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WASTE AND RECYCLING PRACTICES FOR DUAL
TRANSITION IN VOCATIONAL EDUCATION

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1 Introduction

Deliverable D1.2 presents the Intervention Programme Plan Report developed for Vocational Education and Training (VET) teachers in Albania and Kosovo. This deliverable builds upon the outcomes of Task 1.2 and is grounded in the validation process of six (6) practical case studies aimed at enhancing vocational education and training in the fields of waste management and recycling. These case studies were designed as pedagogical tools to help VET trainers integrate real-world environmental challenges and circular economy practices into their teaching and training activities.

To ensure that the case studies were relevant, realistic, and educationally sound, a multi-stakeholder validation process was conducted involving VET trainers, industry experts, and representatives from public authorities, NGOs, and other community actors. Three specialized questionnaires were administered to these groups, capturing feedback on clarity, technical realism, alignment with labor market needs, and pedagogical applicability. The data collected through these questionnaires not only informed the refinement of the case studies but also served as the basis for identifying key capacity gaps among VET educators in both Albania and Kosovo.

The Intervention Programme Plans developed under this deliverable were directly formulated from the gaps identified in the questionnaire analysis. They provide targeted strategies and structured actions to strengthen the pedagogical, digital, and green competencies of VET teachers, ensuring responsiveness to evolving labor market and sustainability requirements. Each plan includes detailed guidance, templates, and resources to support the implementation of tailored capacity-building interventions at national and institutional levels.

Serving as a practical blueprint for the professional development framework established under Work Package 1 (WP1), this deliverable integrates innovative pedagogical approaches with digital transformation and green transition priorities. It reinforces the role of VET institutions as key drivers of inclusive, sustainable, and future-oriented skills development in Albania and Kosovo.

The means of verification for this deliverable is the finalized electronic Intervention Programme Plan Report (in English), which provides comprehensive details on the intervention strategies, educational content, delivery methods, and assessment criteria forming the foundation of this capacity-building initiative.

1 Case Studies for the VET Sector on Waste Management and Recycling Practices

This chapter provides a description of the six (6) practical case studies developed within the framework of Task 1.1 to support vocational education and training (VET) in the fields of waste management and recycling. The case studies are designed as pedagogical tools to help VET trainers integrate real-life industry scenarios, environmental challenges, and circular economy

practices into their teaching and training activities. Each case study illustrates a specific context, problem, or process relevant to the sector, encouraging learners to apply technical knowledge, problem-solving, and critical thinking skills in realistic situations. The chapter outlines the objectives, structure, and learning outcomes of each case study, highlighting their alignment with identified skills gaps and labor market needs.

1.1 Case Study 1: Milton Keynes

The United Kingdom (UK) has made significant strides in waste management and recycling, with an overall recycling rate of 47.9% for household materials in 2022. Wales, in particular, outperformed the rest of the nation, achieving a recycling rate of 56.9%. In 2022 there was a 0.4 tonne reduction of landfill waste compared to 2021. Meanwhile, packaging waste recycling saw a notable increase of 2.4% from 2022 to 2023, indicating progress in reducing packaging waste across the country.

England alone generated 63.0 million tonnes of construction and demolition waste in 2022, of which 59.4 million tonnes were recovered, showcasing a significant recovery rate for this type of waste. The UK generated 191.2 million tonnes of total waste in 2020, with England responsible for 85% (162.8 million tonnes) of the UK total.

Milton Keynes, a city in Buckinghamshire, England, has emerged as a leader in recycling, with a rate of 65% in 2024, far surpassing the national average of 43.4%. The city's recycling efforts date back to 1992 when it became the first in the UK to introduce curbside recycling collection. The recycling rates have experienced an increase of more than a third, propelling Milton Keynes up the ranks of cities that recycle the most across England. Through the implementation of color-coded recycling bins and weekly collection schedules, Milton Keynes continues to improve its waste diversion practices.

Overall, the UK and Milton Keynes demonstrate positive trends in waste management and recycling, as shown in Figure 1-1, with significant reductions in landfill waste and a growing recovery rate, particularly in construction and demolition waste. However, challenges remain in achieving higher recycling rates and meeting future environmental targets.



Figure 1-1: Evolution of landfill use and plastic recycling rate in the UK

This case study explores the ongoing efforts of the United Kingdom, particularly Milton Keynes, to enhance recycling and waste management strategies, with an emphasis on the crucial role of vocational education and training (VET) in this process. The research highlights key trends in waste reduction, recycling practices, and packaging waste management in the UK. Milton Keynes' recycling rate has risen to 65% in 2024, positioning it as a leading city in sustainable waste management, thanks in part to community involvement and effective training programs. The case study emphasizes how VET can provide the skills needed to support these initiatives, focusing on the development of technical and managerial competencies in the recycling and waste management industry.

In a time of increasing environmental concerns and tightening regulations, VET programs can play a significant role in improving waste management practices. The integration of sustainability and circular economy principles into VET curriculums ensures that future professionals are well-prepared to take on the challenges and opportunities in the recycling sector.

1.1.1 Teaching Methodologies and Best Practices for Environmental and Waste Education

Effective environmental education relies on diverse, practical methods to promote responsible behavior toward recycling and waste management. Experiential learning—through field trips, waste audits, and recycling workshops—provides hands-on engagement, helping students apply knowledge to real-life situations. Inquiry-based learning fosters curiosity through research projects and problem-solving challenges, while collaborative learning encourages teamwork via group projects, peer education, and community workshops.

Digital tools like interactive games, educational videos, and virtual field trips enhance engagement, and thematic approaches integrate waste topics across subjects, offering students a holistic understanding. Involving families and communities through campaigns, home-based

tasks, and partnerships ensures broader impact and behavioral change. Reward systems further reinforce positive actions.

In vocational education, project-based learning, industry collaboration, hands-on workshops, and digital tools offer practical skills aligned with real-world waste management needs. Together, these methods empower learners to become proactive agents of environmental sustainability.

1.2 Case Study 2: Cyprus Region

Cyprus (CY) faces significant challenges in aligning its waste management practices with European Union (EU) targets, particularly concerning municipal waste recycling and landfill reduction. In 2023, the country generated approximately 653 kg of municipal waste per capita, ranking it among the highest in the EU.

Despite efforts to improve waste management, Cyprus's municipal waste recycling rate has remained low over the past few years. In 2022, only 15% of municipal waste was prepared for reuse or recycled, while 59% was disposed of in landfills. This over-reliance on landfilling poses a significant barrier to achieving the EU's 2025 target of a 55% recycling rate for municipal waste.

Conversely, Cyprus has made notable progress in packaging waste recycling. In 2019, the recycling rate for all packaging waste reached 66.8%, surpassing the EU's 2025 target of 65%, with a significant portion of this recycled packaging waste being processed abroad, while only around 12% recycled domestically.

Moreover, this positive trend in recycling rate of packaging is expected to continue and rise even further, thus forcing the overall recycling rate to rise, through the installation and implementation of an innovative recycling initiative designed by the National Technical University of Athens, named as the Green Kiosk.

Undoubtedly, the continuous improvements in recycling and waste management in Cyprus are resulting from a series of strong policies and initiatives at both national and regional level. Through programs that emphasize the circular economy and sustainability, Cyprus is steadily advancing towards a more sustainable waste management model.

This case study examines Cyprus's efforts on enhancing recycling in terms of packaging waste, particularly in the mountainous areas, where there is no recycling infrastructure, through the introduction of the Green Kiosk system, with a special focus on the role of Vocational Education and Training (VET) in supporting these initiatives as a complementary key element.

Cyprus has made notable progress in recycling packaging waste; however, substantial efforts are still required to improve municipal waste recycling and decrease reliance on landfills. To advance its waste management system and meet EU targets, Cyprus must invest in source-sorting infrastructure, public awareness campaigns, and vocational training.

1.2.1 Teaching Methodologies and Best Practices for Environmental and Waste Education

To address Cyprus's waste challenges—such as low recycling rates and high landfill use—environmental education must integrate Vocational Education and Training (VET) and initiatives like the Green Kiosk scheme. These kiosks, which collect recyclables across communities, offer

practical, scalable solutions for waste management. VET can play a central role in enhancing this system through targeted training and community engagement.

- **Active Learning Approaches:** Problem-Based and Experiential Learning engage VET students with real-life challenges like optimizing Green Kiosk operations. Projects may include assessing kiosk performance, designing prototypes for schools, and developing local recycling plans. Field visits and internships with municipalities further deepen practical experience.
- **Collaborative and Digital Learning:** Group tasks and peer education foster community awareness, while blended learning—combining in-person and online tools—offers flexibility. Students can use virtual simulations to manage kiosk networks and analyze waste data to identify trends and improve efficiency.
- **Interdisciplinary Integration:** Linking environmental education with business, engineering, and policy topics helps students develop sustainable kiosk models and explore regulatory frameworks like Extended Producer Responsibility (EPR).
- **Strategic Actions:** VET programs should train kiosk operators, support public engagement, and guide kiosk expansion planning. Through this integration, Cyprus can build a skilled, sustainability-focused workforce that promotes circular economy practices and strengthens community recycling efforts.

1.3 Case Study 3: INCA Ltd.

AZ Group is a vertically integrated industrial group based in Albania, with operations extending across the Western Balkans. The group has established itself as a regional leader in circular economy innovation by implementing a fully closed-loop industrial ecosystem that spans sectors such as agriculture, pet food, animal by-product processing, and pharmaceutical raw material production. With a strong commitment to sustainability, value creation from waste, and long-term ecological thinking, AZ Group has successfully demonstrated how circular economy principles can be embedded into profitable, scalable, and socially responsible business practices.

INCA Ltd., one of the four core companies within AZ Group, was founded in 2008 in Lezha and specializes in the production of natural casings for the meat processing industry. Its products are exported to more than 12 EU countries. As part of the AZ Group ecosystem, INCA plays a central role in minimizing industrial waste and ensuring the efficient reuse of animal by-products by collaborating closely with sister companies such as AZ Rendering and AZ Bioenergy.

Together, the four companies within AZ Group offer a diversified product and service portfolio for clients in the food, pet food, agricultural, bio-energy, and pharmaceutical industries. Their operations are guided by a shared business model rooted in circularity, innovation, and environmental responsibility.

This case study is part of an EU vocational training initiative aimed at illustrating how companies like AZ Group create practical opportunities for green skills development and workforce transformation. By tackling systemic industry challenges and aligning production processes with sustainability goals, AZ Group offers both a roadmap and a real-world training platform for future professionals in the circular economy.

1.3.1 Teaching Methodologies and Best Practices

The AZ Group offers a practical example for vocational education and training (VET) in sustainability, waste management, and green entrepreneurship. Its circular practices—such as converting animal by-products into casings, fertilizers, and biofuels—illustrate how traditional industries can implement circular economy principles.

VET institutions can enhance learning by using case study analysis to explore AZ Group's operations, supported by simulations where students act as sustainability managers and develop zero-waste strategies. Structured debates on the model's transferability and problem-based learning around real challenges (e.g. hygiene compliance or partner engagement) build critical thinking and applied problem-solving skills.

Hands-on activities like Green Lab simulations and waste mapping allow students to analyze resource use and assess environmental impacts. Blended learning—including site visits, online modules, and internships—connects theory with industry practice. These diverse methodologies equip students with the skills to implement sustainability in real-world business contexts.

1.4 Case Study 4: Circular Economy Park in Albania

The Circular Economy Park in Albania, initiated by RecycAl, represents a transformative model for sustainable waste management, vocational education, and social inclusion in the Western Balkans. Strategically located near Tirana, the Park integrates recycling, reuse, education, and business innovation under one roof. RecycAl, founded in 2022 by waste management expert Lulzim Baumann, is Albania's only company with an integrated approach that combines collection, repair-resale, and environmental education. The Park's core pillars include a Recycling Yard, a Second-Hand Shop with Repair Hub, an Eco-Education Center, and a Circular Economy Showroom.

Since mid-2023, the Park has trained over 600 student multipliers and engaged 6,000+ students in 20 schools, with expansion plans for 40 more schools. RecycAl collaborates with government bodies, municipalities, NGOs, research institutions, and private companies across Albania and the Western Balkans. With over 100,000 kg of recyclable waste prepared annually, the Park is a replicable model supporting Albania's EU integration goals and the OECD Circular Economy Roadmap.

RecycAl's partnerships include institutions such as the Fraunhofer Institute (Germany), the Albanian Ministries of Environment and Infrastructure, and key recycling firms. Inclusive practices support low-income groups, while 80 MSMEs benefit from new circular services. The Park is co-funded by DBU and Heidehof Foundation, with future sustainability secured through recyclable material sales, refurbished goods, consultancy, and CE product promotion.

This case study highlights RecycAl's Circular Economy Park as a best-practice example of circularity in action—combining local impact, regional collaboration, and alignment with EU waste and climate directives.

1.4.1 Teaching Methodologies and Best Practices

RecycAl's Circular Economy Park serves as a dynamic learning hub where vocational students, educators, and the public engage directly with real-world waste management and sustainability



practices. Through experiential learning, participants sort recyclables, refurbish goods, and operate equipment, gaining practical skills. Project-based learning fosters critical thinking and innovation as students tackle real challenges like designing upcycled products or analyzing local waste streams. Peer-to-peer learning empowers trained students to educate classmates, building a culture of circularity in schools.

Site visits offer hands-on exposure to recycling operations, second-hand markets, and eco-education centers, tailored to diverse audiences. Blended learning supports this with digital materials, videos, and infographics for flexible integration into school curricula. An interdisciplinary approach links environmental topics with economics, design, and social issues, while local context ensures relevance by using Albanian and regional examples.

Best practices include a training-of-trainers model for lasting impact, partnerships with schools and municipalities to ensure systemic change, and inclusive programs reaching diverse communities. Visual tools like signage and color-coded bins reinforce learning, while continuous feedback helps refine educational content. Altogether, RecycAI's model equips learners with practical skills and supports Albania's transition to a circular economy.

1.5 Case Study 5: Greening the VET Campus: A Sustainable Waste Management Initiative at a Technical School in Pristina.

In 2022, a technical vocational education and training (VET) school in Pristina, Kosovo, initiated a campus-wide waste management project aimed at reducing its environmental footprint and embedding sustainability in student learning. Through a structured recycling plan, integrated educational methodologies, and collaboration with local institutions, the school transformed from a high-waste generator into a green learning hub. This case study outlines how student-led initiatives, low-cost infrastructure changes, and curriculum reform contributed to a 50% reduction in waste and lasting behavioral changes.

1.5.1 Teaching Methodologies and Best Practices

Students engaged in project-based learning by conducting waste audits and creating awareness campaigns, fostering hands-on experience and problem-solving skills. A cross-disciplinary approach integrated waste and recycling topics into subjects like math (through data analysis), ICT (via digital poster creation), and engineering (through eco-design challenges). Student leadership was central, with a Green Committee coordinating communication, logistics, and sustainability initiatives. Real-world collaboration enhanced learning, as class time included visits to landfill sites, recycling facilities, and environmental NGOs, linking classroom knowledge with practical environmental action.

1.6 Case Study 6: From Wood Waste to Workbench: Circular Economy Skills in a VET Carpentry Program in Gjakova

This case study presents a successful circular economy initiative implemented at a carpentry and woodcraft VET school in Gjakova, Kosovo. Faced with high material waste and outdated teaching

approaches, the school launched a practical upcycling and sustainability module. Through workshops, partnerships with local furniture businesses, and student-led product innovation, learners gained hands-on experience in green entrepreneurship. The project created a pathway to employment while cutting school wood waste by over 60%.

1.6.1 Teaching Methodologies and Best Practices

Students applied a design thinking approach to identify community needs and co-create practical solutions. Through enterprise simulations, they worked in small groups acting as mini-companies, managing tasks such as product design, budgeting, and marketing. Learning was enriched through partnerships, with workshops co-led by local craftspeople and recycling companies, offering hands-on experience. To build sustainability literacy, sessions covered key topics like forest management, carbon footprints, and life cycle thinking, equipping students with a deeper understanding of environmental challenges and sustainable practices.

2 Validation Process and Stakeholder Feedback

To ensure the validity, relevance, and practical applicability of the developed case studies, structured questionnaires were compiled and administered to a representative group of stakeholders, including VET trainers, industry experts, and stakeholders in waste management. These questionnaires were designed to gather targeted feedback on the clarity of content, alignment with circular economy principles, pedagogical effectiveness, and potential for real-world implementation. The responses were systematically analyzed to identify strengths, areas for improvement, and any gaps in the case studies, thereby providing a robust evidence base to refine and validate the materials before wider deployment within the VET programs.

2.1 Overview of the Gap analysis process

This chapter presents the questionnaires developed as part of the case study validation and needs assessment process. The questionnaires were specifically designed for three key stakeholder groups — VET trainers, industry experts, and waste management stakeholders — to collect structured feedback on the pedagogical, technical, and sectoral dimensions of the case studies. Their purpose was twofold: to ensure the accuracy, realism, and educational relevance of the proposed case studies, and to identify existing skills gaps and capacity-building needs within the VET ecosystem in Albania and Kosovo. The insights gathered through this process provided a

robust evidence base for designing the Intervention Programme Plans, ensuring that the proposed training interventions are responsive to both educational and labor market priorities.

2.1.1 Validation Questionnaire for VET Trainers: Case Studies in Waste Management and Recycling

Validation Questionnaire for VET Trainers: Case Studies in Waste Management and Recycling	
Purpose: This questionnaire is part of a pilot testing process to validate case studies developed for use in vocational education and training (VET) programs. Your feedback will help ensure the case studies are relevant, engaging, and effective teaching tools that address real skills gaps in the waste management and recycling sector.	
Section 1: Trainer Profile	
1. Name (Optional):	
2. Institution / Training Centre:	
3. Country / Region:	
4. Years of experience as a VET trainer:	
○ Less than 2 years	
○ 2–5 years	
○ 6–10 years	

○ More than 10 years	
5. What subject(s) do you currently teach or train in (related to environment, waste management, recycling, etc.)?	
○ (Open-ended)	
6. Have you used case studies as a teaching tool before?	
○ Yes / No	
Section 2: Relevance to VET Context	
6. How relevant are these case studies to your specific training context or curriculum?	
○ Very relevant / Relevant / Slightly relevant / Not relevant	
7. Do these case studies reflect real workplace scenarios in the waste management or recycling sector?	
○ Strongly agree / Agree / Neutral / Disagree / Strongly disagree	
8. Would these case studies help learners understand real-world practices and challenges in the sector?	
○ Yes / Somewhat / No	
○ <i>Please explain:</i>	
Section 3: Pedagogical Usefulness	
9. Are these case studies appropriate for the level of your learners (e.g., EQF level, beginner/intermediate/advanced)?	
• Yes / No / Needs adaptation	
• <i>If adaptation is needed, please specify:</i>	
10. Do these case studies promote key competencies for VET learners (e.g., problem-solving, teamwork, decision-making, digital skills)?	
• Yes / Partially / No	
• <i>Comments:</i>	
11. Does the structure of the case study support lesson planning and delivery? (e.g., clear objectives, defined tasks, assessment opportunities)	

Strongly agree / Agree / Neutral / Disagree / Strongly disagree	
12. Which of the following methods would you likely use with these case studies? (Select all that apply)	
Group discussion	
Role play	
Problem-solving exercises	
Learner presentations	
Assessment/test activities	
Other (please specify): _____	
Section 4: Alignment with Training Needs and Labor Market	
13. Do the case studies address skills that are in demand in your regional or national labor market?	
Yes / Somewhat / No / Not sure	
14. Which of the following skill areas are covered by the case studies? (Select all that apply)	
Technical knowledge of waste/recycling processes	
Environmental awareness and sustainability	
Health and safety procedures	
Digital tools or data management	
Soft skills (communication, collaboration)	
Critical thinking and problem-solving	
None of the above / Other: _____	
15. Do these case studies fill any training gaps you have identified in your current curriculum?	
Yes / No / Not sure	
<i>If yes, please specify which gaps:</i>	

Section 5: Implementation and Improvement	
16. Would you consider integrating these case studies into your teaching practice?	
Yes, definitely / Possibly / Unlikely / No	
17. What would help you implement these case studies more effectively in your training sessions?	
Teaching guide or lesson plan	
Supplementary materials (e.g., videos, worksheets)	
Assessment tools	
Digital/interactive version	
None / Other: _____	
18. What improvements would you suggest for these case studies to make it more suitable for VET learners?	
(Open-ended)	
19. Do you have suggestions for other case study topics or themes that would support your teaching?	
(Open-ended)	
Section 6: Final Evaluation	
20. Overall, how would you rate the usefulness of these case studies for VET training?	
Excellent / Good / Fair / Poor	
21. Additional comments or suggestions:	
(Open-ended)	

2.1.2 Validation Questionnaire for Industry Experts: Case Studies in Waste Management and Recycling

Validation Questionnaire for Industry Experts: Case Studies in Waste Management and Recycling	
Purpose: This questionnaire is part of a pilot testing process to validate case studies developed for use in vocational education and training (VET) programs. Your expert feedback will help ensure the case studies are accurate, realistic, and aligned with the actual needs of the waste management and recycling sector.	
Section 1: Respondent Profile	
1. Name (Optional):	
2. Company / Organization:	
3. Position / Role:	
4. Country / Region:	
5. Years of experience in the waste management/recycling industry:	
○ 0–2 years	
○ 3–5 years	
○ 6–10 years	
○ More than 10 years	
6. Have you previously collaborated with VET institutions (e.g., training programs, apprenticeships)?	
○ Yes / No	

Section 2: Relevance and Accuracy	
7. How accurately do the case studies reflect real operational scenarios in your sector?	
☐ Very accurately / Accurately / Somewhat / Poorly / Not at all	
8. Are the challenges and tasks described in the case studies commonly encountered in real workplaces?	
☐ Yes / Occasionally / No	
☐ Please elaborate if needed:	
9. Do the case studies represent realistic roles, processes, and decision-making situations?	
☐ Strongly agree / Agree / Neutral / Disagree / Strongly disagree	
10. Are the technologies, tools, or methods mentioned in the case studies up-to-date and relevant?	
☐ Yes / Partially / No / Not applicable	
☐ If not, please suggest improvements:	
Section 3: Skills and Workforce Relevance	
11. Which skill areas does these case studies effectively address? (Select all that apply)	
☐ Technical knowledge of waste treatment/recycling	
☐ Equipment handling and safety compliance	
☐ Circular economy concepts	
☐ Problem-solving and troubleshooting	
☐ Communication and teamwork	
☐ Use of digital tools or data systems	
☐ Environmental awareness	
☐ Other (please specify): _____	

12. Do the case studies reflect current skill needs in your company or the wider industry?	
• Yes / Partially / No / Not sure	
13. Do the case studies support the development of job-ready skills for entry-level or mid-level roles?	
• Yes / Somewhat / No	
• Please specify roles if relevant (e.g., waste technician, recycling operator):	
14. Are there any important skills or knowledge areas missing from these case studies?	
• (Open-ended)	
Section 4: Usefulness for VET Training	
15. From your perspective, could these case studies help prepare learners for employment in the sector?	
• Yes / Maybe / No	
• Please explain:	
16. Would you support the use of such case studies in VET programs as a means of improving sector readiness?	
• Strongly agree / Agree / Neutral / Disagree / Strongly disagree	
17. In your opinion, do these case studies support a better understanding of:	
• Sector-specific regulations and standards?	
○ Yes / No / Not sure	
• Health and safety responsibilities?	
○ Yes / No / Not sure	
• Environmental and sustainability goals?	
○ Yes / No / Not sure	
Section 5: Recommendations and Feedback	

18. Would you recommend any changes to improve the realism or industry relevance of these case studies?	
• (Open-ended)	
19. Would your company be open to providing input or examples for future case studies?	
• Yes / Maybe / No	
20. Any other comments, observations, or suggestions?	
• (Open-ended)	
Section 6: Overall Assessment	
21. Overall, how would you rate the relevance of this case study for workforce preparation in your industry?	
• Excellent / Good / Fair / Poor	

2.1.3 Validation Questionnaire for Stakeholders in Waste Management and Recycling

Validation Questionnaire for Stakeholders in Waste Management and Recycling	
Purpose: This questionnaire is part of a pilot testing process to validate case studies designed for use in vocational education and training (VET) programs. Your input as a stakeholder helps ensure these case studies reflect real challenges, support sustainable development, and address the broader needs of society, the environment, and the labor market.	
Section 1: Respondent Profile	
1. Name (Optional):	
2. Organization / Affiliation:	
3. Type of stakeholder group (select one):	
○ Local/regional authority	
○ Policy maker or public administration	
○ NGO / Civil society organization	
○ Environmental or community advocacy group	
○ Academic or research institution	
○ Other (please specify): _____	
4. Country / Region:	
5. In what way is your organization involved in or impacted by waste management and/or recycling activities?	
○ (Open-ended)	

Section 2: Social and Environmental Relevance	
6. Do the case studies reflect key environmental or sustainability issues related to waste and recycling in your context?	
☐ Strongly agree / Agree / Neutral / Disagree / Strongly disagree	
7. Are the social, environmental, or public health dimensions of waste management sufficiently addressed in the case study?	
☐ Yes / Somewhat / No	
☐ Please elaborate if needed:	
8. Do the case studies help raise awareness of responsible waste practices among learners and the wider community?	
☐ Yes / Partially / No	
9. Do the case studies align with any regional or national sustainability or circular economy strategies?	
☐ Yes / No / Not sure	
☐ Please specify if applicable:	
Section 3: Contribution to Skills Development and Inclusion	
10. Do you believe these case studies contribute to building skills needed for a more sustainable, inclusive, or circular economy?	
☐ Yes / Somewhat / No	
☐ Comments:	
11. Are these case studies accessible and relevant for diverse groups (e.g., youth, disadvantaged learners, career changers)?	
☐ Yes / Needs improvement / No	
☐ Suggestions:	
12. Do these case studies promote any of the following values or skills? (Select all that apply):	
☐ Environmental responsibility	
☐ Community engagement	

• Innovation in resource use	
• Equity and inclusion	
• Understanding of regulatory frameworks	
• Other (please specify): _____	
Section 4: Practical Use and Broader Impact	
13. Do you see a potential for these case studies to be used beyond VET (e.g., in schools, community programs, awareness campaigns)?	
• Yes / Possibly / No	
14. Would your organization be interested in using or adapting these case studies for educational or outreach purposes?	
• Yes / Maybe / No	
15. Are there any key themes or local issues missing from the case studies that should be considered?	
• (Open-ended)	
Section 5: Final Feedback and Suggestions	
16. What improvements or additions would you suggest to increase the impact or applicability of the case studies?	
• (Open-ended)	
17. Would you be interested in contributing to future case studies or pilot activities as a stakeholder?	
• Yes / Maybe / No	
18. Any final comments or observations?	
• (Open-ended)	
Section 6: Overall Evaluation	
19. Overall, how would you rate the potential value of this case study to support sustainable and effective waste management practices in your community or sector?	

Excellent / Good / Fair / Poor	
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2.2 Gap analysis and baseline findings based on the Case Studies questionnaires

This chapter presents the main results and insights derived from the implementation of the case studies, highlighting their impact on knowledge, skills, and practices related to sustainable waste management and circular economy principles. The findings are organized according to the perspectives of the key target groups involved in the project: VET trainers, industry experts, and other relevant stakeholders engaged in waste management activities. By structuring the results in this manner, the chapter provides a clear understanding of how each group experienced and contributed to the case studies, the outcomes achieved, and the lessons learned. These results form the basis for the subsequent validation process, ensuring that the case studies are both practically relevant and pedagogically effective for future implementation.

2.2.1 Insights from VET trainers

This section presents the results obtained from the questionnaires administered to VET trainers, providing insight into their perspectives on the relevance, applicability, and effectiveness of the developed case studies. The analysis highlights how trainers evaluate the pedagogical structure, learning objectives, and practical content of the case studies, as well as the extent to which they address identified skills gaps in the fields of waste management and recycling. Feedback from VET trainers also sheds light on potential challenges and opportunities in implementing the case studies within diverse training contexts. These findings serve as a key input for the design of the Intervention Programme Plans, ensuring that the proposed capacity-building measures are tailored to the practical needs, experiences, and expectations of VET educators in Albania and Kosovo.

More specifically, 31 VET trainers replied the relevant questionnaire, where 48.3% are from Albania and 51.7% from Kosovo. This balanced representation suggests that the findings reflect perspectives from both contexts fairly equally, allowing for meaningful comparisons or joint insights into the VET training landscape across the two countries.

The chart in Figure 2-1 reveals that the majority of VET trainers have relatively limited experience in their roles — 45.2% have less than 2 years of experience and 41.9% have between 2 and 5 years. Only a small proportion (13% combined) have more than 6 years of experience. This suggests that the VET training workforce is predominantly composed of newer professionals, which may reflect recent recruitment efforts, expansion of VET programs, or high turnover rates in the sector.

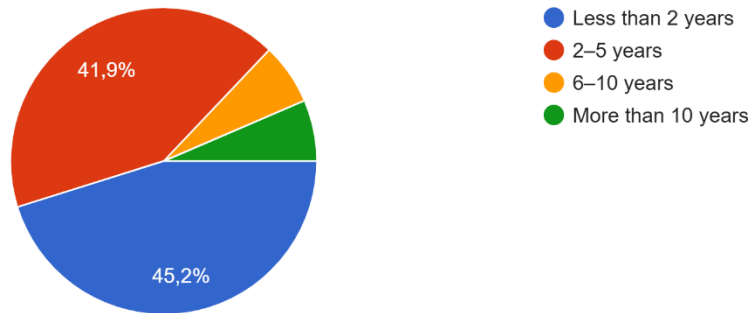


Figure 2-1: Years of experience as VET trainer

What is worth mentioning is that all of the respondents reported having used case studies as a teaching tool before. This indicates that case-based learning is a universally adopted method among the surveyed VET trainers, suggesting strong recognition of its pedagogical value in promoting practical, problem-solving, and experiential learning approaches.

In this context, the results of Figure 2-2 show that all respondents find the case studies applicable to their training context, with 71% rating them as *relevant* and 29% as *very relevant*. This indicates a high level of alignment between the case studies and the VET trainers' curricula, suggesting that the materials effectively address real-world situations and support the learning objectives within their specific vocational fields.

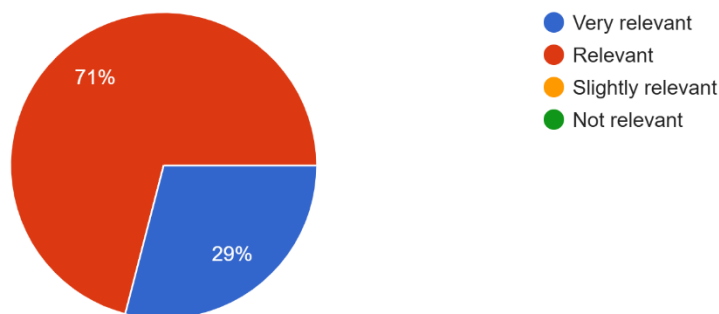


Figure 2-2: Relevance of the case studies to the specific training context/curriculum of the respondents VET trainers

In addition, the responses show a generally positive perception of the case studies' realism, though with some reservations (Figure 2-3). While 45.2% of VET trainers (38.7% *agree* and 6.5% *strongly agree*) believe the case studies reflect real workplace scenarios in the waste management or recycling sector, nearly half (48.4%) remain *neutral*. Only a small fraction (6.4% combined) *disagree* or *strongly disagree*. This suggests that, although most trainers see some relevance to real-world contexts, there may be room to enhance the authenticity and sector-specific detail of the case studies to make them more relatable and practical for training purposes.

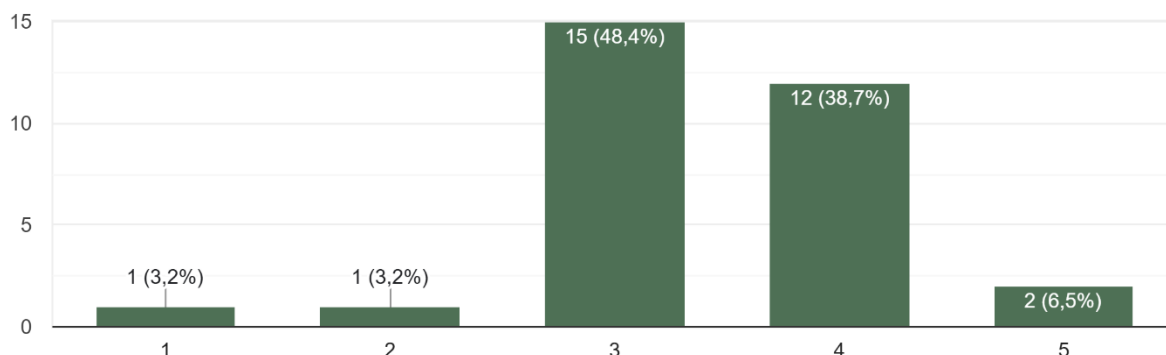


Figure 2-3: Reflection of real workplace scenarios in the waste management/recycling sector to the case studies proposed (strongly disagree 1 – strongly agree 5).

Taken together, the responses suggest that while 45.2% of VET trainers agree or strongly agree that the case studies reflect real workplace scenarios in the waste management or recycling sector (Figure 2-3), an even higher 77.4% believe these case studies would help learners understand real-world practices and challenges, with 22.6% saying they would do so *somewhat* (Figure 2-4). This indicates that, although not all trainers view the case studies as fully authentic representations of workplace situations, most still recognize their strong educational value in helping learners grasp practical aspects of the sector. Enhancing the realism and contextual accuracy of the case studies could therefore further strengthen their perceived effectiveness.

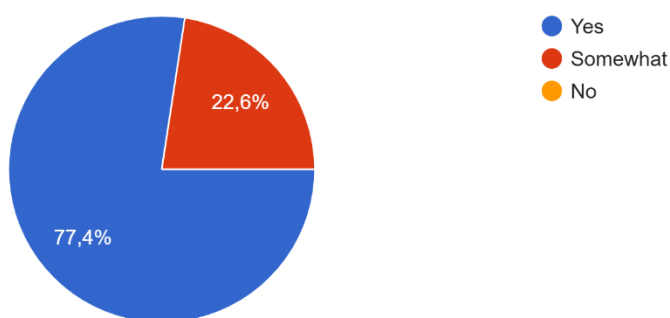


Figure 2-4: Case studies that help learners understand real-world practices and challenges in the sector.

Moreover, the results show that 64.5% of VET trainers find the case studies appropriate for their learners' level, while 35.5% believe they require some adaptation (Figure 2-5). This suggests that the descriptions of the case studies are generally well-suited to the target audience but may benefit from adjustments to better match varying learner competencies or specific training contexts. Tailoring the complexity, language, or technical depth of the case studies could help ensure broader applicability and effectiveness across different VET programs.

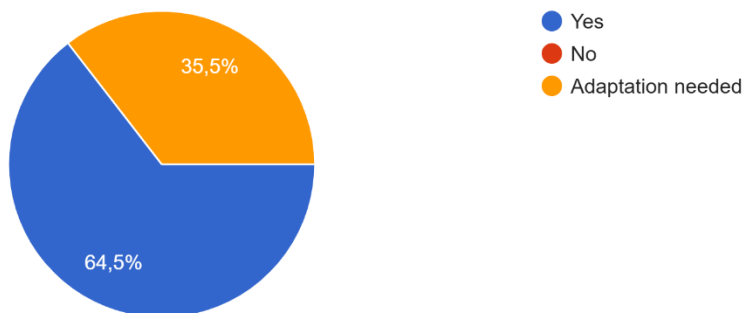


Figure 2-5: Appropriateness of the case studies for the level of the learners per VET trainer responding.

In a dedicated question regarding the promotion of key competencies for VET learners, the findings indicate that the vast majority of VET trainers (90.3%) believe the case studies promote key competencies for VET learners, while a small share (9.7%) think they do so only partially (Figure 2-6). This strong endorsement suggests that the case studies are effective in supporting the development of essential vocational skills such as problem-solving, critical thinking, and practical application of knowledge. However, the small percentage indicating partial relevance highlights an opportunity to refine certain elements to ensure comprehensive competency development across all training areas.

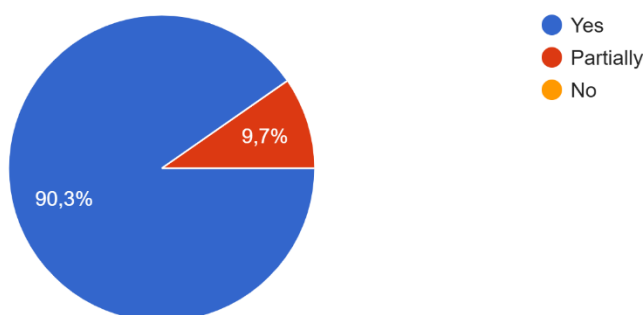


Figure 2-6: Promotion of key competencies for VET learners.

In addition, the responses show that most VET trainers (67.7% combining *agree* and *strongly agree*) find the structure of the case studies supportive of lesson planning and delivery (Figure 2-7). About a quarter (25.8%) remain neutral, while only a small minority (6.4%) disagree or strongly disagree. This indicates that the overall design of the case studies is effective in aiding instructional organization, though there may be potential to improve clarity, sequencing, or guidance within the materials to make them even more user-friendly for trainers.

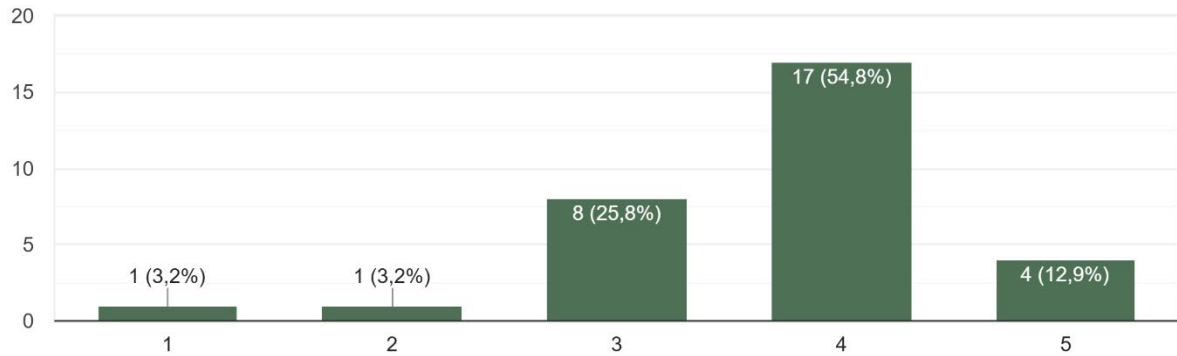


Figure 2-7: Case studies supporting lesson planning and delivery (strongly disagree 1 – strongly agree 5).

Focusing on the methods to be used with the case studies, the chart shows that group discussion (90.3%) and problem-solving exercises (67.7%) are the most preferred teaching methods VET trainers would use with the case studies (Figure 2-8). These results highlight a strong focus on collaborative and analytical learning approaches that encourage active participation and critical thinking. A smaller proportion of trainers would use learner presentations (25.8%), role play (19.4%), or assessment/test activities (6.5%), suggesting that while interactive methods are favored, more structured or evaluative approaches are less commonly applied. Overall, the findings indicate that trainers view the case studies primarily as tools to stimulate dialogue and practical problem-solving among learners.

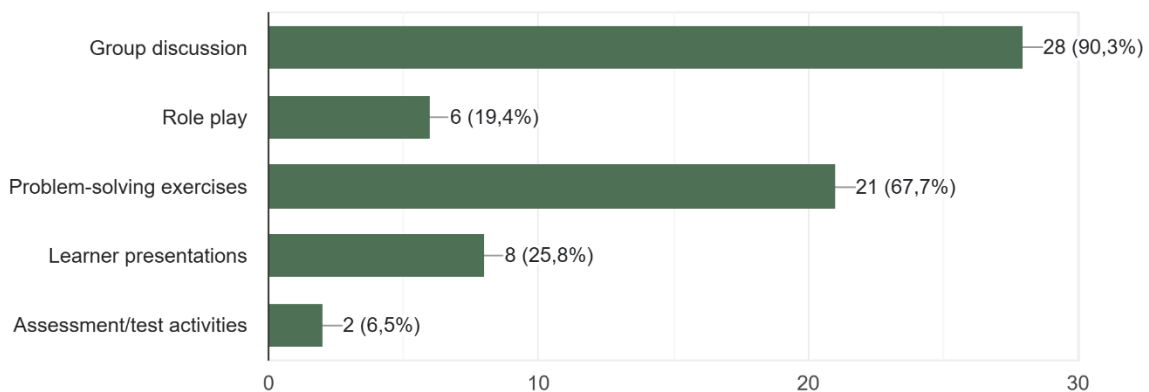


Figure 2-8: Methods to be used with the case studies proposed for lesson planning and delivery.

Moreover, the results of the pie chart in Figure 2-7 indicate that 58.1% of VET trainers believe the case studies address skills that are in demand in their regional or national labor markets, while 41.9% consider them somewhat aligned. This suggests that the case studies are generally relevant to current labor market needs, but there is still room for improvement to ensure stronger

alignment with emerging sectoral demands. Updating or contextualizing the case studies to better reflect specific local industry trends and skill gaps could further enhance their applicability and impact.

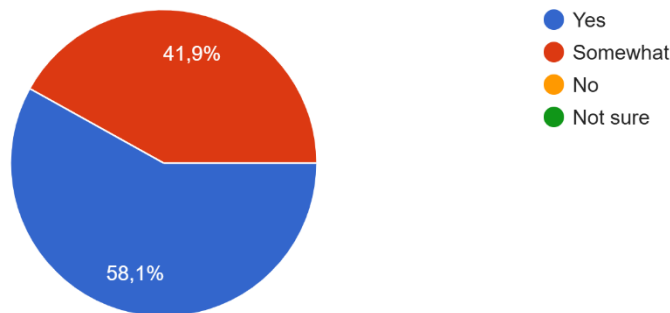


Figure 2-9: Case studies addressing skills that are in demand in the regional or national labor market of the respondents VET trainers.

Regarding the skills areas covered by the case studies, the following chart (Figure 2-10) shows that the case studies primarily focus on technical knowledge of waste/recycling processes and environmental awareness and sustainability, both identified by 80.6% of respondents. This indicates a strong emphasis on sector-specific expertise and environmental competencies.

A smaller proportion of trainers recognize the inclusion of health and safety procedures (38.7%), while fewer see attention to digital tools or data management (22.6%), soft skills (22.6%), and critical thinking and problem-solving (9.7%). None selected "none of the above," suggesting all respondents found relevant skill components in the case studies.

Overall, the findings suggest that the case studies effectively target core technical and environmental skills but could be strengthened by integrating more transversal competencies such as digital literacy, soft skills, and critical thinking to better align with evolving labor market demands.

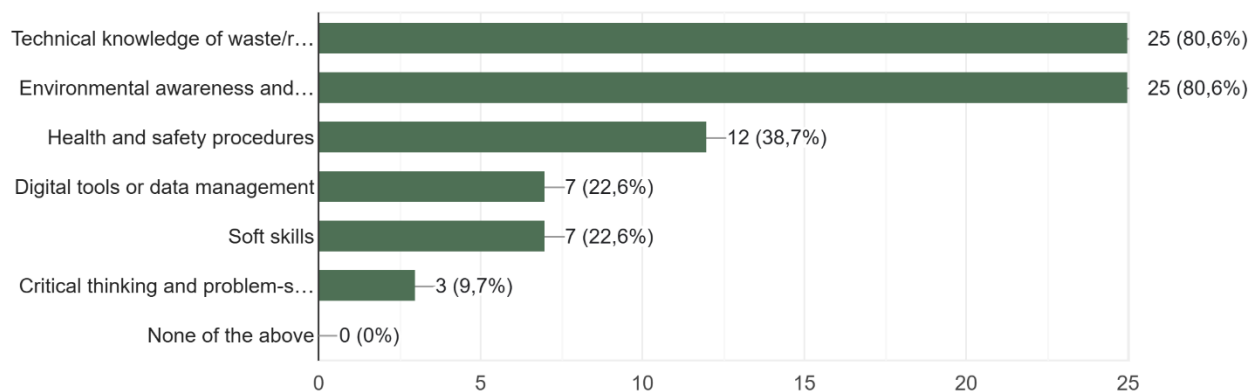


Figure 2-10: Skill areas covered by the case studies

In regard to whether the case studies fill any training gaps identified in the current curriculum (Figure 2-11), the responses reveal that 48.4% of VET trainers believe they do, while 41.9% are *not sure* and *9.7% do not. This suggests that nearly half of the trainers view the case studies as helpful in addressing existing shortcomings or unmet needs within their programs. However, the considerable proportion of respondents who remain uncertain may indicate a need for clearer integration guidelines or further evaluation of how these case studies align with specific curriculum objectives and competencies.

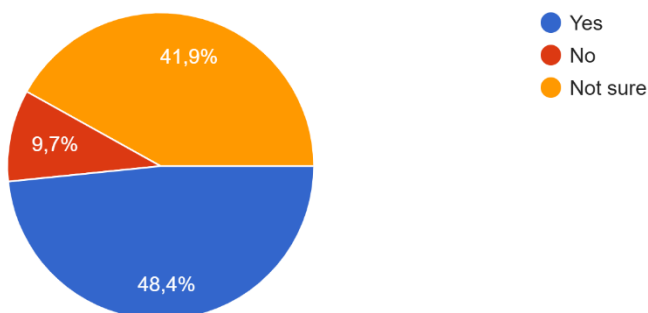


Figure 2-11: Case studies filling any training gaps identified in the current curriculum of the respondents VET trainers.

Furthermore, the survey results indicate a strong positive inclination among respondents to integrate the proposed case studies into their teaching practice (Figure 2-12). Specifically, 67.7% of participants indicated "yes," 22.6% responded "definitely," and only 9.7% selected "possibly." These findings suggest that over 90% of respondents are receptive to incorporating case studies, with a significant proportion demonstrating a high level of commitment. This underscores the relevance and potential impact of the case studies within educational and training contexts.

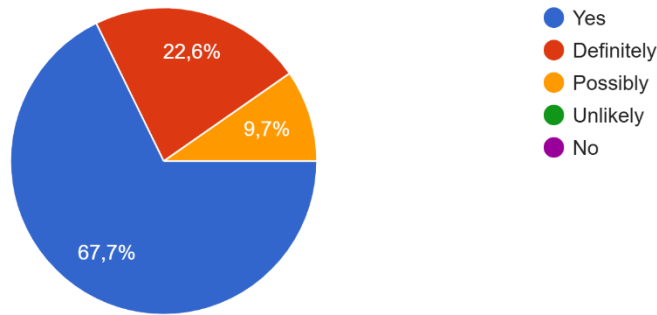


Figure 2-12: VET trainers' willingness to integrate the proposed case studies into teaching practice

In addition, the diagram of (Figure 2-13) illustrates respondents' preferences regarding support tools that would help them implement the case studies more effectively in their training sessions (n=31). The majority of participants (77.4%) identified a teaching guide or lesson plan as the most helpful resource. Supplementary materials were also considered important by over half of the respondents (51.6%), while assessment tools were selected by 22.6%. Only a small minority indicated a need for a digital or interactive version (6.5%), and no respondents indicated that they required no additional support.

These findings suggest that educators value structured guidance and ready-to-use resources to facilitate the integration of case studies, highlighting the importance of providing comprehensive teaching materials alongside the case studies for maximum uptake and effectiveness.

What would help you implement these case studies more effectively in your training sessions?

31 απαντήσεις

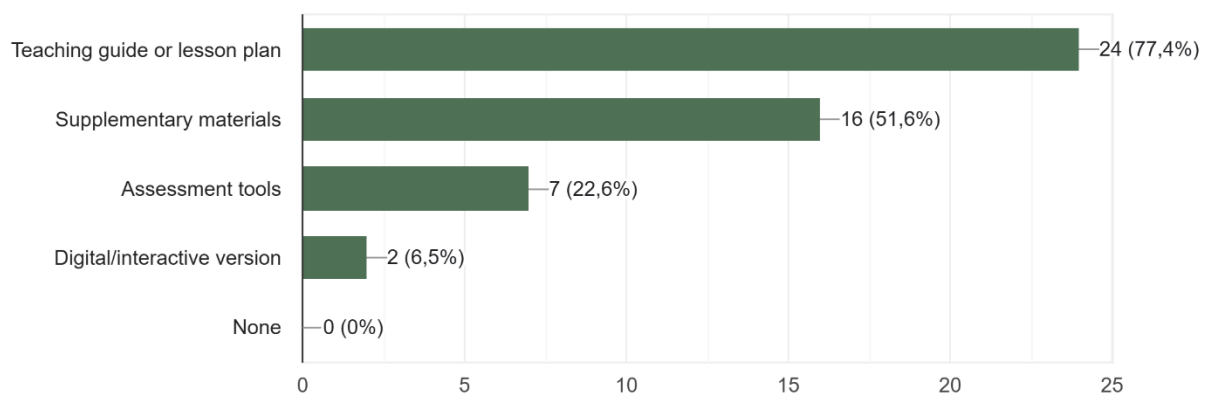


Figure 2-13: Support needs for effective implementation of case studies in training sessions

Finally, the evaluation of the case studies developed for VET training indicates a very high level of usefulness among participants. 64.5% of respondents rated the case studies as "excellent", while

the remaining 35.5% rated them as “good” (Figure 2-14). These results demonstrate that 100% of participants found the case studies valuable for their learning, with the majority considering them highly effective. This feedback confirms that the case studies are a robust tool for enhancing vocational education and training within the scope of the project.

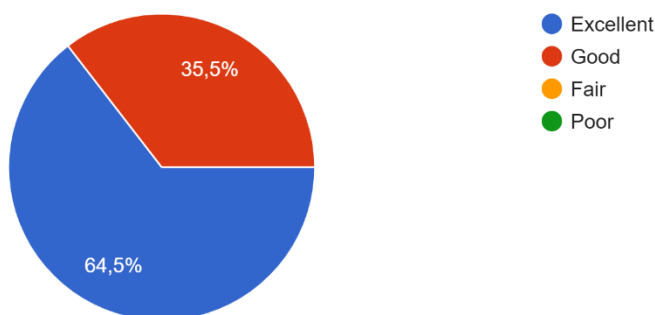


Figure 2-14: Usefulness of Case Studies for VET Training

2.2.2 Feedback and perspectives from Industry experts

The analysis of responses from industry experts provides a sector-oriented perspective on the case studies, emphasizing their alignment with real-world practices and professional standards in waste management and recycling. This feedback highlights the technical strengths and limitations of the materials, identifies gaps in current vocational training relative to industry requirements, and suggests improvements to better prepare learners for practical challenges in the field. By incorporating the expertise of these professionals, the findings ensure that the Intervention Programme Plans are informed by actual workplace needs and equip VET educators with the knowledge and competencies required to foster industry-ready graduates.

In specific, the survey results show that the participating industry experts possess a broad and diverse range of professional experience within the waste management and recycling sector. As illustrated in the corresponding pie chart (Figure 2-15), the largest share of respondents are relatively new to the field: 38.5% have between 0 and 2 years of experience, reflecting the recent influx of professionals driven by emerging policies, market growth, and technological developments. An additional 34.6% report 3 to 5 years of experience, meaning that more than two-thirds of the respondents have accumulated up to five years of sector-specific knowledge. More seasoned professionals are also represented among the respondents. 19.2% have 6 to 10 years of experience, offering insights grounded in consolidated technical and organisational expertise, while 7.7% possess more than 10 years of experience, contributing a long-term strategic perspective informed by extensive industry involvement and regulatory evolution.

This distribution indicates a balanced representation of viewpoints that is highly beneficial for the project. The strong presence of early-career professionals highlights the sector’s dynamic and evolving nature, particularly in areas linked to innovation, circular economy solutions, and

digitalisation. These respondents are likely to provide forward-looking expectations and constructive feedback on emerging technologies and practices.

At the same time, the participation of mid-career and senior experts ensures that the collected feedback is grounded in operational realities, lessons learned from past initiatives, and a nuanced understanding of sectoral challenges, business models, and regulatory frameworks. Their strategic experience strengthens the project's validation processes, as their insights contribute to assessing feasibility, market readiness, and long-term alignment with industry needs.

The combination of fresh perspectives and experienced viewpoints enhances stakeholder representativeness and supports robust project validation. It ensures that the project's outcomes are informed by both innovative tendencies and practical constraints, thereby increasing the likelihood of successful adoption and impact within the waste management and recycling industry.

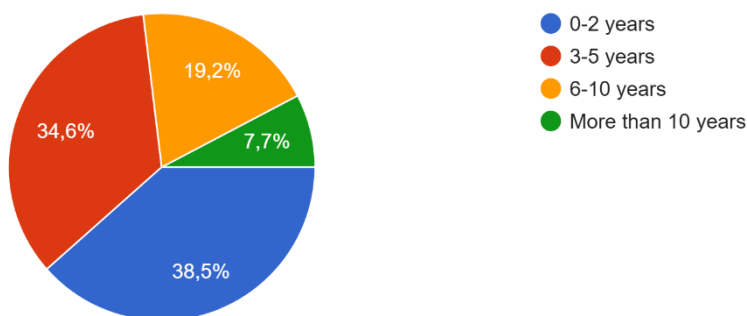


Figure 2-15: Years of experience in the waste management/recycling industry

In regards to previous collaboration of the industry experts with VET institution (Figure 2-16), the survey results indicate that the majority of industry experts do not have such an experience, with 73.1% of respondents answering "no". Only 26.9% reported prior collaboration, suggesting that partnerships between the waste management and recycling sector and VET institutions are still relatively limited.

This finding highlights a potential gap in formal linkages between the industry and education/training providers. For the project, this presents an opportunity to strengthen cooperation with VET institutions, ensuring that training programs are aligned with current industry needs, emerging skills requirements, and innovation trends. Engaging VET institutions could enhance workforce readiness, support knowledge transfer, and foster the adoption of new technologies and circular economy practices within the sector.

While most respondents have not yet engaged with VET institutions, this also underscores the project's potential impact in promoting industry–education collaboration, contributing to upskilling, and fostering a skilled workforce capable of supporting the sector's sustainable transformation.

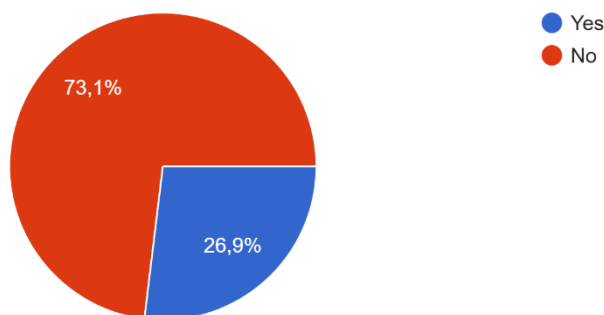


Figure 2-16: Previous collaboration of industry experts with VET institutions

In light of relevance and accuracy of the case studies promoted, the survey results show that the case studies promoted were generally considered representative of real operational scenarios within the respondents' sectors. As illustrated in the pie chart (Figure 2-17): 50% of respondents rated the case studies as "accurately" reflecting real scenarios, and 19.2% rated them as "very accurately", indicating that nearly 70% of participants found the case studies closely aligned with practical operations.

A smaller share of respondents assessed the case studies less favorably: 23.1% considered them "somewhat" accurate, while 7.7% rated them as "poorly" reflecting real scenarios. This suggests that while the majority of the case studies are relevant and realistic, there is still room for improvement to fully capture the diversity and complexity of operational practices across different sectors.

The findings highlight the importance of continuously validating case studies against real-world practices. Enhancing their accuracy and sectoral relevance can strengthen the project's impact, ensuring that lessons learned, proposed innovations, and recommended solutions are applicable and readily transferable to operational settings.

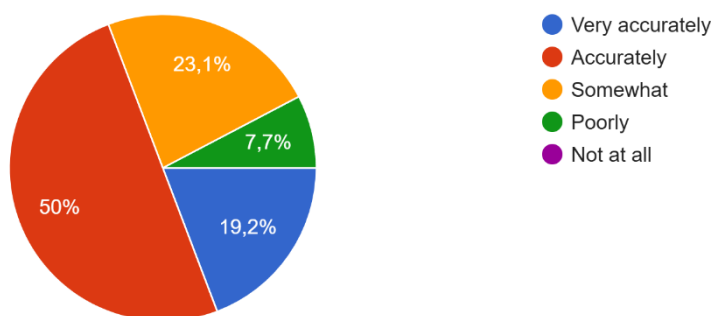


Figure 2-17: Perceived Accuracy of Case Studies in Reflecting Real Operational Scenarios

Moreover, the survey results indicate that the challenges and tasks described in the promoted case studies are largely reflective of what respondents encounter in their daily operations. As shown in the relevant chart of Figure 2-18: 69.2% of respondents stated that the challenges and tasks are commonly encountered, while 26.9% reported encountering them occasionally. Only a small minority, 3.8%, indicated that the case study challenges and tasks are not representative of their experience.

These findings suggest that the case studies effectively capture the practical realities of the waste management and recycling sector. Ensuring that challenges and tasks are accurately represented enhances the project's relevance and applicability, supporting the transfer of best practices, the testing of innovative solutions, and the alignment of project outputs with real-world operational needs.

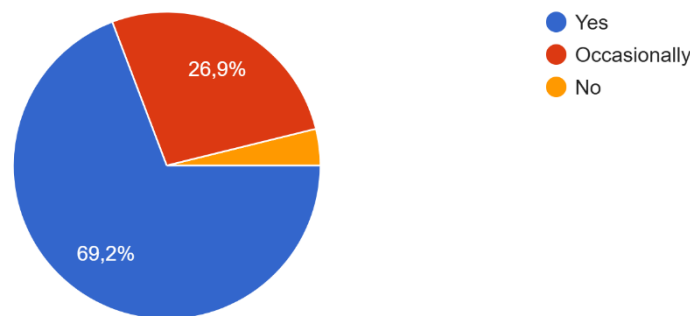


Figure 2-18: Frequency of Challenges and Tasks in Case Studies Compared to Real-World Experience

Following, the promoted case studies are generally perceived as representing realistic roles, processes, and decision-making situations within the respondents' sectors. As illustrated in the chart of Figure 2-19, 34.6% of respondents agree and 26.9% strongly agree that the case studies accurately reflect operational realities, totaling over 60% positive responses.

A smaller proportion expressed neutrality (30.8%) or disagreement (7.7% disagree; 0% strongly disagree), suggesting that while the majority find the case studies realistic, there is room to further enhance their alignment with specific operational contexts and decision-making scenarios.

These findings highlight the value of continuously refining case studies to ensure they accurately mirror real-world roles, processes, and decisions. Enhancing this realism will strengthen the project's practical relevance, facilitate stakeholder engagement, and improve the transferability of lessons learned and recommended solutions to actual operational settings.

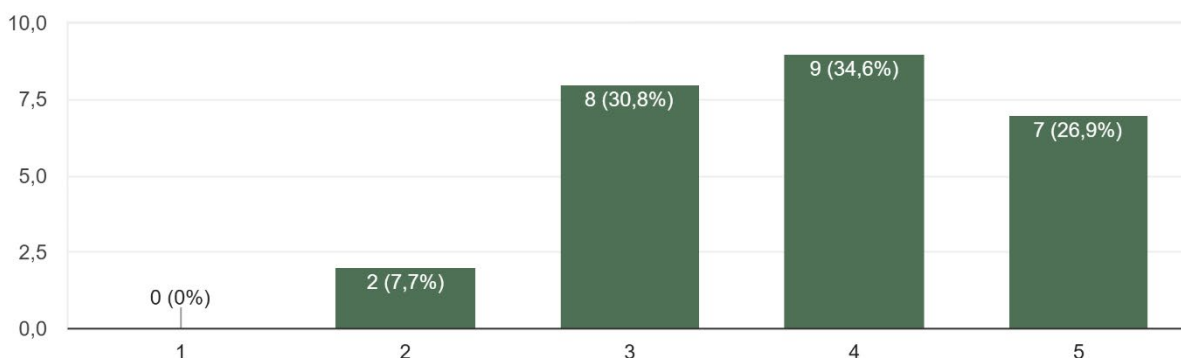


Figure 2-19: Representation of Realistic Roles, Processes, and Decision-Making in Case Studies promoted (1 strongly disagree – 5 strongly agree)

Moreover, the survey results indicate that the technologies, tools, and methods described in the promoted case studies are largely perceived as current and relevant. 50% of respondents considered them fully up-to-date, while the remaining 50% viewed them as partially up-to-date.

This suggests that, while the case studies incorporate many contemporary practices, there is room to further update or expand the content to fully reflect the latest technological developments and industry standards. Ensuring that the tools and methods presented are entirely current will enhance the project's practical relevance, support innovation uptake, and increase confidence in the applicability of the proposed solutions.

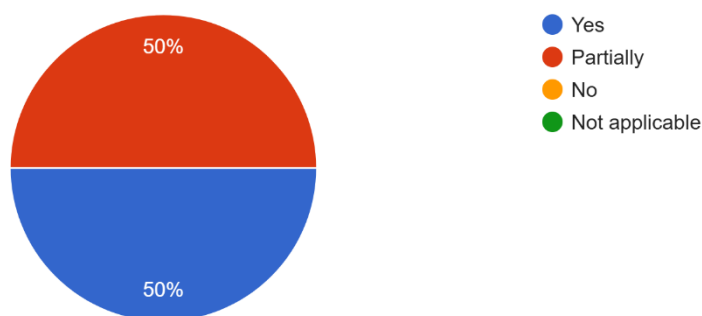


Figure 2-20: Perceived currency of technologies, tools and methods in the case studies promoted

Focusing on skills and workforce relevance, the survey results highlight that the promoted case studies effectively cover a broad range of skill areas relevant to the waste management and recycling sector. As shown in the chart of Figure 2-21, the most frequently addressed skills include circular economy concepts (76.9%) and environmental awareness (73.1%), reflecting the project's strong emphasis on sustainability and sectoral best practices.

Other key skills highlighted by respondents are problem solving (53.8%), technical knowledge (57.7%), and equipment handling (42.3%), demonstrating that the case studies also support practical and operational competencies. Less frequently addressed skill areas include communication (34.6%) and digital tools (34.6%), while only 3.8% of respondents indicated other skills.

These findings suggest that the case studies successfully target both conceptual and practical skills critical for sector professionals. Strengthening coverage in areas such as digital tools and communication could further enhance the comprehensiveness of the training materials, ensuring that participants develop well-rounded competencies applicable to modern waste management and recycling operations.

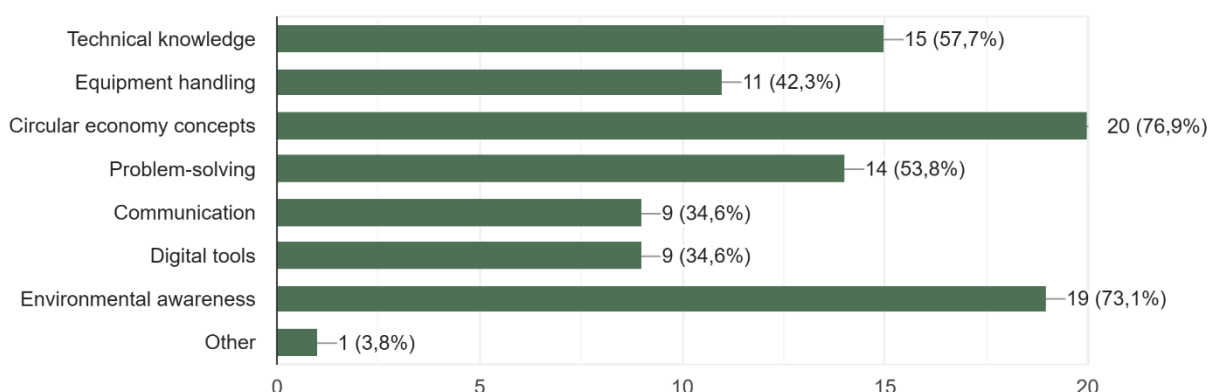


Figure 2-21: Skill areas effectively addressed by the case studies promoted

Moreover, the survey results indicate that the promoted case studies largely reflect the current skill needs of professionals in the waste management and recycling sector (Figure 2-22). 61.5% of respondents considered the case studies fully aligned with existing skill requirements, while 38.5% viewed them as partially aligned.

This suggests that the case studies are broadly relevant for workforce development, effectively targeting competencies that are critical for operational efficiency and sectoral innovation. At the same time, the partial alignment highlighted by a significant minority indicates an opportunity to further update and tailor the case studies, ensuring they comprehensively address evolving skill needs, including emerging technologies, circular economy practices, and digital competencies.

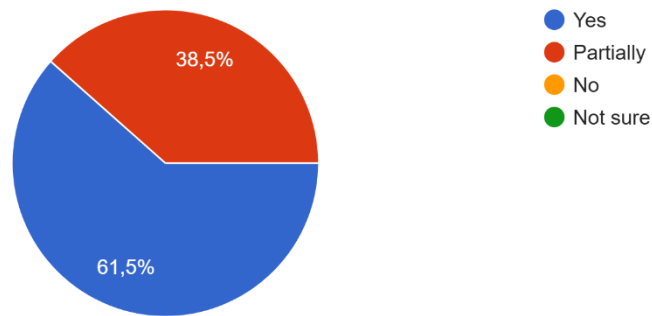


Figure 2-22: Alignment of case studies with current skill needs

In addition, the survey results indicate that the promoted case studies contribute to the development of job-ready skills for entry- and mid-level roles in the waste management and recycling sector (Figure 2-23). 46% of respondents considered the case studies fully supportive, while an equal share, 46.2%, felt they somewhat support these skills. Only a small minority, 7.7%, reported that the case studies do not support job-ready skills.

These findings suggest that the case studies are broadly effective in preparing new and mid-level professionals for operational roles, providing practical knowledge and competencies relevant to day-to-day tasks. However, the high proportion of respondents indicating partial support highlights an opportunity to enhance the materials further, ensuring they comprehensively address all critical skills and fully equip participants for immediate workforce integration.

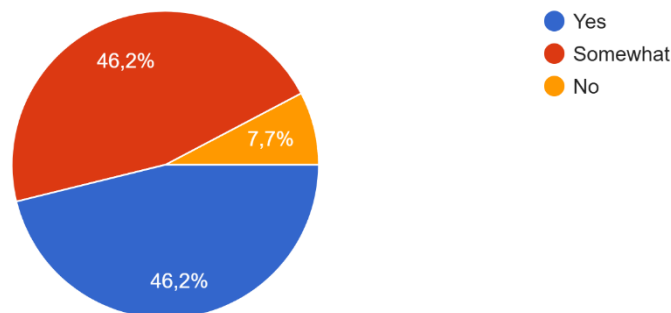


Figure 2-23: Support for job-ready skills in entry/mi-level roles

Under the spectrum of usefulness of the case studies for VET training, the survey results demonstrate strong confidence in the capacity of the promoted case studies to prepare learners for roles in the waste management and recycling sector (Figure 2-24). 92.3% of respondents indicated that the case studies can help prepare learners, while the remaining 7.7% responded “maybe”, suggesting minor uncertainties regarding their applicability in certain contexts.

These findings highlight the high relevance and practical utility of the case studies as learning tools. Their ability to support learner preparation ensures that participants acquire the knowledge,

skills, and competencies needed to effectively engage in sector-specific tasks. The near-unanimous positive response underscores the value of continuing to use and refine these case studies to maximize their impact on workforce readiness and skill development.

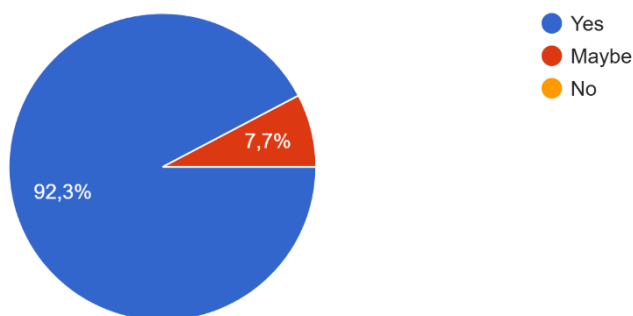


Figure 2-24: Potential of case studies promoted to prepare learners for the sector

Moreover, the survey results indicate strong support for using the promoted case studies within VET programs (Figure 2-25). 57.7% of respondents strongly agree and 30.8% agree that the case studies are suitable for integration into VET curricula. Only 11.5% remained neutral, and no respondents disagreed, highlighting near-unanimous positive sentiment regarding their applicability.

These findings underscore the potential of the case studies to enhance vocational training by providing practical, sector-relevant learning experiences. Their integration into VET programs can facilitate skill development, align training with real-world operational requirements, and better prepare learners for entry- and mid-level roles in the waste management and recycling sector. The strong support also reinforces the value of promoting these case studies as a core component of workforce development initiatives.

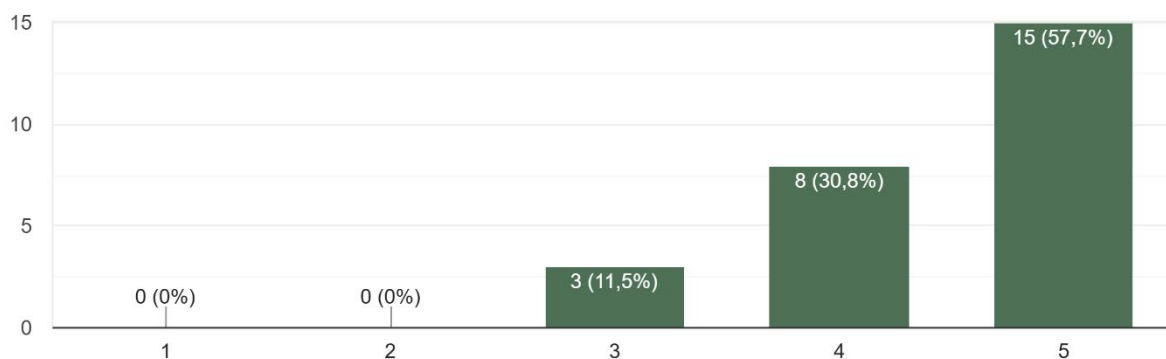


Figure 2-25: Support for integrating case studies into VET programs (1 strongly disagree – 5 strongly agree)

Following, the survey results indicate that the promoted case studies are highly effective in supporting learners' understanding of sector-specific regulations (Figure 2-26). 92.3% of respondents confirmed that the case studies facilitate comprehension of regulatory requirements, while 7.7% were not sure, and no respondents indicated disagreement.

These findings highlight the value of the case studies in enhancing regulatory literacy, an essential competency for safe, compliant, and efficient operations in the waste management and recycling sector. By reinforcing knowledge of sector-specific regulations, the case studies contribute to workforce readiness, support best practices, and ensure that learners are well-prepared to navigate regulatory frameworks in professional contexts.

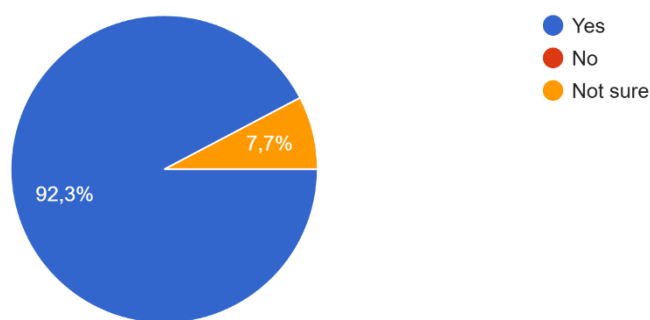


Figure 2-26: Understanding of sector-specific regulations among learners

In the question of whether the case studies promoted help learners to understand health and safety responsibilities in the waste management and recycling sector (Figure 2-27), 88.5% of respondents confirmed that the case studies help develop this understanding, while 11.5% were not sure, and no respondents disagreed. Moreover, all the industry experts responding the questionnaire believe that the case studies highlight the importance of the environmental goals,

These findings highlight the value of the case studies in promoting awareness of health and safety practices and environmental goals, which are critical for ensuring safe operations and compliance with occupational and environmental regulations. By addressing health and safety responsibilities, the case studies contribute to workforce preparedness, risk reduction, and the development of competent professionals capable of maintaining safe working environments.

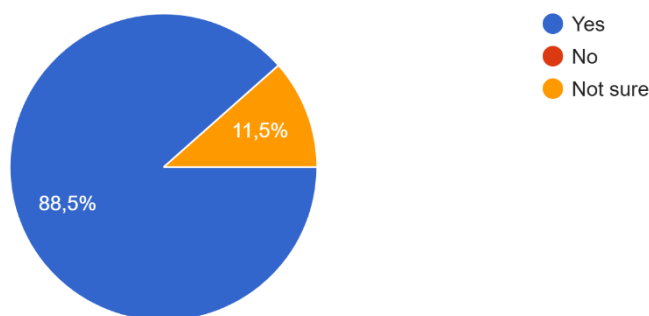


Figure 2-27: Understanding of health and safety responsibilities among learners

In addition, the survey results indicate strong industry willingness to contribute to future case studies (Figure 2-28). 80.8% of respondents confirmed that their company would provide input or examples, while 19.2% responded “maybe”, indicating conditional interest. No respondents expressed outright refusal.

These findings demonstrate significant potential for continued collaboration between the project and industry stakeholders. Engaging companies in providing real-world examples and operational insights will enhance the relevance, accuracy, and practical impact of future case studies. This collaboration can support the creation of highly contextualized learning materials, strengthen industry–VET linkages, and ensure that future case studies remain closely aligned with evolving sector needs and challenges.

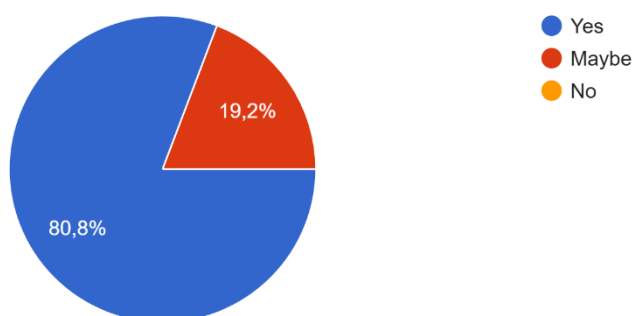


Figure 2-28: Willingness of Companies to Provide Input or Examples in Future

Finally, the industry experts believe that the promoted case studies are highly relevant to industry professionals (Figure 2-40). 65.4% of respondents rated it as “excellent”, while 34.6% rated it as “good”, demonstrating unanimous positive assessment.

These findings highlight the strong practical and educational value of the case study. Its high relevance ensures that the content effectively addresses sector-specific challenges, supports workforce development, and provides meaningful insights for both operational and training purposes. The uniformly positive feedback underscores the case study's suitability as a reference tool for future learning and industry engagement initiatives.

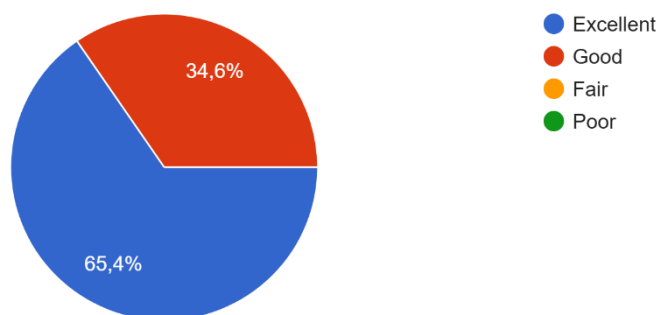


Figure 2-29: Overall relevance of the case studies

2.2.3 Input from Stakeholders in Waste Management and Recycling

This section summarizes the contributions of waste management stakeholders providing a wider societal and environmental viewpoint on the case studies. Their feedback emphasizes the importance of embedding sustainability, regulatory compliance, and circular economy principles within VET training. Stakeholders offered recommendations on enhancing the impact of the case studies proposed on community and environmental outcomes, and ensuring alignment with regional policy and sectoral priorities. The insights gathered from these groups play a crucial role in shaping the Intervention Programme Plans, ensuring that capacity-building initiatives not only address educational and technical needs but also support broader environmental and societal objectives.

Particularly, the pie chart of Figure 2-30 represents responses from 20 participants, categorized according to their stakeholder groups. It is color-coded and includes a legend listing 13 different stakeholder types. The largest segment, accounting for 25% of responses, corresponds to academic institutions, indicating that this group is the most represented in the survey. Two other groups, NGOs and recycling companies, each represent 10% of respondents. Smaller slices correspond to categories such as local or regional authorities, advocacy groups, interns, companies for the circular economy, policy makers, and others, although the exact percentages for these groups are not labeled in the chart.

Type of stakeholder group

20 απαντήσεις

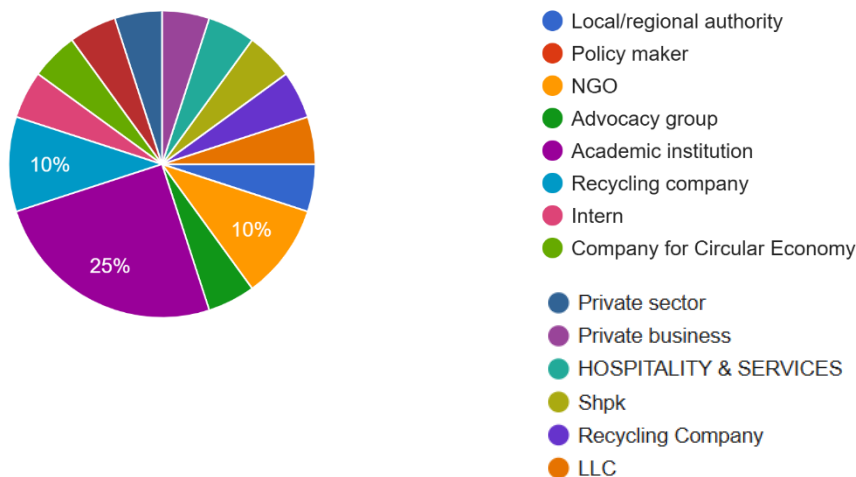


Figure 2-30: Types of stakeholder group

The bar chart of Figure 2-31 presents responses from all 20 participants, categorized by country or region. The largest share of responses comes from Albania, accounting for 50% of the total (10 respondents). Kosovo follows with 35% (7 respondents). Germany, Gjakove in Kosovo, and Tirane each account for 5% of responses, corresponding to 1 respondent each.

Country / Region

20 απαντήσεις

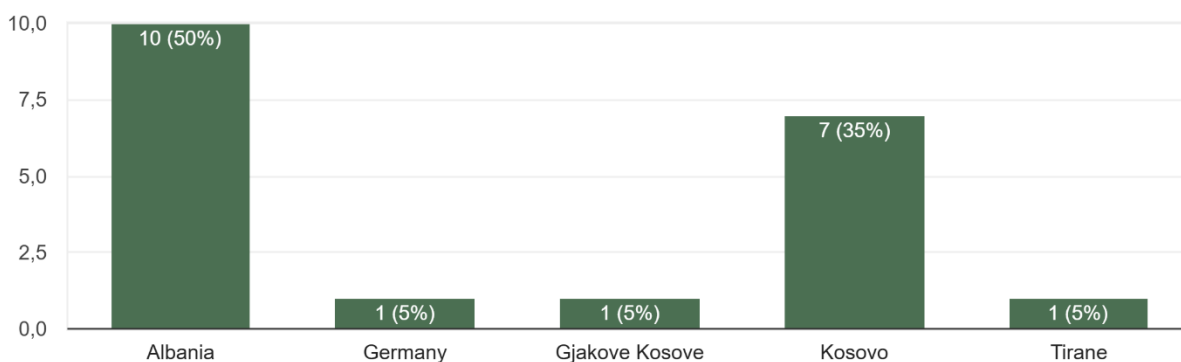


Figure 2-31: Stakeholders' country

Based on the data in the pie chart of Figure 2-32, 60% of respondents believe that the social/public health dimensions are adequately addressed, while 35% feel they are only somewhat addressed,

and 5% think they are not addressed at all.

This suggests that although a majority sees these aspects as sufficiently covered, a significant portion (40%) expresses concerns about gaps or partial coverage. Therefore, while the case study appears to acknowledge social and public health dimensions of waste management, there is room for improvement in ensuring these issues are addressed more comprehensively and consistently.

Are social/public health dimensions addressed?

20 απαντήσεις

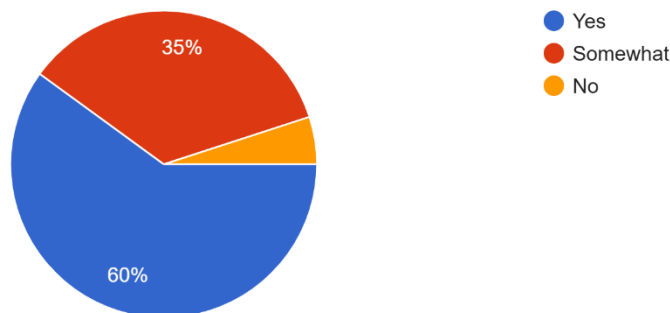


Figure 2-32: Social and public health dimensions of the case studies

Focusing on raising awareness, Figure 2-33 highlights that 85% of respondents believe that awareness is effectively raised among learners and the community, while 15% feel it is only partially achieved, and 0% responded 'No'. This indicates a strong consensus that the initiative or case study is successful in engaging and educating its audience. However, the 15% partial response suggests there may still be opportunities to improve inclusivity, outreach strategies, or engagement methods—especially for harder-to-reach groups within the community. Overall, the results reflect a positive impact on awareness-raising efforts, though continued efforts to broaden reach and deepen understanding would be beneficial.

Do they raise awareness among learners/community?

20 απαντήσεις

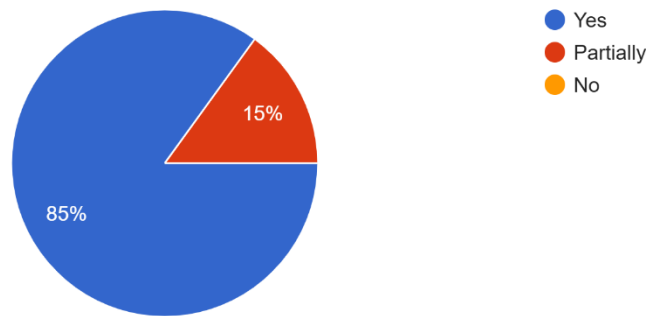


Figure 2-33: Awareness among learners and community

Following, based on the Figure 2-34, a high level of perceived alignment with broader policy frameworks is shown, suggesting that the case study or program is well-integrated with existing governmental or institutional priorities. The small percentage of uncertainty highlights a potential need for clearer communication or documentation of how these activities link to strategic goals. According to the waste management stakeholders, the strong alignment reinforces the relevance and potential scalability of the initiative within national or regional planning efforts.

Do they align with national/regional strategies?

20 απαντήσεις

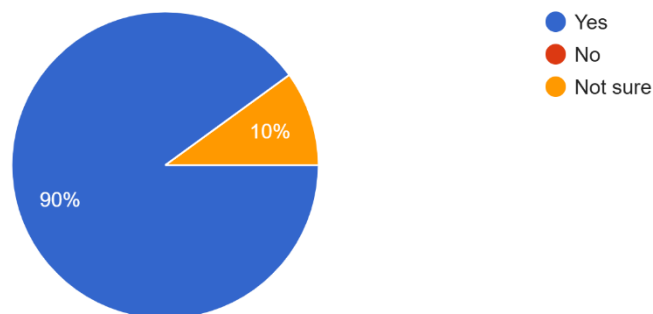


Figure 2-34: Alignment with national/regional strategies

In addition, a strong majority consider the case studies effective in promoting sustainable/inclusive economy skills (Figure 2-35). The absence of outright negative responses suggests that the case studies are generally well-aligned with the intended skills. However, the 30% "Somewhat" response indicates that certain aspects could be strengthened or clarified.

Do the case studies support sustainable/inclusive economy skills?

20 απαντήσεις

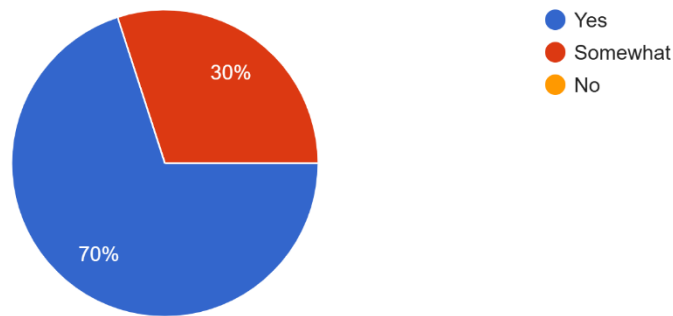


Figure 2-35: Case studies and their support to sustainable and inclusive economy skills

It is worth mentioning that the majority believe accessibility for diverse groups is currently sufficient (Figure 2-36). However, over a third feel there's room for improvement, indicating that inclusivity could be enhanced. Notably, no one selected "No", suggesting that while there may be shortcomings, none are perceived as total failures.

Accessible to diverse groups?

20 απαντήσεις

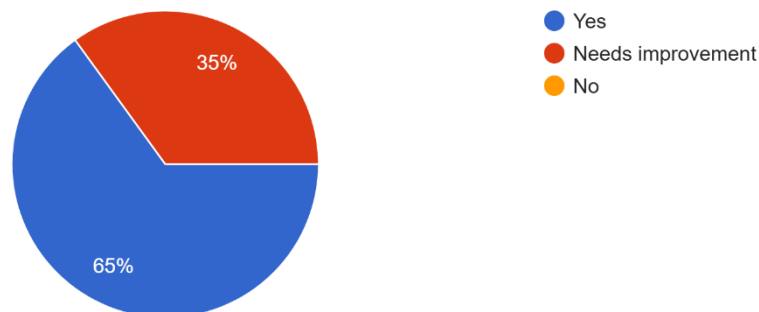


Figure 2-36: Case studies accessibility to relevant and diverse groups (eg youth, disadvantaged learners, career changers)

Amongst the stakeholders, several believe that the case studies suggested have a strong focus on environmental and social values, especially environmental responsibility and community engagement (Figure 2-37). Innovation is also well represented, but equity, regulatory knowledge, and entrepreneurial sustainability thinking seem underemphasized. If inclusivity and future-oriented skills like green entrepreneurship are priorities, these findings highlight areas for potential development or better communication.

Which values/skills are promoted?

20 απαντήσεις

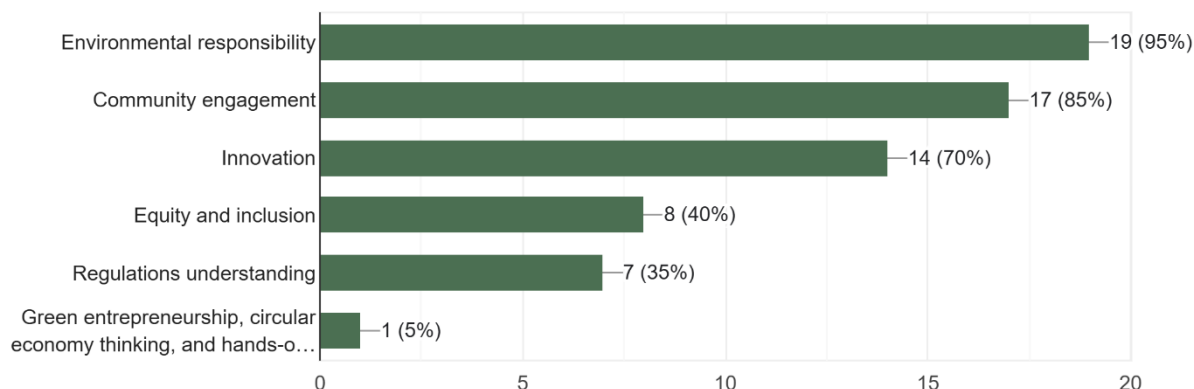


Figure 2-37: Case studies promoting values or skills

What is interesting though is that the majority support the idea that the initiative/tool/approach could be applied in other contexts beyond VET (Figure 2-38). The absence of "No" responses is encouraging — it implies a general belief in its versatility or adaptability. The high percentage of "Maybe" (45%) suggests that while the potential is seen, there may be questions about practicality, relevance, or necessary adjustments for broader use.

Potential use beyond VET?

20 απαντήσεις

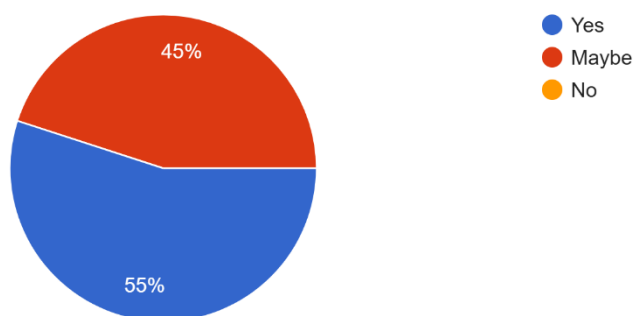


Figure 2-38: Potential for these case studies to be used beyond VET (e.g., in schools, community programs, awareness campaigns)?

Following, the majority of the stakeholders expressed clear interest in using or adapting the case in using or adapting the case studies for educational or outreach purposes, indicating strong perceived value in their practical applicability (Figure 2-39). An additional 35% responded

“maybe,” suggesting that with minor adjustments—such as tailoring content to specific audiences or providing supporting materials—overall uptake could increase even further.

Org. interest in adapting/using these?

20 απαντήσεις

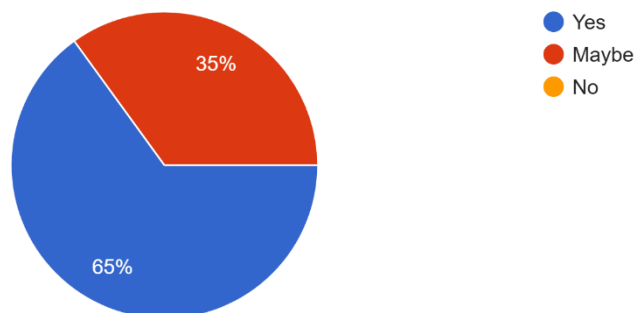


Figure 2-39: Organisations’ interest in using or adapting these case studies for educational or outreach purposes

Finally, according to the responses of 20 waste management stakeholders, the overall value of the case studies is perceived very positively: 60% rated them as excellent, 35% as good, and only 5% as fair (Figure 2-40). This suggests that the case studies are generally seen as highly valuable and relevant by the sector, with minimal concerns about their usefulness.

Overall value of the case study?

20 απαντήσεις

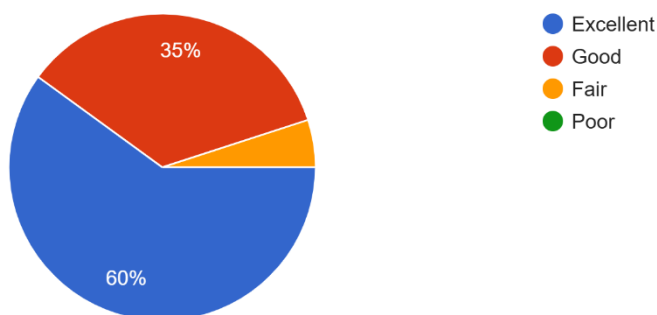


Figure 2-40: Overall value of the case study according to the stakeholders.

2.3 Key findings per country (Albania, Kosovo)

This chapter provides an overview of the main results obtained for Albania and Kosovo, highlighting the specific needs, gaps, and priorities identified through the questionnaires and case study validation process. The analysis incorporates the perspectives of VET trainers, industry professionals, and waste management stakeholders in each country, revealing both shared trends and context-specific challenges in the vocational education and training (VET) sector. Presenting the findings on a country-by-country basis allows for a targeted understanding of the local training landscape and informs the development of Intervention Programme Plans that are tailored to the unique educational, technical, and labor market conditions in Albania and Kosovo, while supporting the integration of digital, green, and transversal skills in VET provision.

2.3.1 Albania

This section presents the key results collected for Albania from the questionnaires administered to VET trainers, industry experts, and waste management stakeholders. The feedback highlights several recurring themes and priority areas for capacity building. VET trainers emphasized the need to strengthen both digital and green skills, as well as to adopt more interactive and practice-oriented teaching methods in waste management and recycling. Industry experts noted gaps in technical competencies among graduates and stressed the importance of aligning vocational curricula with current labor market requirements and emerging sustainability standards. Waste management stakeholders underlined the relevance of incorporating environmental regulations, circular economy principles, and community engagement practices into training programmes. Collectively, these insights provide a clear picture of the existing skills gaps and inform the design of the Intervention Programme Plan, ensuring that proposed capacity-building initiatives are practical, context-specific, and responsive to Albania's evolving VET and labor market landscape.

2.3.1.1 VET trainers' consultation

In Albania, vocational education and training providers reported teaching a diverse range of subjects related to environmental sustainability, waste management, and circular economy principles. These include sustainable tourism, sustainable management, the design of programs for social entrepreneurship and circular economy, green skills management in cleaning and housekeeping, as well as architecture and building management with a focus on sustainable design, construction waste management, and recycling practices. Additional areas of instruction include environmental circular economy, general management, and digital skills. This diversity reflects both the sectoral breadth and the interdisciplinary nature of sustainability-related VET training in the country.

The case studies developed within the project were widely recognized as highly effective tools for linking theory and practice. Respondents emphasized that the case studies provide concrete examples of how policies, technologies, and community initiatives are applied in real-world contexts. They allow learners to analyze successes, identify obstacles, and reflect on lessons learned, thereby enhancing critical thinking and problem-solving skills. In particular, the case studies were noted for their ability to bridge theoretical knowledge with practical application, supporting learners in understanding the challenges and solutions encountered in sustainable tourism, green housekeeping, waste management, and sustainable architecture. Overall, 64.5% of respondents rated the case studies as excellent, while 35.5% rated them as good, demonstrating that all participants found them useful for VET training.

Case studies also contribute to filling key gaps in existing curricula. Respondents highlighted that they address limited opportunities for learners to apply theory in practice, the scarcity of locally relevant examples, and the lack of focus on real-world implementation challenges. They further support the development of stakeholder engagement and problem-solving skills and enhance soft skills such as decision-making and workplace communication. By providing realistic scenarios, the case studies help learners gain confidence in applying their knowledge and preparing for challenges they are likely to encounter in the workplace.

Several improvements were suggested to make the case studies more suitable for VET learners. These include simplifying the language, clarifying the structure, and incorporating more visuals, diagrams, and interactive elements. Respondents also recommended the inclusion of hands-on tasks, discussion questions, and short practical exercises to encourage active learning. Ensuring that case studies are locally relevant and aligned with the Albanian context was emphasized as essential for their effectiveness. Breaking content into step-by-step scenarios linked to specific skills was also suggested to enhance learner engagement and comprehension.

Respondents proposed additional case study topics that could support teaching, including workplace communication, conflict resolution, time management, teamwork, safety procedures, and adaptation to change in the workplace. For the construction and architecture sectors, case studies focusing on construction site waste reduction, reuse of building materials, integration of circular economy principles, green building certifications, and urban green infrastructure were recommended. Digital skills and the use of digital advisory tools were also suggested as valuable areas to include.

Finally, respondents highlighted that incorporating interactive elements such as group discussions, site visits, and regular updates to reflect current technologies, regulations, and industry practices would further enhance the learning experience. A glossary of key terms could

also support learners with limited prior knowledge. Overall, participants emphasized that improving VET training in sustainability and related fields is critical and should be approached with seriousness and strategic planning to ensure meaningful impact.

2.3.1.2 Industry experts' consultation

The analysis of feedback from Albanian stakeholders provides important insights into skill gaps, institutional barriers, and training priorities within the waste management and recycling sector. Survey responses indicate that the challenges and tasks described in the case studies are highly representative of real operational scenarios in Albania. Key difficulties commonly encountered include volatility in recyclables markets, limited municipal cooperation, delays in permitting, and risks of project underperformance. The mitigation strategies presented in the case studies, such as diversifying materials and revenue streams, securing long-term contracts, establishing strong government and community partnerships, planning with realistic targets, and preparing permits early with expert support, were recognized as standard industry practice. Some respondents highlighted the importance of rapid, rule-compliant decision-making in situations where regulations allow discretionary interpretation, reflecting the complexity of real-world operations.

The case studies were widely considered effective in supporting job-ready skills for entry- and mid-level roles, including positions such as recycling yard operators, waste collection and sorting staff, environmental technicians, plant operators, repair and refurbishment technicians, eco-education facilitators, and sustainability project assistants. By linking theory with practical scenarios, learners gain hands-on experience in material sorting, refurbishment, and waste flow management, while also developing problem-solving abilities, environmental literacy, and understanding of circular economy concepts. The case studies provide a bridge between classroom instruction and real operational experience, equipping learners with competencies directly applicable in municipal recycling services, waste management companies, and circular economy enterprises.

Despite the overall effectiveness of the case studies, several skill gaps were identified. These include technical skills specific to waste management operations in Albania, knowledge of regulatory frameworks and EU-aligned compliance requirements, and digital competencies such as GIS, data analytics, and AI applications for waste tracking. Gaps were also noted in project management, financial literacy, and entrepreneurial skills needed to scale circular business models. Respondents emphasized the need for complementary training and capacity-building activities, particularly in advanced digitalisation, regulatory compliance, and business-oriented skills, to better prepare learners for mid-level supervisory or coordination roles.

Stakeholders confirmed that the case studies are highly effective as learning tools, providing real-world, context-specific scenarios that demonstrate practical applications of circular economy approaches. They noted that the case studies enhance technical skills and problem-solving capabilities, link theory to practice, support learning by doing, and prepare learners for both entry- and mid-level roles with applied, job-ready competencies. The case studies also foster understanding of circular economy principles, environmental sustainability, and operational realities, motivating learners by demonstrating the practical application of skills and knowledge in the sector.

Respondents suggested enhancements to increase realism and relevance, including the inclusion of local examples, updated regulations, and practical industry challenges. They

highlighted the need for more detailed scenarios covering compliance with EU-aligned waste regulations, licensing and permitting procedures, and workplace health and safety protocols. Enhancing interaction with waste suppliers and customers, as well as expanding digital and analytical learning opportunities, were also recommended. While most respondents considered the case studies already realistic and suitable for VET, these improvements could further increase their impact and applicability.

Several institutional barriers were identified, such as limited municipal cooperation, fragmented regulatory enforcement, and insufficient public–private collaboration. Respondents emphasized the importance of strengthening partnerships with government institutions, enhancing collaboration between VET providers and industry stakeholders, and increasing capacity-building initiatives to address knowledge gaps and operational challenges. Training priorities emerging from the survey include practical skills development, circular economy and environmental awareness, digital and analytical competencies, regulatory and compliance knowledge, and entrepreneurial and project management skills. A combination of hands-on learning, case-based instruction, and digital tools was recommended to effectively prepare learners for operational roles in the sector.

Overall, the Albanian case study feedback demonstrates that practical, real-world scenarios are highly effective in developing job-ready skills, improving regulatory and sectoral knowledge, and fostering understanding of circular economy practices. While the case studies are already relevant and realistic, targeted enhancements—particularly in digital skills, regulatory knowledge, and entrepreneurial training—can further strengthen workforce readiness. Strong willingness from industry stakeholders to provide input and examples for future case studies offers a unique opportunity to enhance collaboration between VET institutions and the private sector, ensuring that training remains aligned with evolving operational, regulatory, and market realities. The integration of these improvements will help address skill gaps, overcome institutional barriers, and meet Albania’s priority training needs in waste management and recycling.

2.3.1.3 Waste management stakeholders’ consultation

The stakeholder consultations in Albania identified several key findings related to skill gaps, institutional barriers, and training priorities within the waste management and circular economy sectors. Overall, there is growing awareness of the interconnection between waste management, environmental protection, and public health. Many initiatives, such as RecycAL, demonstrate that integrating social and public health dimensions into recycling and waste management practices can yield both environmental and social benefits. Specifically, by engaging marginalized groups, and by offering dignified employment opportunities and community-based awareness activities, these initiatives contribute to improved living conditions and public health outcomes. However, despite these positive examples, the broader application of such inclusive and preventive approaches remains limited and fragmented.

Stakeholders confirmed that the case studies and interventions are aligned with Albania’s National Waste Management Strategy 2020–2035 and the OECD Circular Economy Roadmap (2024). These alignments support national goals, including increasing recycling rates, reducing plastic leakage into waterways, and advancing Extended Producer Responsibility (EPR) mechanisms. The activities also contribute to Albania’s EU accession commitments and the Sustainable Development Goals (SDGs). Nonetheless, significant challenges persist. The most frequently cited issues include

insufficient waste separation at source, inadequate infrastructure for waste collection and recycling, and limited engagement from local authorities. Enforcement of environmental regulations remains inconsistent, particularly in rural municipalities, where institutional capacity is weaker.

From a skills perspective, there is a clear need to strengthen vocational training and capacity-building programs focusing on digital, green, and circular economy competences among VET educators and waste management professionals. Stakeholders also highlighted a lack of community-level awareness and public understanding of circular economy principles, underscoring the need for more educational campaigns and participatory approaches.

To increase the relevance and impact of future interventions, stakeholders recommended enhancing collaboration between municipalities, private sector actors, and civil society; improving infrastructure to prevent pollution; and expanding education and media outreach. They also suggested incorporating measurable data on environmental and socio-economic outcomes, developing visual and comparative materials aligned with EU standards, and ensuring the translation of resources into Albanian for broader accessibility. Overall, stakeholders expressed strong commitment to advancing circular economy practices, emphasizing that education, cooperation, and institutional support are key drivers for sustainable and inclusive waste management reform in Albania.

2.3.2 Kosovo

This section presents the main results collected for Kosovo from the questionnaires administered to VET trainers, industry experts, and waste management stakeholders. The responses reveal specific needs and priorities within the country's vocational education and training system. VET trainers highlighted the need for enhanced pedagogical approaches, including more hands-on learning and digital teaching tools, to effectively address skills gaps in waste management and recycling. Industry experts pointed to deficiencies in practical and technical competencies among learners, emphasizing the importance of aligning training content with current industry standards and emerging green practices. Waste management stakeholders stressed the relevance of integrating sustainability, regulatory compliance, and circular economy principles into VET programmes to better prepare learners for local and regional labor markets. These findings provide a solid evidence base for designing the Intervention Programme Plan, ensuring that capacity-building measures are targeted, contextually appropriate, and aligned with Kosovo's educational and labor market requirements.

2.3.2.1 VET trainers' consultation

In Kosovo, vocational education and training providers reported that the subjects they currently teach are predominantly focused on waste management and environmental protection, including nature conservation and general environmental topics. The responses indicate a strong emphasis on waste management across multiple institutions, reflecting both sectoral specialization and the high relevance of waste management within the local context.

Respondents highlighted the potential of the project's case studies to enhance learners' understanding of real-world practices and challenges in the waste management and recycling sector. They emphasized that case studies provide concrete, practical examples that can

complement theoretical knowledge, helping learners grasp the practices required for effective waste management. While Kosovo's current conditions in the sector are still developing, case studies were seen as highly valuable for demonstrating both best practices and areas needing improvement. They were also recognized as important for hands-on learning, supporting students in connecting theory to practical applications, and fostering a mindset aligned with sustainable waste management practices.

However, respondents noted that adaptation of the case studies is necessary to align with Kosovo's current realities. The sector in Kosovo is described as being at an early stage, and not all theoretical practices presented in the case studies are feasible to implement locally without modification. Adaptation would ensure that case studies are realistic and relatable, reflecting local infrastructure, practices, and constraints. Respondents stressed that while the learning level of students is adequate, the primary need is for case studies to reflect the context-specific challenges and opportunities in Kosovo.

Regarding training gaps, respondents identified that the case studies help address several key deficiencies in the current curriculum. These include a lack of practical training opportunities, limited exposure to innovative waste management techniques, and the need for students to understand real-world applications that they are expected to implement in the future. In Kosovo, where formal training in waste management is limited, the case studies were perceived as a valuable tool to bridge this gap, bringing new examples and strategies into the learning environment.

To make the case studies more suitable for VET learners, respondents suggested linking them to local site visits or virtual tours, providing a tangible connection between the examples presented and the learners' immediate environment. This approach would enhance engagement, contextual understanding, and the ability to translate theoretical knowledge into practical skills that can be applied within Kosovo's developing waste management sector.

2.3.2.2 Industry experts' consultation

The feedback from Kosovo stakeholders provides insights into the current challenges, skill gaps, and training needs within the waste management and recycling sector. Respondents noted that the challenges and tasks described in the case studies only partially reflect real operational scenarios. While the case studies offer a useful framework for understanding operational processes, some tasks were not described in sufficient detail, and decision-making in situations that require rapid action under legal frameworks with discretionary elements can be complex. This indicates a need for greater realism and contextual specificity in the scenarios presented.

The case studies were seen as moderately effective in supporting job-ready skills, particularly for technical and support staff and operational employees at landfills. They provide foundational knowledge and exposure to standard operational procedures, yet there is a clear need to enhance the practical applicability of the content to ensure learners are fully prepared for on-the-ground responsibilities.

Several skill and knowledge gaps were highlighted. Respondents emphasized the need for a stronger focus on circular economy concepts, including the principles of reduce, reuse, and recycle. The use of digital tools to facilitate operational efficiency was also identified as a critical area for development. In addition, stakeholders noted the importance of improving technical

competencies related to new work techniques, integrated waste treatment, waste separation, and recycling processes, alongside enhancing communication skills to better coordinate tasks in landfill operations. Broader awareness-raising within civil society was also identified as a priority, underlining the need to extend understanding of waste management and environmental responsibility beyond operational staff. Overall, there is a clear demand for more training and capacity-building activities to address these gaps.

Respondents generally agreed that case studies could help prepare learners if they are made more practical and context-specific. They suggested that enhancing realism through collaboration with multiple sectors—including municipal authorities, private companies, households, NGOs, and environmental activists—would enrich the learning experience and ensure that learners are exposed to diverse perspectives and real-world challenges. Additional recommendations included expanding training initiatives to normalize circular economy practices, increasing engagement with ongoing projects such as the implementation of waste separation and recycling programs, and integrating hands-on learning opportunities wherever possible.

No respondents raised major objections to the current approach, and some emphasized that the case studies are already a valuable foundation for training. However, the suggestions highlight opportunities to strengthen the material by including detailed operational tasks, multi-stakeholder perspectives, and practical exercises that reinforce skills and knowledge relevant to the Kosovo context.

In conclusion, the findings indicate that while the existing case studies provide a useful starting point for workforce preparation, targeted improvements are needed to address skill gaps, institutional barriers, and training priorities. Emphasis on circular economy principles, digital tools, practical operational skills, and broader stakeholder engagement will be critical to enhancing the relevance and effectiveness of training programs. By implementing these improvements, Kosovo can ensure that VET initiatives better equip learners to meet the evolving demands of the waste management and recycling sector and contribute to sustainable environmental practices.

2.3.2.3 Waste management stakeholders' consultation

The stakeholder consultations in Kosovo highlighted several pressing challenges and opportunities in advancing circular economy practices, particularly in relation to skill development, institutional capacity, and public engagement. Stakeholders emphasized the strong social and public health relevance of effective waste management. Proper recycling and waste treatment were recognized as essential for reducing exposure to hazardous waste, minimizing respiratory illnesses caused by open burning, and preventing the spread of disease from unmanaged disposal sites. Socially, the transition to a more circular waste system presents opportunities for job creation, community participation, and social inclusion; however, these dimensions are not yet fully integrated into current practices or training frameworks.

Despite increasing interest in recycling initiatives, Kosovo continues to face significant structural and behavioral barriers. The lack of widespread infrastructure for waste separation at source, particularly in rural municipalities, remains a major obstacle. Stakeholders noted weak enforcement of environmental regulations, limited coordination between municipalities and national authorities, and inadequate recycling facilities and technologies. Illegal landfilling and uncontrolled dumping persist in several areas, undermining both environmental quality and public trust. Additionally, cultural attitudes and public habits regarding waste disposal continue

to hinder progress, reflecting a broader need for education and mindset change across communities.

From a skills and training perspective, stakeholders identified the need to strengthen education and awareness at all levels—from households to schools to municipal institutions. There is a clear demand for targeted training programs to equip VET educators, waste management practitioners, and local administrators with competencies in sustainable waste management, behavioral change communication, and circular economy principles. Awareness-raising initiatives and community-based campaigns were repeatedly mentioned as essential for shifting public behavior and fostering a culture of recycling.

To enhance the effectiveness and applicability of existing interventions, stakeholders recommended several measures: expanding awareness and education programs, improving coordination among institutional actors, investing in modern recycling infrastructure, and developing clearer policy frameworks with measurable outcomes. They also called for stronger partnerships between municipalities, private sector operators, and civil society organizations to ensure shared responsibility and sustained impact. Overall, stakeholders agreed that while Kosovo's waste management system remains at an early stage compared to EU standards, increasing focus on education, policy alignment, and infrastructure development could accelerate the transition toward a more circular and sustainable economy.

3 WARP Intervention strategy

3.1 Overview of programme structure

The Intervention Programme is designed to provide a comprehensive and systematic approach to capacity building for VET trainers, educational designers, professional development trainers, and newcomers in Albania and Kosovo. It is organized into modular components, each addressing specific skill areas such as pedagogical methods, digital competencies, green skills, and sector-specific technical knowledge in waste management and recycling. The programme integrates the previously developed case studies as core practical tools, enabling participants to apply theoretical concepts in realistic scenarios and fostering hands-on learning. Each module includes clearly defined learning objectives, content, activities, and assessment criteria, allowing flexible implementation according to participants' prior experience and professional roles. The structure balances theoretical knowledge, practical exercises, and applied learning, while incorporating innovative teaching approaches to enhance engagement and effectiveness. By linking the modules with contextually validated case studies, the programme ensures that capacity-building activities are both evidence-based and directly relevant to the needs of the circular economy and green transition.

3.1.1 VET trainers and Educational designers

The capacity-building programme is designed to address the differentiated needs of VET educators and curriculum designers in Albania and Kosovo, providing flexible, engaging, and practice-oriented learning opportunities. The structure combines self-paced digital learning for trainers with interactive Train-the-Trainer workshops for VET designers, ensuring comprehensive professional development aligned with labor market and sustainability requirements.

3.1.1.1 Self-Paced Courses for VET Trainers (D2.1)

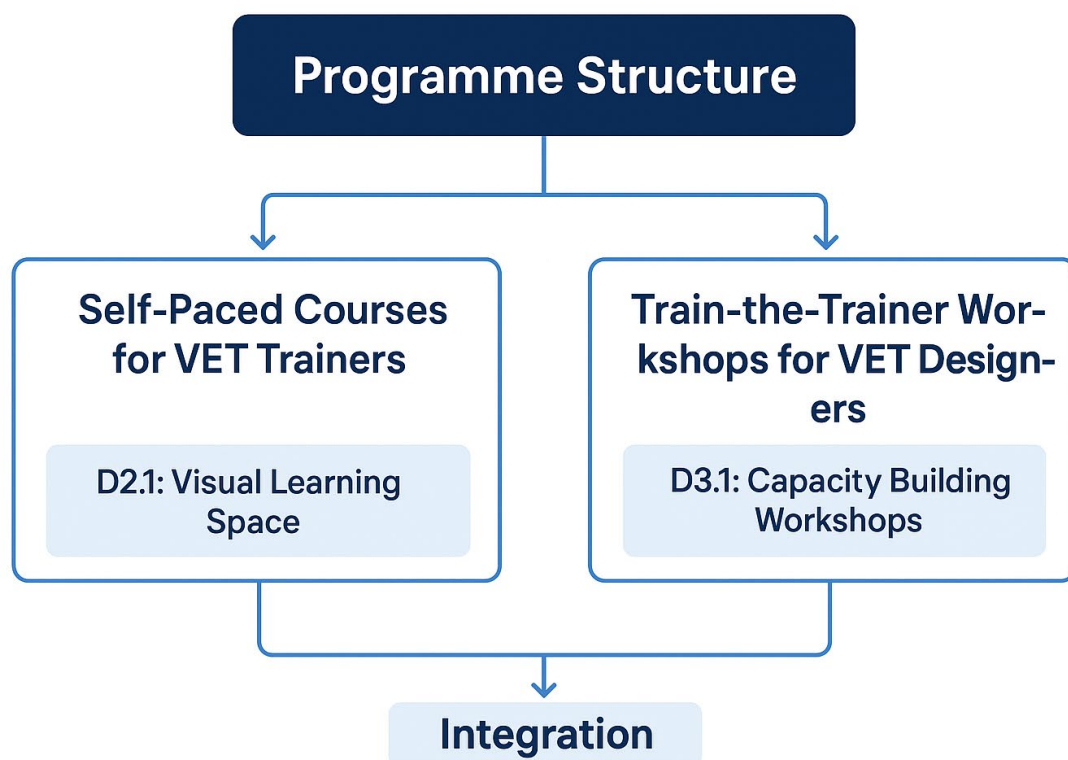
The self-paced component leverages "D2.1: Visual Learning Space", an online platform that acts as a centralized hub for professional development. Key features include:

- **Access to Educational Resources:** Trainers can navigate and engage with Open Educational Resources (OERs) aligned with 16 learning units, covering both digital and green competencies.
- **Interactive Learning Environment:** Simulation exercises, discussion forums, and collaborative tools facilitate immersive learning and peer-to-peer knowledge exchange.
- **Flexible and Inclusive Delivery:** Trainers can complete the courses at their own pace, promoting accessibility for diverse participants.
- **Language and Usability:** The platform is available in partner languages and English, with user-friendly interfaces designed to accommodate different levels of digital literacy.
- **Professional Development Outcomes:** By completing the self-paced courses, trainers acquire enhanced pedagogical skills and practical techniques to integrate digital and green competencies into their teaching.

3.1.1.2 Train-the-Trainer Workshops for VET Designers (D3.1)

The Train-the-Trainer (ToT) workshops, based on “D3.1: Capacity Building Workshops”, target VET curriculum designers and senior trainers responsible for developing educational content. Key features include:

- **Structured Workshop Modules:** Focused on sustainable waste management and recycling, modern teaching methodologies, and the integration of digital and green skills into curricula.
- **Interactive and Practical Approach:** Workshops combine discussions, hands-on exercises, and collaborative tasks to ensure immediate applicability of learned methods in educational settings.
- **Curriculum Alignment with Industry Needs:** Participants are equipped to adapt VET curricula to evolving labor market standards and sustainability goals.
- **Live, Collaborative Sessions:** Facilitated by experienced educators, workshops provide opportunities for knowledge exchange, networking, and mentorship.
- **Professional Development Outcomes:** Participants gain the expertise to design, deliver, and evaluate high-quality VET training programs, fostering innovation and industry relevance.



Together, the self-paced courses and ToT workshops form a cohesive programme:

- Self-paced courses allow trainers to build foundational knowledge and skills independently.

- ToT workshops enable VET designers to translate this knowledge into effective curricula and teaching practices.
- Both pathways ensure continuous professional development, strengthen pedagogical capacity, and respond to labor market and sustainability challenges in Albania and Kosovo.

3.1.1.3 Special equipment

The programme is designed to actively engage VET partners in integrating innovative practices into their teaching, with a particular focus on sustainable waste management and recycling. Key components of the programme include the use of the “Innovation Toolkit for VET Teachers” and the development of a “Collaborative Innovation Report”.

3.1.1.3.1 Innovation Toolkit for VET Teachers (D2.4)

The toolkit provides VET educators with a comprehensive set of resources, methodologies, and technological tools aimed at enhancing the delivery of educational content. Its key features include:

- Guidelines and Methodologies: Step-by-step instructions for incorporating innovative teaching approaches, such as project-based learning, digital learning, and collaborative activities, into vocational curricula.
- Interactive Materials and Case Studies: Real-world examples and practical exercises that allow educators to demonstrate sustainable waste management and recycling concepts effectively.
- Technological Support: Digital resources and tools that facilitate interactive learning, including templates, multimedia content, and modular teaching frameworks.
- Multilingual Access: Available as electronic documents in English and all partner languages to ensure inclusivity and wider usability across VET institutions.

Through the use of this toolkit, VET partners are expected to enhance their pedagogical skills, foster learner engagement, and support the adoption of innovative, sustainability-focused practices in their classrooms.

3.1.1.3.2 Collaborative Innovation Report (D3.4)

This report, produced collaboratively by all VET partners in English, documents the process, experiences, and outcomes of the programme activities. Key objectives of the report include:

- Showcasing Modular Curriculum Approaches: Illustrates how VET trainers are applying modular designs in their curricula to allow for easy updates and adaptations in response to evolving industry and sustainability demands.
- Sharing Best Practices: Highlights successful strategies, innovative teaching methodologies, and effective use of toolkit resources across different partner institutions.
- Reflecting on Impact: Provides insights into how the programme has influenced both teaching practices and learner engagement in sustainable waste management and recycling topics.



Together, the toolkit and collaborative report create a structured framework through which VET partners can experiment, implement, and share innovative practices, ensuring a continuous improvement cycle in vocational education.

3.1.2 Professional Development trainers

The professional development programme for VET trainers under the WARP project is designed to strengthen the competencies, pedagogical skills, and collaborative capacity of educators in the field of sustainable waste management and recycling. The programme leverages two complementary approaches: “Twinning and Mentoring” and “Mobility Sessions”, each aimed at fostering knowledge exchange, practical learning, and cross-institutional collaboration.

3.1.2.1 Twinning and Mentoring Program (D2.3)

The Twinning and Mentoring component provides a structured framework to support the professional growth of VET trainers by pairing experienced educators with less experienced or newly recruited trainers. Key features include:

- **Mentorship Pairing:** Carefully matched mentor-mentee pairs facilitate personalized guidance, focusing on teaching methodologies, curriculum design, and the integration of sustainability concepts into VET programmes.
- **Knowledge Exchange:** Mentors share expertise, practical insights, and innovative teaching approaches, while mentees contribute fresh perspectives and feedback, creating a dynamic environment of mutual learning.
- **Institutional Collaboration:** The programme establishes partnerships between participating VET institutions, promoting the exchange of best practices, pedagogical innovations, and collaborative problem-solving strategies in sustainable waste management and recycling education.

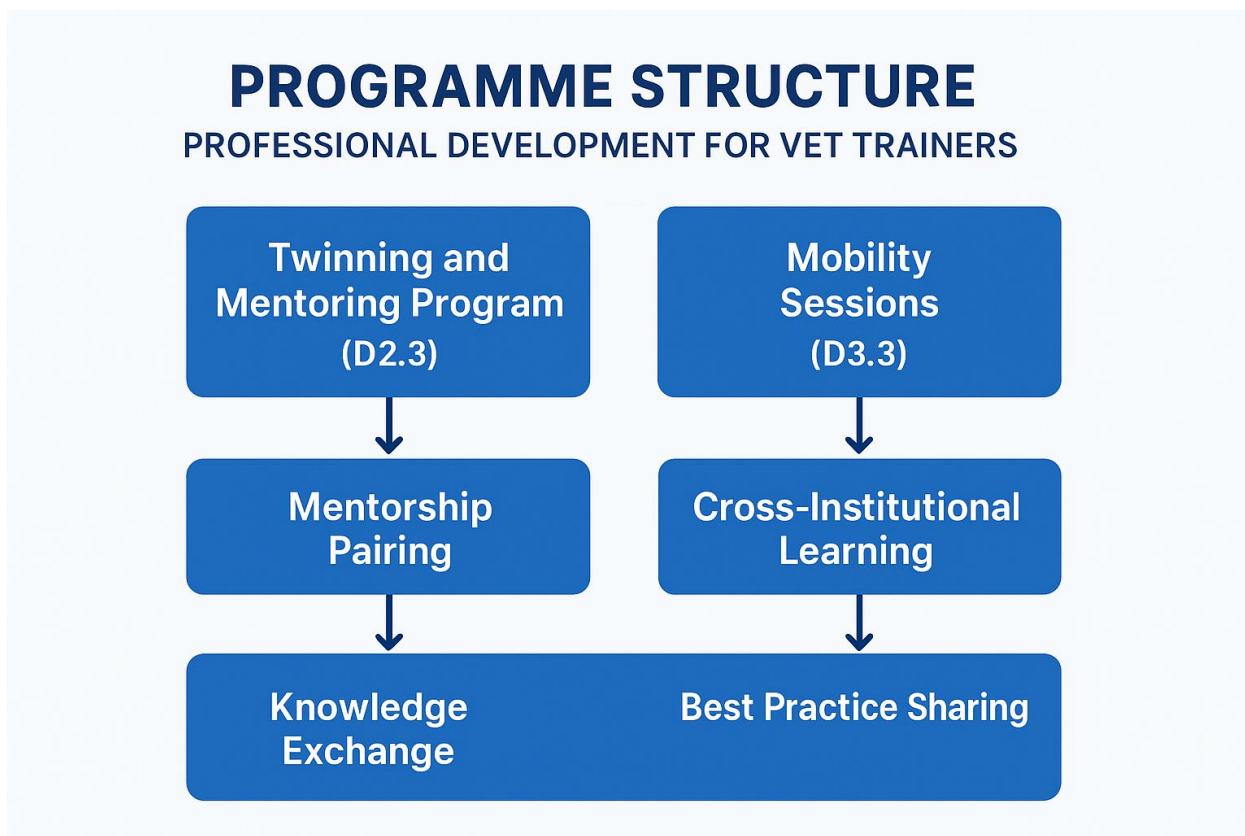
- **Documentation and Evaluation:** Electronic records in English will track interactions, progress, and outcomes, providing a comprehensive overview of the professional development achieved through the mentoring relationships.

This approach ensures a continuous learning process where both experienced and novice trainers benefit from professional growth, enhanced teaching effectiveness, and improved curriculum implementation.

3.1.2.2 Mobility Sessions (D3.3)

Mobility sessions complement the Twinning and Mentoring program by enabling VET trainers to engage in cross-institutional learning and first-hand experience exchange. Key aspects include:

- **Cross-Institutional Learning:** Trainers participate in mobility activities within Albania and Kosovo, observing and engaging with peer institutions to understand diverse educational practices and sustainability approaches.
- **Best Practice Sharing:** Sessions focus on the dissemination of innovative teaching methods, curriculum integration of circular economy principles, and effective learner engagement strategies.
- **Collaboration and Networking:** Mobility activities strengthen professional networks among VET educators, fostering long-term collaboration and opportunities for joint projects.
- **Comprehensive Reporting:** Each mobility session is documented in detail, including planning, execution, outcomes, and participant feedback. This reporting ensures transparency, enables assessment of learning impact, and informs future professional development activities.



Together, Twinning and Mentoring and Mobility Sessions form a cohesive professional development programme that:

- Enhances VET trainers' pedagogical and technical expertise in sustainable waste management and recycling.
- Promotes mutual learning, intercultural exchange, and collaborative problem-solving.
- Strengthens institutional partnerships and the sharing of innovative educational practices.
- Provides measurable outcomes through structured documentation and evaluation.

This integrated approach ensures that professional development is continuous, practical, and aligned with the strategic objectives of the WARP project, ultimately contributing to a more skilled, collaborative, and innovative VET trainer community.

3.1.3 Newcomers

The WARP Virtual Mentoring Programme is designed to support newcomers—particularly newly appointed or less experienced VET trainers—in developing professional competencies in sustainable waste management and recycling, while fostering digital literacy and innovative teaching practices. The programme combines self-paced learning through Open Educational Resources (OERs) with structured, personalized mentoring sessions to maximize learning outcomes and professional growth.

3.1.3.1 Virtual Learning Component (D2.2)

Newcomers engage with the WARP OERs, which are structured around the 16 learning units of the WARP curriculum. The OERs provide a rich variety of educational materials—including textual content, videos, case studies, interactive simulations, and assessments—designed to support flexible, self-directed learning. These resources enable trainers to:

- Acquire foundational knowledge in sustainable waste management and recycling.
- Explore green practices and digital transformation concepts relevant to VET education.
- Practice integrating innovative pedagogical approaches in their teaching.
- Access multilingual content in partner languages and English, ensuring inclusivity and adaptability.

By engaging with these OERs, newcomers can progress at their own pace while preparing for more interactive, application-focused mentoring sessions. The virtual format ensures accessibility, allowing trainers to revisit materials as needed to reinforce understanding and teaching competency.

3.1.3.2 Mentoring Component (D3.2)

Complementing the virtual resources, the mentoring programme provides newcomers with one-on-one guidance from experienced VET trainers. The mentoring sessions are structured to:

- Facilitate the practical application of knowledge acquired from the WARP OERs.
- Support trainers in adopting innovative teaching methods and sustainability concepts.
- Encourage reflection on teaching practices and provide constructive feedback.
- Promote a collaborative and supportive professional environment among participants.

Each session is documented through detailed reports or summaries, capturing session content, learning outcomes, and participant feedback. These deliverables not only track progress but also help refine the mentoring approach and share best practices across the network of VET trainers.

Programme Structure for Newcomers: Virtual Mentoring Integration

Virtual Learning Component

(D2.2: WARP Open Educational Resources)

Engage with WARP OERs, which include textual content, videos, case studies, interactive simulations, and assessments



Mentoring Component

Receive one-on-one guidance, share experiences, and apply learnings from OERs



Integration of Virtual Learning and Mentoring

The programme ensures seamless interaction between virtual learning and mentoring by:

- Structuring mentoring sessions to align with the progression of OER learning units.
- Using virtual resources as preparatory material for discussion, practical exercises, and problem-solving during mentoring sessions.
- Encouraging newcomers to reflect on their learning and classroom application, supported by mentor guidance.
- Providing continuous support through digital platforms to sustain engagement and knowledge retention.

Overall, this integrated approach enables newcomers to build confidence, develop subject-matter expertise, and foster professional networks, enhancing their ability to deliver high-quality, sustainability-focused VET education.

3.2 Training framework and guidelines for Albania and Kosovo

3.2.1.1 Training framework and guidelines for Albania

3.2.1.1.1 Content and Learning outcomes

This chapter outlines the structure, learning objectives, and expected outcomes of the vocational education and training modules on environmental sustainability, circular economy, and waste management in Albania. The content reflects the interdisciplinary and practice-oriented nature of Albanian VET initiatives and integrates the recommendations provided by VET trainers, industry experts, and waste management stakeholders. The proposed thematic areas derive from the validation of the case studies proposed aiming to strengthen learners' understanding of sustainability principles, develop technical and digital competencies, and foster the professional and soft skills necessary to meet Albania's evolving green economy priorities and EU-aligned environmental standards.

Thematic areas	Description of Topics	Topics include	Learning objectives	Expected competencies and skills
1. Waste management operations and recycling practices	This module provides hands-on understanding of waste management systems, recycling technologies, and material recovery processes. Drawing from industry case studies, learners explore operational challenges and best practices within Albania's waste management sector.	- Waste collection, sorting, and recycling operations. - Extended Producer Responsibility (EPR) mechanisms. - Health, safety, and environmental protection protocols. - Data tracking and digital tools in waste management. - Case studies of Albanian initiatives (e.g., RecycAL).	- Demonstrate knowledge of waste management processes and recycling methods. - Apply safety and compliance standards in waste management operations. - Evaluate case studies to identify operational challenges and solutions.	- Technical proficiency in waste handling and sorting. - Understanding of compliance and regulatory frameworks. - Workplace safety and environmental risk management skills.
2. Foundations of Environmental Sustainability and Circular Economy	This module introduces key environmental sustainability concepts, circular economy principles, and Albania's policy frameworks guiding green transition efforts. It explores the relationship between resource efficiency, waste reduction, and sustainable economic growth, with reference to Albania's National Waste Management Strategy (2020–2035), OECD Circular Economy Roadmap (2024), and EU accession goals.	- Principles of environmental sustainability and resource efficiency. - Circular economy concepts: reuse, repair, recycling, and product life-cycle thinking. - Overview of Albania's national strategies and EU policy alignment. - Environmental, social, and economic impacts of waste. - Sustainable Development Goals (SDGs) and their relevance for Albania.	- Understand the foundational principles of environmental sustainability and circular economy. - Explain Albania's strategic and regulatory frameworks supporting green transition. - Analyze how circular economy models contribute to sustainable development and employment.	- Environmental literacy and systems thinking. - Policy awareness and regulatory understanding. - Ability to relate global sustainability goals to local Albanian contexts.

Thematic areas	Description of Topics	Topics include	Learning objectives	Expected competencies and skills
3. Sustainable tourism and green services	This module focuses on sustainable tourism and service sector practices promoting environmental responsibility, community engagement, and circular resource use. Case studies illustrate real-world examples of eco-tourism, green housekeeping, and sustainable management practices within Albania.	- Sustainable tourism development and eco-certifications - Resource-efficient hotel and hospitality operations - Waste reduction and recycling in cleaning and housekeeping - Community-based tourism and social entrepreneurship models	- Apply sustainability principles to tourism and hospitality operations. - Design and evaluate green service models that reduce environmental impact. - Identify opportunities for circular economy initiatives in the service sector.	- Operational knowledge of sustainable tourism management. - Skills in resource optimization and waste minimization. - Customer communication and eco-awareness promotion.
4. Sustainable design, construction, and architecture	This module introduces sustainable construction practices and architectural approaches that integrate circular economy principles. Learners examine waste minimization in building design, material reuse, and energy-efficient technologies relevant to Albania's construction sector.	- Green building design and certification systems. - Construction waste reduction and materials reuse. - Urban green infrastructure and sustainable city planning. - Integration of digital design tools for sustainable construction.	- Explain key principles of sustainable construction and green architecture. - Identify methods for reducing construction waste and improving energy efficiency. - Apply digital tools to support sustainable design solutions.	- Technical and creative design thinking for sustainability. - Competence in waste reduction and resource-efficient construction. - Familiarity with digital modeling and certification processes.
5. Digitalisation for Sustainability and Circular Economy	This module explores how digital technologies enhance environmental management and circular economy practices. Emphasis is placed on developing digital literacy among learners to support data-driven decision-making in sustainability fields.	- Introduction to digital tools for waste tracking and analysis (GIS, AI, data analytics). - Smart technologies in recycling and resource management. - Online collaboration and e-learning for sustainability training. - Digital advisory tools for circular business planning.	- Understand the role of digital tools in supporting circular economy operations. - Apply basic data analytics to monitor waste flows and recycling performance. - Develop digital competence for sustainability project management.	- Digital literacy and data interpretation skills - Familiarity with digital monitoring and advisory systems. - Problem-solving using digital and analytical tools.

Thematic areas	Description of Topics	Topics include	Learning objectives	Expected competencies and skills
6. Entrepreneurship, Project Management, and Green Innovation	This module promotes entrepreneurial thinking and innovation in sustainability-oriented businesses. Learners engage in project-based learning to design small-scale circular business models and community initiatives.	- Fundamentals of green entrepreneurship and business models. - Financial literacy and project budgeting. - Strategic and operational planning in sustainability projects. - Case studies of Albanian circular enterprises.	- Develop business ideas aligned with circular economy principles. - Apply project management tools to plan and monitor sustainability projects. - Demonstrate entrepreneurial and financial competencies for green innovation.	- Entrepreneurial mindset and initiative. - Project management and financial planning skills. - Ability to collaborate and innovate in sustainability contexts.
7. Soft skills for sustainable workplaces	This module strengthens transversal skills needed in green and circular economy sectors. It includes communication, teamwork, conflict resolution, and adaptability, with real-world examples from Albanian workplaces.	- Effective workplace communication and teamwork. - Time management and conflict resolution. - Decision-making and problem-solving in sustainability contexts. - Adaptation to change and continuous learning.	- Demonstrate effective communication and collaboration in professional settings. - Manage workplace challenges with problem-solving and adaptability skills. - Reflect on personal and professional growth within sustainability careers.	- Strong interpersonal and organizational skills. - Critical thinking and decision-making abilities. - Confidence and resilience in dynamic work environments.
8. Applied learning through case studies and field practice	This capstone module focuses on experiential learning through locally relevant case studies, site visits, and group projects. It enables learners to apply theoretical knowledge to real-world Albanian contexts.	- Analysis of Albanian case studies in tourism, waste management, and construction. - Group discussions, simulations, and site-based observations. - Problem-solving exercises linked to specific workplace scenarios. - Reflection on lessons learned and career readiness.	- Integrate theoretical knowledge with practical experience through case-based learning. - Analyze real-world sustainability challenges and propose actionable solutions. - Develop teamwork, leadership, and applied problem-solving skills.	- Ability to apply theory to practice. - Analytical, reflective, and problem-solving competencies. - Preparedness for job roles in green and circular economy sectors.

The integrated curriculum emphasizes applied learning, interdisciplinary knowledge, and digital readiness as key pillars of Albania's vocational education in sustainability and circular economy. Through modular and interactive approaches—enhanced by localized case studies, visual materials, and practical exercises—learners develop both job-ready technical skills and transferable soft skills essential for advancing Albania's sustainable development agenda and EU accession commitments.

3.2.1.1.2 Delivery methods

The effective delivery of vocational education and training in environmental sustainability, waste management, and circular economy in Albania depends on the use of flexible, inclusive, and practice-oriented pedagogical methods. The aim is to ensure that training programs not only build theoretical knowledge but also strengthen applied, job-ready, and digital skills in alignment with the country's labor market dynamics and EU integration priorities.

To achieve this, Albanian VET providers are encouraged to employ blended pedagogical approaches, use standardized templates and implementation resources, and continuously adapt training methods to emerging green and digital skill demands.

3.2.1.1.2.1 Pedagogical Approaches

Type of pedagogical approach	Description	Benefits
Blended learning	A blended learning model combines in-person instruction with digital and online tools to maximize flexibility and engagement. This approach supports learners across different regions of Albania, particularly those in rural or underserved areas, while maintaining high-quality, interactive instruction. Key components include: • Face-to-face workshops for practical exercises, teamwork, and project work. • Online modules for theoretical instruction, quizzes, and digital simulations. • Virtual learning environments (VLEs) for continuous communication, feedback, and assignment submission. • Use of multimedia resources (videos, infographics, interactive case studies) to enhance understanding of complex sustainability topics.	• Expands access to learners outside major urban centers. • Supports self-paced learning and flexibility. • Encourages digital competence and ICT skills development.
Workshops and experiential learning	Workshops and hands-on activities are essential in connecting theory with real-world practice. They enable learners to apply sustainability and circular economy principles in simulated or actual workplace environments. Examples of activities: • Waste sorting and recycling demonstrations with local municipal	• Reinforces applied learning and problem-solving skills. • Encourages collaboration with local enterprises and municipalities. • Strengthens practical

Type of pedagogical approach	Description	Benefits
	services or private recyclers. • Design thinking workshops to prototype circular business ideas. • Sustainable tourism simulations and service management exercises. • Energy-efficiency audits in school buildings or partner institutions.	readiness for employment in green sectors.
Case-based learning	The case study method—already well-received by Albanian VET trainers—serves as a bridge between classroom instruction and workplace realities. Learners analyze authentic local and international examples that demonstrate the implementation of circular economy models, sustainable tourism initiatives, and waste management solutions. Features of this approach: • Locally relevant scenarios reflecting Albania’s regulatory, social, and economic context. • Step-by-step analysis of challenges, solutions, and policy implications. • Discussion questions and problem-solving exercises for group reflection. • Integration of visual materials (maps, infographics, diagrams) for improved comprehension.	• Enhances contextualized learning and critical thinking. • Encourages reflection on real-world decision-making. • Addresses the lack of localized, practice-based teaching materials.

Type of pedagogical approach	Description	Benefits
Project-Based and Collaborative Learning	This approach engages learners in multi-disciplinary projects where they work collaboratively to design solutions for sustainability challenges. It develops both technical and soft skills. Typical projects: • Developing a local recycling campaign in cooperation with municipalities. • Designing a green tourism product or service for rural communities. • Creating a digital waste tracking tool prototype for data monitoring.	• Builds teamwork, communication, and leadership skills. • Strengthens public-private partnerships. • Encourages innovation and entrepreneurship among young learners.
Field visits and industry placements	Learning is reinforced through site visits, internships, and on-the-job training in collaboration with industry partners such as recycling centers, construction firms, tourism operators, and green enterprises.	• Facilitates direct exposure to operational environments. • Encourages partnership with local businesses and municipalities. • Enhances job readiness and confidence among learners.

Type of pedagogical approach	Description	Benefits
Online and mobile learning tools	Given Albania's growing digitalization efforts, the integration of e-learning platforms, mobile apps, and digital advisory tools is recommended. Online components can deliver short micro-courses or supplementary materials on emerging topics like data analytics, AI for waste tracking, or green entrepreneurship.	• Supports lifelong learning and upskilling. • Provides flexible access for working professionals. • Promotes continuous updates aligned with market changes.

3.2.1.1.2.2 Use of Templates, Resources, and Guidelines for Implementation

To ensure quality, consistency, and replicability across VET institutions in Albania, the Intervention Programme incorporates a set of standardized templates, resources, and implementation guidelines. These tools are designed to support trainers and educational designers in effectively delivering, monitoring, and adapting the training activities to diverse learning contexts.

The programme includes curriculum and lesson plan templates that clearly define learning objectives, targeted competencies, proposed activities, and assessment methods. These templates are aligned with the European Qualifications Framework (EQF) and national VET standards, and they provide practical guidance for embedding sustainability and circular economy principles into cross-sectoral subjects such as tourism, construction, and information technology.

Complementing these, case study and project templates are provided to help trainers design and implement locally relevant learning experiences. They offer a structured approach for linking theory with practice and for facilitating reflection on learning outcomes. In addition, they include checklists ensuring compliance with safety, environmental, and ethical standards.

A suite of assessment and feedback tools supports both formative and summative evaluation. These include performance rubrics, digital assessment instruments, and learner reflection sheets, all aimed at encouraging self-assessment, collaboration, and critical thinking.

To enhance accessibility and resource sharing, the programme establishes resource libraries and digital repositories containing case studies, multimedia materials, and national regulatory documents available in the Albanian language. These repositories also provide access to EU-aligned sustainability toolkits and international best practices, integrating interactive content such as videos, diagrams, and quizzes to engage a wide range of learners.

Comprehensive implementation guidelines for trainers are also provided in the form of handbooks outlining methodologies for active and inclusive teaching. They include practical recommendations for the use of participatory methods such as simulations, role plays, and community-based projects, as well as strategies for adapting materials to learners with varying levels of prior knowledge and experience.

Finally, all templates and resources are translated and locally adapted to ensure relevance to the Albanian context. This process involves close collaboration among VET institutions, municipalities, and private sector partners to maintain up-to-date and contextually appropriate materials that reflect local terminology, legislation, and industry practices. Through this structured approach, the programme ensures that its implementation is coherent, scalable, and responsive to both national and European quality standards.

3.2.1.1.2.3 Adaptability to Changing Labor Market Needs

To ensure long-term relevance, responsiveness, and sustainability, the VET programmes developed under this initiative are designed to continuously evolve in line with Albania's labor market demands, EU policy priorities, and technological advancements. The adaptability of the programme is achieved through a flexible content structure, dynamic feedback mechanisms, and strong partnerships between education providers, industry actors, and public institutions.

A key element of this adaptability is the establishment of a regular labor market and skills monitoring system. This mechanism promotes an active feedback loop between VET institutions, employers, and policy bodies to identify emerging trends and sectoral skill requirements. Annual skill gap analyses are conducted in waste management to ensure that training offers reflect the most up-to-date professional profiles. The curriculum is periodically updated to integrate new occupational roles, including digital waste analysts, green technicians, and eco-innovation consultants, which represent the evolving dynamics of a green and digital economy.

The programme's flexible and modular structure further supports adaptability. Training content is organized into self-contained learning units that can be independently revised or replaced as market conditions change. This design allows for the integration of micro-credentials and short, targeted courses aimed at rapid upskilling and reskilling. Moreover, Recognition of Prior Learning (RPL) is incorporated to acknowledge skills gained through informal or workplace-based experience, thus promoting inclusivity and efficiency in professional development pathways.

Collaboration with industry and municipal stakeholders reinforces the relevance of the programme. Ongoing partnerships enable the co-design of learning materials, facilitate practical placements, and support the development of joint pilot projects such as municipal recycling initiatives and green construction demonstrations. Data and insights from active national sustainability programmes are also integrated into the curriculum to maintain alignment with real-world developments.

Digitalization and the green transition are embedded as cross-cutting dimensions of all learning activities. The programme systematically integrates digital and green skills to align with Albania's strategic priorities on digital transformation and environmental sustainability. Emerging technologies such as artificial intelligence (AI), geographic information systems (GIS), and the Internet of Things (IoT) are introduced to strengthen learners' competencies in environmental management and innovation. Learners are encouraged to participate in hackathons, digital competitions, and start-up incubation programmes, fostering creativity and entrepreneurship in the VET ecosystem.

Finally, the programme ensures adaptability through continuous professional development for VET trainers. Educators benefit from regular upskilling opportunities via workshops, online courses, and exchanges with EU partner institutions. Access to updated teaching materials, digital repositories, and communities of practice helps trainers remain at the forefront of pedagogical and technological advancements. Their feedback is systematically integrated into curriculum revision cycles, ensuring that the VET offer remains relevant, future-oriented, and responsive to both national and European labor market trends.

3.2.1.1.3 Implementation guidelines

These implementation guidelines outline the practical steps, responsibilities, and timelines for delivering the VET program on sustainability, circular economy, and waste management in Albania. They are designed to ensure consistency, quality, and efficiency across institutions while allowing adaptability to local contexts and labor market needs. The implementation process emphasizes collaboration between VET institutions, trainers, local government authorities, industry partners, and community stakeholders, ensuring that training delivery supports Albania's national sustainability priorities and EU integration goals.

In specific, the implementation of the Intervention Programme follows a structured, step-by-step framework designed to ensure systematic planning, effective delivery, and continuous improvement. This framework guides institutions through each phase of the programme — from initial preparation and curriculum localization to delivery, evaluation, and long-term sustainability. It emphasizes collaboration with industry and municipal partners, integration of localized content, inclusion of diverse learner groups, and alignment with national and European qualification frameworks. The process also incorporates mechanisms for ongoing monitoring, feedback, and revision to ensure responsiveness to changing market conditions and technological advancements. The detailed description of each phase, including timelines, activities, and responsibilities, is presented in the table below.

Phase	Timeframe	Key Activities / Milestones
Phase 1: Planning & Preparation	Months 1–2	Skills gap analysis, stakeholder engagement, curriculum approval
Phase 2: Curriculum Customization & Trainer Preparation	Months 3–4	Localization of materials, translation, trainer workshops
Phase 3: Learner Recruitment & Orientation	Month 5	Enrollment, orientation, digital platform setup
Phase 4: Program Delivery (Modules 1–8)	Months 6–12	Delivery of theoretical and practical modules, continuous assessment
Phase 5: Work-Based Learning / Field Practice	Months 9–12	Internships, applied projects, industry collaboration
Phase 6: Evaluation & Certification	Months 12–13	Final assessment, certification, stakeholder feedback
Phase 7: Review & Continuous Improvement	Ongoing	Annual updates to content, trainer CPD, market alignment

Moreover, successful implementation requires clear definition of responsibilities among all actors involved. The following structure ensures accountability, collaboration, and quality assurance.

Stakeholder Group	Key Responsibilities	Expected Outcomes
1. Institutional Administrators / Programme	- Oversee overall programme design, budgeting, and reporting. - Ensure compliance with	Effective management of programme logistics and stakeholder relations.

Stakeholder Group	Key Responsibilities	Expected Outcomes
Coordinators	NAVETQ and Ministry of Education and Sports regulations. - Facilitate partnerships with municipalities, enterprises, and NGOs. - Supervise quality assurance, evaluation, and data collection. - Coordinate communication among trainers, learners, and external stakeholders.	Consistent quality and documentation across institutions.
2. Trainers / Instructors	- Deliver training units using interactive and practice-oriented approaches. - Facilitate case-based discussions, group projects, and workshops. - Integrate digital tools (e-learning platforms, data analysis applications) into lessons. - Assess learners through formative and summative methods. - Provide continuous feedback and mentorship to support learner progress.	- Active and engaging learning environment. - Improved learner performance and job-readiness skills.
3. Industry and Community Partners	- Provide access to work-based learning opportunities, site visits, and technical mentorship. - Share real-world case studies, data, and sustainability practices. - Support the development of applied projects and community initiatives.	- Stronger linkages between VET institutions and the labour market. - Enhanced realism and relevance of training experiences.
4. Learners	- Actively participate in classroom, online, and field activities. - Contribute to teamwork and	- Development of technical, digital, and transversal skills. - Increased readiness for employment or entrepreneurship in green

Stakeholder Group	Key Responsibilities	Expected Outcomes
	project-based assignments. • Apply sustainability principles in practical settings. • Provide feedback to enhance programme quality.	sectors.
5. Quality Assurance and Evaluation Teams	• Monitor training delivery and ensure adherence to quality standards. • Evaluate teaching effectiveness and learning outcomes. • Recommend improvements for future implementation cycles.	• Consistent quality assurance framework. • Continuous improvement of programme delivery and outcomes.

These implementation guidelines provide a structured roadmap for VET institutions in Albania to operationalize sustainability and circular economy training programs effectively. The process emphasizes collaboration, adaptability, and accountability, ensuring that the program remains responsive to Albania's evolving green labor market and supports the country's transition toward a resource-efficient, inclusive, and EU-aligned economy.

3.2.2 Training Content, Outcomes, and Delivery Guidelines for Kosovo

3.2.2.1 Content and Learning outcomes

The VET program on **environmental sustainability, waste management, and circular economy** in Kosovo aims to strengthen practical, job-ready, and civic competencies for sustainable waste management and environmental protection.

The program responds directly to the consultations with VET trainers, industry experts, and waste management stakeholders, which revealed the following key needs:

- A stronger focus on **practical and context-specific training**, particularly in waste management and recycling.
- Integration of **circular economy principles** (reduce, reuse, recycle) into VET curricula.
- Enhanced use of **digital tools** and **hands-on learning** methods.
- Increased **public awareness**, community engagement, and understanding of the social and health impacts of waste mismanagement.

The thematic areas below are designed to address these needs by providing a balanced combination of **theoretical grounding**, **local adaptation**, and **practical application**.



Thematic areas	Description of Topics	Topics include	Learning objectives	Expected competencies and skills
1. Introduction to Environmental Protection and Waste Management in Kosovo	This introductory module provides an overview of environmental challenges and waste management practices in Kosovo. It contextualizes sustainability within Kosovo's economic, social, and ecological realities and introduces key environmental policies and frameworks.	- Overview of Kosovo's environmental context and waste management system. - National and municipal waste management policies and regulations. - Environmental protection principles and their socio-economic relevance. - Links between waste management, public health, and community well-being. - Key institutions and stakeholders in the waste sector.	- Understand the structure and challenges of Kosovo's waste management system. - Identify the key actors, laws, and policies shaping environmental management. - Recognize the public health and social implications of waste management.	- Foundational knowledge of waste and environmental systems in Kosovo. - Awareness of policy, governance, and institutional roles. - Understanding of health, social, and environmental interconnections.
2. Principles of Circular economy and sustainable resource management	This module introduces learners to circular economy principles , emphasizing the transition from linear to circular models of production and consumption. It promotes a sustainability mindset, encouraging innovation and resource efficiency.	- Concepts of reduce, reuse, and recycle (3Rs). - Life-cycle thinking and sustainable production systems. - Economic and environmental benefits of circular practices. - Global and regional (EU) circular economy strategies. - Kosovo's pathway toward circular economy adoption.	- Explain the key principles of the circular economy and resource efficiency. - Analyze how circular approaches can be applied in Kosovo's context. - Identify opportunities for recycling, reuse, and innovation at the community and business levels.	- Systems thinking and sustainability awareness. - Ability to propose circular solutions in everyday contexts. - Readiness to contribute to a culture of resource efficiency.
3. Waste management operations and technologies	This module focuses on the operational and technical aspects of waste management , including collection, sorting, recycling, treatment, and disposal. It emphasizes the importance of integrating modern technologies and procedures adapted to Kosovo's infrastructure.	- Waste classification and segregation at source. - Collection and transport systems. - Landfill operations, safety, and compliance procedures. - Recycling and composting processes. - Introduction to integrated waste management systems and new technologies.	- Demonstrate understanding of the waste management process from collection to final disposal. - Apply appropriate techniques for waste sorting and treatment. - Recognize occupational health and safety requirements in waste operations.	- Technical proficiency in waste management operations. - Familiarity with recycling and treatment technologies. - Ability to apply safe and efficient operational practices.
4. Digital tools and innovation in waste management	This module explores how digitalization can enhance efficiency, monitoring, and transparency in waste	- Use of digital systems for waste tracking and data analysis. - Introduction to GIS, sensors, and mobile apps	- Understand how digital tools can support waste management efficiency. - Apply simple data tracking	Digital literacy and familiarity with environmental data systems.

Thematic areas	Description of Topics	Topics include	Learning objectives	Expected competencies and skills
	management operations. Learners are introduced to digital tools, data systems, and technology applications relevant to the sector.	for waste logistics. - Data management for environmental monitoring. - Innovation in recycling technologies and green business models. - Digital communication for public awareness and behavior change.	and reporting tools in practice. Explore how digital innovation drives sustainable environmental practices.	- Ability to use digital tools for operational monitoring and reporting. - Innovation and problem-solving skills in waste-related challenges.
5. Practical case studies and local applications	This module uses localized case studies and hands-on learning to bridge theory with real-world experience. Case studies are adapted to Kosovo's conditions and include examples from municipalities, recycling initiatives, and community projects.	- Analysis of local case studies on waste management and recycling. - Identification of operational challenges and improvement strategies. - Group exercises simulating decision-making in waste management scenarios. - Site visits or virtual tours to landfills, recycling plants, or municipal facilities. - Reflection sessions linking classroom learning to practical realities.	- Analyze and evaluate local waste management practices using case studies. - Apply theoretical concepts to realistic Kosovo-based scenarios. - Develop teamwork and problem-solving skills through practical exercises.	- Critical analysis and situational assessment. - Ability to apply knowledge to local operational contexts. - Enhanced teamwork, reflection, and communication skills.
6. Stakeholder engagement and communication for sustainable change	This module develops communication and collaboration skills essential for effective stakeholder engagement in the waste management sector. It covers community outreach, behavior change communication, and multi-stakeholder collaboration.	- Communication strategies for promoting recycling and environmental awareness. - Public education and media campaigns. - Collaboration with municipalities, NGOs, and private sector actors. - Social inclusion and gender-sensitive approaches in waste management. - Designing local awareness-raising and community engagement initiatives.	- Communicate effectively with diverse stakeholders in the waste management sector. - Design and deliver awareness-raising or community outreach activities. - Understand the role of social inclusion and equity in environmental programs.	- Strong interpersonal and communication abilities. - Skills in community mobilization and awareness-raising. - Ability to coordinate with multiple stakeholders for joint environmental action.
7. Health, safety, and environmental protection	Given the direct public health implications of waste mismanagement, this module provides essential training on occupational safety, environmental hygiene, and health risk prevention for workers and communities.	- Occupational health and safety in waste collection and recycling. - Risk assessment and hazard prevention measures. - Environmental hygiene and public health impacts. - Safe handling of hazardous and medical	- Recognize health and safety risks in waste management operations. - Implement appropriate safety measures and protective procedures. - Understand the health–	- Competence in workplace safety protocols. - Environmental and health awareness. - Capacity to apply prevention and response measures effectively.

Thematic areas	Description of Topics	Topics include	Learning objectives	Expected competencies and skills
		waste. Emergency response and first-aid protocols.	environment nexus in waste handling and treatment.	
8. Project-based learning and innovation labs	The final module encourages innovation through project-based learning, allowing learners to design practical sustainability initiatives or small-scale recycling solutions. It supports creativity, entrepreneurship, and leadership development.	- Project design and management for sustainability initiatives. - Proposal writing and resource planning. - Developing small-scale circular economy solutions. - Entrepreneurial approaches in recycling and waste valorization. - Final presentation of learner projects.	- Design and implement practical projects addressing waste or recycling challenges. - Apply project management and entrepreneurial thinking to real situations. - Demonstrate innovation and initiative in proposing solutions for Kosovo's context.	- Project management and organizational abilities. - Entrepreneurial mindset for circular economy initiatives. - Creativity, leadership, and self-directed learning.

The VET curriculum for Kosovo builds on the country's emerging waste management system and growing environmental awareness. The proposed modules aim to:

- Strengthen technical and digital competencies,
- Foster practical problem-solving and innovation, and
- Cultivate a socially responsible mindset aligned with sustainable development goals.

By integrating localized case studies, stakeholder collaboration, and applied learning, the program equips learners with the knowledge and skills needed to drive Kosovo's transition toward a more sustainable, circular, and resilient economy.

3.2.2.2 Delivery methods

The effectiveness of the Vocational Education and Training (VET) program in Kosovo depends not only on the quality of its content but also on the **methods used to deliver learning experiences** that engage students and reflect local realities. Given the sector's evolving nature and Kosovo's developing infrastructure for waste management and digital education, a **flexible, context-sensitive delivery strategy** is essential.

The program's delivery methods prioritize **interactive, applied, and adaptive teaching** that links theory with real-world practice. The combination of **workshops, blended learning, digital integration, and case-based teaching** ensures that learners gain both foundational understanding and operational competence aligned with the labor market's evolving needs.

3.2.2.2.1 Pedagogical Approaches



Type of pedagogical approach	Description
Experiential and Case-Based Learning	Kosovo's VET educators and industry representatives emphasized the value of realistic, practice-oriented learning. Therefore, the delivery model relies heavily on experiential approaches that integrate case studies, simulations, and local field activities. • Learners engage with localized case studies reflecting actual waste management challenges in Kosovo—such as landfill operations, recycling initiatives, and community waste separation programs. • Trainers guide students through analytical exercises, encouraging critical thinking and practical problem-solving. • Whenever possible, learners participate in site visits or virtual tours of waste facilities to reinforce classroom concepts through first-hand observation.
Workshops and Skill Development Sessions	Workshops serve as central learning events that promote hands-on engagement and peer collaboration. • Each workshop focuses on specific operational skills, such as waste classification, digital data entry, or health and safety practices. • Trainers use interactive group work, demonstrations, and short practical assignments to ensure skill mastery. • Reflection sessions are built in to help learners connect workshop experiences to broader sustainability objectives and professional roles.
Blended and Digital Learning	Given the increasing availability of digital platforms in Kosovo's VET institutions, the program adopts a blended learning model—combining face-to-face teaching with online components.

Type of pedagogical approach	Description
	• Online modules provide flexibility, allowing students to review learning materials, access case studies, or complete assignments remotely. • Digital learning tools—such as video tutorials, interactive quizzes, and cloud-based simulations—support engagement and self-paced learning. • Virtual collaboration spaces enable joint projects between students from different institutions or municipalities, fostering knowledge exchange and community-building.
Community-Based and Participatory Approaches	In Kosovo's social and environmental context, community engagement is a core component of effective pedagogy. • Learners participate in community outreach or awareness campaigns, linking their training to public education goals. • Collaboration with local authorities, NGOs, and private operators exposes learners to the multi-stakeholder dimension of waste management. • This participatory approach strengthens civic responsibility and reinforces the social value of environmental work.
Mentorship and Industry Collaboration	To bridge the gap between classroom learning and labor market realities, the program integrates mentorship and cooperative learning with local employers and professionals. • Industry experts may host guest lectures or short training sessions on operational procedures and technological innovations.

Type of pedagogical approach	Description
	• Internship opportunities or short-term placements provide exposure to real operational environments. • Such collaboration not only enriches learning but also enhances employability and professional readiness.

3.2.2.2.2 Use of Templates, Resources, and Guidelines for Implementation

The successful implementation of the programme relies on a structured yet flexible system of templates, resources, and guidelines that ensure consistency, quality, and contextual adaptability across VET institutions in Kosovo. These tools provide trainers and educational coordinators with a coherent framework for lesson design, resource use, assessment, and continuous improvement, while also allowing space for local adaptation and innovation.

A series of standardized teaching templates support the delivery of lessons and activities in alignment with national and European frameworks. Lesson plans, activity sheets, and evaluation forms are designed to guide trainers in structuring sessions around clearly defined learning outcomes, ensuring a balanced integration of theoretical and practical components. The templates incorporate flexibility to enable contextual adaptation, allowing trainers to integrate local case studies, examples from community initiatives, or ongoing projects that enhance relevance and learner engagement.

Each learning component is supported by comprehensive resource packages that include both digital and printed materials such as infographics, instructional videos, datasets, and curated reading lists. Trainers are provided with facilitator guides that outline key discussion points, expected competencies, and options for contextual customization. Learners, in turn, have access to practical toolkits that encourage project-based learning — for example, through templates for conducting waste audits, developing recycling plans, or designing awareness campaigns.

To ensure consistent and effective delivery, an implementation guide accompanies all training activities. This document outlines step-by-step protocols for delivery, assessment standards, and monitoring mechanisms for VET providers. It ensures full alignment with Kosovo's National Qualifications Framework (NQF) and the overarching principles of the European VET system, promoting transparency, quality assurance, and comparability of results. The guidelines also emphasize inclusive teaching practices, providing recommendations for addressing the needs of diverse learner groups, including those from rural or underserved areas.

Finally, the programme promotes integration of local examples and stakeholder input as a key element of contextual relevance. Trainers are encouraged to draw upon up-to-date local data, municipal recycling programmes, and NGO-led sustainability initiatives to enrich the learning experience. Continuous consultation with industry representatives, local authorities, and community partners ensures that the content remains technically accurate, policy-relevant, and reflective of current labor market needs. An annual review mechanism is embedded within the system to facilitate the ongoing revision of materials, guaranteeing that the programme remains dynamic, relevant, and responsive to evolving sectoral trends.

3.2.2.2.3 Adaptability to Changing Labor Market Needs

Kosovo's labor market in the waste management and environmental sector is undergoing a period of rapid transformation, shaped by increasing environmental regulation, ongoing EU integration processes, and the expanding adoption of circular economy practices. To ensure that the programme remains relevant and future-oriented, it integrates a series of mechanisms that promote adaptability, responsiveness, and alignment with evolving skill demands.

A system of dynamic curriculum updates enables the programme to evolve alongside market and policy developments. Regular reviews are conducted jointly by VET providers, employers, and

environmental agencies to ensure that training content remains current with emerging technologies, legislative changes, and innovative business models. This flexible structure allows for the gradual incorporation of new themes—such as digitalization, green entrepreneurship, and sustainable procurement—within existing learning units, ensuring the curriculum remains both coherent and contemporary.

The programme places strong emphasis on continuous professional development (CPD) for trainers as a key driver of adaptability. Trainers participate in capacity-building workshops that introduce new pedagogical methodologies and highlight innovations in the waste management and environmental sectors. Collaboration with regional and international institutions facilitates the exchange of updated practices and enhances the overall quality of circular economy education. Moreover, trainers are encouraged to integrate innovation-oriented and entrepreneurial thinking into their teaching, helping learners develop the creative and problem-solving skills required in a rapidly evolving green economy.

To strengthen the connection between education and employment, the programme embeds labor market feedback mechanisms that gather regular input from employers and sectoral representatives. Periodic employer surveys and roundtable discussions provide valuable insights into emerging skills needs and workforce trends. The findings are systematically incorporated into curriculum revisions, ensuring that graduates acquire the most relevant and in-demand competencies. Partnerships with waste management companies and municipal authorities further enable the early identification of skills gaps, particularly in technical, digital, and communication domains that are critical for operational efficiency and innovation.

Finally, the programme maintains flexibility to incorporate emerging skill areas as Kosovo's waste management sector continues to mature. As new fields such as biowaste treatment, waste-to-energy technologies, digital mapping, and smart monitoring systems gain prominence, these topics can be integrated into the curriculum without requiring structural overhauls. This modular and adaptable design ensures that the programme remains responsive, coherent, and capable of preparing learners for the evolving realities of a sustainable and circular labor market.

3.2.2.3 Implementation guidelines

The successful implementation of the Vocational Education and Training (VET) program on waste management, environmental protection, and circular economy in Kosovo depends on a well-structured, participatory, and context-adapted approach. These guidelines outline the step-by-step process for program delivery, define the roles and responsibilities of trainers and administrators, and establish timeframes and milestones for effective execution. The implementation process emphasizes collaboration between VET institutions, local authorities, industry partners, and civil society, ensuring that the training program not only equips learners with job-ready skills but also contributes to Kosovo's broader sustainability and circular economy goals.

The rollout and continuous improvement of the programme across Kosovo's VET institutions follow a structured, step-by-step implementation framework designed to ensure consistency, quality, and long-term sustainability. This process begins with institutional preparation and readiness assessments, ensuring that facilities, digital infrastructure, and human resources are adequately equipped for programme delivery. It then progresses through targeted capacity-building for trainers, localization of learning materials, and the structured launch of blended

learning activities. Continuous monitoring, evaluation, and feedback mechanisms are embedded throughout to measure learning outcomes, assess programme effectiveness, and inform data-driven improvements. The framework also includes provisions for formal certification aligned with the Kosovo National Qualifications Framework (NQF), ensuring national and European recognition of acquired skills. Finally, a continuous improvement cycle supports programme sustainability, promoting collaboration between VET institutions, municipalities, and industry partners to integrate emerging technologies, share best practices, and expand successful approaches across the country. The detailed steps of this process are presented in the table below.

Phase	Activities	Estimated Duration	Key Milestones
Phase 1: Preparation and Planning	Institutional readiness assessment, partnership agreements, resource allocation	Months 1–2	Implementation plan approved; trainers and partners identified
Phase 2: Trainer Capacity Building	Training-of-trainers sessions, material adaptation, digital setup	Months 3–4	Certified trainers ready; localized materials validated
Phase 3: Program Launch	Learner enrollment, orientation, and initial delivery of modules	Months 5–6	First cycle of modules delivered; initial feedback collected
Phase 4: Monitoring and Mid-Term Review	Ongoing teaching, assessments, and program adjustments	Months 7–9	Mid-term evaluation report finalized
Phase 5: Certification and Showcase	Final assessments, certification, and project presentations	Month 10	Learners certified; outcomes shared with stakeholders
Phase 6: Review and Scaling	Post-implementation evaluation, curriculum updates, expansion planning	Months 11–12	Annual review completed; plans for next cohort approved

Moreover, clear delineation of roles ensures accountability and coherence throughout program delivery.

Stakeholder	Core Responsibilities	Expected Outcomes
Trainers	• Deliver course content using interactive and experiential methods. • Facilitate workshops, discussions, and hands-on activities. • Provide individualized guidance to learners, ensuring inclusion and active participation. • Evaluate learner performance and maintain accurate assessment records. • Integrate local examples and real-world challenges into lessons. • Coordinate with other trainers and stakeholders to update content and share feedback. • Participate in professional development and curriculum refinement sessions.	Trainers serve as both educators and mentors, empowering learners to apply their knowledge effectively in waste management, environmental, and circular economy roles.
Program Administrators	• Oversee the organizational and operational aspects of program delivery. • Ensure alignment with institutional and national education standards. • Coordinate logistics, including scheduling, facilities, and digital platform management. • Manage communication between VET institutions, municipalities, and private partners. • Monitor budget utilization and resource distribution. • Collect, analyze, and report program performance data to relevant authorities. • Support accreditation and	Administrators ensure that the program runs efficiently, remains compliant with policy frameworks, and continuously adapts to Kosovo's labor market needs.

	certification processes through compliance with national frameworks.	
Industry and Community Partners	• Provide practical insights, site access, and technical expertise. • Offer internship opportunities or short-term work placements for learners. • Participate in evaluation panels or feedback sessions. • Support community-based environmental awareness initiatives. • Contribute to updating case studies with current data and operational experiences.	Their engagement strengthens the connection between education and employment, fostering an ecosystem of shared responsibility and applied learning.

The implementation of Kosovo's VET program in waste management and environmental protection is designed to be structured, participatory, and adaptive. Through clearly defined steps, roles, and timeframes, the program ensures both quality delivery and long-term sustainability.

By embedding real-world practice, digital integration, and cross-sector collaboration into its implementation model, the program contributes directly to building a skilled, environmentally conscious workforce capable of supporting Kosovo's transition toward a circular and sustainable economy.

4 Conclusions

The Intervention Programme developed within the framework of the WARP methodology represents a strategic and context-sensitive approach to enhancing the professional development of Vocational Education and Training trainers in Albania and Kosovo. Drawing on extensive consultations with VET institutions, industry experts, and waste management stakeholders, the programme provides a comprehensive roadmap for strengthening trainer competencies, improving teaching relevance, and fostering systemic alignment with sustainability and circular economy objectives.

The WARP-based approach was designed to close the persistent gap between theoretical instruction and practical application within VET systems, particularly in fields related to environmental protection, waste management, and the circular economy. It introduces a structured process through which trainers continuously assess, reflect upon, and adapt their

teaching methods in response to changing technological, regulatory, and labor market realities. In doing so, it supports both Albania and Kosovo in advancing towards greener, more responsive, and innovation-oriented vocational education systems aligned with European standards and sustainability goals.

Consultations conducted in both countries revealed shared challenges and development needs. Across Albania and Kosovo, VET providers identified limited opportunities for practical learning, insufficient digital and analytical competencies among trainers, and weak collaboration between educational institutions and local industry. The integration of circular economy principles, such as waste reduction, reuse, and recycling, also remains underdeveloped in many curricula. Despite these challenges, there is clear institutional commitment and growing stakeholder engagement in both contexts, creating favorable conditions for reform and capacity building within the VET sector.

The implementation of the Intervention Programme has already produced meaningful results. It has established comprehensive training content and learning outcomes tailored to each country's specific environmental and institutional realities. It has also promoted pedagogical innovation by incorporating experiential and blended learning approaches that combine theory with hands-on practice. The introduction of localized case studies, updated teaching materials, and structured capacity-building frameworks has given trainers new tools to make instruction more relevant and engaging. Furthermore, the programme has embedded mechanisms for continuous monitoring and adaptation, ensuring that it remains responsive to evolving market demands and sustainability priorities.

In Albania, the Intervention Programme reinforces existing efforts to integrate sustainability into vocational training across diverse fields such as tourism, construction, management, and green housekeeping. It emphasizes localized, practice-based learning, stronger partnerships between VET institutions and private enterprises, and enhanced use of digital tools for both instruction and management. This approach strengthens the country's ability to deliver applied, forward-looking training that equips learners with skills directly relevant to the labor market.

In Kosovo, where the waste management sector and circular economy initiatives are still developing, the programme focuses on foundational capacity building. It prioritizes improving trainers' technical understanding of environmental practices, introducing context-relevant case studies, and fostering collaboration between VET institutions, municipal authorities, and private companies. The Kosovo framework aims to ensure that trainers are not only knowledgeable about waste management operations but are also capable of adapting international models to local realities. This supports the gradual professionalization of the sector and contributes to the creation of a workforce equipped to address Kosovo's environmental and social challenges.

The Intervention Programme demonstrates the adaptability and transformative potential of the WARP methodology in both national and regional contexts. By applying WARP's principles of learning through action, reflection, and progressive adaptation, the programme ensures that VET trainers evolve into dynamic professionals who integrate theory, practice, and innovation. This process strengthens the link between education and work, encouraging trainers to act as facilitators of sustainable change rather than passive transmitters of information.

To ensure lasting impact, the programme promotes continuous learning, collaboration, and institutional development. Sustaining progress will require the establishment of national trainer networks, regular needs assessments to identify emerging skill gaps, and further investment in

digital infrastructure to support blended and remote learning. Strengthening public–private partnerships will also be essential to maintain alignment between training outcomes and labor market needs, ensuring that VET continues to function as a driver of green transition and economic resilience.

Overall, the Intervention Programme marks a significant step toward transforming vocational education into an engine of sustainable development in both Albania and Kosovo. By empowering VET trainers through the WARP methodology, the programme fosters a culture of reflection, innovation, and applied learning. It equips trainers to deliver high-quality education that reflects real-world challenges, supports the circular economy, and prepares future workers for an evolving green labor market. Through this initiative, Albania and Kosovo are building the foundation for a more adaptive, inclusive, and sustainability-driven VET system—one that contributes directly to national development goals and the broader European vision for a green and competitive economy.