



ANGIE Learning Units

4th Partner Meeting
11-14 December 2013
Krems, Austria



This is a first draft of all the units together.

ANGIE Learning units are 3-4 week practical placements in 6 different countries, which focus on various technical fields. Each learning unit contains learning outcomes which should be achieved and assessed at the end of the training abroad.

During the practical the students will write a blog with about their experience, success, failure, challenges, difficulties, incidents in order to make their informal learning visible.

Austria – Cheese making

Denmark – Organic dairy farming

France – Production and direct selling of agro-products

Spain – Canning food

Sweden – Mechanized forestry - transport

The Netherlands - Innovative mechanization

Common requirements

Students participating in ANGIE learning units

- need to be able to understand written and spoken information related with the professional sector listen at level B1 (*The ability to express oneself in a limited way in familiar situations and to deal in a general way with non routine information.*)
- need to be able to speak, write and communicate at level A2 (*An ability to deal with simple, straightforward information and begin to express oneself in professional contexts.*)
- will write a blog
- cannot have more than two subjects / modules that are marked as insufficient / need to be re-sit from the current school program and study year.
- are capable of living independently, work and travel to and within a foreign country.
- are willing to perform an internship of at least 3 weeks.
- have to be committed themselves to follow the ECVET unit abroad and sign a learner agreement.
- are financially capable of working and living abroad
- are not allowed to follow the ECVET unit without consent of their parents (if under 18)
- are not allowed to follow the ECVET unit without consent of the home institution.

Question/reflection regarding the level of learning outcomes in vocational education training

We are aware that the students should be at level 4 at the end of the education. But they will start out from a lower level and work/learn their way up. Some tasks will require continuous instructions for some extended period of time due to the complicated nature of the task.

Organising the units

Title of Unit	Country	Person responsible	Participating students	Date of placement	Additional comments
Cheese Making	AT	Julia Danner	FR 1-2 ES 1 NL 1-2 HU 2		
Organic Dairy farming	DK	Annette Esbjerg Jensen	FR 1-2 ES – 1 NL 1-2 HU – 2 AT-1?		
Production and Direct Selling of agro-products	FR		AT 1-2 DK 1-2 SE 2		
Canning food – hygiene and quality	ES	Paco Fernandez	NL – 2 Fr – 2		
Mechanized forestry – transport	SE	Claes-Göran Claesson	RO 4-5 DK 1-2 NL 1-2 AT 1-2 HU 1-2	April (exact weeks we don't know yet; max 4 weeks)	Total max 8 students
Innovative Mechanization	NL	Karin Elferink/ Evelien Kist			

The sound of fresh cheese

You are already familiar with general basics in milk processing and hygienic requirements. You will work on a dairy farm which processes milk and produces cheese. You will get instructions first and work under supervision. At the end you will be asked to produce fresh cheese independently and self-responsibly and you will be able to explain the process.

Learning outcomes

LO 1:

The student can produce fresh cheese taking the different steps of cheese production into consideration. S/he knows the chemical aim of lactobacillus and rennet and can draw relevant conclusions.

Knowledge	Skills	Competences
The student ...		
<ul style="list-style-type: none"> knows the name of the various tools. knows the physical effect of centrifuge. knows why lactobacillus is necessary. knows the aim of rennet. knows the aim of a salt bath. knows the different types of cheese. 	<ul style="list-style-type: none"> is able to centrifuge the milk. is able to cut the curd. can separate the curd from the whey. is able to put the curd in and out of the forms. put the cheese in a salt bath. can prepare a salt bath, if it is used in the individually production of the farm 	<ul style="list-style-type: none"> can analyse the size of the curd. can define when the curd is dry enough to be put out of the forms. follows and applies hygienic measures can prepare fresh cheese for selling

The learning outcome is part of the training for EQF level 4. The “Certificate of Apprenticeship in Agriculture” is the diploma awarded in Austria at the end of the basic vocational education and training.

Dairy farming (Organic)



You will work in an organic dairy farm. You are going to work with the animals and with the machines and technic in the stables. You are going to learn to be observant and reactive in relation to daily task in an organic dairy farm among this also the safety measures, communication with colleagues. You will also learn about the values of doing organic dairy farming versus conventional dairy farming. We expect you to know the basic of handling dairy cows and put the learning outcomes in relation and perspective to your previous experience and knowledge.

Learning outcomes

LO 1: Daily tasks

- The student can manage, either by instructing others or by performing the tasks himself, the daily processes on a dairy farm related to organic farming

Knowlegde	Skills	Competence
<p>The student can apply knowledge in relation to:</p> <ul style="list-style-type: none"> feeding of organic dairy cattle milking of organic dairy cattle handling of organic dairy cattle hygienic standards in organic dairy farms 	<p>The student can:</p> <ul style="list-style-type: none"> feed organic dairy cattle milk organic dairy cattle handle organic dairy cattle perform daily tasks according to hygienic standards in organic dairy farms 	<p>The student can take animal welfare and economic considerations into account while carrying out normal daily tasks related to the work in an organic dairy farm, such as milking, feeding, in relation to hygienic standards, handling the cattle etc.</p>

LO 2: Communication

The student can co-operate and communicate with other students, staff and superiors in different situations in an organic dairy farm.

Knowlegde	Skills	Competence
<p>The student can apply knowledge in relation to:</p> <ul style="list-style-type: none"> Social interrelations Importance of tolerance and acceptance for positive social relations Relevant terms and concepts used in organic dairy farming 	<p>The student can:</p> <ul style="list-style-type: none"> Act appropriately and positively in a social context Communicate with colleagues using the relevant and correct terminology 	<p>The student can in a tolerant and accepting way co-operate and communicate positively and constructively in social relations with other students, staff and superiors in different situations in an organic dairy farm.</p>

LO 3: Safety

- The student can take care of own and others safety in daily tasks in an organic dairy farm.

Knowlegde	Skills	Competence
<p>The student can apply knowledge in relation to:</p> <ul style="list-style-type: none"> • Safety measures in an organic dairy farm • Prevention of accidents • Ergonomic correct working procedures in a organic dairy farm 	<p>The student can:</p> <ul style="list-style-type: none"> • Act appropriately with regard to safety measures • Act appropriately with regard to prevention of accidents • Act appropriately with regard to working procedures in an organic dairy farm 	<ul style="list-style-type: none"> • The student can take safety measures, ergonomic correct working procedures and prevention of accidents into account in care of own and others safety in daily tasks in an organic dairy farm.

Question/reflection regarding the level of learning outcomes in vocational education training

We are aware that the students should be at level 4 at the end of the education. But they will start out from a lower level and work/learn their way up level by level. So when we have students in practical training in an organic dairy farm, they should first be given instructions before they can handle things on their own. And some tasks will require continuous instructions for some extended period of time due to the complicated nature of the task. So we know that the finish goal should be level 4, when the student graduates, but the way up there will go through lower levels in respect to individual pre-competencies. And in respect to a “short-term” stay at an organic dairy farm it can be difficult to achieve a full scale level 4.

Canning Food

You will work in a canned food factory. There you will have the opportunity to learn about the process from the input of raw materials to the final conservation treatment. You will receive instructions and you should pay special attention to the observation of hygiene and safety rules. At the end of your apprenticeship, you are expected to be able to explain the process of making canned vegetable food.

LO 1:

- The student is able to elaborate vegetables, to put them in the containers and apply conservation treatments, ensuring quality, hygiene, food safety and observing the labour hazards rules.

Knowlegde	Skills	Competence
<p>The student –</p> <ul style="list-style-type: none"> Knows equipment, tools and auxiliary services needed for canning processing. Knows processes and products used for canned vegetables food. Knows critical points analysis used for canning processing, Knows different types and formats of packaging used in the manufacture of canned vegetables. 	<p>The student:</p> <ul style="list-style-type: none"> Is able to carry out cleaning process and maintenance of equipment used in the manufacture of canned vegetable. Is able to prepare and carry out the canned food process according to the procedures and technical instructions required. Is able to use sampling instruments, probes, quick tester and quality parameters of data transmission equipment. Is able to check the characteristics of packaging material to process: type, quality of material, size, closures, etc. Keeps the work area with adequate housekeeping. 	<p>The student:</p> <ul style="list-style-type: none"> Can understand and use oral and written instructions on canned vegetables food process. Can oversee, control, manage and record the data of canned vegetable food process. Can perform the processing operation for making canned vegetable food according to de recipe of the manufacture sheet. Can make testing and quality control test during the manufacturing process. Can identify workplace hazards and take preventive measures to avoid accidents.

- A training agreement must be signed between the company and the student sending institution.
- The company must name a tutor responsible of student training and supervision.
- The student sending institution must name a tutor of student who will be in contact with the hosting institutions and willing to solve any inconvenience.

PRODUCTION AND DIRECT SELLING OF AGROPRODUCTS ON FAMILY FARMS (protected regional agro-products)

Learning outcomes

LO 1: PERFORMING BREEDING DAIRY COWS

Identify, explain and analyse main elements in daily tasks with dairy cows

Knowledge	Skills	Competences
<p>Knowledge acquired during school period :</p> <ul style="list-style-type: none"> • Animal biology, zoo-technical science • Feeding • Pathology and illness • Oestrus cycles, artificial and natural reproduction techniques • Animal well fare • milk quality 	<ul style="list-style-type: none"> • Observe animal behaviour to be able to recognize simple events (mastitis, heat period, ...) • Manage simple health interventions • Respect occupational / safety risks, especially when manipulate animals 	<ul style="list-style-type: none"> • Adjust the daily tasks to observations made on the herd • Coordinate his own work schedule • Assume responsibility of his own safety

LO 2: Processing DAIRY PRODUCTS FROM THE MILK OF DAIRY COWS ON THE FARM (butter, cream, yoghourts cheese, ice creams, ...)

Identify, explain and analyse main elements in daily tasks

Knowledge	Skills	Competence
<p>Knowledge acquired during school period:</p> <ul style="list-style-type: none"> • Milk : main nutrients and biochemical components • Milk microbiology 	<ul style="list-style-type: none"> • Receive fresh milk • Carry out control milk (microbiological level, chemo physical properties, contents) • Process the milk: • * be able to organize the work according to the quantities to be processed, • * be able to implement the process • * respect the rules of hygiene and good practices 	<ul style="list-style-type: none"> • Take into account the manufacturing process and equipment constraints • Carry out the dairy product done on the farm (butter, cream, yoghourts cheese, ice creams...) • Make the necessary adjustments based on the results and unexpected events for a product line • Assume responsibility of his own safety

LO 3: DIRECT SELLING

Identify, explain and analyse main elements in direct selling agro-products

Knowledge	Skills	Competences
<p>Knowledge acquired during school period :</p> <ul style="list-style-type: none"> • production cost, margin rate, ... • Get aware about regulations (hygiene, safety) • Negotiation and sales technique, marketing, ... • Quality labels, guarantee of origin, organic label... 	<ul style="list-style-type: none"> • Welcome clients and get available for them • Present the different products • Carry out the delivery • Be in tune with consumers 	<ul style="list-style-type: none"> • Manage stock • Realize the act of sale • Insure monitoring of sales and payments



Innovative mechanisation in dairy farming

You will work in a modern dairy farm with innovative machines. You are going to work with the machines such as a milking robot, a feeding robot and/ or a slurry robot. Next to that you do the daily farming tasks such as milking, feeding, cleaning, observing the cattle and be reactive to the occurring situations. Of course you know the rules concerning safety and you communicate with your colleagues. You will learn about the advantages of working with robots, the cleaning of the robots, you will learn about the costs, the maintenance and all relevant back ground information.

We expect you to know the basics of handling dairy cows and put the learning outcomes in relation and perspective to your previous experiences and knowledge.

Next to staying at the farm, you will visit the AOC Terra for three days (one at the beginning, the other two later during your stay) to learn about the theory of the several robots, the costs (economical part), the brands and where to find all information. You will work out a proposal for implementing the new techniques in your own situation.

Learning outcomes

LO 1: The student is able to apply relevant practical research methods to discover trends and developments in the branch for example milking robot, feeding robot, slurry robot

Knowledge	Skills	Competence
<p>The student has</p> <ul style="list-style-type: none"> • Knowledge of developments in the branch • Knowledge of organization and production methods • Insight in new possibilities • Insight in the daily routine of the company 	<p>The student can:</p> <ul style="list-style-type: none"> • Generate information and data • Operate machines • Maintain machines 	<p>The student shows he can:</p> <ul style="list-style-type: none"> • Cooperate • Consultate

LO 2: The student is able to translate these new techniques, possibilities, to his own situation, company, branch.

Knowledge	Skills	Competence
		<p>The student shows he can:</p> <ul style="list-style-type: none"> • Value new possibilities • Apply risk management • Create and identify changes and possibilities • Cooperate • Consultate

LO 3: The student is able to make a proposal for implementation of these techniques in his own situation

Knowledge	Skills	Competence
	<p>The student</p> <ul style="list-style-type: none"> • is able to make a proposal for implementation of these techniques in his own situation 	<p>The student shows he can</p> <ul style="list-style-type: none"> • oversee the financial consequences of his choices • reflect

Mechanized forestry – transport

Värnamo, Sweden, Length of stay: 4 weeks

Learning outcomes

LO 1:

- The student is able to drive a forwarder in different terrain conditions in a safe and proper way and is able to combine his/her achieved knowledge, skills and competences and use them in new and unforeseen situations.
- The student understands his/her role in a harvesting team and can, on his own, make decisions which lead to a good overall result for the whole team.

Knowledge	Skills	Competences
The student ...		
<ul style="list-style-type: none"> • Recognize site hazards and interpret instructions • Identify different timber assortments • Identify the inspection points on the forwarder and loader and describe maintenance schedules and intervals • Describe the function of traction aids • Identify controls and instruments • Describe the basic operation of the loader • Describe the basic operation of the machine • Describe the importance of working in harvesting teams • Describe risks and health and safety instructions 	<ul style="list-style-type: none"> • Assort different assortments according to national instructions • Do the maintenance on a forwarder according to manufacturers' recommendations • Decide when and how to use traction aids and to fit traction aids • Interpret instruments and recognize alarms • Use the loader in a proper, safe and smooth way • Drive the machine in different conditions • Work in harvesting teams • Identify risks and take precautions 	<p>shows responsibility by</p> <ul style="list-style-type: none"> • Taking the right action to prevent environmental damage • Optimizing the transport in consideration of timber assortments and site conditions and plan the landing site and stack the timber assortments that facilitates the further transports • Recognizing when additional remedial maintenance is required to prevent major failures • Deciding when traction aids are necessary and select appropriate traction aids for the site • Taking the right action in the event of an alarm and other incidents • Positioning the machine and load and unload efficiently • Operating a forwarder in an efficient and correct way and utilize the possibilities a modern forwarder offers • Communicating with and support other team members • Reflect on health and safety activities within the team

Prerequisites:

You need to prepare for working abroad. In order to participate in the program you will have:

- basic skills in tractor driving
- chain saw certificate
- practice from crane operation
- basic knowledge in silviculture
- preparations for working abroad

LO 2:

- The student is able to cope with a different culture and people from different backgrounds and can communicate in a foreign language on issues concerning daily work, specific work related terms, work environment and safety. The student understands his/her role in a team and can, on his own, take action which lead to a good overall result for the whole team.
- The student is able to combine his/her achieved knowledge, skills and competences and use them in new and unforeseen situations.

Knowledge	Skills	Competences
The student can...		
<ul style="list-style-type: none"> • Describe features of a different culture • Describe characteristics of the applied practice in a specific branch of the land based industries • Understand relevant professional terms • Recognize site hazards and interpret health and safety instructions 	<ul style="list-style-type: none"> • Work and cooperate in teams • Analyze potential risks and take precautions • Use the correct professional terms in a foreign language 	<p>The student shows responsibility by</p> <ul style="list-style-type: none"> • Listening to and communicating with and support other team members in their communication for a good overall result • Discuss different solutions of a certain problem in a foreign language • Reflect on health and safety activities within the team