



# **Final Report**

## **“Training Path Eco-Preneurship”**

### **Walking the Path to become an Eco-Preneur**



**A Leonardo Da Vinci Partnership Project**  
**By the National Agencies of Lifelong Learning**

Written by: Participants of the Partnership Countries – the Netherlands, Austria, Norway, Portugal, Switzerland.

Project Duration: 2014 – 2015

Contact details of the lead partner: Wouter Joop, [w.joop@ulmus.eu](mailto:w.joop@ulmus.eu).

Download: <http://www.greencare.at/project/eco-preneur-project/>.

This project has been funded with support from the European Commission.

This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

# Contents

1.	Introduction - “Eco-Preneurship” in the prospective of this project .....	5
1.1.	Values.....	5
1.1.1.	Local based development.....	5
1.1.2.	Social function .....	6
1.1.3.	Food production .....	7
1.1.4.	Environmental services (organic farming).....	8
1.2.	Definition “Eco-Preneur” .....	8
2.	Partner description.....	9
2.1.	Coordinator – The Netherlands .....	9
2.2.	Partner - Austria.....	9
2.3.	Partner - Norway.....	10
2.4.	Partner – Portugal.....	10
2.5.	Partner – Switzerland.....	11
2.6.	Distribution of tasks as planned in the proposal .....	11
3.	Development of the training path of the Project “Eco-Preneurship” .....	12
3.1.	Time table of the Eco-Preneurship Project.....	12
3.2.	Coming from a curriculum to a training path .....	15
4.	Market Analysis .....	16
4.1.	Target group.....	16
5.	Training path .....	16
5.1.	Introduction: The Norwegian case.....	16
5.2.	Farm-school cooperation in the community of Aurland .....	17
5.3.	Outcomes of the project in Aurland .....	19
5.4.	Tailoring a training path in place-based learning .....	20
5.4.1.	First step: Preparation and relationship.....	20
5.4.2.	Second step: to see yourself and the place in a larger space .....	21

---

5.4.3.	Third step: Design and implement of form and content to each module .....	21
5.4.4.	Fourth step .....	22
6.	Competences, skills and knowledge of an Eco-Preneur.....	23
6.1.	Context.....	23
6.2.	Description .....	24
6.3.	SHL Universal Competence Framework.....	24
7.	Evaluation and Practical Relevance .....	27
7.1.	Cooperation .....	27
7.2.	Communication.....	27
7.3.	Responsibility and Decision making:.....	27
7.4.	Results.....	28
8.	Future perspectives and development .....	28
9.	Ongoing and Future Dissemination.....	29
9.1.	Book “Knowledge for a common future” by Jorun Barane, Aksel Hugo and Morten Clemensen, 2015.....	29
9.2.	Workshop at the IFSA conference in the UK in 2016.....	29

# Final Document Eco-Preneurship Project

## 1. Introduction - “Eco-Preneurship” in the prospective of this project

The aim of this partnership is the creation of a training path for rural entrepreneurs (the primary aim – the creation of a curriculum, was transferred in the first year of the partnership after a market analysis had showed that a flexible training path better fulfils the needs of the target groups).

To achieve this goal a cooperative work-style has been chosen, in which every partner contributes certain elements that finally build up the training path.

The training path offers farmers and other rural entrepreneurs possibilities of being trained in “Eco-Preneurship”, which enables them to design, develop, implement, manage and/or innovate concepts of multifunctional agriculture like social farming and other Green Care interventions.

The partnership focuses on 3 quality-aspects within the training path:

- 1) “User approach”: its content are based on knowledge and competences that have proven most essential in already existing enterprises of this sector;
- 2) “Relation based experiential learning” method to speak to the initiative- and will-forces of the learners;
- 3) “Modular set-up”: the training path has to fit in different existing courses and function as both improvement by modification and innovation by re-development.

The aim of the project is mainly to evaluate, adjust and assemble single elements that lead to the main-objective: a modular training path “Eco-Preneurship” which is thoroughly implemented in different European countries to complete existing vocational training options.

### 1.1. Values

An Eco-Preneur, a rural entrepreneur, works for and with other human beings, using the rural setting as basis for his resp. her work. This movement, which has become more and more popular in the last years, is also known as social farming. To understand the developments of this phenomenon we first want to offer a closer look at several values that take great influence.

#### 1.1.1. Local based development

Local development became visible in a rather sudden way in the middle of the 1980s. It was the result of the conjunction of a particular economic (crisis of the traditional industries, widespread emergence of the services economy), social (persistent unemployment, new social exclusion forms in the cities) and political climate (decentralization, crisis of the central Welfare State, European integration).

Local development is intrinsically associated with a multidimensional concept of change bringing together economic, social, cultural and environmental dimensions, with innovation across and in the spaces between these dimensions. It may be seen as a method, which helps improving quality of life, supporting or accelerating empowerment of ordinary people, developing or preserving local assets, overcoming market failures, strengthening cohesion, and defining and delivering grass-root development projects.

Hence, local development can be characterized as a dynamic process along three main lines: inputs, outputs and outcomes. The keywords associated to each are:

- Inputs: area, sense of belonging, community, bottom up, partnership, endogenous potential, and proximity.
- Outputs: local beneficiaries, self-help, increased incomes and revenues, access to services, quality, efficiency, relocation, diversification, new methods, and increased local value.
- Outcomes: collective and common goods, development, strategy, regeneration, effectiveness, future, social innovation, empowerment, legitimacy, well-being, amenities, and collective intelligence.

Thus, active contribution to rural/regional developments implies a broad, cross-sectoral perspective, motivation to create cooperation between un-alike actors and also a certain degree of un-selfishness and courage. It cannot be sufficiently explained by work-input, employment-rates and output-percentages. Tradition, identity and connection are essential factors as well. To govern the local/regional resources of nature and culture and a heightened sense of own traditions and values are essential for the creation of well-being, pride and responsibility to develop one’s own region. This also contributes to create attractive places to move to.

Regional development is about creating better places for living and working. A well established learning-environment, cultural- and spare time-offers and meeting points for inhabitants are an important fundament for future developments of a region.

### **1.1.2. Social function**

Enterprises built and run by “Eco-Preneurs” are able to answer to challenges and issues concerning rural development and fulfill an important function as catalysts for phenomena like

- declining and aging of the rural population,
- pressure on arable land because of urbanization,
- farming methods, in which farmers largely depend on external factors on both the input- (capital, commodities, subsidies) and the output-side (long trading chains, global market prize etc.),
- the loss of traditional/cultural landscapes due to mechanization of farming,
- loss of social structures due to missing job-opportunities for younger generations,

- economic and social exclusion due to problematic access to the labour market for disadvantaged/marginalized people,
- increasing costs of subsistence and maintenance of social/public service and infra-structure, or
- national budget cuts.

Being connected to the movement of multi-functional agriculture, the partnership of this “Eco-Preneurship Project” has experienced that new concepts and business-models for rural enterprises can have a big counter-effect (directly or in-directly) on de-migration, senescence and other phenomena in rural areas. This results in re-vitalizing and ensuring crucial resources for future generations.

### **1.1.3. Food production**

Food systems comprise all aspects of food production (the way the food is grown or raised; the way the food is harvested or slaughtered; and the way the food is processed, packaged, or otherwise prepared for consumer purchase) and food distribution (where and how the food is sold to consumers and how the food is transported). Food systems can be divided into two major types: the global industrial food system, of which there is only one, and sustainable/local (or regional) food systems, of which there are many. The global industrial food system has a much wider geographic reach than a local or regional food system.

The term “local food system” (or “regional food system”) is used to describe a method of food production and distribution that is geographically localized, rather than national and/or international. Food is grown (or raised) and harvested close to consumers' homes, then distributed over much shorter distances than is common in the conventional global industrial food system. In general, local/regional food systems are associated with sustainable agriculture, while the global industrial food system is reliant upon industrial agriculture.

Commonly, “local food” refers to food produced near the consumer (i.e., food grown or raised within a limited number of miles distance from a consumer). However, because there is no universally agreed-upon definition for the geographic component of what “local” or “regional” means, consumers are left to decide what local and regional food means to them. A 2008 survey found that half of consumers surveyed described “local” as “made or produced within a hundred miles” (of their homes), while another 37% described “local” as “made or produced in my state.” The ability to eat “locally” also varies depending on the production capacity of the region in question: people living in areas that are agriculturally productive year-round may have an easier time sourcing food that is grown or raised 100 miles (or even 50 miles) from their homes than those in arid or colder regions, whose residents may define “local food” in a more regional context.

Local food systems rely upon a network of small, usually sustainably run, family farms (rather than large industrially run farms) as the source of farm products. Industrial farming negatively impacts the environment in myriad ways (e.g., by polluting the air, surface water, and groundwater, over-consuming fossil fuel and water resources, degrading soil quality, inducing erosion, and accelerating the loss of biodiversity). Industrial agriculture also adversely affects the health of farm workers,

degrades the socioeconomic fabric of surrounding communities, and impairs the health and quality of life of community residents. In addition, although the concept of “food miles” (i.e., the number of miles a food item travels from farm to consumer) has been criticized as an unreliable indicator of the environmental impact of industrially produced food, it should be noted that conventional food is estimated to typically travel between 1,500 and 3,000 miles to reach the consumer and usually requires additional packaging and refrigeration. Many small-scale, local farms attempt to ameliorate the environmental damage done via industrial farming by focusing on sustainable practices, such as minimized pesticide use, no-till agriculture and composting, minimized transport to consumers, and minimal to no packaging for their farm products.

#### **1.1.4. Environmental services (organic farming)**

The impact of organic agriculture on natural resources favors interactions within the agro-ecosystem that are vital for both agricultural production and nature conservation. Ecological services derived include soil forming and conditioning, soil stabilization, waste recycling, carbon sequestration, nutrients cycling, predation, pollination and habitats. By opting for organic products, the consumer through his/her purchasing power promotes a less polluting agricultural system. The hidden costs of agriculture to the environment in terms of natural resource degradation are reduced.

### **1.2. Definition “Eco-Preneur”**

“Eco-Preneur” is a profession newly defined by the consortium in this project. With the term Eco-Preneurs the partners mean professionals who either run an enterprise or plan to do so and in which elements of farming are combined with other (social) functions than purely food-production. These professionals can be farmers or others like therapists, teachers, social workers, hand-craft men, and so on. Here the term “multi-functional agriculture” and its definition (multi-functional agriculture describes the interrelation and meaning of farming to other sectors like health, care, education and others) can help to comprehend the various possibilities and forms for enterprises in this sector.

Thus being an Eco-Preneur is much more than being “just a farmer”: Today’s food-producers have often been reduced to a commodity and subsidy-depending form of entrepreneur, who are mainly taught how to administer and manage external funding. An Eco-Preneur follows an opposite approach: He/she is able to identify internal resources (personal qualities, uniqueness of the farm) and combine them with external resources (local and regional culture, traditions) to place them in a wider context with the general goal. Thus, revenues are achieved on a multi-bottom-line, which means both economic/financial revenues, but also social, educational and/or environmental revenues.

Being an Eco-Preneur is more about to be able to take a well calculated risk – not trying to avoid it. The challenges of rural areas in many European countries cannot be addressed by entrepreneurs, who are depending on subsidies and who have learned to avoid every risk as best they can: Only entrepreneurs in the “classical sense”, who see chances and gather all necessary means to change



them into a positive reality, have that potential. This asks for new approaches of how to educate the future generations of entrepreneurs, and what to teach them.

## **2. Partner description**

The Eco-Preneurship project includes five partnership countries: The Netherlands as coordinator (main partner) and Austria, Norway, Portugal and Switzerland as additional partners.

### **2.1. Coordinator – The Netherlands**

The name of the organization, which is the coordinator, is Groenhorstcollege/Warmonderhof Opleidingen, which is a vocational or technical secondary school in Dronten in the Netherlands. The contact person is Wouter Joop, course-coordinator “Landbouw&Zorg”.

Warmonderhof has a long history and many years experience in developing and offering courses in different aspects of multi-functional farming. Having started in 1947 as first school for bio-dynamic/organic farming, today they also offer courses in care-farming, urban-farming and multi-functional farming. Warmonderhof sees great need for this project and will be able to innovate their course-offers with its results. This will ensure the quality of their offer in general by addressing specific needs of future and recent entrepreneurs, who will explore and enrich this modern and important sector of multi-functional agriculture.

### **2.2. Partner - Austria**

The organization’s name is the Hochschule für Agrar- und Umweltpädagogik (University College for Agrarian and Environmental Pedagogy, UCAEP), which is a higher education institute in Vienna, Austria. The contact person is Dorit Haubehofer – van Meel, researcher and trainer at the University College.

The UCAEP functions as a platform in the areas of agrarian and environmental education and training. It is the main-channel for professionals for further education and consultancy in the direction of social farming and Green Care in Austria. Therefore, it maintains a rich network to other organizations and their actors.

The University College is one of the leading organizations regarding the topic of Green Care. It hosts an association for horticultural therapy, has a University training course “horticultural therapy”, and since autumn 2012 also a Master training “Green Care”. Furthermore, it hosts the website [www.greencare.at](http://www.greencare.at), and publishes the GREEN CARE magazine.

### **2.3. Partner - Norway**

The name of the organization is Sogn Jord og Hagebrukskule (SJH), which is a vocational or technical secondary school in Aurland in Norway. Contact person is Jorun Barane, a nature pedagogue at SJH.

The SJH is a secondary vocational school who provides courses in organic farming and offers a special concept of “place-based-learning”, that involves local and regional handcraft and business as active educational partners for classes, while they use the didactical approach of “relation-based experiential learning” to enable students to enhance knowledge and competences through practical experience. The whole concept is a result of a long-term initiative of the school in cooperation with other local schools (primary and secondary), local and regional government and local/regional handcraft/business. They have developed this concept together with the UMB (Universitet Miljø- og Biovitenskap in Aas, Norway), who is researching the effects and integrating pedagogical and didactical tools and models. “Place-based learning” is running since 1990, giving first-hand results and insight since over 20 years of how to develop a whole region into an integral learning-environment for students of all ages.

### **2.4. Partner – Portugal**

The organization’s name is Instituto Politécnico de Coimbra – Escola Superior Agrária (ESAC), which is a higher education institution in Coimbra, Portugal. The contact person is Pedro Mendes-Moreira, assistant professor at ESAC.

The educational, scientific and cultural project of the Escola Superior Agrária de Coimbra (ESAC) proposes its national vocation in agriculture and related fields, with a strong presence at regional level. Their work benefits from international cooperation, results from protocols and research projects, as well as the large contact with their ex-students who develop their activity in Portugal and abroad.

ESAC also is associated with local business activities by establishing relations between them and final stage students of different courses. ESAC has excellent relations with counterpart institutions at national and international level in particular with Portuguese-speaking countries.

They serve as a center for promotion and dissemination of knowledge assuming their role as a reference institution at national and regional level, promoting a professional education, supported in their excellent infrastructures and taking advantage of a teaching body, with strong links to its areas of activity. Under these conditions, ESAC plays an important role in the professional qualification of the people, on territorial cohesion and in the promotion of local and regional development in Portugal, through the training of professionals that promote the production and processing of foods, the sustainable use and management of natural resources, as well as the utilization and development of leisure activities in the natural environment.

ESAC has three levels of graduations: Technological Specialization Courses (CET), Bachelor and Master degrees. Their research covers:

- 1) Genetic resources, pre-breeding and breeding and participatory plant breeding that are straightly connected with the improvement of local products.
- 2) Soil and nitrogen fertilization management systems, irrigation, drainage and soil.
- 3) Economics: This expertise has been developed under several national and international projects.

## 2.5. Partner – Switzerland

The name of the organization is Züricher Hochschule für Angewandte Wissenschaften (ZHAW), which is a higher education institution in Wädenswil, Switzerland. Contact person is Hans Wydler, group leader of the research group "Green & Health".

The ZHAW - being a University - is not directly involved in vocational education. Nevertheless, it plays a crucial role in Switzerland of collecting educational needs of practitioners/farmers and guiding them to the right partners. They function like a "spider in a web" in the intersectoral and heterogenic network that has grown and acts around the phenomena of green care, social farming and multifunctional agriculture in Switzerland.

## 2.6. Distribution of tasks as planned in the proposal

- 1.) Warmonderhof: Besides the project-coordination Warmonderhof was mainly responsible for the construction of the toolbox, since they have decades of experience in teaching and training bio-dynamical farmers, who very often became the first pioneers in care-farming and social farming and, for about 12 years they have offered "care-farming" as specific education-program. They teach entrepreneurial tools and knowledge that are fit to meet the professional challenges, integrate personal development techniques in their classes and focus on attitude and perspective of the trainees in relation to the role of a rural enterprise in a specific region.
- 2.) UCAEP: Main-responsible for the project dissemination-strategy on European/international level. The UCAEP has great experience in networking and disseminating relevant products among different actors in Austria, which is why they filled this function in the partnership. They also had an advising and coordinating/managing role in elaborating the national dissemination-strategies for the single partner organizations and supported the lead partners in project management tasks.
- 3.) SJH: The SJH was responsible for the didactical structure and the focus on sustainable learning. They have experience for nearly 20 years with their own developed program "place-based-learning" which combines rural entrepreneurship, teaching and regional development. This program is based on a didactical structure called "relation-based experiential learning". This structure was the starting point for the common elaborated didactical structure of the partnership. In addition, the SJH involved Aurland Naturverkstad, a landscape-architect bureau that developed a tool called "mapping" which is about identifying local and regional resources as first step towards building regional cooperation that can enhance and protect these resources.

- 4.) ESAC: The ESAC focused on the overall relevance towards improvement of rural development issues. With their experience and network, both nationally and internationally, they were able to create solid anchors for the curriculum and the topic across sector-boarders.
- 5.) ZHAW: Similar to the UCAEP, the ZHAW mainly contributed to a solid and professional dissemination strategy of the project on both national and international level. They were a crucial channel to implement the results and the project within Switzerland. Their main-contribution was providing statistical tools and methods of data-acquisition and evaluation.

### **3. Development of the training path of the Project "Eco-Preneurship"**

#### **3.1. Time table of the Eco-Preneurship Project**

September 2013: Kick Off meeting in the Netherlands

Main objective(s):

- (a) common understanding of the project and its scheduled steps (workplan),
- (b) identification and evaluation of the individual input and resources (assignments)

Main outcome(s):

- (a) first draft of the definition of „Eco-Preneurship“
- (b) first draft of a competence/skill chart for „Eco-Preneurs“
- (c) overview over all national situations and perspectives

December 2013: work meeting 1 in Portugal

Main objective(s):

- (a) identifying all competences and skills of an "EcoPreneur" within different levels
- (b) building a matrix of competences and skills ("toolbox")
- (c) finalizing the preparation of the survey amongst our targetgroup

Main outcome(s):

- (a) questionnaire/survey ready to be conducted
- (b) first draft of a matrix to collect competences and skills and linking them to different levels

Changes:

The main goal, building a curriculum, was changed to “building a training path”. This had, of course, consequences for the existing work plan and some of the objectives/outcomes. In chapter 3.2 of this document, the reasons for this decision and its consequences are elaborated.

**March 2014: work meeting 2 in Austria**Main objective(s):

- (a) dissemination of the project
- (b) interdisciplinary and intercultural input for the project
- (c) revised work plan due to changed main goal

Main outcome(s):

- (a) international conference “Green Care”
- (b) adjusted work plan “walking the training path”

**June 2014: work meeting 3 in Norway**Main objective(s):

- (a) action-based research of methodology (“didactical structure”)
- (b) walking the training path – step 1

Main outcome(s):

- (a) concept trainings-model for Eco-Preneurship

**October 2014: work meeting 4 in Portugal**Main objective(s):

- (a) action-based research of integration of “toolbox” in “didactical structure”
- (b) walking the training path – step 2

Main outcome(s):

- (a) concept competence/skill – matrix
- (b) assignment production

**February 2015: work meeting 5 in Switzerland**Main objective(s):

- (a) action-based research “compatibility of EcoPreneurship with different educational levels”

- (b) walking the training path – step 3
- (c) dissemination
- (d) production

Main outcome(s):

- (a) document-structure "Final Document"
- (b) production-planning and assignments
- (c) [www.greencare.at](http://www.greencare.at)

March 2015: work meeting 6 in the Netherlands

Main objective(s):

- (a) production
- (b) walking the training path – step 4
- (c) action-based research "Eco-Preneurship and business models"

Main outcome(s):

- (a) draft-version "Final Document"

May 2015: Final meeting in the Netherlands

Main objective(s):

- (a) finalization production
- (b) preparation Final Report
- (c) closing the project

Main outcome(s):

- (a) Final Document
- (b) assignments "Final Report"
- (c) checklist "project administration"

### 3.2. Coming from a curriculum to a training path

In the course during the work-meeting in Coimbra in October 2013, it was decided to change the originally planned curriculum to a training path.

The main reason for this decision was that a preliminarily done market analysis (also see Chapter 4) showed that the main target group for an Eco-Preneurship training consists of women between 25-45 years of age who do not have much time for a long curriculum and who want to learn mostly about "soft skills" (personal development) rather than "technical or functional skills".

Such skills are better trained and learned with a training path that can be individually created and adapted than with a fixed curriculum. The training path still includes a tool box and offers a certain didactical structure, but it offers even more flexible learning and therefore better fulfils the needs of the main target group.

In the Vienna meeting in March 2014 a decision was made on how to create the tool box for the training path: It should be created in a practically growing way, where the participants of the partnership countries would visit each other and learn from each other. During each visit, elements would be selected that fit into the tool box and could be used to create the training path. These elements could be either practical or theoretical.

That is how it was done. During the rest of the Eco-Preneurship Project, the participants of the partnership countries visited each other and "walk the training path themselves" to figure out the right sequence and right form of the training path, and to work on essential questions like its

- duration,
- structure (infrastructure and finance),
- communication, implementation, and integration
- organization
- value and effect

Thus, by the end of the Eco-Preneurship project a training path had been developed which leads future Eco-Preneurship students from one partnership country to the other. In each country, the students can choose from the existing training options those that are essential to him/her and learn these certain elements which create in total the whole training path. By walking the training path, the student becomes an Eco-Preneur.

## 4. Market Analysis

### 4.1. Target group

In November 2013 a questionnaire was sent out by all partners within their own networks. The aim of this questionnaire was to create a survey of the needs and background of future students in Eco-Preneurship. Altogether 57 people filled in the questionnaire, which gave us the opportunity to draw some conclusions:

The biggest potential lies in the age group of 25-45 years old and mainly women would be interested in this training. This accords with other observations in the field of multifunctional agriculture: new types of business or new activities in existing businesses are mostly started by female entrepreneurs. The typical student-to-be has already received a training in another field, the current occupation is education/pedagogy and farming/forestry. One-third of the respondents already runs a business in social farming. The need for training lies mainly in so-called "soft skills", focussing in personal development, social care and leadership.

## 5. Training path

### 5.1. Introduction: The Norwegian case

In Norway, there is a growing movement to develop collaboration between farms and schools. The question has been: "How can we contribute to fostering hope, courage and resolve in children so that they may participate in a productive way in shaping their surroundings and the community?"

In 1994 the SJH started cooperate taking children to the farm and develop their own schoolgarden on the farm's ground. In 1996 a group from the Life Science University of Aas and invited the school to participate in an national project called "Living School project " [www.livinglearning.com](http://www.livinglearning.com) .

Aurland primary and secondary school is a 1-10 school with 154 pupils today. Aurland municipality bought land at Sogn agriculture and horticulture school its due in 1970. Where previously lay a smallholding which burned down, the new and modern primary and junior secondary (ABU) lasted erected on the site in 1974. The farm's powerful history and rich natural resources were the starting point for the development of the Aurlandmodell. Since the activities already had started, Aurland primary school (ABU) and now was chosen to be one of 8 others pilot schools in Norway starting a schoolgarden and farm as an pedagogical resource (from 1996 to 2000).

During the 4-year period of this project, new knowledge was achieved through courses, skills and guidance. Through interplay, network assignments and reflection the parents, teachers, local organizations and entrepreneurship found a shared glossary and became aware of their own village and new possibilities. There was a growing consciousness about the areas products and values and their significance for learning for a sustainable future. The common goal was to facilitate continuous contact between the pupils and the farm so that a "matter-of-fact" familiarity in relationship to the



animals and the work at the farm could arise. After the project was finished this awareness was even growing into the wider landscape.

Cooperation with local organizations started, like the World Heritage park, and the mountain ranger service, different local organizations, the Slow Food Movement, etc. The work and the developing project was growing interdisciplinary together with the local primary School. At the same time, the Life Science University started a new course in "The farm as a pedagogical recurs" offering 10 credit point. There were 7 participants from the community at the course and we concept was renamed from "Living School" to "place-based education", which more reflected the actual content. In this way, the curriculum was embedded outside the classroom into the place and the whole community, both the valley and the mountain.

## 5.2. Farm-school cooperation in the community of Aurland

The school in the small community of Aurland (population: 1687), wedged between vertical cliffs in a West Norwegian fjord, was one of the first pilot schools in 1996. They had already begun with a small garden for the six-year-olds who had become the youngest schoolchildren after a new school reform, which sent 5 ½ year olds to school. The combined grade and junior high school is next door to the agriculture high school. Here was an opportunity to cooperate and build up a local curriculum based on natural resources and their traditional use in the valley. Now, after nearly 15 years of experience, the school and community in Aurland is serving as a model for other communities who want to develop place-based learning.

The connection to outdoor work with nature is established already in the kindergarten, which is located in the middle of farmyard of the agriculture high school. The children see youth and adults with their tools, machines, harvests and animals as they come and go from the fields. In their own garden each child has a bed for vegetables and flowers. The kindergarten also has its own chickens, which are cared for by the children. In addition, the children go to the farm with their teachers to get milk, harvest vegetables, pick berries and other fruits, which they use for their own meals.

When the children begin at school, just over the road from the kindergarten and farm, they start a 10 year path of learning which will take them back to the farm many times. The farm is the basis for their practical work. In the first grade they begin with the nearest and most basic food crop, the grains, which are growing outside of the classroom window. In the fields at the farm they sow grains, harvest them with small sickles, ground them in a hand mill and bake bread. The next class has potatoes as theme, from planting to harvesting and making local traditional products.

The animals on the farm bring the children farther out into the landscape. The themes of sheep in the third class, the horses in the fourth and the goats in the fifth class include trips to the grazing meadows, following the animals to the mountains, spending a night in the summer huts and making cheese.

All of the classes have their own areas in the school garden. The 5th class has the responsibility for sowing and producing the plants for the school garden in the greenhouse of the agriculture school. They sell also plants on the local market to the community. In the sixth and seventh class the

emphasis is laid on homemaking and conservation of fruits and vegetables, both from their own garden and from harvests at the farm. The pupils also begin to work in the forest, learning to use both saw, ax, and stack wood for the winter. They make milk products, press juice from apples, pears and plums and create a feast for their parents. They are also employed by the mountain management board to set nets and evaluate the fish populations in mountain lakes. In the junior high school the pupils take on the responsibility for cultivating the landscape around the local folk museum as they learn about the cultural history of their community. In this project the pupils are also brought in contact with a local mountain farmer just above the folk museum, as they participate in restoring old timber flows.

Some of the topics from the lower grades are renewed and widened. For example, the 8th class has sown, harvested and threshed grains which they grind to flour in a restored water mill. The theme of grain is thus extended to water power, an important source of income in the valley. Retired farmers have contributed with knowledge about threshing and milling of grains and power plant workers take the pupils on guided study tours of the modern power plant. In turn they are invited to breakfast with rolls from the pupils own production.

In the junior high school the pupils learn about traditional handwork and agricultural techniques such as "hesjing" spinning and dyeing of wool with local plants. The pupils have also made cultural trails for tourists with signs and informative texts in English and German. In this way the children and youth grow gradually into the landscape through an understanding for the traditional economic foundation and through participation in production which is based on local resources. They have experienced a series of manageable tasks and established a relationship to many people in the community through their work. The school is also concerned with fostering entrepreneurship and solidarity. The pupils establish businesses and sell many of their products, for example, to support a home for children in Uganda started by a former teacher at the agriculture high school. From the local community, they grow out into the world with an understanding based on the tasks they have met and done. In Aurland they call this a "sustainable path of learning" which the pupils can take with them anywhere in the world, but which they can also use to develop Aurland further.

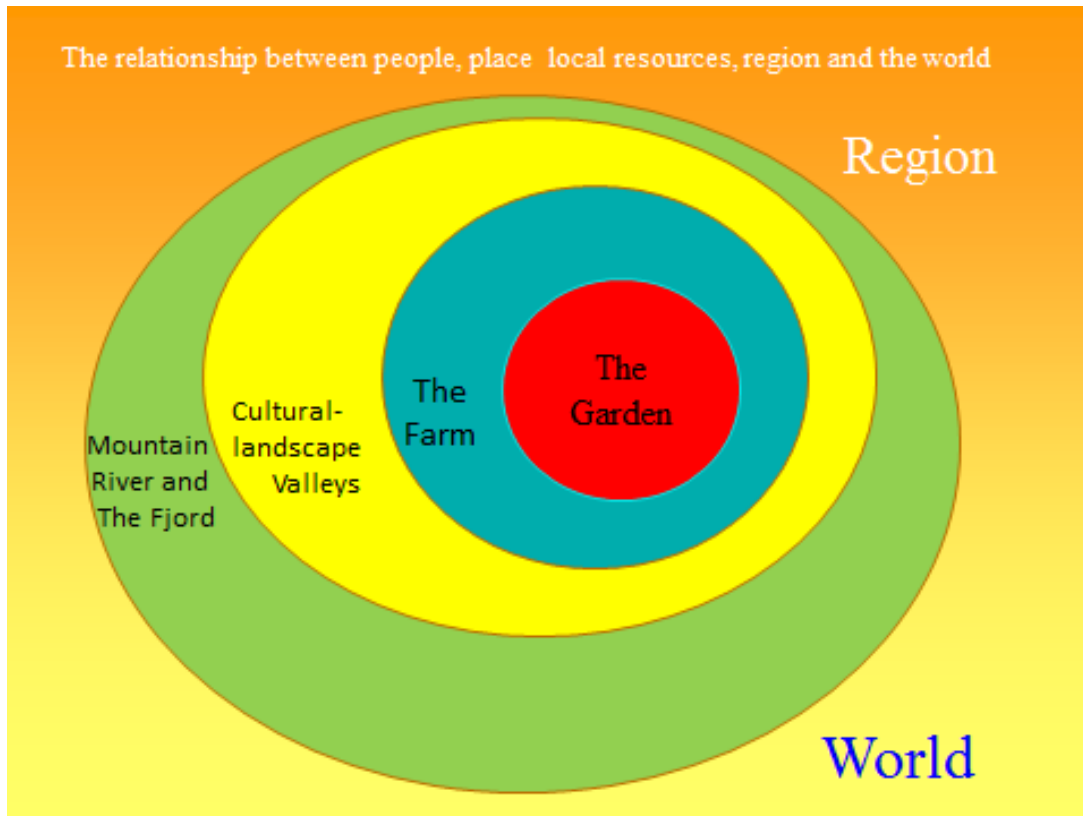


Fig 1, The Aurlandsmodel shows who we place the curriculum out into the hole community, the region and the world

### 5.3. Outcomes of the project in Aurland

The community of Aurland has from 2005 become the center for The World Heritage Park of Naeroyfjorden. It is of utmost importance that the park has knowledgeable hosts and guides who are proud to show guests the qualities of the place. Since the park is based on sustainable use of natural resources, it needs people who can cultivate and harvest, those who can offer products and services that have their origin in the local landscape, as well as those who can meet, understand and engage visitors. The place-based learning at the school seems tailor-made for this purpose, although the school project began much earlier.

There have been no systematic studies of the pupils who have completed the 10 year cooperation between the farm school, farmers in the valley, the mountain board, the folk museum and the school, but there are strong indications that affects are already being felt:

- The new economic leader of the community services wishes to work closer with the school to involve still more participants.
- The first increase in many years in the local population has occurred with young parents saying that this is the school they want for their children.
- The municipality has received funds from the county for developing this cooperation further to include health services, so-called "Green Care" and employment training.

- The municipality together with the agriculture school and the grade school have developed a course offer for other communities in place-based learning.
- The school is participating in the "Taste Slowly" festival where the pupils invite the whole community to a meal, which they have prepared from their own products.

In addition, in interviews conducted with teachers from the school within the framework of a master thesis, teachers spoke of the project as a turning point, both personally for themselves and for the pupils. One told that she had moved to the community to take part in the "Living School" project. She called her activity in the school garden and other outdoor projects for a "renewal" as teacher. "I become more alive (through the outdoor activities) and become a better communicator for the children. The pupils are proud of the place they live and she thinks that this is a good sign. A third teacher told of use of local resources for new products and services among pupils who had participated through the whole 10 years. One young man has established a summer job through catching, smoking, vacuum-packing and selling mountain trout to restaurants, stores and tourists. A young woman is using her skills in horsemanship to transport summer tourists and goods to mountain lodges. Practical knowledge and skills acquired in the local community contributes to a further development of local resources.

The Aurlandsmodel is the background for the place based learning course and the training path in "Eco-Preneurship Project".

#### **5.4. Tailoring a training path in place-based learning - Example from the region Sogn and Fjordane in Norway**

##### **5.4.1. First step: Preparation and relationship**

###### **Mobilization, involving, anchoring and getting ownership to the processes**

When planning and developing a "custom sewing" new course to local and regional needs, the first step is to be conscious of the preparation of it and who to facilitate and anchor the course.

That means also involvement of the participant from the first beginning. A good idea can be to plan the first meeting in the local community and invite key actors in the process from the very beginning. In this way, the key people will get ownership to the process from the very start. In our case, we invited and integrated three different municipalities to join us. Then the first phase was to find the grant for the course and to secure project financing. Experiences from equal processes have shown that such applications change in quality where one enters into a formal agreement between the Partners.

In this way, you are able to link it to both the school, teachers, staff and the municipality and in our case the regional The World Heritage Park as a common regional area for the course. If people have ownership to the developing project by doing together, the process will be community building from the very start. Moreover, if you build relation from the very start with people from different agencies is easier later to anchor your final projects and bring it out into being. From the very start, we

worked interdisciplinary and combined people from the school, the leaders and teachers with the health and service people, local farmers or handcraft businesses and entrepreneurs together with people from the park, the region and the people from the local municipality.

#### **5.4.2. Second step: to see yourself and the place in a larger space**

To get a better view on your own situation it is necessary to step outside and travel a little. A study tour could be the right thing to do. To meet others to focus on professional development, network, and our own learning. In such a study tour one gets an opportunity to create new relationship both to one's self, others and partners. The experience is that then it is easier to meet on another again and to anchor the new developed project after the course into praxis.

Therefor the SJH did a study tour to England here represented by key actors. The study tour to England and Cotswold was done by actors from primary school, business, voluntary organizations, and universities. On study trips you can learn directly of experiences from persons and projects involved in similar processes.

They visited Ruskin Mill College, a previously "wool mill" turned into an arena for learning in craft-based pedagogy for young people with special needs. In addition, one of the participants said that this gave much knowledge about how school can interact and integrate with the local community. The group will than reflect on how they can use the experiences of their own ideas and praxis.

During the study, trips there were each afternoon reflections on the questions in the ties to what we had experienced during the day we discuss it in a common setting. After the study trip, the participants had a meeting to discuss the content and the goal of the course. The focus was to find the right question of the content, goal of the course modules.

Design and content was worked out after the journey and approval was done by the Life Science University (NMBU) 15 credits study points.

#### **5.4.3. Third step: Design and implement of form and content to each module**

##### **Module 1**

- Methods in resource analysis, tools.
- Teachers plan work and learning analyses.
- Participation focus on background, ideas, motivation.
- The common and the individual!
- Local community development in practice.
- Create meeting place for interaction and development.
- Mentoring, home work.

##### **Module 2**

- Profile and direction of the individual project.

- Method and strategy for place-based education.
- Agreement between supplier and buyer.
- Cultural and social entrepreneurship.
- The local artists and local stories.
- Genius Loci, the unique with or village, to step inside the place.
- Distinctiveness.

### Module 3

- The Regional space and sustainability.
- The local and the global.
- Solidarity with other people and cultures.
- Extended Self, Arne Næss, Deep ecology.
- New curiosity for the mystery.
- Awareness of individual and shared (community ) values (inner and- outer values)
- What is wellbeing for you?
- Who to hold on to your individuality in a group with colleges.
- Who to bring your work out into praxis.
- Report, funding further project

The course takes the basis of the European Landscape Convention which emphasize local communities and Regions its involvement in managing and developing their own landscape. Participants should on the course work with; Methods for identifying individuality of place and resources locally. Ethic and green value creation and place based learning. Learning analysis and learning ecology.

Storytelling artistic and creative methods as a tool in the creation processes. Interplay and sustainability of human as well as nature. Development of agreements between business and user. Anchoring Processes and the role of the host, facilitating skills. Place Based growth in regional context. The course is organized with three parts with main focus (community, entrepreneurship and the region)

Mentoring is done between the modules; participants will gradually work with individual project with guidance also in the common group.

#### 5.4.4. Fourth step

Project developing and implementation in the concert environment, developing own business based on local reassures and individual values. The core of the entrepreneurship oriented courses are the individual projects that the participants themselves are going to developed. Each module have therefore a primary role to give context, content and direction to this development through academic perspective, planning tools, methodological exercises and cooperation on creating the common project. The development of a project has two different sides; an outer and an inner. The outside is about finding your team and the concept project /entrepreneurship you are going to develop. The inn side is about inner maturation processes and common learning processes develop a common languish and common understanding of the reassures and the values of the region.

Impotent learning was that the course was community building in itself and the important of putting our self into the present of time and place. The understanding of the reassures, individuality and the dynamic of the Region

### **Results of the course: Transforming People and Place**

Anchor development projects and entrepreneurship in the individuality and reassures of the region. Create a regional network for entrepreneurs and who want to make a different or changes. Give inspiration and knowledge to become a better entrepreneur. Master the innovative process, dissemination and development methods

Eco-Preneurship does not separate the development of human beings from the development of the place, but re-connects them consciously. In addition, Eco-Preneurship does not separate methods understanding the resources and history of a place from methods of creating common imaginations of what the future of place and people might look like. There is therefore a need to connect insights and methods that look at understanding human ecology, development and resources for transformative learning with methods that look at place, resources and regional development.

## **6. Competences, skills and knowledge of an Eco-Preneur**

### **6.1. Context**

In our times, we face our societies being in many transitions. Some of these transitions can even be called crises, some of them very easily noticeable (economy), some of the more smoothly but yet accelerating (climate change, the gap between the rich and the poor). Macro-economic forces and globalization largely influence the way we organize our lives as well our local or regional society.

In the same time, there is a growing awareness among people and a wish for a society, which gives space and a right to live for the individual in a sustainable way socially, economically and ecologically. There are many local, small-scale grassroots initiatives which on very concrete subjects such as alternative economy, multifunctional agriculture, recycling, urban farming, etc. In fact, they are local and regional laboratories for innovation.

The people in these initiatives, both individuals and communities, come across different challenges. These challenges require new, modern competences, which generally are obtained in the field while working. Present education, to be more specific education on vocational level, does teach its pupils technical skills but does not have an eye on the more "soft skills" which make the difference in success and failure while running a small business. It must be remarked that here classic education (youngsters going to college) reached its boundaries because many challenges are just experienced in real life and can hardly be practiced in the classroom.

## 6.2. Description

An Eco-Preneur is a person who has an innovative practice serving the local community across the fields of – ecological and economic, social and ecological, economic and social. An Eco -Preneur is able to integrate and develop skills related to social responsibility and sustainability dimensions in a rural or urban farming environment

## 6.3. SHL Universal Competence Framework

In order to connect to existing training courses in different countries we combined the aspects of Eco-Preneurship as pronounced by the partners with the SHL Universal Competence Framework (UCF). For the UCF thousands of professions worldwide have been analysed and categorised. The result is a list of 20 competences which are generally described and which can be made specific for a certain profession.

The framework below shows the competences identified as being relevant for an Eco-Preneur. In the column SHL Competence, the relevant competences are described. In the column Component, additional information is given on the competence. In the most right column Eco-Preneur the aspects of being an Eco-Preneur as described by the partners is connected to one of the competences from the UCF.



SHL Competence	Component	Eco-Preneur
<b>Adhering to Principles and Values</b>	<ul style="list-style-type: none"> <li>- Upholds ethics and values.</li> <li>- Demonstrates integrity.</li> <li>- Promotes and defends equal opportunities.</li> <li>- Encourages organisational and individual responsibility towards the community and the environment.</li> </ul>	<ul style="list-style-type: none"> <li>• Is aware of the local circumstances (<i>Umweltbewusstsein</i>).</li> <li>• Knows the integrated ecosystems.</li> <li>• Is aware of local craftsmanship and cultural identity</li> <li>• Knows the place with its deep ecology.</li> </ul>
<b>Relating and Networking</b>	<ul style="list-style-type: none"> <li>- Relates well to people at all levels.</li> <li>- Builds wide and effective networks of contacts.</li> </ul>	<ul style="list-style-type: none"> <li>• Is able not to appeal not only to teachers OR students OR farmers, but ALL learners involved.</li> <li>• Knows about Social framework and local/regional level.</li> <li>• Knows how to build and maintain relationships (to build networks and alliances).</li> </ul>
<b>Persuading and Influencing</b>	<ul style="list-style-type: none"> <li>- Gains clear agreement and commitment from others by persuading, convincing and negotiating.</li> <li>- Makes effective use of political processes to influence and persuade others.</li> <li>- Promotes ideas on behalf of oneself or others.</li> <li>- Makes a strong personal impact on others.</li> </ul>	<ul style="list-style-type: none"> <li>• Is able to apply an inter-sectoral approach (private vs. public, different branches of industry, primarily production vs. processing and commercialization).</li> <li>• Is able to communicate the values (<i>Storytelling</i>).</li> <li>• Knows about the impact possibilities on movements on the national/international level.</li> <li>• Knows how to put aims on the agenda of policy makers (<i>“If the newspaper doesn’t write about it, it did not happen”.</i>)</li> </ul>
<b>Creating and Innovating</b>	<ul style="list-style-type: none"> <li>- Produces new ideas, approaches, or insights.</li> <li>- Creates innovative products or designs.</li> <li>- Produces a range of solutions to problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Is able to identify, create and describe innovative models for small scale businesses.</li> </ul>
<b>Formulating Strategies and Concepts</b>	<ul style="list-style-type: none"> <li>- Works strategically to realise organisational goals.</li> <li>- Sets and develops strategies.</li> <li>- Identifies, develops positive and compelling visions of the organisation’s future potential.</li> </ul>	<ul style="list-style-type: none"> <li>• Works place-based, using local resources and the local community.</li> <li>• Is visionary.</li> <li>• Stimulates the development of human resources and human capital (<i>Empowerment</i>).</li> </ul>
<b>Planning and Organising</b>	<ul style="list-style-type: none"> <li>- Sets clearly defined objectives.</li> <li>- Plans activities and projects well in advance and takes account of possible changing circumstances.</li> <li>- Identifies and organises resources needed to</li> </ul>	<ul style="list-style-type: none"> <li>• Know how to map local needs and resources.</li> </ul>

	<p>accomplish tasks.</p> <ul style="list-style-type: none"> <li>-Manages time effectively.</li> <li>- Monitors performance against deadlines and milestones.</li> </ul>	
<b>Adapting and Responding to Change</b>	<ul style="list-style-type: none"> <li>- Adapts to changing circumstances.</li> <li>- Accepts new ideas and change initiatives.</li> <li>- Shows an interest in new experiences.</li> </ul>	
<b>Achieving Personal Work Goals and Objectives</b>	<ul style="list-style-type: none"> <li>- Accepts and tackles demanding goals with enthusiasm.</li> <li>- Works hard and puts in longer hours when it is necessary.</li> <li>- Identifies own development needs and makes use of developmental or training opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>• Is able to support young people to find their place in the world.</li> <li>• Is creative. Therefore artistic work needs to be practiced without the need to be an artist.</li> <li>• Knows the past and present in order to know about the future.</li> </ul>
<b>Entrepreneurial and Commercial Thinking</b>	<ul style="list-style-type: none"> <li>- Keeps up to date with competitor information and market trends.</li> <li>- Identifies business opportunities for the organisation.</li> <li>- Maintains awareness of developments in the organisational structure and politics.</li> <li>- Demonstrates financial awareness.</li> <li>- Controls costs and thinks in terms of profit, loss and added values.</li> </ul>	<ul style="list-style-type: none"> <li>• Is able to make a balance between the economic goals of agriculture and its idealistic/social/ecological aims.</li> <li>• Is aware of the political environment and climate.</li> <li>• To know about macro-economic factors &amp; developments.</li> </ul>

## 7. Evaluation and Practical Relevance

In this chapter, we evaluate our project as objectively possible and evaluate it, based on our own experiences and external feedback gathered along the process.

We want to look at the following aspects of the project to evaluate the overall quality of it and to show relevance of its outcome(s). We used a rating-system from 1 – 10 (1 = very poor; 10 = very good)

### 7.1. Cooperation

From the start, it has been very important to us as group to ensure the involvement and contribution of every partner as good as possible. By that, we wanted to address issues like motivation, continuity and workflow.

Norway, Portugal, Austria and the Netherlands were equally committed during the partnership and really understood the importance and necessity of collaboration to achieve the project objectives. Switzerland was as motivated to act that way as all the other partners were but could not apply the same degree of commitment because of personal and professional reasons. By signaling that fact early in the process, the whole group was able to compensate and act accordingly which actually still shows a cooperative work ethic.

**Rating: 8.5**

### 7.2. Communication

To achieve that, open and direct communication was one key-factor. Since communication is not only a linguistic issue but also cultural, behavioral and dynamic phenomenon, we tried to create a common communication-culture within the project. By allowing intercultural dialogue (using one's mother tongue among non-native speakers; having dialogue with 2 or more languages) and working with professional translators we achieved sufficient mutual understanding and even experienced transition of terminology.

The technical side of communication was mainly in the form of skype-calls, telephone calls and emails. We experienced that as sufficient, productive and efficient.

**Rating: 8**

### 7.3. Responsibility and Decision making:

We wanted to create a clear structure, where responsibilities and decisions are within certain roles and positions of individual participants without promoting and triggering top-down hierarchy. During the project, we experienced valuable discussions and dialogues that lead to supported decisions. Furthermore did all partners contributed to that extent they said they would and beyond, which shows a great feeling of responsibility.

**Rating: 8**

## 7.4. Results

Finally yet importantly, we want to evaluate the project concerning its outcomes. Here we mainly want to focus on the practical relevance of the outcomes.

### Practical Relevance

As the term „Eco-Preneurship“ was still in the phase of „being defined“, we completed our pre-definition with the additional feedback and interpretation of our participating partners. As the project started, we tried to put all the different meanings and perspectives of „Eco-Preneurship“, based on cultural, regional, structural, political, social and even philosophical background, under one universally accepted term: „Eco-Preneurship“. The definition is still wide, but the project managed to break down the complex understanding of „Eco-Preneurship“ into a matrix of key-competences and personal and professional skills of an „Eco-Preneur“. These can be taught/learned in the course of a practical learning process that involves „learning by doing“ experience-based learning methods, combined with an assertive and facilitated personal development prices: the training path.

Seen the relevance of the topics, Eco-Preneurship is responding to, and the strong aspect of personal development of the training path, makes the outcome interesting for a wide range of educational programs and learners.

For the definition of „Eco-Preneurship“ please check chapter 1.2 in this document. For the competence skill matrix, please see chapter 6.3 in this document.

We experience that Eco-Preneurship with its wide range of interest and broad range of possible impact has a lot to offer. In addition, the form of the training path answers to the need of a modern approach of vocational training and matches to the preferences of our target group.

**Rating: 8**

## 8. Future perspectives and development

The future perspectives for the training path: Eco-Preneurship is various as the partners, who built the training path are divers. The individual applications of the training path in the different countries have led to the following developments:

Austria: The search and ambition to more international research within the movement of Green Care, Horticultural Interventions and Animal Assisted Interventions has been strongly supported by the contribution of the Eco-Preneurship-network during the First Inter/national conference „Internationaler Forschungsdialog Green Care“ in Vienna in March 2014.

Norway: The experiences of the already existing educational programs of the SJH „place based learning“ and „place based entrepreneurship“, which has been in practice and constant development since 1996, and the 2-

years project of Eco-Preneurship and its outcomes have been elaborated to a book with the title: „Knowledge for a common future“.

Netherlands: Confronted with structural, economic and social changes and challenges, both the care- and the agricultural sectors have to re-think and re-shape. Eco-Preneurship can be a powerful tool for experienced and start-up entrepreneurs to build a sustainable, responsible and ecological enterprise and respond to the challenges and changes.

## 9. Ongoing and Future Dissemination

### 9.1. Book “Knowledge for a common future” by Jorun Barane, Aksel Hugo and Morten Clemensen, 2015

How to form a school that creates sustainable community development? Naming practical examples and methodological tools, this book shows how schools can take that role by developing local curricula. The key is to develop interdisciplinary learning contexts within local schools. The book is directed towards Primary and Secondary teacher education, schools and kindergartens, in addition to actors in municipalities, communities and regional landscape authorities that will seek to integrate sustainable learning and education in place -based development plans in the future.

The book was published in 2015: Eco-Preneurship is mentioned in several contexts and the authors (all three were involved in the project) all contributed largely with their knowledge and research-results for the book and could use, on the other hand, certain outcomes and process structures from the project to finish their book.

### 9.2. Workshop at the IFSA conference in the UK in 2016

Farmers and other rural entrepreneurs will increasingly need to build up skills and gather knowledge in “Eco-Preneurship” in the future, namely to design, develop, implement, manage and/or innovate individual concepts of multifunctional agriculture, like social farming and other Green Care activities.

A key to sustainable systems development is the exchange of knowledge between the actors of an innovation system (researchers, advisers and other educational experts, policy and administrative stakeholders, etc.), and the users.

There is still a big discussion whether knowledge transfer can follow the line from research via dissemination to the end-user (“transfer of technology”) or whether it must be done in form of bi-directional communication as a “dialogue of all stakeholders”. Maybe it depends on the situation and the actors, and as well as the learning styles of the so-called “target groups”. Moreover, on the innovation itself: For the transfer of “simple” technology packages, a linear transfer might be suitable which might be not be sufficient when it comes to changing a farming system.

Furthermore, learning is an ongoing process. Formal learning starts at elementary level, continues in higher education and/or vocational training, and does not end with extension. In other words: Such "learning chains" must be developed which enable life-long learning in formal, non-formal and informal learning. Competencies are needed beyond classical technological and economic skills.

The management of knowledge transfer is a tricky thing, firstly because it exists in many various forms, such as theoretical, scientific and experience-based knowledge. From a research perspective, the main issue might be how to transfer scientific knowledge that usually is more or less abstract and has often no clear distinctions between book knowledge, hypotheses, and more or less testified theories. Practitioners usually need practical knowledge.

Knowledge exchange has to be organized in various different settings. It seems as if participation in the curricula development, the implementation of the educational measure and in evaluation plays a key role to success and learning effectiveness and efficiency.

This workshop aims at an exchange of experiences in the creation of various educational measures in different settings. The purpose is to further develop ideas and possibilities for international training options in the field of social farming.

Key questions are: How to organize the learning process? What is the role of the educator? What are good practices and successful learning arrangements? How to fit education units to the needs of the learners? How to organize participation in planning and implementation? How to jointly evaluate the educational unit or the extension programme? How far did participation influence learning effects?