TREE
Micro- and project-based learning programme for Teaching ciRcular Economy and Ecological awareness in VET

Funded by the European Union

National Report for TREE project - Lithuania

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1. EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD) IN LITHUANIA: DEFINITION, APPLICABILITY AND CHALLENGES

1.1 Definition of Education for Sustainable Development (ESD)

In recent decades, sensitivity to the health of our planet has increasingly become a priority at political and educational level: discourses on environmental sustainability have become part of the teaching practices in the field of education. Starting from the definition of “development education” and “Education for Sustainable Development” given by some relevant international organizations, we can understand its implications for the educational system in Lithuania in the following paragraphs.

In 1975, the United Nations stated that: *“The objective of development education is to enable people to participate in the development of their community, their nation and the world as a whole. Development education is concerned with issues of human rights, dignity, self-reliance and social justice(..).”* (Daly et al., 2015). According to the “European Confederation of Development and Relief NGOs” (CONCORD) “(*development education) seeks to influence more just and sustainable economic, social, environmental, human rights based on national and international policies” (*Daly T. et al.,2015).

Education for Sustainable Development (ESD) focuses attention on environmental issues and on sustainability, using the concepts of development education, its values of social justice, human development, active citizenship, interconnection between global and local policies . UNESCO (United Nations Educational, Scientific and Cultural Organization) stated: “*ESD empowers learners of all ages with the knowledge, skills, values and attitudes to address the interconnected global challenges we are facing, including climate change, environmental degradation, loss of biodiversity, poverty and inequality”* (UNESCO,N.D.). ESD is an integral part of a lifelong learning perspective that involves all possible spaces of formal and non-formal education, from early childhood to maturity (school, vocational education and training, workplace, higher education, adult learning and public awareness education) (UNESCO, 2014). In 2005, the United Nations General Assembly designated the decade 2005-2014 as the Decade of ESD, and the Goal 4.7 of the UN Sustainable Development Goals aims, by 2030, to *“ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, (...).”* (Giangrande et al., 2019). Such knowledge, skills and understanding on sustainable development enable young people to make informed decisions about how they can play an active role in their community, according to the principles of sustainability.

1.2 Applicability of ESD in Lithuania

Against this international backdrop, the Republic of Lithuania has ratified the Government's commitment to incorporate the global principles of ESD into national educational programmes through different strategies. First of all, Lithuania signed: in 1996 the “Baltic 21”, an Agenda 21 (non-binding sustainable development action plan of the United Nations) for the Baltic Sea Region; the Hague Declaration in 2000; the National Strategy for Sustainable Development in 2003. The Government included ‘sustainable development’ as a particular chapter into the White Book of Science and Technologies defining the aims and tasks of the implementation of sustainable development principles (Uðeckienë, Targamadzë, 2005).

In March 2005, Lithuania approved the “UNECE (United Nations Economic Commission for Europe) Strategy for ESD” and the “Vilnius Framework for Implementation”, setting up a Steering Committee, an ad hoc group of experts, to “*develop indicators to measure the effectiveness of the implementation of the Strategy* (UNUCE, 2005). The UNECE Strategy is a practical instrument to promote sustainable

development through education, adopted by the Ministers and officials from Education and Environment Ministries, international organisations, business, NGOs, regional environmental centres and research institutions. One of the main objectives of the Strategy is to equip educators with the competence to include SD in their teaching (UNECE, 2009).
The Government of the Republic of Lithuania in 2007, approved the pronouncement "On the Approval of the National Education Program for Sustainable Development 2007-2015" (No. 1062).The objectives of the program are to develop education provisions for sustainable development, to improve the professional competence of teachers and educators and to carry out the necessary assessments of changes in educational activities, to provide the public with knowledge and skills, to prepare educational material for sustainable development, to provide access to it, to carry out research and to ensure inter-institutional cooperation.

1.3 Challenges to the implementation of ESD in Lithuania

The Lithuanian education system, from the 2000s until now, has taken several steps to help students of all ages and teachers to become conscious and active agents of change towards a sustainable lifestyle. Several studies have pointed out which challenges teachers, students in basic education and universities have encountered in these years of implementation of ESD strategies. At the first stage the focus of ESD was on creating new curricula, the understanding of the concept of SD, and the best teaching methodologies. The Lithuanian teachers involved in the “Agenda 21” Pilot Project linked the strategic documents of SD with the subject curricula, to identify the issues to be addressed in the classrooms. The key competencies developed by ESD are: critical thinking and future-oriented thinking, solving and preventing problems, holistic approach in addressing complexities, linking local, regional and global perspectives, and conflict resolution (Galkute, n.d.).
The reorientation towards sustainability of organisational structures, management systems and pegagogics was taking place at every level of education, including in Higher Education. The survey among students and members of the teaching and administrative staff of 4 Lithuanian universities (2009), showed that students believed they were not responsible for sustainability policy, but were teaching and administrative staff, and the Ministry of Education and Science. Respondents suggested encouraging *participation in projects related to environmental protection, sustainable development, and ecology (23%)* and to include SD courses *in the curriculum or covering this topic in related disciplines (41%)"* , to achieve more success in implementing SD (Grundey, 2009).
With regard to understanding the concept of sustainable development, various researches show the extent of teachers' and students' knowledge. What emerged from a study conducted in 2005 (involving 1140 teachers from the Institute of Continuing Studies at the Universities of Ðiauliai and Klaipëda) was that only one-fifth of all respondents could explain the concept of sustainable development to students, of which most of them were teachers of natural sciences, social education and related subjects; in the opinion of the respondents, environmental issues had to be discussed in the class of natural sciences (21.6%), mathematics (21.6%) and economics (11.7%), while for SD more experts they had to be included as a single subject in the curriculum (Uðeckienë and Targamadzë, 2005).
In a 2011 Master’s thesis in Human Ecology it emerged that, while teachers were interested in increasing environmental education in schools, they were still hampered by structural barriers. The most common limitations were time, financial and technical limitations, lack of knowledge to make connections between social, environmental and cultural aspects; lack of material for practical exercises and to explain environmental issues, and of teachers training on ESD. By focusing on the students, it was found that they put into practice ecological actions even if they often did not realize it. This is because they are not able to create connections between the knowledge of ecology and everyday actions, despite being aware of local and/or global environmental problems, and know how to make solutions about what or who should encourage Lithuanians to take care of their environment (Budvytytė, 2011). Research conducted recently analyses the ecological attitudes among schoolchildren. A representative survey of 1161 Lithuanian students (October-November 2020) shows the existence of pro-ecological views. Among the ecological values, unpolluted food, clean air and fresh water were identified as the most important to the participants. Students perceive the correlation between flora and fauna, the importance of nature protection and biodiversity. They identified that environmental education is determined by their family, their friends and school, and that their attitudes have an impact on the natural environment. For the development of ecological attitudes of awareness and responsibility towards the environment, in addition to the knowledge received, individual appreciation of and interest in contact with nature is important. For these reasons, the authors of this research stress the need to strengthen teaching strategies, appropriate teaching resources and

materials, teaching methodologies, and to provide teachers' training on environmental issues (Jančius et al,, 2021).
As we can deduce from the reading, in recent years there has been a gradual movement towards greater awareness of environmental issues, and more sustainable attitudes of people of all ages. The feeling of responsibility and the environmental consequences of the actions of all are slowly maturing. The pedagogical tools available for teaching ESD appear to be still too limited, and to speed up the transition to a more sustainable society, more educational tools, activities and programs should be introduced and applied in the country in this direction.

2. SUSTAINABILITY: LITHUANIA APPROACH AND PRIORITIES

2.1 Lithuania's policies on sustainability and Circular economy

Sustainability and the circular economy are priorities in the environmental policies on the international political agenda. With Lithuania's entrance in the European Union, the government followed and integrated European acts and policies on sustainability in its internal legislation.The more relevant documents that in Lithuania integrated measures of circular economy are several, starting from naming the Lithuanian Law on Waste Management, in 1998 *("the main law regulating waste management, including recycling")* and the Lithuanian Law on Packaging Management (2001)*, "which contains information on the use of packaging and the responsibilities of waste treatment organisations"* (Grigoryan, Borodavkina, 2017). In 2003 Lithuania approved the Lithuanian national strategy for sustainable development (NSSD), renewed in 2009 after the changes brought about by the renewed European Sustainable Development Strategy in 2006 (Dagiliūtė, 2018). In 2014 the National Waste Management Plan for 2014-2020 was introduced*, "which emphasises the need to increase the efficiency of waste use"* (Grigoryan, Borodavkina, 2017). Following the timeline, in 2015, Lithuania adopted a new development strategy that includes using alternative fuels to increase energy efficiency, revising recycling policy and making production cycles sustainable (Grigoryan, Borodavkina, 2017).
In 2016, the government ratified the "National Environmental Protection strategy", that sets out a range of principles and objectives until 2030 about four main axes: sustainable use of natural resources and waste management, improvement of environmental quality, maintenance of ecosystem stability, and climate change mitigation and adaptation (OECD, 2021).
In addition, Lithuania has undertaken two important initiatives on sustainability and the EC:
1) the inclusion of Green Public Procurement (GPP) as a criterion of horizontal sustainability (CircPro interreg Europe, 2020) in the National Progress Programme (NPP). The NPP is the main document that plans the strategic goals to be achieved by 2030, in which it is stated: "*we must combine efforts to successfully address the issues of sustainable development, environmental protection, energy, transport, the economy and the building of democracy"* (Council for State Progress, 2012). Based on the recommendations of the European Commission, Lithuania seeks to achieve 55% of GPP from all public procurement by 2030.
2) the project "Roadmap for Lithuania's Industrial Transition to a Circular Economy", an action plan for industrial transformation towards a circular model, implemented by the Ministry of Economy and Innovation in 2019 (CircPro interreg Europe, 2020).
In 2019, the government adopted the National Air Pollution Reduction Plan and presented its *long-term National Climate Change Management strategy, setting a net-zero carbon emission target by 2050*. Medium-term (2021-2030) mitigation and adaptation measures have been included in the Integrated National Energy and Climate Plan, with a special ambition for transport and agriculture.
The 2020 fiscal incentive package also contains some investment programmes with environmental goals, improving energy efficiency, promoting renewable energy and improving the competitiveness of the energy sector. Among the programmes there are the Climate Action Programme and the Multi-Apartment Building Renovation Programme (OECD,2021).
The Pollution Tax Act - a set of taxes on polluting products - came into force in January 2021. They include increases in tax rates for most pollutants discharged into the air and for some pollutants discharged into water bodies and soil from stationary sources. Finally, the government is currently developing a global territorial plan: New Comprehensive Plan of the Territory of the Republic of Lithuania (CPTRL). It will serve to reconcile economic activities with the protection of the environment and cultural heritage (OECD,2021).

There are therefore so many competing environmental strategies, with more than 200 strategic planning documents spread over time (OECD,2021). Ensuring consistency and coherence among them, bringing them into line with the 2030 Agenda and implementing them remain actually a challenge.

2.2 State of the Art in Lithuania

Over the past nine years, along with business investment in non-technological innovation, Lithuania's openness to eco-innovation has begun to grow. Since 2010 Lithuania has moved from 23rd to 16th place in the eco-innovation index published by the European Commission, and today it is ahead of its neighbors Latvia and Poland.

Lithuania's gap with the leading European Union countries in the field of the circular economy is also determined by the insufficient attention paid to the promotion of circular design and design innovations and the development of circular business models in the country.

As regards the implementation of the circular economy, Lithuania's progress is insufficient. Although the idea of a circular economy is spreading, both the public and private sectors have not yet fully tamed it. There is a lack of tax incentives for circular economy products or services. The recycling rate is one of the lowest in the European Union at only 7% from the total amount of waste. There are sufficient tools in the country for companies to develop and implement innovations and technologies based on the principles of the circular economy. However, due to the low (or non-existent) return on investment in the transition to a circular economy, such activities are not popular with companies.

Although Lithuanian legislation pays a lot of attention to public procurement that promotes environmentally friendly solutions, the transition to a circular economy is not considered to be the main goal. The Lithuanian public sector supports environmental initiatives, but circular economy initiatives (including circular public procurement) are promoted only latently. Finally, there is not even a separate definition of circular public procurement in Lithuanian law and in the legislative system.

At present, Lithuania lags behind the EU average in the efficient use of resources, and the amount of waste from production and other economic activities is growing, therefore it is necessary to improve and create attractive investment instruments for business that can contribute to sustainable and innovative management of corporate resources.

In Lithuania in particular, we are facing such a problem of thinking about consumption, and there is still a lack of concern to solve it. Address the causes or deal with the consequences? The essence of the above-mentioned problem of thinking about consumption is the lack of an integrated approach to waste. When talking about the implementation of the principles of the circular economy in Lithuania, we focus on dealing with the consequences: where we will store or how we will recycle the waste that has already been generated. However, the road to economic recovery should cover the whole waste cycle and consider not only the management of waste already generated, but also preventive action to reduce overall waste.

National level policy in Lithuania focuses on successful municipal waste management. These are mainly wastes generated during the consumption of fast-moving goods: various packaging, household appliances, textiles. There is no simple recipe for reducing this type of waste. Concentrated work is needed here, both in creating and promoting innovation and in turning the economy from dealing with the trajectory of causes to prevention.

A sustainable transition to a circular economy requires companies not only to rethink resource use, but also to plan and develop new processes and models based on eco-efficiency, durability, renewal, recycling, sharing, increased reuse and recycling. Such business models are not yet widely discussed in the public sphere, which means that there is a lack of a deeper understanding of the circular economy and the competencies needed to implement it, both among policy makers and among companies themselves.

The development of the circular economy in the country would also be stimulated by a specialized knowledge dissemination center - a cooperation platform where various stakeholders would have the

opportunity to implement joint initiatives, develop inclusive innovations or apply good circular economy practices in their activities.

3. QUESTIONNAIRES AND SEMI-STRUCTURED INTERVIEWS RESULTS ("FIELD RESEARCH")

3.1 Introduction

Project „Micro- and project-based learning programme for Teaching ciRcular Economy and Ecological awareness in VET" (hereinafter - TREE project) was started in 2021, will be run for 2 years and is funded by the Erasmus + programme.

Project partners S.A.F.E. Projects (NL), VšĮ „eMundus" (LT), Kėdainių profesinio rengimo centras (LT), Valga County Vocational Training Centre (EE), „Zinev Art Technologies" (BG) and Profesionalna gimnazia Asen Zlatarov (BG).

TREE project contributes to this ongoing process by aiming to increase the employability of VET students through the creation of an innovative course on Education for Sustainable Development (hereinafter - ESD) and promotion of the circular economy(CE) through the infusion of green skills argiculture, wood and plastic sectors.

Project specific objectives are to:

- Integrate the teaching of Circular economy (CE) and sustainability into VET schools' curricula;
- Create a closer link between VET institutions and businesses that adopt sustainable practices;
- Promote the infusion of relevant green skills for the job market in VET students;
- Support and encourage the transition towards the CE;
- Provide a definition of relevant "green skills" for the plastics, wood and agri food sector;
- Provide relevant training for VET teachers to support the green transition.

In order to implement the project objectives and achieve high-quality final results, i.e. to prepare methodological material (e-book); to conduct teacher training courses and to create an online platform for CE and sustainability courses, a questionnaire survey was carried out in January – March, 2022.

The aim of this survey is to gain insight and expectations of the companies' and NGO's that apply the principles of sustainability and work in the fields of environmental protection, innovation, CE and others. Also, to gather information from VET teachers on the needs to integrate CE and ESD into VET subjects and curriculum.

Two questionnaires were prepared for the survey:

- Questionnaire for teachers of vocational education and training institutions (Annex 1);
- Questionnaire for companies and NGOs (Annex 2).

3.2 Background information about the respondents

34 teachers from 5 Lithuanian vocational schools, 18 respondents from companies that apply the principles of sustainability and 4 respondents from NGOs operating in the fields of environmental protection, innovation, CE and others participated in the TREE project survey conducted by Kėdainiai Vocational Educational Training Center on CE and sustainability.

Respondents of different age groups (see Figure 1) with different work experience and working in different fields of activity participated in the survey, so their opinion is very useful.

Results of the survey show that the majority of teachers in vocational education and training institutions (79.4%) who have participated in the survey already have 15 years or more of experience in educating students. Teachers have experience with students of all ages.

Respondents from companies and NGOs represented all major sectors: agriculture (13.6%), industry (9.1%) and services (77.3%). According to more detailed, common statistical classification of economic activities in the European Community (NACE Rev. 2), respondents are divided into the following sectors: agriculture (13.6%), manufacturing (9.1%), water supply, sewage treatment, waste

management (13.6%), shipping and storage (27.3%), wholesale and retail trade; repair of motor vehicles (9.1%), financial and insurance activities (9.1%); education (18.2%).

3.3 Level of knowledge about Circular Economy

9.1% representatives of companies and NGOs say that they are very well informed and as many as 54.5% are informed, while teachers assess their knowledge more cautiously. The majority (52.9 %) said that they have heard of the concept and only 2.9% were fully informed about the CE concept.
67.6% respondents from VET pointed out that the CE concept is best described by a definition that states: „it is a pattern of production and consumption that includes the sharing, leasing, re-use, repair, refurbishment and recycling of existing materials and products".
All respondents from companies that apply the principles of sustainability and NGOs that operate in the fields of environmental protection, innovation, the CE and other areas have knowledge of ESD strategy and even 18.2% of which are well informed. However, 2.7% respondents from vocational training institutions are not yet familiar with this strategy.
64.7% of VET teachers reported that education for sustainable development is best described as a statement that promotes the shift in skills, values and attitudes to create a just and cohesive society for the environment and all the people.
The companies and organizations that participated in the survey understand the importance of the circular economy, as we can see from the data that 27.3%. of the respondents have both theoretical and practical knowledge. Half of these respondents have theoretical knowledge related to the circular economy and sustainability.
The theoretical knowledge of the respondents was acquired through participation in training and seminars organized by the European Commission related to the CE, sustainability and by collecting the information from various sources. Practical experience has been gained while disseminating green policy ideas, carrying out environmental and ecological education activities through international, national and municipal projects and other information sources and activities.
90.9% of respondents' from companies and NGO's daily habits are environmentally friendly. They identified their main daily routines: minimum consumption, reuse of goods, public transport, green transport, waste sorting, natural agriculture, etc.
The VET teachers surveyed have little experience with the circular economy and sustainability. More than half of the respondents (64.7%) have no experience on these topics. 36.3 % of the respondents have gained the experience while carrying out projects, learning and teaching others, during seminars and on their own initiative.

3.4 Education for Sustainable Development and CE at school

The transition to a circular economy (CE) involves a real cultural revolution that will allow the transition from a consumption and consumer-oriented economy to one based on reuse and recycling. Today's children and young people will have a key role to play in this process of change, as cultural patterns cannot change without the promotion of sustainability and the promotion of a 'circular' lifestyle.
There is an emphasis on the need to provide the current generations of children and adolescents in Europe with appropriate training and education on sustainable development and a circular lifestyle so that they can make a real difference in the European Parliament resolution on teaching and educating children about sustainable development and the circular economy.
The survey shows that schools are already applying good practice in the areas of sustainability and the environment. 82.4 % of the respondents say that they apply good practice in the field of sustainability and environmental protection in the school they teach. They pointed out that they contribute to the development of sustainability and the promotion of a "circular" lifestyle at school by developing and implementing various projects on the subject, participating in various ecological campaigns, sorting waste, establishing an ECO group, saving various resources, including essential topics in the curriculum and other activities.

Respondents who indicated that the school does not have a policy of sustainable development and the CE did not state why or stated that they did not know the reasons.
67.6 % of the respondents do not face problems in the development of the CE understanding. Respondents (33.4%) who face challenges in application of the ecological, environmentally friendly habits at school indicate that those challenges are related to the formation of students' habits and attitudes in the classroom. They say that students support a “circular” lifestyle, but do not have established habits to save raw materials and energy, sorting waste, and give up consumerism.
74.5% of the respondents included information related to sustainability and the CE during their lessons. Teachers include dissemination of the information on sustainability and the CE, economy of raw materials, watch films on ecology, consumerism, waste sorting and the use of secondary raw materials.
Half of the VET teachers surveyed indicate that the ESD and CE at school is a priority or policy of the school. Half of the respondents develop an understanding of CE on their own initiative.
As much as 94.1% of the respondents believe that VET institutions can benefit from inclusion of a training course on sustainability and the CE into their curriculum.
Respondents indicate that the benefits are comprehensive, for students, teachers and schools alike. Students are introduced to sustainability policies, the goals of CE and try to integrate it into their social life - a trained professional helps to create and develop a business based on the principles of the CE.
Teachers would deepen their knowledge of the principles of ESD and the CE, thus contributing to solving global problems. Any institution (especially an educational institution) must save a variety of resources to encourage students to develop ecological thinking and sustainability ideas.
Therefore, while analyzing the results of the survey, we can state that the most important thing in developing an understanding of the CE is to deepen knowledge, foster values and form attitudes and behaviors that encourage positive action and lead to a waste-free lifestyle.

3.5 Sustainability and Circular Economy in the workplace

72.7 % of respondents from companies and NGOs indicate that the company in which they work applies some good sustainability and environmental practices.
Respondents from the NGOs indicate that they seek not only to spread the idea of responsible activity, to show examples to follow in implementation of the principles of social responsibility in Lithuanian business, but also to form criteria for responsible activity. They advise, share experience among members, organize seminars, conferences, training, other events open to the public, and cooperate with organizations pursuing sustainable development goals (including international ones). NGOs raise awareness of the principles of the CE, promote environmental and ecological education activities, and the integration of sustainable development-based research solutions into business, politics and society.
Respondents from companies indicated that they carry out production without waste, use renewable energy, ecological transport, use unsorted products to develop new products, sort waste, implement environmentally friendly projects - plant plants, bushes, trees, interact with various communities, raise awareness about green principles, sustainable fashion, sustainable nutrition, responsible consumption, packaging.
68.2% of respondents indicate that they do not face any challenges in their organization while applying environmentally friendly sustainable practices.
Respondents (31.8%) state that there are public doubts about the efficiency of the production, insufficient knowledge of the company's employees about the CE, the practice when the quality of the obtained raw materials does not meet the quality requirements specified in the documents and increased production costs. However, more than half of the respondents (51.9%) believe that when these barriers are solved, the organization would be ready to rethink its business model.
45.5% of the respondents agree that this topic is important, and the rest (18.2%) think that this topic is not very relevant in their organization at the moment.

3.6 The Green Skills

Skills are crucial for competitiveness and employability, as structural change, such as globalization and technological progress, requires ever improving and wider skills relevant to the labor market to increase productivity and secure good workplaces.

The surveyed VET teachers and representatives of companies and NGOs assessed the importance of each green skill for the labor market. The results of the survey show that the most important green skills (more than 50% of respondents from VET institutions, companies and NGOs) are waste management, pollution prevention and smart thinking.

Respondents from VET institutions also indicated that ecosystem management (50%), maintenance and repair skills and management skills (47.1%) and creative problem solving (44.1%) are of great importance. Respondents from companies and NGOs, mentioned eco-design (54.5%), environmental audit, ecosystem management, life cycle management, and Lean production (45.5%) in addition to the three most important green skills.

According to respondents from VET institutions, (87%) stated that all of the indicated green skills are important, quite important or very important. 4.5% of respondents from companies and NGOs believe that green skills are not important for the labor market. During the survey, respondents from VET institutions, companies and NGOs rated their level of knowledge of green skills.

Respondents from VET institutions believe that they have gained the most experience in waste management and pollution prevention. Respondents from companies and NGOs are convinced that they have the most experience in waste management and very good management skills.

On average, 16.9% of respondents from VET institutions and 22.4% of respondents from companies and NGOs consider their green skills to be very good. On average, 45.1% of respondents from VET institutions and 44.5% of respondents from companies and NGOs think that their green skills are good. During the survey, respondents from VET institutions, companies and NGOs assessed the level of students‘ knowledge of each green skill after graduation from a vocational school.

Survey data shows that only an average of 10.8% of respondents from VET institutions believe that students’ knowledge of green skills is very deep and 26.4% - deep.

45.1% of respondents from companies and NGOs are convinced that students‘ who have graduated from vocational school knowledge of green skills is very deep and 26.4% - deep.

44.7% of representatives of VET institutions and 28.5% of the representatives of companies and NGO believe that students do not have green skills or their knowledge is minimal. According to respondents from companies and NGOs, vocational school graduates are most in need of scientific skills and ecosystem management skills. Summarizing these survey data, it can be stated that students are in need of green skills.

Representatives of VET institutions as well as representatives of companies and NGOs expressed their opinion on whether students in VET schools are informed about sustainability. Their opinions almost coincided. 20.6% of VET teachers are convinced that their students are informed and only 2.9% of them state that students do not have information about sustainability (see Figure 12). 9.1% of representatives of companies and organizations stated that they had no information about it.

(76.5%) and representatives of companies and NGOs (77.3%) say that students are only partially informed about sustainability.

Analyzing the survey data, we can see that the opinions of VET teachers and representatives of companies and NGOs who participated in the survey differed. 8.8% of respondents from VET institutions are convinced that students are informed about the CE and 79,4% of respondents consider that they are partially informed. Meanwhile, respondents from companies and NGOs (68.2%) state that VET school students are only partially aware of the CE. 18.2% of respondents from companies and NGOs were convinced that students were not informed about the CE, the rest indicated that they did not have information about it. Respondents' views on whether the training on the CE and sustainability is beneficial to students were in complete agreement. From the collected data we can

see that as much as 97.1% respondents from VET institutions and 95.5%. respondents from companies and NGOs are convinced that training on this topic is really needed and useful.
Respondents are convinced that the training will be useful in various aspects. In terms of assessing and changing knowledge, attitudes, skills, personal habits and sharing useful information with peers. Knowledge that will enable young people to understand better the necessity of sustainable living and consumption and accordingly will change their consumption habits. Approach, because it is necessary to broaden the horizons of young people on this topic in order to understand the importance of protecting the environment and the possible consequences of not protecting it. The development of the required skills would change students' attitudes towards consumption.
In what way the CE and sustainability training could be attractive to students, respondents agreed. The majority (about 80%) of respondents believe that training should be provided through practical activities and the use of digital tools (more than 60%). We see from the survey that CE and sustainability training for students should be accessible through a variety of means (digital, video, paper, etc.) and should be flexible and attractive. This is the opinion of more than half of the respondents and it was the same: the opinion of VET teachers is the same as that of the representatives of companies and NGOs. Respondents agree that training should encourage students‘ collaboration. 77.3% of respondents from companies and NGOs say that it would be beneficial for their organization to have people who know about the circular economy and sustainability.

3.7 The Circular Economy, sustainability and the labor market

Production and a waste-free lifestyle are becoming more popular in Lithuania and the principles of the CE are being applied between business and government. These companies could share and pass on their experience. According to the majority of respondents, the involvement of NGOs working in the field of environment, innovation and the CE in the TREE project is recommended. Due to the mandatory participation of these organizations in the project, the opinions of VET teachers and representatives of companies and NGOs different. Three times as many respondents from VET institutions were in favor of organizations involved in the field of environment, innovation and the CE being required to participate in the TREE project.
Respondents' views on the participation of companies that apply environmentally friendly practices (sustainable production, re-use, recycling, etc.) in the TREE project coincided. According to the majority of respondents, the participation of companies that apply environmentally friendly practices (sustainable production, re-use, recycling, etc.) in the TREE project is recommended. One third of the respondents believe that participation in the project is mandatory.
In order for the economy to grow sustainably, we need to use our resources more wisely and sparingly. The aim of the CE is to maintain the value of products and materials for as long as possible, to reduce waste and to use as few resources as possible, and to keep resources in the economic cycle so that they can be re-used to create new value. The European Commission has already set out strategies for the plastics, wood and agri-food sectors in the transition to a circular economy. Respondents disagreed on the economic sectors most in need of a shift towards sustainability and green policies. The surveyed VET teachers and representatives of companies and NGOs agreed that changes towards sustainability and an environmentally friendly policy for the plastics sector were most needed. Respondents from VET institutions were 100% in favor of changes in the plastics sector. According to the representatives of companies and NGOs, these changes are needed in all the mentioned sectors.
According to the respondents from companies and NGOs, due to the intensive development of agriculture, biodiversity is rapidly disappearing and degraded land is no longer able to recover. This results in the loss of entire areas that could be used for a long time if traditional agriculture were replaced by sustainable farming. According to them, in European countries, food is lost or discarded throughout the food supply chain: farms, processing and manufacturing plants, shops, restaurants and households. Intensive deforestation and timber use are visible. Respondents are convinced that the

problems posed by plastic waste are significant: high pollution due to discarded packaging, destruction of biodiversity, sorting and recycling problems.
Respondents from VET institutions, companies and NGOs assessed how each green skill relates to the plastics, wood and agri-food sectors. Only 2.4% of respondents from VET institutions and 4.2% of respondents from companies and NGOs are convinced that green skills are weakly linked to the plastics sector. The rest of the respondents believe that green skills are related or strongly related to this sector. More than 60% of respondents think that smart thinking, waste management skills and pollution prevention are the strongest related to green skills in the plastics sector.
Meanwhile, 68.2% of respondents from companies and NGOs are convinced that the plastics sector is most strongly associated with smart thinking.
On average, 50% of respondents from companies and NGOs believe that all green skills are strongly linked to the plastics sector.
As each green skill relates to the agri-food sector, respondents from VET institutions and companies and NGOs are convinced that every green skill is related to the wood sector.
More than 60% of the respondents, from VET institutions, think that smart thinking, waste management skills and pollution prevention are the most strongly related to the wood sector among green skills.
Meanwhile, respondents from companies and NGOs are convinced that the wood sector is most strongly associated with smart thinking and eco-design (68.2%).
5.5% of the respondents are convinced that green skills are related or strongly related to the agri-food sector.
The survey data show that respondents from vocational education and training do not agree with companies and NGOs on the importance of green skills in the agri-food sector. 57.8% of respondents from VET institutions are convinced that green skills are related and 36.3% of respondents think that they are very related to the agri-food sector.
Meanwhile, 39.1% of respondents from companies and NGOs are convinced that green skills are related and as many as 55.8% are strongly related to this sector.
From the data provided, we note that ecosystem management, life cycle management and eco-design skills are most relevant to the agri-food sector. VET teachers and companies, together with NGOs, have different views and experiences on green skills, so it is important to establish a closer link between VET institutions and companies that adopt sustainable practices, to integrate the CE and SED into vocational school curricula and subjects as productively as possible.
It is also important to note that only 4.5% of respondents from companies and NGOs expressed a desire to participate in the TREE project, helping to define green skills and to run a training course on the circular economy and sustainability.
Slightly more (9.1%) would like to participate in the TREE network, which will be included in the TREE platform, where they will be able to share information about their organization, production process, conferences / events related to project topics, internship opportunities, etc.)
Summarizing the data, it can be stated that companies in Lithuania are still passively involved in forming the green skills of the younger generation.

3.8 Conclusions and recommendations

Investigating the survey data, you can see:

1. 44.1% of VET teachers and 54.5% of respondents from companies and NGOs are informed about the circular economy. 9.1% of institutions‘ representatives are very well informed about the CE. The rest have no knowledge at all or have only heard of this concept.
2. 94.1% of respondents believe that VET institutions can benefit from including a training course on sustainability and the CE in their curricula. According to them, students support the “circular” lifestyle, but do not have established habits to save raw materials and energy, sort waste, and give up consumerism.

3. Respondents (72.7%) from the NGOs indicate that they seek not only to spread the idea of responsible activity, to show and to follow examples, when implementing the principles of social responsibility in Lithuanian business, but also to form the criteria for responsible activities.
4. The most important green skills for the labor market are waste management, pollution prevention and smart thinking.
5. Vocational school graduates are only partially aware of sustainability, the CE and the green skills they need. Science skills and ecosystem management skills are the most lacking ones.
6. Learning about the circular economy and sustainability benefits students in a number of ways: in terms of assessing and changing knowledge, attitudes, skills, personal habits, and in terms of sharing useful information with peers.
7. Training in the circular economy and sustainability should be available through a variety of means (digital, video, paper, etc.) and should be flexible and attractive. They should be carried out through practical activities and the use of digital tools.
8. The plastics and wood sectors are most strongly associated with smart thinking, pollution prevention and waste management skills.
9. 4.5% of surveyed institutions expressed a desire to participate in the TREE project by helping to define green skills and at the same time to run a training course on the circular economy and sustainability.

4. REVIEW OF THE VET SCHOOL CURRENT STATUS

The circular economy (CE) is an economic system of exchange and production that aims to increase resource efficiency and reduce environmental impact at all stages of the life cycle of products (goods and services). In order to develop an understanding of the CE, the most important thing is to form an ecological approach, to deepen knowledge, to emphasize values and attitudes, to anticipate behavior that would encourage positive action and lead to a “waste-free” lifestyle.

The CE can start with any environmental education initiative, such as waste sorting, biodiversity and climate change research, energy and resource saving.

The food, catering, transport and textile industries have a significant impact on the environment and can contribute to sustainable development by implementation of the principles of the CE. Therefore, in order to prepare employees for the future labor market, it is necessary to help learners in vocational training centres to acquire the basics and competencies of resources for sustainable use.

Panevėžys Labour Market Training Centre plans to integrate the topics of the CE into the curriculum and provide students with information on the topic, to teach how to organize activities during practical training in order to generate as little waste as possible and how to use the remaining raw materials and waste. During the mobility activities of the transnational project, students will share good practices, gain new knowledge and experience and be able to apply their knowledge in practice.

Kėdainiai Vocational Educational Training Centre‘s community puts efforts for the sustainable use of energy and natural resources: it saves electricity, reduces the use of paper, and sorts waste. Together with a science teacher, students conduct physics research to promote energy saving and participation in Nationwide conferences.

Students of Kaunas Vocational School of Household Services and Business participated in the project "Ecology and Me". Pupils learned how to use already used objects and their parts, acquired new skills by performing practical tasks.

An environmental conference "Interesting Ecology" was held at Alytus Vocational Educational Training Centre. During the conference, the topics of sustainable environment, responsible consumption and waste management were reviewed, they were substantiated with practical examples from Lithuania and the world.

In 2019-2021, Šiauliai Vocational Educational Training Centre participated in the Erasmus + project “Let's Save Our Seas” in order to contribute to solving ecological problems through its practical activities.
The most effective way to solve environmental problems with the ideas generated by the circular economy is to change consumption and production habits. The aim of this plan is to ensure that products and services are sustainable and can be used for longer, to enable everyone to participate in the circular economy and to benefit from its positive changes.

5. REVIEW OF SECTORS INCLUDED IN THE TREE PROJECT IN LITHUANIA

5.1 The Plastic sector

Plastic is increasingly known as a dangerous pollutant for our planet, as it causes the loss of biodiversity and it has a harmful impact on human and animal health. Plastic waste is hardly disposed of, and remains in the environment for hundreds of years; microplastics from the slow disposal of plastic enter the food chain decades after the original product was first used (Daligute et al., n.d.).
In 2016, the plastic waste production in Lithuania amounted to 88.74 thousand tonnes and to 68.74 thousand tonnes in 2017. Compared to the EU28 average (32.7kg/cap), the generation of packaging waste per capita was lower (24.3kg/cap). Data of 2010, but that show a very similar distribution in the projections of global trends for year 2025, indicates that the tonnes of plastic waste in Lithuania are 149,227 (Ritchie and Roser, 2018).
According to a study carried out in Kaunas in 2021, plastic is the second most used material (after paper and cardboard) in packaging due to its properties, such as low density and thermal conductivity, chemical resistance, transparency, economical production process, etc. (Mickevičiūtė et al., 2021). If it is difficult for companies to replace and find an alternative material to plastic due to its characteristics and costs, it is even more difficult for citizens, who struggle to reduce the purchase of plastic products. The trends of Lithuanians, collected through a survey in 2015 involving 184 people, were buying plastic bottled drinks and disposing them together with municipal waste. The results of the questionnaires indicated that 31.5% of the respondents used an average of 4-6 plastic bags weekly, and more than half of the respondents were unfamiliar with the recycling codes for plastic packaging safe for food contact, and the harmful effect of bisphenol A (chemical used in the production of polycarbonate plastics, present in food containers such as vacuum-making bottles, dishes and food storage containers) on human health (Daligute et al., n.d.). In recent years, Lithuanian citizens' awareness of the damage caused by plastics has increased: "*in the 2017 Special Eurobarometer 468 on EU citizens' attitudes towards the environment, 88% of Lithuanians said they were concerned about the effects of plastic products on the environment (EU-28 average 87%)*" (European Commission, 2019).

5.1.1 The National Deposit Return System

The Ministry of Environment and the Lithuanian government have adopted waste management reforms as part of the broader sustainability strategy.
In 2016, the Lithuanian government introduced one of the most important regulations contributing to plastic recycling: the National Deposit Return System (DRS) for single-use plastic and glass bottles and metal cans. Large and also small shops have to host "reverse vending machines" (there are more than 1,000 throughout the country), which accept used beverage containers and return the deposit paid in the shop in return (0.10 euro per deposit). The packaging collected from the vending machines is sent to recycling centers where the plastic is processed and made into new products (Green News, 2018).
The scheme has been a great success, thanks to its results: 1.2 billion units of plastic drink containers returned in two years. In 2018, European Union (EU) statistics showed that Lithuania has the highest recycling rate of plastic packaging in the EU, recycling 69.3% (Zachary, 2021).
According to Eurostat data, in Lithuania, the amount of packaging materials produced increased by 6.7 million tonnes from 2008 to 2018 (+ 9.4%), with174 kg of packaging waste per inhabitant in 2018 (including plastic). But, after the introduction of the DRS, during the same period the recycling rate of

packaging waste increased from 60.4% to 66.3%, while recovery (recycling, energy recovery and other forms of recovery) increased from 73.8% to 80.9%. Although recycling is the main form of recovery in all countries, energy recovery from packaging waste still contributes significantly to the overall recovery rate.
In order to achieve the Sustainable Development Goals, the EU has committed to recycling 70% of all packaging by 2030, in line with the priorities of the waste hierarchy. Based on Eurostat data (2018), Lithuania recycled 60.7% of packaging waste in 2018 and, as we have already mentioned, was number one in the EU in the recycling rate of plastic packaging waste (69.3%). European countries, including Lithuania, actually have to face problems in recycling other materials, such as wood, aluminum (multilayer) and other plastic packaging waste (Mickevičiūtė et al., 2021).

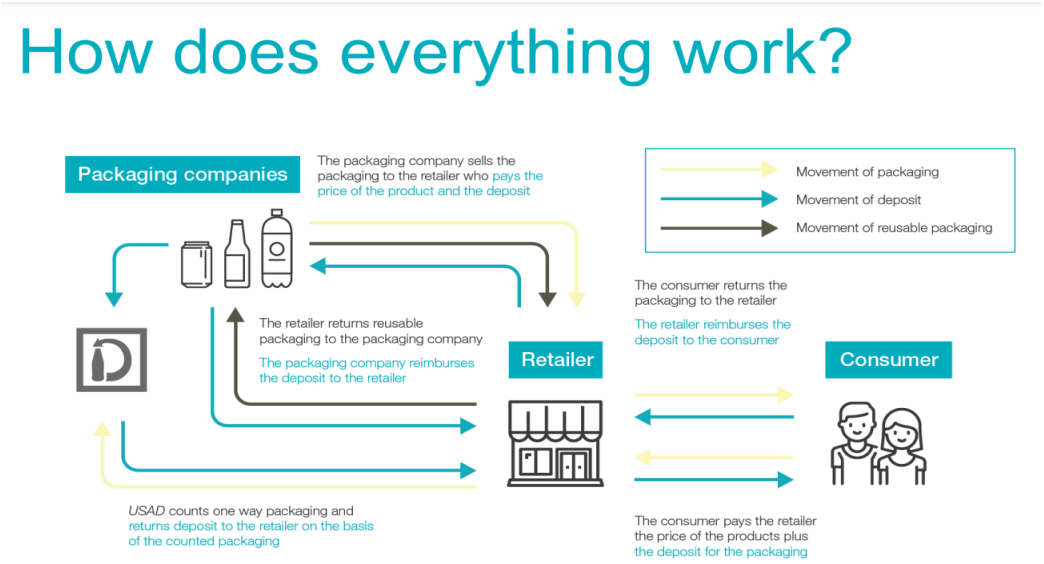

Figure1: Lithuania's Deposit System (Public institution Užstato Sistemos Administratorius, n.d.)

5.1.2 Two Lithuanian noteworthy initiatives: the single-use plastic ban and the creation of a new bioplastic

An important initiative concerning the reduction of plastic production was taken by the city of Vilnius in 2020: single-use plastic, especially on tableware, was banned during public events. The aims of this plan are to reduce the plastic waste produced in the city, and also to give a message to the citizens regarding the impact that plastic disposable items have on the environment and climate. The Council's decision follows European legislation adopted in 2019 to reduce the consumption of single-use plastic products across Europe, responsible for a large amount of pollution entering the environment (Recupero, 2020).
Another initiative implemented to eliminate plastic use is biodegradable plastic, that a group of scientists at Kaunas University of Technology (KTU) has created. Bioplastic decomposes in a compost bin in a couple of years, is transparent and all materials in its composition are suitable for contact with food. The packaging created by the researchers is fully compostable for food products, and it disintegrates with the help of microorganisms. According to EU standards, in industrial composting centres (which support a temperature of 580° C) bioplastic degrades in half a year, but in an ordinary compost bin at home, the process would take 2 years. Bioplastic is made from cellulose, a natural material, the main building block of plant cell membranes. Being environmentally friendly has its cost: biodegradable packaging is several times more expensive than usual. However, the growing number of eco-conscious users is encouraging industries to take an interest in biodegradable packaging alternatives (Delfi.en, 2019).

5.2 The agrifood sector

Agriculture is an important area in the Lithuanian economy as it generates 3.6% of the country's GDP, while the entire agri-food sector generates 7.1% of the GDP (Eitfood,2022). Nowadays there is a lot of talk on the importance of sustainable development in the agriculture sector. In Lithuania, more sustainable agriculture methods have been adopted since 1990: in fact, after Lithuania's political independence, environmental protection became a priority for the government and for many economic sectors, including agriculture. In addition to sustainable agriculture, the development of alternative

agriculture was promoted, the "organic farming". It is a specific production method that only allows the use of natural substances and excludes the use of chemical synthesis substances. Organic agriculture was a priority of the National Rural Support Programme (1997), and gave more compensatory payments to farmers than those with sustainable farms, which has hindered the development of sustainable agriculture. The definition of sustainable agriculture is very broad and also embraces social fairness (one of its objectives is to address the food needs of all countries). It means agriculture that respects environmental resources (water, soil, biodiversity) and the times of nature, with no use of chemicals that are polluting and harmful to human and animal health.
What fostered the development of sustainable agriculture were: Lithuania's accession to the European Union (with the introduction of the European agro-environmental rules); documents such as the SAPARD program (Special Accession Programme for Agriculture and Rural Development), training of farmers, Rural Development Plan (2000-2006) and Rural Development Programs (2007-2013, 2014-2020). The main objectives of the Rural Development Program included the modernisation and improvement of the economic performance of small and medium-sized enterprises (with 13 000 farms supported), protection of biodiversity (11 % of agricultural land), improved soil management (8 % of agricultural land), promotion organic farming, the creation of new jobs (more than 2 000) and the development of rural areas. It also provided training for 149 000 people (farmers, owners, managers, food business operators, foresters and rural SMEs staff) to improve their skills. A series of studies revealed that farmers' understanding and attitudes toward sustainable agriculture improved during the period 2010-2018, but also that they participate in programs on sustainability agricultural practices when supported by higher payments (Mierauskas, 2020).
Non-governmental organizations, which looked more at the priorities of Western countries, brought the economic, political, legal, institutional, and educational barriers to sustainable agriculture to the attention of Lithuanian authorities (Mierauskas, 2020). A good example of a nongovernmental nature conservation organization is the Lithuanian Fund for Nature (LFN), that promotes environmentally friendly and biodiversity-friendly agricultural practices (Poole, n.d.).
There are still many challenges in the development of sustainable agriculture and several problems such as distrust in the quality of work, low incomes and lack of collaboration between agribusiness actors need to be more carefully considered. The lack of recognition of the economic benefits of obtaining services and practices on machinery sharing, adequate information on portals and platforms, are crucial points for the achievement of sustainability goals (Ramanauskas et al., 2021).

5.2.1 Biogas and plant biomass production in Lithuania

The livestock sector has historically been one of the most important agricultural activities in Lithuania. Livestock production generates manure, which is an organic fertilizer, as well as waste, and which is used as the main source for the production of biogas in the country.
The production of biogas from effluent is at an early stage because its development has started recently. Currently 10 out of 40 biogas plants operating have been installed in livestock farms (more specifically in large pig farms) and they use animal manure (pig manure) as a raw material for biogas production. Although the adoption of biogas technology on farms is still limited, it will be interesting to see the developments and opportunities for this renewable energy source in the coming years in Lithuania (Gapšys el al.,2018).
Compared to animal manure, plant biomass has a higher biogas yield. However, significant energy input is needed for plant cultivation, harvesting, transport and preparation for biogas production. For example, poor soils used for the cultivation of inappropriate energy plants or plant species, combined with poor cultivation technology, would produce a low yield in terms of biomass, and the energy input could outweigh energy production.
The production of biogas in Lithuania uses traditional plants such as maize, perennial herbs, fodder beet (Navickas et al., 2009).

5.2.2 The digital transformation of the agri-food sector

The main objective of the Lithuanian government is to digitise the entire food value chain at all levels and exploit the potential of agri-food technology innovators based on sustainable agriculture, digital traceability, circular food systems and targeted nutrition (Eitfood, 2022.).
Motivated by digital transformation, the agricultural sector is equipping itself with new devices and services (sensors, actuators, weather information, drones and satellite imagery) that enable it to optimise resources, improve productivity and at the same time reduce its impact on the environment.

Digital solutions and Industry 4.0 (growing trend towards automation and data exchange in technology and processes within the manufacturing industry) in the agri-food sector can bring many benefits and facilitate work in the sector: they can extend shelf life, monitor product freshness, improve safety and convenience, etc. It is, therefore, time for Small and Medium Enteriprises (SMEs) to design new digitised business models adapted to today's economic realities, try to understand which are the best technologies and which are the right suppliers.
The challenges faced by lithuanian SMEs in the agri-food sector are numerous: the above-mentioned low level of digitisation (the rural areas where they are located have limited access to the Internet), the low incomes of rural farmers, the high cost of ICT infrastructure and the insufficient number of staff to manage it. ICT companies, often located in urban areas, are unfamiliar with the technological needs of the agri-food sector, while the agricultural sector could benefit from ICT to solve multiple problems in various areas, such as irrigation, pesticide and fertiliser application, and crop, soil and livestock monitoring (Bičkauskė et al., 2020).

5.3 The wood sector

In recent years, Europe has become increasingly interested in wood as an environmentally friendly material, which can contribute to the development of the bio-economy,the achievement of Sustainable Development Goals and the mitigation of climate change (Žemaitisa et al., 2021).
Statistical information on the wood production sector does not present a complete picture of the timber market in Lithuania, and the freely accessible published data are outdated. This is because the wood products industry "*is adverse to sharing information or promoting its potential and business opportunities"*. The fastest growing segments of this sector are the furniture and paper industries. The Lithuanian Statistical Office shows that *"the furniture industry is one of the most important manufacturing industries in Lithuania, after food and beverage production"* (USDA,2017). In fact, over 30% of the jobs available throughout the Lithuanian manufacturing industry are provided by the furniture and wood processing industries.
Foreign investments have also contributed greatly to the development of the sector: Scandinavian companies,(especially IKEA), are the main players in the Lithuanian furniture market. Statistics show an increase in furniture sales linked by exports, with a good foreign trade network, but also furniture imports are significant (USDA, 2017).

5.3.1 Biomass- energy

In the past years, Lithuania was almost fully dependent on Russian energy imports, and in the search for other sources of energy supplies, the government has promoted the adoption of renewable energy. The closure of its two nuclear power plants in the Soviet era for security reasons, have drastically changed its perspective: by removing 40% of its energy production (with a 25% of the total gas imports from Russia in 2021) the country has become an energy importer. "*The government looked towards its domestic energy opportunities and found biomass, which uses the lowest quality wood waste from the forestry industry, to create energy"* (Zachary, 2021).
Lithuania has transferred its district heating (the district heating system generates heat in a centralised location and distributes it amongst multiple different buildings), which accounts for 40% of the country's energy consumption, to 70% of energy from biomass. Lithuania actually is one of the leading consumers of renewable energy in Europe, with 34% of all energy consumption from renewable sources (Zachary, 2021).
In this context, wood chips have become the most important commercial product for energy production, and their quality has become a subject of study. The season of felling and production of wood chips is decisive for fuel quality, carbon content, calorific value, total moisture content and density, ash content, air circulation and dry or dry wood fuel parameters. "*Increasing the production of wood chips from certified raw materials and their use for energy generation, as well as improving energy production technologies using biofuels can lead to the expansion of the use of bio-resources for green energy, progressing towards a sustainable and circular economy and the decarbonisation of the municipal thermal energy sector"* (Pedišius et al., 2021).

5.3.2 Forest conservation efforts

Forests are essential for the ecological stability of Lithuania for their role in ensuring a high air, water and soil quality. Currently, the land devoted to forests occupies 33.7% of the area of the country and

generally the condition of the habitats of the rarest species is poor. In Lithuania over 60% of forested land belongs to the State, while 40% is owned by private individuals and companies.
The Lithuanian Forestry Law stipulates that the general volume of all annual forest cuts cannot exceed the gross annual increment of trees. The volume of main annual forest cuts in State's forests is kept under control by the government, while this volume becomes higher in private forests that are more price-sensitive (USDA, 2017).
UV geographers and researchers stress the importance of preserving forests against the strong commercial purposes. Indeed, although 17.69 % of Lithuania's territory consists of protected areas, about half of these are exploited in exactly the same way as unprotected areas. Moreover,to fulfill the obligations foresee by the national and European legislation (e.g. EU Biodiversity Strategy) the percentage of protected areas at national level should reach 30%, 10% of which must be under strict protection, in order to preserve rare species and their habitats (Vilnius University, 2022).

6. Good Practices

All the good practices collected by VšĮ "eMundus" and Kėdainių profesinio rengimo centras during the research phase for the development of the National Report can be found in the Annex section of this document.

6.1 Good practice presented by VšĮ "eMundus"

1	**Title**	Environment in the VET system: a powerful tool for the future
2	**Country**	Lithuania, Denmark, Spain, UK, Italy
3	**How is/ was it promoted?**	Within the framework of a European project
4	**Context of implementation**	X large city ☐small city ☐village
5	**Goals of the activity**	The EN-VET project aims at transmitting to VET providers the knowledge, the innovative tools and the best practice methods to effectively promote environmental sustainability. The project is based on two assumptions: too often the environmental protection and sustainability are not properly addressed in the VET system, even if they are considered worldwide as priorities; the European economy is changing significantly over the years and VET teachers and trainers have to cope with it. These are the needs addressed by the project.
6	**Description**	a. The activity was relevant to the topic of ☐ circular economy (CE), ☐ education for sustainable development (ESD), or X both CE and ESD b. Main Steps The EN-VET project (N°: 2016-1-IT01-KA202-005387) involved 6 very qualified partners from different fields and coming from 5 countries (IT, DK, ES, LT, UK). The project foresees the realisation of 5 outputs: 1) a comparative report on the approach to environmental sustainability in the involved countries with 12 case studies; 2) 3 introductory didactic modules; 3) 6 Deepening Knowledge modules; 4) an extensive and very fruitful testing activity of the modules; 5) the EN-VET Book with guidelines. Within the framework of the EN-VET project, the Kaunas Science and Technology Park (KSTP) carried out a detailed "Environmental sustainability Report" about Lithuania and the same was done by the other partners in other countries. The report has the aim of revealing the situation of different European countries as far as the Sustainable Development Goals and sustainability were concerned. Moreover, the KSTP developed a case-study report about the "Swedbank", that provides loans for the renovation of housing buildings and finances wind power projects. The modules developed by the EN-VET partnership were divided into three main sections: a handbook for teachers, presentations with slides, and learning questionnaires. The main topics addressed, among others, were: renewable and non-renewable natural resources; human load capacity of the Earth; efficient management of resources in the EU; circular economy; sustainable textile production; energy-efficient buildings.

		As anticipated, the modules produced were tested by VET students, teachers/trainers and companies. Thanks to the testing phase, all the subjects involved were able to learn more about various topics connected with sustainability, as well as becoming more aware of the importance of taking action and of doing their part for environmental protection. The modules had the general aim of transmitting knowledge about the environmental issue and to make VET students live an experience connected with these topics. Doing this, they were also more aware of what to do in their everyday life. c. Any specific theories, which the practice was based on The ECVET approach was used for the designing of the learning modules. The EN-VET project is also based on the 5 key issues of Europe 2020 and the "Roadmap to a Resource Efficient Europe".
7	**Implementation choices**	a. Target groups: VET students, VET teachers and trainers b. Other participants in the activity, besides the promoter and the target groups: Two companies were involved in the testing phase of the modules developed by the project partners and they also took part in the Multiplier events that were organised at the end of the project. c. Duration: 1-09-2016 - 31-12-2018 d. Number of sessions/activities: N.A. e. Teaching methodology, if applicable: The ECVET approach was used for designing the learning modules. This methodology allowed the modules to be flexible and self-consistent at the same time. f. Type of assessment and tools used to identify the benefits: At the end of each module, it is available on the platform a specific questionnaire developed accordingly with the ECVET standards and designed to evaluate student understanding of the main contents.
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ Creative problem-solving A X B ☐ ☐ Forward-thinking A X B ☐ ☐ Monitoring skills A ☐ B ☐ ☐ Analytical skills A X B ☐ ☐ Management skills A ☐ B ☐ ☐ Impact quantification skills A ☐ B ☐ ☐ Life-cycle management skills A ☐ B ☐ ☐ Lean production skills A ☐ B ☐ ☐ Maintenance and repair skills A X B ☐ ☐ Science skills A ☐ B ☐ ☐ Waste management skills A X B ☐ ☐ Environmental auditing skills A ☐ B ☐ ☐ Ecosystem management skills A ☐ B ☐ ☐ Pollution prevention skills A X B ☐ ☐ Eco-Design skills A ☐ B ☐ X Other, please, specify: Recycling skills A X B ☐
9	**Materials/equipment**	Computer, internet connection, environmental sustainability report, European and national statistics, case studies, learning modules.
10	***Who runs the activity***	☐a person X an organisation /institution ☐a VET school ☐a company/enterprise ☐an NGO ☐other *(please, describe)*
11	***Benefits and results***	For the quality of the activities and the results achieved by this project, it has been indicated as a "good practice" project also by the European Commission. The project aims at providing VET teachers and trainers with ready-made materials to be used for transmitting contents related to sustainability while fostering other "green" skills. After the testing phase, participants demonstrated to have increased their awareness about

		environmental sustainability as an important element for their future lives. Moreover, they declared to be motivated to learn more about these topics, to share their knowledge with the rest of the community and to contribute to the achievement of the SDGs. In order to maximise the impact of the project in the communities of the organisations involved, multiplier events were organised and all the results of the project were uploaded for free in the platform. They are ready to be used by VET teachers and students who are willing to learn more about the topics. Results: 1 comparative report 12 case-studies 3 introductory didactic modules 6 specific didactic modules 1 Guidelines book More than 170 people involved in the testing phase
12	**Relevance for the TREE Project**	The EN-VET project is relevant for the TREE project because they both addressed some horizontal priorities stated in European reports, although in a different way. This project, its aim and the goals reached could represent a starting point for the TREE project, that addressed in a more specific way the theme of Circular Economy. In some way, the two projects are also complementary, given the fact that the TREE project is concentrated on plastic, agrifood and wood sectors, while EN-VET addressed topics related to water management, textile and buildings sectors. The TREE project can benefit from the research and the findings of the EN-VET project, as well as from the analysis of the case studies.
13	**Website** **E-mail** **Other contact info** **References**	http://www.en-vet.eu/

6.2 Good practice presented by Kėdainiai VETC

1	**Title**	Formation of environmental values in vocational education
2	**Country**	Lithuania, Austria, Germany, Spain
3	**How is/was it promoted?**	- within the framework of a European project (Leonardo da Vinci mobility project)
4	**Context of implementation**	*X* large city ☐small city ☐village
5	**Goals of the activity**	To improve the competencies of specialists participating in vocational training, which are necessary for the formation of students' environmental values.
6	**Description**	**a. The activity was relevant to the topic of** ☐ circular economy (CE), X education for sustainable development (ESD), or ☐ both CE and ESD **b. Main Steps** During the project visits, the vocational training specialists of Kėdainiai VETC, Kelmė VETC, Kaunas Food Industry and Trade Training, Daugai Technology and Business School will get acquainted with the strategies for reducing the consumption of

		environmental material resources in vocational training in the EU countries; will evaluate the experience of the partners in the development of the system of interaction between vocational training and environmental requirements and will apply the acquired knowledge in their work by updating the content of vocational training programs (car mechanic, construction finisher, chef-waiter); Project participants also gained good experience in the participation of production and service companies in vocational training to ensure minimal impact on the environment; good practice in active teaching / learning methods related to practice and real life and apply it in vocational training. **c. Any specific theories, which the practice was based on**
7	**Implementation choices**	**a. Target groups:** VET teachers **b. Other participants in the activity, besides the promoter and the target groups**: did not participate **c. Duration:** 01-09-2013 – 30-06-2014 **d. Number of sessions/activities:** different activities connected with project topic **e. Teaching methodology, if applicable:** not described **f. Type of assessment and tools used to identify the benefits:** not described
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ Creative problem-solving A ☐ B X ☐ **Forward-thinking** A X B ☐ ☐ Monitoring skills A X B ☐ ☐ **Analytical skills** A ☐ B X ☐ **Management skills** A ☐ B X ☐ Impact quantification skills A X B ☐ ☐ Life-cycle management skills A ☐ B X ☐ **Lean production** skills A X B ☐ ☐ **Maintenance and repair skills** A X B ☐ ☐ **Science skills** A X B ☐ ☐ **Waste management** skills A ☐ B X ☐ **Environmental auditing** skills A ☐ B X ☐ **Ecosystem management** skills A X B ☐ ☐ **Pollution prevention** skills A X B ☐ ☐ **Eco-Design** skills A X B ☐ ☐ Other, please, specify: _____
9	**Materials/equipment**	computer, internet connection, VET institutions facilities and equipment for different professions.
10	***Who runs the activity***	☐a person X an organization/institution ☐a VET school ☐a company/enterprise ☐an NGO ☐other *(please, describe)*
11	***Benefits and results***	**a. The benefits of this best practice for the target groups:** Project results: updated general and professional competencies of 18 vocational training specialists; updated content of vocational training programs for fitters, car technicians, logistics-forwarders, waiters-bartenders, cooks, including training materials for the rational use of material resources; information stand "Waste Management Rules", an information event on the experience gained during the project. **b. Community/social/economic impact:** Mobilities helped project participants to better evaluate the content of vocational training programs and introduce the experience of integration of environmental

		education into vocational training. Project results were presented to the local communities.
12	**Relevance for the TREE Project**	**a. Related to one or more of the priority sectors:** Formation of environmental values in vocational education *is related to the TREE project because the circular economy and sustainable development principles are transferred for the future bartenders, cooks which represent agrifood sector.* **b. Involves micro- and project-based learning practices:** Mobility participants prepared small-scale teaching material according to the project topic.
13	**Website** **E-mail** **Other contact info** **References**	*https://www.prc.kedainiai.lm.lt/2014-m/*

References

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ANNEX 1 - Data collected during the field research

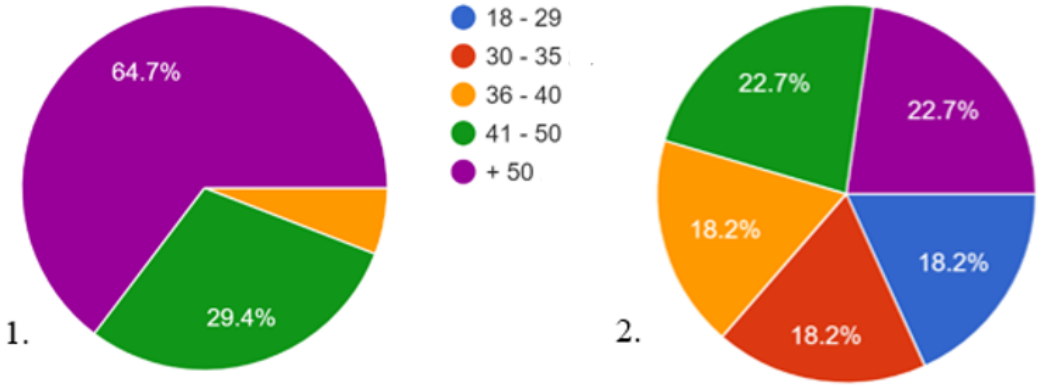

Figure 1. Structure of the number of respondents by age groups: *1- teachers of VET institutions; 2- representatives of companies and NGOs*

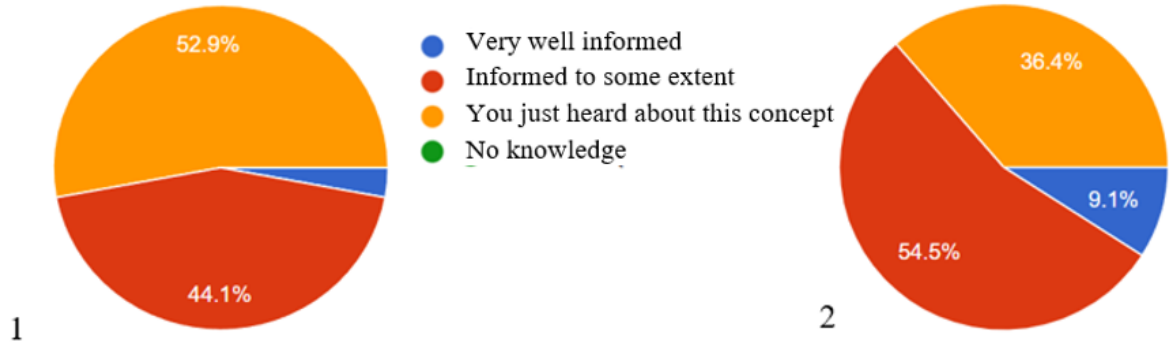

Figure 2. Distribution of respondents according to the assessment of available knowledge about the circular economy: *1- teachers of VET institutions; 2- representatives of companies and NGOs*

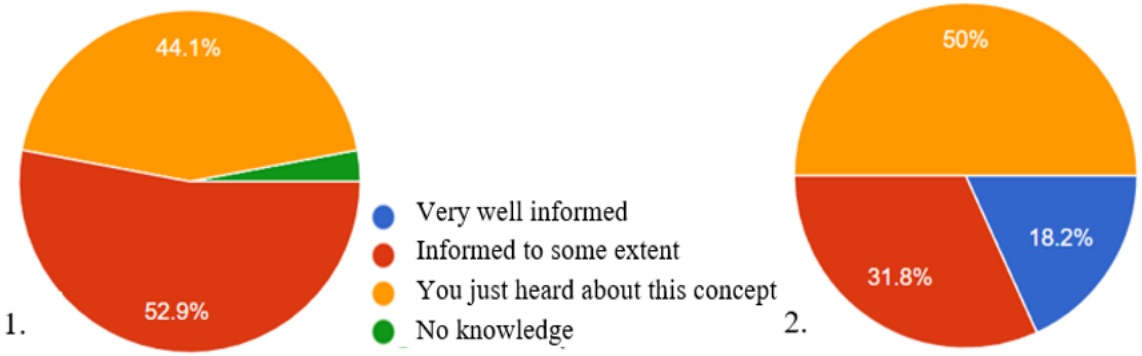

Figure 3. Distribution of respondents according to the assessment of available knowledge about Education for Sustainable Development (ESD): 1- teachers of VET institutions; 2- representatives of companies and NGOs.

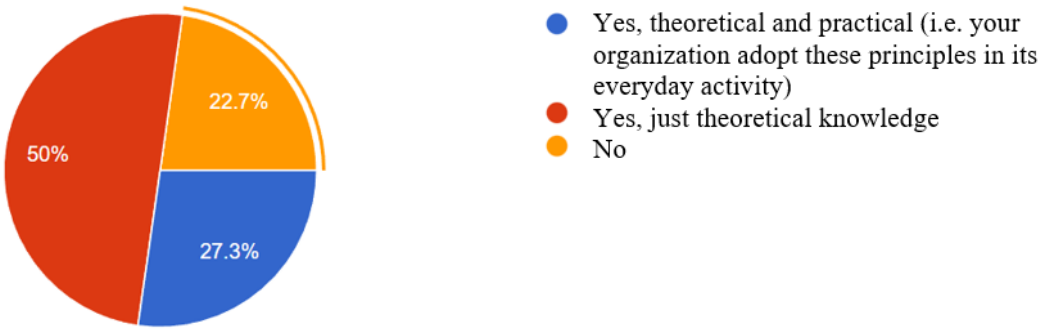

Figure 4 . The experience of respondents from companies / companies and NGOs is related to the circular economy and sustainability.

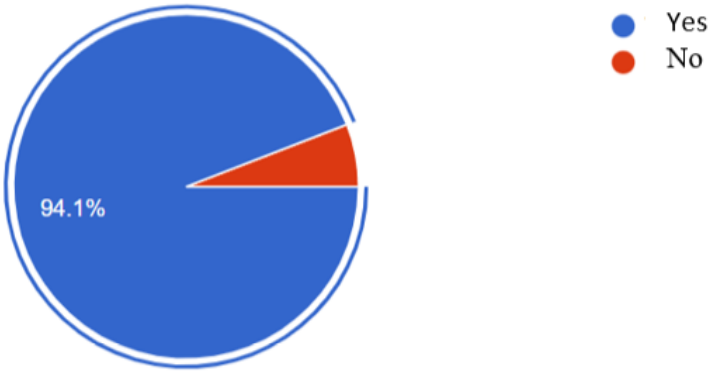

Figure 5. Distribution of respondents' opinion on the usefulness of a training course related to sustainability and CE in an educational institution

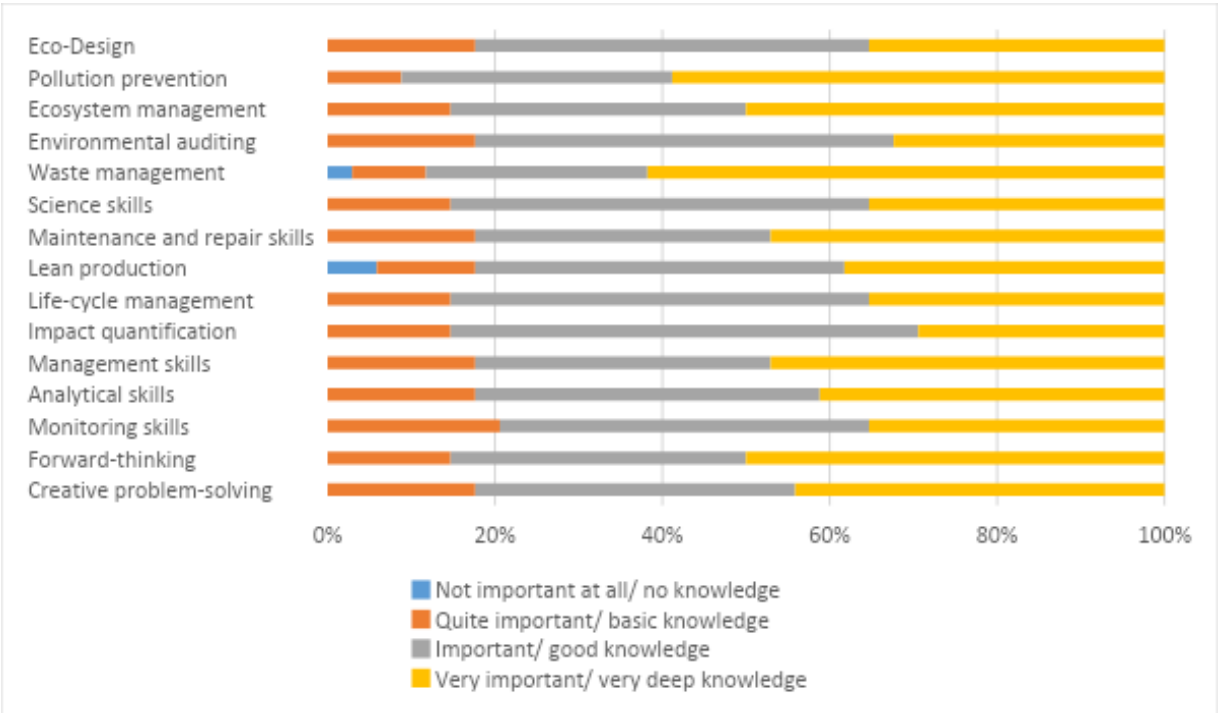

Figure 6. The importance of green skills for the labor market *(opinion of respondents from VET institutions)*

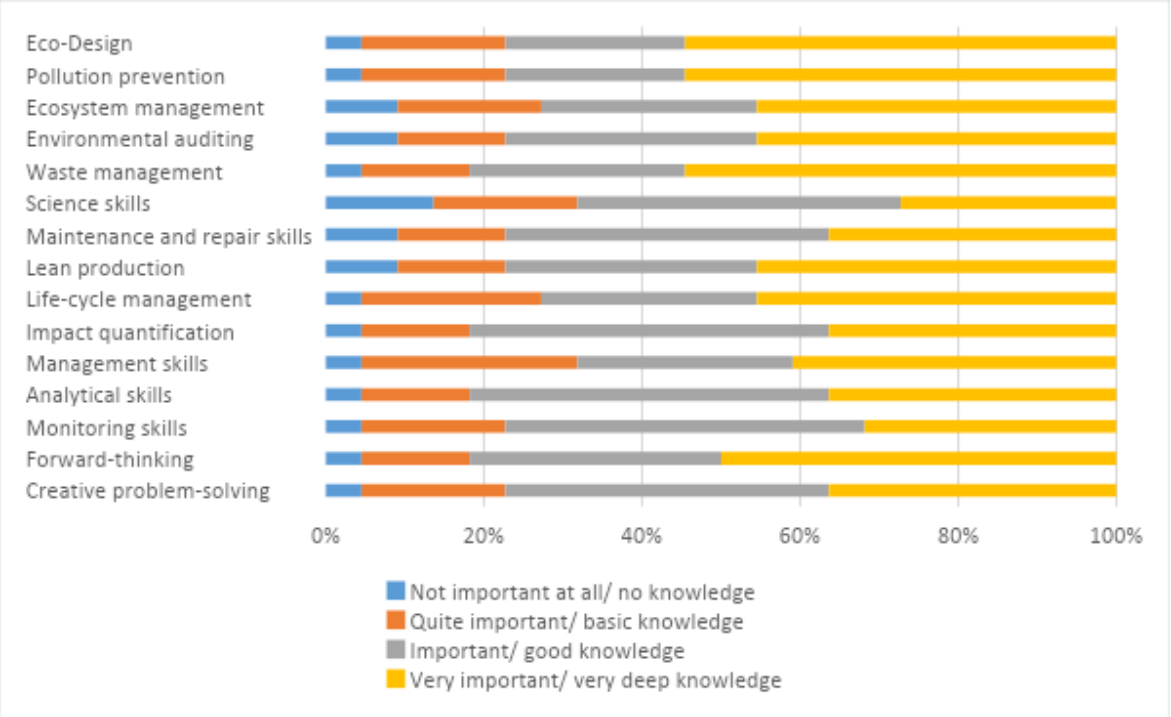

Figure 7. The importance of green skills for the labor market *(opinion of respondents from companies and NGOs)*

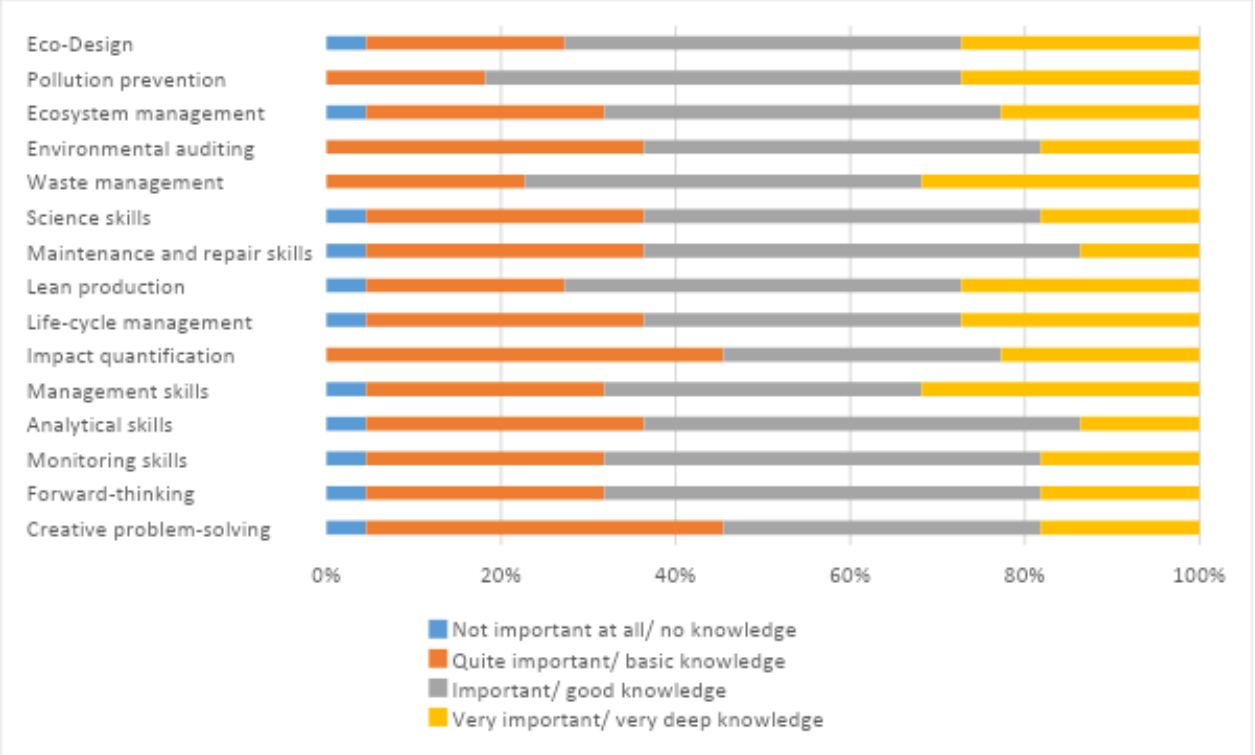

Figure 8. Level of knowledge of respondents' green skills from VET institutions.

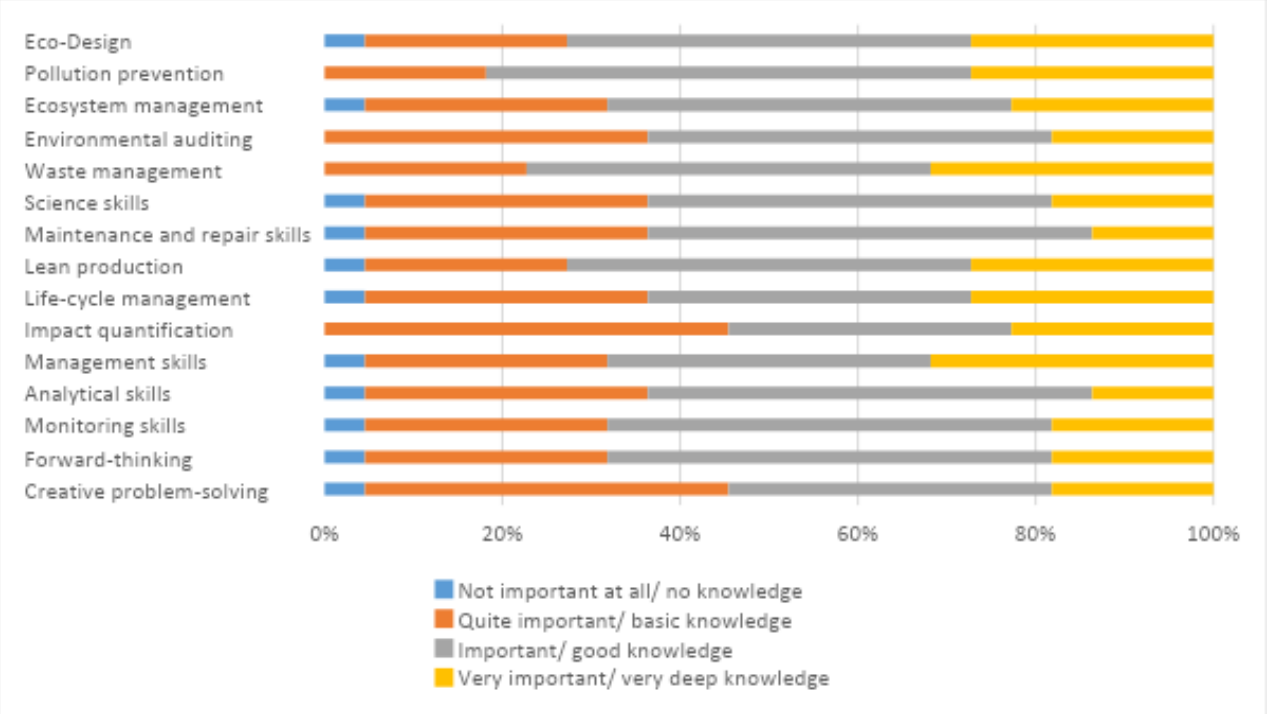

Figure 9. Level of knowledge of respondents' green skills from companies and NGOs

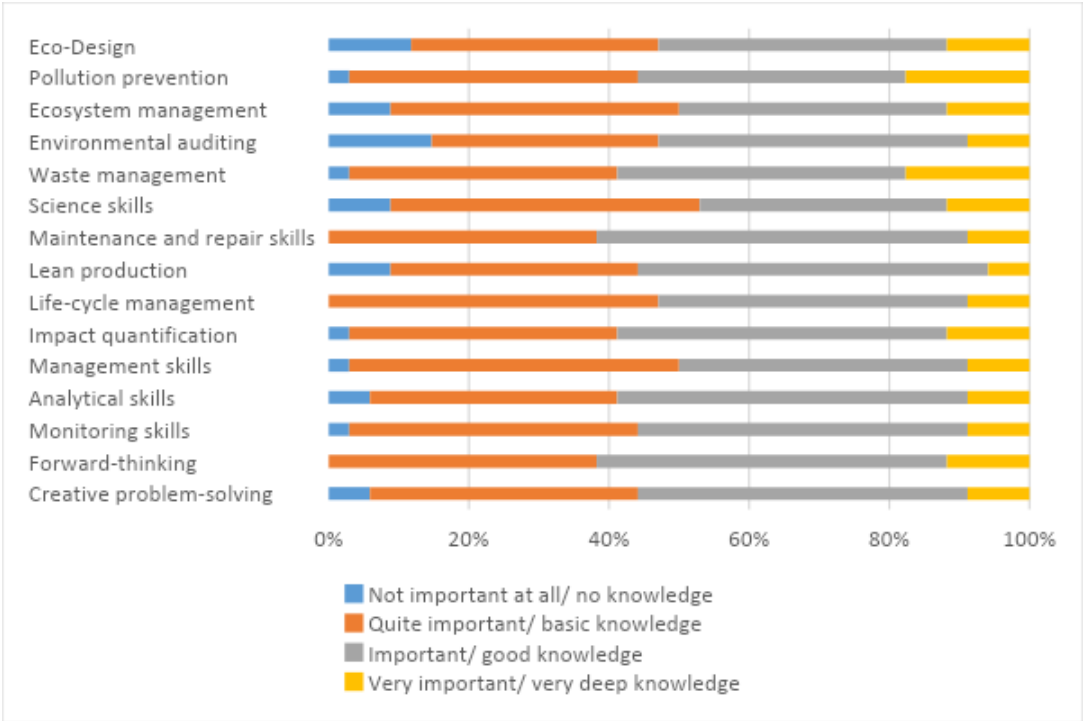

Figure 10. Level of students' green skills knowledge after graduation from vocational school *(opinion of respondents from VET institutions)*

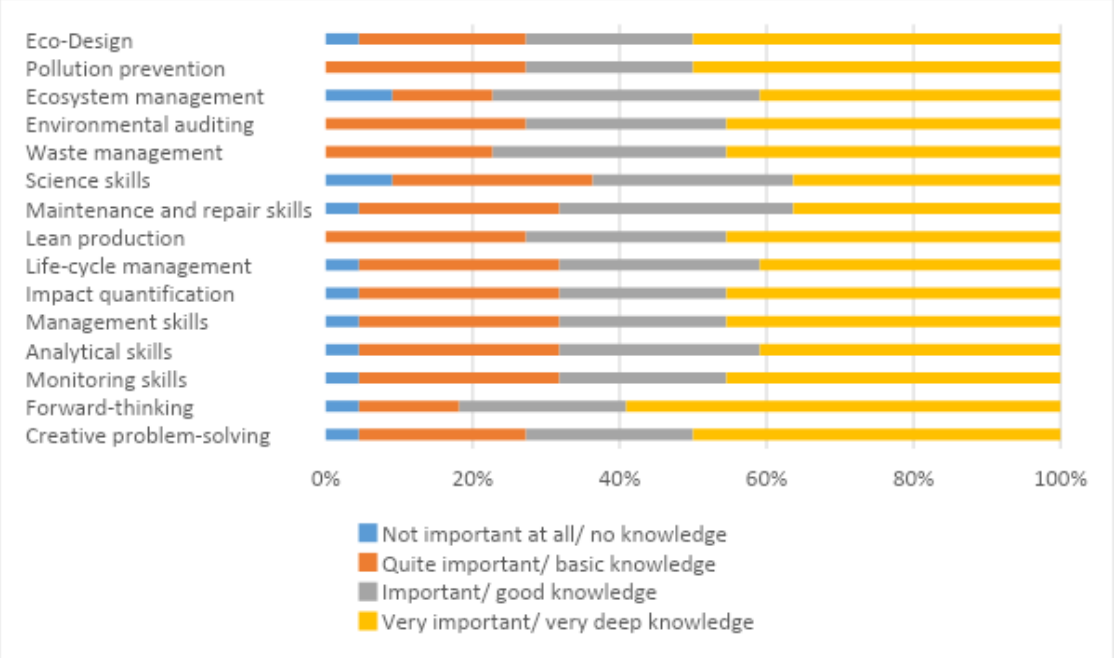

Figure 11. Level of knowledge of green skills students after graduation from vocational school (opinion of respondents from companies and NGOs)

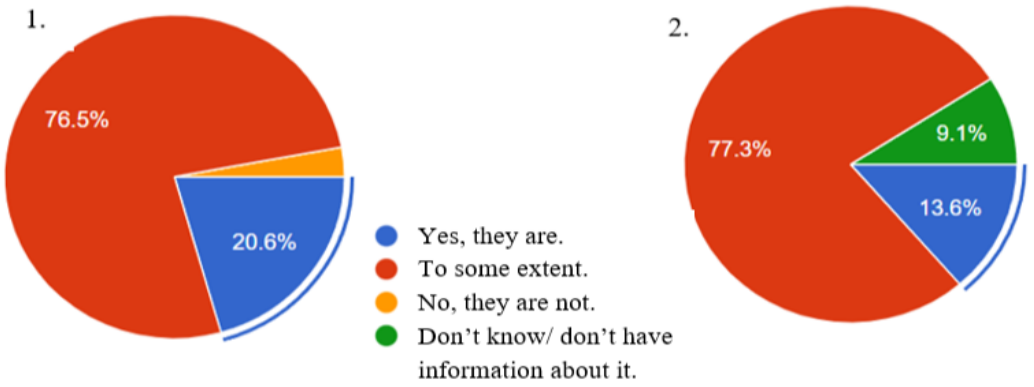

Figure 12. Distribution of respondents' opinions are the students informed about sustainability: *1- teachers of VET institutions; 2- representatives of companies and NGOs*

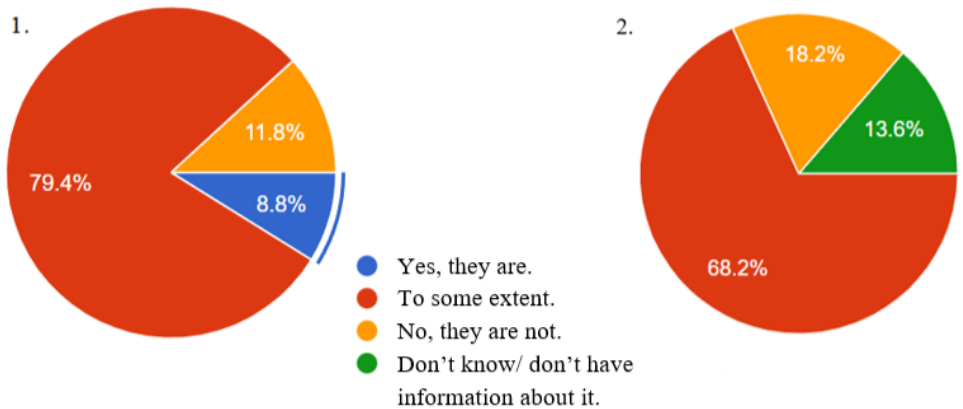

Figure 13. Distribution of opinions of respondents' s or students which were informed about the circular economy: *1- teachers of VET institutions; 2- representatives of companies and NGOs*

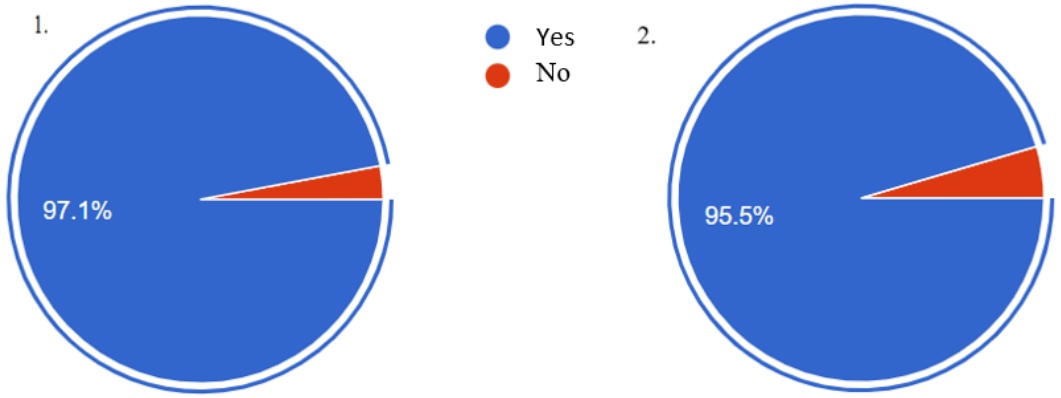

Figure14. Distribution of respondents' opinions on whether the training on the circular economy and sustainability is beneficial for students: *1- teachers of VET institutions; 2- representatives of companies and NGOs.*

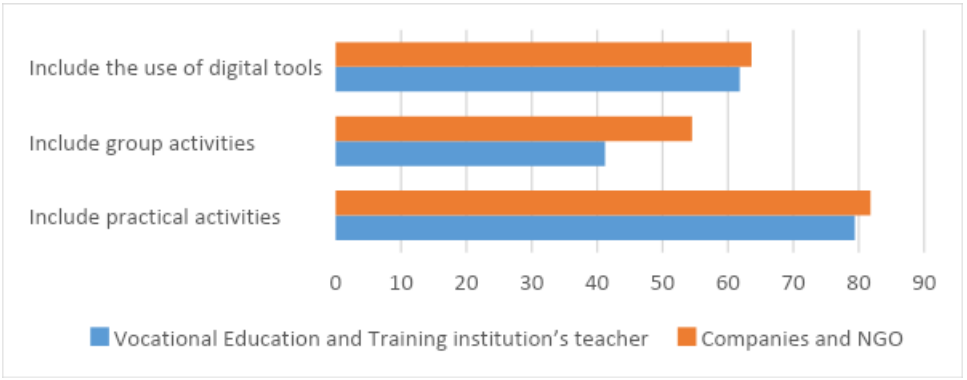

Figure 15. Distribution of respondents' views on the method of training in the circular economy and sustainability

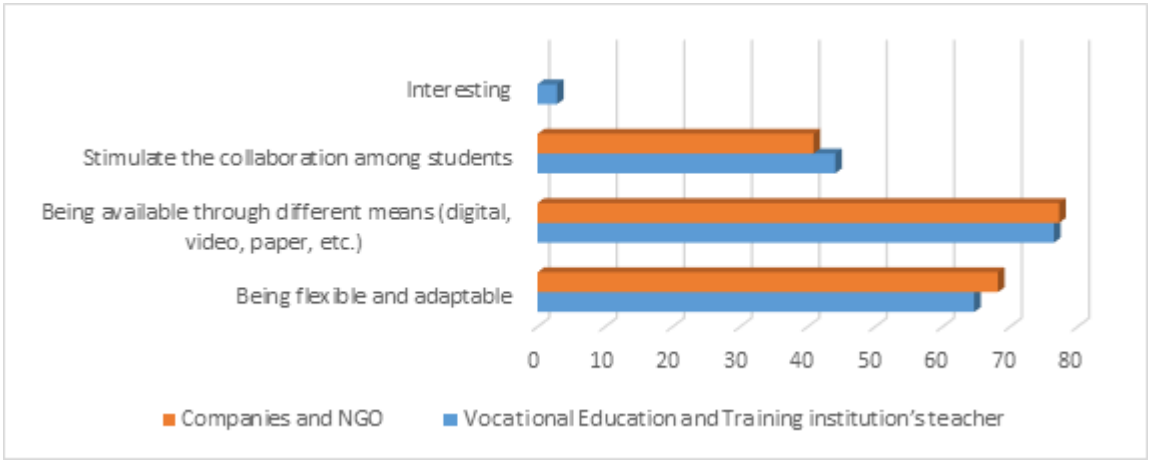

Figure 16. Distribution of respondents' views on the method of training in the circular economy and sustainability.

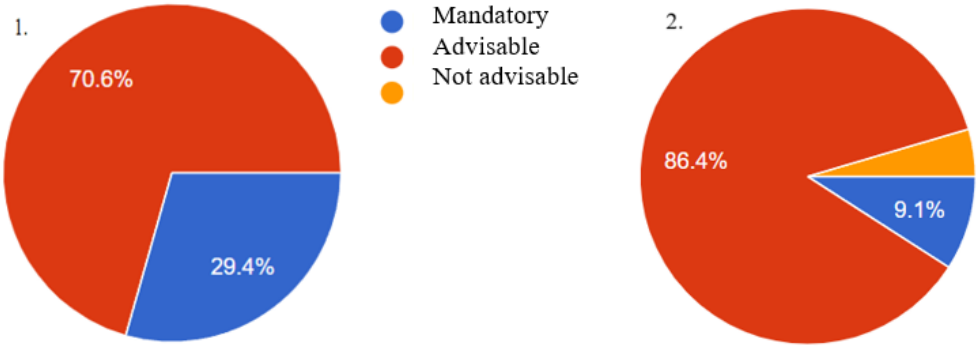

Figure 17. Distribution of respondents' views on the participation of organizations active in the field of environment, innovation and the CE in the TREE project. *1- teachers of VET institutions; 2- representatives of companies and NGOs*

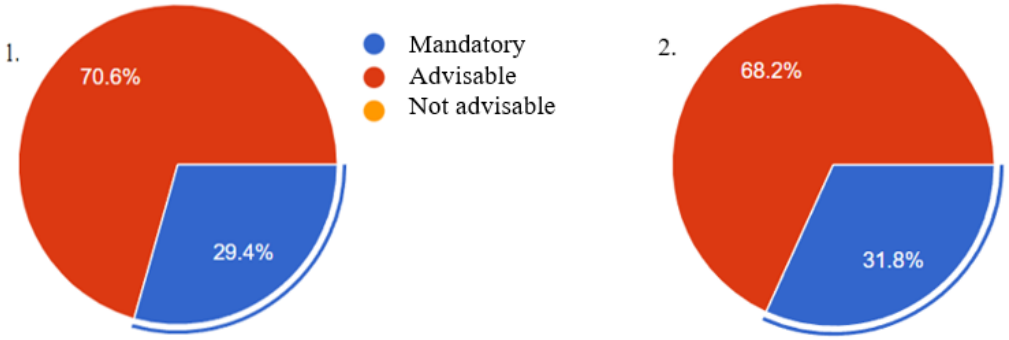

Figure 18. Distribution of respondents' opinions on the participation of companies that apply environmentally friendly practices in the TREE project. *1- teachers of VET institutions; 2- representatives of companies and NGOs*

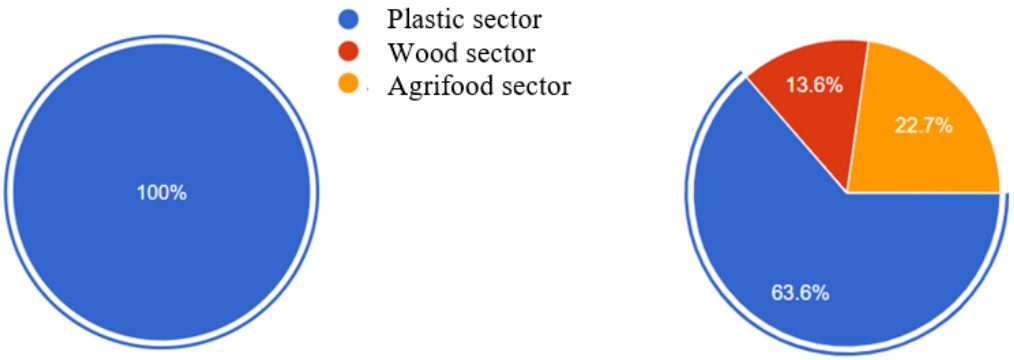

Figure 19. Distribution of respondents' views on the priority of sectors towards sustainable change. *1- teachers VET institutions; 2- representatives of companies and NGOs*

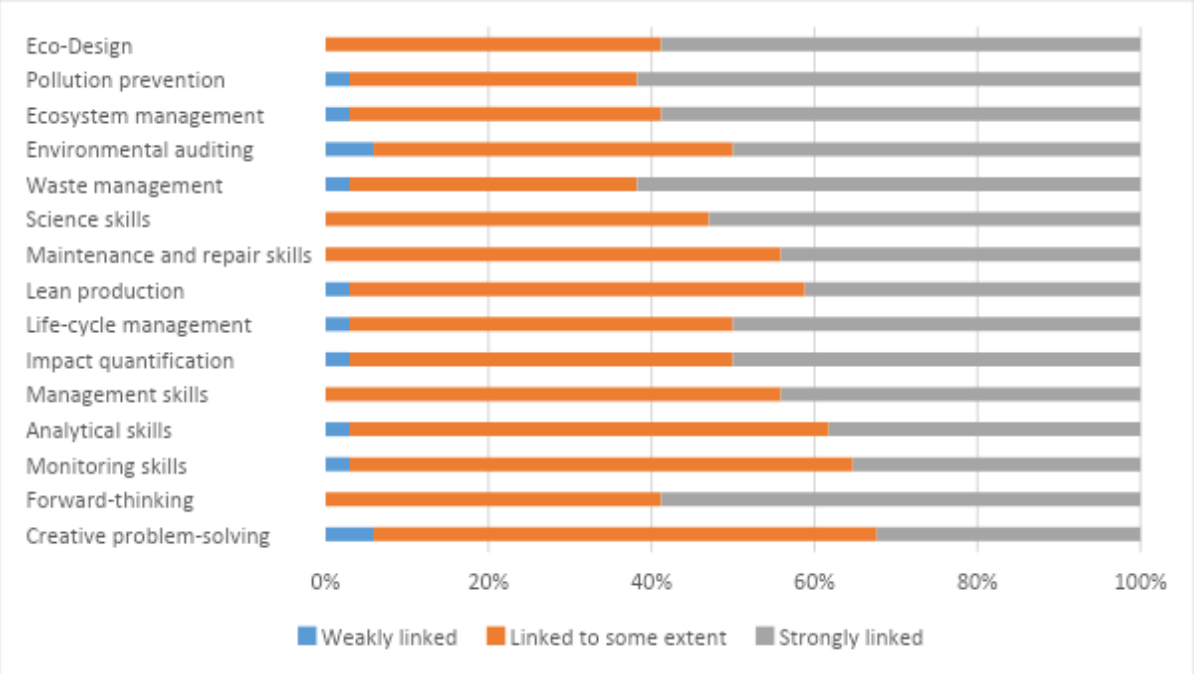

Figure 20. Assessment of the role of green skills in the plastics sector (opinion of VET teachers)

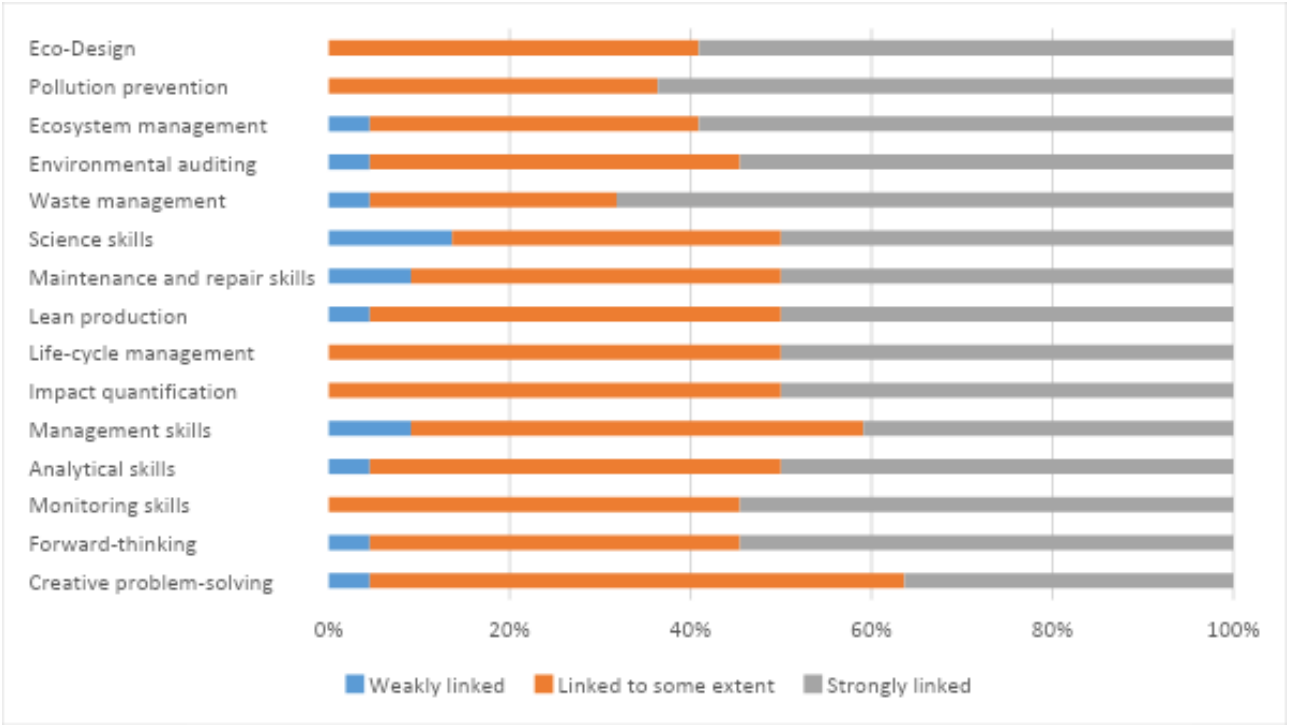

Figure 21. Assessment of the role of green skills in the plastics sector (opinion of companies and NGOs)

Figure 22. Assessing the importance of green skills for the wood sector (opinion of teachers from VET institutions)

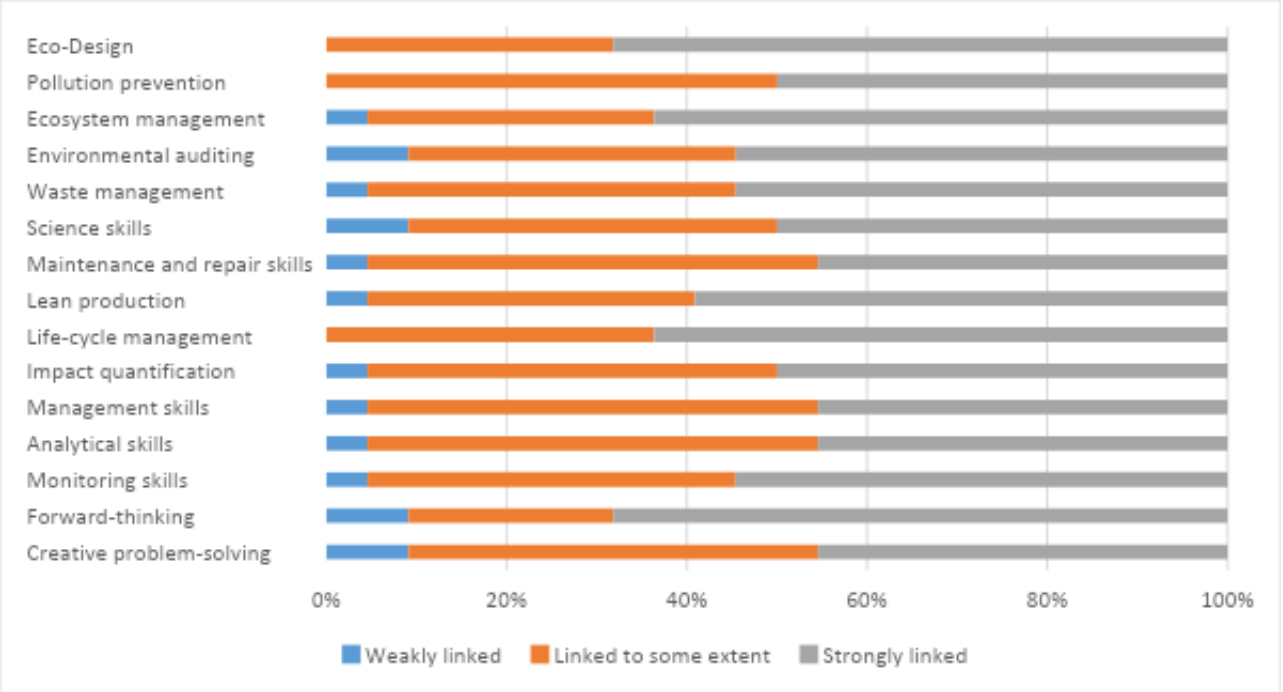

Figure 23. Assessingment of the role of green skills in the wood sector (opinion of companies and NGOs)

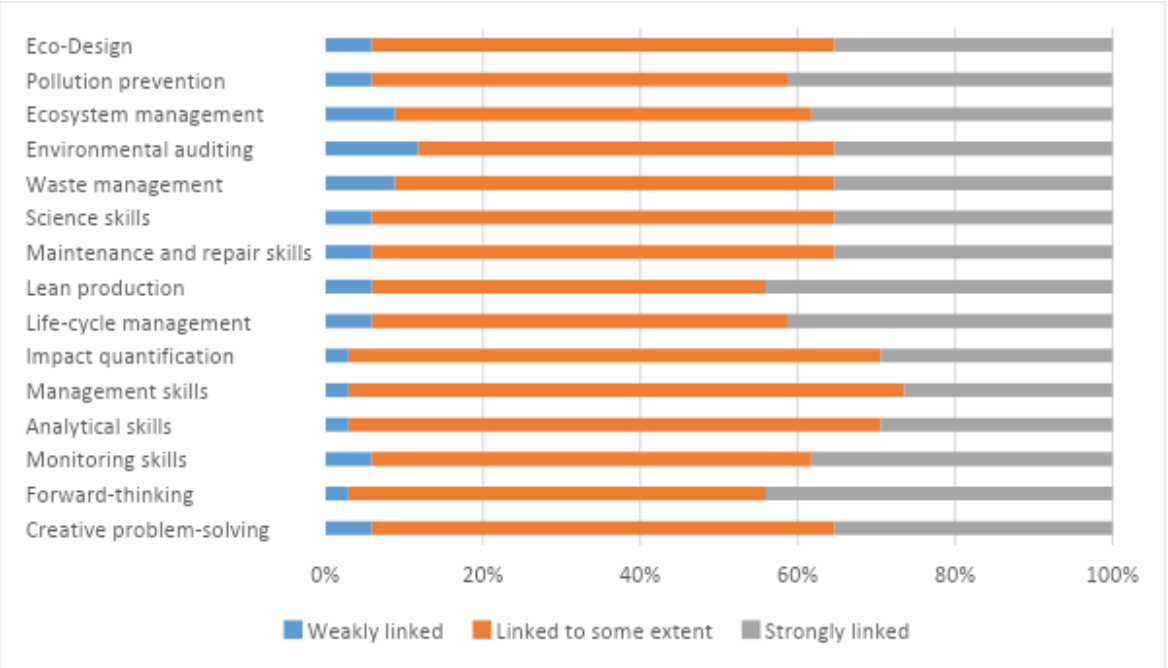

Figure 24. Assessment of the role of green skills in the agri-food sector (opinion of VET teachers)

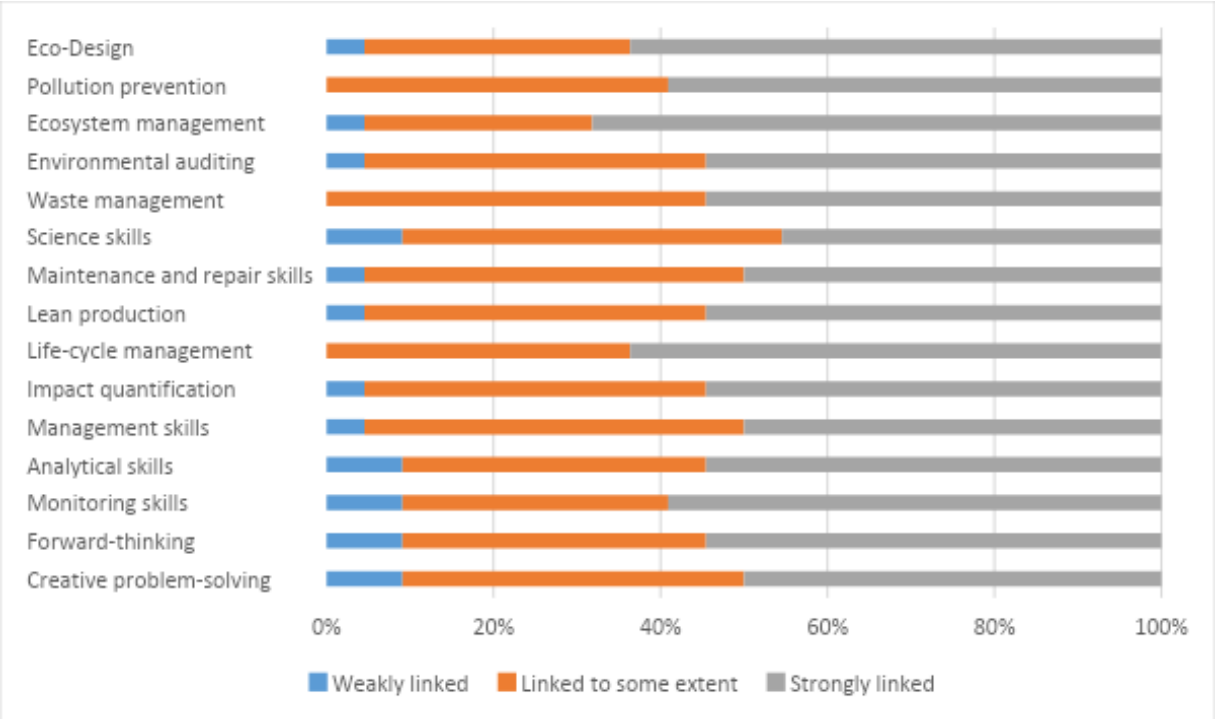

Figure 25. Assessment of the role of green skills in the agri-food sector (opinion of companies and NGOs)

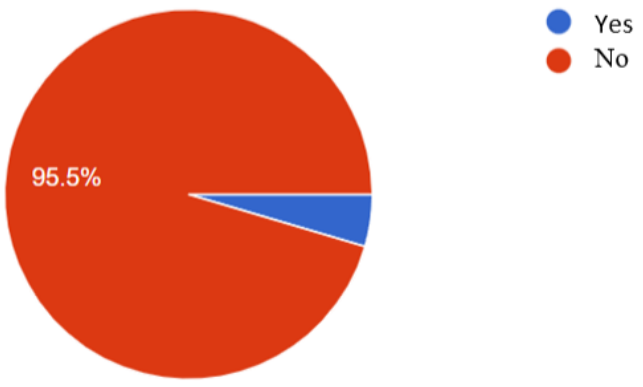

Figure 26. Structure of companies and NGOs that have expressed a wish to participate in TREE project activities

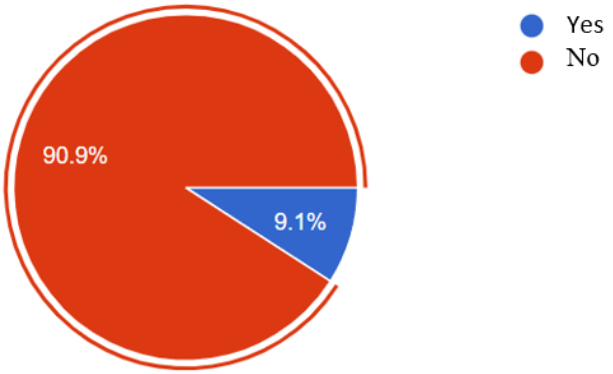

Figure 27. Structure of companies and NGOs that have expressed a wish to participate in TREE project activities

ANNEX 2 - Good practice presented by VšĮ "eMundus"

1	**Title**	Greening the Business: Green Business management trainings
2	**Country**	Lithuania, France, Bulgaria, Italy, Slovenia
3	**How is/was it promoted?**	within the framework of a European project
4	**Context of implementation**	X large city ☐small city ☐village
5	**Goals of the activity**	The main aim of the project is to contribute to the improvement of the entrepreneurial culture and employee initiative in support of sustainable growth, to develop the green business knowledge and skills and enriched green business training.
6	**Description**	a. The activity was relevant to the topic of ☐ circular economy (CE), X education for sustainable development (ESD), or ☐ both CE and ESD b. **Main Steps** Project Reference: 2015-1-FR01-KA204-015377 The project GreenB provides educational material and training on green business implementation, concerning different topics: green building design and green cities, green business decision-making, energy management, circular economy, eco-labels, environmental management systems, waste and recycling management, co-innovation, corporate social responsibility, green marketing, green procurement and supply chain management. The outputs of the project are: 1. a Tool-kit of innovation methods for greening the business. 2. a green business training package (to be planned and tested, 11 modules) which develops the entrepreneurs' and employees' skills to deal with future changes in the environment field. 3. an Internet Platform for Distance Teaching and Learning which provides a learning environment for green business. 4.Contribute to integration of green business training into European curricula. Any specific theories, which the practice was based on: GreenB emphasized the benefits of voluntary approaches to environmental protection policies, and especially environmental management systems according to the international standards ISO 14001 and EMAS.
7	**Implementation choices**	a. The target group consists of entrepreneurs and employees, and managers, trainers in educational institutions providing training and education programmes in the field of green business. b.Other relevant actors collaborating in the project are: representatives of local, regional and national authorities, employer associations, trade unions, labor offices, representatives from universities and vocational and educational Training Centres. c. Duration: September 2015 – September 2017 d. Number of sessions/activities: NA e. Teaching methodology, if applicable The method for the implementation of the course includes various approaches from lectures, case studies, discussions and best practices of several companies. The material created will be available offline, including specific practical examples, developed management plan, case studies, etc. The online material consists of lessons, useful links with simulations and calculations, assignments to solve with the learners groups. The project also offered practical experiences and workshops for the production of a business idea and a business plan based on the issues for each training module developed. The training methodology consists of both distance learning and face-to-face training. The modules are developed as a Moodle course, structured in sessions.

		f. Type of assessment and tools used to identify the benefits The following tools were used for the evaluation of Greening the Business, starting from the very beginning of the creation of the project to the identification of benefits: needs analysis survey, focus groups, identification of good practices. In addition, educational materials were developed based on the results of the survey, curriculum feasibility assessment, and consultation with key stakeholders to verify the usefulness and sustainability of the objectives produced. Focus group participants in all countries provided positive feedback on the research results and shared more general and particular recommendations about the training content that is presented in the reports of the project.
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ Creative problem-solving A x B x ☐ Forward-thinking A x B ☐ ☐ Monitoring skills A ☐ B ☐ ☐ Analytical skills A x B ☐ ☐ Management skills A x B x ☐ Impact quantification skills A ☐ B ☐ ☐ Life-cycle management skills A x B ☐ ☐ Lean production skills A x B ☐ ☐ Maintenance and repair skills A ☐ B ☐ ☐ Science skills A x B ☐ ☐ Waste management skills A x B x ☐ Environmental auditing skills A x B ☐ ☐ Ecosystem management skills A ☐ B ☐ ☐ Pollution prevention skills A x B ☐ ☐ Eco-Design skills A ☐ B ☐ ☐ Other, please, specify: _____
9	**Materials/equipment**	computer, internet connection, best practices for each country,.
10	***Who runs the activity***	☐a person ☐an organization/institution X a VET school X a company/enterprise ☐an NGO ☐other *(please, describe)*
11	***Benefits and results***	GreenB has worked to provide a practical approach to promote sustainable eco-friendly behaviors and to add an essential environmental sensitivity to working life, helping to bring the business world closer to the concept of sustainability. GreenB will help make European companies more ecological but also more efficient, showing that Green Economy brings benefits to the environment as well as to business. Participants identified the following major benefits of greening the business : cost savings, energy consumption reduction, emission reduction, waste reduction, employee motivation, customer loyalty, compliance with the legal requirements. Results: Summary report on training needs assessment GreenB (O1) Methodology (Roadmap) for Green business training Development (O2) Green B Final Conference in Lyon GreenB Curriculum Prototype Project flyers Curriculum of Green Business Management Training Course - Slovenian and english User guide for users of Moodle e-learning platform Curriculum of Green Business Management Training Course - all language Project Newsletters in all language Project Brochure Methodology for Needs Identification and Needs Assessment

		Guide to perform pilot testing Curriculum of Green Business Management Training Course - Italian Roll-up GreenB GreenB Course Catalogue - all language GreenB E-learning platform
12	**Relevance for the TREE Project**	The GreenB project is relevant for the TREE project because they both develop some European priorities in the topic of sustainable economy, although in a different way. This project GreenB addressed topics related to green economy, eco-innovations, waste and recycling management, environmental management systems, green marketing and green building design and green cities. It's important to have in mind the development of these themes in the business, enterprises and companies world. The TREE project can benefit from the research and results of the GreenB project, as well as from the analysis of the good practices, and the priorities of each country involved, and the photographs of the countries partners in the field of the green economy, with statistics and results of the focus groups.
13	**Website E-mail Other contact info References**	https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2015-1-FR01-KA204-015377

1	**Title**	Environmental Green Gate Schools (EGGS)
2	**Country**	Lithuania, France, Italy, Germany, Romania, Greece
3	**How is/was it promoted?**	within the framework of a European project
4	**Context of implementation**	X large city ☐small city ☐village
5	**Goals of the activity**	The main focus is to raise students' knowledge on Ecology and how to be responsible and European citizens. The actions are centred to educate and awaken students in the use of renewable energy sources but also in small daily activities that protect the planet; how to use renewable energy sources wisely (operation and habitat optimization) and how to fight waste.
6	**Description**	The activity was relevant to the topic of ☐ circular economy (CE), X education for sustainable development (ESD), or ☐ both CE and ESD Project Reference: 2018-1-FR01-KA229-047861 The EGGS project focuses on the importance of environmental preservation and the possibility for schools to contribute to it in a concrete way. The partners involved are: George Sand - Secondary school of Chatellerault (France), Gregor Mendel Gymnasium of Amberg (Germany), 40 Gymnasio Komotinis of Komotini (Greece), Kaunas J.Urbsys Catholic Basic school of Kaunas (Lithuania) and Scoala Gymnaziala Nr. 7 of Galati (Romania). The project coordinator (France) and its partners have been working and taking action on the environment at the local and european level (Lithuania and Italy: use renewable energy sources; Greece and Romania: recycling; Germany: organic garden; France: organic food, paper recycling and vegetable garden). In order to reach the objectives, there are 4 main outputs :

		- A botanical wall containing local plants and cooking plants. It is useful to motivate students to learn about its structure, watering system, enlightenment and which plants can be used and how. A "youtube" tutorial is created to show and disseminate the construction. - A travel guide for eco European teenagers (to be sent to the European Parliament): information kit for each country with maps where to find typical European plants with some buildings to visit around them. - Solar panels and wind turbines from low cost materials are built in each country. - Two digital applications: a European dictionary of plants and a game based on daily eco-gestures. This project has a multidisciplinary field that combines the Sciences (Biology, Physics, Mathematics and Informatics- Robotics), Art (Reuse of plastics, Architecture, Painting), Language and English. Moreover, the project's goals are in line with the 2018 European Heritage celebration.
7	**Implementation choices**	a. Target groups: 25 students from each partner with a team of around 10 teachers. Students are aged from 12-14 years old. b. professionals from companies specialized in renewable energy sources are involved to assist the teachers and students in specific moments of the project. c. Duration: Start: 01-09-2018 - End: 28-02-2021 d. Number of sessions/activities:The project proposes 24 activities, 1 teachers' meeting for staff training and 5 learning, teaching and training activities designed to work simultaneously with different objectives. e. Teaching methodology, if applicable: priority will be given to digital and network teaching, as well as cooperative learning and peer learning, with the aim of developing skills, including technical and relational skills, that can be used in the world of work. *Through the realized outups, the participants were able to directly test and evaluate the results of their work: the growth of the plants, the construction of the green wall, the functioning of the irrigation system and the energy produced by the solar panels.* *This learning by doing process is useful for identifying and correcting action while trying to achieve planned goals.*
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ Creative problem-solving A ☐ B ☐ ☐ Forward-thinking A X B X ☐ Monitoring skills A X B X ☐ Analytical skills A ☐ B ☐ ☐ Management skills A ☐ B ☐ ☐ Impact quantification skills A ☐ B ☐ ☐ Life-cycle management skills A ☐ B ☐ ☐ Lean production skills A ☐ B ☐ ☐ Maintenance and repair skills A X B X ☐ Science skills A X B X ☐ Waste management skills A ☐ B X ☐ Environmental auditing skills A ☐ B ☐ ☐ Ecosystem management skills A X B X ☐ Pollution prevention skills A ☐ B ☐ ☐ Eco-Design skills A X B X ☐ Other, please, specify: _____
9	**Materials/equipment**	computer, internet connection, adequate spaces to keep outputs, materials of construction for the outputs.
10	***Who runs the activity***	☐a person X an organization/institution ☐a VET school ☐a company/enterprise

		☐an NGO ☐other *(please, describe)*
11	***Benefits and results***	a. The benefits of this best practice for the target groups The project activities helped the students and teachers to increase knowledge about ecology and sustainable consumption. During the project participants reflected on different topics like eco-initiatives, ways of making original use of old and obsolete objects, use of renewable energy sources and how to fight waste . Participants also developed social, language and IT skills and gained new experiences like (before covid-19 pandemic) travel, discover other countries and cultures, collaborate with other European peers and acquire intercultural skills**.** Another goal has been to enhance the acquisition of knowledge and use of English among students and teachers. b.Thanks to this project, school partners have the opportunity to engage in environmental issues for two years and exchange methods already used in each school and to implement new ones. The group of participants in this project will help other students to understand what they have learnt about the environment, ICT and new technologies. The environmental problem analyzed from different points of view, especially that of energy sparing, will be compared between partners. Another issue carried out by the project is how can students help saving energy at school, at home, in their everyday life, and the results were disseminated within the school and also outside of it (with the use of media, conferencing and little publications). The impact on each school is stronger relationships with parents, by involving them in the workshops and in other project activities; stronger relationships among the teacher teams, by working together in order to accomplish the activities; better image at the local, regional and national level, by promoting the project in the community. Disseminating the project results, life in the neighbourhood of the school will become greener and more environmentally friendly. results:
12	**Relevance for the TREE Project**	The EGGS project meets the European objectives with COP 23 and is relevant to the TREE project as a starting point in the field of education for sustainable development for students. It deals more specifically with the topic of agriculture. While the TREE project focuses on the plastics, agri-food and wood sectors, the idea of the project is to promote students' environmental awareness and creativity by generating ideas on green environments, lighting and irrigation systems for plants, etc. The participants have created a prototype of a green environment for their own use. Participants created a prototype green wall and made presentations on plants growing in their countries, their nutritional and medicinal properties. The EGGS project also addresses issues related to solar panels, plastic reuse, wind turbines, and the protection of European plants. The TREE project can benefit from the research and results of the EGGS project.
13	**Website E-mail Other contact info References**	http://4gym-komot.rod.sch.gr/autosch/wordpress/?cat=27

1	**Title**	Sustainable Public Buildings Designed and Constructed in Wood
2	**Country**	Lithuania, Denmark, Finland, Latvia, UK,
3	**How is/was it promoted?**	- within the framework of a European project
4	**Context of implementation**	Xlarge city ☐small city ☐village
5	**Goals of the activity**	The wider objective of this project is to develop a trans-disciplinary and transnational course/ elective element in the EU HEIs on the design, construction and management of sustainable

		public wooden buildings in order to enhance the quality and relevance of students' knowledge and skills for future labour market needs.
6	**Description**	a. The activity was relevant to the topic of ☐ circular economy (CE), X education for sustainable development (ESD), or ☐ both CE and ESD b. **Main Steps** Project Reference: 2018-1-LT01-KA203-046963 The project stems from the reflections that advanced companies in the construction sector are interested in using construction materials that have a lower environmental impact. In this context stakeholders increasingly see wood as the natural and sustainable option for large public buildings. Most of HEIs with technical degrees in design, construction and materials for complex buildings have curricular implementing the studies of concrete and steel, being prefabricated or manufactured on site. Normally education in construction from wood focuses on 1 to 2 storey buildings (i.e. family houses). there is an urgent need to educate students with innovative applied skills needed in the area of massive wooden structures and large public buildings' construction at the undergraduate degree level. Project was implemented by five higher education institutions from Lithuania, Denmark, United Kingdom, Finland and Latvia, Lithuanian State Enterprise Center of Registers and Study and Consulting Center. Outputs: 1.International Market Report on Wooden Public Buildings; 2.Database on Wooden Public Buildings; 3.Study on Best Practices in Wooden Public Buildings' Design and Construction; 4.BSc/BA module/elective element "Design, Construction and Management of Wooden Public Buildings"; 5. E-learning course "Design, Construction and Management of Wooden Public Buildings"; 6.Handbook "Design, Construction and Management of Wooden Public Buildings"; c. Any specific theories, which the practice was based on: Solutions in design, construction and management of sustainable wooden public buildings.
7	**Implementation choices**	a. Target groups: HE's students, teachers from HEIs and enterprises. b. Other participants in the activity, besides the promoter and the target groups: professional associations, building entrepreneurial associations and private companies. c. Start: 01-09-2018 - End: 31-12-2020 d. Number of sessions/activities: N.A. e. Teaching methodology, if applicable : Students gained innovative knowledge on Pub-Wood issues, by using blended learning (combination of online digital media with traditional classroom methods), problem-based learning and learning by doing methods they improved their skills in critical thinking, problem solving, group work, negotiation, reaching consensus, taking responsibility for own learning and social participation. Much attention was given to digitalisation of the study process – an e-learning course available at Moodle environment was developed. This led to the transfer of innovative educational practices, where critical thinking, problem solving and flexibility were implemented in multicultural group work. Students developed proposals for the client for the new museum project of Austin-Healey British sports cars to be situated next to the existing factory using as much timber materials as possible. f. Type of assessment and tools used to identify the benefits: At the end of each intensive training course for students and teachers, there is always provision for course evaluation, with feedback and interviews to assess and disseminate the benefits.

		Additionally the E-learning course contains various e-learning resources: readings, presentations, video materials, quizzes, links to open-source learning resources, assignments and exercises, through which the learners can evaluate their own preparation and acquisition of knowledge.
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ **Creative problem-solving** A x B x ☐ **Forward-thinking** A x B ☐ ☐ Monitoring skills A ☐ B ☐ ☐ **Analytical skills** A x B ☐ ☐ **Management skills** A x B ☐ ☐ Impact quantification skills A ☐ B ☐ ☐ Life-cycle management skills A ☐ B ☐ ☐ Lean production skills A ☐ B ☐ ☐ Maintenance and repair skills A ☐ B ☐ ☐ **Science skills** A x B ☐ ☐ Waste management skills A ☐ B ☐ ☐ Environmental auditing skills A ☐ B ☐ ☐ **Ecosystem management** skills A x B ☐ ☐ Pollution prevention skills A ☐ B ☐ ☐ **Eco-Design** skills A x B ☐ ☐ Other, please, specify: _____
9	**Materials/equipment**	Computer, internet connection, European and national statistics on public wooden buildings, education, research and business data, learning modules, best practice examples of wooden construction projects.
10	***Who runs the activity***	☐a person X an organization/institution ☐a VET school ☐a company/enterprise ☐an NGO ☐other
11	***Benefits and results***	a. The participants (students and teachers) increased their knowledge, motivation and obtained a wider view of today's rapidly growing environmental problems faced in our planet, e.g. green-house gas emissions, carbon and ecological footprint, climate change as a background to explain why the use of wood in public buildings is important for the future world-wide construction industry. Teaching staff of universities enhanced their competences on innovative module development and teaching strategies, by taking part in intensive trainings, workshops, and development of intellectual outputs. b. HEIs have the opportunity to educate new professionals, who will be able to apply their knowledge and contribute to the design, construction and management of sustainable public wooden buildings. Stakeholders, e.g. professional associations, building entrepreneurial associations and private companies were involved in the process of definition of the new professional profile, development of the new module and teaching materials. By sharing innovative knowledge to all stakeholders' groups, the project promoted an idea of sustainable construction in wood to wider society. Results: -database on wooden public buildings -E-learning course on "design, construction and management of wooden public buildings" -handbook on "design, construction and management of wooden public buildings" -learning course for students in UK -study of best practices on design, construction of wooden public buildings -international Market report on wooden public buildings -comparison of educational system - selection of structural system for wooden public buildings: multiple criteria approach

		-BSc/BA module/elective element “Design, Construction and Management of Wooden Public Buildings” is available at e-learning course.
12	**Relevance for the TREE Project**	The project “Sustainable Public Buildings Designed and Constructed in Wood” is relevant for the TREE project because it addresses some horizontal priorities stated in European reports, in a more specific way the theme of wood, focused on wooden public buildings. The TREE project can benefit from the research and the findings of the project, as well as from the analysis of the international market report and the database on wooden public buildings.
13	**Website** **E-mail** **Other contact info** **References**	https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2018-1-LT01-KA203-046963 http://www.pubwood.eu/

1	**Title**	Recycle it - take care at constructive way (N°: 2019-3-DE04-KA105-018869)
2	**Country**	Serbia
3	**How is/was it promoted?**	- within the framework of a European project
4	**Context of implementation**	☐ large city X small city ☐village
5	**Goals of the activity**	“Recycle it” was a youth mobility Erasmus+ project that involved Serbia, Lithuania, Croatia, Turkey, Slovakia and Sweden. The aim of the mobility was to increase the awareness of young people on the environmental issue and on the importance of recycling and actively promoting sustainability. Moreover, during the mobility the participants were encouraged to develop creative ways of addressing these issues.
6	**Description**	a. The activity was relevant to the topic of ☐ circular economy (CE), X education for sustainable development (ESD), or ☐ both CE and ESD b. **Main Steps** During the project, an activity was organized involving people from different countries. The activity can be easily adapted to other types of context, such as school, laboratories or other non-formal learning experiences. The activity has the aim of raising awareness of participants about the current climate change challenge, teaching how to avoid wasting, how to recycle, how to see and use waste as a resource. Participants were actively involved in the learning process, which combined the project-based learning approach with the knowledge-in-use approach. In fact, participants were also able to learn from one another and to participate in groups in the final project work. The first part of the activity dealt with learning more about sustainable development, recycling techniques, everyday good practices that can be adopted, waste management, and the use of art as a tool for recycling. Participants were then divided into groups (a group-leader can be selected) and were invited to carry out a “cleaning day”, collecting waste materials such as plastic objects, bottles, leaves/branches, etc. After collecting these materials, each group was asked to create a work of art out of waste materials. All the groups work hard to create something new using waste and to give life to these objects again. During the last day of the activity, participants were able to present their work to the others and to the public, explaining the meaning of the work of art and transmitting what they learned during their experience. The process of development and the presentation of pieces of art was recorded, in order to create a final promotional video of the activity.

		The activity was fully carried out face-to-face, because during the summer months, the Covid-19 pandemic restrictions allowed it. It can be also adapted to be implemented in a blended modality, where the first phase of transmitting contents can be carried out online while the final project work face-to-face. c. **Any specific theories,** which the practice was based on N.A.
7	**Implementation choices**	a. Target groups: young people (18 - 25 years old) b. Other participants in the activity, besides the promoter and the target groups: the general public were invited to the final exhibition where the young people presented their works. c. Duration: 12-21/07/2021 d. Number of sessions/activities: one session for each day e. Teaching methodology, if applicable: learning by doing, project-based learning, knowledge-in-use approach. f. Type of assessment and tools used to identify the benefits: the activity was focused in transmitting new knowledge about the environmental issues, and participants were continuously invited to make a "self-assessment" of the activities they carried out during their everyday life to protect the environment. Each participant can be asked to provide his/her feedback on the experience.
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ Creative problem-solving A X B X ☐ **Forward-thinking** A X B X ☐ Monitoring skills A ☐ B ☐ ☐ **Analytical skills** A X B X ☐ **Management skills** A ☐ B ☐ ☐ Impact quantification skills A ☐ B ☐ ☐ Life-cycle management skills A ☐ B ☐ ☐ **Lean production** skills A ☐ B ☐ ☐ **Maintenance and repair skills** A X B X ☐ **Science skills** A ☐ B ☐ ☐ **Waste management** skills A ☐ B X ☐ **Environmental auditing** skills A ☐ B ☐ ☐ **Ecosystem management** skills A ☐ B ☐ ☐ **Pollution prevention** skills A ☐ B ☐ ☐ **Eco-Design** skills A ☐ B X ☐ Other, please, specify: _____
9	**Materials/equipment**	Waste materials (plastic bottles, bags, paper, etc.), glue, scissors, brushes, canvas colours, and any other material that might be useful to create a sculpture or a painting.
10	***Who runs the activity***	☐a person X an organization/institution ☐a VET school ☐a company/enterprise ☐an NGO ☐other *(please, describe)*
11	***Benefits and results***	Participants deepened their knowledge about environmental protection, ecology and recycling. They became more aware of the importance of everyday actions to protect the environment and were able to share experiences and opinions among people with different backgrounds and coming from different countries. Participants were able to learn more about the European Union's priorities in terms of protection of the ecosystem and of the environment. Moreover, they were able to develop a creative way of recycling waste and give to the objects a new life as artistics paintings and sculptures. Results: - 1 piece of art per participant group - 1 promotional video - 1 booklet

12	**Relevance for the TREE Project**	The activity described is relevant for the TREE project because it addressed the topics of environmental protection, sustainability and recycling. Moreover, it has a focus on helping people become aware of the action they can do in their everyday life to help the environment and fight climate change. The TREE project has, among its objectives, the same focus on raising awareness of people about these topics. Moreover, although many different topics were addressed during the theoretical course, the final work of "Recycle it!" was related to reuse waste and, particularly, plastic objects. The TREE project will focus on the plastic sector, and it can benefit from the unconventional approach adopted in the "Recycle it!" project, in which participants were asked to use plastic in an artistic way.
13	**Website** **E-mail** **Other contact info** **References**	*https://youthfullyyours.sk/sk/projekty/recycle-it-youth-exchange/* *https://youthfullyyours.sk/wp-content/uploads/2021/06/Infopack-Recycle-it-take-care-at-constructive-way.pdf*

ANNEX 3 - Good practices presented by Kėdainiai VETC

1	**Title**	"Educate an eco-person"
2	**Country**	Lithuania, Poland
3	**How is/was it promoted?**	- within the framework of a European project
4	**Context of implementation**	☐ large city X small city ☐village
5	**Goals of the activity**	To develop the ecological values of Lithuanian and Polish youth, to promote cultural dialogue, cognition and tolerance among young people. to strengthen the role of the younger generation in shaping a nature-friendly lifestyle; to encourage young people and those working with young people to take joint action to develop ecological awareness; to help Lithuanian and Polish youth to solve ecological problems relevant to both countries through cooperation; to help young people acquire knowledge of cultural awareness, develop the skills and attitudes needed to understand, accept, respect and participate in the transmission of cultural values created by different nations; to help young people work together to develop social competences.
6	**Description**	**a. The activity was relevant to the topic of** ☐ circular economy (CE), X education for sustainable development (ESD), or ☐ both CE and ESD **b. Main Steps** During the project, interviews and discussions took place between the members of the target group. Each day, participants analysed the day's activities with the help of various activities, games, or conversations. During the project, participants created video reports on the ecological problems of the project partner regions. The exhibition "The Second Life of Things" was organized. A cultural evening of Lithuania and Poland was organized. An excursion to the Šiauliai Region Waste Management Centre was organized. **c. Any specific theories,** which the practice was based on

7	**Implementation choices**	**a. Target groups:** VET schools' students from Lithuania and Poland, schools' communities **b. Other participants in the activity, besides the promoter and the target groups:** did not participate **c. Duration:** 01-09-2016 – 30-06-2017 **d. Number of sessions/activities:** different activities connected with project topic **e. Teaching methodology, if applicable:** not described **f. Type of assessment and tools used to identify the benefits:** not described
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ Creative problem-solving A ☐ B X ☐ **Forward-thinking** A X B ☐ ☐ Monitoring skills A ☐ B X ☐ **Analytical skills** A X B ☐ ☐ **Management skills** A ☐ B X ☐ Impact quantification skills A ☐ B X ☐ Life-cycle management skills A X B ☐ ☐ **Lean production** skills A X B ☐ ☐ **Maintenance and repair skills** A ☐ B X ☐ **Science skills** A X B ☐ ☐ **Waste management** skills A X B ☐ ☐ **Environmental auditing** skills A X B ☐ ☐ **Ecosystem management** skills A X B ☐ ☐ **Pollution prevention** skills A X B ☐ ☐ **Eco-Design** skills A X B ☐ ☐ Other, please, specify: _____
9	**Materials/equipment**	Paper and plastic waste, other materials suitable to complete project activities.
10	***Who runs the activity***	☐a person X an organization/institution ☐a VET school ☐ a company/enterprise ☐an NGO ☐ other *(please, describe)*
11	***Benefits and results***	**a. The benefits of this best practice for the target groups** Through this project, young people from the project partner countries will get to know the culture of the neighboring countries, interact with young people from different cultural backgrounds. Working in groups, gathering information about ecological problems and ways to solve them in their regions, together they performed various practical tasks, participated in the campaign, presented their collected information and materials to each other. Working together resulted in students communicating and collaborating, getting to know each other, and being able to share work and responsibilities. During the project activities, young people had the opportunity to get to know each other, to understand cultural, communication differences and similarities, which will contribute to their tolerance, respect, understanding and recognition of diversity. **b. Community/social/economic impact** The local community was directly involved in the project activities: presentations of video reports, presentation of clothing models from secondary raw materials, during which the local community got acquainted with the ecological problems of the region

		and possible solutions. The local community also got to know about the project and the ecological problems it solves during the dissemination of the project.
12	**Relevance for the TREE Project**	**a. Related to one or more of the priority sectors** Project is related to plastic and wood sectors as it promotes the second use of plastic and paper waste, also it promotes green thinking as a whole. **b. Involves micro- and project-based learning practices** The project is relevant for the TREE project because it addresses the topic of sustainable development and second use of the materials.
13	**Website** **E-mail** **Other contact info** **References**	*https://www.prc.kedainiai.lm.lt/2016-m/*

1	**Title**	„EcoSchool“
2	**Country**	Lithuania, Poland, Spain
3	**How is/was it promoted?**	- within the framework of a European project: Erasmus+ KA210-SCH Small scale partnerships in the school education sector.
4	**Context of implementation**	☐ large city X small city ☐village
5	**Goals of the activity**	Objectives: ● shaping ecological sensitivity in preschool children and students of primary and secondary schools; ● shaping a sense of the responsibility for local changes in the environment caused by humans; ● making preschool children and primary and secondary school students aware of the problem of packaging and shaping conscious choices; ● providing support to preschool children and primary and secondary school students with fewer opportunities, struggling with social barriers, geographical areas; ● increasing the knowledge of English and knowledge about diversity in EU countries.
6	**Description**	**a. The activity was relevant to the topic of** ☐ circular economy (CE), ☐ education for sustainable development (ESD), or X both CE and ESD **b. Main Steps:** Developing a scenario of environmental events that will be implemented locally in kindergartens, in cooperation with foreign partners and which will aim to develop environmental skills; coordinating an ecological tournament in kindergartens with prizes, which will be the culmination of the preceding events environmental events, participation in 3 meetings of international partners (including 1 as a host); implementation of the project results into practice and ensuring their durability over time; managing the entire project and implementing its results and disseminating;

		providing institutional and human resources in the field of the project; creating a project team. **c. Any specific theories, which the practice was based on:**
7	**Implementation choices**	**a. Target groups:** The staff of schools operating in the field of school education, including teachers, management, other non-didactic staff involved in the strategic development of the schools. **b. Other participants in the activity, besides the promoter and the target groups:** pre-school, primary and high school students. **c. Duration:** 01-02-2022 – 31-01-2023 **d. Number of sessions/activities:** development of a scenario and implementation of environmental events; ecological tournament in high schools; 3 international project meetings; project management and implementation of its results; dissemination. **e. Teaching methodology, if applicable:** not described **f. Type of assessment and tools used to identify the benefits:** not described
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ Creative problem-solving A ☐ B X ☐ **Forward-thinking** A X B X ☐ Monitoring skills A X B X ☐ **Analytical skills** A X B ☐ ☐ **Management skills** A ☐ B X ☐ Impact quantification skills A X B ☐ ☐ Life-cycle management skills A X B ☐ ☐ **Lean production** skills A X B ☐ ☐ **Maintenance and repair skills** A X B ☐ ☐ **Science skills** A X B ☐ ☐ **Waste management** skills A X B ☐ ☐ **Environmental auditing** skills A X B ☐ ☐ **Ecosystem management** skills A X B ☐ ☐ **Pollution prevention** skills A X B ☐ ☐ **Eco-Design** skills A X B ☐ ☐ Other, please, specify: _____
9	**Materials/equipment**	Computer, internet connection, project website, intellectual results of the project.
10	**Who runs the activity**	☐a person ☐an organization/institution X a VET school ☐a company/enterprise X an NGO ☐other *(please, describe)*
11	**Benefits and results**	**a. The benefits of this best practice for the target groups:** Raising the level of ecological awareness and shaping ecological attitudes of the society through promoting the principles of sustainable development is one of the most significant positively factors affecting the current and future state of natural resources (including air, water, soil, diversity biological), functions of ecosystems (including forest, water, mountain and agricultural) as well as the quality of the surrounding environment (e.g. in connection with the areas of: waste management, energy efficiency, adaptation to climate change, mitigation measures, development of low-emission energy sources). Environmental education (already from an early age) is a basic condition for changing social practices towards a sustainable model consumption. Therefore, we believe that many different initiatives on this subject are

		needed to shape this awareness the youngest, so that they would be the carriers of changes in the direction of sustainable development. **b. Community/social/economic impact:** A series of environmental events that will be carried out locally in kindergardens, primary schools and high schools in cooperation with foreign partners and which will aim to develop environmental skills; an environmental tournament with prizes, which will be the culmination of the preceding events on ecological issues; all kinds of works by children and students, created as part of the project.
12	**Relevance for the TREE Project**	**a. Related to one or more of the priority sectors** Shaping environmental sensitivity in preschool, primary and secondary school children; shaping the sense of responses to local changes in man-made reviews, - making preschool children, school and high school students aware of recycling of plastic bottles and other waste materials. **b. Involves micro- and project-based learning practices:** Not explained.
13	**Website E-mail Other contact info References**	*https://www.prc.kedainiai.lm.lt/veikla/projektai2021/Projektas%20Nr.%202021-1-PL01-KA210-SCH-000032401%20%E2%80%9EEcoShool%E2%80%9C%20%28Ekologin%C4%97%20mokykla%29.pdf*

1	**Title**	"Think green, act European"
2	**Country**	Lithuania, Turkey, Romania and Estonia
3	**How is/was it promoted?**	- within the framework of a European project
4	**Context of implementation**	☐ large city X small city ☐village
5	**Goals of the activity**	The aim of the project is to contribute to the development of ecological values of young people in Lithuania, Turkey, Romania and Estonia through non-formal education, to promote cultural dialogue, cognition and tolerance among young people. The main goal of the project will be pursued through the following tasks: • to strengthen the role of young people in shaping a nature-friendly lifestyle; • to help young people work together to address environmental issues of concern to all countries involved in the project; • to help young people acquire knowledge of cultural awareness, develop the skills and attitudes needed to understand, accept, respect and participate in the transmission of cultural values created by different nations; • to help young people improve their social competences; • to build friendships between young people from different social and cultural backgrounds.
6	**Description**	**a. The activity was relevant to the topic of** ☐ circular economy (CE), ☐ education for sustainable development (ESD), or X both CE and ESD **b. Main Steps**

		Youth groups from Lithuania, Turkey, Romania and Estonia collected information on the ecological situation on their own in a residential area, creatively offering solutions to ecological problems, presented the information to each other during the youth exchange in Lithuania. Organization of an advance planning visit. Carrying out a pre-planning visit in Kėdainiai, Lithuania. Selection of project participants. Preparation of participants in youth exchanges. Practical preparation for youth exchanges. The project involved 28 young people and 6 group leaders from Lithuania, Estonia, Turkey and Romania. **c. Any specific theories, which the practice was based on:**
7	**Implementation choices**	**a. Target groups:** Young people from project partner countries, schools' communities **b. Other participants in the activity, besides the promoter and the target groups:** did not participate **c. Duration:** 01-02-2017 – 30-09-2017 **d. Number of sessions/activities:** different activities connected with project topic **e. Teaching methodology, if applicable:** not described **f. Type of assessment and tools used to identify the benefits:** not described
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ Creative problem-solving A X B X ☐ **Forward-thinking** A ☐ B X ☐ Monitoring skills A ☐ B X ☐ **Analytical skills** A ☐ B ☐ ☐ **Management skills** A X B X ☐ Impact quantification skills A ☐ B X ☐ Life-cycle management skills A X B X ☐ **Lean production** skills A ☐ B X ☐ **Maintenance and repair skills** A ☐ B X ☐ **Science skills** A X B X ☐ **Waste management** skills A X B X ☐ **Environmental auditing** skills A ☐ B X ☐ **Ecosystem management** skills A X B ☐ ☐ **Pollution prevention** skills A X B X ☐ **Eco-Design** skills A X B X ☐ Other, please, specify: _____
9	**Materials/equipment**	Waste paper, paperboard and other materials suitable for use in the manufacture of clothing.
10	***Who runs the activity***	☐a person X an organization/institution X a VET school ☐a company/enterprise ☐an NGO ☐other *(please, describe)*
11	***Benefits and results***	**a. The benefits of this best practice for the target groups** Project participants deepened their knowledge during the exchange on waste sorting, secondary raw materials, learned to use them to create clothing models, various items and logic games. The young people created an ecological Flash Mob, organized a cultural evening, and all this developed their intercultural competences, ensured dialogue between different cultures, encouraged young people to take more interest in and respect the traditions and customs of one's own and other countries. Project activities contributed to the development of young people's citizenship, broadening their horizons, developing tolerance and learning working in a group, developing

		respect and responsibility. Participants improved existing and acquired new social and civic skills, improved learning to learn, communication and reflection, performance and decision making competencies. During the project activities, young people had the opportunity to get to know each other, understand cultural, differences and similarities in communication, which contributed to their tolerance, respect, recognition. **b. Community/social/economic impact** Raised awareness of green policy, presented project activities, increased participation in various environmental initiatives.
12	**Relevance for the TREE Project**	**a. Related to one or more of the priority sectors** Not particularly related to any of these sectors, as it promotes environmentally friendly behaviour among young people as a whole. **b. Involves micro- and project-based learning practices** Involved project based learning as the project participants had to collect and present the information on the environmental problems in their regions, they deepened their knowledge on waste sorting, use of secondary raw materials, created clothing models from wastes etc.
13	**Website E-mail Other contact info References**	*https://www.prc.kedainiai.lm.lt/2017-m/*

1	**Title**	Eco-friendly Europe
2	**Country**	Turkey, Poland, Italy, Denmark, Lithuania, Spain
3	**How is/was it promoted?**	- within the framework of Erasmus + Learning Mobility of Individuals
4	**Context of implementation**	X large city ☐small city ☐village
5	**Goals of the activity**	As the main aim of the project was to divert European youth's behaviour towards Eco-Friendly lifestyle, below listed objectives were set: ● encourage a proactive approach towards green initiatives; ● promote an eco-sustainable behaviour; ● to identify the most common negative outcomes of people's habits concerning environment, as well as find ways to tackle that; ● increase awareness about the existing environmental problems in Europe.
6	**Description**	**a. The activity was relevant to the topic of** ☐ circular economy (CE), X education for sustainable development (ESD), or ☐ both CE and ESD **b. Main Steps** To successfully reach set aims and objectives, various non-formal education activities were held during participants mobilities. These include, but are not limited to: ● interactive sessions with environmental activists; ● interactive workshops and theatrical plays on the topic; ● making videos, photos and social media campaigns on eco-friendly lifestyle;

		• presentations on best practices for saving environment from participants' countries; • group discussions in a non-formal environment; • visiting 'Kūrybos kampas 360' – the concept of trash design; • capturing environmental problems in Kaunas through photography. **c. Any specific theories, which the practice was based on**
7	**Implementation choices**	**a. Target groups:** Young adults **b. Other participants in the activity, besides the promoter and the target groups**: representatives from other NGOs **c. Duration:** 08-01-2018 - 07-07-2018 **d. Number of sessions/activities:** different activities connected with project topic **e. Teaching methodology, if applicable:** not described **f. Type of assessment and tools used to identify the benefits:** not described
8	**Green skills targeted by the good practice**	*A) theoretically* *B) practically* ☐ Creative problem-solving A X B X ☐ **Forward-thinking** A ☐ B X ☐ Monitoring skills A X B X ☐ **Analytical skills** A X B X ☐ **Management skills** A ☐ B X ☐ Impact quantification skills A X B ☐ ☐ Life-cycle management skills A X B X ☐ **Lean production** skills A X B ☐ ☐ **Maintenance and repair skills** A X B ☐ ☐ **Science skills** A X B ☐ ☐ **Waste management** skills A X B ☐ ☐ **Environmental auditing** skills A X B X ☐ **Ecosystem management** skills A X B ☐ ☐ **Pollution prevention** skills A X B ☐ ☐ **Eco-Design** skills A X B ☐ ☐ Other, please, specify: _____
9	**Materials/equipment**	Computer, internet connection, project website.
10	**Who runs the activity**	☐a person X an organization/institution ☐a VET school ☐ a company/enterprise X an NGO ☐other *(please, describe)*
11	**Benefits and results**	**a. The benefits of this best practice for the target groups:** These activities not only helped in achieving the goals, but also contributed to the professional and personal growth of the participants. Participants learned how to responsibly act towards environmental safeguard; increased their social skills, as well as multilingualism and stimulated their cultural exchange; learned how to get involved in discussions and decision-making in an international environment (in various topics, which include eco-friendly attitude and actions). Furthermore, through carried out public actions participants became more proactive and learned how to put ideas into actions. All of the above mentioned, together with newly gained and extended social networks with like-minded youth from different EU countries and field experts prepared them for private and public environmental challenges. **b. Community/social/economic impact:**

		Organisations improved their international capacities in tackling ecology related issues, while youth enhanced their skills and competencies required to promote Eco-friendly lifestyle. Furthermore, public awareness on environmental issues grew in participating countries, as well as possible solutions, which include empowerment of youth to take action in boosting environmental change in Europe.
12	**Relevance for the TREE Project**	**a. Related to one or more of the priority sectors** Project is related to the green issues as a whole as it deals with topics, which include eco-friendly attitude and actions). Completed activities and dissemination results help to develop an eco-friendly lifestyle. **b. Involves micro- and project-based learning practices:** Not explained.
13	**Website** **E-mail** **Other contact info** **References**	https://activeyouth.lt/eco-friendly-europe/