



HINTS

High Innovative VET for green and digital Transformations

REPORT ON ORGANISATION OF COURSES ON DIGITAL TRAINING AND GREEN TECHNOLOGIES FOR INDUSTRIES



**Co-funded by
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Version History

Revision	Date	Author/Organization	Description
1st	15 th October 2025	CESOL	V1.0
2nd	29 October	Helixconnect Europe	V2.0
3rd			



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1. Executive Summary

This executive summary presents the consolidated findings from both the **online and on-site evaluations** conducted within the framework of the **HINTS project**. The analysis captures participants' perceptions of training quality, relevance, practical applicability, and overall satisfaction across multiple learning environments and partner countries — **Albania, Montenegro, Egypt, Jordan, and Tunisia**. The dual-mode evaluation approach offers a comprehensive understanding of the **effectiveness and impact of the HINTS blended training model**, which combines **online modules** (delivered via the HINTS digital learning platform) with **on-site pilot activities** that emphasised practical application and peer interaction.

EXECUTIVE SUMMARY

-  The HINTS Core Training aimed to enhance the capacity of VET trainers and professionals to integrate digital innovation and green transition concepts into their educational and industrial practices
-  Digitally and sustainability-focused modules provided a holistic approach to vocational training and industrial development
-  Workshops, lectures, group exercises, gamification, and hands-on tasks were employed
-  Feedback was collected after each activity from 185 participants (on-site and online) using evaluation forms

Overall, participant feedback confirms a high level of satisfaction with the training quality and relevance. The average overall satisfaction across all countries stands at 8.2/10, with particularly strong results in trainer performance and the use of engaging, hands-on digital tools. Participants highlighted the practical learning activities, AI-based applications, and interactive delivery methods (Kahoot, Mentimeter, Notebook LM) as the most valuable aspects of the programme. The areas for improvement are concentrated in the Green Technologies modules, which some participants found too theoretical or insufficiently localized, and in the time allocation, with several comments requesting more practical sessions. Tunisia used a distinct evaluation template, but the results align broadly with the other countries, indicating a strong interest and satisfaction with the digital and green content. The combined results from both online and on-site feedback confirm that the **HINTS training program** successfully integrates **theoretical, digital, and experiential learning** into a coherent pedagogical model aligned with **EU VET excellence principles**. Learners across regions valued the **balance between conceptual knowledge and practical application**, recognizing HINTS as a transformative step towards **capacity building in digital and sustainable innovation** within vocational and higher education systems.



2. Project Context and Objectives

The **HINTS Core Training** was designed to enhance the capacity of **Vocational Education and Training (VET) trainers, educators, and professionals** to effectively integrate **digital innovation** and **green transition** concepts into their teaching and industrial practices. As part of the project's broader mission to support the **twin transitions** in Europe and neighboring regions, the training aimed to bridge the gap between emerging technological competences and sustainable development priorities within the VET ecosystem.

Objectives

- ✓ Strengthen digital and AI literacy for teaching and industrial applications.
- ✓ Improve understanding of green transformation and sustainability practices.
- ✓ Promote interactive, hands-on methodologies combining technology and sustainability.
- ✓ Gather structured feedback for continual improvement of the training materials and approach.

The training programme adopted a **hybrid learning model**, combining online and on-site components. It integrated the two main learning modules developed within the HINTS framework:

- **CUD (Digital Module)** – focusing on digital transformation, artificial intelligence, and innovative teaching tools for VET;
- **CUG (Green Module)** – focusing on sustainability, circular economy, and green technologies for industry and education.

Together, these modules offered a **holistic, competency-based approach** to upskilling VET professionals in support of the **digital-green nexus**. The design of the programme emphasised applied learning, cross-sectoral collaboration, and adaptability to different national and institutional contexts.

The outcomes of both the **online and on-site training phases** were assessed through comprehensive participant feedback, providing valuable insights into **training quality, relevance, interactivity, and impact**. These findings form the basis of the following integrated analysis and evaluation summary.



3. Organization of the Courses

The **HINTS Training program** employed a blended set of **participatory and practice-oriented methodologies** designed to foster active learning, collaboration, and skill transfer across digital and green domains. The training approach combined **workshops, lectures, and interactive group exercises** to balance conceptual understanding with applied practice.

Country	Participants	Dates	Venue
Albania (E2.4)	29	19–23 May 2025	Main Rectorate of the UPT, Sheshi Nënë Tereza 4, Tiranë 1010, Albania
Montenegro (E2.1)	20	30 Jun – 4 Jul 2025	Javna Ustanova Univerzitet Crne Gore Podgorica, Cetinjska 2, 81000, Podgorica
Egypt (E2.3)	31	31 Aug – 4 Sep 2025	Blue Hall, Elshatby building, Faculty of Science - Alexandria University, Aflatoun St., Enshatby, Alexandria, Egypt)
Tunisia (E2.2)	54	22–26 Sep 2025	Ben Jmaa Nadhem (AMTA Academy), RTE El Ain Km 1 Rue Beb Al Salem, Sfax 3000, Tunisia
Jordan (E2.5)	21	5–9 Oct 2025	Jordan Engineers Association, Jordania, Abdulhameed Sharaf St. Alshmeisani, Amman 11194, Jordania

A variety of **engagement and gamification tools** were integrated to enhance learner motivation and interaction. Techniques included **Kahoot-based quizzes** for formative assessment and **real-time polling and feedback via Mentimeter**, promoting immediate reflection and collective discussion. Participants engaged in **hands-on tasks**, such as creating **digital presentations and short video materials using Notebook LM**, which allowed them to directly apply newly acquired digital



and creative skills. These activities not only reinforced the content of the CUD (Digital) and CUG (Green) modules but also demonstrated the practical use of emerging technologies in both educational and industrial contexts.

The sessions were **co-delivered by trainers from ISIM Timișoara, CESOL (Spain), HELIXCONNECT Europe (Romania), and the University of Miskolc (Hungary)**. This multidisciplinary composition ensured a rich balance between **technical expertise, pedagogical innovation, and industrial applicability**, supporting the development of a truly cross-sectoral and transnational learning experience.

4. Methodology and Data

Participant feedback was systematically collected **immediately after each pilot activity** through **standardized evaluation forms** designed to measure perceptions of the training's quality, relevance, and impact. Each participant rated the key indicators on a **1–10 scale**, where:

Scale interpretation

1–3 = Poor | 4–5 = Fair | 6–7 = Good | 8–9 = Very Good | 10 = Excellent

Participation

Total participants: 227 (Albania 29, Montenegro 20, Egypt 31, Tunisia 54, Jordan 51, 42 online).

Data processing

Country averages were calculated by metric and then combined into a general meaning. Where Tunisia's items were not directly comparable, equivalent indicators were mapped.)

General Data Protection Regulation (GDPR)

In accordance with the **EU General Data Protection Regulation (GDPR) (EU) 2016/679**, all personal data collected and processed within the framework of this project are handled with the highest standards of confidentiality and data protection. Personal information (such as name, organisation, role, or feedback) is collected solely for project implementation, reporting, and communication purposes. Data will be processed **lawfully, fairly, and transparently**, used only for the purposes explicitly stated, and stored securely for the duration of the project and the mandatory retention period established by the funding authority.

Participants' data will **not be shared with unauthorised third parties** and may only be accessed by consortium partners directly involved in project management and evaluation. Each participant has the right to **access, rectify, restrict, or request**



deletion of their personal data at any time by contacting the project coordinator. By participating in this activity, respondents acknowledge that they have been informed of their data protection rights and consent to the processing of their data under the conditions outlined above.

5. Qualitative Insights from HINTS on-site Courses Feedback

The following analysis synthesises quantitative feedback collected from on-site pilot activities implemented across five partner countries — **Albania, Montenegro, Egypt, Jordan, and Tunisia**.

Participants evaluated the HINTS training modules using a **1–10 scale** across five key dimensions: *Overall Satisfaction, Relevance of Content, Trainer Quality, Practical/Hands-on Components, and Recommendation Likelihood*.

Country	Overall Satisfaction	Relevance	Trainer Quality	Practical / Hands-on	Recommendation
Albania	8.4	8.0	9.13	8.63	8.93
Montenegro	8.4	8.0	9.07	8.77	8.70
Egypt	8.0	7.74	8.74	8.66	9.10
Jordan	7.63	7.13	7.73	7.97	8.50
Tunisia	8.63	7.89	8.22	7.89	8.00
Combined Average	8.23	7.75	8.78	8.38	8.65

The combined averages across all countries reveal consistently positive feedback, with mean values ranging between **7.75 and 8.78**. The highest ratings were recorded for **Trainer Quality (8.78)** and **Recommendation (8.65)**, indicating a strong appreciation for the trainers’ expertise, delivery methods, and the overall perceived value of the training. **Practical and hands-on activities** were also highly rated (8.38), confirming that experiential learning strategies were effectively implemented. **Overall Satisfaction** achieved a score of **8.23**, demonstrating that participants found the courses beneficial and professionally enriching. The dimension with the lowest combined score was **Relevance (7.75)**, suggesting

that, while the content was generally applicable, there remains scope for stronger

EXECUTIVE SUMMARY



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Digitally and sustainability-focused modules provided a holistic approach to vocational training and industrial development



Workshops, lectures, group exercises, gamification, and hands-on tasks were employed



Feedback was collected after each activity from 185 participants (on-site and online) using evaluation forms

 Country	 Overall Satisfaction	 Relevance	 Trainer Quality	 Practical/ Hands-on	 Recommenda-
Albania	8,4	8,0	9,07	8,63	8,93
Montenegro	8,4	8,0	9,07	8,77	8,70
Egypt	8,0	7,74	8,74	8,66	9,10
Jordan	7,63	7,13	7,73	7,97	8,50
Tunisia	8,63	7,89	8,22	7,89	8,00
Combined Average	8,23	7,75	8,78	8,38	8,65

Country-Level Analysis

- **Albania** recorded high satisfaction across all dimensions, with particularly strong scores in *Trainer Quality* (9.13) and *Recommendation* (8.93). Participants valued the structured approach and delivery but suggested enhancing contextual examples to further increase relevance.



- **Montenegro** presented a balanced profile, with scores consistently above 8.4 in all areas. The results point to a coherent alignment between course design, delivery, and participant expectations.
- **Egypt** demonstrated very positive outcomes, particularly in *Recommendation (9.10)*, reflecting the course’s perceived usefulness and transferability to local contexts. However, a slightly lower *Relevance (7.74)* score indicates that content customisation to industry-specific needs could be strengthened.
- **Jordan** reported the lowest mean ratings overall, though still within an acceptable range (*Overall Satisfaction 7.63; Relevance 7.13*). While participants appreciated the hands-on components (7.97), feedback suggests that enhanced contextualisation and additional trainer support could improve perceived quality and relevance.
- **Tunisia** achieved the highest *Overall Satisfaction (8.63)* among all countries, indicating a strong reception of the course structure and facilitation. Nonetheless, the *Practical/Hands-on (7.89)* dimension was relatively lower, suggesting potential for greater emphasis on applied and experiential elements.

Across all sites, **Trainer Quality** emerges as the most consistent strength, with scores above 8.0 in every country. This finding underscores the effectiveness of the trainer preparation phase and validates the HINTS approach to professional capacity building.

The **Relevance** dimension, while satisfactory, reveals variability between contexts and may benefit from further alignment with local educational frameworks, industrial priorities, and regional sustainability agendas. Notably, the high **Recommendation (8.65)** score indicates a strong willingness among participants to advocate for the course, signaling both satisfaction and trust in the HINTS training model.

6. Qualitative Insights from HINTS Online Course Feedback

This analysis is based on participant feedback received through the HINTS online learning platform, following the completion of multiple digital training modules. The responses reflect the learners’ experiences, perceptions, and suggestions on how the HINTS courses supported their professional and personal development in the areas of digital transformation, sustainability, and education innovation.

What Participants Liked Most



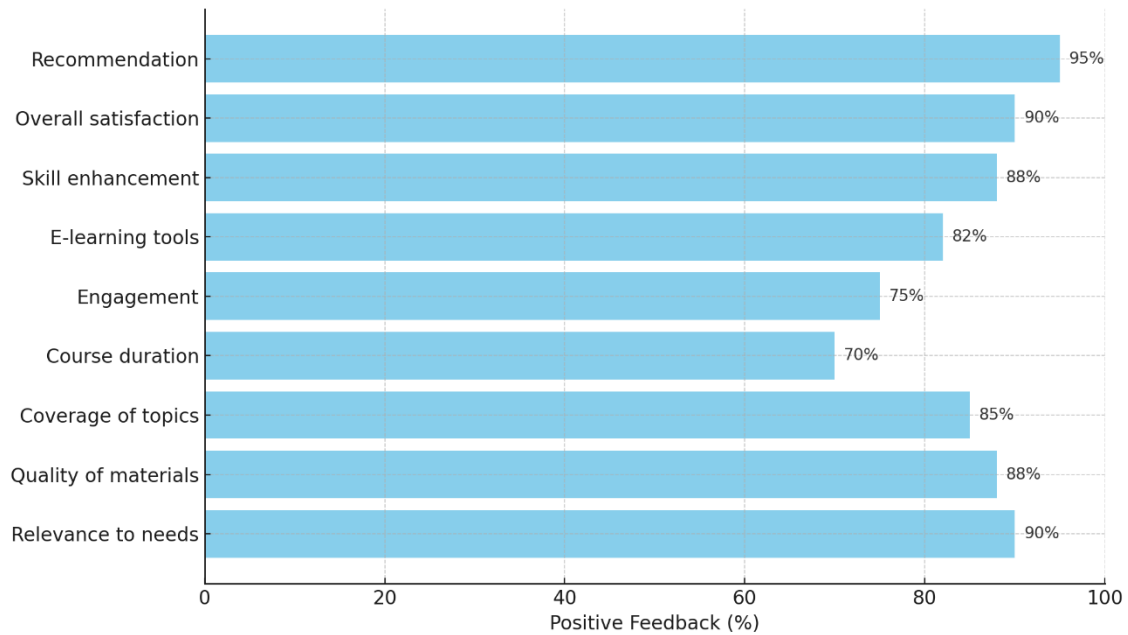
Participants expressed high appreciation for the clarity, organisation, and accessibility of the course materials. The overall learning experience was perceived as well-structured and logically sequenced, enabling effective understanding and application of the content.

- **Structured, accessible materials:** Learners highlighted the clear explanations, coherent flow, and modular organisation of topics.
- **Blended content formats:** The combination of PDFs, PowerPoints, and short video resources was appreciated for catering to diverse learning styles.
- **Practical relevance:** Many participants valued the link between sustainability, AI, and education, recognising the courses' direct applicability to real-world professional contexts.
- **Flexible online format:** The self-paced learning structure allowed learners to engage with materials according to their individual schedules.
- **Expertise and quality:** The professionalism of trainers and the academic rigour of the content were recognised as major strengths of the HINTS learning experience.

Suggested Improvements

While overall satisfaction was high, participants offered constructive suggestions for improving the learning experience. These primarily focused on increasing interactivity, enhancing multimedia, and expanding practical engagement.

- **Increase interactivity:** Introduce virtual labs, simulations, gamification, and hands-on exercises to make learning more dynamic. Facilitate peer discussions and group projects to strengthen collaboration.
- **Enhance multimedia use:** Add more animated videos, visual storytelling, and case-based examples to make content more engaging. Avoid monotone narration by incorporating diverse voiceovers and visual demonstrations.
- **Practical application focus:** Include real-world examples and industry case studies to help learners contextualise and apply theoretical concepts.
- **Assessment improvements:** Provide timely and detailed feedback, and diversify evaluation through projects, reflections, and peer assessments.
- **Clarity and structure:** Reduce dense text in slides and add concise summaries or keyword highlights for better retention.



Courses covered include HINTS online training modules related to **digital transformation, sustainability, green education, AI, and UX in education**. The HINTS courses achieved **strong overall satisfaction (≈90%)** and **high professional relevance** from **42 responders** that answered the feedback form on **HintsHub.eu**. Learners praised the **content structure and real-world relevance**, but asked for **more interactivity, multimedia diversity, and practical examples**. Participants clearly see the **value of digital transformation in education** and are eager for **next-level modules** that deepen their skills in **AI, sustainability, and digital pedagogy**.

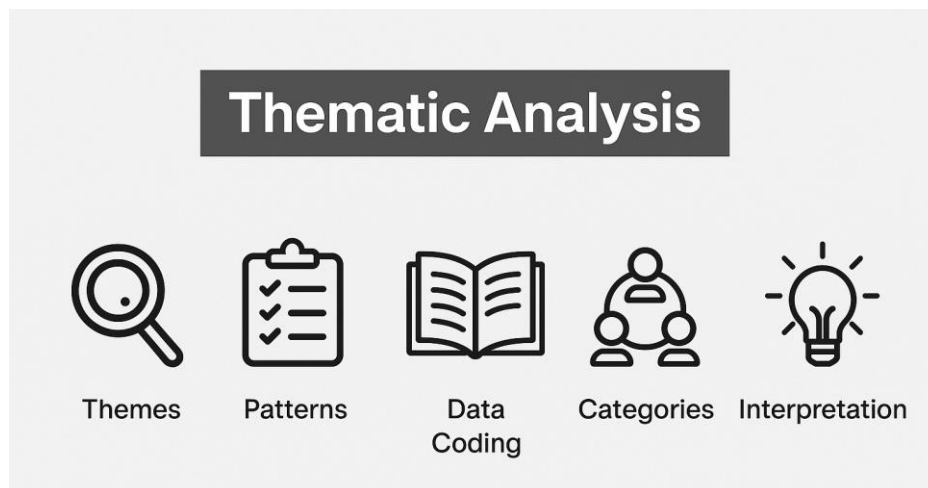
Quantitative Summary

Question	Key Indicator	Majority Rating	% Positive (Agree–Strongly Agree / Satisfied–Very Satisfied)
<i>1. Relevance to professional needs</i>	Course content applicability	Relevant / Very Relevant	~90%
<i>2. Quality of teaching materials</i>	Videos, readings, resources	Good–Excellent	~88%
<i>3. Effectiveness in covering key topics</i>	Comprehensiveness & clarity	Effective–Very Effective	~85%
<i>4. Course duration sufficiency</i>	Balance of time vs. depth	Agree–Neutral	~70%

Question	Key Indicator	Majority Rating	% Positive (Agree– Strongly Agree / Satisfied–Very Satisfied)
5. <i>Engagement of course activities</i>	Interaction & motivation	Moderately– Very Engaging	~75%
6. <i>Helpfulness of e-learning tools/platforms</i>	Technical usability	Helpful–Very Helpful	~82%
7. <i>Enhancement of knowledge/skills</i>	Learning outcome effectiveness	Agree–Strongly Agree	~88%
8. <i>Overall satisfaction</i>	Overall impression	Satisfied–Very Satisfied	~90%
9. <i>Recommendation to others</i>	Peer recommendation	Probably– Definitely Yes	~95%

7. Key Findings

Participants expressed appreciation for the user-friendly design of the HINTS platform and the accessibility of resources. Many requested the development of advanced or follow-up modules and suggested establishing community forums or post-course networks to facilitate continued collaboration and peer exchange.



Topics Requested for Future Courses

Respondents demonstrated strong interest in advanced and interdisciplinary topics that build upon the foundations of the HINTS programme. Suggested areas for future development include:



- AI applications in education, sustainability, and industry
- Green energy and climate resilience
- Circular economy and waste management
- Digital pedagogy and accessibility
- Gamification and inclusive education
- Smart cities and sustainable design
- Cybersecurity and data privacy in education
- Soft skills and leadership for digital transformation

The evaluation results across both online and on-site activities confirm the overall success and pedagogical effectiveness of the **HINTS Core Training**. Several key strengths emerged consistently across participating countries:

- **Trainer quality** was the highest-rated dimension across all evaluation metrics, achieving an **average score of 8.78/10**, confirming the trainers' strong technical expertise and facilitation skills.
- **Digital and AI-focused modules** demonstrated particular success, with participants expressing high satisfaction with tools such as **Notebook LM, Mentimeter, and Kahoot**, which enhanced both interactivity and engagement.
- **Learning engagement** was rated positively, typically ranging between **8.4–8.8/10**, indicating that the blended learning approach effectively motivated and involved participants.
- **Organisation and logistics** received notable praise, particularly in **Tunisia (8.63/10)** and **Egypt**, where participants appreciated the clarity of structure, scheduling, and trainer support.

While the overall feedback was highly positive, several constructive recommendations were identified to guide future editions of the HINTS training:

- **Green Technologies content:** Participants suggested the inclusion of additional **practical examples, locally relevant industry case studies**, and **ROI-oriented sustainability applications** to better connect theory with real-world practice.
- **Pacing and time allocation:** Some respondents noted that certain **theoretical components were too extensive**, recommending a more balanced distribution of time between conceptual learning and hands-on exercises.

- **Consistency of evaluation tools:** The analysis indicated minor differences in national feedback forms; future iterations should adopt a **harmonised evaluation framework** to ensure full cross-country comparability and consistent data interpretation.

In conclusion, the on-site evaluation results confirm that the HINTS pilot training courses were positively received across all partner countries. The combination of high trainer quality, structured content delivery, and hands-on components contributed to strong learner satisfaction and recommendation rates. Minor differences between countries highlight the importance of contextual adaptation and practical reinforcement in future iterations. Overall, the findings validate the pedagogical approach and indicate readiness for wider replication and scaling within the HINTS project framework.

8. Thematic Analysis



Feedback collected from both online and on-site participants highlighted several components of the HINTS Core Training as particularly impactful and beneficial. Participants consistently recognised the programme's capacity to blend innovation, interactivity, and applied learning.

- ✓ **Exposure to AI tools and digital learning innovation:** Participants valued the opportunity to explore and apply emerging digital tools, particularly those supporting artificial intelligence, interactive content creation, and gamified learning.
- ✓ **Hands-on training and group interaction:** The inclusion of practical exercises, teamwork, and peer exchange activities significantly enhanced engagement and knowledge retention.
- ✓ **Trainer responsiveness and clarity:** Trainers were commended for their accessibility, clear explanations, and ability to adapt to participants' diverse professional backgrounds.

Despite the overall high levels of satisfaction, participants provided thoughtful recommendations aimed at further strengthening the impact and relevance of future editions of the HINTS training:

- **Localisation of Green Industry content:** Participants recommended integrating **real-life examples and case studies from partner countries**, allowing for stronger contextualisation of sustainability and industrial transformation concepts.
- **Advanced-level modules:** More experienced participants expressed interest in **progressive or specialised modules**, focusing on advanced digital technologies, data analytics, or sector-specific green applications.
- **Improved time distribution:** Several participants suggested **reducing theoretical content** in favour of **extended practice sessions, project work, and live demonstrations** to maximise applied learning outcomes.

9. Actions Taken After Feedback

Based on the analysis of both **online and on-site feedback**, several strategic recommendations have been identified to enhance the **quality, relevance, and impact** of future iterations of the HINTS Training. These recommendations focus on strengthening contextualisation, improving pedagogical balance, and ensuring methodological consistency across partner countries.



✓ Localization of Green Modules

Future editions should integrate **national and sector-specific industrial case studies** to illustrate sustainability practices within real local contexts. Simplified **ROI and feasibility frameworks** are recommended to help participants better evaluate the economic and operational implications of green transformation initiatives.

✓ Rebalancing of Training Structure

Participants indicated that certain theoretical segments could be streamlined to allow more time for **applied exercises, demonstrations, and project-based**



practice. The training design should therefore adopt a more **experiential and outcome-oriented approach**, ensuring stronger engagement and skill retention.

✓ **Enhanced Trainer Preparation**

Continuous professional development for trainers is recommended, including **refresher sessions focused on local relevance, interactive pedagogy, and digital facilitation methods.** This will help maintain high-quality delivery and adaptability to diverse participant profiles.

✓ **Technical Improvements**

To optimise accessibility and learner experience, future sessions should include **improved pre-session coordination** (e.g., technical checks and briefings) and the provision of **offline training materials** to accommodate participants in regions with unstable internet connections.

✓ **Harmonization Plan**

The implementation of a **unified feedback and evaluation framework** is strongly advised to ensure comparability and data consistency across partner countries. A single harmonised form will allow more accurate cross-national analysis and facilitate evidence-based improvement.

10. Conclusions and Recommendations

The implementation of the **HINTS courses on Digital Training and Green Technologies for Industries** has successfully demonstrated the value of an integrated approach to capacity building in the vocational and industrial sectors. By combining **digital innovation** and **sustainability-oriented education**, the programme directly addressed the twin transitions shaping the future of European and neighbouring economies.

The courses achieved **high levels of satisfaction and measurable learning impact** across both online and on-site modalities, confirming the relevance of the curriculum and the effectiveness of its delivery. Participants across all partner countries—educators, trainers, and industry professionals—reported significant improvement in their understanding of **digital tools, artificial intelligence applications, and green transformation frameworks.**

The findings also validated the pedagogical model adopted within HINTS: a **blended methodology** that integrates workshops, lectures, gamification, and hands-on projects. This approach enhanced engagement, fostered peer learning, and promoted the practical application of knowledge within real industrial contexts. Trainers' expertise, cross-sectoral collaboration, and institutional coordination were identified as critical factors contributing to the programme's success.



At the same time, the feedback gathered from 227 participants provided valuable insights for future enhancement. Recommendations include the **localisation of Green modules** through national industrial case studies, **rebalancing of theory and practice**, and **continued professional development for trainers** to reinforce local relevance and pedagogical innovation. Technical adjustments—such as improved pre-session coordination and harmonised evaluation tools—were also proposed to strengthen operational consistency across partner countries.

Overall, the HINTS training initiative represents a **strategic milestone** in advancing the digital and green skills agenda within vocational education and industrial ecosystems. It establishes a strong foundation for **future scaling, modular expansion, and policy integration**. The outcomes confirm the project's contribution to building a skilled workforce capable of driving **sustainable, technology-enabled growth** across the Euro-Mediterranean region.



11. Annex - Photos

Polytechnic University of Tirana, Albania, May 19th - 23rd





University of Montenegro, Podgorica (Montenegro), June 30th – July 4th 2025





Alexandria University, Egypt, August 31st – September 4th 2025





Jordan Engineers Association, Amman, Jordan. October 5th – 9th 2025







AMTA Academy, Sfax, Tunisia. September 22nd – 26th 2025

