

# HANDBOOK

**TO ACQUIRE KEY  
COMPETENCES FOR THE  
PROFESSIONAL  
QUALIFICATION ‘EcoJob-AP’  
ON EUROPEAN STANDARDS**

*Training on European standards for ecological  
agricultural production - EcoJob-AP*

*Pilot project № BG/06/B/F/PP-166012*



# **HANDBOOK**

**TO ACQUIRE KEY COMPETENCES FOR  
THE PROFESSIONAL QUALIFICATION  
'EcoJob-AP' ON EUROPEAN STANDARDS**



## **TABLE OF CONTENTS**

### PREFACE

- European Qualification Framework (EQF)
- Transnational Qualification Framework (TNQF) of EcoJob-AP

Part 1. Need analysis of knowledge and skills to acquire competences in professional qualification

Part 2. Professional competences of EcoFarmer and EcoExpert-AP

Part 3. Program of pilot on-line (Internet based) course to acquire professional competences in EcoJob:

- EcoFarmer
- EcoExpert-AP

### Conclusion

Learning outcomes – key competences for:

- EcoFarmer
- EcoExpert-AP

Documents necessary for recognition of professional qualification in EcoJob-AP (Portfolio)

## **Project Partners:**

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- **Higher School “Agricultural college” - Plovdiv /Bulgaria/ - Coordinator and Contractor**
- **Bulgarian Farmers Association /Bulgaria/**
- **Hobro-Aalborg Farmers Union /Denmark/**
- **University of Thessaly -Faculty of Agriculture/Crop and Animal Production /Greece/**
- **ComuNET Education Solution /Spain/**
- **University of Padova /Italy/**
- **Stichting International Foundation Sustainable Agriculture Training /the Netherlands/**
- **Slovak University of Agriculture - Nitra /Slovakia/**
- **UltimoConsulting /United Kingdom/**

<http://www.ecojob-ap.org>

**The main aim of this Handbook is to present the necessary competences for realization of the professional qualification EcoJob-Agricultural production (AP) – EcoJob-AP for EcoFarmer and EcoExpert-AP on European Standards.**

For this purpose, it was necessary to study the needs of knowledge and skills on eco-agricultural production of farmers, managers, specialists, etc. from the agrarian sector of the partners' countries working on the current project: Bulgaria (BG), Denmark (DK), Greece (GR), Italy (IT), the Netherlands (NL), Slovakia (SK), the United Kingdom (UK).

Comparing the national qualification frameworks, the partners consider that it is necessary the Handbook to include information about the European Qualification Framework (EQF). The partners approved and accepted to develop the necessary **competences at Level 3 for EcoFarmer and Level 5 for EcoExpert-AP.**

The Handbook consists of Transnational Qualification Framework (TQF) of EcoJob-AP and training modules, by means of which the final project objective is achieved:

*Acquiring professional competences of EcoJob-AP through training on European standards*

The on-line training course (Internet based) contributes in addition to realize transparency of the transfer of professional qualification of the presented EcoJob-AP. The whole text content of the modules is presented on the web-site: <http://www.ecojob-ap.org>

The Handbook for acquiring competences on the EcoJob-AP professional qualification (EcoFarmer and EcoExpert-AP) is therefore compiled based on:

1. **An analysis of the needs of knowledge, skills and responsibilities, determined through interviews with farmers, specialists, managers, etc. from the agrarian sector in the partners' countries in order to acquire professional competences;**
2. **The requirements of the Transnational Qualification Framework (TNQF) of EcoFarmer and EcoExpert-AP;**
3. **Determination of the key competences of EcoFarmer and EcoExpert-AP and Levels in Framework related to learning outcomes support lifelong learning (LLL) for EcoJob-AP;**
4. **Education Modules in accordance with the EU Standards for acquiring professional qualification EcoJob-AP.**
5. **Documents for professional qualification EcoJob-AP:**
  - Portfolio: "EcoFarmer"
  - "EcoExpert-AP"

## Introduction

In the Copenhagen process, the conclusions of the Council and the Representatives of the government of the Member states meeting, within the council of November 2004 **on future priorities of** enhanced European cooperation in vocational education and training, gave priority to the development of an open and flexible European Qualification Framework (EQF), founded on transparency **and mutual trust, which should stand as a common reference covering both education and training. Improved transparency of qualifications and competences will facilitate mobility throughout Europe for life-long learning purposes, therefore contributing to the development of quality education and training, and will facilitate mobility for occupational purposes, between countries as well as across sectors (Decision No 2241/2004/EC of the European Parliament and of the Council, 15 December 2004).**

**In a Recommendation of the European Parliament and the Council (COM (2006) 479, during 2006** it was proposed that the EQF should be established. This general approach was subsequently endorsed by the Council in November 2006, which gives it political backing. The EQF is currently under discussion by European Parliament Committees and it is hoped to have it adopted by the Council by the end of 2007. It will however be a recommendation rather than a requirement at this point in time. Implementation therefore remains voluntary, albeit with strong support from Member States who are already working towards its introduction. In this it differs markedly from Directive 2005/36/EC relating to regulated professions such as doctors, nurses, veterinarians, pharmacists etc., which provides a system of mandatory recognition in each Member State.

This action is one of the concrete outcomes of the “Education and Training 2010” work programme established in response to the Lisbon European Council in 2000 which concluded that **increased transparency of qualifications and lifelong learning should be two of the main components of efforts to adapt Europe’s education and training systems to the demands of the knowledge society and the need for an improved level and quality of employment.** The establishment of the EQF was specifically called for by the 2005 and 2006 Spring European Councils and has been produced after extensive consultation with Member States, social partners and stakeholders.

In this context **qualifications are defined** as “a formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.

**The core element of the European Qualifications Framework (EQF) is a set of eight reference levels (Table 1) describing what a learner knows, understands and is able to do - their 'learning outcomes' - regardless of the system where a particular qualification was acquired. The EQF reference levels therefore shift the focus away from the traditional approach, which emphasizes learning inputs (length of a learning experience, type of institution), to focus on industry needs and enhanced employability.**



**Table 1.**  
**European Qualifications Framework.**

**Descriptors defining levels in the European Qualifications Framework**

Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications.

<b>Level</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Competence</b>
	<i>In the EQK knowledge is described as theoretical or factual</i>	<i>In the EQF, skills are described as cognitive ( use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments)</i>	<i>In the EQF, competence is described in terms of responsibility and autonomy</i>
<b>Level 1</b> The learning outcomes relevant to Level 1 are	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
<b>Level 2</b> The learning outcomes relevant to Level 2 are	Basic factual knowledge of a field of work or study	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools.	Work or study under supervision with some autonomy
<b>Level 3</b> The learning outcomes relevant to Level 3 are	Knowledge of facts, principles, processes and general concepts, in a field of work or study.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study. Adapt own behaviour to circumstances in solving problems.
<b>Level 4</b> The learning outcomes relevant to Level 4 are	Factual and theoretical knowledge in broad contexts, within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change. Supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities.

<b>Level 5*</b> The learning outcomes relevant to Level 5 are	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge.	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.	Exercise management and supervision in contexts of work or study activities where there is unpredictable change. Review and develop performance of self and others
<b>Level 6**</b> The learning outcomes relevant to Level 6 are	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a field of work or study.	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts. Take responsibility for managing professional development of individuals or groups.
<b>Level 7***</b> The learning outcomes relevant to Level 7 are	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking. Critical awareness of knowledge issues in a field and at the interface between different fields.	Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields.	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches. Take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams.
<b>Level 8****</b> The learning outcomes relevant to Level 1 are	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice.	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the developmental new ideas at the forefront of work or study contexts including research.

Adopting and application of EQF was recommended by the European Parliament and Council (COM (2006) 479) and at present is

discussed in the European Commission and the European Parliament.

# QUALIFICATION FRAMEWORK

## QUALIFICATION

- A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards.

▪

## QUALIFICATION FRAMEWORK

### ▪ WHAT IS IT?

- Systematic framework through which all qualifications may be described and related to each other in a coherent way, which can be understood by students, academic institutions and stakeholders.

## QUALIFICATION FRAMEWORK

### - WHAT DO THEY ACHIEVE?

- Increases transparency\* of qualifications – the degree to which the value of a qualification can be identified and compared on the labour market, in education and in a wider social setting.

## QUALIFICATION FRAMEWORK - WHO DO THEY BENEFIT?

- **Individuals**
  - facilitates lifelong learning in different institutions and countries
  - helps them judge the value of qualifications
- **Employers** – helps judge the content and relevance of qualifications
- **Education and training providers** – allows comparison and quality assurance
- **EU economies** – facilitates economic development through labour movement and lifelong learning

## QUALIFICATION FRAMEWORK - SCOPE

- **National** Qualification Frameworks ( e.g. Ireland, England, Spain, Scotland)
- **European** Qualification Framework
- **Commercial / International** Qualification Frameworks (e.g. Edexcel)
- **Sectoral / Industry** Frameworks

## FOCUSING ON LEARNING OUTCOMES RATHER THAN EDUCATIONAL INPUTS, FACILITATES

- Better match between industry needs and education provision
- Validation of informal workplace learning
- Transfer and use of qualifications across different countries.

## EUROPEAN QUALIFICATION FRAMEWORK

- Recommendation not mandatory
- Primary function is to act as a common translation device
- Allows qualifications to meet local needs – educational diversity

## EUROPEAN QUALIFICATION FRAMEWORK

- Learning Outcome based
- Quality Assurance integral to its application
- Strong support by Member States and expect to be adopted by Council during 2007.
- Target is for MS to relate own NQF to EQF by 2009

## QUALITY ASSURANCE

- Principles agreed by Council in 2004
- Encourage Commission, MS and social partners to adopt these principles, including --
  - involve all stakeholders
  - integral part of institution management
  - evaluation of institutions by monitoring bodies
  - includes inputs, context, processes but emphasis on outputs and learning outcomes
  - clear and measurable objectives
  - consistent evaluation methods( self and external)
  - widely accessible results

**The EQF will function as a type of translation device** to make relationships between qualifications and different systems clearer and will therefore help European education and training systems become more transparent and understood by the general public

**National Qualifications Frameworks** are instruments for the classification of qualifications according to a set of criteria for specified levels of learning achieved. Not all Member States have **National Qualification Frameworks (NQFs)** and those that do have differing numbers and descriptors of levels. Responses to the EQF consultation indicate that France, Ireland, Scotland, England Wales and Northern Ireland, and Spain all have NQFs, but these frameworks have differing number of levels – e.g. Ireland has 11 levels, England 8 and Scotland 12. Most of the remaining countries have either started developing their NQF; have declared their intention to do so; or expressed a positive attitude to the development of a NQF.

Clearly many European Countries are engaging with NQF development and the fundamental concept of learning outcomes. However for many of them, it will be a gradual and long term process, involving stakeholder consultation and quality assurance system development.

*Ref. EC Information Note on EQF Consultation Process.*

The Commission recognises that Europe is characterized by a great diversity of education and training institutions and systems. This richness and variety of European education and training can be seen as an important asset and something which makes it possible to react positively and rapidly to technological change as it impacts on different regions and occupational groups.

However, the European Councils in Lisbon and Barcelona recognized **increased transparency of qualifications** as a necessary precondition for turning this diversity into an asset. The EQM process is compatible with the Bologna and Copenhagen initiatives on Higher and Vocational education.

**Transparency** is defined by EU as “the degree to which the value of a qualification can be identified and compared on the labour market, in education and training and in a wider social setting.”

The EQF will not be mandatory – each country will if it wishes have its own National Qualification Framework -- but is intended as a **common translation device** relating to qualification levels in different countries.

**The draft recommendation foresees that Member States should relate their national qualifications systems to the EQF (by 2009).** It will therefore enable individuals and employers to use the EQF as a *reference tool* to compare the qualifications levels of different countries and different education and training systems, including vocational training and higher education.

**Introduction of a TNQF, which can accommodate EcoFarmer and EcoExpert-AP qualifications and facilitate life-long learning (LLL) is a key component in the EU strategy for establishment of the European Qualifications Framework.**

## Transnational Qualification Framework of EcoJob-AP

**Transnational Qualification Framework (TQF EcoJob-AP) increases transparency of qualifications of Ecofarmers and Ecoexperts-AP** – the degree to which the value of a qualification can be identified and compared on the market, in the education and in a wider social setting.

### Strategic Principles

Based on:

- European Commission recommendations
- Best Practice as identified through: PHARE BG 2003/004 – 937.05.03;
- ✓ Qualification Framework – level of complexity – level of qualification only (England) European Proposal (EQF);
- ✓ Qualification Frameworks – example (Ireland, GB)
- ✓ Qualification Framework – level of complexity (Scotland, GB)
- Needs analysis of questionnaires (answers of farmers, managers and others from agrarian sector);
- Need to ensure can be readily accredited and delivered by partners
- Economic delivery making best use of technology.

Taking all these drivers together we arrive at a set of strategic principles to be satisfied to the maximum extent within any Transnational Ecofarming Qualifications Framework. These can be summarised as –

1. Allowing transparent linkage to the European Qualifications Framework;
2. Supporting lifelong learning;
3. Covering both initial and continuing education and training;
4. Promoting key competences and focusing on learning outcomes required in work/business situations, rather than inputs and processes;
5. Validating both formal and informal learning, which means there must be means of accrediting prior learning and experience;
6. Ensuring cost-effective delivery and equal access to VET by all groups;
7. Allowing for and encouraging diverse but appropriate assessment methods;
8. Incorporating units or modules, to facilitate focused and convenient access according to individual needs, but with an integrated credit transfer and accumulation systems to allow work over a period of time towards a composite qualification, and progression to qualifications at a higher level;
9. Incorporating transparent, consistent and comprehensive quality assurance;
10. Providing for guidance and counselling to learners and prospective learners.

With so much ongoing development in qualification frameworks and associated work in individual countries and an international level, it is important to identify the key strategic principles which should be used to choose the optimum framework as the basis of the “**Innovative Transnational Qualification in EcoFarming**”.

Since the Leonardo da Vinci programme is funded by the EU it seems appropriate to use as a starting point the principles being promoted and encouraged by the European Commission through its various initiatives under the Community Lisbon Programme for Growth and Employment .

To this must be added –

- Best practice as identified in the **Phare Contract 2003 BG 2003/0004-937.05.03. “Upgrading of Vocational Qualification Standards (in Bulgaria) Taking into Account Best Practices in EU member States”**;
- the findings of the “needs analysis” currently being conducted within the Programme, to ensure that the framework adequately reflects the needs of the potential learners on any EcoFarmer and / or EcoExpert-AP VET programme; and  
*While the analysis of the questionnaires is not available in time to inform this initial draft paper, our own discussions with participants suggests that two key elements of the learner’s needs will be (a) the wish to have self contained modules which can be drawn from a menu of Units to satisfy the business needs at any particular time; and (b) to be able to accumulate credits over time towards an overall qualification.*  
*Obviously these will need to be added to and / or revised during the discussions at the workshop in May, once the information from the learner questionnaires is available.*
- the need to ensure that the programmes can be delivered effectively and quickly accredited by the organisations in the various partner countries; and
- the requirement to achieve economical delivery and assessment while maintaining standards and making best use of the latest technology.

## Part 1

### ANALYSIS OF THE NEEDS OF KNOWLEDGE AND SKILLS TO ACQUIRE PROFESSIONAL COMPETENCES IN PROFESSIONAL QUALIFICATION

#### *EcoJob-Agricultural Production (AP)*

in the partners' countries on the project: Bulgaria (BG), Denmark (DK), Greece (GR), Italy (IT), the Netherlands (NL), Slovakia (SK) and the United Kingdom (UK)

To identify the needs of knowledge and skills to acquire professional competencies, questionnaires were designed for EcoFarmers and Questionnaire for EcoExpert), distributed to all project partner countries and published on-line at <http://www.eco-job-ap.org>.

#### 1.1 Definition of KNOWLEDGE AND SKILLS

**KNOWLEDGE** means the outcomes of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of study or work. Knowledge is described as theoretical or factual.

There is a necessity of new knowledge about the requirements which the agricultural production (AP) should meet in order to be certified as “eco-produce” as well as practical skills for implementation of ecologically friendly technologies.

**The necessary knowledge to acquire professional competences on EcoJob-AP can be classified in the following groups:**

- **Facts** - concerning certain regulations, standards, norms, etc. about the eco-production;
- **Principles** - basic conditions on which the ecological agriculture is developed;
- **Theoretical** - the EU agricultural policy, the national policies, technological elements of the farming systems for eco-production;
- **Practical** - methods, instruments, tools, modes, etc. helping in knowledge implementation; own and other people's experience.

**SKILLS**, means the ability to apply knowledge and use know-how to complete tasks and solve problems. The skills are:

- **Cognitive** (use of logical, intuitive and creative thinking) and
- **Practical** (involving manual dexterity and the use of methods, materials, tools and instruments).

Acquiring knowledge for practical implementation of knowledge about the ecological production of agricultural produce is a difficult and continued process, which is closely related to studiousness and human virtues.

**Accountability** reflects the level of autonomy and/or responsibility which the learner experts in applying the knowledge and skills in work or study situations, and in professional and/or personal development.

## 1.2. Results from the survey about the needs of new professional competences in partner countries

The survey was carried out among farmers, managers, specialists, etc. from the agrarian sector. They demonstrated their needs of knowledge and skills concerning the ecological farming in the following areas:

- Technological processes of ecological (organic) agriculture (Fig. 1.1, Fig. 2.1.)
- Control and certification of eco-produce and organic standards (Fig. 1.2., Fig. 2.2.)
- Setting up channels of distribution (marketing produce) (Fig. 3)
- Managerial knowledge and skills (Fig. 1.3., Fig. 2.3.)
- Use of computers (Fig. 1.4., Fig. 2.4.)

Regarding the needs of knowledge and skills, FARMERS from all the partner countries demonstrated convincingly a unity. In the field of *Technological processes of ecological production* their interests are directed to: methods, new technologies and standards of organic farming; soil cultivation and management; good farming practices related to environmental protection.

In the field of *Control and certification of eco-produce*, there is an interested in: Compliance with legislative requirements with Quality assurance schemes – with organic standards, as well as to: Identifying and compliance with funding sources including EU schemes and marketing trends and requirements.

Regarding the *Setting up channels of distribution (marketing produce)*, in all partners, the needs of knowledge and skills coincides within the borders of 36% for Slovakia to 64% for Greece. (Fig. 3).

Analyzing the needs of *Managerial knowledge and skills*, we can conclude that the interests are directed management and administration of farms (enterprises), development of business and financial plan.

About the *Use of computers*, the inquirers showed that they need training and involvement in courses.

Studying the needs of knowledge and skills of **SPECIALISTS, MANAGERS, EXPERTS**, etc. for improvement of competences in eco-farming, it was found such a trend of similar interests.

In the field of *Technological processes of ecological production* the interests are directed to methods and standards in organic farming; soil cultivation and management; good agricultural practices for environmental protection; waste treatment, etc.

In the field of *Control and certification of eco-produce*, there is a remarkable need of knowledge and skills in: Compliance with legislative requirements; Quality assurance schemes; Satisfying environmental obligations, etc.

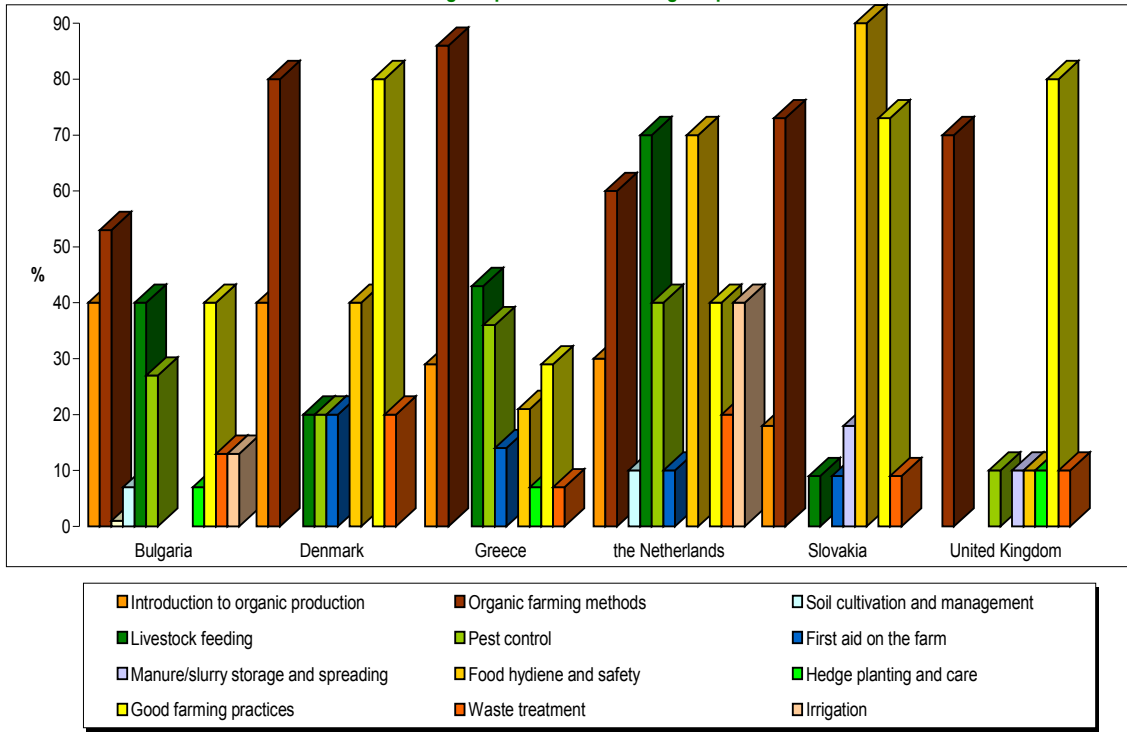
Regarding the *Setting up channels of distribution (marketing produce)*, the interest of those answered the questionnaire is between 14% and 25%. (Fig. 3).

In the field of *Managerial knowledge and skills*, the needs again are integrated to Management and Administrative Enterprise, Business planning and accounting and finances.

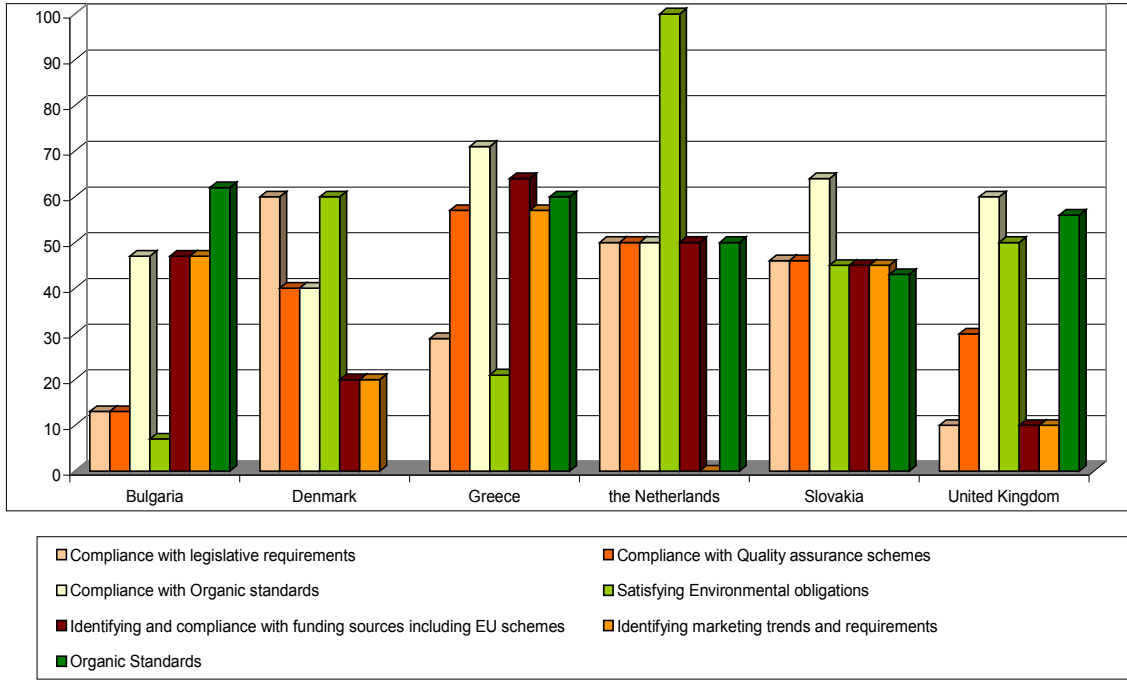
Regarding the *Use of computers*, the interests of the partner countries are in a wide border - from 11% to 62%.

**Fig. 1. Needs of new knowledge and skills for development of professional competences of EcoFarmer**

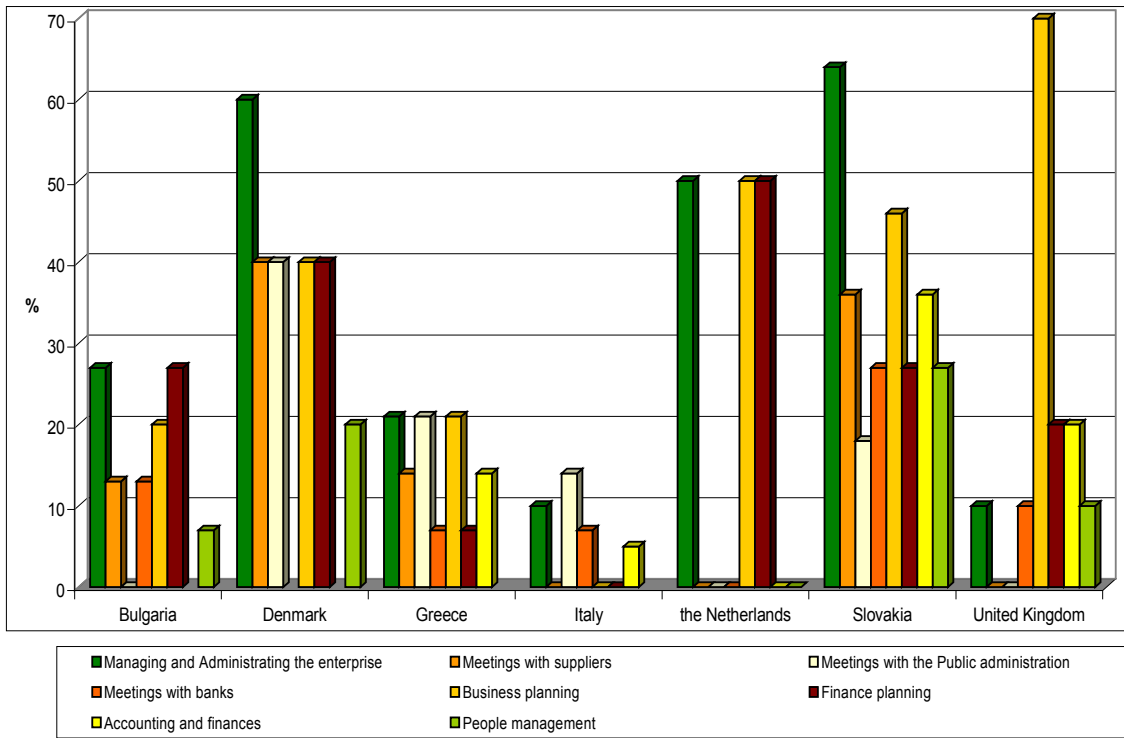
**1.1. Technological processes in ecological production**



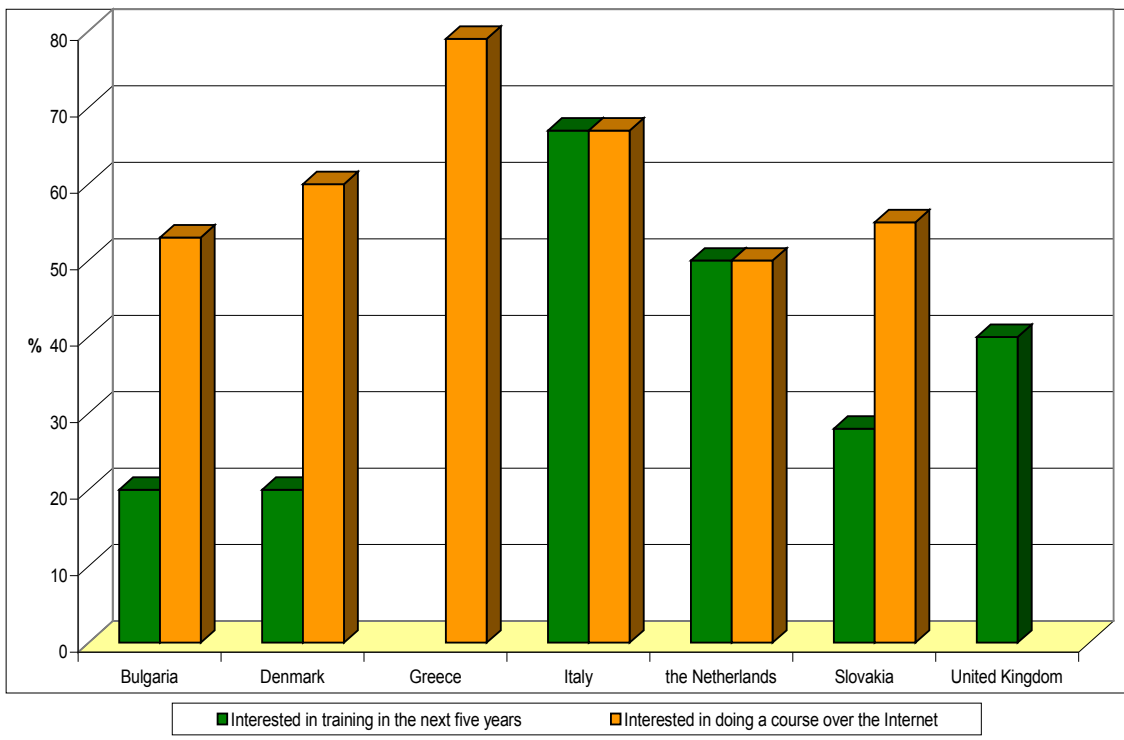
### 1.2. Control and certification of eco-produce and organic standards



### 1.3. Managerial knowledge and skills

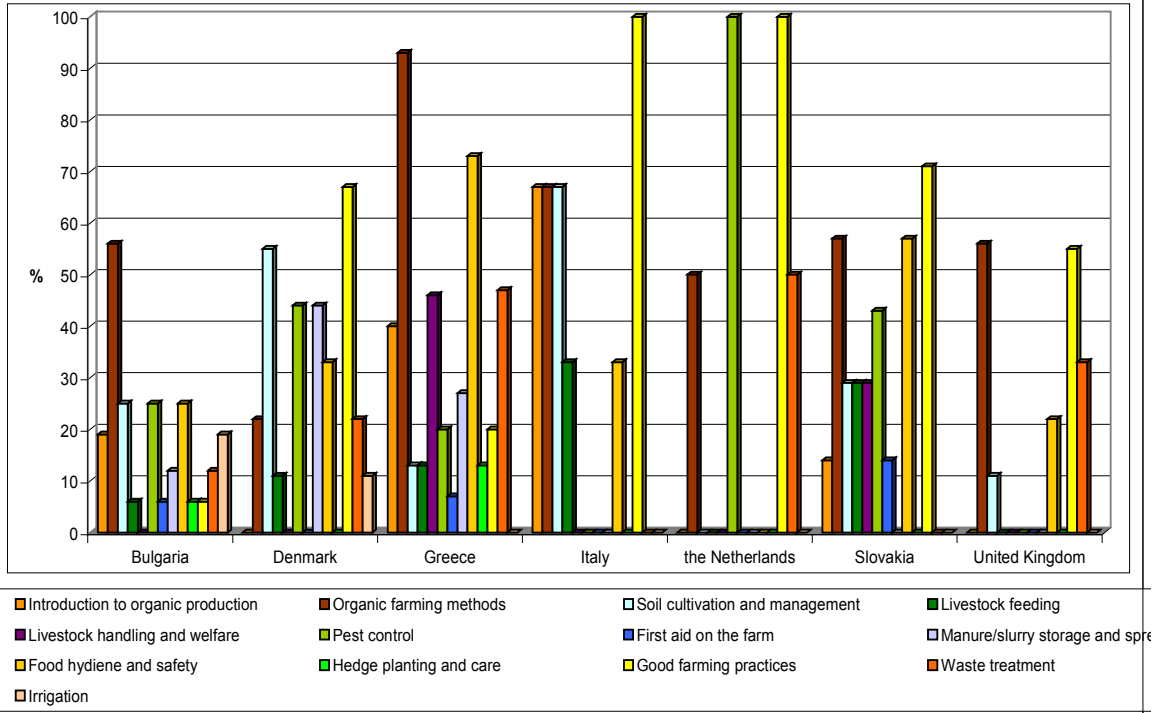


### 1.4. Use of computers

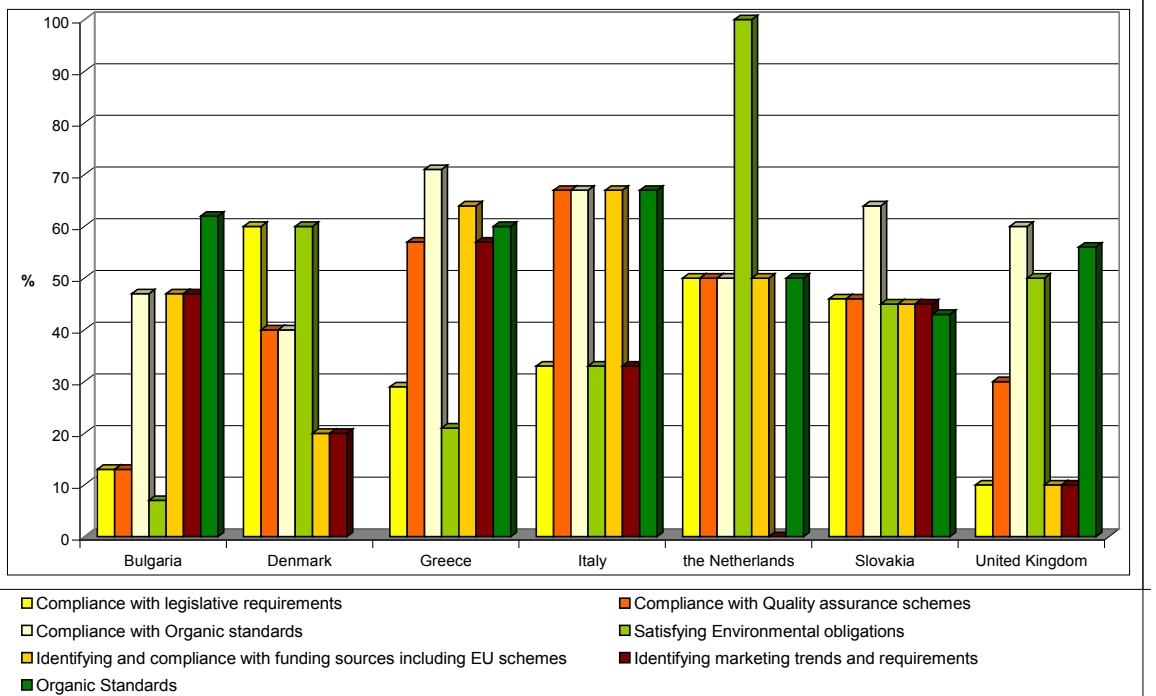


**Fig. 2. Needs of new knowledge and skills for development of professional competences of EcoExpert-AP**

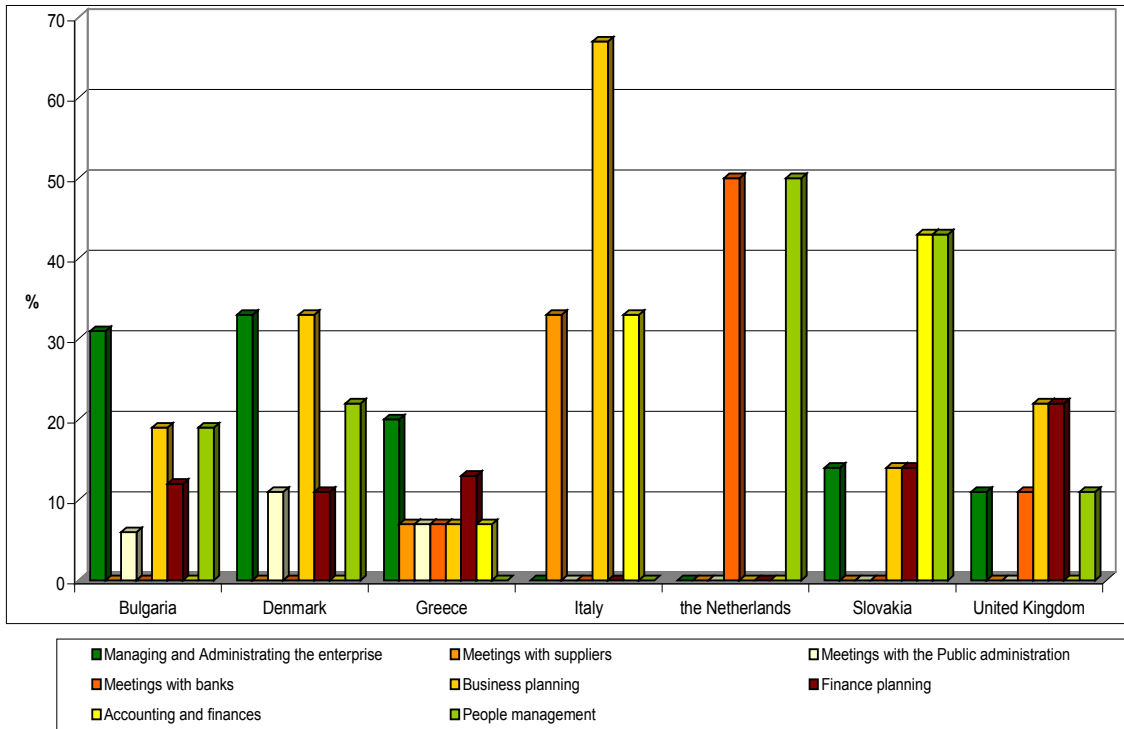
**2.1. Technological processes in ecological production**



**2.2. Control and certification of eco-produce and organic standards**



### 2.3. Managerial knowledge and skills



### 2.4. Use of computers

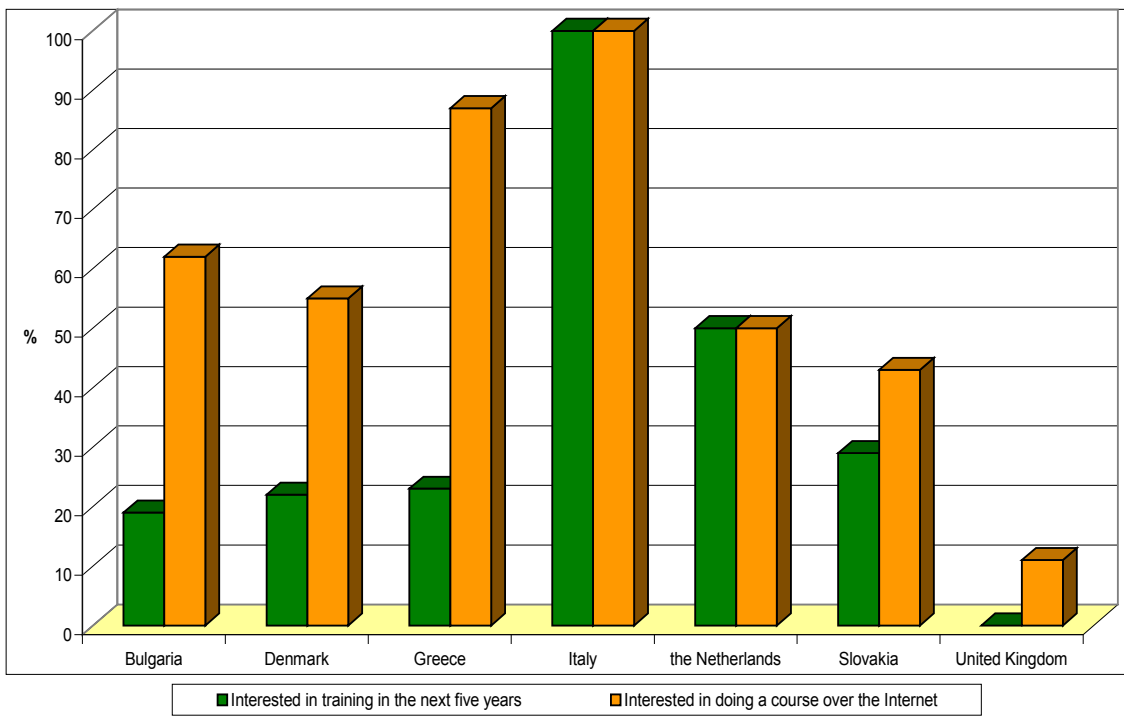
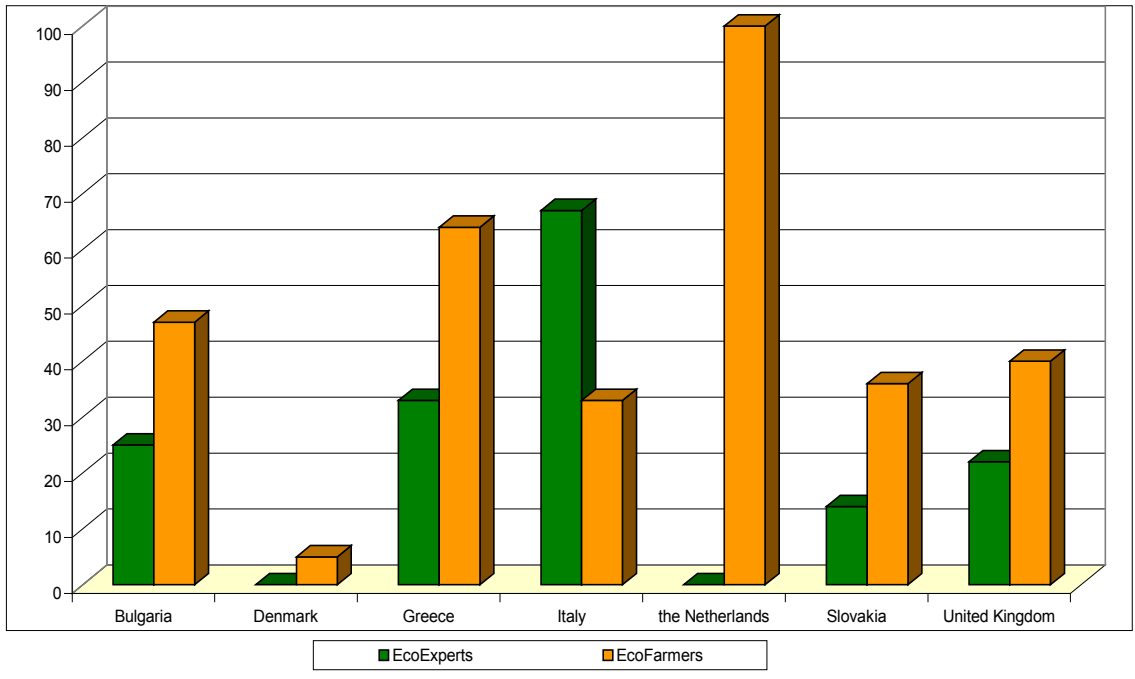


Fig.3. Setting up channels of distribution (marketing produce)



## Part 2.

### PROFESSIONAL COMPETENCES of EcoJob-AP

*Competence* means the proven ability to use knowledge, skills and personal, social and / or methodological abilities in work and study situations and in professional and/or personal development. In the European Qualification Framework (EQF), *competence* is described in terms of responsibility and autonomy.

Shifting the focus to learning outcomes will

- support a better match between the needs of the labour market (for knowledge, skills and competences) and education and training provisions;
- facilitate the validation of non-formal and informal learning;
- facilitate the transfer and use of qualifications across different countries and education and training systems.

The EQF will not be mandatory – each country will if it wishes have its own National Qualification Framework -- but is intended as a **common translation device** relating to qualification levels in different countries.

Based on the need analysis of knowledge and skills during the survey of farmers, specialists, managers and as a result of a wide discussion among the partners from the eight European countries, we accepted **Level 3 for EcoFarmer and Level 5 for EcoExpert-AP**.

***Level 3. Competence, which includes the application of knowledge in a wide range of different work activities, performed in a great number of contexts, much of them are complex and they are routine. There is a sufficient level of responsibility and autonomy, and very often it requires control or giving instructions to the others.***

#### Functional characteristics of EcoFarmer (Level 3)

- **EcoFarmer is competent** in application of a wide range of diverse working and managerial activities related to the prosperity of the farm, environmental protection and the human health;
- **Responsible and self-dependent** in taking decisions, susceptible to self-control and requiring the same from the others, who are bound to him in a common tasks;
- **Motivated** to apply the **principles, rules, requirements of the ecological** agriculture;
- **Willing to improve permanently his qualification** and to renovate his farm;
- **Concerned about the other people' works** and willing to pass on his experience and knowledge;
- **Accepts the agricultural activities as extremely beneficial for the human society;**
- **Accepts with a great interest the innovative agricultural practices;**
- **Loves the human being and the nature.**
- **Farmer has developed his own label**, which includes the national symbol for organic agricultural produce;
- **Farmer is acquainted with the international and national organic agriculture organisations;**

- **Farmer analyses and guarantees a transparency** in all the activities of organic production;
- **Farmer accepts with willingness any innovative methods and technologies**, socialises his activities and applies preventive measures to protect the environment by combining the economical interests with the natural ones;
- **Farmer takes courses for permanent improvement of the professional qualification EcoJob-AP** and proves this by application of new knowledge and skills.

## The professional qualifications of EcoFarmer can be classified as follows:

### Managerial competences

Managerial activities are demonstrated in:

- Successful work planning;
- Knowing the legislations and their implementation
- Persistency in well description of the activities and strictly maintenance of documentation;
- Consideration with the market trends and the market prices;
- Flexibility in usage of the financial resources, financial planning;
- Strict respect to the income – expenditure according to the financial plan;
- Flexible management of the human resources.

### Production competences

- Farmer is competent in implementation of working activities concerning:
  - Cultural practices in agricultural production: sowing, soil cultivation, fertilizing, irrigation, pruning, pest management, mechanization of agricultural production, etc.
  - Animal care with hygiene observation, feeding, cleaning, milking, etc.
  - Adherence to the sanitary-hygiene requirements in the work activities;
  - Natural resources preservation: land, water, air, beneficial fauna and flora, etc.
  - **Human health protection.**

### Competences related to the Information technologies

- To feel comfort in usage of ICTs (Internet, different software programmes, etc.);
- To understand and use different information resources about the ecological agriculture. To follow the news related to this topic in media, newspapers, on TV, etc.

## Criteria for evaluation of professional competences of EcoFarmer

- Farmer formulates clear aims and objectives, **based on which he follows the principles, rules and the requirements of the ecological agriculture;**
- **Farmer develops organisational scheme and regulations for farm management in production of eco-produce;**
- **The farm is provided with the necessary resources** in order eco-farming to be applied;
- **Farmer has an access to information resources:** media, Internet, agricultural centers, organisations, etc.
- **Farmer is well acquainted with the European Qualification Framework (EQF)** and the educational levels, indicated by the learning outcomes, concerning the EcoFarmer /Appendix/.

- **Farmer is informed about the national strategy, plan, programmes, legislation, etc.** concerning the ecological agriculture;
- **Farmer is prepared to apply ecological technologies** and to maintain all documents describing their application;
- **Farmer has developed his own label**, which includes the national symbol for organic agricultural produce;
- **Farmer is acquainted with the international and national organic agriculture organisations;**
- **Farmer analyses and guarantees a transparency** in all the activities of organic production;
- **Farmer accepts with willingness any innovative methods and technologies**, socialises his activities and applies preventive measures to protect the environment by combining the economical interests with the natural ones;
- **Farmer takes courses for permanent improvement of the professional qualification EcoJob-AP** and proves this by application of new knowledge and skills.

## KEY COMPETENCES FOR PROFESSIONAL QUALIFICATION 'EcoFarmer'

- **Understanding the governing principles of modern organic production and key principles as identified by IFOAM;**
- **Knowing how organic produce is differentiated from other produce;**
- **Understand organic certification schemes as operated within the EU;**
- **Know the specific organic standards applied by a Sector Body;**
- **Preparing marketing plan;**
- **Delivering market performance;**
- **Sourcing technical and financial support for the business;**
- **Understand their soils in relation to organic production;**
- **Describe the means to manage and enhance the soil fertility;**
- **Proved ability to use knowledge, skills, personal, social or methodological capacity in all work activities (select appropriate crops for a production situation, harvesting, storage) to apply organic agriculture on the farm;**
- **Adapt own behavior to circumstances in solving problems on the farm.**
- **Understand the organic standards as related to livestock;**
- **Management of animal health** within the specific requirements of organic standards;
- **Apply the standards to the housing of livestock and to feeding regimes** for a range of livestock types;

- **Understand the importance and contribution of fodder crops**, select and establish appropriate fodder crops and manage them
- **Consider the methods and tools** of the ecological agricultural production.

## Functional characteristics of EcoExpert-AP /Level 5 /

*Competence, which includes an application of a significant scope of fundamental principles in a wide and often unpredictable diversity of contexts, a significant range of a logical freedom, and often with a considerable responsibility for the work of the others, as well as a personal responsibility related to the analysis, design, planning, application and evaluation.*

**The EcoExpert professional competences can be classified in the following areas:**

### **Managerial competences**

- **EcoExpert has knowledge and skills to apply the strategies, principles, rules of the organic agriculture;**
- **Has a fast orientation to and demonstrates an adaptive ability to the changing policy in agriculture and the environmental conditions;**
- **Identifies business development; managing and administrating the enterprise,** meetings with suppliers, with the public administration, banks, etc.
- **Competences for monitoring and assessment of activities concerning the certification of the produce, farm's production results, standartisation, etc.**

### **Communicative competences**

- **Demonstrates competency in collaboration with media, internet technologies and has a good integration with the society of the farmers' organisations, markets, etc.**

### **Technological competences**

- **Knows very well the farming systems: Good Agricultural Practice; Integrated Farming systems and in details the Organic agricultural production.**
- **Has the ability to compare the particular farming systems and to identify the advantages of the organic agriculture for the human health and for environmental protection.**

### **Psychological competences**

- **Susceptible to apply a tactical approach to the farmer, able to adapt to his mantality and to enter into specific problems of the land owners.**

### **Competences to apply innovations**

- **Has a sense of applying innovative methods and ecologically sound technologies to the agriculture.**

## **KEY COMPETENCES FOR PROFESSIONAL QUALIFICATION EcoExpert-AP**

- **Understanding the governing principles of modern organic production;**
- **Know how organic produce is differentiated from other produce;**
  
- **Understand organic certification schemes as operated within the EU;**
- **Know the specific organic standards applied by a Sector Body;**
- **Apply the standards to an organic production system;**
- **Know what is involved in conversion to organic production and understand the financial implications;**
- **Know how organic standards are applied along the farm to consumer supply chain;**
- **Understand the methods used to ensure imported produce meets required “organic” standards;**
  
- **Understand the concept of marketing;**
- **Understanding your market;**
- **Preparing a marketing plan;**
- **Developing effective supply chains;**
  
- **Compliance with environmental obligations;**
  
- **Compliance with legislation affecting the farm business;**
- **Sourcing technical and financial support for the business;**
  
- **Understand soil types and carrying capacities for a range of soils in a region;**
- **Understand management of soils to increase fertility and/or structure**
- **Understand role of microorganisms and trace elements in disease and pest control;**

**Select appropriate crops for any situation;**

**Managing organic crops;**

**Harvesting organic crops;**

**Storage of organic crops;**

- **Understand the organic standards as related to livestock;**
- **Management of animal health within the specific requirements of organic standards;**
- **Apply the standards to the housing of livestock;**
- **Understand the importance and contribution of fodder crops;**
- **Select and establish appropriate fodder crops;**
- **Manage fodder crops.**

## Evaluation of professional competences of EcoJob-AP

### 1. Principles of evaluation:

- The evaluators have:
  - Impartial and fair approach;
  - Psychological and tactical approaches, consistent with the specificity of this profession;
  - The evaluation is flexible and consistent with the person;
  - The evaluation allows in-time and feedback information, and it forces the examinee to think about the benefit of training and self-education to acquire professional qualification in EcoJob-AP;
  - The evaluation stimulates the farmers for a permanent improvement of the professional competences through acquiring new knowledge and skills to apply the principles, technologies and standards, as well as methods, consultations, etc. leading to the prosperity of their business in eco-agriculture.

### 2. Evaluation of professional competence of EcoJob-AP

#### 2.1. Evaluation in training environment

- **Monitoring the trainees about:**
  - Studiousness activities, interest to acquire new knowledge and skills about the application of innovative technologies and standards in ecological agricultural production;
  - Participation in discussions and problem issues, suggestions, etc.
  - Tests' results, case studies, reports and analyses, projects, simulations, notes, registers, etc.

#### 2.2. Evaluation in real (working) environment

Evaluation is carried out by direct observations on the results of conducted activities in the production process; certified produce; registered activities (checking the register), etc.

### 3. Evaluation of social activities

- 3.1. Participation in scientific-practical conferences, seminars, discussions, etc. events on the problems of organic farming;
- 3.2. Participation in non-government organizations: associations, unions, in the field of ecological agriculture;
- 3.3. Participation in media events, including TV, radio, newspapers, bulletins, press-conferences, etc.;

Evaluation of professional competence is finalized by a group of experts: lecturers and teachers from agricultural education institutions, experts in the field of ecological agriculture, representatives of advisory services (Extension services), farmers' associations, etc.

## Part 3.

### PROFESSIONAL COMPETENCIES FOR ECOJOB-AP ACQUIRED THROUGH EDUCATION BY EUROPEAN STANDARDS

Learning outcomes used in these EcoFarmer and EcoExpert courses are based on the definition used in the European Qualifications Framework (EQF).

The EQF defines levels of qualification in terms of knowledge, skills and competence or accountability. This approach has been embraced in defining the learning outcomes for the EcoFarmer and EcoExpert-AP qualifications developed in the EcoJob AP programme, for which the following definitions were adopted.

Learning outcomes reflect overall competence in terms of what a learner knows, understanding and is able to do on completion of the learning process and are defined in terms of knowledge, skills, responsibility and accountability.

The proposed training course for acquiring the professional competences for EcoJob-AP is based on the fact that “there is a necessity of new knowledge about the requirements, which the agricultural production (AP) should meet in order to be certified as “eco-produce”, as well as practical skills for implementation of ecologically-friendly technologies”.

The application of the EU standards of training will contribute for achievement and recognition of professional competences, and transparency of qualifications EcoFarmer and EcoExpert-AP.

It is agreed by the partners that *“concerning the European strategies for VET, the following changes in the training could be pointed:*

In the context of the EQF, the EcoFarmer and EcoExpert-AP are considered to be at EQF level 3 and 5 respectively.

Learning Outcomes or Competence	Knowledge	Skills	Accountability
<b>Level 3</b> The learning outcomes relevant to Level 3	Knowledge of facts, principles, processes and general concepts, in a field of work or study.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study. Adapt own behaviour to circumstances in solving problems.
<b>Level 5</b> The learning outcomes relevant to Level 5	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.	Exercise management and supervision in contexts of work or study activities where there is unpredictable

	the boundaries of that knowledge.		change. Review and develop performance of self and others
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### **Content of the on-line training course for acquiring professional competences for EcoJob-AP**

The on-line training course for acquiring professional competences for EcoJob-AP is executed using following modules:

- Modul 1 – Organic Principles
- Modul 2 – Organic Standards
- Modul 3 – Marketing Organic Produce
- Modul 4 – Legislation
- Modul 5 – Soils
- Modul 6 – Organic Crops
- Modul 7 – Organic Animals and Fodder Crops

**Structure of a module that contain following elements:**

1. Module Title and Number
2. Module Size
3. Module Level
4. Module Aim and Description
5. Recommended Prior Knowledge and Skills
6. Core Competence and Learning Outcomes
7. Content Outline
8. Guidance – delivery methods, resources required, assessment methods
9. Bibliography
10. Glossary

# **PROFESSIONAL COMPETENCIES FOR ECOFARMER**

**Acquired through education by European  
Standards**

**Programme of on-line training course**

## Module 1

<b>1. Title / Number</b>	<b>Organic Principles</b>
<b>2. Module size</b>	10 hours – structured learning hours.
<b>3. Module level</b>	Level 3
<b>4. Module Aim and Description</b>	<p>The aims of the Module are to introduce the learner to the principles underlying organic production and to gain an understanding of the key concepts which govern the production and marketing of organic food.</p> <p>The Module is designed to help learners understand the specific principles which underly “organic” production.</p> <p>The principles are introduced through coursework and assignments in a particular enterprise of relevance to the learner.</p> <p>The unit provides opportunities to demonstrate key skills in communication and problem solving.</p>
<b>5. Prior Learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding;</p> <p>or</p> <p>A basic knowledge of crop, livestock or horticulture production.</p> <p>Vocational experience in farming or horticulture production would be a great advantage.</p>

### 6. Core Competences and Learning Outcomes

<b>Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learners ability to --</i>
<b>1. Understand the governing principles of modern organic production</b>	<ul style="list-style-type: none"> <li>• identify the key principles of modern organic production in the agriculture and horticulture sectors. This will include –               <ul style="list-style-type: none"> <li>○ ethical issues</li> <li>○ food quality</li> <li>○ respect for natural biological cycles</li> <li>○ biodiversity</li> <li>○ pollution prevention</li> <li>○ minimising processing and food chain length</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ consumer information and transparency</li> <li>○ wider social issues</li> <li>○ quality of life</li> <li>○ influence of the principles on demand for organic produce.</li> </ul> <ul style="list-style-type: none"> <li>● describe in general terms how these are applied in an enterprise with which he/she is familiar.</li> </ul>
<b>2. Know how organic produce is differentiated from other produce.</b>	<ul style="list-style-type: none"> <li>● describe in general terms the assurance process which differentiates organic produce as applied at farm and local processing levels</li> <li>● identify how organic produce is differentiated from other produce.</li> <li>● understand the market trends for one product related to his/her farm enterprise.</li> </ul>
<b>7. Content outline</b>	<ul style="list-style-type: none"> <li>● Key principles as identified by IFOAM and in established literature.</li> <li>● Identification of common themes and influences</li> <li>● Illustration through case studies of relevant enterprises</li> <li>● Overview of international and national assurance procedures ( e.g. ACOS) and the role of Awarding / Certifying Bodies)</li> <li>● Consumer and market trends related to local organic produce.</li> </ul>
<b>8. Guidance</b>	<p><b>Delivery.</b> Delivery will be achieved through the structured EcoJob e-learning programme supplemented with assignments, case studies and or visits appropriate to the local organic production enterprises.</p> <p><b>Resources required.</b> Access to library and / or internet facilities. Cases studies and / or access to organic production units.</p> <p><b>Assessment methods</b> Evidence for either the agriculture or horticulture situation must be provided through on-line and/or closed book assessment. All the Learning Outcomes identified above must be covered in the programme but sampling of assessment can be used. Where assessment is based on a sample of the skills / knowledge identified in the Learning Outcome then sampling must be such as to reflect the key elements of each learning outcome and must be controlled to ensure candidates cannot foresee the sample chosen.</p>
<b>9. Bibliography</b>	<p>e.g. Lamkin N <i>Organic Farming</i> (Farming Press 1990) International Federation of Agriculture Organic Movements (IFOAM) <a href="http://www.ifoam.org/">www.ifoam.org/</a> Department for Environment Food and Rural Affairs (DEFRA) <a href="http://www.defra.gov.uk/farm/organic">www.defra.gov.uk/farm/organic</a></p>
<b>10. Glossary</b>	

## Module 2

<b>1. Title / Number</b>	<b>Organic Standards</b>
<b>2. Module size</b>	30 hours – structured learning hours.
<b>3. Module level</b>	Level 3
<b>4. Module Aim and Description</b>	<p>The aims of the Module are to develop the knowledge and skills which the learner will require to comply with the principles and practices of organic production as required by certification schemes.</p> <p>The Module is designed to help learners</p> <ul style="list-style-type: none"> <li>• understand the specific requirements of the organic certification schemes which operate within their own country and the overarching EC Regulation 2092 / 91;</li> <li>• apply these requirements in planning the operation of a unit according to these requirements;</li> <li>• developing a plan for conversion of a unit or enterprise to satisfy the requirements of a certifications scheme</li> </ul> <p>The principles are developed through a case study in a particular enterprise of relevance to the learner.</p> <p>The unit provides opportunities to demonstrate key skills in communication and problem solving.</p>
<b>5. Prior Learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or should have a basic knowledge of crop, livestock or horticulture production. Vocational experience in farming or horticulture production would be a great advantage.</p> <p>Entrants to the programme must have completed EcoJob Module 1-3 Organic Principles</p>

#### 6. Core Competences and Learning Outcomes

<b>Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learner's ability to --</i>
<b>1. Understand organic certification schemes as operated within EU</b>	<ul style="list-style-type: none"> <li>• explain how organic certification operates within EU.</li> </ul>
<b>2. Know the specific organic standards applied by a Sector Body</b>	<ul style="list-style-type: none"> <li>• describe the main organic standards operated by an approved organic sector body.</li> </ul>
<b>3. Apply the standards to an organic production system</b>	<ul style="list-style-type: none"> <li>• outline the implementation of the standards within one business with which he/she is familiar.</li> </ul>
<b>4. Know what is involved in conversion to organic production and understand the financial implications</b>	<ul style="list-style-type: none"> <li>• prepare a conversion plan for his /her business or small farm;</li> <li>• explain the critical financial issues faced by the unit manager during the conversion process.</li> <li>• identify ways in which the financial implications can be effectively managed</li> </ul>

<b>7. Content outline</b>	<ul style="list-style-type: none"> <li>• EC Regulation 2092/91.</li> <li>• National standards relating to the learners situation.</li> <li>• Study and implication of standards to individual enterprises and the whole farm business.</li> <li>• Conversion processes and requirements.</li> <li>• Typical conversion operations and timescales.</li> <li>• Financial implications of conversion and standard application to the farm business.</li> </ul>
<b>8 Guidance</b>	<b>Delivery.</b> <b>Resources required.</b> <b>Assessment methods</b>
<b>9. Bibliography</b>	
<b>10. Glossary</b>	

## Module 3

<b>1. Title / Number</b>	<b>Marketing Organic Produce</b>
<b>2. Module size</b>	30 hours – structured learning hours
<b>3. Module level</b>	Level 3
<b>4. Module Aim and Description</b>	<p>The aims of the Module are to develop the knowledge and skills which the learner will require to market his / her organic produce.</p> <p>The Module is designed to help learners</p> <ul style="list-style-type: none"> <li>• understand the concepts and practice of modern marketing methods;</li> <li>• carry out basic market analysis relevant to their own situation;</li> <li>• developing a marketing plan to utilise suitable marketing approaches for their organic produce.</li> </ul> <p>The principles are developed through a case study relating to produce of relevance to the learner.</p> <p>The unit provides opportunities to demonstrate key skills in research, communication and problem solving.</p>
<b>5. Prior Learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or should have a basic knowledge of crop, livestock or horticulture production.</p> <p>Vocational experience in farming or horticulture production would be a great advantage.</p> <p>Entrants to the programme must have completed EcoJob Module 2-3 Organic Standards.</p>

### 6. Core Competences and Learning Outcomes

<b>Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learner's ability to --</i>
<b>1. Understand the Concept of Marketing</b>	<ul style="list-style-type: none"> <li>• apply the marketing concept to organic produce in a situation with which they are familiar</li> <li>• apply the concept of 4 Ps to an organic farming product in a familiar marketplace.</li> </ul>
<b>2. Understanding your</b>	<ul style="list-style-type: none"> <li>• carry out simple market research relating to one product or opportunity.</li> </ul>

market	
3. Preparing a marketing plan	<ul style="list-style-type: none"> <li>develop a simple marketing plan for an organic product</li> </ul>
4. Delivering market performance	<ul style="list-style-type: none"> <li>Outline how they would go about implementing a marketing plan including setting the price, promoting the product, achieving sales and evaluating performance</li> </ul>
7. Content outline	<ul style="list-style-type: none"> <li>Application of the marketing concept to organic products.</li> <li>The marketing mix ( 4 Ps)</li> <li>Principles and application of basic market research</li> <li>Resource audits in a production process.</li> <li>Deciding the price.</li> <li>Appropriate promotion.</li> </ul>
8 Guidance	<b>Delivery.</b> <b>Resources required.</b> <b>Assessment methods</b>
9. Bibliography	
10. Glossary	

## Module 4

1. Title / Number	<b>Legislation</b>
2. Module size	30+ hours
3. Module level	Level 3
4. Module Aim and Description	<p>The aims of the Module are to ensure that the learner is aware of the range of legislation that affects his / her organic farming business and of the support structures available for the provision of advice and guidance. The module is designed to help learners;</p> <ul style="list-style-type: none"> <li>identify the requirements of cross compliance in relation to business management; and</li> <li>recognise the verifiable standards relevant to the business; and</li> <li>manage the business in such a way as to comply with the relevant standards; and</li> <li>identify the range of legislation impacting on the business, in addition to environmental and organic standards; and</li> <li>source assistance (financial and advisory) to help with the running of the business.</li> </ul>
5. Prior learning	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or</p> <p>A basic knowledge of crop, livestock or horticulture production.</p> <p>Entrants to the programme -- must have completed EcoJob Modules 1-3 Organic Principles and 2 – 3, Organic Standards</p> <p>Vocational experience in farming or horticulture production would be a great advantage.</p>

<b>6. Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learner's ability to -</i>
<b>Compliance with environmental obligations</b>	<ul style="list-style-type: none"> <li>• explain the concept of “cross compliance” within EU legislation and the main implications for their business.</li> <li>• identify the specific “verifiable standards” impacting on the business.</li> <li>• assess the implications in terms of changes to management practice</li> </ul>
<b>Compliance with legislation affecting the farm business</b>	<ul style="list-style-type: none"> <li>• recognise the range of legislation impacting on the business – over and above the “cross compliance” and “organic standard” requirements.</li> <li>• identify sources of information on this legislation and on its application to their business.</li> </ul>
<b>Sourcing technical and financial support for the business</b>	<ul style="list-style-type: none"> <li>• identify the sources of funding (grants and loans) available for organic farm businesses in their area.</li> <li>• make appropriate application for such funding.</li> <li>• identify sources of technical / business advice to his / her organic farming business</li> </ul>
<b>7. Content outline</b>	Good Farming Practice (GFP), Cross Compliance (CC) and their relevance to farming support payments
	Good Farming Practice and the associated Verifiable Standards (VS) in the country.
	Verifiable Standards which directly apply to their specific business
	Management of their business to meet the requirements of GFP and VS
	General awareness of legislation with which the business must comply – in addition to GFP and Organic Standards. Examples could include health and safety of workers; weights and measures re. product sales; labelling; food safety; employment legislations
	Sources of information and advice on this legislation
	Financial support available to organic farmers. E.g. Organic Farming conversion grants; marketing grants.
	Advisory support available. E.g.; Extension Services for organic growers; Co-operative supply organisations; Colleges
<b>8. Guidance.</b>	<b>Delivery</b> <b>Resources</b> <b>Assessment Methods</b>
<b>9. Bibliography</b>	
<b>10. Glossary</b>	

## Module 5

<b>1. Title / Number</b>	<b>Soils</b>
<b>2. Module size</b>	30 hours – structured learning hours.
<b>3. Module level</b>	Level 3
<b>4. Module Aim and Description</b>	To enable the learner – <ul style="list-style-type: none"> <li>• to understand their soils; simple soils analyses and interpretation of results.</li> </ul>

	<ul style="list-style-type: none"> <li>• understand production capacity and their means to maintain and increase fertility within organic standards;</li> <li>• describe the nutrient cycle as applied to his/her situation.</li> </ul> <p>The principles are developed through a case study relating to soils of relevance to the learner.</p> <p>The unit provides opportunities to demonstrate key skills in research, communication and problem solving</p>
<b>5. Prior Learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or</p> <p>A basic knowledge of crop, livestock or horticulture production.</p> <p>Vocational experience in farming or horticulture production would be a great advantage.</p> <p>Entrants must have complete EcoJob Modules 1.3 (Organic Principles) and 2.3 (Organic Standards).</p>

### 6. Core Competences and Learning Outcomes

Core Competence	Learning Outcomes <i>Evidence must confirm the learners ability to --</i>
<b>1. Understand their soils in relation to organic production</b>	<ul style="list-style-type: none"> <li>• interpret simple soil analyses;</li> <li>• use soil analyses to develop a fertiliser policy for their farm</li> <li>• describe the means to manage and enhance the soil fertility in their farm</li> <li>• describe the means to manage and enhance the soil structure and organic matter on their farm</li> <li>• describe a nutrient cycle.</li> </ul>

<b>7. Content outline</b>	<ul style="list-style-type: none"> <li>• Key principles of organic soil and soil fertility building</li> <li>• Drainage and soils structure</li> <li>• Soil sampling – needs, benefits and interpretation</li> <li>• Fertility and rotation requirements to meet the needs of typical crops</li> <li>• Organic methods of fertility building – eg. green manure</li> <li>• Cultivation techniques</li> <li>• Nutrient cycles</li> </ul>
<b>8. Guidance</b>	
<b>9. Bibliography</b>	
<b>10. Glossary</b>	

## Module 6

<b>1. Title / Number</b>	<b>Organic Crops</b>
<b>2. Module size</b>	30+ hours
<b>3. Module level</b>	Level 3
<b>4. Module Aim and</b>	The aims of the Module are to enable the learner to successfully grow a range

<b>Description</b>	of arable/field scale vegetable crops according to specific organic standards The module is designed to help learners; <ul style="list-style-type: none"> <li>understand the specific requirements of the organic standards in relation to the successful growing, management, harvesting and storage of selected crops</li> <li>Apply these standards to specific crops</li> </ul>
<b>5. Prior learning</b>	Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or A basic knowledge of crop, livestock or horticulture production. Entrants to the programme -- must have completed EcoJob Modules 1-3 Organic Principles and 2 – 3, Organic Standards Vocational experience in farming or horticulture production would be a great advantage.
<b>6. Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learner's ability to -</i>
<b>Select appropriate crops for a particular situation</b>	<ul style="list-style-type: none"> <li>describe conditions for the successful growing of a range of crops in a specific geographical area.</li> </ul>
<b>Managing organic crops</b>	<ul style="list-style-type: none"> <li>list the sequence of actions required to establish, and grow a specified range of crops</li> <li>describe the preventative measures to be put in place to ensure a healthy crop without the need to rely on external inputs</li> <li>list permitted inputs and describe their use</li> </ul>
<b>Harvesting organic crops</b>	<ul style="list-style-type: none"> <li>describe crop condition, market requirement (if appropriate) and timeliness relationships for harvesting of specific crops</li> </ul>
<b>Storage of organic crops</b>	<ul style="list-style-type: none"> <li>describe the storage requirements to satisfy organic standards for the identified crops</li> <li>list in-store conditions and appropriate care of crops to ensure good keeping quality</li> </ul>
<b>7. Content outline</b>	Crop hygiene – buy in policy, sourcing of seed, Cultivation types, timeliness, ground conditions etc.
	Seed bed preparation Nutrient requirements of crops. Rotation options and selection. Weeds, pests and disease in selected crops. Management, control and safe use of permitted inputs
	Harvesting – selection and care of appropriate machinery. Timing of harvest (e.g. early if going to market, when dry enough for storage etc.); Care at harvest – avoiding damage to crop, ground etc
	Storage: organic restrictions, conditions of stores for a variety of crops – hay to potatoes – etc.
<b>8. Guidance.</b>	<b>Delivery</b> <b>Resources</b> <b>Assessment Methods</b>
<b>9. Bibliography</b>	
<b>10. Glossary</b>	

## Module 7

<b>1. Title / Number</b>	<b>Organic Animals and Fodder crops</b>
<b>2. Module size</b>	30+ hours
<b>3. Module level</b>	Level 3
<b>4. Module Aim and description</b>	<p>The aims of the Module are to enable the learner to –  care for and feed animals to high welfare standards while satisfying the Organic Standards (<b>Unit 7 – 3- 1 Organic Animal Production</b>); and  plan and manage appropriate forage systems for the production of year-round feed fro organic livestock (<b>Unit 7 – 3 – 2 Forage for Organic Production</b>)</p> <p>The module is designed to help learners;</p> <ul style="list-style-type: none"> <li>• understand the specific requirements of the organic standards as regards the rearing of livestock</li> <li>• apply these standards to a specific livestock enterprise</li> <li>• plan and manage forage production systems for organic livestock production.</li> </ul>
<b>5. Prior learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or</p> <p>A basic knowledge of crop, livestock or horticulture production.</p> <p>Entrants to the programme -- must have completed EcoJob Modules 1-3 Organic Principles and 2 – 3, Organic Standards</p> <p>Vocational experience in farming and livestock production would be a great advantage.</p>
<b>Unit 7 – 3- 1 Organic Animal Production</b>	
<b>6.1 Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learner's ability to -</i>
Understand the organic standards as related to livestock	<ul style="list-style-type: none"> <li>• explain the general approach to organic livestock production and the over-riding importance of animal welfare</li> <li>• describe the requirements imposed by the Organic Standards on one extensive and one intensive livestock enterprise</li> <li>• identify the potential role of livestock in the overall organic farm system, including potential integration of livestock and cropping systems.</li> </ul>
Manage animal health within the specific requirements of organic standards.	<ul style="list-style-type: none"> <li>• prepare an organic 'health plan' for a specific livestock enterprise</li> <li>• identify the factors which influence occurrence of disease in organic livestock</li> <li>• manage animal health, making appropriate use of conventional and complementary medicine</li> <li>• describe the husbandry and veterinary procedures required in the event of a health breakdown</li> </ul>
Apply the standards to a feeding regime for	<ul style="list-style-type: none"> <li>• list the permitted balance of feed stuffs (<i>organic/non-organic/fodder/concentrate</i>) for a specific livestock enterprise and use an</li> </ul>

livestock	appropriate feed regime within these standards.
Apply the standards to the housing of livestock	<ul style="list-style-type: none"> <li>identify the constraints imposed by organic standards on livestock housing for one extensive and one intensive organic livestock enterprise.</li> </ul>
<b>7.1 Content Outline</b>	<p>Livestock health plans and management techniques to ensure continuing good health and welfare of animals</p> <p>Basics of nutrition to ensure health and productivity</p> <p>Simple rationing for livestock at different stages of growth/lactation/gestation/development/times of year</p> <p>Major and minor trace element management (i.e. copper, calcium, iron, cobalt, selenium)</p> <p>Common animal diseases and the husbandry / veterinary procedures required to prevent and achieve control in event of a health breakdown.</p> <p>Application of appropriate management systems throughout the year including winter housing, and summer grazing.</p>
<b>8. Guidance</b>	
<b>9. Bibliography</b>	
<b>10. Glossary</b>	
<b>Unit 7 – 3 – 2 Forage for Organic Production</b>	
<b>6.2 Core Competence</b>	<p><b>Learning Outcomes</b></p> <p><i>Evidence must confirm the learner's ability to -</i></p>
Understand the importance of and contribution of fodder crops	<ul style="list-style-type: none"> <li>explain the role of fodder crops in whole farm management and their role in livestock nutrition</li> <li>describe the value of appropriate fodder plants</li> </ul>
Select and establish appropriate fodder crops	<ul style="list-style-type: none"> <li>select fodder crops that would suit a specific situation.</li> <li>describe procedures for establishing and maintenance of a fodder crop – e.g. organic grassland mixed sward.</li> </ul>
Manage fodder crops	<ul style="list-style-type: none"> <li>describe the management of two fodder crops -- including, grazing / harvesting/storage/feed preparation.</li> <li>explain a grazing management system to provide clean grazing and efficient utilisation of forage</li> </ul>
<b>7.2 Content outline</b>	Values of different fodder crops in organic production
	Procedures for establishing and managing fodder crops and mixed sward grassland.
	Grazing management and other utilisation methods to achieve effective use and disease prevention in a typical situation
	Choice and management of two fodder crops to suit individual situations
	The interpretation of any fodder analysis to prepare a diet.
<b>8. Guidance</b>	
<b>9. Bibliography</b>	
<b>10. Glossary</b>	<p><b>Forage</b> is the herbaceous plant material eaten by grazing animals.</p> <p><b>Fodder</b> crops are those grown to provide food material to be eaten by farm animals – either grazed as forage or harvested and fed as fodder.</p>



# **PROFESSIONAL COMPETENCIES FOR ECOEXPERT-AP**

**Acquired through education by  
European Standards**

**Programme of on-line training course**

## Module 1

<b>1. Title / Number</b>	<b>Organic Principles</b>
<b>2. Module size</b>	10 hours – structured learning hours.
<b>3. Module level</b>	Level 5
<b>4. Module Aim and Description</b>	<p>The aims of the Module are to develop the learner’s understanding of the principles underlying organic production and to gain an understanding of the key concepts which govern the production and marketing of organic food. The Module is designed to help learners understand the principles and underlying philosophy of “organic” production which differentiate it from the foods produced using traditional methods as well as sustainable; conservation; biodynamic; integrated pest control, and other organic style methodologies.</p> <p>The principles are developed through assignments and in case studies of a particular enterprise of relevance to the learner.</p> <p>The unit provides opportunities to demonstrate key skills in communication and problem solving.</p>
<b>5. Prior Learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding.</p> <p>Vocational experience of farming or horticulture production would be a great advantage.</p>

### 6. Core Competences and Learning Outcomes

<b>Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learners ability to --</i>
<b>1. Understand the governing principles of modern organic production</b>	<ul style="list-style-type: none"> <li>• identify the key principles of modern organic production in the agriculture and horticulture sectors. This will include –               <ul style="list-style-type: none"> <li>○ ethical issues</li> <li>○ food quality</li> <li>○ respect for natural biological cycles</li> <li>○ biodiversity</li> <li>○ pollution prevention</li> <li>○ minimising processing and food chain length</li> <li>○ consumer information and transparency</li> <li>○ wider social issues</li> <li>○ quality of life</li> <li>○ influence of the principles on demand for organic produce.</li> </ul> </li> <li>• describe in general terms how these are applied in an enterprise with which he/she is familiar.</li> <li>• discuss the development of the organic movement internationally and in their national situation.</li> <li>• review how these principles are applied in a range of production systems in a global context.</li> </ul>
<b>2. Know how organic</b>	<ul style="list-style-type: none"> <li>• describe in general terms the assurance process which differentiates</li> </ul>

<p><b>produce is differentiated from other produce.</b></p>	<p>organic produce as applied at farm and local processing levels</p> <ul style="list-style-type: none"> <li>• identify how organic produce is differentiated from that produced using traditional methods as well as sustainable; conservation; biodynamic; integrated pest control, and other organic style methodologies.</li> <li>• review local and global market trends for a range organic produce</li> <li>• evaluate the procedures for application of organic standards applied to produce grown and marketed in different EU countries</li> <li>• evaluate the procedures for application of organic standards applied to produce grown outside EU and marketed in EU countries.</li> <li>• review the implications of consumer and market pressures on the production standards required and how these have evolved</li> </ul>
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<p><b>7. Content outline</b></p>	<ul style="list-style-type: none"> <li>• History and development of the international organic movement.</li> <li>• Key principles as identified by IFOAM and other lead organisations in established literature.</li> <li>• Identification of common themes and influences</li> <li>• Illustration through case studies of relevant enterprises</li> <li>• Overview of international and national assurance procedures ( e.g. ACOS) and the role of Awarding / Certifying Bodies</li> <li>• Consumer and market trends related to local organic produce in local and international markets.</li> <li>• Explanation and differentiation between of a range of sustainable methods of production – e.g. permaculture, biodynamic and natural farming.</li> </ul>
<p><b>8. Guidance</b></p>	<p><b>Delivery.</b> <b>Resources required.</b> <b>Assessment methods</b></p>
<p><b>9. Bibliography</b></p>	
<p><b>10. Glossary</b></p>	

## Module 2

<p><b>1. Title / Number</b></p>	<p><b>Organic Standards</b></p>
<p><b>2. Module size</b></p>	<p>30 hours – structured learning hours</p>
<p><b>3. Module level</b></p>	<p>Level 5</p>
<p><b>4. Module Aim and Description</b></p>	<p>The aims of the Module are to develop the knowledge and skills which the learner will require to apply the principles and practices of organic production as required by certification schemes.</p> <p>The Module is designed to help learners</p> <ul style="list-style-type: none"> <li>• understand the specific requirements of the organic certification schemes which operate within the Member States and the overarching EC Regulation 2092 / 91;</li> <li>• know the differences between standards and approaches of the Sector Bodies operating in the learners country</li> <li>• apply these requirements in planning the operation of a unit according to</li> </ul>

	<p>these requirements, and identify any differences between certifications scheme requirements;</p> <ul style="list-style-type: none"> <li>developing a plan for conversion of a unit or enterprise to satisfy the requirements of an appropriate certification scheme</li> </ul> <p>The principles are developed through literature reviews and case studies of relevance to the learner.</p> <p>The unit provides opportunities to demonstrate key skills in communication and problem solving.</p>
<b>5. Prior Learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding.</p> <p>Vocational experience of farming or horticulture production would be a great advantage.</p> <p>Applicants must have completed EcoJob Module 1-5 Organic Principles</p>

### 6. Core Competences and Learning Outcomes

<b>Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learner's ability to --</i>
<b>1. Understand organic certification schemes as operated within EU</b>	<ul style="list-style-type: none"> <li>explain how organic certification operates within EU.</li> <li>Critically evaluate the differences in approach between and within member States and identify any practical marketing implications</li> </ul>
<b>2. Know the specific organic standards applied by a Sector Body</b>	<ul style="list-style-type: none"> <li>describe the main organic standards operated by an approved organic sector body.</li> <li>compare this to other certification schemes and discuss the production and market implications</li> </ul>
<b>3. Apply the standards to an organic production system</b>	<ul style="list-style-type: none"> <li>outline the implementation of the standards within a production sector with which he/she is familiar and identify implications for use of any different certification bodies..</li> </ul>
<b>4. Know what is involved in conversion to organic production and understand the financial implications</b>	<ul style="list-style-type: none"> <li>prepare a conversion plan for a major farm business or group of farms;</li> <li>explain the critical financial issues faced by the farm business during the conversion process.</li> <li>review the different ways in which the financial implications can be effectively managed and recommend the optimum course of action.</li> </ul>
<b>5. Know how organic standards are applied along the farm to consumer supply chain</b>	<ul style="list-style-type: none"> <li>identify the supply chain linkages and</li> <li>explain the responsibilities and certification requirements at each stage of the supply chain.</li> </ul>
<b>6. Understand the methods used to ensure imported produce meets required "organic" standards.</b>	<ul style="list-style-type: none"> <li>review how the international standards are enforced by non-EU countries.</li> <li>outline the steps taken by importers to ensure relevant standards are met</li> </ul>
<b>7. Content outline</b>	<ul style="list-style-type: none"> <li>EC Regulation 2092/91.</li> <li>National standards as applied in EU and global marketplaces.</li> <li>Study the implication of the standards to the input and management of a range of enterprises and farm businesses.</li> </ul>

	<ul style="list-style-type: none"> <li>• Conversion processes and requirements.</li> <li>• Typical conversion operations and timescales for a range of enterprises, including top fruit and viticulture.</li> <li>• Financial implications of conversion and standard application to a range of farm business.</li> <li>• Organic supply chain types and features.</li> <li>• EU Import / export requirements for organic produce.</li> </ul>
<b>8 Guidance</b>	<b>Delivery.</b> <b>Resources required.</b> <b>Assessment methods</b>
<b>9. Bibliography</b>	
<b>10. Glossary</b>	

## Module 3

<b>1. Title / Number</b>	<b>Marketing Organic Produce</b>
<b>2. Module size</b>	30 hours – structured learning hours.
<b>3. Module level</b>	Level 5
<b>4. Module Aim and Description</b>	<p>The aims of the Module are to develop the knowledge and skills which the learner will require to advise producers, organizations and agencies on the marketing of organic produce.</p> <p>The Module is designed to help learners</p> <ul style="list-style-type: none"> <li>• develop their understanding of the concepts and practice of modern marketing methods;</li> <li>• carry out market analyses relating to national and global production, consumption and processing of organic produce;</li> <li>• developing marketing plans relating to individual producers, producer groups, commercial organizations and national sectors;</li> <li>• understand issues relating to effective supply chain management.</li> </ul> <p>The principles are developed through case studies relating to organizations and sectors of relevance to the learner.</p> <p>The unit provides opportunities to demonstrate key skills in research, communication and problem solving.</p>
<b>5. Prior Learning</b>	Entrants to the programme should have completed EcoJob Module 2.5 Organic Standards and should preferably hold at least a Level 3 or 4 qualification in agriculture or horticulture.

### 6. Core Competences and Learning Outcomes

<b>Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learner's ability to --</i>
<b>1. Understand the Concept of Marketing</b>	<ul style="list-style-type: none"> <li>• critically review the marketing of organic produce (including related standards and legislation) by producers in a situation with which the learner is familiar and recommend improvements</li> <li>• critically review the marketing of organic produce by an organisation in a situation with which they are <b>not</b> familiar and recommend</li> </ul>

	improvements.
<b>2. Understanding your market</b>	<ul style="list-style-type: none"> <li>• carry out market research relating to one product or opportunity in an external market ( outside the home nation).</li> <li>• carry out market research relating to a local market services by both home produced and imported produce.</li> </ul>
<b>3. Preparing a marketing plan</b>	<ul style="list-style-type: none"> <li>• develop an appropriate marketing plan for an organization, or group selling a range of organic products.</li> </ul>
<b>4. Developing effective supply chains</b>	<ul style="list-style-type: none"> <li>• discuss different supply chain / distribution systems, including local statutory requirements and labeling requirements.</li> <li>• Review a supply chain for organic produce and recommend developmental improvements.</li> </ul>
<b>7. Content outline</b>	<ul style="list-style-type: none"> <li>• Application of the marketing concept to the range organic produce in national and international marketplaces.</li> <li>• Consumer trends.</li> <li>• The marketing mix ( 4 Ps)</li> <li>• Principles and application of market research</li> <li>• Opportunity identification and development</li> <li>• Resource audits.</li> <li>• Supply chains and how to satisfy / influence them.</li> <li>• Deciding the price.</li> <li>• Appropriate promotion.</li> <li>• Additional quality controls applied by marketplace – supermarkets / processors.</li> </ul>
<b>8 Guidance</b>	<b>Delivery.</b> <b>Resources required.</b> <b>Assessment methods</b>
<b>9. Bibliography</b>	
<b>10. Glossary</b>	

## Module 4

<b>1. Title / Number</b>	<b>Legislation</b>
<b>2. Module size</b>	30+ hours
<b>3. Module level</b>	Level 5
<b>4. Module Aim and Description</b>	<p>The aims of the Module are to ensure that the learner is aware of the legislation which affects organic farming business in his / her area and of the support available to help with these businesses; to enable him / her to advise organic farming businesses in their region.</p> <p>The module is designed to help learners;</p> <ul style="list-style-type: none"> <li>• understand the background to and significance of environmental cross compliance for the agricultural industry within EU; and</li> <li>• identify the verifiable standards relevant to farm businesses of various types; and</li> </ul>

	<ul style="list-style-type: none"> <li>advise businesses on how to comply with the relevant standards; and</li> <li>provide advice on sources of assistance (financial and advisory) to help organic farmers with the running of their businesses.</li> </ul>
<b>5. Prior learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or</p> <p>A basic knowledge of crop, livestock or horticulture production.</p> <p>Entrants to the programme -- must have completed EcoJob Modules 1-5 Organic Principles and 2 – 5, Organic Standards</p> <p>Vocational experience in farming or horticulture production would be a great advantage.</p>
<b>6. Core Competence</b>	<p><b>Learning Outcomes</b></p> <p><i>Evidence must confirm the learner's ability to -</i></p>
<b>Compliance with environmental obligations</b>	<ul style="list-style-type: none"> <li>understand the concept of “cross compliance” within EU legislation and its significance for a range of farm businesses.</li> <li>understand the specific “verifiable standards” impacting on business within EU.</li> <li>explain how a range of businesses will need to be managed to comply with these requirements</li> </ul>
<b>Compliance with legislation affecting the farm business</b>	<ul style="list-style-type: none"> <li>recognise the key features of the legislation which is likely to impact on the businesses – over and above the “cross compliance” and “organic standard” requirements.</li> <li>Provide details of sources of information on this legislation and on its application to their business.</li> </ul>
<b>Sourcing technical and financial support for the business</b>	<ul style="list-style-type: none"> <li>identify the sources of funding (grants and loans) available for organic farm businesses in their area.</li> <li>advise on how to best make appropriate application for such funding.</li> <li>identify sources of technical / business advice to organic farming businesses in their area</li> </ul>
<b>7. Content outline</b>	<p>Policy background to Good Farming Practice (GFP), Cross Compliance (CC) and their relevance to farming support payments</p>
	<p>Good Farming Practice and the associated Verifiable Standards (VS) as applied in their own and competing countries.</p>
	<p>Verifiable Standards which apply to a range of business in their area</p>
	<p>Management of a range of businesses to meet the requirements of GFP and VS</p>
	<p>General understanding of legislation with which the business must comply – in addition to GFP and Organic Standards. Examples could include, health and safety of workers; weights and measures re. product sales; labelling; food safety; pay and conditions</p>
	<p>Sources of information and advice on this legislation</p>
	<p>Financial support available to organic farmers. E.g. Organic Farming conversion grants; marketing grants.</p>
	<p>Advisory support available. E.g.; Extension Services for organic growers; Co-operative supply organisations; Colleges</p>
<b>8. Guidance.</b>	<b>Delivery</b>

	<b>Resources</b> <b>Assessment Methods</b>
<b>9. Bibliography</b>	
<b>10. Glossary</b>	

## Module 5

<b>1. Title / Number</b>	<b>Soils</b>
<b>2. Module size</b>	30 hours – structured learning hours.
<b>3. Module level</b>	Level 5
<b>4. Module Aim and Description</b>	<p>To enable the learner to develop the skills and knowledge needed to advise farmers on maximizing the potential and overcoming the limitations of a range of soils types under organic management.</p> <p>The skills and knowledge are developed through case studies relating to soils and systems of relevance to the learner.</p> <p>The unit provides opportunities to demonstrate key skills in research, communication and problem solving.</p>
<b>5. Prior Learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or</p> <p>A basic knowledge of crop, livestock or horticulture production.</p> <p>Vocational experience in farming or horticulture production would be a great advantage.</p> <p>Entrants must have complete EcoJob Modules 1.5 ( Organic Principles) and 2.5 ( Organic Standards).</p>

### 6. Core Competences and Learning Outcomes

<b>Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learners ability to --</i>
<b>1. Understand soil types and carrying capacities for a range of soils in a region.</b>	<ul style="list-style-type: none"> <li>• identify and describe characteristics of soil types and their carrying capacities in the region</li> <li>• advise on the management of these in organic production systems, using soil analyses and other appropriate techniques.</li> <li>• describe soils management techniques to reduce pests and disease in the crop.</li> <li>• describe soils management techniques to improve soil structure.</li> <li>• identify the techniques available for minimising nutrient loss and optimising soils structure and microbial activity in organic systems</li> </ul>
<b>7. Content outline</b>	<ul style="list-style-type: none"> <li>• Soil types</li> <li>• Carrying capacities of soil types</li> <li>• Geology and climate characteristics of a given region</li> <li>• Management of soils to increase fertility and / or structure</li> <li>• Cultivation techniques and their sequence</li> <li>• Role of microorganisms and trace elements in disease and pest control.</li> </ul>

	<ul style="list-style-type: none"> <li>Biodiversity and the benefits for soil structure.</li> </ul>
<b>8. Guidance</b>	
<b>9. Bibliography</b>	
<b>10. Glossary</b>	

## Module 6

<b>1. Title / Number</b>	<b>Organic Crops</b>
<b>2. Module size</b>	30+ hours
<b>3. Module level</b>	Level 5
<b>4. Module Aim and description</b>	<p>The aims of the Module are to enable the learner to develop the range of skills and knowledge required to advice on organic crop production in a variety of situations</p> <p>The module is designed to help learners:</p> <ul style="list-style-type: none"> <li>understand the specific requirements of the organic standards in relation to the successful growing, management, harvesting and storage of selected crops</li> <li>apply these standards to a wide range of crops</li> <li>develop cropping plans</li> </ul>
<b>Prior learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or</p> <p>A basic knowledge of crop, livestock or horticulture production.</p> <p>Entrants to the programme -- must have completed EcoJob Modules 1-5 Organic Principles and 2 – 5, Organic Standards</p> <p>Vocational experience in farming or horticulture production would be a great advantage.</p>
<b>Core Competence</b>	<p><b>Learning Outcomes</b></p> <p><i>Evidence must confirm the learner's ability to -</i></p>
<b>Select appropriate crops for any situation</b>	<ul style="list-style-type: none"> <li>describe the optimum soil, moisture and climatic conditions required for successfully growing a range of crops in a specific geographical area.</li> <li>develop organic cropping plans for an individual farm and a range of farms in a region with which they are familiar.</li> </ul>
<b>Managing organic crops</b>	<ul style="list-style-type: none"> <li>list the sequence of actions required to establish, and grow a specified range of crops</li> <li>describe and discuss the role of rotations in organic crop production.</li> <li>identify the techniques available for minimising nutrient loss and optimising soils structure and microbial activity in organic systems</li> <li>describe the preventative measures to be put in place, including weed control, to ensure a healthy crop without the need to rely on external inputs</li> <li>list permitted inputs and discuss their use.</li> <li>evaluate the limitations imposed by the organic standards</li> </ul>
<b>Harvesting organic crops</b>	<ul style="list-style-type: none"> <li>discuss the importance of crop condition, market requirements (if appropriate) timeliness and other factors governing the harvesting of specific crops to meet market requirements</li> </ul>

<b>Storage of organic crops</b>	<ul style="list-style-type: none"> <li>describe the storage requirements to comply with organic standards for a range of crops.</li> <li>list in store conditions and appropriate care of crops to ensure good keeping quality</li> <li>discuss store management to ensure product is of market quality.</li> </ul>
<b>7. Content Outline</b>	Suitability of crops for specific site and situation including consideration of irrigation, farmers time and commitment, geographical and climatic conditions etc.
	Crop hygiene – buy in policy, sourcing of seed and inputs.
	Cultivation types, timeliness, ground conditions etc. Seed bed preparation
	Nutrient requirements of crops. Nutrient budgets for crop rotations, and techniques available for minimising nutrient loss and optimising soils structure and microbial activity in organic systems
	Rotation options and selection Cropping Plans and their development Weeds, pests and disease in selected crops and management to minimise effects and achieve control. Permitted inputs to ensure crop health. Management, control and safe use of permitted inputs.
	Economic thresholds for WPD on a wide range of crops in a variety of situations
	Harvesting – machinery, care of, selection of, appropriateness of, when to harvest (e.g. early if going to market, when dry enough for storage etc.) Care at harvest – avoiding damage to crop, ground etc
	Storage: organic restrictions, conditions of stores for a variety of crops – hay to potatoes – etc.
<b>8. Guidance</b>	
<b>9. Bibliography</b>	
<b>10. Glossary</b>	

## Module 7

<b>1. Title / Number</b>	<b>Organic Animals and Fodder crops</b>
<b>2. Module size</b>	30+ hours
<b>3. Module level</b>	Level 5
<b>4. Module Aim and description</b>	<p>The aims of the Module are to enable the learner to enable the learner to develop the competence required to advise producers and organisations on how to – care for and feed animals to high welfare standards while satisfying the Organic Standards (<b>Unit 7 – 5- 1 Organic Animal Production</b>); and plan and manage appropriate forage systems for the production of year-round feed for organic livestock (<b>Unit 7 – 5 – 2 Forage for Organic Production</b>)</p> <p>The module is designed to help learners:</p> <ul style="list-style-type: none"> <li>understand the specific requirements of the organic standards as regards the rearing of livestock</li> </ul>

	<ul style="list-style-type: none"> <li>• apply these standards to a range of livestock enterprises</li> <li>• plan and manage forage production systems for organic livestock production.</li> </ul>
<b>5. Prior learning</b>	<p>Entrants to the programme should ideally have a Level 3 or 4 qualification in agriculture or horticulture with associated underpinning scientific understanding; or</p> <p>A basic knowledge of crop, livestock or horticulture production.</p> <p>Entrants to the programme -- must have completed EcoJob Modules 1-5 Organic Principles and 2 – 5, Organic Standards</p> <p>Vocational experience in farming and livestock production would be a great advantage.</p>
<b>Unit 7 – 5 - 1 Organic Animal Production</b>	
<b>6.1 Core Competence</b>	<p><b>Learning Outcomes</b></p> <p><i>Evidence must confirm the learner's ability to -</i></p>
Understand the organic standards as related to livestock	<ul style="list-style-type: none"> <li>• explain the general approach to organic livestock production and the over-riding importance of animal welfare</li> <li>• describe the requirements imposed by the Organic Standards on the extensive and intensive livestock enterprises</li> <li>• identify the potential role of livestock in the overall organic farm system, including potential integration of livestock and cropping systems.</li> </ul>
Management of animal health within the specific requirements of organic standards.	<ul style="list-style-type: none"> <li>• prepare organic 'health plan' for livestock enterprises</li> <li>• discuss the factors which influence occurrence of disease in organic livestock</li> <li>• critically review the management animal health, and the roles of conventional and complementary medicine</li> <li>• discuss the options available for selection of husbandry and veterinary procedures required in the event of a health breakdown</li> </ul>
Apply the standards to feeding regimes for a range of livestock types	<ul style="list-style-type: none"> <li>• describe the permitted balance of feed stuffs (<i>organic/non-organic/fodder/concentrate</i>) available for a range of livestock enterprises and identify appropriate feed regimes within these standards.</li> </ul>
Apply the standards to the housing of livestock	<ul style="list-style-type: none"> <li>• identify the constraints imposed by organic standards on livestock housing for extensive and intensive organic livestock enterprises.</li> </ul>
<b>7.1 Content Outline</b>	<p>Livestock health plans and management techniques to ensure continuing good health and welfare of animals</p> <p>Application of scientific principles of animal nutrition to ensure health and productivity</p> <p>Compile rations for livestock at different stages of growth/lactation/gestation/development/times of year</p> <p>Recommend major and minor trace element management (i.e. copper, calcium, iron, cobalt, selenium)</p> <p>Review common animal diseases and the husbandry / veterinary procedures required to prevent and achieve control in event of a health breakdown.</p>

	Apply appropriate management systems throughout the year including winter housing, and summer grazing.
<b>8. Guidance</b>	
<b>9. Bibliography</b>	
<b>10. Glossary</b>	
<b>Unit 7 – 5 – 2 Forage for Organic Production</b>	
<b>6.2 Core Competence</b>	<b>Learning Outcomes</b> <i>Evidence must confirm the learner's ability to -</i>
Understand the importance and contribution of fodder crops	<ul style="list-style-type: none"> <li>explain the role of fodder crops in whole farm management and their role in livestock nutrition</li> <li>review the value of forage / fodder plants in organic animal production systems</li> </ul>
Select and establish appropriate fodder crops	<ul style="list-style-type: none"> <li>select fodder crops that would suit a range of situations.</li> <li>discuss procedures for establishing and maintenance of fodder crops, including organic grassland mixed swards.</li> </ul>
Manage fodder crops	<ul style="list-style-type: none"> <li>discuss the management of the range of fodder crops -- including, grazing / harvesting/storage/feed preparation.</li> <li>Review the grazing management systems to provide clean grazing and efficient utilisation in typical organic systems</li> </ul>
<b>7.2 Content outline</b>	Values of different forage / fodder plants in organic production
	Procedures for establishing and managing fodder crops and mixed sward grassland.
	Grazing management and other utilisation methods to achieve effective use and disease prevention in a range of situations
	Choice and management of fodder crops to suit typical situations
	The interpretation of any fodder analysis and its use in preparing a diet.
<b>8. Guidance</b>	
<b>9. Bibliography</b>	
<b>10. Glossary</b>	<b>Forage</b> is the herbaceous plant material eaten by grazing animals. <b>Fodder</b> crops are those grown to provide food material to be eaten by farm animals – either grazed as forage or harvested and fed as fodder.

# CONCLUSION

## Learning outcomes - Key Competencies of EcoFarmer

Modules	Key Competencies
Module 1: Organic Principles	<ul style="list-style-type: none"> <li>▪ Understand the governing principles of modern organic production and key principles as identified by IFOAM;</li> <li>▪ Know how organic produce is differentiated from other produce.</li> </ul>
Module 2: Organic Standards	<ul style="list-style-type: none"> <li>▪ Know and apply schemes for organic certification, which operate in the framework of the EU and specific standards in agrarian sector.</li> </ul>
Module 3: Marketing Organic Produce	<ul style="list-style-type: none"> <li>▪ Develop and implement marketing plan for an individual bio-product and conduct a simple marketing survey;</li> <li>▪ Delivering market performance.</li> </ul>
Module 4: Legislation	<ul style="list-style-type: none"> <li>▪ Identify the specific “verifiable standards” impacting on the business and recognise the range of legislation impacting on the business, adding to requirements of “cross compliance” and organic standards;</li> <li>▪ Sourcing technical and financial support for the business.</li> </ul>
Module 5: Soils	<ul style="list-style-type: none"> <li>▪ Interpret and use soil analyses to develop organic fertiliser application technology, use means to manage and enhance soil structure and organic matter on their farm;</li> <li>▪ Understand their soils in relation to organic production.</li> </ul>
Module 6: Organic Crops	<ul style="list-style-type: none"> <li>▪ Know and apply organic technologies for growing crops and apply preventive measures to ensure healthy crop without the need to rely on external inputs in farm;</li> <li>▪ Adapt own behaviour for circumstances in solving problems on the farm.</li> </ul>
Module 7: Organic Animals and Fodder crops	<ul style="list-style-type: none"> <li>▪ Understand the organic standards as related to livestock;</li> <li>▪ Manage animal health within the specific requirements of organic standards;</li> <li>▪ Apply the standards to the housing and feeding regime of livestock</li> </ul>

	▪ <b>Select and establish appropriate fodder crops and manage them.</b>
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## LEARNING OUTCOMES - Key Competencies of EcoExpert-AP

Modules	Key Competencies
<b>Module 1:</b> <b>Organic Principles</b>	<ul style="list-style-type: none"> <li>▪ Identify the key principles of organic production in agricultural sector;</li> <li>▪ Describe in general terms how these are applied in an enterprise;</li> <li>▪ Discuss how these principles are applied in a range of production systems;</li> <li>▪ Review and discuss development of organic agriculture in international aspect;</li> <li>▪ Know how organic produce is differentiated from other produce.</li> </ul>
<b>Module 2:</b> <b>Organic Standards</b>	<ul style="list-style-type: none"> <li>▪ Describe how function main organic certification schemes, operated by approved organic sector body in EU;</li> <li>▪ Outline the implementation of the main organic standards within a production sector within a concrete EU member-country and identify practical implications for the market;</li> <li>▪ Identify ways in which the financial implications can be effectively managed;</li> <li>▪ identify the supply chain linkages;</li> <li>▪ Explain the responsibilities and certification requirements at each stage of the supply chain; Understand the methods used to ensure imported produce meets the required “organic standards”.</li> </ul>
<b>Module 3:</b> <b>Marketing Organic Produce</b>	<ul style="list-style-type: none"> <li>▪ Critically review the marketing of organic produce (including related standards and legislation) by producers;</li> <li>▪ Carry out market research relating to products’ realisation in internal and external ( outside the home nation) markets;</li> <li>▪ Carry out market research relating to a local market services by both home produced and imported produce;</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Develop an appropriate marketing plan for an organization, or group selling a range of organic products;</li> <li>▪ Review resources used during organic production;</li> <li>▪ Understand the concept of marketing.</li> </ul>
Module 4: Legislation	<ul style="list-style-type: none"> <li>▪ Outline the concept of “cross compliance” within EU legislation and its significance for a range of farm businesses;</li> <li>▪ Recognise the key features of the legislation which is likely to impact on the businesses;</li> <li>▪ Provide details of sources of information on this legislation;</li> <li>▪ Identify sources of technical / business advice to organic farming businesses in their area.</li> </ul>
Module 5: Soils	<ul style="list-style-type: none"> <li>▪ Advise on the management of soil in organic production systems, using soil analyses and other appropriate techniques;</li> <li>▪ Describe soils management techniques to reduce soil pests;</li> <li>▪ Describe and propose to organic producers techniques for minimising nutrient loss and optimising soils structure and microbial activity in organic systems</li> </ul>
Module 6: Organic Crops	<ul style="list-style-type: none"> <li>▪ Develop and apply organic cropping plans for an individual farm;</li> <li>▪ Describe and discuss the role of rotations in organic crop production;</li> <li>▪ Discuss the importance of crop condition, market requirements (if appropriate) timeliness and other factors governing the harvesting of specific crops to meet market requirements;</li> <li>▪ Describe the storage requirements to comply with organic standards for a range of crops;</li> <li>▪ Select appropriate crops for any situation;</li> <li>▪ Manage organic crops;</li> <li>▪ Harvesting organic crops;</li> <li>▪ Storage organic crops;</li> <li>▪ Discuss store management to ensure quality produce in compliance</li> </ul>

	with market requirements.
<b>Module 7: Organic Animals and Fodder crops</b>	<ul style="list-style-type: none"> <li>▪ Describe the requirements imposed by the Organic Standards on livestock management;</li> <li>▪ Select fodder crops that would suit a range of situations for assuring whole farm management and to comply with fodder balance recommended;</li> <li>▪ Discuss procedures for establishing and maintenance of fodder crops, including organic grassland mixed swards;</li> <li>▪ Identify the potential role of livestock in the overall organic farm system, including potential integration of livestock and cropping systems;</li> <li>▪ Prepare organic 'health plan' for livestock enterprises;</li> <li>▪ Discuss the factors which influence occurrence of disease in organic livestock;</li> <li>▪ Discuss the options available for selection of husbandry and veterinary procedures required in the event of a health breakdown.</li> </ul>

The training materials on the program are published in the project web-site: [www.ecojob-ap.org](http://www.ecojob-ap.org)

## Documents for recognition of professional qualification EcoJob-AP

### Europass

- Administered by National Europass Centres in each Member-State
- Used to describe qualifications and competences on defined formats
- Cross references to European Qualification Framework (EQF)

### **EcoFarmer**

#### **1. Europass-CV**

*The Europass is a document, in which the level of education reached by the holder according to the EU standards, is described. The Europass-CV is the passport of the holder, which can be upgraded regularly.*

##### 1.1. Content

- Biography, which presents personal data of the Europass holder,
- Professional occupation (work places, activities, professional experience),
- Dossier with examples of holder's professional work,
- Language biography,
- Data on institutions that have administered holder's education and issued the respective document confirming holder's qualifications.

#### **2. Europass-Mobility**

#### **3. Europass-Certificate Supplement**

Document, attached to certificate for professional education that:

- Provides information for learning outcomes and professional competences,
- Provides the scope of working abilities of the holder,
- Gives data on professional awards by accredited bodies,
- Gives the Level of certificate,
- Data on how the certificate has been received

### **EcoExpert**

#### **1. Europass-CV**

The Europass is a document, in which the level of education reached by the holder according to the EU standards, is described. The Europass-CV is the passport of the holder, which can be upgraded regularly.

##### 1.1. Content

- Biography, which presents personal data of the Europass holder,
- Professional occupation (work places, activities, professional experience),

- Dossier with examples of holder's professional work,
- Language biography,
- Data on institutions that have administered holder's education and issued the respective document confirming holder's qualifications.

## **2. Europass-Mobility**

### **3. Europass-Diploma Supplement**

Document for higher education (Diploma)

### **4. Europass-Certificate Supplement**

Document, attached to certificate for professional education that:

- Provides information for learning outcomes and professional competences,
- Provides the scope of working abilities of the holder,
- Gives data on professional awards by accredited bodies,
- Gives the Level of certificate,
- Data on how the certificate has been received.

### **5. Europass-Language Portfolio**