



3rd PARTNER MEETING AGENDA

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| Place: | Host partner: Foundation Agro-Centre for Education (FACE) Makedonsko selo Resort, Gorno Nerezi Village, Skopje 1000, Republic of Macedonia | Date: | 14th and 15th October, 2018 |
| Facilitator: | Mária Hartyányi – ITS; Martin Micevski; Ljupcho Toshev - FACE | Participating partners: | All partners |

Meeting Objectives:

1. Presentations on the results of
 - O3 – Syllabus and learning content for AgriTeach 4.0 and
 - O4 – Agritech 4.0 Learning Management System. Discussion of translation into national languages, distribution of tasks
2. Starting discussion on O4/A3-A4-A5.
 - A3 Selecting and integration Open Educational Resources,
 - A4 Developing training guides and
 - A5 Training for tutors (BETA test)
3. Planning the multiplier events (E1-Hungary, E2-Macedonia) starting pilots - related to O4
4. O5 – Agritech 4.0 Further Training Program for VET teachers, planning the pilot for VET teachers in Hungary and Macedonia
5. Planning the events related to O5, training for teachers Hungary and Macedonia - closing pilot
6. Planning O6 - Planning for valorisation and sustainability and the multiplier events related to O6
7. Dissemination activities, publications
8. QM activities, financial issues

Meeting Agenda - 1st day 14th October 2018

The aim of the first day:

1. Welcome
2. Results of O3-O4
3. Discussion on O4/A3-A4-A5.
4. Planning O5

Programme

| Start time — End time | Agenda item description | minutes |
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| 9:30-9:35 | Welcome - Ljupcho Toshev – FACE Logistics and structure explained. | '5 |
| Presentations on the results of O3 – Syllabus and learning content for AgriTeach 4.0 | | |
| All partners | | 30 Sept 2018 |
| O4 – Agritech 4.0 Learning Management System - ITS | | 31 Oct 2018 |
| 9:35-9:45 | A brief overview of project progress. Where we are? What's left behind? Mária Hartyányi, ITS | '10 |

Maria (ITS) started with a Precision Agriculture (PA) video, from National Geographic, focussing on guidance and variable rate technologies. This YouTube video is on the AgriTeach Moodle platform – and example of the OERs sources by ITS. It is in English (EN), but can be subtitled. Permissions will be sought for translations.

Pavel (WINFO) arrives tomorrow, so we will move to content development tomorrow, though Blagoja (AGFT) wants to summarise Module 3, which will run to about 70 pages. Can cover some of Day 2's management topics today, but need to summarise progress.

All results to date are on the project platform – see under Results for list of Intellectual Outcomes (IO). Each IO page has a short summary and a linked list of all relevant documents. They are public, so available to the Hungarian National Agency (HNA) for evaluation. For example, there is a good summary from WINFO on the state of art of PA in Hungary (HU) and Macedonia (MK). This is available in the other languages too, though not all reports are translated. Newsletters are available for each completed IO, with respective translations.

O3 currently only has a curriculum for M3, as prepared by AGFT.

[Gantt Chart](#)

On the project Gantt Chart, we are in month 10. O2 is complete, but we need to focus on O3 and its content development. O4 is dependent on O3 – the pilot and platform (which is ready). Pilots should have started now, but there is another time window in January 2019, but this means that learning materials must be ready for December 2018 – and in all languages. The deadline of having the content draft fully ready by Oct 31st should be adhered to!

Multiplier Events have to be arranged in HU and MK – ME2 to be organised by AGFT; ME3 for ITS to arrange.

Piloting will start with the partners themselves, as mentors feeding back to ITS (O5-A3). Feedback from teachers will come in March or April 2019. The pilots will be in the second semester of the school year and should last half a semester in order to give time for feedback, etc. Winter holidays in MK last till the 20th January, when the semester starts.

There is a lengthy period until the final meeting in Mako, HU, so there will be a need for close collaboration on the platform and potentially a virtual meeting or two.

[Intellectual Outcome Evaluation](#)

At the end of each IO, the responsible partner will be responsible for the final reports and for the Newsletter for the IO. Each IO will be evaluated too – there is a template for this.

[HNA Reflections](#)

The Evaluation Report from the HNA is on the platform, under Progress Reports. There were some issues raised in the report – see paragraphs in bold type. Generally the review was quite good, but CZ and MK versions of the web platform were lagging behind. On this issue, the target countries are HU and MK. The CZ

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| | <p>partner provided expert input, so is not involved in the pilots. Only essential reports, such as the Newsletter, need to be translated into CZ.</p> <p>The other key issue on Quality Management, project and quality documents are <u>working</u> documents and not designed to be available in four languages. All evaluation forms are available and filled out online by all partners. Results are in the Quality Management folder on the portal, with Evaluations in a sub-folder.</p> <p>To close an IO make sure we have: quality documents, evaluations, final IO report, and a Newsletter.</p> <p>Other HNA concerns – mainly about QM and Dissemination – are relatively minor and have been addressed. There are no complaints about content, though we have to pay more attention to dissemination.</p> | |
| 9:45-10:00 | <p>Module 1 - Teaching in the 21st century– Mária Hartyányi, ITS</p> <p>Maria (ITS) introduced the Moodle platform, to which everyone should have a login, focussing on navigation, the course structure and components for the EN course.</p> <p>Should we complete the competence framework and map the content and assessment to the competencies within? Decision later, but interest.</p> <p>Module 1 (Teaching in the 21st Century) was demonstrated. Laszlo (GAK) suggested a closer link between the content of this course and agriculture – a point that was generally agreed. The aim is to teach the teachers about how to find and use learning content. They will then be in a position to create and deliver their own targeted courses. The focus of the overall course (the three modules) is agriculture – does Module 1 distract from this focus? This is one of the objectives of the pilot.</p> <p>WINFO can decide whether or not to translate this Module into CZ. With the translations, localisation may be in order – it is up to the respective partners to decide. <u>Action</u>: partners to check the content to decide what content should be used.</p> <p>Videos can be readily created via PowToon. Examples can be seen in Module 1.</p> <p>All three modules need a syllabus structure. Maria gave an example for Module 1, quite complex but very comprehensive (it will be uploaded to the project portal). It could be suitable for the other modules, particularly as the existing Excel structures map over to this structure quite readily. A <u>draft</u> version would be of great use now. A polished, final version can be prepared for the final report.</p> | '15 |
| 10:00-10:15 | <p>Module 2 - European Strategies and Initiatives of E-agriculture – GAK</p> <p>Lazslo (GAK) had attended a relevant course - Open Data Management in Agriculture and Nutrition. This was a four week course, using PDFs heavily, but the experience was useful for AgriTeach. It was developed by the GODAN Network</p> | '15 |

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| | <p>(Global Open Data for Agriculture and Nutrition) in collaboration with various partners including the FAO.</p> <p>Other inputs to Module 2 came from Pavel (WINFO), particularly in the strategic management of e-agriculture.</p> <p>Module 2 broadly follows the agreed structure, so should fit seamlessly into the overall set. It uses resources from some scientific publications but it is largely new materials. Where sources have been quoted they have been properly attributed, though there may be a need to harmonise the referencing style. Use has also been made of a Glossary whose items may or may not include a reference? To be decided.</p> <p>There are many pictures, some with large amounts of text, so there may be a need to ensure that the diagrams are translated.</p> <p>Do links also need dates of last access on each link? The default should be that each link was working at time of publication, so no need to do this for each link. Is there a bulk link checker in Moodle? There should be a common document on linking, use of glossary, etc. so that all Modules follow the same practice.</p> <p>H2020 projects relating to e-agriculture are collated and summarised within the Module.</p> <p>YouTube videos in EN can auto-translate. The quality needs to be checked to see if the translations are good enough or whether a manual translation might be necessary.</p> <p>The consortium is the owner of the content. <u>Action</u>: all partners to check the content to see the balance, the scope and the relevance of the content. Deadline: 26th October 2018.</p> | |
| 10:15-11:05 | <p>Module 3 - Digital systems within Agriculture 4.0 All partners who participated in the Module 3 curriculum development present their own material GJMSZI – ‘10 AGFT – ‘10 WINFO- ‘10 AGFT – ‘20</p> <p>Module 3 written by a group of five, nearing completion. It needs editing to tighten up and make coherent. References have been included as footnotes in the Word document, but can be added at the end if required, to be consistent with the other modules.</p> <p>The introduction uses a classification from AgFunder, as US company that researches into precision agriculture. Does the partnership agree with this classification?</p> <p>There are many images in the Module, all referenced, so there should be no problem with use for educational purposes. There are no obvious stock photos for many of the concepts so it is necessary to images from industrial sources. AGFT</p> | ‘50 |

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| | <p>created the many icons used, and many of the diagrams too. Images should be collated into a separate folder to aid the production of the final text book.</p> <p>Each section includes links to relevant YouTube videos.</p> <p>Some of the text is complex and contains many technical expressions. Can it be explained in a more understandable way? Blagoja (AGFT) suggests that all the relevant content should be collated in the first instance, then an editorial pass made to simplify the details. It is important not to miss out key technical issues in favour of the need for simplicity. Remember the target audience is agriculture teachers who need an introduction to e-agriculture: does this document fit their need? AGFT suggest it does, so they should complete the document along the current lines. Once done, the partners can review and suggest how it may need to be changed and adapted. AGFT will complete the first pass by the end of October 2018.</p> <p>Two chapters (<i>Data Integration</i> and <i>Traceability Systems</i>) are yet to be completed to any depth. Might these actually be subsets of other sections, along the lines of the original curriculum structure suggested by WINFO?</p> <p>AGFT have confidence in the overall structure and design for the content, and this should be evident when the first draft is completed for review. The language review would be most effective in the Word format, not when on the Moodle platform.</p> <p>The content is complex, but perhaps one of our USPs is to be able to present this in a form that is understandable by teachers. Perhaps each concept could be illustrated with an example?</p> <p>There is a Curriculum Guide in the 'Mentors' tab on the Moodle site. <u>Action</u>: AGFT to check the Module 3 curriculum structure and update. There is also detail on how to structure the content, include references, glossary, etc. Other guides and templates, such as a Moodle Platform User Guide and a Content Development Template, can be found there.</p> <p>On the project portal there is an Agriculture 4.0 list of technologies, mapped against a project taxonomy (which can be adapted/extended if necessary). This taxonomy is used to aid searching via tag words.</p> <p>Once the course materials are finished, then there is a need to create:</p> <ul style="list-style-type: none"> • A question bank from which to structure topic quizzes for the Module • An assessment. The form? Can there be a single assessment that cuts across all modules, or to have a set of three that build on each other? | |
| 11:05- 11:20 | Coffee break | '15 |
| 11:20-12:00 | <p>Discussion of the finalization of the learning content English version. – ITS</p> <p>Overview of the compulsory elements of the curriculum, how far are they ready?</p> <p>COMPULSORY module elements:</p> <ul style="list-style-type: none"> • Introduction: The aim of the module • Learning outcomes (Knowledge, Skills and Competences (EQF) | '40 |

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| | <ul style="list-style-type: none"> • Learning guide • motivating video max 3 min. • quiz questions - 20-30-50, • forum questions, • 1 credited assignments/module <p>OPTIONAL:</p> <ul style="list-style-type: none"> • video lectures (max 10 min) <p>Translation into national languages, distribution of tasks</p> | |
| O4 – Agritech 4.0 Learning Management System – ITS | | 31.10. 2018 |
| 12:00:12:30 | <p>O4 – Agritech 4.0 Learning Management System – ITS</p> <p>Other options for the LMS</p> <ul style="list-style-type: none"> • module assessment • glossary • video collection • web 2 tools • OER collection • technology collection • forum | '30 |
| 12:30: 13:00 | <p>Starting discussion on O4/A3-A4-A5. - ITS</p> <p>A3 Selecting and integration Open Educational Resources,</p> <p>A4 Developing training guides</p> <p>A5 Training for tutors (BETA test)</p> <p>Distribution of tasks</p> | '30 |
| 13:00-14:00 | Lunch | '60 |
| 14:00-14:15 | <p>Planning the multiplier events starting pilots - related to O4 (E1-Hungary - ITS, E2-Macedonia - AGFT)</p> <p>The first step is to create an Invitation Letter, and registration form. There is a template for this on Google Drive.</p> <p>Step two is to create a Programme, including the logo of the project. Again there are earlier examples.</p> <p>An attendance sheet is essential, and this should include a column for email addresses and signatures. If an attendee does not want to offer an email address, and it is necessary to state that email addresses will only be used for the purposes of this project. Attendees should be external – <u>not</u> related to the project partners.</p> <p>An Evaluation form – which can be filled in anonymously – should be distributed. A template will be on the platform. The ME Report for the first event should set the structure and scope for subsequent reports, including some statistics, presentations, etc. This is needed – in EN only – to close the ME. As a final action, create a Gallery!</p> <p>All documents, including presentations, to be uploaded to the relevant Project Management Events folder.</p> | '15 |

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| | <p>For partners, an AgriTeach Moodle learning guide – available on the project platform in O4 Results - will be necessary in order for the platform to be used effectively. There is a Moodle platform guide there at present, though this is not strictly a learning guide. Some short videos can also be created to assist with this.</p> <p>The second MK ME is now being planned for November 29th in Gödöllő. The MK ME can be pushed to December 21st in Skopje.</p> | |
| O5 – Agritech 4.0 Further Training Program for VET teachers – GJMSZI | | 30. Apr. 2019 |
| 14:15-15:15 | <p>O5-A1 – GJMSZI Planning piloting the course in Hungary O5-A2 – FACE Planning piloting the course in Macedonia O5-A3 ITS, FACE Analysing the feedback of the testing phase O5-A4 – CAPDM Improvement of the course according to the feedback</p> <p>To pilot O3 and O4 need to be finalised. O4 will be finalised in Month 12, when the MEs in HU and MK take place. Christmas is in January in MK! February is more useful for pilot starts in MK, and this gives sufficient time to catch up with the feedback period in April. This gives two months for the pilot.</p> <p>All statistics on both the HU and MK pilot go back to FACE for review and feedback. CAPDM will act on review of the EN version – the working language.</p> <p>The outputs of the IOs, particularly IO 5, will be used to produce a final book for IO 6. This book can contain feedback and reviews from the teachers themselves, for example from the experience of assessment results. A decision has to be reached on the nature of the assignments and assessment for this project. What kind of assignment would suit Module 3 in particular, or should there be a single, combined assignment across all modules?</p> <p>MEs for O5 should be moved from the original plan, since they relate to closing the pilots. They should take place late or post-April 2019, e.g. ME 4 to be arranged for w/b 6th May in Skopje. FACE to organise.</p> | ‘60 |
| 15:15-15:30 | Coffee break | ‘15 |
| 15:30-16:00 | <p>1. Planning the events related to O5, training for teachers Hungary (GAK) and Macedonia (FACE) - closing pilot Questions about recognition of training - accreditation, open badges?</p> | ‘30 |
| 16:00-16:30 | Closing the 1 st day of the meeting, distribution of tasks, fixing deadlines | ‘30 |
| 16:30 - 18:30 | Free time - optional (Guided tour through the Macedonian Village and visit to the Monastery St.Panteleimon https://en.wikipedia.org/wiki/Church_of_St._Panteleimon_(Gorno_Nerezi)) | ‘120 |
| 20:00 | Walk tour and Dinner in the Skopje City Centre | |

Meeting Agenda - 2nd day 15th October 2018

The aim of the second day:

1. Planning O6 - Planning for valorisation and sustainability
2. Dissemination activities, publications
3. QM activities, financial issues

| Start time — End time | Agenda item description | minutes |
|--------------------------|---|---------------------------|
| | O6 – Planning for valorisation and sustainability – GAK | 31 August 2019 |
| 09:00-09:15 | <p>O6-A1 – CAPDM Authoring, review and publish AgriTeach 4.0 digital textbook (EN/HU/MK)</p> <p>Indicators for the book: 150 pages approx. CAPDM to check the EN prior to translation.</p> <p>The final book may differ slightly from the Moodle version, given that there are some online instructions written into the course version. While there is no a priori need for a CZ version, it was agreed to have such a version. The Moodle form is that of a ‘Book’ Module.</p> <p>The experiences of the Outcomes, including the MK pilot, should be included in the final book. CAPDM to provide a structure for the final text. There will be three parts to the book:</p> <ol style="list-style-type: none"> 1. Learning content 2. The experiences of the pilots – plural (all partners) 3. Marketing/sustainability – a page about the project, and pages for the IOs and sustainability beyond the lifetime of the project. <p>The content should be original, except where quoted (though this should be kept to a minimum). Copy & Paste is not permissible. Images and graphics should be of a high enough quality for publication – many web images are low. Links to URLs should be checked to ensure they are still valid.</p> <p>CAPDM will proof the content for Module 3 in the EN Word version, to ease the creation of the book. The Moodle version will be created from this Word file. Any localisation (in HU and MK) should be included in the original text so that there is but one version – with localised detail – in all languages. This is obviously more likely to be isolated to Module 3. GJMSZI are already working on Module 3 specifics for HU, which will obviously be mostly relevant for their students.</p> <p>Structure</p> <p>The first question to answer is: who will create the graphics for the cover of the book? The book needs a smart cover. ITS will offer to provide a candidate.</p> <p>Page 1 should include the names of all the authors. There should also be an ISBN number, disclaimer text, an acknowledgement of the input from Erasmus+ and the EU. WINFO to write an introduction?</p> | |

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| | <p>Property Rights</p> <p>Publishing will be done under Creative Commons Rights allowing adaptation of the work to be shared. This is a requirement of Erasmus+. Do we want to reserve any rights, e.g. no commercial rights? We will use:</p> <p style="text-align: center;">Creative Commons: Non-commercial, No Derivatives</p> <p>The code to embed to stamp all images, videos, etc. will be uploaded to the portal.</p> <p>Each partner can decide on the use of the course and its delivery mode, according to the agreed licence. <u>Action</u>: CAPDM to prepare an agreement for the partner on the property rights that apply to the course. Electronic content will be made available to all partners, to be used, if required, on any other platform.</p> <p>Sustainability ideas to be formulated in light of the experience of the pilots. A summary will be drafted for the final report.</p> | |
| 09:15-09:30 | O6-A2 - AGFT Agreement: Intellectual Property Rights | '15 |
| 09:30-09:45 | O6-A3 - GAK Planning sustainability and valorisation | '15 |
| 09:45-10:00 | Planning multiplier events related to O6 Hungary – GJMSZI, Macedonia – FACE | '15 |
| 10:00-10:30 | <ul style="list-style-type: none"> • Reviewing dissemination events so far • planning the events of the next year • using dissemination form • measuring impact <p>(Day 1) Looking at the dissemination results on the portal there are fewer entries than required. <u>Action</u>: all to add to this total, and GJMGSZI asked to prepare a summary. There has to be an impact report prepared for the end of the project, and dissemination – particularly to teachers – is an essential component of this. However, it should be more wide ranging, e.g. how it impacted the partners such as in areas of personnel development. This should be derivable from the dissemination activities.</p> <p>There is a SlideShare option, which makes uploads easy to share around social media, such as FaceBook. A useful tool, though partners need to have an account.</p> | '30 |
| 10:30-10:50 | Coffee break | '20 |
| 10:50-11:10 | <p>Financial issues</p> <ul style="list-style-type: none"> • review of financial reports, possible shortages • requests for the next period <p>Timesheets were requested, to be uploaded to Project Management Progress Report. All partners to upload their contributions from 1st September 2017 to 31st December 2018 – by the deadline of 28th February 2019.</p> | '20 |

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| | <p>A second financial reporting period covering 1st January 2019 to 31st May 2019 will be required for 15th July 2019.</p> <p>The final reporting will be required for the 15th September 2019 including all remaining documents. The project will be <u>closed</u> on the 31st August 2019 so there should be no further financial activity after that. The final report must be submitted within 60 days of the close of project.</p> <p>Partners should keep all travel invoices for flights and for hotels. There is actually a flat rate for travel, but these two invoice types should be kept. The NHA needs evidence of the legal arrangement between the individuals and the partner organisations, e.g. <u>permanent</u> employment contract. Contracts may be in national languages. They should be signed/stamped by the legal representative of the organisation to authenticate. Signed versions to be sent to GJMGSZI; electronic copied uploaded to the portal.</p> <p>Travel by car? Partners need to create and sign a declaration.</p> <p>For final documents, partners should fill in details in the Data Dictionary spreadsheet specifying the files attached. This assists the ITS financial officer handling the details.</p> <p><u>Intellectual Outputs</u></p> <p>Need signed Timesheets, and employment contracts – along with proof of payment (this could take many potential forms, e.g. internal time sheet). Salary details on contracts can be redacted (painted out). The contributions to the project of each named employee should be explained. Note: contributor categories <u>exclude</u> manager and administrator.</p> <p><u>Multiplier Events</u></p> <p>The NHA need at least <u>one</u> invoice as evidence of hire of facilities, lunches, or whatever.</p> <p><u>Exceptional Costs</u></p> <p>When in excess of Euros 1,000, need contracts and evidence of payment (e.g. bank transfer or bank transfer). For lesser sums then an invoice is required. Funding is at 75% level.</p> <p><u>Notifying</u></p> <p>Notify the financial administrator at GJMGSZI that documents have been uploaded. galambj.iskola@gmail.com</p> <p>See portal – Project Management Financial Guide</p> | |
| 11:10-11:30 | <p>Quality management, evaluation. Online evaluation of the 3rd meeting.</p> <p>A form for the evaluation of Meeting 3 will be posted soon.</p> <p>These will be summarised by the host (FACE), via a template, to give a short report.</p> | '20 |

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| 11:30-12:00 | Questions and answers, agreements, deadlines | '30 |
| 12:00-13:00 | <p>Discussion of ideas and proposals for next year Planning the next meeting (M4 meeting in Hungary – July or August 2019 – GJMSZI)</p> <p>The final meeting will be held in Mako, HU. Proposed dates are Thursday 13th and Friday 14th of June 2019. The final two MEs will also be held at the same time, on Day 2.</p> <p>FACE will be asked to give a presentation about experiences in MK. WINFO will be asked to give a presentation about the directions in Precision Agriculture. Presentations of about 25 minutes.</p> <p>Teachers in HU taking part in the programme will be accredited – awarded 30 credits (for teachers, 1 credit = 1 hour) within the HU system. There are barriers to being able to align and accredit teachers in MK, though they can get a certificate from the consortium. There is the possible option of EQAVET accreditation? EuroPass is probably too costly.</p> <p>GJMSZI will look to also accredit <u>students</u> for this course. Though there are 'politica' barriers!</p> | '60 |
| 13:00-14:00 | Lunch | '60 |
| 14:00-15:00 | Closing the meeting | '30 |
| afternoon | Visit to Canyon Matka https://en.wikipedia.org/wiki/Matka_Canyon and Skopje City Centre (Old Bazaar) https://en.wikipedia.org/wiki/Old_Bazaar,_Skopje | |

ANNEXES

Annex 1 – Intellectual Outputs

| Outcome | Medium/Language/Size | Leader | Deadline |
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| O1 – e-Competence Map of Agricultural workers for Agriculture 4.0 | | P7-WINFO | 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) - READY 4 standard document template for QM (report, study, agenda) | | 31 Oct 2017 |

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| | <ul style="list-style-type: none"> 1 Drupal based multilingual collaboration platform (CMS) Further components: forum, diary, evaluation and dissemination database, entry forms | | |
| 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 - READY 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-A3 - CAPDM e-Competence Map of middle level agricultural professionals for Agriculture 4.0 | Research report (30 pages) in 3 languages (HU, EN, MK) – English version is READY The final version should be translated into Hungarian and Macedonian! | 31 Dec 2017 | |
| Collaborating partners: all partners intensively take part Core partners: P2-ITS, P6-CAPDM, P7-WINFO | | | |
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| O2 -Training needs of Teachers for preparing students for Agriculture 4.0 | | P3-FACE | 31 March 2018 |
| O2-A1 – ITS Designing, elaborating, translating questionnaire | Questionnaire (EN, HU, MK) – 3 x 10-12 p. | 31 Jan 2018 | |
| O2-A2 - GAK Carry out survey (online) in Hungary and Macedonia by involving VET teachers | Target group: teachers and advisors Macedonia: 40 samples Hungary: 80 -100 samples | 28 Febr 2018 | |
| O1-A3 - FACE Analysis and Conclusions | Results of the national surveys (EN): 2x20 p. with charts. Macedonian version - READY Hungarian version - READY Summary of the results (EN): 10 p. | 31 March 2018 | |
| Collaborating partners: all partners take part Core partners: P3-FACE, P2-ITS, P5-GAK | | | |
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| O3 – Syllabus and learning content for AgriTeach 4.0 | | P4-AGFT | 30 July 2018 |
| O3-A1 - CAPDM Development of the AgriTeach 4.0 module syllabi | The development of the syllabi for each of the three proposed modules | 30 April 2018 | |
| O3-A2 – ITS Module 1: Reinventing agricultural education Collaborators: CAPDM, GJMGSZI, GAK | The project will produce the modules in at least three member state languages, so the following partners will be responsible for one of the languages: <ul style="list-style-type: none"> EN: /ITS/CAPDM HU: GJMSZI/ITS/GAK MK: FACE/AGFT | 30 July 2018 | |

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| | <p>Indicative content per module:</p> <ul style="list-style-type: none"> ● Digital text: 10-12 topics, 3-5 p./topics ● 1 motivating video (max 3 min.) ● Video lectures (max 10 min.) ● Language versions with subtitles or voice overs ● Question databank (20-30 questions) <p>Planned topics:</p> <p>1.1 Teaching in the 21st century (tools and methods of technology enhanced learning)</p> <p>1.2 Open Education (life-long-learning in the knowledge sharing, globally connected world), utilizing Open Educational Resources (OERs) of EU.</p> <p>1.3 Project based teaching and flipped classroom model, videos in the classroom.</p> <p>1.4 CLIL method</p> | |
| <p>O3-A3 Module 2 – GAK European Strategies and initiatives of e-Agriculture Collaborators: AGFT, FACE, WINFO</p> | <p>Indicative content per module:</p> <ul style="list-style-type: none"> ● Digital text: 3-4 topics, 3-5 pages/topics ● 1 motivating video (max 3 min.) ● Video lectures (max 10 min.) ● (Language versions with subtitles or voice) ● Question databank 20-30 questions <p>Planned topics:</p> <p>2.1 Roles and tasks of Directorate for Agriculture and Rural Development</p> <p>2.2 post-2020 EU Common Agriculture Policy</p> <p>2.3 European Innovation Partnership for Agricultural Productivity and Sustainability</p> <p>2.4 AKIS, Agriculture Knowledge and Information Systems</p> <p>2.5 The European Commission’s Digital Single Market strategy</p> <p>2.6 EU 2020 strategy for smart, sustainable and inclusive growth</p> | <p>30 July 2018</p> |
| <p>O3-A4 Module 3 – AGFT Collaborators: GAK, FACE, WINFO Digital systems of Agriculture 4.0</p> | <p>Indicative content per module:</p> <ul style="list-style-type: none"> ● 15-20 topics, 3-5 p./topics ● 1 motivating video (max 3 min.) ● Video lectures (max 10 min.) ● (Language versions with subtitles or voice) ● Quiz: question database 30-40 questions <p>Planned Topics:</p> <p>3.1 Connected Agriculture: learning analytics, big data management, IoT.</p> <p>3.2 Precision farming, integrated ICT and automation</p> <p>3.3 Services & applications for Smart Agriculture,</p> <p>3.4 Smart farm management, inventory and traceability systems,</p> | <p>30 July 2018</p> |

| | | |
|---|--|---------------------------|
| | <p>3.5. GIS applications, Risk management, forecasts, decision support</p> <p>3.6 e-Government services, knowledge sharing networks</p> <p>3.7 Closing the “digital divide” between rural and urban areas</p> | |
| <p>Collaborating partners: all partners take part</p> <p>Core partners: P2-ITS, P3-FACE, P5-GAK, P6-CAPDM, P7-WINFO</p> | | |
| <p>Notes:</p> | | |
| <p>O4 – Agritech 4.0 Learning Management System</p> | | <p>P2-ITS</p> |
| | | <p>31 Oct 2018</p> |
| <p>O4-A1 - ITS Graphical Design and implementation e-Learning platform</p> | <p>Moodle platform (HU, EN, MK)</p> | <p>31 Oct 2018</p> |
| <p>O4-A2 – ITS, GAK Implementation of course, language versions, testing (ALFA test)</p> | <p>Number of courses: 3 (EN/HU/MK) Number of modules: 9 (3/course) Number of topics: 28-36 Guides, navigation tools: learners’ guide, tutoring guide, video tutorial, authoring guide (3) Information components: course and module descriptions (learning objectives, learning outcomes) (3x3) Learning content components: Moodle book, SCORM package, videos, presentations, glossary Assessment components: self-assessment questionnaires, quizzes, assignments, feedbacks Communication and collaboration tools: forum, messages, inside e-mail, webinar Authoring tools: Blogs, e-portfolio. Alpha testing will be carried out over one week to eliminate any errors and operational issues, before piloting.</p> | <p>31 Aug 2018</p> |
| <p>O4-A3 - All partners Selecting and integration Open Educational Resources</p> | <p>openly available OER resources freely available learning objects in different digital forms in English and in national languages.</p> | <p>31 Oct 2018</p> |
| <p>O4-A4 - ITS, GAK, GJMSZI, AGFT, FACE Developing training and tutoring guide</p> | <p>ITS will develop learning guides (text-based and videos) in English, while the other partners will distribute the tasks of translation among each other as appropriate.</p> | <p>31 Oct 2018</p> |
| <p>O4-A5 ITS, FACE Training for tutors (BETA test)</p> | <p>online training will be led by tutors. In this activity the project will involve 2 persons from Macedonia and 3 from Hungary in online tutor training</p> | <p>31 Oct 2018</p> |
| <p>Collaborating all partners take part in the pilots</p> <p>Core partners: P2-ITS, P3-FACE, P4-AGFT, P5-GAK</p> | | |
| <p>Notes:</p> | | |

| Events related to O4 | Responsible partner | Date | Local part. no. |
|---|--|------------------|----------------------|
| E1: Multiplier events: training for teachers, Hungary – starting pilot | P2-ITS | 15-09-2018 | 30 |
| E2: Multiplier events: training for teacher, Macedonia - starting pilot | P4-AGFT | 15-11-2018 | 15 |
| O5 – Agritech 4.0 Further Training Program for VET teachers | | P1-GJMSZI | 30 April 2019 |
| O5-A1 - GJMSZI Piloting the course in Hungary | HU: ITS/GJMSZI, GAK: 30 participants | | 30 April 2019 |
| O5-A2 - FACE Piloting the course in Macedonia | MK: FACE/AGFT, 15 participants | | 31 Jan 2019 |
| O5-A3 ITS, FACE Analysing the feedback of the testing phase | | | 31 March 2019 |
| O5-A4 - CAPDM Improvement of the course according to the feedback | | | 30 April 2019 |
| Collaborating partners: all partners intensively take part Core partners: P1-GJMSZI, P3-FACE, P6-CAPDM | | | |
| Events related to O5 | Responsible partner | Date | Local part. no. |
| E3: Multiplier events: training for teachers Hungary - closing pilot | P5-GAK | 15-01-2019 | 30 |
| E4: Multiplier events: training for teachers, Macedonia: closing pilot | P3-FACE | 15-03-2019 | 15 |
| O6 – Planning for valorisation and sustainability | | P5-GAK | 31 Aug 2019 |
| O6-A1 – CAPDM Authoring, review and publish AgriTeach 4.0 digital textbook (EN/HU/MK) | Indicators: 150 A4 p. EN/HU/MK The digital book is different from that in the e-learning environment. It will be a professional typeset publication, though without the interaction that is possible in the online version. | | 30 July 2019 |
| O6-A2 - AGFT Agreement: Intellectual Property Rights | | | 30 July 2019 |
| O6-A3 - GAK Planning sustainability and valorisation | | | 31 Aug 2019 |
| Collaborating partners: all partners intensively take part Core partners: P4-AGFT, P5-GAK, P6-CAPDM | | | |
| Events related to O6 | Responsible partner | Date | Local part. no. |
| E5: Multiplier events: dissemination Macedonia | P3-FACE | 15-08-2019 | 20 |

| | | | |
|--|-----------|------------|----|
| E6: Multiplier events: dissemination Hungary | P1-GJMSZI | 15-08-2019 | 30 |
|--|-----------|------------|----|

Annex 2 – Partners

| Number | Full Legal Name | Acronym | Country | | Contact | E-mail |
|--------|---|---------|----------------|----|---|--|
| P1 | Galamb József Mezőgazdasági Szakképző Iskola | GJMSZI | Hungary | HU | Horváth Zoltán Aranka Köblös | galambj.iskola@gmail.com arankakoblos@yahoo.com |
| P2 | iTStudy Hungary Számítástechnikai Oktató- és Kutatóközpont Kft. | ITS | Hungary | HU | Hartyányi Mária Anita Téringér Judit Mezei | maria.hartyanyi@itstudy.hu anita.teringer@itstudy.hu judit@itstudy.hu |
| P3 | Foundation Agro-Centre for Education | FACE | Macedonia | MK | Ljupcho Toshev Martin Micevski Natasha Ognenoska | lj.tosev@ace.org.mk ; m.micevski@ace.org.mk ; n.ognenoska@ace.org.mk |
| P4 | AG Futura Technologies | AGFT | Macedonia | MK | Blagoja Mukanov, Aleksandar Cherepnalkoski, Nikola Trendov, Marija Andonova | blagoja.mukanov@agfutura.com a.cherepnalkoski@agfutura.com trendov.nikola@gmail.com marija.andonova@agfutura.com |
| P5 | GAK Oktató, Kutató és Innovációs Nonprofit Közhasznú Kft. | GAK | Hungary | HU | Dr Papócsi László Anikó Üröginé Ács | lpapocsi@gak.hu acs.aniko@gak.hu |
| P6 | CAPDM Limited | CAPDM | United Kingdom | UK | Ken Currie Martin Smith | kwc@capdm.com mss@capdm.com |
| P7 | WirelessInfo | WINFO | Czech Republic | CZ | Pavel Simek Karel Charvat Zbynek Krivanek Sarka Horakova | simek@csita.cz charvat@ccss.cz krivanek@wirelessinfo.cz horakova@wirelessinfo.cz |

Annex 3 – Meetings

- M1 Kick-off meeting in Hungary – 11-12 Sept. 2017 - ITS
- M2 2nd meeting in Czech Republic – 14-15 May, 2018 - WINFO
- M3 3rd meeting in Macedonia – 14-15 Oct., 2018 - FACE
- M4 Project closing meeting in Hungary – Aug. 2019 - GJMSZI

Annex 4 - Meeting venue, accommodation

Meeting venue:
 Makedonsko selo Resort, Gorno Nerezi Village,
 Skopje 1000, Republic of Macedonia

Annex 5 – Gantt chart

| 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 Improvement 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) |

