

FIRST REPORT ON ACTIVITIES: SURVEY ON ECO-ENTREPRENEURIAL QUALIFICATIONS AND SURVEY ON ECO-INNOVATION AND ENTREPENEURIAL TRAINING NEEDS AND EXISTING EDUCATION INITIATIVES

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PROJECT "A KNOWLEDGE ALLIANCE IN ECO-INNOVATION ENTREPENEURSHIP TO BOOST SMEs COMPETITIVENESS"

INTERREG BALKAN MED PROGRAMME

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SUMMARY

The effects that people and their personal and business activities have on the environment are more severe each year and due to that the need for change is more indispensable than ever. Many concepts have appeared in this area but the most popular in European frameworks is ecoinnovation which is a concept that refers to any innovation that leads to progress towards the goal of sustainable development, by reducing the impacts of our production modes on the environment, enhancing nature's resilience to environmental pressures, or achieving a more efficient and responsible use of natural resources. Eco-innovation helps in the optimization of the growth while addressing climate change, resource scarcity and biodiversity by supporting new processes, technologies and services that make businesses greener. Furthermore, eco-innovation is a business opportunity for those willing to take the risk, invest and become entrepreneurs and also for those already working it is a new growth opportunity.

Since this field is not developed enough in the European Union and in the countries candidates, the organization is working on developing it with proper regulation and building awareness and popularization through different project initiatives. One of them is the project "A knowledge alliance in eco-innovation entrepreneurship to boost SMEs competitiveness", which has the goal first to identify the eco-innovation and entrepreneurial training needs of enterprises, and also to map the existing educational initiatives in all the countries partners of the project and after that to develop a well planned training program that will be conducted on business entities willing to take part in the project activities.

Based on the responses of the research, the project team will obtain insight of the education level of the companies on the topic, their past experiences and attended trainings and their future training needs and interests. Additionally this research will provide information about the openness of the business entities to encourage their employees to take part in training programs and their capacity measured through competences to learn and help in the successful implementation of eco-innovation. Also the research will enable the project team to get information about the preferred modes of learning of the companies and their past experiences in eco-innovation field.

The results and the analysis of the research which are presented in this report are very significant since they give an insight about the situation in Pelagonia, one of the most polluted areas of the country and this insight is on a topic that has never been researched in the region or the country in general. Based on this data the project team will develop the further project activities that on one hand will enhance the business's ability to be greener and to realize their eco-ideas that for a long time have been sitting in the minds of the managers or the employees and on the other hand will enhance the University's role as a key partner for the businesses.

The universities working under this project will work together in developing a training program that will be adapted to the region's training needs and interests and after the project's educational aspect is finished they will provide constant support to the brave business entities that will take a step forward in the realization of their eco ideas. That will improve the educational capacity of the University and the relationship with the business community since always the task of the University is to serve the business community with educated human resources and knowledge on the most current topics.

INTRODUCTION

According to the data from the State Statistical Offices in all countries in the programme area, the most present type of companies is the SMEs. This report refers to the Pelagonia region, which is in the southwestern part of Macedonia, and here the participation of this kind of companies in the overall number of companies in recent years has been from 95-98%. Although they are numerous and basically make the basis of the whole economy since they employ most of the people, very often they encounter challenges in terms of normal functioning and environment protection from harmful actions.

Each year the number of SMEs in the region is growing and more young people and especially women become entrepreneurs and open their own businesses but most frequently those businesses are mainly focused on services, retail or production of specific products and are opened to solve the unemployment issue of the founder. Very rarely entrepreneurs decide to invest in innovative products and especially environmentally-friendly products and services that would enable more efficient usage of natural resources or would reduce or reuse the waste that has been thrown in the environment.

Furthermore, these SMEs that make the economy of the region face another challenge and that is the lack of educated and research focused individuals that most frequently choose to work for the bigger companies or leave the country in search for greater material reward for their efforts. With that the innovative potential of SMEs is mostly limited to the knowledge of the founder and his access to new accurate information.

The lack of education and practical usage of eco-innovation potentials of the region are the main issues that the SMecoMP project would like to address and to improve by creating a network of academic institutions and businesses' umbrella organizations in the programme area that will develop an educational framework to create and support eco-entrepreneurship and the appropriate eco-management tools and skills for businesses' staff and managers.

The project aims to develop collaboration between the university and the businesses of the region in the area of eco-entrepreneurship, eco-management and eco-innovation. The University will provide the required knowledge and support of the field to the businesses interested to learn about the current developments. The participants in the project's activities will have the possibility to obtain or to improve entrepreneurship education and to learn about environmental and resource management. With this the project team will teach the entrepreneurs about the new "green" economy that offers great opportunities in terms of new products and services that could be highly profitable for the company, the environment and maybe enable them to be competitive in the regional and global market.

This project is a win-win project for both the businesses and the universities. The businesses will improve their knowledge, skills and will get new ideas how to be innovation oriented and that could increase their competitiveness. The universities will improve their educational offering since very frequently universities from the region have been marked as non-innovative institutions that do not follow the latest trends and are not research-oriented or do not provide the well trained students that immediately can be productive for the business sector. With the project activities the businesses, the teaching staff of the University and the students will have a unique opportunity to learn and share information about the principles of the new economy that is based on innovation and protection of the environment.

In order to define the best combination of teaching tools and training curricula in the project, a research was conducted on Eco-innovation and entrepreneurial Training Needs & Existing Educational Initiatives on a sample of companies that provided information about their current level of knowledge, the trainings that they have attended and their interest in future trainings and preferred mode of learning.

This report will present the findings of that survey research that was conducted on a sample of companies from the Pelagonia region and all the information, recommendations and limitations will be presented in it. Additionally this report will include all the comments received from the respondents about their training and education needs in the above mentioned subject.

METHODOLOGY

The research was conducted in the month of April 2018 and it was completed on a sample of companies that work in the Pelagonia region. The tool used in the research was a survey with a structured questionnaire that included dichotomous, multiple-choice and scale questions in order to obtain information about the company, the respondent, their present level of training and their future interest in education in the field of eco-innovation. In the sample building process the method of stratified random sampling was used and the complete region was divided according the industrial zones and the questionnaire was distributed to companies functioning in those zones. After receiving the completed questionnaires, they were analyzed and coded using the statistical package SPSS.

The questionnaire was made available in two forms - online and printed form and was distributed to over 150 companies from different sizes and industries from Pelagonia region. Completed questionnaire was received from 50 of them and they comprise the sample.

The collected primary data in this report is presented in simple and cross tables and graphics, using absolute and relative values (percentage participation) and also adequate testing of correlations is performed in order to see the interdependence of the variables. The coefficient of linear correlation is calculated in order to determine the strength of the connection between the variables.

With the application of the above mentioned techniques the goal is to gather information about the links of the different variables such as: size, business activity, learning potential of the employees, important competences, education of the employer, age, gender and others.

This report in the following sections will unite all of that data in different sections such as: results, conclusions and recommendations, limitations and comments from the surveyed companies in order to summarize all the information gathered for this research.

GOALS AND HYPOTHESIS OF THE RESEARCH

The questionnaire that was realized within the eco-innovation and entrepreneurial training needs and existing education initiatives research had the following goals:

- 1. Identification of the eco-innovation and entrepreneurial training needs of the companies in the Pelagonia region
- 2. Identification of the current and past offer of educational programs on eco-innovation and entrepreneurship and its quality in the Pelagonia region.
- 3. Measuring the interest of the business community for certain aspects of eco-innovation and entrepreneurship trainings and seminars and identifying the most popular of them as a base for developing an educational offer.
- 4. Assessment of the capacity of the businesses to take part in educational trainings and seminars in the context of possessing the appropriate competences for learning.
- 5. Selection of the best mode of transferring the information to the potential participants of a training or seminar in terms of choosing the location and educational approach.
- 6. Assessing the openness of the business community to encourage the participation of their employees in educational trainings or seminars on eco-innovation and entrepreneurship.
- 7. Assessing the interest of the business community for continuous informative streamline on eco-innovation and entrepreneurship.

From the above mentioned goals the following hypotheses that will be tested arise:

Hypothesis 1: The familiarity with the concept of eco-innovation and entrepreneurship increases with the attendance of seminars and trainings on the topic.

Hypothesis 2: The increase of available trainings for the companies increases the number of quality trainings among them.

Hypothesis 3: As the size of the company increases, the access to more trainings in the area of eco-innovation increases.

RESULTS

The following section contains the results of the research. In the first part of it, the descriptive statistics will be presented with absolute and relative indicators, in the second part cross tabulation analysis will be performed and the third part will demonstrate the hypothesis testing.

1. DESCRIPTIVE STATISTICS

The first section of the research had the purpose to collect basic information about the size and the main activity or sector of functioning of the company-respondent in the research. The sample created in the research is consisted of 50 companies that work in the Southwestern part of Macedonia, known also as Pelagonia region. According the data from the State Statistical Office for the Pelagonia Region in 2016, 98 % of the companies have less than 50 employees and the remaining 2% are medium sized and big companies.¹

The table below summarizes the data concerning the size of the companies that were part of the sample. Out of them 72% were small companies with less than 50 employees, 16% were medium sized companies that employ from 50 to 250 people and 12% were big companies with more than 250 employees. The sample is representative since it is mostly comprised of the small companies that are dominant business entities in the researched region, but also includes a significant participation of the medium sized and big companies. As percentage medium sized and big companies do not have a big participation in the total number of active business entities but they are significant since they employ more people and they have a more developed organizational structure that gives bigger possibilities for eco-innovation activities.

Number of Employees						
	Frequency	Percent	Valid Percent	Cumulative Percent		
<50 people	36	72,0	72,0	72,0		
50-250 people	8	16,0	16,0	88,0		
>=250 people	6	12,0	12,0	100,0		
Total	50	100,0	100,0			

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Table 1	Size of	the	companies	respondents
rable r.	DILC OI	une	companies	respondents

¹ State Statistical Office, (2017), Regions of the Republic of Macedonia, State Statistical Office, p.87

The size of the company and its main economic activity are important determinants of their interest and knowledge in the area of eco-innovation. For the research of the main economic activity, the NACE classification was used and the sample is comprised of representatives from nine different sectors. The main economic activity of the companies' respondents is summarized in the table below. Most of the companies respondents, or 58% of them come from the wholesale and retail trade, repair of motor vehicles and motorcycles sector and the manufacturing industry. After them are the representatives from the service sector, the accommodation and food service sector and the construction sector. Also in the sample there was participation of the representatives from the agriculture, education, health and the information and communication sector.

Main Economic Activity					
	Frequency	Percent			
Agriculture, forestry and fishing	1	2			
Manufacturing	14	28			
Construction	3	6			
Wholesale and retail trade, repair of motor vehicles and motorcycles	15	30			
Accomodation and food service activities					
	4	8			
Information and communication	2	4			
Education	1	2			
Human health and social work activities	2	4			
Other service activities	8	16			
Total	50	100			

Table 2: Main economic activity of the respondents

The second section of the research had the aim to collect information about the eco-innovation training needs of the companies. They were asked a series of questions about their familiarity with the concept of eco-innovation, their level of training in the topic, their interest in training and general understanding of how much the offered training programs have the abilities to satisfy their needs of the discussed topic. Additionally they were asked to assess the learning potential of their employees, the most appropriate mode of learning for them and their willingness to receive future information about the newest developments in the area of eco-innovation in their industry.

The first question in this section was the question about the knowledge level about the concept of eco-innovation. The results were somewhat shocking since 58% of the companies have responded that they were not familiar with the concept. This is surprising since we live in a time where the effect of global warming and climate change are more present than ever and each year they are getting worse due to the increased economic and household activity. This is shocking from one side, but on the other side totally understandable since most of the companies in the sample are small companies that mostly try to survive in the battle with the big companies and often their governing bodies and managers do not possess the sufficient skills and education to manage and optimize the running processes. But this is also a big opportunity to train them through personal and online trainings or at least with educational literature which will be easily accessible through the internet or in a printed edition.

Familiarity with Concept							
	Frequency	Percent	Valid Percent	Cumulative Percent			
Yes	21	42	42	42			
No	29	58	58	100			
Total	50	100	100				

Table 3: Familiarity with the concept of Eco-innovation

The following set of questions were the questions about the trainings that the companies respondents have had in the area of eco-innovation. Only 16 % of the respondents have had any kind of training in the area of eco-innovation. The rest 84% did not have any kind of training and this is important information for the future project activities since most of the companies in the Pelagonia region, based on the sample research, did not have training and the prospective market for these trainings and educational offerings will be quite substantial.

Attended Seminars and Trainings							
	Frequency	Percent	Valid Percent	Cumulative			
Yes	8	16	16	16			
No	42	84	84	100			
Total	50	100	100				

Table 4: Attended seminars and trainings in eco-innovation

Additionally the respondents that have visited training or a seminar were asked about the organizer of it and the area of eco-innovation which it has covered. The companies that had responded positively on the previous question answered that most of the trainings or seminars that they had attended were organized by a third party or they had both and internal and an external training on the subject. The remaining 84% that did not have any training in this question appear as missing since they do not respond on this question.

Organizer of Seminars and Trainings						
	Frequency	Percent	Valid Percent	Cumulative Percent		
Were in-house, organized by my company and addressed only to staff members						
	2	4	25	25		
Were organized by a third party and addressed to employees of various companies						
	4	8	50	75		
Both	2	4	25	100		
Total	8	16	100			
Missing	42	84				
Total	50	100				

Table 5: Organizer of training or seminar on eco-innovation

The attended trainings or seminars were divided into three fields: environmental technologies and systems, organizational innovation for the environment and product and service innovation offering environmental benefits.

To start with the environmental technologies and systems, most of the respondents or 62,5% pointed out the alternative systems of production and consumption and cleaner process technologies as the field they have had training. The remaining companies had some training in pollution prevention and control technologies, clean-up technologies and green energy technologies. None of them had training on waste management equipment, environmental monitoring and instrumentation or for water supply. This is very important information to diagnose the well developed fields in terms of trainings and seminars in the Pelagonia region that

is in the focus of the research and the fields that lack attention and treatment in the training and seminar programs.

Environmental Technologies and Systems Trainings				
	Frequency	Percent		
Pollution prevention and control technologies	1	12,5		
Cleaning (clean-up) technologies that treat pollution released into the environment	1	12,5		
Alternative systems of production and consumption; cleaner process technologies, etc	5	62,5		
Green energy technologies	1	12,5		
Total	8	100,0		

Table 6: Environmental Technologies and Systems Trainings of the respondents

The next specific field of trainings is the field of organizational innovation for the environment. Out of all the possible trainings in this field only one company had training for the pollution prevention schemes. None of them had training for environmental management and auditing schemes or for chain management. This field offers great educational opportunities for future further development firstly on educational level and after on practical level from the companies that will learn the latest practices in their industry for this specific field.

Organizational Innovation for environment					
	Frequency	Percent			
Pollution prevention schemes	1	100			
Total	1	100			

 Table 7: Organizational Innovation for environment

The last specific field of trainings is the field of product and service innovation and for this field the companies had trainings for new and environmentally improved products and services that are less pollution and resource intensive.

Product and service innovation					
	Frequency	Percent			
New or environmentally improved products (goods) including eco-houses and buildings	2	66,6			
Services that are less pollution and resource intensive	1	33,4			
Total	3	100,0			

Table 8: Product and service innovation

None of the respondents had training for green financial products or for environmental services which opens a lot of possibilities for future education and development of this field in the Pelagonia region on educational and on practical level.

Based on the data for the attended seminars or trainings a conclusion can be drawn that most of the companies that had some kind of training had only partial insight in the specific fields and very important aspects of those fields have not been addressed in the conducted trainings. With this there is an open possibility for future training programs and projects that could deal with just one or all of the above mentioned specific fields.

The questionnaire did not only gather information about the completed trainings but also gathered information about the prospective interest of the respondents in the same fields. The respondents pointed out the level of interest and their answers were measured with a five level Likert scale.

According the information summarized in the table below, most of the companies show quite significant interest in the trainings for environmental technologies and systems. The biggest interest is in alternative systems of production and consumption, but they also show significant interest in green energy technologies, waste management equipment and pollution prevention and control technologies. Some of these fields were covered with previous trainings that the respondents have visited but some of them have not been covered and this information is meaningful for future actions in the education field.

Environmental technologies and	I'm	I'm	Neutral	I'm	I'm	Total
systems	not	slightly	(%)	interested	strongly	(Percent)
	interested	interested		(%)	interested	
	(%)	(%)			(%)	
Pollution prevention and	20	2	16	50	12	
control technologies						100
Cleaning (clean-up) technologies	26	6	12	44	12	
that						
treat pollution released into the						
environment						100
Alternative systems of production	20	2	6	54	18	
and consumption; Cleaner process						
technologies; new manufacturing						
processes						100
Waste management equipment	26	2	6	54	12	100
Environmental monitoring and	22	10	8	44	16	
instrumentation						100

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Green energy technologies -	24	4	4	40	28	
Renewable Energy Sources (RES)						100
Water supply	24	6	12	46	12	100

Table 9: Interest in trainings for environmental technologies and systems

According to the obtained data the percentage of the respondents that are not interested in organizational innovation for the environment trainings is significant. For the pollution prevention schemes a fifth of the total number of respondents pointed out they were not interested, and for environmental management and auditing schemes and chain management, the number is bigger and it is almost one third of the total number of respondents.

This lack of interest may come from the size of the companies, since most of the companies in the sample were small companies that have limited knowledge and resources and these types of trainings may sound too advanced for them. The possibility is to develop well balanced trainings that will fit different profiles of entrepreneurs that have different educational background and needs. Those who are interested prefer the pollution prevention schemes and the interest for the environmental management and auditing schemes and chain management is almost the same.

Organizational innovation for the	I'm not	I'm	Neutral	I'm	I'm	Total
environment	interested	slightly	(%)	interested	strongly	(%)
	(%)	interested	, ,	(%)	interested	. ,
		(%)			(%)	
Pollution prevention schemes	20	4	6	56	14	100
-						
Environmental management and	30	4	14	44	8	100
auditing schemes: formal systems of						
environmental management involving						
measurement, reporting and						
responsibilities for dealing with issues						
of material use, energy, water and waste						
(eg EMAS, ISO 14001)						
Chain management: cooperation	28	10	6	44	12	100
between companies so as to close						
material loops and to avoid						
environmental damage across the value						
chain (from cradle to grave)						

Table 10: Interest for Organizational innovation for the environment trainings

The last specific field that was surveyed to obtain information about the interest is the field of product and service innovation offering environmental benefits. Most of the companies were interested in trainings for new or environmentally improved goods and environmental

services. Still the number of companies that do not show interest in some of these trainings such as green financial services or services that are less pollution and resource intensive is quite important and it could be due to lack of knowledge or fear of complexity of the mentioned fields. But the potential for training is very significant and that obtained data is encouraging for further development of training and educational programs.

Product and service innovation offering environmental benefits	I'm not interested (%)	I'm slightly interested (%)	Neutral (%)	I'm interested (%)	I'm strongly interested (%)	Total
New or environmentally improved products (goods) including eco- houses and buildings	14	4	10	52	20	100
Green financial products (such as eco-lease or climate mortgages)	26	4	16	38	16	100
Environmental services: solid and hazardous waste management, environmental consulting, testing and engineering, other testing and analytical services	18	2	12	48	20	100
Services that are less pollution and resource intensive (eg car sharing)	28	4	10	44	14	100

Table 11: Interest in Product and service innovation offering environmental benefits

The next section of questions had the aim to collect information about the perception of the respondents whether there are sufficient number of trainings available in their country, which skills they consider essential in order to apply eco-innovation in the company, if their employees posses those skills, the preferred way of learning and if they would be open to receiving information about the current practices of eco-innovation in their field of work.

Most of the respondents or 64% of them believe that the number of offered trainings and seminars in the field of eco-innovation is not enough. Also 32% of them do not know if the number of trainings is sufficient since they are not well informed about this topic. This information is very important and it contributes to the whole set of conclusions made before that the companies in this region mostly have not taken part in trainings or seminars and they think that the current offering is small or nonexistent since they lack precise information. The data about the perceptions of the companies on this question is summarized bellow.

Sufficient number of trainings						
	Frequency	Percent	Valid Percent	Cumulative Percent		
Yes	2	4,0	4,0	4,0		
No	32	64,0	64,0	68,0		
I don't know	16	32,0	32,0	100,0		
Total	50	100,0	100,0			

Table 12: Is the number of trainings sufficient

Furthermore the respondents were asked if they have had access to high quality trainings and seminars, since it is not just the quantity that matters. Most of them or 70% answered that they did not have access to high quality trainings and seminars for eco-innovation and this opens a wide range of possibilities for development of educational and training programs of entrepreneurs in Pelagonia region. Some of them are not sure if they had access to high quality trainings and they are also potential participants in potential training programs.

Access to high quality trainings and seminars						
	Frequency	Percent	Valid Percent	Cumulative Percent		
Yes	2	4,0	4,0	4,0		
No	35	70,0	70,0	74,0		
I don't know	13	26,0	26,0	100,0		
Total	50	100,0	100,0			

Table 13: Did you have access to high quality trainings and seminars

The following question treats the competences which are considered as important in successful implementation of eco-innovation. The project team identified eight different competences that might have an influence in the process of eco-innovation and the respondents were asked to give an assessment of the importance of each one of those competences in the realization process using a five level Likert scale.

Out of the eight competences the highest score for extremely important competence was given to the soft skills, the highest score for very important competence was given to the soft skills, marketing and innovation management skills. The highest score for important competence was given to knowledge of economic sectors and product lifecycles. All of the skills have certain importance according to the respondents, some of them are more and some less important and

Important competences	Not	Somewhat	Important	Verv	Extremely	Missing	Total (%)
important competences	important	important	(%)	important	important	(%)	10000 (70)
	(%)	(%)	(70)	(%)	(%)	(/0)	
Development of new sustainable/circular business models	6	14	42	20	14	4	100
In-depth knowledge of economic sectors	6	14	36	26	12	6	100
Knowledge about product life cycles	6	6	38	22	22	6	100
Design skills of new products or/and services	4	6	30	34	20	6	100
Knowledge of creative thinking tools	4	8	32	32	18	6	100
Innovation management skills	4	4	30	36	22	4	100
Marketing skills	4	6	28	36	22	4	100
Soft skills (eg. problem- solving skills, collaboration, communication)	2	6	30	36	24	2	100

that might be connected with the education and knowledge of the respondents and also the industry in which they work.

Table 14: Necessary competences for implementation of eco-innovation

After assessing the impact of each one of those competences, the companies were asked to give feedback if their own employees and company had those competences that might be crucial in a future eco-innovation process. Most of them or 66% believe that their employees and company own those competences, 16% are not completely sure and 18% responded negatively. This is an encouraging fact that in the Pelagonia region there are quite a lot of companies that have the potential, skills and competences for these kinds of processes.

Employees have those competences					
	Frequency	Percent	Valid Percent	Cumulative Percent	
Yes	33	66,0	66,0	66,0	
No	9	18,0	18,0	84,0	
I don't know	8	16,0	16,0	100,0	
Total	50	100,0	100,0		

Table 15: Does the company and its employees have competences for eco-innovation

In addition the representatives responded about their willingness to encourage the participation of their employees in eco-innovation trainings. The results show that 96% of the employers are open to the idea and will encourage the participation in trainings and seminars. This shows that the companies from the Pelagonia region, based on the sample research, are open and their management structures would like to have the employees trained and educated in the field of eco-innovation and in a potential training program there will be interest and participants.

Encourage participation of your company's employees						
	Frequency	Percent	Valid Percent	Cumulative Percent		
Yes	48	96,0	96,0	96,0		
No	2	4,0	4,0	100,0		
Total	50	100,0	100,0			

Table 16: Will they encourage participation of their employees in trainings?

As for the preferred location of those trainings and seminars most of them or 44% selected the combination of online learning and classroom environment and after them with 42% are the managers that would prefer their employees to follow the programs via online learning platforms. This information could be useful in the training program development since it will have the goal to reach a wider audience and to reach that a combination of methods can be used.

Location of training						
	Frequency	Percent	Valid Percent	Cumulative Percent		
Classroom learning environment	7	14,0	14,0	14,0		
Online learning environment	21	42,0	42,0	56,0		
Both	22	44,0	44,0	100,0		
Total	50	100,0	100,0			

Table 17: Preferred location for the training

In addition to their willingness to participate and preferred location the respondents also gave information about their openness to constant informative streamline about the current practices of eco-innovation in the industry in which they work. Most of them or 76% are open to receive information about the recent developments, 20 % do not know, and only 4% do not want to receive information. This is important since any output that can be produced in this project in terms of training or publication could be distributed to the companies and in the future all the

information about relevant advancements in the area of eco-innovation can be forwarded to the same recipients.

Access to informative streamline						
	Frequency	Percent	Valid Percent	Cumulative Percent		
Yes	38	76,0	76,0	76,0		
No	2	4,0	4,0	80,0		
I don't know	10	20,0	20,0	100,0		
Total	50	100,0	100,0			

Table 18: Access to information about advancements in eco-innovation

The last section of the research refers to the personal information of the respondents. In the sample 54% of the respondents were female and 46% were male. In the last few years in the Pelagonia region more and more women become entrepreneurs and open their own businesses or take over important roles in big companies. This is very important in terms of gender equality in managerial positions, a subject that is very popular around the world.

Gender						
	Frequency	Percent	Valid Percent	Cumulative Percent		
Male	23	46,0	46,0	46,0		
Female	27	54,0	54,0	100,0		
Total	50	100,0	100,0			

Table 19: Gender of the respondents

In addition to the gender the respondents gave information about their age. Most of them or 62% are young entrepreneurs at the age from 26 to 35 years old, after them with 26% are the respondents from 36-50 years old. From the sample 10% have over 51 years and only 2% have less than 25 years. Since it is the second group that is dominant, according the latest trends in the country this group should be consisted of educated individuals that have University or even a Master's degree and are well informed about the climate changes and global warming all of which can be reduced through eco-innovation.

Age						
	Frequency	Percent	Valid Percent	Cumulative Percent		
18-25 years old	1	2,0	2,0	2,0		
26 - 35 years old	31	62,0	62,0	64,0		
36-50 years old	13	26,0	26,0	90,0		
50+ years old	5	10,0	10,0	100,0		
Total	50	100,0	100,0			

Table 20: Age of the respondents

The following question was descriptive and from the respondents that gave an answer 69% have a University or a Master's degree and 31% have high school education. This corresponds to the above mentioned trends of education levels of the managers and entrepreneurs in the country and is a substantial precondition for successful implementation of eco-innovation trainings and practices.

	Ed	ucation			
	Frequency	Percent	Valid Percent	Cumulative Percent	
High school education	13	26,0	31,0	31,0	
University degree	22	44,0	52,4	83,3	
Master degree	7	14,0	16,7	100,0	
Total	42	84,0	100,0		
Missing	8	16,0			
Total	50	100,0			

Table 21: Education of the respondents

Also the next question was on open question and it was about the years of experience of the respondent in the area of eco-innovation. A huge number of 88% of the respondents do not have any experience in the area of eco-innovation, 8% have experience up to 5 years, 2 % have from 6-10 years and 2% have over 10 years.

Years of experience with eco-innovation						
	Frequency	Percent	Valid Percent	Cumulative Percent		
none	44	88,0	88,0	88,0		
1-5 years	4	8,0	8,0	96,0		
6-10 years	1	2,0	2,0	98,0		
over 10 years	1	2,0	2,0	100,0		
Total	50	100,0	100,0			

Table 22: Experience with eco-innovation

The last question was about their willingness to participate in projects activities. Most of them do not want to participate in future project activities since according to them they are too busy and do not have free time to go on trainings but they would be open to receive educational materials as brochures, online newsletters or any other outputs that will contain educational information. The rest would like to take part in future project activities, them personally or to send the employees.

Participate in project's activities							
	Frequency	Percent	Valid Percent	Cumulative Percent			
Yes	24	48,0	48,0	48,0			
No	26	52,0	52,0	100,0			
Total	50	100,0	100,0				

Table 23: Participation in project activities

2. CROSSTABULATION ANALYSIS

The following section will present the data from the cross tabulation analysis of variables that has the goal to give better understanding of the current situation based on the responses from the companies of the sample.

Firstly, a cross analysis of the size of the company and their knowledge and familiarity with the concept of eco-innovation was performed. The assumption was that bigger companies should be more familiar with the concept compared to the smaller companies. The graph shows that the familiarity with the concept does not depend on the size of the company, since in the biggest companies half of them were familiar and half not, and that percentage with the small and medium sized companies is around 36%. That could arise from many other factors such as the industry, the respondent and his personal experiences and other factors.



Graph 1: Familiarity with eco-innovation and the size of the company

Secondly, a cross analysis of the industry in which the respondent is functioning and their knowledge of the concept was conducted. The starting assumption was that companies working in more resource consuming industries should be more familiar with the concept since they are the ones releasing waste and pollution into the environment and are regulated with proper laws that limit the contamination of the environment. The table below summarizes the data and from it the conclusion that can be drawn is that the manufacturing industry that out of all of them is the

most resource intensive is mostly informed about eco-innovation and 64% of those companies are familiar with eco-innovation. Also the service and education sectors are well informed, but what is concerning is the low level of knowledge in the retail, accommodation and food service and information and communication sectors since they use quite a lot of resources from different sectors and especially the information sector which is using quite sophisticated resources that are very scarce and should be reused. These sectors should be in the focus for further project activities in terms of participation or distribution of educational materials.

		Familiarity with Concept		
		Yes	No	Total
Main Economic	Agriculture, forestry and fishing	0	1	1
Activity	Manufacturing	9	5	14
	Construction	1	2	3
	Wholesale and retail trade, repair of motor vehicles and motorcycles	4	11	15
	Accommodation and food service activities	1	3	4
	Information and communication	0	2	2
	Education	1	0	1
	Human health and social work activities	0	2	2
	Other service activities	5	3	8

Table 24: Familiarity with eco-innovation based on the industry of the respondents

Thirdly, a cross analysis of the size of the company and the attended trainings and seminars was conducted. The starting assumption was that the respondents that work at bigger companies should have attended more trainings compared to the respondents coming from smaller companies. The graph bellow summarizes the data and it can be pointed out that the starting assumption was not correct and people coming from small and especially medium sized companies have attended more trainings and seminars compared to the bigger companies. This fact is quite encouraging since it demonstrates that this kind of companies show interest in education in this field, but still the figures are small and should be improved with further educational activities and well planned and conducted training programs.



Graph 2: Attended trainings and seminars compared with the size of the company

Fourthly, a cross analysis of the main economic activity and the attended seminars was completed. The starting assumption was that companies working in more resource consuming industries should have attended more trainings and seminars compared to companies working in other sectors. The graph bellow summarizes the data and it shows that respondents coming from the service and manufacturing sector are the ones that have attended the most trainings and from the remaining sectors some of the companies have attended and in some sectors none of the companies have attended and in targeting potential participants of training programs.



Graph 3: Attended seminars and trainings and main economic activity of the respondent

Fifthly, a cross analysis of familiarity with eco-innovation and the attended seminars was performed. The starting assumption was that companies that have attended trainings and seminars should be familiar with eco-innovation. The graph below shows that those companies that have attended trainings are more familiar with the concept compared to those companies that have not attended trainings and with that the assumption is confirmed that the attendance of trainings has influence on the knowledge level of companies in the area of eco-innovation.



Graph 4: Influence of attendance of trainings and seminars on familiarity with eco-innovation

The following cross analysis was the one of the size of the company, measured through the number of employees and their perception of the satisfactory offer of trainings in the area of ecoinnovation. The starting assumption was that smaller companies would reply that the number of offered trainings and seminars is not enough since bigger companies have more resources to invest in trainings and seminars financed by them or they would have managerial infrastructure of educated individuals something that is less present in smaller companies.

The graph bellow shows that most of the companies consider that the current educational offer on eco-innovation is not enough or they do not know since they are very little familiar with the topic. Bigger companies have a more clear position and give either positive or negative feedback, whereas smaller companies either think that the number is not enough or they know very little on the topic and are not sure if the number of trainings and seminars is sufficient. This information is very important since it is a confirmation from the business community that they consider that there is a need for bigger offer of trainings and seminars on eco-innovation. Businesses either think that the number is not sufficient or they do not know since they have not had the chance to obtain information on the topic.



Graph 5: Perception of the companies on the sufficiency of trainings and seminars

The next analysis is the cross analysis of the size of the company and the quality of the offered trainings and seminars. The starting assumption was that all companies, regardless of their size would be clear on this question, including the companies that have attended and those who have not attended seminars that the quality is either good or not good.

Based on the responses summarized in the graph a conclusion can be made that most of them think that they did not have access to good quality trainings and from those who have attended only two companies give positive evaluation whereas the majority of the others think either the quality is not good or they do not about this topic and cannot give an assessment. This information is very important since most of the respondents think that the quality of the current offer is not good enough and there is space and requirement for a better planned and implemented educational offer on eco-innovation. With this the businesses that took part in the research sample give an important feedback that can be used as a building block of future University programs or shorter and more intensive training and seminar programs.



Graph 6: An assessment of the quality of the current training offer based on the size of the company

The next cross analysis is the analysis of the perceptions of the managers if their employees have competences that are necessary for successful implementation of eco-innovation and that aspect is compared with the size of the company of the corresponding manager. The starting assumption was that bigger companies have more human resources that would possess the required competences compared with the smaller companies. The collected and analyzed data shows that in big and medium sized companies the managers believe that their employees have the required competences, whereas in smaller companies most of them believe that their employees would have the competences to successfully implement eco-innovation but the number of managers that think the opposite or are not sure is quite significant. But still there is human potential in most of the companies that has certain competences which can be upgraded through carefully planned and completed training or seminar program.

		Employees have those competences			
		Yes(%)	No(%)	I don't know(%)	Total(%)
Number of	<50 people	44	14	14	72
employees	50-250 people	14	2	0	16
	>=250 people	8	2	2	12
Total		66	18	16	100

Table 25: Competences for successful implementation of eco-innovation and the size of the company

Additionally a cross analysis was made of the size of the company and their willingness to encourage their employees to take part in trainings and seminars on eco-innovation. The starting assumption was that most of the companies, regardless of the size would be ready to encourage their employees' participation. The results show that 96% of the companies would encourage their employees and would let them take part in a training or seminar program. This information is very important and shows the openness of the managerial structure to encourage the employees to learn new things and it is an encouraging for development of a potential educational offer since there would be potential participants either from the managers or the selected employees.

		Encourage pa your company	urticipation of y's employees	
		Yes	No	Total
Number of Employees	<50 people	68	4	72
	50-250 people	16	0	16
	>=250 people	12	0	12
Total		96	4	100

Table 26: Encouragement of employees' participation in trainings

Also a cross analysis was made of the size of the company and the potential location of the training. The starting assumption was that smaller companies would prefer online learning environment that gives them bigger flexibility in terms of attendance of the trainings compared with the bigger companies that have more human resources employed and could more easily physically attend the trainings.

The results show that within smaller companies most of them prefer a combination of the classroom and online environment or the online environment. Within medium sized companies most of them prefer the online environment whereas within the big companies most of them prefer the combination of online and classroom environment. In total most of them or 44% prefer the combination of online learning and classroom trainings as the best option adequate for their training needs. This information is beneficial for the project team since it shows that while there

is a	trend of mode	ernization	where the	online l	earning t	ools are	becoming	more	used than	ı ever,
still	the companies	s would lik	te to comb	ine them	with the	more tra	ditional m	ethods	of learni	ng.

		Lo			
		Classroom learning environment	Online learning environment	Both	Total
Number of employees	<50 people	10	30	32	72
	50-250 people	2	8	6	16
	>=250 people	2	4	6	12
Total		14	42	44	100

Table 27: Location of trainings and seminars

The following cross analysis is the analysis of the preparedness to have continuous informative streamline on the topic of eco-innovation and the size of the company. The starting assumption was that bigger companies would prefer to have permanent access to information compared with the smaller companies that very often have to solve existential issues on daily basis and have very little time to deal with excess of information. Based on the results most of the companies or 76% would like to have access to continuous informative streamline and their readiness to receive information does not depend on their size. This information is important since after a potential training or seminar all the information of further developments in the topic of eco-innovation can be forwarded to the participants and they would have access to the newest trends and achievements in eco-innovations of the respective industry.

		Access to			
		Yes	No	I don't know	Total
Number of	<50				
Employees	people	52	4	16	72
	50-250				
	people	14	0	2	16
	>=250				
	people	10	0	2	12
Total		76	4	20	100

Table 28: Access to continuous information on eco-innovation

3. HYPOTHESIS TESTING

The following section will present the hypothesis testing which will be done with correlation analysis, using the Pearson correlation coefficient which is a measure of the strength and direction of the linear relationship between the variables. Additionally the Determination coefficient will be used to explain how much of the variability of the dependant variable can be explained through the used independent variable and how much can be attributed to other factors.

Hypothesis 1: The familiarity with the concept of eco-innovation and entrepreneurship increases with the attendance of seminars and trainings on the topic.

The simple correlation analysis of the two variables performed in SPSS shows positive correlation which means as the attendance on seminars and trainings increases, the familiarity with the concept increases. The Pearson's r is 0.402 which means moderate positive relationship between the variables at 0,01 significance level and if the coefficient of determination is used, its value is 0.16 which means that 16% of the variation of the familiarity with the concept is explained through the attendance on seminars and the rest is result of other factors.

Correlations						
		Familiarity	Attended			
		with Concept	Seminars and			
			Trainings			
Familiarity with Concept	Pearson Correlation	1	,402**			
	Sig. (2-tailed)		,004			
	Ν	50	50			
Attended Seminars and	Pearson Correlation	,402**	1			
Trainings	Sig. (2-tailed)	,004				
	Ν	50	50			
**. Correlation is significant at the 0.01 level (2-tailed).						

Table 29: Correlation analysis of the familiarity with eco-innovation and the attendance of seminars and trainings

Hypothesis 2: The increase of available trainings for the companies increases the number of quality trainings among them.

To test this hypothesis, simple correlation analysis was conducted on the data and the result is a positive correlation that explains that the bigger educational offer in the field of eco-innovation leads to increase of quality among the offered trainings and seminars. The Pearson's r is 0.370 and it shows moderate positive relationship between the variables at 0,01 significance level. The determination coefficient which is calculated as r^2 has the value of 0.14 and it shows that 14% of the quality of the offered seminars and trainings increases as their number increases and the rest is due to other factors.

Correlations						
		Sufficient	Access to			
		Number Of	high quality			
		Trainings	trainings and			
			seminars			
Sufficient Number Of	Pearson Correlation	1	,370**			
Trainings	Sig. (2-tailed)		,008			
	Ν	50	50			
Access to high quality	Pearson Correlation	,370**	1			
trainings and seminars	Sig. (2-tailed)	,008				
	N	50	50			
** Correlation is significant at the 0.01 level (2-tailed)						

Table 30: Correlation analysis of the access to sufficient number of trainings and their quality

Hypothesis 3: As the size of the company increases, the access to more trainings in the area of eco-innovation increases.

Also for this hypothesis a correlation analysis of the variables - size of the company measured through the number of employees and access to sufficient number of trainings was performed and the results show moderate negative correlation of -0.305 at 0.05 significance level. This means that the increase of size of the company does not lead to bigger access to trainings in eco-

innovation. The determination coefficient is 0.093 or 9% of the variation of the dependant variable can be explained through the independent variable.

Correlations						
		Number of	Sufficient			
		Employees	Number Of			
			Trainings			
Number of Employees	Pearson Correlation	1	-,305)*			
	Sig. (2-tailed)		,031			
	Ν	50	50			
Sufficient Number Of	Pearson Correlation	-,305)*	1			
Trainings	Sig. (2-tailed)	,031				
	N	50	50			
*. Correlation is significant at the 0.05 level (2-tailed).						

Table 31: Correlation analysis of the access to sufficient number of trainings and the size of the company

LIMITATIONS AND COMMENTS FROM THE FIELD RESEARCH

During the research we faced some certain limitations that are summarized below:

- 1. A very big portion of the companies that were contacted to take part in the research, refused to answer the questionnaires with the excuse that they were too busy with their work to dedicate ten minutes for the research and due to that the size of the sample was smaller than previously envisioned.
- 2. Some of the companies refused any contact and did not want to have anything to do with a research due to previous bad experience that had done certain financial and reputation damage. This could be a limiting factor for every following research, not just on the topic of eco-innovation and could have influence on the sample's sizes.
- 3. A possible limitation was the lack of knowledge of a proportion of the respondents that were not very well informed on the topic and they asked for clarification. As a result of that the research process was delayed and some of them had a reaction that it took them longer time to respond than the previously announced ten minutes. But after they got a better explanation on the topic of eco-innovation their comment was that it was good to hear something on this topic which is new or very little familiar to them.

Additionally to the mentioned limitations, the comments received from the respondents in the field research will be summarized below:

- 1. Eco-innovation is very important especially in the Pelagonia region that during the winter is one of the most polluted regions in the world. Every business is important and should contribute for a cleaner environment. The knowledge on the topic could help them make changes of their behavior as individuals and also as business people.
- 2. If the current developments on the topic of eco-innovation are made available in the native language through a printed edition like a newsletter or through a free phone application, they would be very interested in downloading the application or to get the printed or online edition of a newsletter in order to get constant updates on this very interesting topic.

- 3. They would be interested in taking part in further project activities but they are afraid that it would be very difficult to fit it in their already tight schedule and due to that an online version of a training course or online learning modules would be more suitable for some of them, especially the smaller companies where less people are employed and they have to perform various tasks.
- 4. Most of the companies that were approached and accepted the invitation to respond the questionnaire pointed out that they would like to be more environmentally conscious and at least contribute with recycling their waste but on one hand they do not know how to separate the waste and on the other they do not have information about companies that would like to take it over and reuse or recycle it. They need better education and also contact with companies that work in this area.

CONCLUSIONS AND RECOMMENDATIONS

Following the analysis of the collected data and the appropriate testing the following conclusions can be made:

- Most of the companies from the sample are not familiar with the concepts of ecoinnovation and entrepreneurship. On one hand this is shocking since all of them are witnesses of the effects of the pollution caused to the planet due to the wrong use of resources and technologies, but on the other hand it is big opportunity for development of a proper educational offer that can be made available through different media and modes of learning.
- 2. Most of the companies from the sample have not attended seminar or training on the topic and the potential number of participants is significant. If the results of the analysis are generalized for the population of companies coming from Pelagonia region then the number of potential participants for an educational program will be more than sufficient maybe even bigger than the capacity that can be covered in one round of trainings and a second round could be organized. Additionally for those that are not able to participate physically, an online version of the materials through a web site, a newsletter or a smartphone application can be made available.
- 3. The attended seminars were organized by various organizers and that means that companies and their representatives are open to any kind of organization, not just internal, in order to learn more on the topic.
- 4. In the area of environmental technologies and systems most of the companies have attended seminars on alternative systems of production and consumption and cleaner process technologies and pollution prevention and control technologies, clean-up technologies and green energy technologies. This can be pointed out as the area of biggest interest of the companies but apart from further development of it all the other areas can be developed if proper accent is put on them.
- 5. The fields of organizational innovation for the environment and product and service innovation so far have been less treated with seminars and training education and they could become the focus of a future educational offer or could be combined with the area

of environmental technologies and systems in one integral offer for the business community.

- 6. The interest for a potential educational offer on the topic of eco-innovation and entrepreneurship was also measured. The general conclusion is that the companies from Pelagonia region show very high interest in a potential educational offer in the field of eco-innovation and entrepreneurship. The companies-respondents show very big interest in the trainings of the field of environmental technologies and systems. There is interest for all of the aspects of this field and the past and current educational offers have been seen and assessed as not enough. This is a big opportunity for the project team to develop an adequate offer that will take into consideration the most requested fields or to make an integral program with all the different aspects.
- 7. The companies are less interested in trainings for organizational innovation for the environment field. Since most of the companies respondents are small companies this field according to them is too advanced based on the formulation of its aspects. The project team could use a more simple formulation of the terms in this field and with a properly adjusted educational offer this field could be popularized with all the different companies.
- 8. The field of product and service innovation offering environmental benefits is also very interesting for the respondents and they show interest in deepening their knowledge in it. The situation is the same as within the previous field, the aspects that sound too complex are again assessed as not interesting and it is up to the project team to develop an educational program that in an accessible way all the aspects, the complex and the simple ones, of this field are covered and explained to the companies. This field especially is applicative for the small businesses that can use this as a business opportunity for extending their current business or completely change their functioning in a new direction. They need proper education on the field and encouragement offered through a well established network of experts who can serve as a support in the set up and build up phases which are the most critical. But in general what is encouraging is the overall interest of the companies to attend trainings and learn about eco-innovation and entrepreneurship.

- 9. The educational offer in eco-innovation and entrepreneurship, according the respondents, is small or nonexistent and that is another confirmation that the project team should work on developing a program that will take into account all the specific interests and needs of the companies.
- 10. Additionally the companies give very low grades for the quality of the past and current educational offers and that is additional information for the project team to make the optimal combination of learning aspects and quality of their treatment.
- 11. Successful implementation of eco-innovation and entrepreneurship requires appropriate competences and based on the responses the soft, marketing and innovation management skills are the most crucial ones. But the assessments vary from the industry and the respondent's knowledge of the meaning of each of the competences. Also the respondents believe that their employees posses enough competences for successful eco-innovation processes. They or their employees could be active participants in an educational program and will have the needed capacity to learn and conduct a successful implementation of the learned practices.
- 12. The respondents are open to participate in potential trainings for them or for selected employees and as for the mode of learning the combination of classic classroom and online learning is the most preferred one. Most of them are also open to receive continuous information about eco-innovation practices and developments and any publication or advance in this field could be forwarded to them in an appropriate form.
- 13. Based on the information, the average profile of a respondent or entrepreneur coming from the Pelagonia region is the following: male or female at the age of 26 to 35 years old that is a holder of a University or a Master's degree, that has little or no experience in the area of eco-innovation and would like to learn about it either through training or through educational material as brochures, online newsletters or any other outputs that will contain information. They are mostly young and open-minded individuals that would make great participants in a training program and the project team could choose and make groups of the participants based on age or make a mix within the groups for optimization of the results.

ANNEXES

1. SURVEY QUESTIONNAIRE

SECTION A - INFORMATION ABOUT YOUR ENTERPISE

- 1. Name of your company (optional question)
- 2. How many people are employed in your company?
 - \Box <50 people
 - \Box 50-250 people
 - $\square >= 250$ people

3. What is the main economic activity of your company, based on NACE classification? Please select what it is more appropriate for your company.

- A AGRICULTURE, FORESTRY AND FISHING
- B MINING AND QUARRYING
- C MANUFACTURING
- D ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY
- E WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION ACTIVITIES
- F CONSTRUCTION
- G WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES AND MOTORCYCLES
- H TRANSPORTATION AND STORAGE
- I ACCOMMODATION AND FOOD SERVICE ACTIVITIES
- J INFORMATION AND COMMUNICATION
- K FINANCIAL AND INSURANCE ACTIVITIES
- L REAL ESTATE ACTIVITIES
- M PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES

- N ADMINISTRATIVE AND SUPPORT SERVICE ACTIVITIES
- O PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY
- P EDUCATION
- **Q** HUMAN HEALTH AND SOCIAL WORK ACTIVITIES
- R ARTS, ENTERTAINMENT AND RECREATION
- S OTHER SERVICE ACTIVITIES

T ACTIVITIES OF HOUSEHOLDS AS EMPLOYERS; UNDIFFERENTIATED GOODS- AND SERVICES-PRODUCING ACTIVITIES OF HOUSEHOLDS FOR OWN USE

U ACTIVITIES OF EXTRATERRITORIAL ORGANISATIONS AND BODIES

SECTION B - ECO- INNOVATION TRAINING NEEDS

- 1. Eco-innovation refers to products and processes that contribute to the economic, environmental and social pillars of sustainable development. Are you familiar with the concept?
 - □ Yes
 - \Box No
- 2. Have you attended training seminars/activities on eco-innovation?
 - □ Yes
 - □ No
- 3. If you have attended training seminars on eco-innovation, please select what it is more appropriate for you. The training /seminars I have attended:
 - □ Were in-house, organized by my company and addressed only to staff members
 - □ Were organized by a third party and addressed to employees of various companies
 - □ Both
- 4. If you have attended training seminars/activities on eco-innovation, please indicate the specific fields they addressed: (you may select more than one option)

Environmental technologies and systems

	Please	select	the
	appropriate		
	option(s	s)	
Pollution prevention and control technologies			
Cleaning (clean-up) technologies that treat pollution released into the environment			
Alternative systems of production and consumption; cleaner process technologies; green			
logistics; new manufacturing processes that are less polluting and/or more resource efficient			
than relevant alternatives (eg biological agriculture, renewables-based energy system)			
Waste management equipment			
Environmental monitoring and instrumentation			
Green energy technologies			
Water supply			

Organizational innovation for the environment

	Please	select	the
	appropri	iate	
	option(s	.)	
Pollution prevention schemes			
Environmental management and auditing schemes: formal systems of environmental			
management involving measurement, reporting and responsibilities for dealing with issues of			
material use, energy, water and waste (eg EMAS, ISO 14001)			
Chain management: cooperation between companies so as to close material loops and to			
avoid environmental damage across the value chain (from cradle to grave); participation in			
circular economy initiatives			

Product and service innovation offering environmental benefits

	Please	select	the
	appropriat	te option(s)	
New or environmentally improved products (goods) including eco-houses and buildings			
Green financial products (such as eco-lease or climate mortgages, green certificates,			
allowance trading)			
Environmental services: solid and hazardous waste management, environmental			
consulting, testing and engineering, other testing and analytical services			
Services that are less pollution and resource intensive (eg car sharing)			

5. Please indicate the level of your interest in attending training seminars/activities in the below subjects. Mind the fact that engagement in most of the following initiatives is expected to also benefit the bottom-line of the participating company

Environmental technologies and systems

	I'm	not	I'm	Neutral	I'm	I'm
	intereste	ed	slightly		interested	strongly
			interested			interested
Pollution prevention and control technologies						
Cleaning (clean-up) technologies that treat						
pollution released into the environment						
Alternative systems of production and						
consumption; Cleaner process technologies; new						
manufacturing processes that are less polluting						
and/or more resource efficient than relevant						
alternatives (eg biological agriculture, renewables-						
based energy system)						
Waste management equipment						
Environmental monitoring and instrumentation						
Green energy technologies - Renewable Energy						
Sources (RES)						

Water supply			

Organizational innovation for the environment:

	I'm not	I'm	Neutral	I'm	I'm
	interested	slightly		interested	strongly
		interested			interested
Pollution prevention schemes					
Environmental management and auditing schemes:					
formal systems of environmental management					
involving measurement, reporting and					
responsibilities for dealing with issues of material					
use, energy, water and waste (eg EMAS, ISO					
14001)					
Chain management: cooperation between					
companies so as to close material loops and to					
avoid environmental damage across the value					
chain (from cradle to grave)					

Product and service innovation offering environmental benefits

	I'm not	I'm slightly	Neutral	I'm	I'm strongly
	interested	interested		interested	interested
New or environmentally improved products					
(goods) including eco-houses and buildings					
Green financial products (such as eco-lease or					
climate mortgages)					
Environmental services: solid and hazardous					
waste management, environmental consulting,					
testing and engineering, other testing and					
analytical services					
Services that are less pollution and resource					
intensive (eg car sharing)					

- 6. Do you think that the number of training seminars offered on eco-innovation in your country is sufficient?
 - □ Yes
 - □ No
 - \Box I don't know
- 7. Do you believe you have had access to high-quality, affordable, relevant training seminars on eco-innovation in your country?
 - □ Yes
 - □ No
 - \Box I don't know
- 8. Which of the following competences do you think that are most important for a corporation to succeed in pursuing eco-innovation?

	Not	Somewhat	Important	Very	Extremely
	important	important		important	important
Development of new					
sustainable/circular business models					
In-depth knowledge of economic					
sectors					
Knowledge about product life cycles					
Design skills of new products or/and					
services					
Knowledge of creative thinking tools					
Innovation management skills					
Marketing skills					
Soft skills (eg. problem-solving skills,					
collaboration, communication)					

- 9. Considering that eco-innovation requires a mixture of the above competences (knowledge, skills, attitudes), do you believe that your company and its employees has such competences?
 - □ Yes
 - □ No
 - \Box I don't know
- 10. Would you encourage participation of your company's employees to eco-innovation training initiatives?
 - □ Yes
 - □ No
- 11. Assuming a positive reply in the previous question, would you prefer that the training activities take place in:
 - □ Classroom learning environment
 - □ Online learning environment
 - □ Both (blended learning environment)
- 12. Would you appreciate uninterrupted access of your company to a continuous informative streamline on the advances in best practices and eco-innovations in your industry field?
 - □ Yes
 - □ No
 - \Box I don't know

SECTION C-PERSONAL INFORMATION

- 1. Please state your gender
 - □ Male
 - □ Female
- 2. Please state your age
 - \Box 18 25 years old

- \Box 26 -35 years old
- \Box 36-50 years old
- \Box 50+ years old
- 3. Please state your educational background:
- 4. How many years of experience do you have in environmental sector or/and ecoinnovation?
- 5. Contact telephone number
- 6. E-mail address
- 7. Would you like to participate in future activities of the project (eg training seminars, interviews)?
 - □ Yes
 - □ No

Thank you for your cooperation!