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Agricultural Alliance for Competence and Skills based Training (ACT)

Final Report

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Executive Summary

In the coming years, agriculture will undergo profound structural changes that no farmer will be able to avoid. Growing concentration is leading to fewer and larger enterprises, to increasing specialization and a focus on branches of industry. New ownership structures are emerging, and more and different investors are appearing.

At present, agriculture in Europe is confronted with the following issues and questions:

- Sustainability of agricultural enterprises and production vs. intensive agriculture
- World agricultural trade
- Technological developments
- Agriculture as energy producer
- Climate change
- Demographic and structural change
- Organic farming

The results of national reports and focus groups in four countries – Italy, Greece, the Netherlands, and Germany – show that, overall, processes are becoming more complex and demands for farmers' knowledge and skills are growing – he/she is increasingly becoming a manager. Although no new occupations or job profiles have emerged, a change in the work and its demands requires new and extended competencies in agriculture.

The discussion among needs-analysis focus groups confirms a transnational need for qualifications, particularly in management and in agricultural innovation, and necessary competencies for these have been identified.

As agricultural VET providers, labour market, and VET policy makers often use different terminologies and concepts in order to approach training, the ACT project focused on the development of **Pathways for Agricultural Competence and skills based Training (PACT)** – a competence framework for agriculture - to reduce the mismatch between new jobs and existing skills in the agricultural sector and to improve the agricultural curriculum design and delivery by innovative VET services and broad dissemination throughout whole Europe.

PACT contributes to making definitions of competences reusable and accessible across learning and recruitment systems, thus facilitating the development of additional services related to the generation of personal profiles, achieved learning outcomes and competences, etc. In essence, the outcomes of this effort will facilitate the bond for the actual building of effective pathways between learning and employment through the PACT Framework based on EQF and ECVET for the better integration of competence and skills modelling and with clear relevance for the current agricultural labour market as well as technology based solutions and services.

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1. Project Objectives

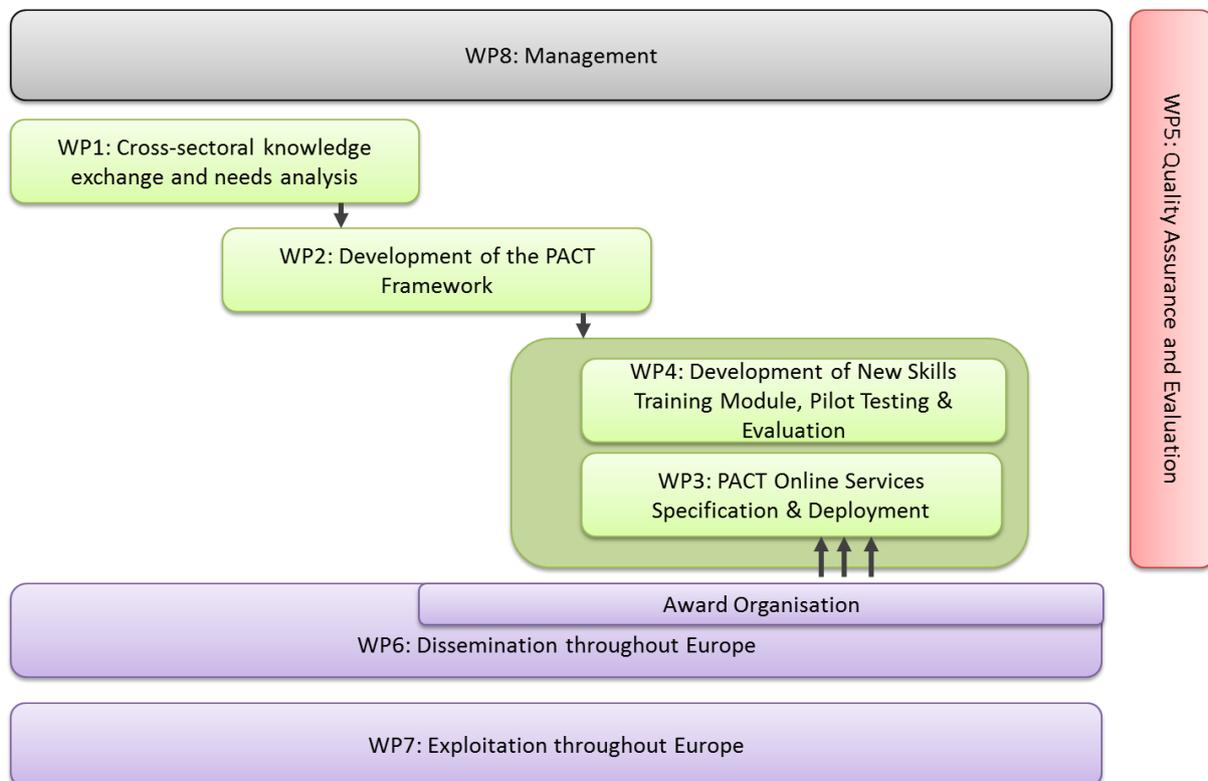
The “Agricultural Alliance for Competence and Skills based Training” project (ACT) aimed to facilitate and accelerate a better match between the needs of the agricultural labour market and vocational/educational training opportunities.

ACT moved towards this aim by engaging core actors from the complementary fields (VET, labour market and policy) in a constant and constitutive dialogue with the following more specific objectives:

- First, to create a shared awareness of emerging job profiles and existing gaps of skills and competences in the current work force
- Second, to create and improve a framework “Pathways for Agricultural Competence and skills based Training” (PACT) based on EQF and ECVET which allows to share definitions among the different actors involved, i.e. agricultural VET providers, representatives of the labour market, and VET policy makers, and serves as a tool to modularise future training and make it more adaptable to the needs of the agricultural labour market
- Third, to build a European PACT online service which serves as a common entry point for:
 - VET providers to describe their training solutions targeted towards skills gaps (as previously determined) and get inspired to adapt and reuse by browsing solutions of their “peer institutions”
 - Agricultural businesses and membership organisations to become aware of existing training opportunities (information pool) but also indicate further emerging training needs (communication and dialogue tool)
- Fourth, to better recognize existing training opportunities which already address existing skills gaps in the agricultural sector, and make them more visible on a European level as well as to show-case and encourage VET providers who have already modularised their agricultural trainings to integrate elements new training units
- Fifth, to organize four trainings on PACT according to a well-designed up-to-date curriculum which will bring together different multipliers from complementary fields (following the concept of an alliance) and make PACT sustainable through an online training module with successful elements and materials of the face-to-face interventions
- Six, to facilitate the transfer of the PACT Framework including its underlying concepts (e.g., learning outcomes approach, modularisation into units, etc.) to more sectors by providing concise tools such as a multilingual handbook.

2. Project Approach

The ACT project was structured into 8 work packages:



The core activities (*WP1-4*) comprised the following phases:

1 Cross-sectoral knowledge exchange and needs analysis

Following a desk-research on policy-documents/white papers/public statements on existing skills gaps in the agricultural sector in the four partner countries, the consortium members organized four national focus groups which triangulated knowledge between VET policy-makers, representatives of the labour market, and VET institutions.

Milestone in M6: Report on National Focus Groups which refines/revises the desk-top needs analysis

2 Development of a shared framework

UDE drafted a reference framework "Pathways for Agricultural Competence and skills based Training (PACT)" for the agricultural sector as a common model for expressing information on job profiles, qualifications *and* training opportunities, and for future definition and design based on competences and skills in alignment with ECVET and EQF. This framework was translated, localised in terms of national key actors and competent institutions. An online consultation engaged the ACT target group in constructive feedback.

Milestone in M8: PACT Framework (Version for online Consultations)

3 Development of an Online Services for PACT in agriculture

After technically specifying connections and combinations between training opportunities, competence definitions, job profiles, diplomas and certificates (based on the PACT framework), a searchable portal was created in order to serve VET providers and business' needs.

Milestone in M15: Prototype of PACT Online Portal and Services and Short Manual

4 Organising trainings for potential multipliers

A corner stone of the project was to introduce the Pathways for Agricultural Competence and skills based Training (PACT) Framework to Trainers, VET providers, VET policy makers, Labour market representatives, associations in agriculture, advisers, and consultants. This was put into practice following a well-designed flexible curriculum with much space for interaction, also taking the diverse backgrounds of participants into account.

Milestone in M10: Prototype of ACT Curriculum for PACT

Further activities were bundled under the remaining work packages such as *WP6 (Dissemination throughout Europe)* and *WP7 (Exploitation throughout Europe)*:

5 Launching an award for VET providers in agriculture

Milestone in M19: Results of ACT Awards

Milestone in M24: Award ceremony and presentation of PACT at the world's biggest agricultural fair, Agritechnica, in Hannover

6 Creating transferable results

A handbook on PACT, an online training module, and a white paper were composed; the latter with concrete results based on evaluation/validation results and lessons learnt throughout the project.

3. Project Outcomes & Results

The project produced the following outputs, most of them in form of formal deliverables. These outputs belong to different stages of the project.

The basis for the project was laid in work package 1 with three deliverables:

- D1.1 Cross-Sectoral knowledge exchange and need analysis
 - This report presents the results of the desk research about the agricultural sector in the four countries represented in the consortium (DE, EL, IT, NL), highlighting differences and commonalities in emerging jobs and articulated skills needs between partner countries. The report also lists some key players who have publically raised concerns or issued positions and white papers.
- D1.2 Focus group methodology
 - This document outlines the methodology for the focus groups (FG) that have taken place in four countries (DE, EL, IT, NL). It describes how participants were engaged in the discussion on emerging jobs and existing skills gaps in order to verify, disprove, or refine results from the desk-research by providing key questions which were then discussed across the four partner countries (for comparability) without restricting to adapt to the national context.
- D1.3 Report on national focus groups
 - This document reports on the workshops organized within the framework of the ACT project in the countries Germany, Greece, Italy and the Netherlands. After the stages that were followed, describing in detail the workflow of each stage, the results and conclusions are described.

The results of WP1 served as input for the development of

- D2.1 Analysis on agricultural competence models and job profile descriptions
 - This report presents the analysis of existing competence models in the agricultural sector mainly amongst policies, white papers, and research reports as well as related LLP projects and approaches to describe job profiles. That includes the clear definition of roles for bodies of VET and the world of employment in the agricultural sector and the identification of the key actors.
- D2.2 Development of a common PACT framework
 - It presents the reference framework "Pathways for Agricultural Competence and skills based Training (PACT)" for the agricultural sector as a common model for expressing information on job profiles, qualifications and training opportunities, and for their future definition and design based on competences and skills in alignment with ECVET.
- D2.3 Translations and localisation of the PACT framework
 - The PACT Framework is translated in additional four languages (DE, EL, IT, NL) and adds as a second layer to the framework the localisation for different competent institutions and bodies in the partner countries.
- D2.4 Report on national online consultations

- The report outlines the results from the online consultations in the partner countries languages (EL, IT, DE, NL) as well as in English to collect feedback from the different fields (VET providers, policy-makers, labour market) on the usefulness, applicability, and correctness of the PACT framework.

The technical infrastructure for the application of PACT in practice is described in

- D3.1 Specifications for describing PACT
 - This document specifies how various objects of the PACT framework (see D2.2) such as training and certificate opportunities, training and certificate providers, competence definitions, job profiles and user profiles are connected and combined in a searchable portal in order to serve VET providers and business' needs.
- D3.2 Design and mock-up of PACT online portal and services
 - This document describes the entities within the mock-up of the PACT online portal and services such as training and certificate opportunities, training and certificate providers, job profiles and user profiles. It also describes the permissions and roles of the portal and presents personas and scenarios involved in its functionalities.
- D3.3 Prototype of PACT online portal and services and short manual
 - The portal offers the functionalities as described in the D3.2 for the mock-up, adapted, however, according to the feedback from potential end users that has been received; it is filled with content from different sources. It also hosts a manual for users, guiding the different user groups towards making the best of the PACT platform.
- D3.4 Final PACT online portal and services and final manual
 - This is the final version of the PACT portal incorporating all updates and improvements with respects to D3.3. It can be found at <http://dev.actnow.agroknow.com/>

Spreading the PACT framework and transmitting the right use of it was the topic of

- D4.1 & D4.2 Methodology & prototype for the ACT training module for PACT
 - This document outlines the purpose, methodology, and program of the Training of Trainers course for the ACT project, presenting the complete course material (handouts, presentations) in the annex.
- D4.3 Compendium of pilot testing reports
 - This deliverable collects reports on the PACT training events implemented by the project partners. Particularly the validation results influenced the
- D4.4 Final ACT curriculum for PACT
 - which constitutes the improved and finalized version of the PACT Training module.

In addition, the project produced several outputs that can be found in almost any project, but, of course, in a customised version, tailored to the needs of the ACT project:

- D5.1 Quality plan
 - This document describes the methodology and tools of the Quality Management System used in the ACT project, including a continuous improvement cycle. The process-oriented instrument is based on the unique ISO quality standard for learning, education, and training (ISO/IEC 19796-1).
- D5.2 Interim quality report, and
- D5.3 Final quality report.
- D6.1 Dissemination Plan
 - The dissemination plan defines operational details for the different dissemination activities to be performed by the Consortium in order to promote the ACT project and its outcomes all around the European Union. Furthermore, it defines the dissemination for reaching all relevant audiences, namely: 1) VET providers, 2) the agricultural labour market, and 3) VET policy makers.
- D6.4 & D7.1 Interim Dissemination Report & Affiliation plan, forming part of the
- D6.5 Final dissemination report
 - This document reports about all dissemination activities during the project in comparison to the dissemination plan (D6.1). Within the report, also overlapping activities between dissemination and exploitation (similar or combined) are listed. Therefore, the affiliation plan (D7.1) is part of this report as well as materials which belong to those tasks.
- D8.1 Project management handbook
 - The Project Management Handbook includes all formal rules, procedures, and obligations for the project cooperation, activities, and the internal and external communication and reporting to ensure close and efficient collaboration and best results. It includes defined methods and templates for the reporting concerning activities, deliverables, and financial issues by all partners and the Consortium Agreement established before the project start amongst all partners as the consortium's basis.

In the second year of the project, special emphasis was laid on dissemination and exploitation activities; therefore, several outputs targeted these issues, divided into two actions:

1.) ACT award

- D6.3 Design of ACT award
 - The scope of this document is to provide useful and practical information to prepare the launching of the ACT Award to be promoted across Europe. The document provides some useful hints for the organization and implementation of this Award throughout Europe.
- D6.6 Results of ACT awards
 - Unfortunately, despite of several calls for participation, the number of candidates for the award was too low to choose a winner for the ACT awards. After a last call for participation at the event at the Agritechnica, the

award was postponed and will be relaunched in the future if there is demand for such an award.

- D6.7 European Conference
 - On 12 November 2015, a European conference was organised together with the ECVET-STEP project in the Dutch Embassy in Brussels where the ACT outcomes were presented and discussed within a wide range of stakeholders from different sectors.

2.) Exploitation of ACT and PACT

- D7.2 Online training module
 - The online training module on the PACT Framework and database follows the validated PACT curriculum in form of a web learning resource. It is structured in short lessons equipped with material that has been found useful during the face-to-face trainings and contains links to relevant websites.
- D7.3 Handbook on PACT
 - The multilingual handbook (German, Greek, Italian, and Dutch) on PACT facilitates the transfer of the PACT framework to other sectors. The publication presents the core concepts of PACT in the agricultural sector, providing step-by-step guidelines for
 - organisations to determine and describe training needs of their employees and job placements;
 - VET providers to describe their training solutions and plan new curricula;
 - National institutions responsible for harmonizing VET.
- D7.4 White paper: Sustainability and recommendations for transfer
 - This white paper contains proposals on how to overcome skills gaps in the agricultural sector based on results and lessons learnt throughout the project.

In addition, the project website at <http://www.act-now.eu> provides the interested audience with information on the project and related issues, as well as with all public deliverables.

4. Partnerships

Internal partnership

The project consortium is well balanced with 7 partners from 4 countries, composed of universities, international organisations, and associations in the fields of quality (UDE), agriculture (AIAB), learning technologies (AK, TEIA), training & VET (IFSAT, DLG, BIBB) and competence modelling (TEIA, UDE). It comprises extensive networks through AIAB, DLG, and IFSAT.

All partners have consolidated experience in EU project work and in extra EU-international collaboration and guaranteed capacity to implement their work plan.

The ACT consortium guarantees the following requirements:

1. The partnership is a multi-disciplinary team of leading actors in the field of agriculture, competence modelling, training and learning technologies
2. Leading expertise in the domains of quality and innovation through a sound methodology, since project partners are involved in several related projects/initiatives
3. Capacity to organise high level events and to involve key policy and research actors, stakeholders, and public at large
4. Expertise in the specific processes that are covered in the ACT project, e.g., desk research, organising surveys, and qualitative focus groups, running pilot experiences, identifying and exchanging good practices, as well as building consensus and sustainability around project activities, dissemination, valorisation, and exploitation
5. Representative coverage: the consortium represents different areas of the EU and different agricultural sectors

External partnerships & contacts

Throughout the project, ACT was able to connect formally and informally to a variety of experts, practitioners, and institutions from the agricultural sector and beyond.

- Formal agreements were signed with the ECVET-STEP project (www.ecvet-step.eu) and the GreeNet project (<http://greenet.ea.gr/>); close contact was established to the Green Learning Network project (<http://www.greenlearningnetwork.eu/>).
- For the national focus groups (WP1), a huge number of experts was invited and received a first impression of the recently started project.
- As the Dutch agricultural sector was rather uninterested in the focus group, IFSAT established an international “focus group” – a group of 15-20 international agricultural experts that gave advice and feedback to the project.
- For the online consultations (WP2), agricultural stakeholders were contacted and reported back on their impressions.
- In the frame of the national pilot tests, participants were informed and trained in the use of the PACT framework, thus trained to be multipliers for the PACT idea.
- The ACT award helped to contact further institutions and stakeholders; although not very successful, it served as a dissemination means for ACT.

- The final conference spread the word also to political levels, as the Dutch embassy and Mr Joao Santos as representative of DG Employment, Social Affairs and Inclusion were present.
- The ACT award ceremony at the Agritechnica in Hannover (the world's biggest agricultural fair) helped to introduce ACT and PACT to vocational training providers that had not been involved before.

5. Plans for the Future

Sustainability was one of the issues that the project has addressed several times during project meetings and seminars. With the findings and deliverables, grounds for further development have been built. Namely, the dissemination and exploitation activities and quite a few partners' experiences have shown many positive responses of stakeholders, but also the need for further progress and a more business oriented approach. Yet, the partnership consisted of mostly academic and non-profit oriented institutions which aimed for academic research instead of for business-driven processes.

In the short term, the project will show impact within the participating institutions and their close partners. All agricultural institutions in the partnership will further disseminate the ACT and PACT ideas within their sphere, pointing also to the ACT project website and the PACT portal. If there is a demand for it, the idea of the ACT award will be taken up again. Partners that continue in European projects will try to transfer the PACT idea to other professional areas.

Regarding the long term impact of the project, the high-quality consortium will play a crucial role. All project partners are active on the European scene being members or even leaders in several associations or networks. The partnership will use the existing professional networks to further disseminate and exploit ACT's findings and recommendations. The partnership will as well try to find or connect with a potential cross-programme for possible further project implementation – two years is a very short period for the full development, realisation, and implementation of complex innovations within an international environment.

6. Contribution to EU policies

The ACT project responds to the demand for qualified employees for the agricultural sector facing environmental (Climate change and biodiversity loss), economic and territorial challenges, as well as EU directive reforms (Common Agricultural Policy (CAP)).

It is therefore addressing the challenges encountered in the agricultural sector taking into account the promising results of recent researches and projects.

Furthermore, the ACT project addresses the main object of the ET 2020 Work Programme: "Making lifelong learning and mobility a reality". Within this framework the continuous development and management of knowledge, skills, and competences at the individual and organizational levels is clearly set as a priority and challenge for the EU and member states, education and training providers, companies, workers, and learners.

The variety of educational systems, teaching contexts, and assessment methods among the countries is a challenge for the elaboration of common trainings, but the learning outcomes approach and particularly the ECVET and EQS are flexible solutions for modular units that can be used in different places, transferred, and accumulated.

The "Pathways for Agricultural Competence and skills based Training" (PACT) concept and technical tools based on EQF and ECVET as the main results of the projects are exploitable and will be exploited in all European countries and if possible used for the transfer and adaptation to any preferred sector, branch, and region in Europe.

Due to the European and inter-disciplinary consortium, possessing the complementary competences and skills, ACT can ensure inter-sectoral, cross-border, and trans-national exchange of knowledge and experiences.

In particular ACT tackles the following European challenges and demands:

- Provision of a needs analysis involving policy-makers, VET providers, representatives of the labour market to identify and report on skills gaps and emerging job profiles in the four partner countries and whole Europe
- Development of the PACT Framework for bridging agricultural skills needs and VET opportunities in Europe
- Design of the training curriculum for the PACT framework for whole Europe
- Development of the ACT portal gathering VET opportunities on existing skills gaps from around Europe
- Creation of online training modules accessible throughout Europe
- Production of multilingual transferable outcomes like the PACT handbooks and the PACT framework
- Establishment of an European award for promoting best practice in agricultural VET by using the PACT Framework for addressing competence and skills needs through pathways to employment

7. Extra Heading/Section

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