



REPORT
on the findings from the
SECOND SURVEY OF ECO-INNOVATION AND ENTREPRENEURIAL
TRAINING NEEDS

Agency for Support of the Entrepreneurship of R. Macedonia

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Introduction

The survey was conducted in December 2018. The interviews were made according the appropriate interview protocol with structured open questions in 12 companies from city of Skopje.

The aim of the survey is to provide information that will be used to develop more specific training program that will deliver theoretical background and practical knowledge in the required green topics. The trainings should be delivered in the most convenient way of learning for the companies in order not to disturb their usual business processes.

Methodology and Goals to Achieve

The personal interview research was conducted in the December 2018 and it was completed on a sample of twelve companies. The personal interview contained predetermined open questions in order to obtain information about the company, the respondent, the current problems and solutions of the questions of eco-innovation, the costs that they have to satisfy the eco-innovation needs and their training needs and preferences. Obtained responses were analyzed using Microsoft Excel and SPSS. All 12 companies that were willing to take part in the first survey participated in the personal interview session that was performed. The collected data in this report is presented in descriptive way, tables and graphics, using absolute and relative values (percentage participation).

The personal interviews research had the following goals:

1. Identification of the eco-innovation and eco-management training needs and problems of the SME's
2. Identification of the current practices of managing eco-innovation and eco-management in SME's
3. Identifying current costs and expenditures of SME's to deal with eco-innovation issues.
4. Identifying of the most important topic of eco-innovation in which the SME's would like to be trained
5. Identifying the competences required for successful implementation of green products, services and practices.
6. Identifying most appropriate way for satisfying training needs of the potential participants regarding location, time and educational approach.

Findings

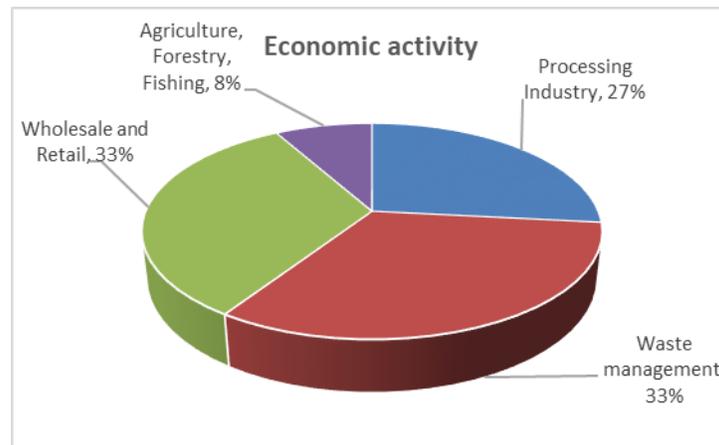
Q-A: The first question determines the position of the person interviewed. Since the sample is from SME's, more than 66% of the persons interviewed were managers, 25% were responsible for the operations of the company and 8.3% worked in the logistics department. It is expected that higher the position in the company, better quality of answers regarding their knowledge about the existing situation of the company and their future needs.

Pic.1 Position in the company of the person interviewed

A	Position in the company		
	General Manager	8	66.7%
	Operations	3	25.0%
	Logistic Repsonible	1	8.3%
			100.0%

Q-B: Regarding the main economic activity of the companies, it is the same structure like in the first survey in May 2018, since the in-depth personal interview was conducted in the same companies.

Pic.2 Main economic activity of the companies



Q-C: Third structured question had to identify the eco-innovation and eco-management needs or problems of the companies, at least five major of them.

The most frequently *mentioned topics for the training* are:

- *Cleaner process technologies that are less polluting and energy consuming, green logistic and eco-friendly (or organic) products.* Solar energy as a way for cost reduction is also interesting for

the companies. Companies are eager to get knowledge about energy saving options and tips, reduce material losses in the process (meaning less waste generated and energy consumed) and possibilities to switch to more “greener” operations and declare their products as eco-friendly. Almost all companies realize that being eco-friendly will be strong point-of-difference with their competitors, due to the changing habits of consumers to buy products that are not (or less) polluting environment. Food processing, agriculture and retail companies are especially interested in training in this topic.

- *Waste management and recycling* of packaging materials, batteries and metals. All companies mentioned waste management as an important part of their operations, mentioning that it reflects on their costs with a growing trend, due to yearly increasing taxes for generated waste. Beside the environment friendly attitude as a motivator, finding way to reuse waste and save/generate money from the waste management has been found as a strong motivator for waste management as a training need.

- *Pollution prevention and control technologies*. Maybe due to increasing pressure from the public opinion and media regarding air pollution in the country, almost all interviewees mention these topic. Waste management companies need to reduce collection cost for transport by optimizing their trucks routes, suggesting that it could be done by smart-containers that will signalize the level of waste inside. Food processing and wholesale/retail companies need to optimize distribution costs through optimizing deliveries of products. IT solutions (custom made or general) through appropriate software applications seem very welcome for the companies.

- *Preparing projects for application for national or EU green innovation funds, as an environmental service*. Interviews show that companies are willing to apply with eco-innovation projects funding, but feel not confident that can fulfill administrative and technical procedures. Most of them are not familiar with all possible funds where they can apply for grants or co-funding, so these info have to be included in the trainings as well. These is interesting topic for all companies, regardless the main economic activity.

The training need are logically inspired by the problems companies face on a regular basis in doing business, so they are the same or mirrored as above mention in Q-C.

Q-D: The aim of this question was to illustrate current situation how companies' deal with the eco-innovation and eco-management problems they face within their operations.

Almost all of them try to somehow compensate lack of knowledge in the topics mention in Q-C through and reduce the negative impact of problems occur. It is done by strict *obeying laws* regarding that topics and standards/benchmarks for the certain industry. Simply "blind" *copying procedures/standards and "know-how" (best practices) from others* more advanced companies (even competitors) is also a tactic use to over-bridge the problems occur. Finally, companies that are somehow linked with foreign partners (suppliers/buyers/professional organizations) try to *implement in their companies procedures and standards* that have shown effective in these foreign systems. Implementing standard procedures and systems (ISO 9001 or HACCP) are also ways to minimize negative impact of current problems.

Finally, for grants or co-funding applications, some companies *hire external consultants* or do not apply at all. Few even accept problems as normal part of operations and do not try to deal with it if not forced by the authorities! (f.i pollution)

Q-E: This part of the interview have to identify costs of companies to deal with eco-innovation problems and needs. The interviewees could express cost in absolute figures or as a percentage of their total annual expenditures. They can also rank them as a minor or major as well.

It has to be mentioned that majority of the companies do not express their costs in absolute numbers and preferred to describe it as a percentage of their expenditures. All of the companies describe their costs as *minor (9 companies) to moderate (3), in a range of 0.2-2.5% of their expenditures*. Only one company define their current cost for training needs of its employees in the range of 8-10,000 EUR/year (0.3% of total expenditures) and 2,2 % for external consultants to compensate lack of

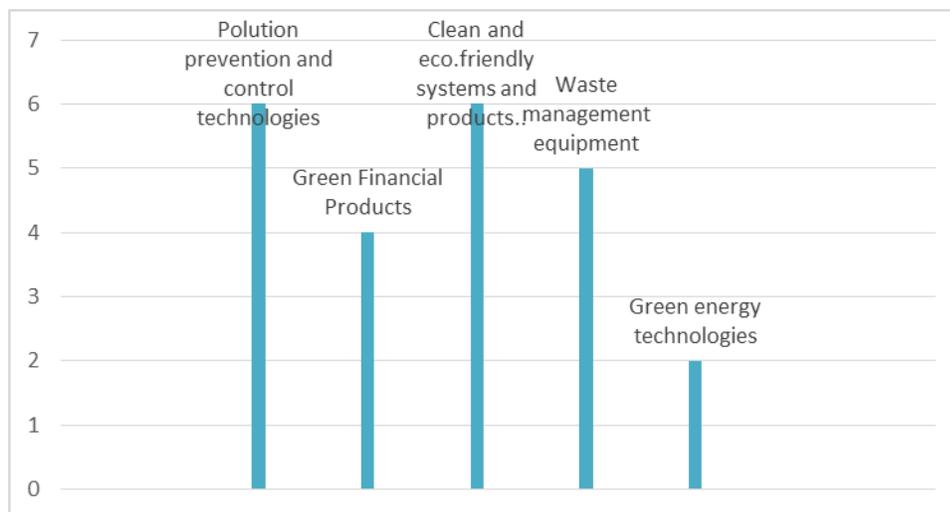
In general, companies are willing to spend more if that would be beneficial for the overall company and environment.

Q-F: The interviewees were asked to select three to five fields connected with the environment for which they or the employees of their company would like to get training in order to improve their capacity with dealing with eco-innovation and eco-management problems.

The answers were very similar to Q-C, but worth to mention again. Most of them would like to get training on:

- *Waste management and recycling* with contemporary equipment and approaches to it, applicable in the country.
- *Clean and eco- friendly processes and products.* ECO is considered as social-responsibility issue and companies want to have that image in the public.
- *Green financial products.* What is available as a green funding and how to apply

Pic.3 Environmental fields in which employees should be trained

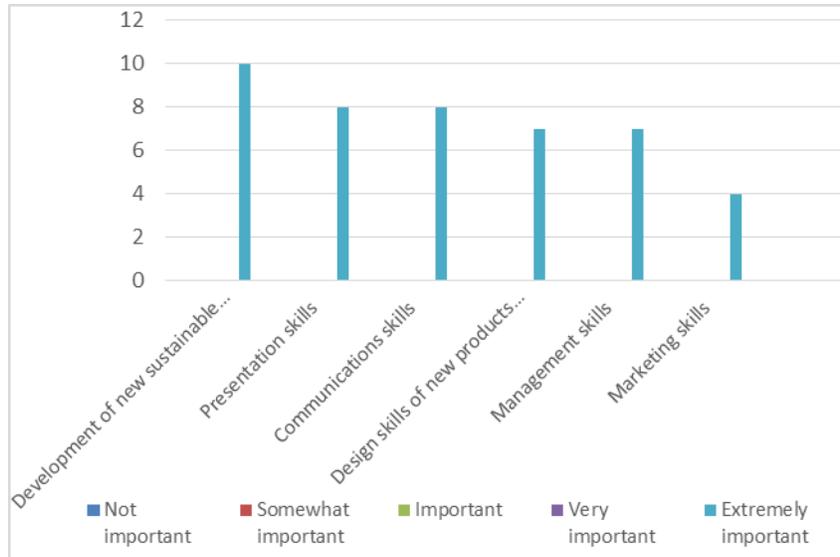


Findings from this question indicates in direction in which process of developing a planned and organized educational module on eco-innovation and eco-management. The specific topics could be adopted depending on the structure of training participants or they could be delivered through custom-made tuition.

Q-G: Interviewees were asked about the competences that company’s employees should possess in order to have success in the learning process and successfully transfer the knowledge in their companies.

So called “soft skills” seem to be recognized as very important as a competencies of the employees in order to implement and disseminate eco-issue in general.

Pic.4 Competences for successful implementation of eco-products and solutions



Beside the ability to think creatively and develop new sustainable business models, findings point out that the successful implementation of green practices, products, services or solutions requires presentation and communication skills. They are necessary to “sell” (spread) the new ideas through the company and to all stakeholders concerned.

Management competences for successful implementation of new practices is also crucial. Especially *Change Management* since innovations in most of the cases challenge the existing situation in the companies. Therefore, the successful implementation of green products and services requires a balanced combination of all the above mentioned competences.

Q-H: The last question was about the most appropriate training format for the training participants. They expressed their wishes on the most convenient mode of learning, duration and time. It has to help in order identify how the training sessions should be organized, when and how long they should last for optimal results.

Pic.5 Preferred training format

Q-H	Time	Freq.	%
	Working days	4	33%
	Weekend	8	67%
	Morning	10	83%
	Afternoon	2	17%

Q-H	Duration	Freq.	%
	2-3 hours	2	17%
	3-4 hours	9	75%
	4-5 hours	1	8%
	Mode of Learning		
	Classroom	3	25%
	Online	1	8%
	Combination	7	58%

In terms of the preferred time of the week to have the training sessions, most of the interviewed companies or 67% prefer the weekend since they think that they have more free time and could be more focused on the training session and not on the daily tasks that dominate the work week. But, it how all interviewees with managers' position suggested! The rest prefer the work week since they would not like to take time of the free weekend.

Regarding the duration of the training sessions 75% of companies prefer training sessions that last 3-4 hours with breaks and the rest are willing to have a little shorter or longer. For sure participants would not like to have training sessions that last a whole day.

The preferred mode of learning is combination of online and classroom learning (58%) since they think that it can save time and costs. All would like to have access to the materials online and that would make the dissemination process much easier within the whole company.

Conclusions

The structured interviews findings try to fulfill the goals.

1. Identification of the eco-innovation and eco-management training needs and problems of the SME's

Cleaner process technologies that are less polluting and energy consuming, green logistic and eco-friendly (or organic) products.

Waste management and recycling

Pollution prevention and control technologies.

Preparing projects for application for national or EU green innovation funds, as an environmental service.

2. Identification of the current practices of managing eco-innovation and eco-management in SME's

Obey legal framework (laws)

Copy procedures, standards and best practices from others

Introduce standards (ISO 9011, HACCP)

Do nothing without external prsessure

3. Identifying current costs and expenditures of SME's to deal with eco-innovation issues.

0.2-2.5% of total expenditures.

4. Identifying of the most important topic of eco-innovation in which the SME's would like to be trained

Waste management and recycling with contemporary equipment and approaches to it, applicable in the country.

Clean and eco- friendly processes and products.

Green financial products. What is available as green funding and how to apply for it.

5. Identifying the competences required for successful implementation of green products, services and practices.

Development of new sustainable business models

Presentation and Communication Skills

Management skills

Marketing Skills

6. Identifying most appropriate way for satisfying training needs of the potential participants regarding location, time and educational approach.

During the weekend

Morning time

Duration of 3-4 hours

Combined (classroom + online)