GreenHive

GreenComp in Vocational Education and Training:
State of Art and Best Practices in Romania

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Introduction

This national report summarizes the state of implementation in Romania of practices and educational activities for development of sustainability competencies in education, mainly in Vocational Education and Training. As part of the GreenHive Erasmus+ project, the study emphasizes the current expertize in order to facilitate the transfer of local experience, knowledge and innovation in the field of the implementation of the European Sustainability Competence Framework "GreenComp" to potential local, national and European level.

The exploration is grounded in a meticulous research methodology encompassing strategies, data collection methods, sample selection, and analysis.

Firstly, the report laid down the evolution of sustainability competencies in Romania's formal education system, providing an overview of the strategies and national policies.

Secondly, the report offer the voices of experts in Vocational Education and Training through insightful semi-structured interviews, which are carefully analysed to have a full understanding of the real-world actions for development of sustainability competencies in education.

Thirdly, the attention is directed toward a set of ten best practices in sustainability competency development in Romania. These examples showcase the practical manifestation of sustainable principles, while their detailed exploration offers valuable lessons and inspiration The following criteria guided the selection and analysis of the best practices: effectiveness, inclusiveness, innovation, transferability, impact, scalability and replicability.

The conclusions point key takeaways and potential directions for development, inviting readers to reflect upon the multifaceted dimensions of sustainability education and competencies in the broader context of vocational training.

1. The Green Hive Project

Green Hive is a Cooperation partnership in the Vocational Education and Training (VET) field co-funded by the Erasmus+ Programme of the European Union. Implemented by a consortium of five entities, such as the *Technological University of the Shannon: Midlands Midwest* (Ireland), the companies *Lascò* (Italy) and *Femxa* (Spain), and the non-profit and non-governmental organisations *KEAN* (Greece) and *Team 4 Excellence* (Romania), the project aims to increase the capacity of VET providers to prepare learners for the green transition by developing a European platform-based ecosystem for sustainability education called the "Green Hive".

The Green Hive will consist of localised hubs for sustainability education, namely the "Green Combs," established within VET providers. While the Hive will be an open and cross-sectoral long-term cooperation network dedicated to innovation, continuous improvement and co-creation in sustainability education, the Combs will make VET providers the managing centre of networks of local stakeholders (i.e., companies, representatives of universities, civil society organisations and professional associations) for learning, networking and cooperating on sustainability challenges.

Hence, the project promotes the establishment of permanent VET co-creation structures where students will be enabled to think in systems, understand the interconnectedness of the economy, society and environment, and ultimately develop their systemic and critical thinking competencies by collaborating with other students and external stakeholders.

Four **main results** will be co-developed with over 500 VET experts in the scope of the project:

- a "**Methodological Framework**" for developing a VET sustainability education ecosystem and localised hubs to facilitate the transfer of local experience, knowledge and innovation in the field of the implementation of the European Sustainability Competence Framework "GreenComp"[1], and encourage collective actions of VET providers, learners and external stakeholders to co-create solutions for sustainability;

- a "**Toolkit for the setup and management of Green Combs**", including a how-to guide and canvases to support VET providers in setting up, managing and growing internal hubs for sustainability education;

- "**Educational resources for Green Combs**", including guidelines to implement open spaces for discussion around learner-generated topics among members of localised hubs, micro-learning videos, workshop scenarios and project-based learning experiences in the four competence areas of the GreenComp;

- the **"Green Hive" platform**, connecting the hubs through the Internet and providing capacity-building opportunities and digital tools for VET institutions, knowledge-transfer spaces, and co-creation activities for its members. By the end of 2025, the Green Hive is expected to host and connect at least 15 localised hubs and 200 VET learners in 5 countries.

Project website: **www.greenhiveproject.eu**

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[1] Bianchi G., Pisiotis U. & Cabrera M. (2022). GreenComp The European sustainability competence framework, Punie, Y. and Bacigalupo, M. editor(s), EUR 30955 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-46485-3, doi:10.2760/13286, JRC128040.

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2. Sustainability Education in Vocational

Education and Training: The Romanian Context

Environmental education in Romania is a multifaceted endeavor that seeks to raise awareness, impart knowledge, and foster sustainable attitudes and behaviors among citizens, particularly the younger generation. As the world grapples with pressing environmental challenges, Romania recognizes the significance of educating its population about the importance of preserving natural resources, mitigating pollution, and promoting ecological sustainability.

In the Romanian education landscape, Vocational Education and Training (VET) and the integration of Environmental Education practices represent both aspirational directions and challenges in implementation. VET has been a cornerstone of Romania's attempts to address unemployment and skills mismatch. The country acknowledges the need for a skilled workforce to support industries and boost economic growth. The dual education model, though embraced in theory, faces practical hurdles in terms of establishing effective partnerships between schools and businesses. The limited availability of quality apprenticeships and internships hampers students' exposure to real-world scenarios. Additionally, the prevailing societal perception that academic education is superior remains a roadblock, deterring some students from considering VET paths.

To strengthen VET, consistent efforts are required to change societal attitudes, encourage industry collaboration, and ensure the quality of training programs. This demands ongoing investment, coordination between stakeholders, and measures to bridge the information gap between students, parents, and educators regarding the benefits of VET.

Environmental education in Romania is guided by both national and international policies. The Romanian Ministry of Education and Research has taken steps to incorporate environmental themes across various subjects in the curriculum, ensuring that students are exposed to concepts of biodiversity, climate change, and conservation from an early age. Additionally, Romania is a signatory to international agreements such as the Aarhus Convention, which emphasizes public participation in environmental decision-making and access to environmental information.

While there's recognition of the importance of environmental education, the implementation faces challenges. Limited resources, outdated curricula, and a lack of specialized teachers are common hurdles. Despite the intention to include environmental topics across subjects, the emphasis on standardized testing often sidelines such integrations.

Effective Environmental Education necessitates curriculum revisions, teacher training, and the development of engaging materials that resonate with students. However, this requires financial commitment and a deliberate shift in priorities within an already strained education system. Romania's journey in embracing VET and Environmental Education practices is a realistic portrayal of a nation grappling with the complexities of modernizing its education system. While intentions are clear, challenges such as changing societal perceptions, securing funding, and overhauling curricula remain formidable. Progress will depend on a steadfast commitment from policymakers, educators, industries, and civil society to collectively navigate these obstacles and create an education system that genuinely equips students for the demands of the workforce while nurturing environmentally responsible citizens.

While the intention to introduce sustainable entrepreneurship education is laudable, the current landscape presents challenges. The traditional educational framework, geared toward

conventional business models, often lacks the necessary flexibility to accommodate the interdisciplinary nature of sustainable entrepreneurship. Integrating subjects like environmental science, social impact assessment, and ethical leadership requires curriculum revisions and specialized teacher training.

Furthermore, sustainable entrepreneurship demands a practical learning approach, encouraging students to engage with real-world challenges and opportunities. The successful integration of sustainable entrepreneurship education necessitates a multifaceted approach. Firstly, collaboration between educational institutions, sustainable businesses, and relevant governmental bodies is essential to develop curricula that reflect the realities of the business world while embedding sustainability principles.

Secondly, providing teachers with the training and tools required to effectively deliver sustainable entrepreneurship education is crucial. Teachers need to be adept at blending traditional business concepts with innovative and sustainable practices, fostering critical thinking and problem-solving skills among students.

However, it is important to approach this endeavor with a clear understanding of the challenges involved. A pragmatic strategy that involves collaboration, teacher training, curriculum adjustments, and long-term evaluation is essential to bridge the gap between ambitions and practical realities. By doing so, Romania can nurture a generation of entrepreneurs who not only drive economic growth but also contribute positively to society and the environment.

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3. GreenComp: State of the Art in Romania

The concept of "Green Competences" encompasses the skills, knowledge, and attitudes required to navigate environmental challenges and promote sustainability. In the context of Romania, assessing the state of green competences sheds light on the country's efforts to develop a workforce equipped to address environmental issues and contribute to a more sustainable future.

The integration of green competences extends to VET programs. As industries evolve towards sustainability, Romania acknowledges the importance of equipping vocational students with skills aligned with environmentally friendly practices. This includes training in areas such as green construction, renewable energy technologies, and eco-friendly production methods. There is still a need for training on environmental issues for both students and VET teachers. By fostering green competences, Romania is nurturing a generation that is not only environmentally aware but also capable of driving positive change for the country's future.

3.1 Research Methodology

3.1.1 Research Strategy
The research strategy employed in this study a mixed-methods qualitative approach, combining desk research with interviews with Vocational Education and Training (VET) experts to investigate the integration of sustainability competencies in the Romania VET system.

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3.1.2 Data Collection Method and Tools

For the purpose of this research, document analysis and semi-structured interviews were used. Particularly, the **document analysis** involved the revision of national educational guidelines, policy documents, curricula, syllabi, and research studies, to address the following research questions:

a. What are the current practices and policies for developing GreenComp sustainability competencies in VET in Romania?

b. How do national educational guidelines address integrating sustainability competencies in VET curricula and courses?

c. What government policies and initiatives are in place to promote the development of sustainability competencies in VET?

d. To what extent are sustainability competencies integrated into the Romanian's VET curricula and syllabi?

In addition, **semi-structured interviews** were conducted with VET experts to gather their perspectives on sustainability education in the national VET system. A semi-structured questionnaire was used an interview guide for the researcher. Certain predetermined questions were prepared to guide the interviews and ensure that the research objectives were addressed. However, additional questions arose during the interviews as unexpected insights and information emerged. Some sample questions that were included in the semi-structured questionnaire were the following:

a. How do you perceive the **current practices for developing sustainability competencies in VET in Romania**?

b. What are the strengths and positive aspects of the existing approaches and practices for sustainability competencies development in VET?

c. What are the weaknesses and limitations of the current practices for sustainability competencies development in VET?

d. What challenges and barriers do VET experts encounter in the implementation of sustainability competencies in VET programs?

e. What opportunities and potential benefits do VET experts identify in developing sustainability competencies in VET?

f. How do VET experts assess the effectiveness and impact of the current practices for sustainability competencies development in VET?

g. What resources, support, and infrastructure are necessary to enhance the development of sustainability competencies in VET?

h. How do VET experts perceive the level of awareness and commitment among VET stakeholders towards sustainability competencies?

i. What innovative approaches or strategies do VET experts suggest for further advancing the development of sustainability competencies in VET?

j. What collaboration and partnership opportunities exist or should be fostered to enhance the development of sustainability competencies in VET?

k. How do VET experts envision the future of sustainability competencies in VET, considering the evolving needs and trends in sustainable development?

3.1.3 Sample Selection

The research utilized purposive sampling, a type of non-probability sampling technique, to establish the sample for the study. In accordance with this approach, individuals were selected based on their knowledge, relationships, and expertise related to the research topic (Freedman et al., 2007). For this particular study, sample members were chosen due to their direct involvement and experience in the phenomenon being investigated, as well as their

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significant work background in vocational education and training and active participation in sustainability education.

3.1.4 Data Analysis

The data collected from the desk research and interviews were subjected to qualitative data analysis techniques. Thematic analysis was employed to identify recurring themes, patterns, and insights related to the integration of sustainability competencies in VET. The findings were organized, interpreted, and presented in this research publication, contributing to the understanding of current practices, challenges, and opportunities in sustainability education within the VET system.

3.1.5 Ethical Considerations:

Informed consent was obtained from all participants, clearly outlining their voluntary participation in the research and their freedom to withdraw from the study at any point and for any reason. The objectives of the study were thoroughly explained to participants, and they were assured that their responses would be treated confidentially and solely used for academic purposes specific to this research. Moreover, the study ensured that participants were not subjected to any physical or psychological harm. On the contrary, researchers strived to create and maintain a comfortable environment throughout the research process.

3.1.6 Limitations

This research had the following limitations:

a. The size of the sample for the interviews was relatively small – 17 participants. A bigger sample would probably enhance the reliability of the research;

b. The findings represent the perspectives and practices within Romania, and generalization to other contexts should be done cautiously;

c. The research relies on self-reported information from VET experts, which may be influenced by individual biases or limited awareness of practices outside their immediate scope;

d. Sustainability education in Romania may be influenced by factors which were not mentioned in this research.

3.2 Sustainability competencies in the Romania formal education system: recent evolutions of the Romanian's educational policies

In recent years, Romania has recognized the importance of integrating sustainability competencies into its formal education system. The evolving landscape of global environmental and social challenges has prompted the country to rethink its educational policies, aiming to equip students with the knowledge, skills, and values necessary to navigate a rapidly changing world. Here, we delve into the recent developments and evolutions of Romania's educational policies concerning sustainability competencies.

One significant evolution is the integration of sustainability competencies across various subjects within the curriculum. Concepts related to environmental protection, climate change, social equity, and responsible consumption are being introduced at different educational levels. This approach helps students understand the relevance of sustainability in diverse contexts and fosters a holistic understanding of the challenges and opportunities associated with it.

Recognizing the importance of well-prepared educators, Romania has started investing in teacher training and professional development programs focused on sustainability education.

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These new teachers' trainings are not yet a very common practice among teachers, but they do exist the tools to effectively communicate sustainability concepts, engage students in experiential learning, and incorporate real-world examples into their teaching. We hope that in the future, they will become much more popular, and Romania will invest more in quality training on the topic of sustainability.

Collaboration between educational institutions, governmental bodies, non-governmental organizations, and the private sector has gained prominence. Partnerships enrich educational experiences by providing access to expertise, resources, and real-world case studies that align with sustainability competencies.

While the integration of sustainability competencies is promising, challenges remain. Limited resources, resistance to change, and the need for ongoing curriculum updates are common hurdles. Overcoming these challenges requires sustained commitment from stakeholders at all levels.

3.3 Experiences from the field: interviews with VET experts

In order to have a full understanding of the implementation of activities for development of sustainability competencies in education, we got in contact directly with VET experts, teachers, mentors and trainers. Interviews with VET experts were careful prepared to ensure that we would gather valuable insights and information. Firstly, having the research goals and objectives defined, we identified experts who have relevant knowledge and experience in the field of VET and sustainability competencies. We contacted them and informed about the project. Due to the summer holiday, we proposed various formats for the interview (in person, by phone, or through video conferencing platforms). Being a country report and envisaging sensitive information about implementation in the own organization of practices for

sustainability competencies, we ensured about the confidentiality of identity and organization.

Throughout the interview, we explained and clarified some concepts. At the end of the interview, we summarized the key points shared by the VET expert to ensure accuracy and give them a chance to clarify any misconceptions. 12 of 17 respondents asked to be informed about the results of the interview.

3.3.1 Composition of the Group

The group was composed of 17 experts working in educations as follows: 3 educators from Training and Lifelong Learning Centres, 11 VET school teachers, 3 Upper secondary educators/trainers.

3.3.2 Summary of the findings

This section summarises the main responses collected during the interviews to the main 11 questions highlighted in section 3.1.2.

Q1	How do you perceive the current practices for developing sustainability competencies in VET in Romania?

The respondents confirmed that there are many initiatives for introducing practices for developing sustainability competencies in Romania.

- In Romania, there are not many institutions that provide training for teachers and trainers on the topic of sustainability. The teaching staff or educational beneficiaries do not have much knowledge about best practices in the field. Although the curriculum has been improved in some institutions, there is weak monitoring of the results, which leads to difficulties in taking measures to increase efficiency.

- These initiatives are still in their early stages. A more effective promotion is necessary. They are present and well-promoted, but they don't reach the majority of the audience. Sustainable competencies cannot be formed as there are no programs, and I haven't had learning opportunities to develop these competencies.
- There's room for improvement.
- Efficient utilization of resources and the implementation of green technologies are essential for ensuring sustainable development. Competencies are linked to workforce integration. Efficiency. Education and vocational training in Romania are highly efficient.
- The current educational system in Romania does not yet place a strong emphasis on this aspect. Both students and pupils are not familiar with the importance of sustainability competencies. They should be promoted more through projects or perhaps even as a school subject.
- The beginning in this field is promising, but there is still a lot to be done in this direction. I find them to be outdated methods.
- At this moment, in the pre-university education system in Romania, there are several programs for developing sustainability competencies in education and vocational training, such as:
  - the national program 'A Different type of school' for example, in our school, we have activities included in this field,
  - also starting from 2022, we received a notification from the ministry to carry out specific activities within a committee related to environmental protection and global warming, within the high school (Technological High School 'Gh. Duca' Constanța),

o as a school, we've conducted activities related to Reduce, Reuse, Recycle as part of a national project called the 'Recycling Map,' which provides us with informative support and materials for these activities.

o at the high school level, in the Calendar of Educational and Extracurricular Activities, we also have a component dedicated to environmental activities and projects.

● It's low, as it's necessary to initially provide better training for teachers, mentors, and trainers in this area, then integrate this information into practices and programs, and finally evaluate the effectiveness of these practices. These practices are efficient in developing systemic and critical thinking skills, as well as the ability to act in favor of the planet.

Q2	What are the strengths and positive aspects of the existing approaches and practices for sustainability competencies development in VET?

There are few positive aspects and enabling factors but these are not producing the intended results at all levels.

● There are few national initiatives for Sustainability Awareness, mainly related to environment protection. Because it is a commitment at the policy level to integrate sustainability into schools, this provides a foundation for implementation. Starting from 2022, a national program called 'Green Week' appeared, with activities exclusively dedicated to environmental protection and conservation.

● Raising awareness about the importance of sustainability motivates students to develop relevant competencies. Each institution, school, VET, university adopting sustainable practices for recycling and collecting in separate bins the paper/ plastic/ garbage.

- Institutional Extracurricular Activities (teachers are encouraged and supported to organize activities/ competitions for promoting sustainability competencies).

- Unfortunately, in Romania the GreenComp framework and activities have not been widely promoted.

- Some VET adapted the curriculum. There is a national recommendation for integrating sustainability competencies across various disciplines and fields of study. This is still at the beginning and the full adaptation of curricula requires teachers' preparation, which is not very well approached. .

Q3	What are the weaknesses and limitations of the current practices for sustainability competencies development in VET?

Most of the respondents mentioned the difficulties in adapting curricula and assessment methods for teaching and developing the sustainability competencies.

- The existing curricula that not include sustainability topics is difficult to be updated to incorporate sustainability competencies. Moreover, these concepts require time and resources making difficult the integration.

- Often, the teachers do not have received adequate training to teach sustainability competencies effectively, therefore, there is a lack of knowledge for integrating these concepts.

- Traditional teaching methods and resistance to change can make it challenging to introduce new teaching approaches and topics like sustainability.

- Once introduced in a topic, or lesson plan, there is a need for assessing. Developing appropriate assessment methods for evaluating sustainability competencies is more complicated and it can be difficult to measure student learning outcomes.

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- It seems that industries within Romania do not prioritize sustainability, therefore students cannot see a direct connection between sustainability competencies and job opportunities.

Q4	What challenges and barriers do VET experts encounter in the implementation of sustainability competencies in VET programs?

There are several challenges and barriers:

- Difficulties in adapting the curricula for various subjects to incorporate sustainability concepts.
- Resistance to change from educators.
- Fear of integrating sustainability topics into different vocational disciplines without disrupting existing curriculum structures.
- Reduce input from the labout market to select those sustainability competencies that align with the needs of relevant industries.
- Reduced recognition or rewards for educators and institutions that prioritize sustainability.
- Challenges in establishing collaborations with industry to identify the real-world applications.

Q5	What opportunities and potential benefits do VET experts identify in developing sustainability competencies in VET?

The opportunities that the respondents mentioned are at the individual level of students, community as well as industry.

- Students improve critical thinking skills, learn to analyse situations from different angles, being able to develop innovative solutions.They also learn about responsible

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resource use which make them understand and have consideration of environmental impacts.

- At community level, they understand the social, economic, and environmental issues on a global scale. This is expected to take care of natural resources and ecosystems and create long term impact.
- Students, the future employees with sustainability competencies can contribute to the business and business image, making ethical decisions and supporting cost-saving initiatives.

Q6	How do VET experts assess the effectiveness and impact of the current practices for sustainability competencies development in VET?

The practices are at a very beginning. For this reason, there are only few instruments and methods in place to assess the effectiveness.

- Mainly, VET experts collect data on various aspects of sustainability competency development, such as students involvement, engagement, and learning outcome.
- In addition, they measure the interest of students to participate in extra-curricular activities, the number increasing annually.
- VET staff is using feedback forms to understand the degree of satisfaction of the students involved in activities.
- At VET level, the institution measures the level of involvement of the industry partnership and the number of such partnerships relations.

Q7	What resources, support, and infrastructure are necessary to enhance the development of sustainability competencies in VET?

The main necessary resources, support and infrastructure mentioned by the respondents are:

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- Educational Materials accessible, ready to use with lessons plans.

- Programs for training for trainers.

- Technology resources for online learning and for virtual simulations to demonstrate the need for sustainability competencies.

- Collaboration with industries to provide real-world examples and practical application.

- Equipped laboratories for experiential learning related to sustainability.

- Clear policies with targets and indicators at the institutional and governmental levels supporting sustainability education.

- Networking opportunities through events that connect students, educators, industry with sustainability experts.

Q8	How do VET experts perceive the level of awareness and commitment among VET stakeholders towards sustainability competencies?

It was somehow generally agreed that there is a lack of commitment and reduce awareness.

- There is a relatively low commitment to sustainability competencies due to limited awareness.

- VET stakeholders show resistance to change.

- There is a general perception that the sustainability competencies are not immediately relevant for getting a job.

- Some VET stakeholders show interest in participation in events for promotion of green sustainability competencies.

Q9	What innovative approaches or strategies do VET experts suggest for further advancing the development of sustainability competencies in VET?

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VET experts suggested the below approaches that would help advancing the development of sustainability competencies in VET.

- Collaboration among different disciplines can help students to understand the links and applicability in different domains and later on, on the labour market.
- Train the trainers for professional development of educators on sustainability concepts.
- New teaching methods recommended enhancing teachers' ability to deliver effective instruction.
- Provide a series of real-world practices as a results of collaboration with industries.
- Free and accessible online courses and resources for individual learning on sustainability subjects.
- Seminars, workshops and conferences that can connect VET learners with industry experts to foster knowledge exchange.
- Awareness campaigns to promote sustainability and educate people about sustainability.

Q10	What collaboration and partnership opportunities exist or should be fostered to enhance the development of sustainability competencies in VET?

Several partnerships can contribute, but for the moment, it resulted that main collaborations are with NGOs and universities.

- Partnership with industries could provide practical application of sustainability concepts.
- Support and guidance from governmental bodies would help integration of sustainability into education.
- NGOs already contribute with resources, expertise and non formal activities during the national program "Green week" to enhance sustainability education.

- Very often, universities share best practices and open the doors for collaborative projects on topics of sustainability education. This initiative needs a structured approach in order to produce real impact.
- Partnerships with international organization, mainly through KA2 Erasmus projects bring diverse perspectives, good practices and educational materials for sustainability initiatives.
- Local communities and local authorities needs to create context and allocate space for sustainability projects.
- Professional associations can also guide the integration of industry-specific sustainability practices.
- Private companies should be involved more to present their perspective and declare their support because they are a very credible source of practical experiences.
- Environmental agencies focused on environmental protection have the capacity to offer expertise and resources for sustainability initiatives, but it need to be an integrated approach.
- Network of schools and educational institutions would be very helpful to share good practices, experiences and resources.

Q11	How do VET experts envision the future of sustainability competencies in VET, considering the evolving needs and trends in sustainable development?

The responses received gave indications about the urgent needs of integrated approaches and support from policy as well as from industry.

- Awareness at the civil society level that sustainability education is a genuine need and the organization of actions in VET education.
- Developing an action plan, defining relevant indicators, and supporting experience exchange.

- Seriousness and awareness of sustainable development goals from all involved actors.

- For the entire concept of sustainability to be understandable to everyone.

- Integration of these competencies into study disciplines, teacher training programs, and participation in courses with organizations in the field.

- Promotion of project-based learning and real problem-solving.

- Involvement of NGOs.

- National strategies and framework action plans, partnerships with companies implementing these strategies, professional competence development in schools.

- Partnerships with the private sector.

- Environmental education.

- More partnerships between institutions.

- Promotion through educational institutions and advertising campaigns, which would lead to public awareness.

- Perseverance at national level.

- Greater involvement of the governmental sector.

- Certainly, it is necessary for this future to become a reality in Romania, considering the natural landscapes of Romania, the untouched areas by human activity, the economic level, etc.

- Increasing awareness of the current and potential future situation and the impact or influence that each individual has in achieving European sustainability objectives. This can contribute to increasing personal involvement on a psychological basis for each person.

- More institutional involvement and more funds for awareness programs on the necessity of these competencies.

Conclusions:

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One of the most limiting factor seems to be the reduced institutions support to offer sustainability training for educators, resulting in a lack of knowledge about best practices.

In Romania, there are few national initiatives for sustainability awareness, mainly related to environment protection: A different type of school, Green week.

In addition, equipped classrooms and laboratories for experiential learning related to sustainability would add value but also these need to be accompanied by lesson plans, methodology for teaching and assessment.

From the interviews, it resulted that efforts should be made to increase industry commitment, through awareness campaigns, partnerships and events showcasing the benefits of sustainability competencies in terms of employability.

4. Developing sustainability competences: Best practices in Romania

This chapter presents ten Romanian best practices in developing the GreenComp sustainability competencies. The following criteria guided the selection of the best practices:

- Effectiveness: The extent to which the practice has demonstrated positive outcomes in developing sustainability competencies among VET learners, such as improved knowledge, skills, and attitudes towards sustainability.

- Inclusiveness: The practice's ability to cater to diverse learners, including individuals from different socio-economic backgrounds, genders, ethnicities, and abilities, ensuring equitable access and participation in sustainability competencies development.

- Innovation: The degree of creativity, novelty, and originality exhibited by the practice in its design, implementation, and delivery of sustainability competencies development in VET, incorporating new approaches, methods, or technologies.

- Transferability: The potential for the practice to be adapted, replicated, and scaled up in different VET contexts and settings, considering factors such as feasibility, adaptability, and compatibility with varying institutional and cultural contexts.

- Impact: The impact of the practice on learners' ability to apply sustainability competencies in real-world contexts, as well as its potential to contribute to broader societal and environmental goals.

- Scalability and Replicability: The potential for the practice to be scaled up and replicated in other VET systems, considering factors such as scalability, cost-effectiveness, and practicality.

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4.1 Respect For Resources

The "Respect for Resources" course is an optional elective at the school's discretion and addresses the need for early education on topics that define and threaten today's world: climate change, food waste and waste management.

Respect For Resources	
2021	**Author(s):** Food Waste Combat and Clujul Sustenabil
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* The course and textbook of the same name explore the links between the environment, economy and society and is designed as a series of activities aimed at developing cross-cutting skills, effective management, critical thinking, resilience, active citizenship and self-reliance. All this we aim to facilitate a type of education that supports sustainable development and sustainability.
Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* The main beneficiaries are students and teachers in pre-university education. The communities and towns integrated in the project and the parents of the pupils are the secondary beneficiaries through the good practices the pupils and teachers have followed following the training.
Needed resources	*Which resources are needed to replicate and/or adapt the practice?* - Respect For Resources textbook - 5 empty boxes - mark - Waste of various kinds

	- Presentation
Methodology	*A step-by-step description of the practice* A teacher's guide is included with the Respect for Resources guidebook, which offers lesson preparation and methodological advice for each lesson. In addition to providing basic sustainability literacy and introducing sustainability concepts into the Romanian school curriculum, this course aims to stimulate students' curiosity, critical thinking, and collaboration, as well as increase their involvement in environmental and sustainability projects in their community. Theoretical activities can be supported by presentations based on the information and resources in the manual. In one of the activities of the project, the facilitators held a recycling workshop with students and brought boxes marked with selective collection materials: paper, plastic, organic waste and glass together with waste of different materials in a separate box. The facilitators encouraged the students to collect the rubbish by associating the waste material with the marked separate collection box. Other activities may involve drawing, role-playing, experiments and teamwork depending on the theme and age of the participants. Assessment can be done through the Mentimeter application where students have to name a few key words with which they associate the subject of the course (ex: sustainability, ecology, pollution etc.)
Success Factors	*What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* The course has been successful in stimulating critical and complex thinking for around 750 students, created 17 sustainability ambassador classes and increased student involvement in environmental civic projects by min. 10%.

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	Facilitators came to classrooms in schools, in 6 cities through 9 teachers who engaged with the project. The manual can also be considered a book because it is useful for enlightening and educating the general public. For these reasons, it is available for purchase as a book to be read outside of the school system in order to better grasp the influence of our daily choices and the intricate interactions between the environment, economy and society.
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness, Promoting nature - Embracing complexity in sustainability: Exploratory thinking - Acting for sustainability: Collective action - Envisioning sustainable futures: Futures literacy
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).* *Link to the home page of the experience in question. If possible, contact the organisation and/or person who carried out the practice.* https://foodwastecombat.com/cursul-respect-pentru-resurse/ https://youtu.be/SgRq3JnTVps https://www.edituraseneca.ro/carti/respect-pentru-resurse-manual-altfel-de-educa%C8%9Bie-pentru-sustenabilitate

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4.2 EDUboost

EDUboost resources answer important questions about sustainability by explaining topics like global warming, recycling, food waste, plastic water pollution, urban parks and forests, respecting the planet, what a green city means, what community values are, how we connect with nature, and what alternative transportation means in a child-friendly way.

EDUboost	
2023	**Author(s):** Măriuca Mihăilescu, initiator of the project #aFostOdata, Bigger Picture Digital Education Association Authors of the texts: Alexandru Stermin, Florin Stoican, Teodora Iacob, Doru Căstăiani, Mirabela Amarandei Duminică, Georgiana Purcarea, Andra Cărbunaru, and Ema Cumpătă. The podcasts are performed on voices and sound illustrated by Valentin and Petra Panduru.
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* The storytelling team's goal is to perform environmental education in Romania, based on the premise that all children may learn how to care for the environment via play and non-formal digital means.
Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* The podcast platform is open to primary and secondary school students. The results of the project also support teachers in Green Week, an initiative launched in 2023 by the Ministry of Education. At the moment, parents and teachers can find over 30 episodes of the EDUboost series on the website to use in facilitating green education activities with children.

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Needed resources	*Which resources are needed to replicate and/or adapt the practice?* - Smartphone, Computer or Laptop - Internet connection - A series of short podcasts
Methodology	*A step-by-step description of the practice* In addition to podcasts, learners interested may discover on https://afostodata.ro/ interactive quizzes and worksheets that children can answer after listening to the narrative and wish to test and reinforce their knowledge. Furthermore, the tools are translated and converted into Romanian sign language for hearing-impaired youngsters throughout the country. The EDUboost platform includes a series of 30 short podcasts that include quizzes and assessment activities. They can be integrated into education for sustainability activities in VET pre-university education. The topics of the podcasts include: Community Involvement, What it means to create a Sustainable City, City and Natural Resources, A Pet Friendly Community, E-waste Recycling, Food Waste, A Green City, Pollution, Urban Forests, Parks, Alternative Transport, Blue Planet, Recycling, Global Warming and more. Podcasts can be integrated into practical activities by teachers. The #aFostOdata team also organizes workshops on green themes for children in pre-university education. The workshops include practical activities such as drawing, teamwork, critical thinking and creative thinking activities. Using podcasts as a teaching aid for children or integrating them as homework, teachers can create practical activities according to the theme of the lesson and the podcast.
Success Factors	*What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* The project is approved by the Romanian Ministry of Education as a learning tool for special and mainstream

	primary and secondary education no. 25.894/I/12.03.2020 and 25.894/II/12.03.2020 - School of Stories. The resources are also supported by the Ministry of Environment, Water and Forests as an institutional partner. Accessing the resources in the project only requires a digital device on which to listen to the podcasts or a computer and an Internet connection. Podcasting is enjoying real success internationally and attracting young people. Educational podcasts with environmental and sustainability specialists that are targeted on children and teachers are a good tool to reach as many young people as possible to educate them about green competences.
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness, Promoting nature - Embracing complexity in sustainability: Critical thinking - Acting for sustainability: Collective action, Individual initiative
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).* *Link to the home page of the experience in question. If possible, contact the organisation and/or person who carried out the practice.* https://afostodata.ro/eduboost-podcast-de-buna-crestere/ https://afostodata.ro/ateliere/eduboost/

4.3 Green Week

The Green Week programme is a national programme in line with the provisions of the report "Climate Change and Environmental Education in Sustainable Schools", prepared by the working group of the Presidential Administration, the National Strategy on Education for Sustainable environment and climate change 2023-2030.

Green Week	
2023	**Author(s):** Romanian Ministry of Education
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* The programme contributes to the development of skills of pre-schoolers/pre-schoolers/pupils in inter- and transdisciplinary investigation of the surrounding reality and the formation of responsible environmental behaviour with a focus on: - Grasping basic environmental concepts and climate change awareness. - Recognizing the roles of various entities in environmental protection. - Viewing climate change as a global issue connected to resource misuse, pollution, etc. - Encouraging positive interaction with nature. - Making eco-conscious choices in daily life. - Gaining new skils in dealing with extreme weather and disasters. - Promoting individual or group efforts to combat climate change. - Fostering potential involvement in future policy development.

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Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* The programme is aimed at pre-school/primary school children, pre-university students and teachers. By adopting green practices and learning about sustainable practices from an early age, society and the communities they live in will benefit. The labour market and sustainable policies will also benefit.
Needed resources	*Which resources are needed to replicate and/or adapt the practice?* Resources from https://www.saptamanaverde.edu.ro/ro Activities can take place in nature or using digital media such as EDUboost podcasts on green topics, online quizzes, watching documentaries.
Methodology	*A step-by-step description of the practice* The "Green Week" programme lasts for 5 consecutive working days during the school year and is carried out on the basis of a schedule decided by each educational establishment, in accordance with the provisions of the order of the Minister of Education on the structure of the school year, valid for that school year. Each educational unit in the pre-university environment has the flexibility to choose a week during this period to cover content and carry out activities related to climate change and environmental protection inside and outside the educational unit. The online platform aims to support students, teachers and schools in the implementation of Green Week and to provide useful tools for this purpose. The trails made available through the platform facilitate learning about nature in the wild. They are located in different regions of Romania and are marked similarly to tourist trails. They convey knowledge about the specific nature of the area explored. The trails include interactive components, some even integrating digital tools in the

	process of bringing children and young people closer to nature. The platform provides information about protected natural areas in Romania, areas that are protected because of their recognised natural values. Visits to protected natural areas are recommended. In this 5-day learning, meetings can be organised at environmental NGOs, recycling centres or with sustainable entrepreneurship stakeholders.
Success Factors	*What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* Through the partnership of the Ministry of Education with the educational institutions, teachers and children will participate in the 5-day activities according to the compulsory school curricula. This opportunity will be dedicated to the enrichment of knowledge about the environment and will have many benefits both socially and economically on a national level.
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness, Promoting nature - Embracing complexity in sustainability: Critical thinking - Acting for sustainability: Collective action
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).* *Link to the home page of the experience in question.* https://www.saptamanaverde.edu.ro/ro https://www.edu.ro/etichete/s%C4%83pt%C4%83m%C3%A2na-verde

4.4 Academy of Sustainability

In 2023, Social Innovation Solutions launched the Sustainability Academy, the first social and sustainable education platform dedicated to micro, small and medium enterprises in Romania.

Academy of Sustainability	
2023	**Author(s):** Social Innovation Solutions
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* The Sustainability Academy aims to help SMEs willing to adopt sustainability strategies and aims to increase the number of sustainable businesses in Romania. The Sustainability Academy platform guides entrepreneurs in transforming business models and increasing long-term profitability by providing free relevant content on sustainability in the form of digital modules and interactive webinars and networking. At the same time, through the Academy, entrepreneurs have networking opportunities directly on the platform and can meet potential business partners.
Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* The main beneficiaries are young SME entrepreneurs who want to apply sustainable practices in their business. The platform is also open to people who are not business owners but want to learn more about sustainable business and take the course. Secondary beneficiaries can also be investors and the labour market. The platform provides access to potential investors and investment funds that mainly support sustainable businesses.

Needed resources	*Which resources are needed to replicate and/or adapt the practice?* - Smartphone - Computer or Laptop - Internet connection
Methodology	*A step-by-step description of the practice* Access to the platform is free of charge by creating an account on https://academia-de-sustenabilitate.ro/. The Academy has two important components: education and community. In the Sustainability Academy, participants have access to relevant content that helps them develop sustainability skills and knowledge to address current and future challenges. Resources include content on accessing sustainable and green finance, taxation for environmental objectives, communicating sustainability, innovations in sustainability technologies, circular economy, non-financial reporting and dozens of case studies. They will be provided with 12 learning modules consisting of practical and useful information about the challenges entrepreneurs face in the area of sustainability. The information in the learning modules is complemented by more than 10 webinars by national and international experts and a list of relevant tools, resources and references tailored to market requirements. The course modules offered by the Sustainability Academy are the following: 1. Introduction to sustainability 2. Principles of sustainable business development 3. Natural capital and the transition to a circular economy 4. Sustainable business models: case studies from Romania and internationally 5. Opportunities and challenges in sustainability

	6. Sustainable production 7. Legal, financial and administrative challenges related to sustainability 8. AI, automation and robotisation 9. Supply chain sustainability 10. Using technology for sustainability 11. Green investment and financial instruments for SMEs. 12. Taxonomy and non-financial reporting
Success Factors	*What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* The Sustainability Academy joins the Sustainable Futures platform this year, with the aim of providing SMEs in Romania with the information they need to transform their businesses sustainably. Being both a networking and an educational platform, users will benefit from both sides. For entrepreneurs they will empower their networking in the field and create new connections while learning how to adapt their business to a sustainable plan. Users who want to start a business will be given guidance and will be able to take advantage of the resources and new green knowledge to think up a sustainable plan. The platform is created with the support of the Coca-Cola Foundation and the Romanian Commercial Bank.
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness - Embracing complexity in sustainability: Systems thinking, Critical thinking, Problem framing - Acting for sustainability: Individual initiative - Envisioning sustainable futures: Adaptability
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).*

	Link to the home page of the experience in question. If possible, contact the organisation and/or person who carried out the practice. https://academia-de-sustenabilitate.ro/

4.5 Student Entrepreneurial Society

The Student Entrepreneurial Society of the Maritime University of Constanta (SAS-UMC) was established on the basis of OM no.3262/2017 and operates academically under the University Senate and administratively under the Rector.

Green Week	
2023	**Author(s):** Romanian Ministry of Education
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* The mission of the Student Entrepreneurial Society is to support, develop and encourage entrepreneurship among students and graduates in order to increase the competitiveness of the Maritime University of Constanta.
Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* In the Student Entrepreneurial Society, the students of the Maritime University of Constanta are the main beneficiaries. The secondary beneficiaries are the Constantan community that participates in SAS initiatives and events, as well as the labour market that thanks to this society will have more proficient workers and managers in the future.
Needed resources	*Which resources are needed to replicate and/or adapt the practice?* - A classroom - Resources on sustainable entrepreneurship such as textbooks, courses and brochures - Power Point Presentations - Flyers - Posters

	- White board - Markers
Methodology	*A step-by-step description of the practice* The UMC Student Entrepreneurial Society holds multiple events and meetings that address sustainable entrepreneurship. This group of students invites local entrepreneurs to learn directly from them how to run a business, creates Business Model Canvas workshops to develop their own business ideas and promotes financial literacy. Projects from the Business Model Canvas workshops have also participated in a student project competition. The winning idea was a sustainable business plan based on electric transport. SAS-UMC offers students Financial Education courses. Over the course of 4 sessions, participants will understand why financial education is needed and prepare entrepreneurial proposals to invest "money and time" effectively. To attend the course you need to register online by filling in the form on https://cmu-edu.eu/sas-umc/ Attend 4 hours of the course, work in a team and on day 5 you could be one of the winners of 3 wireless headsets Day 1 - Why do we need financial education? Day 2 - How do we invest effectively? Day 3 - Is it better to rent or buy? Day 4 - Financial mistakes to avoid Day 5 - Competition - present your investment proposal
Success Factors	*What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* The Student Enterprise Society participates in projects funded by the Ministry of Education. The SAS-UMC team together with students from the Specialization of Engineering and Environmental Protection in Industry of the Maritime University of Constanta carried out a wide

	information campaign about the third edition of the "S.O.S. Nature", funded by the Ministry of Education. The competition took place from 4 to 8 October 2021 and aimed to familiarize participants, by means of simulation programs and laboratory apparatus and equipment, with complex systems - water and air - in which pollutants can be encountered, as well as with the use of various methods of pollution control. It also aimed to raise awareness of careers in environmental engineering and to stimulate cross-curricular skills through the participation of senior high school students together with students of the "Environmental Engineering and Protection in Industry" (IPMI) study programme at the Maritime University of Constanta.
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness - Embracing complexity in sustainability: Critical thinking, Problem framing - Acting for sustainability: Collective action - Envisioning sustainable futures: Adaptability
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).* *Link to the home page of the experience in question.* https://cmu-edu.eu/activitati-sas-umc/

4.6 Cantus Mundi Environmental School

On 9 February 2021, the National Programme Cantus Mundi Romania launched the digital project "Cantus Mundi Environmental School", together with Teodora Iacob - journalist, environmental activist and founder of the "Nature Talks" Association. The project focuses on a series of videos and activities on ecology, environmental protection, pollution, recycling and upcycling.

Cantus Mundi Environmental School	
2021	**Author(s):** Nature Talks Asscociation, Cantus Mundi Romania
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* The Cantus Mundi Environmental School is part of a wider project of the Cantus Mundi Romania Programme to familiarise children and young people with basic information about ecology and concrete actions they can take to support nature. "Cantus Mundi Environmental School" aims to activate both its own community of children, young people and teachers, as well as the general public, by raising awareness of the need to care for nature, but also by highlighting the destructive consequences of our own actions on it.
Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* The project is dedicated to Cantus Mundi's active community of over 60,000 children and young people, but was open to anyone interested in learning about the environment and ecology.

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	Other beneficiaries can be teachers who can screen educational videos in class or replicate activities and insights from the videos.
Needed resources	*Which resources are needed to replicate and/or adapt the practice?* The videos Projector Classroom Waste or items you no longer use
Methodology	*A step-by-step description of the practice* The series was broadcast weekly, and also contained practical examples, each with a topic related to the environment and the ecosystem, from pollution to recycling, from food waste to responsible shopping, from carbon footprint to explaining particulate matter or the harm of plastic to the environment. The organisers have added a suite of interactive exercises and competitions to the new themes, designed to bring real benefits both to the Cantus Mundi community of children and young people and to the way they interact with nature. As a teacher or trainer, watch the videos with the class or separately to learn some of the activities and replicate them with the students. For music therapy trainers or music teachers in VET education, watch the following video for inspiration: https://www.youtube.com/watch?v=Q7wJUMuA9hw&list=PL9R7apvEDyNZgZb36XdWuPZMnurbJxrPe&index=5 In the video, the teacher used broomsticks, pasta and baking paper to make musical instruments. Be inventive and use what you don't use at home. Use the objects and turn them into musical instruments when working with students and hold a lesson on the importance of recycling and reusing materials.

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Success Factors	*What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* Created as a 10-episode video series, the project was published weekly on social media channels Cantus Mundi Romania and Nature Talks. Educational videos are a good way to teach young people. The information is presented attractively and accompanies the theoretical part to increase students' attention. The videos have been shared on Social Media to reach a wider audience and also to get the attention of young people who use Social Media constantly.
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness, Promoting nature - Embracing complexity in sustainability: Exploratory thinking - Acting for sustainability: Collective action - Envisioning sustainable futures: Futures literacy
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).* *Link to the home page of the experience in question. If possible, contact the organisation and/or person who carried out the practice.* Youtube playlist https://www.youtube.com/playlist?list=PL9R7apvEDyNZgZb36XdWuPZMnurbJxrPe https://www.naturetalks.ro/scoala-de-mediu-cantus-mundi

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4.7 Active citizens for quality local public services

The project, initiated by the Romanian Academic Society in partnership with the Act for Tomorrow Association, aims to contribute directly to improving the quality of urban life by involving citizens, mainly young people, by encouraging urban authorities to provide quality public services in a sustainable way.

Active citizens for quality local public services	
2014-2021	**Author(s):** Act for Tomorrow Association, The Romanian Academic Society, Vellenes Fellesorganisasjon
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* The main goal of the project is to increase the capacity for mobilization and civic involvement, especially among young people, by developing a set of monitoring and advocacy methods and tools to improve the quality of services in the three areas of waste management, participation of Romanian citizens in local life and sustainable public transport.
Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* The project aims to educate young people about social and environmental issues to get involved in their local community. In the Guide for Civic Responsibility and Involvement there are tips for students, teachers and parents, with a focus on mobilising civil society by training young people to practice advocacy on human rights and environmental issues. Secondary beneficiaries are their local communities or institutions such as schools and universities, NGOs that advocate for human rights and the environment, civic education teachers who can use the project materials

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	developed in their courses, and public institutions that can develop and implement better policies by involving young people.
Needed resources	*Which resources are needed to replicate and/or adapt the practice?* - The Guide to Responsibility and Civic Engagement - A classroom - Presentation based on the resources from the guide - Petition template from the guide - Examples of waste from plastics, metal, glass and paper - A map of recycling points in the city
Methodology	*A step-by-step description of the practice* Use the Civic Engagement Tools chapter and the Waste Management chapter of the Civic Responsibility and Engagement Guide as a teaching aid. Take a quiz with young people on the methods of civic engagement and recycling that they personally adopt. Make an attractive presentation for young people including the following key points from the guide: Written dialogue with authorities, Writing a petition, Complaining to public authorities with a monitoring and control role, The ABC of recycling - Basic concepts for developing a world with less waste, The waste pathway, Relevant legislation for waste management and recycling, Waste Management in Romania, Waste Management in Romania - Actors and tasks. Teach young people what a petition should contain, why it is important and to whom it is addressed. Get young people to flag a cause of interest to them regarding sustainability in a petition and discuss whether the chosen causes are worth the civic involvement of others. Teach young people how to recycle properly with examples of plastic, paper, metal and glass products. Go with young people on an evaluation session at recycling points to see if the waste has been collected correctly, if the collection point

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	has enough visibility, if it has correctly marked bins or if the recycling points are available to citizens properly. If you notice irregularities, advise young people to take action and discuss ways in which problems can be solved.
Success Factors	*What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* The focus of the project is on education, local public transport and waste management through monitoring activities of relevant indicators in 47 municipalities (40 county seats, Bucharest + 6 sectors), through the selection and training of 80 citizens, followed by advocacy campaigns for each of the 3 public services in 8 municipalities selected for the intervention of the local involvement groups set up. By teaching young people through both theoretical and practical activities what it means to be civically involved in environmental causes they will learn relevant skills that they will apply in the community and encourage other young people to get involved.
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness - Embracing complexity in sustainability: Critical thinking, Problem framing, Systems thinking - Acting for sustainability: Collective action, Political agency, Individual initiative
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).* *Link to the home page of the experience in question. If possible, contact the organisation and/or person who carried out the practice.* The Guide to Responsibility and Civic Engagement https://actfortomorrow.ro/proiecte/green-act/cetateni-activi-pentru-servicii-publice-de-calitate-la-nivel-local/

4.8 Life school: do we live eco-friendly? How environmentally friendly is our school?

Learning ecology means living ecologically. In this way, school becomes a place of active citizenship. Active citizenship is best taught by practicing it and during this activity are designed and developed various environmentally friendly behaviors.

Life school: do we live eco-friendly? How environmentally friendly is our school?	
[2014]	**Author(s):** Living Democracy
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* The objective of the activity is to make students realize that their school is not only a place of learning but also a place where they live. They are making a plan to take environmental responsibility for this environment.
Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* The main target are students and teachers from pre-university education. The activity focuses on the school environment and this is a secondary beneficiary together with the communities from which the pupils come.
Needed resources	*Which resources are needed to replicate and/or adapt the practice?* - Presentation - Worksheets
Methodology	*A step-by-step description of the practice* The teacher's worksheet must ensure that the theme will be gently oriented to the local context. It must be made clear that within a well-functioning community its responsibility

should be shared among several of its members. The school is presented as a community in which both education and living are common. It can be seen as a polis or fortress-state, in which both social issues and ecological ones must be solved. Among other things, school must become a model for ecological processes and directions. These are very practical issues of taking responsibility.

Students must be given the task of thinking about areas of school life where environmental processes can also be improved to how they can contribute.

The next task is performed in groups of four students. Each group is given a key term and a list of questions about it, such as the following example below is for the term 'waste':

- What waste does our school produce?
- Where are they taken?
- Who has the responsibility to do this?
- How can the amount of waste be reduced?
- How can I or my class contribute to this?

To accomplish this task, one hour of course and the next week is enough for research and homework. If the teacher wants to spend less time on this topic, then can do the research to get the necessary information. Every student is going to do a checklist that he's going to present to his classmates on an eco wall.

List of key terms for workgroups:

- waste;
- reduction of waste,
- energy and power;
- water;
- transport;
- health;
- the school grounds;
- biodiversity;
- supporting our planet;
- general environmental measures.

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Success Factors	*What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* Classroom activity combines communication methods such as lecturing and free discussion with practical group activities developing critical thinking and raising students' awareness of sustainable practices. The way to start from a known environment such as school can have visible results and a higher degree of applicability.
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness - Embracing complexity in sustainability: Critical thinking, Problem framing, Systems thinking - Acting for sustainability: Collective action
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).* *Link to the home page of the experience in question. If possible, contact the organisation and/or person who carried out the practice.* https://www.living-democracy.com/pdf/ro/V2/V02_U07.pdf https://www.living-democracy.com/ro/

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4.9 Eco Challenge: Circular Economy

Eco Provocarea (Eco Challenge) is an extra-curricular educational program for environmental protection and personal development addressed to high school students. The project team has created for teachers a series of resources and courses sheets on tfive modules: Project Management, Curricular Economy, Energy and Climate Change, Waste Management, Education and Awareness.

Eco Challenge: Circular Economy	
2014-present	**Author(s):** Viitor Plus Association
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* Students understand the consequences and impact of the current mode of production and consumption; they learn new perspectives and concepts about this topic. They are aware of various problems of sustainable development that arise at the stages of the production and consumption process: extraction, production, distribution, consumption, disposal of waste. Students develop their skills in teamwork, presentation, research, critical thinking.
Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* The main target are students and teachers from pre-university education. The activity focuses on the school environment and this is a secondary beneficiary together with the communities from which the pupils come.
Needed resources	*Which resources are needed to replicate and/or adapt the practice?* - Computer and Projector Video

	- Speakers - Internet - flipchart - Markers - Post-its
Methodology	A step-by-step description of the practice Step 1 The teacher asks the participants "What is economics?" (social science that studies the production, sale and consumption of goods and services). Provides definition if applicable. Without it we would not have most of the things that surround us and we consider important: furniture, clothes, food, phones, computers, etc. It helps to have the object displayed centrally throughout the workshops. After that, students will split in 5 teams: Extraction, Production, Distribution, Consumption, Elimination. Step 2 Each team receives a flipchart paper with the title (written by the previous teacher) one of the mentioned stages. For 10 minutes, he must analyze in detail what happens with the product chosen at that stage and note on paper the ideas / drawings. They are encouraged to use telephones and the internet to search for as much information as possible. Step 3 Each team appoints a representative who comes to the front of the group and presents in a minute what they have found out. They are presented in the order of the stages from the beginning and the sheets are then glued together in sight, side by side. Step 4

These stages are also known as the "material economy". A linear economy. Ask them What do you think of this system? How good is he? What's missing? (talk to the participants for a few minutes on these issues)

Step 5

The trainer will present, also in stages, a representative video that analyzes the problems of linear economy and thus the need for a circular economy. View the movie "Story of Things" until 4:44 (extraction phase). From the settings you can select the Romanian subtitle https://storyofstuff.org/movies/story-of-stuff/

Step 6

In the same teams earlier. Tell them to read what their colleagues wrote about the chosen product at the extraction stage. What essential information is missing there? - note them on pink post-its. What elements are important to pay attention to? - note them on yellow post-its. They are encouraged to use telephones and the internet to search for as much information as possible. They have 10 minutes to fill in the information on the post-it and paste it on the flipchart with the extraction stage. They are advised to read and what their colleagues have written on the post-it. (in this team work exercise, unlike the previous one when each had a distinct theme, now all 5 teams analyze the same theme)

Step 7

Ask students How do you find the information from the "extraction" stage, related to the chosen product? and Why did we not think about the elements that appear on the yellow and pink post-its from the beginning?

Success Factors	*What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* Through the combination of teaching methods used, from teamwork to presentation, debriefing questions, brainstorming and watching an educational video, they accumulate new knowledge by engaging in solving problems in a sustainable way and developing solutions for a circular economy. During the 9 years of implementation the Eco Challenge program gathered under its umbrella 3,105 students and teachers eco-ambassadors who organized recycling, planting, sanitation and educational events (thematic fairs, awareness campaigns, marches for the environment)
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness - Embracing complexity in sustainability: Critical thinking, Problem framing, Systems thinking - Acting for sustainability: Collective action
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).* *Link to the home page of the experience in question. If possible, contact the organisation and/or person who carried out the practice.* https://storyofstuff.org/movies/story-of-stuff/ https://www.ecoprovocarea.ro/resurse-profesori/

4.10 Recycle In Bucharest

In response to the low level of recycling in Bucharest, the association Viitor Plus, through the Recycling Map programme, has launched "Recycle in Bucharest", the first information campaign on separate collection in all six sectors of the capital.

Recycle In Bucharest	
2021	**Author(s):** Viitor Plus Association
Element	
Goals of the best practice	*What is the purpose or objective of the practice? Brief description.* The project created a guide for each sector plus a general one for selective collection rules. The aim is to inform citizens about how the sanitation service is organized, how materials are collected, and what are the alternative collection options. At the same time, a mobilization of civil society is desired to reduce the problems related to recycling.
Target Group/Beneficiaries	*Who are the beneficiaries (direct or indirect) of the practice? How many are there? (If available, disaggregated data by gender and age)* The main beneficiaries are the citizens of the city of Bucharest with a focus on young people, and the secondary beneficiaries are environmental activists, civic education teachers, environmental education trainers and local institutions.
Needed resources	*Which resources are needed to replicate and/or adapt the practice?* - The guide Recycling in Bucharest: Rules on the preparation and separate collection of waste - Presentation based on the guide - Computers or smartphones - Internet

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	[Video tutorial on how to use the recycling map for students](#) - Projector - Speakers - Plastic objects - Metal cans - Cardboard and paper of various types and sizes - Food waste other organic materials - Used cooking oil - Old clothes - Glass objects - Paint - Expired meds
Methodology	*A step-by-step description of the practice* The Guide to [Recycling in Bucharest: Rules on the preparation and separate collection of waste](#) can be used as a course support for teachers in teaching recycling practices for young people. It contains chapters on the waste route, on recyclable waste, on organic waste and on methods of recycling of special waste such as those from construction, clothing, cooking oil and hazardous waste such as medicines and pesticides. The project also created a series of educational videos about recycling that accompany the theoretical material. If you are a teacher and want to have an hour of class with students on the subject of recycling, make an attractive presentation with information about recycling methods and recycling centers. Show them the Recycling Map by entering the platform directly or use the video tutorial created by the organization.

	Then, ask the students if they know which is the nearest selective collection place from them in the neighborhood and ask them to write down some recycling and selective collection locations near their homes using the Recycling Map.
	Make a role play by bringing several types of waste (Plastic objects, metal cans, cardboard and paper of various types and sizes, food waste other organic materials, used cooking oil, old clothes, glass objects, paint, expired meds) and ask and where each object is collected separately and in which bin or recycling center.

For special materials, show them the following videos:

- How to properly collect oil for recycling
- Expired medicines, what do we do with them?
- What do we do with the clothes we no longer wear?

Before starting the videos, ask the students what practices they use.

At the end, take a quiz on the Quizlet application that contains the questions:
- Are all plastic materials recyclable?
- What can we recycle paper with?
- What do you do to recycle or reuse the clothes you no longer wear?
- Give 5 examples of objects that are thrown into organic waste bins |
| **Success Factors** | *What are the conditions, internal (classroom elements, systems, and tools) and external (institutional, economic, social, etc.), necessary to make this practice successful?* |

	The project, carried out with the support of the Municipality of Bucharest, has the role of making citizens understand why it is important to collect separately, and the results of the project can be used both individually and in teaching to increase the level of awareness of young people regarding ecological practices . The Recycling Map, the Recycling in Bucharest guide and the educational videos are useful tools based on the research of some specialists to help the community.
Competences of the GreenComp addressed	*What specific competencies of the GreenComp have been addressed by this practice?* - Embodying sustainability values: Valuing sustainability, Supporting fairness - Embracing complexity in sustainability: Critical thinking, Problem framing - Acting for sustainability: Collective action
Related **Resources /Link**	*Establish a list of references related to the practice (training manuals, guidelines, photos, videos, web pages, etc.).* *Link to the home page of the experience in question. If possible, contact the organisation and/or person who carried out the practice.* https://hartareciclarii.ro/bucuresti/ https://hartareciclarii.ro/wp-content/uploads/2021/11/Ghid_ReciclamBucuresti_Reguli.pdf https://www.youtube.com/@ViitorPlus/videos

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Conclusions

Good practices in the green field deserve more visibility in Romania. Although some projects have been really successful in educating young people about ecology, sustainability, recycling and pollution from an early age, these have not reached the VET teachers. The work of environmental non-governmental organizations shows that they support teachers, and the actions of organizations such as Viitor Plus Association, Food Waste Combat, Nature Talks Association and Act for Tomorrow Association show the success that partnerships with educational institutions and teachers can have in Romania.

The national initiative to introduce Green Week in schools amplifies the need for guidance for teachers to be able to apply relevant activities. From the actions of NGOs, the main focus is on non-formal education, so theoretical information can be transmitted through more friendly channels for young people, such as podcasts and educational videos. Another strong point is the involvement of students in the school or university community in order to find sustainable methods that they can apply in the future in any community they will be part of. The list of 10 good practices also includes a series of manuals or research resources made in Romania to increase the quality of education regarding green topics. Based on this report, there is a real need to promote the link between education, civic participation in ecological issues and sustainable entrepreneurship. This will develop both society and the country's economy, and young people must be trained in these topics for a better future for the environment and the communities they belong to.

What else is worth mentioning is that to enhance the impact of environmental education, Romania emphasizes practical learning experiences. Field trips, outdoor activities, and projects that involve planting trees, cleaning up local areas, or participating in conservation efforts are common in the Green Week. These initiatives provide students with tangible connections to environmental issues and instill a sense of ownership over their surroundings.