MEETING 2 - Minutes

Place:	Host partner: Wirelessinfo Hotel Galaxie, Suchdolské náměstí, Praha 6	Date:	14-15 of May 2018
Facilitator:	Pavel Simek- WINFO, Aranka Köblös – GJMSZI Mária Hartyányi - ITS	Participating partners:	All partners

Meeting Objectives:

1. Presentations on the results of O1-O2 - ICT skill demands-presentations of the countries, e-Competence Map – CAPDM, Conclusions
2. Evaluation and closing O1-O2, publication of the results - all partners
3. Starting O3, discussion of the distribution of work- development of syllabus and content development
4. Starting O4, distribution of work - implementation of LMS, planning the online course, etc.
5. Dissemination activities, publications
6. Financial issues

Meeting Agenda - 1st day 14th May 2018

The aim of the first day:
1. Welcome
2. Conclusions of O1-O2
3. Evaluation of O1-O2 results
4. Planning O3 and O4

Programme

Start time — End time	Agenda item description	minutes
9:30-9:35	Welcome – Aranka Köblös – GJMSZI, Pavel Simek – WINFO	'5
O1 – e-Competence Map of Agricultural workers for Agriculture 4.0 – WINFO **O2 -Training needs of Teachers for preparing students for Agriculture 4.0 - FACE**		**31 12. 2017** **31 03. 2018**
9:35-10:00	Agriteach Progress Report, new functions of the project website – Mária Hartyányi, ITS. *Now in month 8 – one third of the way through the project. Current focuses of this Erasmus+ Horizontal Priority project is:* • *Curriculum Design* • *Module Development – 3 modules in total* *Outcome status:* • *O1: Competence Map – progressing well, only the Competence Framework to agree and finish. The project portal has a new 'Results' section with a description for visitors and evaluators alike. It includes all reports and newsletters. This page should be translated to HU, CZ and MK. The*	'25

	'WebForm' section is for partners only, and includes Evaluations. ITS suggests developing a simply taxonomy for use in the 'Technology' section, where all partners are encouraged to find, record and tag (against the taxonomy) any relevant technologies they find. • *O2: Training Needs of the Teachers – Completed (though some translation underway)* • *O3: Syllabus & Learning Content – Started Jan 18. Content for the end July? ToCs planned. Multiplier Events to organise.* • *O4: LMS – being planned* • *O5: Course/Training Programme – To be started* • *O6: eBook and Sustainability – To be started* *Outcome 3: Key questions to ask and answer* • *Should the coverage be horizontal (general) or vertical (specialisms)* • *Where should the coverage be focussed, e.g. crops* • *What scale of farm should be targeted* • *How deep should the content go.*	
10:00-10:25	**Summary and Conclusions** of O1-O2 – **Macedonia** State of Art and questionnaire result, Blagoja Mukanov, AGFT O2 Survey results, Ljupcho Toshev, Micevski Martin, FACE *In MK, responses were received from 11 farms. Cereals, vegetables and wineries dominant sub-sectors. Results mainly from the 'large; farm sector.* *While there is a trend towards awareness of Ag 4.0, it is more by accident than design – which implies a non-formal, potentially dangerous knowledge? Awareness is highest in large farms with progressive farmers/managers (often the younger ones). Governments tend to focus on the 95% of farms, but not the 5% larger, more progressive ones who are often the early adopters that lead the rest. Should AgriTeach focus on this 5% - the progressive leaders? Companies/Farms with a greater exposure to competitive international markets (e.g. the wineries) tend also to be the more progressive likely adopters. Economies of scale and Ag 4.0 adoption is easier within farms willing to invest, e.g. in machinery.* *Adoption of Precision Agriculture (PA) is low. There is some use of GPS/GIS, but little soil analysis and mapping for example. There are only two true PA examples known in the Balkans. Ag 4.0 is not included in educational policy, so it is difficult to squeeze PA into VET. One emphasis should echo "Making Agriculture Fun" and make our course motivating, particularly for the young – who are the future of a sustained industry. The emphasis could be on the human aspect, not necessarily productivity.* *There is a good ICT infrastructure in the Balkans and knowledge of the Internet, social media, etc. is high. Mechanisation in agriculture is also relatively high, but this could be through necessity as there is a general shortage of a labour force. Mechanism can be expensive (e.g. Euros 0.5 m for a combine harvester), but integration of mechanism is generally poor so does not take full advantage of investment. PA Training might therefore be best aimed at increasing profitability*	'25

	and integration, not productivity. It should help with where and how to invest, but also with small farms who cannot readily invest. *FACE went on to present the survey results. They are to be found on the portal.*	
10:25-10:50	***Summary and Conclusions*** *of O1-O2 –* ***Hungar****y* *State of Art and questionnaire result, László Dr Papócsi,* **GAK** *O2 Survey results, Aranka Köblös, GJMSZI* *GAK presented the HU results. There is a unique Digital Strategy for agriculture in HU, backed up by e-government services for grants, subsidies, etc. While complicated, these are 100% online. In HU 31% of farmers are over 65 years of age, with only 5.3% under 35 years. 69% have no agricultural qualifications, relying instead on experience. EU studies show PA to be quite heterogeneous - big differences for large and small farms – so are we best to take a micro/mini approach and train up small enterprises?* *GMJSZI summarised the training needs. Teaching methods (e.g. project methodology) should be directed to the development of student (i.e. the teachers) skills for the 21st century (e.g. critical thinking, communications, problem solving, collaboration and teamwork). Typical curricula for VET teachers are not up to date, often held back by a lack of good online materials and agricultural tools. One obvious focus is to make teachers aware of how to advance their own knowledge and how to find useful resources. The surveys suggest a great willingness to learn and to participate (as is the case at GMJSZI), but the teachers need a course and tools. Generally there is no issue with the supporting infrastructure.*	'25
10:50-11:05	*ICT-skill-demands of the agricultural labour market – summary and conclusions, WINFO.* *WINFO summarised the results generally, and this is the subject of Newsletter 1. He spoke about the FAO 'Role of ICTs in Agriculture' wheel diagram and the EU Digital Agenda, and how it applies to Ag 4.0 (e.g. e-Gov, ERP, Forecast, DSS, etc.). PA is generally thought of to include navigation, auto-steering, sowing, fertilising, monitoring, etc., but there is a major opportunity in beef and traceability systems as well as in general systems and data integration. There is no such 'traceability' equivalent for cereals and vegetables, and this is a complex area so should we try to include it or simply make mention of it?*	'15
11:05: 11:20	**Final conclusions** of O1-O2, suggestion of using the results for O3, Ljupcho Toshev, Micevski Martin, FACE	'15
11:20: 11:40	Coffee break	'20
11:40-12:05	From Competence Map to the Learning content, Ken Currie, CAPM Competence-based curriculum for middle level agricultural professionals. *CAPDM talked about the Competence Framework (CF) documents on the portal (O1-A3). The basic intention has been to develop a three level CF hierarchy (with the initial level extracted from various documents and training programmes encountered to date) to fully enumerate the lower levels Skills and Competencies that describe a general PA framework.*	'25

	Ideally the modules to be developed (particularly Module 3) should map to this CF. They need not be directly guided by the CF, but any omissions might suggest holes. *A secondary table of Knowledge and Skills (which follows the guidelines of the EU e-CF) can be filled in and completed after the module content has been written, but should act as a summary of the overall course.* *An initial backwards mapping from the Module 3 ToC to the CF was illustrated. This activity awaits final overall approval.*	
12:05-13:00	Discussion and conclusions on O1, O2. **Decision**s: how to use these results for O3 and O4. O1, O2 online **evaluation**, moderated by Mária Hartyányi	'55
13:00-14:00	Lunch	'60
	O3 – Syllabus and learning content for AgriTeach 4.0 – AGFT	**30. 07. 2018**
14:00-14:20	O3-A1 First version of the syllabus template, Ken Currie *CAPDM will combine content and do consistency editing for the master EN version. When finalised this will be translated to HU and MK. The indicative scoping suggestions (number of topics, page, etc.) are flexible but should be followed where possible. Content should include motivating videos, may include video lectures (with transcriptions), a question bank, and about ¾ topics of 3-5 pages per topic, leading up to a final book of about 150 pages.* *Moodle will be the opens source LMS for the O4 pilot, which will take place from Sept 18 onwards (Jan and May are the worst times). September might be too early for the translations however! Meeting 3 is in October in MK, so we should look to have all content finalised for then, thereafter there are two Multiplier Events (ME) to be held for teachers in HU and MK.*	'20

	Presentations of the partners responsible for the modules
	   a) Suggested modifications of the first concept (based on O1-O2)
	   b) Draft syllabus, based on the template and the competence map
	   c) First ideas about the content development, freely available learning contents (OERs)	

14:20-14:40	O3-A2 Module 1: Reinventing agricultural education, ICT tools used for the rapid development of English language skills. Mária Hartyányi, ITS. *ITS presented details on Module 1, including scoping details.*	'40

14:40-15:00	O3-A3 Module 2: European Strategies and initiatives of e-Agriculture, László Dr Papócsi, GAK
	
	GAK presented ideas on Module 2 – 6 topics, including taking a macro-level, and FAO & national systems approach. There are many FAO videos and publications that can be used for the background information. Topics will include:
	
	   • *Roles and task of the Directorate for Agriculture and Rural Development.*
	   • *Post-2020 EU and the CAP*
	   • *EU Innovation – a partnership for agricultural productivity and sustainability.*
		'20

	AKIS *The Digital Single Market* *EU 2020 Strategy for smart, sustainable, inclusive growth.* *Bloom's taxonomy should be used (the three levels of Describe, Demonstrate, Use) to map each Topic onto:* *Level 1 – Information (Describe). Basically the text.* *Level 2 – Comprehension (Demo). Text and quizzes* *Level 3 – Application (Use). Assignments.* *To achieve accreditation it will be necessary to specify the number of contact hours. We want to set a target of 30 credits for the whole course, split across the modules according to scope.*	5
15:00-15:40	O3-A4 Module 3: Digital systems of Agriculture 4.0, Blagoja Mukanov, AGFT. *Farm structures are potentially quite different in HU and MK, so where do we focus? For example, a horizontal approach? Which sub-sector – crops would keep it simple, though we could take a country specific approach to address the most widely used services. Or we could take a more generic approach and focus on the use of ICT in agriculture. There is also the issue of scale.* *To address depth of coverage, AGFT will start a spreadsheet of topics and scale. Module 3 is not just about PA but a combination of different models, from Ag 1.0 to Ag 4.0. Evaluation of PA is important (e.g. CEMA), as is integrated ICT, automation, and different models for crops, veg, etc. e-Ag is about digital technology, Ag 4.0 and PA – a combination.* *AGFT's presentation (along with all others) is on the portal. Topics will fall into evolving categories and include:* *Tools and technologies, e.g. Ag 4.0 and PA, smart farm tools* *Systems, e.g. smart farm systems – an combination/integration of tools* *Application, e.g. soli preparation, crop management – applying systems and tools* *Services and Apps (non commercial)* *eGovernment services, e.g. knowledge sharing networks, ICT in Agriculture Policy, etc.* *AGFT want to remove 'Closing the urban/rural digital divide'.* Conclusions, decisions: Scheduling, task distribution, common working method for content development and translations (O3), Blagoja Mukanov, AGFT *The topic spreadsheet will be ready end May.*	'40
15:40-16:00	Coffee break	'15
	O4 – Agriteach 4.0 Learning Management System – ITS	**31.10. 2018**

16:20 - 16:40	O4-A1 Agriteach e-learning platform – implemented in Moodle Learning content components: Moodle book, SCORM package, videos, presentations, glossary, etc. O4-A4 Selecting and integration of Open Educational Resources. *ITS gave a demo of a Moodle environment for a parallel project that all partners liked.*	6
16:20-17:00	Technical issues of the content development – ICT tools for course components (Using web 2.0 tools video editor, creating animation, presentation, subscription for national language version)	
18:00-22:00	Social event	

Meeting Agenda - 2nd day 15ᵗʰ May 2018

The aim of the second day:

1. Clarifying all questions of O3-O4, defining the tasks for the next working period.
2. Accompanying activities: Online project management, quality management, dissemination

Start time — End time	Agenda item description	minutes
	Agreements on O3-O4, final decisions	
09:00-10:00	Final agreement on content development (English version and national language versions) – discussion and desicions facilitated by Blagoja O4-A5 Planning blended training for tutors and the related contact days: E1: Multiplier events: training for teachers, Hungary – starting pilot (Mária) E2: Multiplier events: training for teacher, Macedonia - starting pilot	'60
10:00-11.00	Project management and financial issues, Maria Hartyányi, Aranka Köblös Cost categories, documents to provide for the financial reports *Financial details were discussed in detail. IO details to end April 2018 to be completed by all partners, for a report.*	'60
11:00-11:20	Coffee break	'20
11:20-11:40	Dissemination activities, using dissemination form, measuring impact *Dissemination was discussed, including the mechanism on the portal to register activities. There is a Dissemination form and an AgriTeach FaceBook page.* *There are now two Newsletters, created using the Newsletter Template and both translated.*	'20
11:40-12:00	Quality management, evaluation. Online evaluation of the 2nd meeting.	'20
12:00-12:20	Questions and answers, agreements, deadlines *What should the name of the course be, e.g. "An Introduction to Digital Agriculture"*	'40
12:00-13:00	Discussion of ideas and proposals for next year Planning the next meeting (M3 3rd meeting in Macedonia – Oct. 2018 – FACE) *The next meeting will be in Skopje, MK on Tuesday 16ᵗʰ and Wednesday 17ᵗʰ October 2018.*	'60
13:00-14:00	Lunch	'60
14:00-14.30	Closing the meeting	'30

Project activity*	Leader	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24
Project Management	24																								
A11 Progress and evaluation reports								1			2			3			4					5			
A12 Interim report														IR											
A13 Final report																									FR
M1 Kick-off meeting in Hungary		HU																							
M2 2nd meeting in Czech Republic									CZ																
M3 3rd meeting in Macedonia															MK										
M4 Project closing meeting in Hungary																								HU	
O1 e-Competence Map of Agricultural workers for Agriculture 4.0	4 WRLS	9	10	11	12																				
O1-A1 Design and implementation of online collaboration platform	ITS																								
O1-A2 ICT-skill-demands of the agricultural labour market	WRLS																								
O1-A3 e-Competence map of agricultural workers for Agriculture 4.0	CAPDM																								
O2 Training needs of Teachers for preparing students for Agriculture 4.0	4 FACE					12	1	2	3																
O2-A1 Designing, elaborating, translating questionnaire	ITS																								
O2-A2 Carry out survey (online) in Hungary and Macedonia by involving VET teachers	GAK																								
O2-A2 Analysis and Conclusions	FACE																								
O3 Syllabus and learning content for AgroTeach 4.0	6 AGFT							2	3	4	5	6	7												
O3-A1 Development of AgroTeach 4.0 syllabus	CAPDM																								
O3-A2 Module 1.: Reinventing agricultural education	ITS																								
O3-A3 Module 2: European Strategies and initiatives of e-Agriculture	GAK																								
O3-A4 Module 3: Digital systems of Agriculture 4.0	AGFT																								
O4 AgroTeach 4.0 Learning Management System	5 ITS									5	6	7	8	9	10										
O4-A1 Graphical Design and implementation e-Learning platform	ITS																								
O4-A2 Implementation of course, language versions, testing (ALFA test)	ITS																								
O4-A3 Selecting and integration Open Educational Resources	All																								
O4-A4 Developing training guides	GAK																								
O4-A5 Training for tutors (BETA test)	ITS/FACE																								
E1: Multiplier events: training for teachers, Hungary – starting pilot	ITS													E1-HU (30)											
E2: Multiplier events: training for teacher, Macedonia - starting pilot	AGFT														E2 MK (15)										
O5 AgroTeach 4.0 further training program for VET teachers	8 GJMSZI													9	10	11	12	1	2	3	4				
O5-A1 Piloting the course in Hungary	GJMSZI																								
O5-A2 Piloting the course in Macedonia	FACE																								
O5-A3 Analysing the feedback of the testing phase	ITS/FACE																								
O5-A4 Improvment of the course according to the feedback	CAPDM																								
O6 Planning for valorization and sustainability	5 GAK																				4	5	6	7	8
O6-A1 Authoring, review and publish Agroteach 4.0 textbook (EN/HU/MK)	CAPDM																								
O6-A2 Agreement: Intellectual Property Rights	AGRT																								
O6-A3 Planning sustainability and valorization	GAK																								
E3: Multiplier events: training for teachers Hungary - closing pilot	GAK														E3-HU (30)										
E4: Multiplier events: training for teachers, Macedonia: closing pilot	FACE																	E4 MK (15)							
E5: Multiplier events: dissemination Macedonia	FACE																							E5 MK (20)	
E6: Multiplier events: dissemination Hungary	GJMSZI																							E6 HU (30)	