Aranka
- Administrative tasks: Némethné Baranyi Brigitta

The AgriTeach 4.0 (Connecting VET Teachers to Agriculture 4.0) project has a 24 month duration. It is a Key Action 2 Erasmus+ 'Development of Innovation' project.

The priorities are:

- Open and innovative practices in a digital era
- The professional development of VET teachers
- Future work skills 2020, with the focus on **the teacher**
- Innovative methods and pedagogies, open digital learning materials, and the effective use of IT

There are:

- seven (7) partners from four (4) members states
- six (6) Outcomes
- four (4) planned Meetings and six (6) Multiplier Events

Target countries are:

- Macedonia (MK)
- Hungary (HU)

Key activities to focus on early are:

- Getting the Questionnaire and Survey started as planned
- The development of a Competency Framework for the agricultural worker of the future (and aligned with the EQF and e-Competency Framework?)
- The courses (a core set with extensible specialisms?)

Szilvia Gerhát from ITS will be their primary project co-ordinator.

The Outcomes

A discussion of the key early Outcomes occupied much of the first morning. These are detailed – with partner responsibilities and dates in the table below.

Early focus was on O1-A1 (the online collaboration platform) – which was up and running, courtesy of ITS, in time for this first meeting. The other Activities in O1:

- O1-A2: This activity will investigate the skills demands in HU, MK and CZ (possibly the UK?), via a detailed survey, leading to a desk analysis and a structured Questionnaire for HU and MK.
- O1-A3: the development of a Competency Framework for mid-level professionals in agriculture.

Outcome	Medium/Language/Size	Leader	Deadline
O1 – e-Competence Map of Agricultural workers for Agriculture 4.0		P7-WRLS	31 December 2017
O1-A1 - ITS Design and implementation of online collaboration platform for the partners	<ul style="list-style-type: none"> • 1 Graphical design components (logo, wire frame) • 4 standard document template for QM (report, study, agenda) • 1 Drupal based multilingual collaboration platform (CMS) • Further components: forum, diary, evaluation and dissemination database, entry forms 		31 Oct 2017
O1-A2 – WINFO ICT-skill-demands of the agricultural labour market Collaborating partners: FACE, AGFT, GAK, GJMSZI	<ul style="list-style-type: none"> • At least 10-12 companies in Macedonia and 15-20 companies in Hungary. • A final summary will be produced based on the state-of-art reports and on the results of the survey, with suggestions for the competence framework. Language: English, size: 10-15 p. 		31 Oct 2017
O1-A2 steps and responsibilities			
WINFO	1. Table of content (guide) for the National Report to the partners –		25 Sept 2017
GAK, GJMSZI, FACE, AGFT, WINFO	2. Structure of Agricultural System – National Report EU and CZ (10 pages in English) - WINFO HU (10 pages in English and HU) + report in detail about the current situation GJMSZI, GAK MK (10 pages in English and MK) + report in detail about the current situation FACE, AGFT		30 Sept 2017
WINFO	3. Skype meeting to be arranged by Wireless		30 Sept 2017
WINFO in collaboration with (HU, MK partners)	4. Questionnaire will be formulated based on the report		9 October 2017
GAK, GJMSZI, FACE, AGFT	5. Carry out the survey (HU, MK) questioning and undertaking a statistical analysis of the results, in English – 10 pages (online, face-		23 Oct 2017

	to face, Skype or mixed) HU (min 15-20 companies 10 pages of result) GJMSZI, GAK MK (min 10 – 12 companies, 10 pages of result) FACE (+ undertaking a statistical analysis of the results) AG Futura Technologies (+ undertaking a statistical analysis of the results)	
WINFO	6. Comparative analysis and summary	31 Oct 2017
WINFO	7. Newsletter	15 Nov 2017
ITS creates, WINFO can amend	8. Inside evaluation of outcome. Online evaluation form for product. How far were the partners satisfied, what should be improved?	30 Nov 2017
O1-A3 - CAPDM e-Competence Map of middle level agricultural professionals for Agriculture 4.0	Research report (30 pages) in 3 languages (EN, MK, HU)	31 Dec 2017
Collaborating partners: all partners intensively take part Core partners: P2-ITS, P6-CAPDM, P7-WRLS		
Decisions, remarks: The Outcome leaders will evaluate the tasks in English (EN), with translations to follow.		

O2 will focus on the training needs of the teachers.

- O2-A1: This will see the formation of the Questionnaire, in three languages (EN, HU, MK), with a first draft being prepared by GJMSZI.
- O2-A2: This activity will see the survey conducted in HU by GJMSZI and ITS, and in MK by FACE.
- O2-A3: The results of the survey will be analysed by FACE (20 pages) in EN, then in the other national languages. A summary (10 pages) of the results will be prepared in EN only.

Data collection has to be structurally consistent, and questions should be simple, with examples.

The data samples will not be huge so can be handled with a pivot table in Excel.

O2 -Training needs of Teachers for preparing students for Agriculture 4.0		P3-FACE	31 March 2018
O2-A1 – GJMSZI Designing, elaborating, translating questionnaire	Questionnaire (EN, HU, MK) – 3 x 10-12 p. As a first step consortium will elaborate a questionnaire, in English (by – GJMSZI) Two different, but crucial factors in the planning of the questionnaire will be taken into account: 1. it must be directed to solicit information about ICT based teaching methods and tools;		31 Jan 2018

	<p>2. it must be oriented to gather details of Farming 4.0 trends and systems therein. For the survey we will use an online questionnaire, following proven practices.</p> <p>After the English version it will be translated into HU and MK.</p>	
<p>O2-A2 - ITS, GJMSZI, GAK, FACE, AGFT Carry out survey (online) in Hungary and Macedonia by involving VET teachers</p>	<p>Target group: teachers and advisors Macedonia: 40 samples Hungary: 80 -100 samples</p> <p>The translation and the implementation of the questionnaire in national languages, and the subsequent statistical analysis of the survey will be the tasks of GJMSZI and FACE. The final conclusions will be summarized, in English, by FACE.</p> <p>The data collection, and responsibilities for identifying and inviting responses from representatives of the target group, will be the task of GAK, ITS and GJMSZI in Hungary, and of FACE and AGFT in Macedonia.</p>	28 Febr 2018
<p>O1-A3 - FACE, AGFT Analysis and Conclusions</p>	<ul style="list-style-type: none"> • Results of the national surveys (EN): 2x20 p. with charts. • Summary of the results (EN): 10 p. 	31 March 2018
<p>Collaborating partners: all partners take part Core partners: P3-FACE, P2-ITS, P5-GAK</p>		
<p>Decisions, remarks:</p>		

O3 focuses on the syllabi and the learning content.

- O3-A1: This is about developing an integrated set of syllabi, consistent with the O1 Competency Framework. There will be three modules:
 - Re-inventing Agriculture
 - EU Strategies & Initiatives in e- Agriculture
 - Digital Systems within Agriculture 4.0
- O3-A2: The focus here is on Module 1, including assessment, the learning content, and digital education, i.e. on the content. Each module will contain around 10 – 12 topics, each topic being of about 3 to 5 pages.
- O3-A3: Focuses on Module 2.

- O3-A4: Focuses on Module 3.

CAPDM will take editorial control, of the English, with GJMSZI providing the subject expertise. All partners may be involved in content authoring. Credit values and timings will be specified. There will possibly be one assessment per Module, with a final overall test.

The target group is VET teachers, but some pre-requisite skills (e.g. basic IT) may be required.

O4 AgriTeach 4.0 Learning Management System - ITS

Course content and module structure presented. See in the Kick-off meeting- Presentations folder.

Agreement: stay on general level with the content of the training, do not select any special sectors of agriculture.

O5 AgriTeach 4.0 further training program for VET teachers and Multiplier Events (ME) - GJMSZI

MEs are really training sessions for teachers, and could be included as the first day of a pilot. They are usually held to disseminate activities, but they could have a wider role, e.g. to teach. Pilots must have to start later (Dec 18/Jan 19) to coincide with free-ish months.

O6 is the planning for valorisation and sustainability. - GAK There will be obvious outputs such as:

- A Digital Textbook, in EN, HU, MK
- Moodle 'Book' output of all course modules, as a 'basic' format and in addition to the format that will be on the project platform. This is to ensure potential general use anywhere.
- Action: AGFT to propose an agreement for any copyright issues, e.g. to use Creative Commons for all materials, and to properly attribute any OER use.

All Modules will be general in nature, as they are aimed at the VET teacher, but they could provide a framework for specialist, precision farming courses to be added. The initial hypothesis of the project will be expended on, and answered by, the Needs Analysis.

Intellectual property rights should be discussed. Who the product will belong to. etc. Will the name of the author published or not. If OER is used, we should refer to it. Agreement is needed.

An overview of ICT tools in Agriculture 4.0

WRLS gave a short presentation on the challenges faced – at three levels: the macro; the farm; the micro (across which there are various influences such as climate, demography, etc.). Intriguingly there is an AgroXML specification for agriculture data exchange, and there is obvious interest in Big Data, the IoT, advanced visualisation and semantic data models.

Day 2

Dissemination Strategy

Basically disseminate all news or information! For example, there will be:

- Project flyers; six (6) newsletters; four (4) meetings; six (6) Multiplier Events
- Primary targets groups are in HU and MK – teachers, policy makers, etc.
- Any public mention of AgriTeach to be recorded
- Include on company web sites.

Partners are encouraged to show proof of activities, e.g. photos, screen prints, references, etc. Also use should be made of social media, including web sites, Facebook, LinkedIn, etc.

Action: All to prepare a short description of their organisation/partner. Five (5) sentences + logos. See current descriptions in the proposal and change if necessary. Put into the Dissemination | Partner directory.

Action: CAPDM to proofread the Abstract for Monday 16th (Dissemination directory). Translations one week later.

Action: deadline for the intro of partners for the flyer, short summary based on the proposal – 20 September

Newsletters will be prepared by the Lead Partner for each Output and produced seven (7) days after the scheduled end of the Output. Translations should follow within the next seven (7) days.

There is a Dissemination form on the project portal. All activities should be reported through this, as it produces details of statistics and offers various downloads.

HU National Agency

Ilona Baján, from the Tempus Public Foundation, gave a presentation on Project Guidelines – basically those for KA2 though with some differences. Ilona is contactable if necessary, e.g. by email <mailto:ilona.bajan@tpf.hu> or Skype.

Project aims should be about Adaptation and Development, and end results should be given 'open access'. The contract is a multi-beneficiary one, signed on behalf of the partners by the co-ordinator. With this shared responsibility there is only one contract; no partner contracts are necessary but this is recommended. The project receives partial funding.

The contract will be sent to partners in about four (4) weeks, followed by the first installation of the payment.

There is a single monitoring visit for 24 month projects, but the HU NA should be invited to all Multiplier Events and project meetings, and given access to the project portal. Interim and Final Reports are submitted via the '[mobility](#)' web site. This also houses supporting documents for Relevant Results and Final Report Guidelines. ECAS accounts are needed to access this site, though access is really only needed by the co-ordinator as only they have editing rights by default, though they can assign this to others.

Ilona covered other relevant topics, but including making amendments. Two types are allowed: (i) basic data changes, which should be sent to the NA; (ii) more formal changes, which are submitted through a formal request form.

Partners are asked to keep flight tickets and hotel bills, and to make scanned copies for the coordinator. They should also complete and sign a Foreign Mission Order. The other main requirement is staff contracts and time sheets.

Quality Management

ITS gave a short presentation on Quality Management. Particularly in relation to the quality of the project results. QM is based on the PDCA cycle.

There will be a project QM Handbook, produced by ITS, plus forms for evaluations. All Outputs will be evaluated, including by an external evaluator.

The portal should be the focus for all project communications – no email! It will also contain all relevant documents and templates to be used throughout.

Outcomes 1 and 2 Presentations

Short presentations, and subsequent discussions, of the first two Outputs were given by WRLS and FACE respectively. See the decisions and the deadlines in the table above.

In O1-A2, the questionnaire should look to determine country differences and to focus on the current status of digital agricultural understanding. For example, CZ tends to have large farms whereas MK has small ones. While the project should aim for the general agricultural structure, it should also look to the dominant sector as a state-of-the-art target.

Industry should be asked first, then the teachers. The questionnaire should be more qualitative than quantitative, and involve in-depth, face-to-face interviews where possible, in order to enumerate ICT skills, understand working practices, and assess current use of Ag4 principles.

Results may be targeted at academic journals, with the agreement of relevant partners.

In O2, the training needs analysis, the aim is to establish details about specific practices. The H0 hypothesis is that “there is a significant need for ICT training in agriculture”. The research should confirm this, or not.

Next Meeting

The next meeting will be planned for Prague, in the CZ Republic, and be held over the days of the 14th and 15th of May 2018. Hosts will be WRLS.

This should see O1 and O2 completed, and O3 started.

See detailed presentations of the kick-off meeting in the project portal: Project Management>Meetings>Kick Off Meeting folder