TWIN TRANSFORMATION PROJECT
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WP3 - ISO STANDARDS TRAINING ACTIVITIES

CONSOLIDATED EVALUATION REPORT

July 2026

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1. Executive Summary

This consolidated evaluation report details the delivery, methodology, and satisfaction results of the specialized training courses on ISO standards related to environmental sustainability developed within the framework of Work Package 3 (WP3) of the TWIN TRANSFORMATION project. The trainings focused on three core international standards: ISO 14064-1 (Greenhouse Gas Inventories at the Organizational Level), ISO 14067 (Product Carbon Footprint), and ISO 14046 (Water Footprint Assessment). These topics are designed to build concrete, hands-on green technical capacity directly in the footwear, leather, and associated manufacturing sector supply chains.

A total of 152 unique participants successfully completed the training activities across the four partner countries of Portugal, Turkey, Italy, and Spain. Evaluation feedback was systematically collected at the end of each country's training actions using a standardized, anonymous satisfaction survey based on a rating scale of 1 to 5 (where 1 represents the lowest level of satisfaction and 5 represents the highest). The evaluation isolated four dimensions of quality: Block A (Scope and Organization), Block B (Quality of Modules/Standards), Block C (Trainer Evaluation), and Block D (Evaluation of Outcomes/Impact). This exceeds the project's original application target of approximately 120 basic-training participants and 9 qualified trainers, reflecting stronger-than-planned outreach across the partnership.

The consolidated project results reflect an exceptionally high level of overall participant satisfaction, with a project-wide weighted score of 4.50 out of 5.00. Across all four countries, trainer performance was evaluated highest (weighted average of 4.59 / 5.00), highlighting the exceptional quality, competence, and professionalism of the teaching teams. These high scores across all assessment blocks confirm the strong relevance of the training content and its strong alignment with the digital and green transition requirements currently impacting small and medium enterprises (SMEs) in the European VET and industrial landscapes.

2. General Introduction and connection with WP3

The TWIN TRANSFORMATION project is a transnational initiative aimed at enhancing the green and digital competences of SME owners, managers, and employees in the footwear, leather, and associated supply chain sectors. In an increasingly demanding European regulatory environment, businesses are under heavy pressure to reduce environmental impacts, report emissions, and transition toward sustainable, circular business models.

Within this context, Work Package 3 (WP3) - ISO Standards Training was designed to build technical capacity directly inside the industrial workforce. Following a successful transnational 'Training of Trainers' (ToT) action in Ankara, where trainers from all partner organisations were qualified on ISO environmental quantification standards, each country designed and executed a local industry training program. This report consolidates the local evaluation reports from the four country partners: the CTCP (CENTRO TECNOLOGICO DE CALCADO DE PORTUGAL) in Portugal, TESK (TÜRKİYE ESNAF VE SANATKARLARI KONFEDERASYONU) and TUAF (TÜRKİYE UMUM ATAKKABICILAR FEDERAYONU) in Turkey, CAN Marche (CNA FEDERAZIONE REGIONALE DELLE MARCHE) in Italy, and AVECAL (ASOCIACION VALENCIANA DE EMPRESARIOS DE CALZADO) in Spain. By standardizing evaluation across a 4-block survey, the partnership ensured a highly robust, scientific, and comparable assessment of WP3 impact.

3. Scope, Target Group and Methodology

The scope of the evaluation program covers all local WP3 training sessions conducted between November 2025 and March 2026 across the partner territories. The methodology relied on structured, anonymous satisfaction surveys distributed to trainees immediately after their courses. The evaluation was structured across four non-negotiable assessment blocks to isolate the specific variables influencing educational quality:

- Block A – **Scope and Organization of the Training**: Assessed training duration, date suitability, alignment of subjects with SME needs, technical equipment, information provision, and the suitability of the learning environment.
- Block B – **Quality of Training Modules (Standards)**: Evaluated comprehension and specific satisfaction with the technical contents of the three ISO standards (ISO 14046, ISO 14064-1, and ISO 14067).

- Block C – **Evaluation of Trainers**: Assessed the trainers' field knowledge, practical experience, clarity of explanations, adaptability to participant levels, and the inclusion of current real-life issues.
- Block D – **Evaluation of Outcomes (Impact)**: Measured contribution to professional development, acquisition of new and applicable skills for business life, and overall fulfilment of student expectations.

The Training Activities & National Formats

The local courses were delivered using distinct formats carefully adapted by each partner to align with national market realities, industrial proximity, and educational backgrounds. Portugal pioneered a dual approach comprising both face-to-face and online formats, while Turkey, Italy, and Spain focused on targeted regional face-to-face sessions.

Country	Implementing Partner	Delivery Formats	Venues & Locations	Total Trainees
Portugal	CTCP	3 yüz yüze oturum (ardışık döngü); 1 çevrim içi entegre oturum	CTCP Headquarters (São João da Madeira); Virtual Zoom Classroom	22 unique (32 total attendances)
Turkey	TESK / TUAF	4 Face-to-Face sessions (adapted to apprentice schedules and industrial hubs)	Siteler VET Center, Ahi Evran VET Center, Ortaklar Business Center (Ankara)	69
Italy	CNA Marche	3 Face-to-Face sessions (specialized standard-specific actions)	CNA Marche Headquarters (Ancona), CNA Urbino (Urbino)	31
Spain	AVECAL	3 Face-to-Face sessions (standard-specific actions)	FICIA (Elda, Alicante), 3DSoul School (Elche & Elda, Alicante)	30

Demographic Distribution of the Audience

The demographic and professional profiles of the trainees varied significantly between partners, highlighting the wide reach of the TWIN Transformation materials and the versatility of the curriculum:

- Portugal (CTCP): Gained high traction among experienced, highly-qualified professionals. Out of 22 trainees representing 16 different entities (footwear manufacturers, supply chain partners, independent consultants, and employment agencies), 15 were female and 7 male. The educational level was very high: 9 held Master's/Ph.D. degrees, 8 held university degrees, and 5 had secondary qualifications. The average age was 41 years (ranging 26–62), with all participants directly working on environmental management, carbon foot printing, or ESG practices.
- Turkey (TESK/TUAF): Reached younger, hands-on industrial profiles. A total of 69 trainees attended, all of whom were male due to the gender split in the participating sectors. Courses at the VET centres targeted apprentice students aged 18 to 22 (journeyman and master levels in footwear, plumbing, and furniture sectors) who study at VET centres 1 day per week and work in local enterprises the remaining days. In contrast, the footwear manufacturer training at Ortaklar Business Center was attended by mature trade professionals (aged 22+). Some foreign nationals (such as Syrian workers) also successfully participated.
- Italy (CNA Marche): Successfully targeted 31 participants, including entrepreneurs, employees, and technical staff from diverse sectors (woodworking, manufacturing, fine mechanics, textiles, fashion, car repair, and shoe production). Age distribution was highly diverse, ranging from 23 to 70 years old. Trainees were highly motivated and displayed strong prior awareness of climate change issues, actively looking for practical compliance tools.
- Spain (AVECAL): Attracted 30 professionals, evenly distributed (10 per standard), representing regional footwear, leather, and related technology providers, with highly consistent, high-end professional involvement and a strong results-oriented profile.

4. Brief Description of Training Sessions

Face-to-Face Training Sessions

Local face-to-face courses combined robust theoretical presentations of the international standards with customized practical exercises designed to reflect industrial realities and localized sector-specific needs:

- ISO 14064-1 (GHG Inventory at Organizational Level): Delivered across all partner territories (e.g., CNA Marche in Italy, 3DSoul School in Elche, Siteler VET in Ankara, CTCP in Portugal). The sessions covered organizational and operational boundaries, consolidation criteria, treatment of activity factors, and quality assurance. In Spain and Italy, trainees developed concrete scope-based inventory outlines (Scopes 1, 2, and 3) and data collection plans. In Turkey, VET students analysed basic emission factors in local workshop contexts.

- ISO 14067 (Product Carbon Footprint - PCF): Addressed calculation methodologies across product lifecycles, allocation rules, system boundaries, and functional units. In Portugal, face-to-face trainees visited the BioShoes4All project materials exhibition, examining innovative and sustainable footwear components. In Spain, AVECAL focused sessions on structuring the CFP model and identifying carbon emission hotspots for corporate decision-making.

- ISO 14046 (Water Footprint Assessment): Introduced the concepts of water inventory analysis, water degradation, impact assessment, and corporate reporting. In Italy, this module was developed in cooperation with Master Quality (a regional quality control organisation) and CNA Urbino, connecting water footprint metrics to wood and mechanical fabrication processes. In Turkey, to facilitate attendance by busy footwear manufacturers, TUAF and TESK held this course directly in the Ortaklar Business Center, where the physical production lines are located.

Portugal


Quantificação e reporte
das emissões GEE
segundo as normas ISO




Spain



FICIA





Turkey

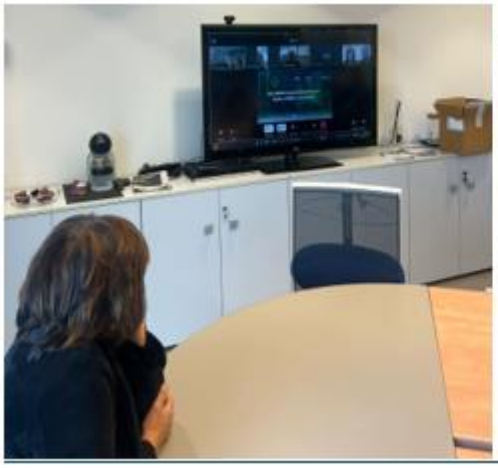








Italy









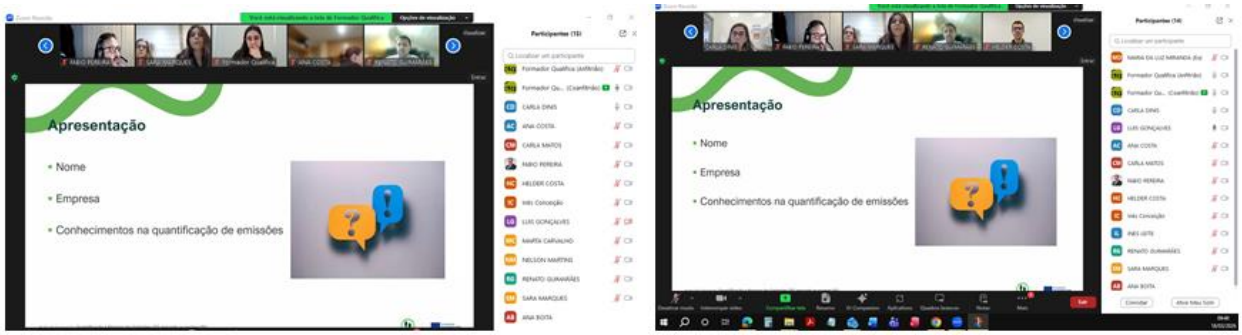


Online Integrated Sessions

Portugal stands out as the partner that innovatively pioneered an Online Integrated Training Format to maximize outreach, enhance geographic accessibility, and overcome schedule barriers for active professionals. On 18 March 2026, CTCP organized and delivered a continuous, non-stop online session that gathered 17 remote participants.

This intensive digital format combined the core modules of all three environmental sustainability standards (ISO 14064-1, ISO 14067, and ISO 14046) into a single, cohesive educational pathway. The integrated curriculum allowed trainees to clearly understand the operational connections between greenhouse gas accounting, product carbon footprints, and water resource management within a unified corporate environmental strategy. The session utilized interactive virtual whiteboards and digital calculation sheets, enabling high trainer-student engagement and proving highly effective in extending technical knowledge across Portugal's footwear supply chain.

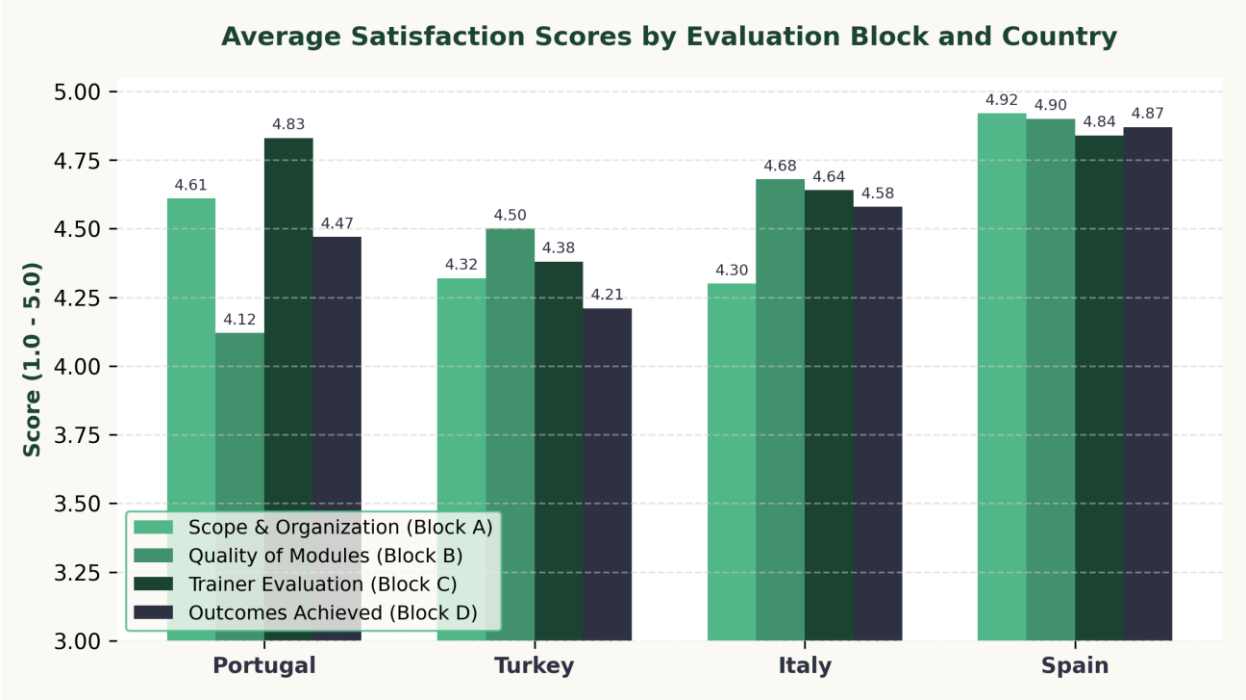
Portugal



5. General Satisfaction Results (All Training Activities)

Unified analysis of the 152 satisfaction surveys collected across Portugal (22), Turkey (69), Italy (31), and Spain (30) demonstrates a remarkable, consistent level of quality. The table below outlines the average scores across the four evaluation blocks for each country, as well as a project-wide weighted average. Spain recorded the highest aggregate satisfaction (4.89 / 5.00), while all partners safely exceeded the 4.00/5.00 mark.

Evaluation Dimension / Block	Portugal	Turkey	Italy	Spain	Project Weighted Average
Block A: Scope & Organization	4.61 / 5	4.32 / 5	4.30 / 5	4.92 / 5	**4.48 / 5**
Block B: Quality of Modules (Standards)	4.12 / 5	4.50 / 5	4.68 / 5	4.90 / 5	**4.56 / 5**
Block C: Trainer Evaluation	4.83 / 5	4.38 / 5	4.64 / 5	4.84 / 5	**4.59 / 5**
Block D: Outcomes / Impact	4.47 / 5	4.21 / 5	4.58 / 5	4.87 / 5	**4.45 / 5**
Overall Average Satisfaction Score	**4.51 / 5**	**4.35 / 5**	**4.47 / 5**	**4.89 / 5**	**4.50 / 5**



6. General Conclusions and Recommendations

Suitability of Training Content

The technical content was assessed as highly suitable across all countries, aligning perfectly with the evolving green transition demands on European SMEs. In Italy, trainees from woodworking, mechanical, textiles, fashion, and shoe-manufacturing sectors noted the immediate relevance of carbon auditing to protect competitive standing. In Portugal, ISO 14064-1 and ISO 14067 were deemed absolute 'must-know' topics for the footwear community, although ISO 14046 (Water Footprint) was perceived as a 'good-to-know' but less directly applicable standard (for instance in Portugal scored a lower 3.23 / 5.00). In Turkey, the highly technical concepts were successfully introduced, significantly raising climate change and sustainability awareness among apprentice students and craftsmen, although direct independent calculation remains a future challenge due to the complex, mathematical nature of the standards.

Quality of Training Materials

The training modules achieved high satisfaction averages, peaking at 4.68 / 5.00 in Italy and 4.90 / 5.00 in Spain, reflecting the solid visual structure, clear terminology, and theoretical foundations. Trainees strongly appreciated the inclusion of localized case studies and sector-specific exercises. However, partners noted that materials were highly technical. Recommendation: Future revisions should enrich

materials with visual and audio components (such as narrated presentations and animations), and develop highly simplified calculation templates, guidelines, and checklists specifically tailored for the micro and small business environments to make independent implementation less overwhelming.

Trainer Performance

Trainer performance was the strongest, most consistent pillar of the WP3 project, scoring an outstanding 4.83 / 5.00 in Portugal and 4.84 / 5.00 in Spain (weighted average of 4.59 / 5.00). Trainees warmly praised the trainers' technical expertise, pedagogical capabilities, clear communication, and ability to bridge complex ISO rules with real-world business challenges. To maintain these high standards, TESK in Turkey recommends providing further advanced, capacity-building training of trainers to help instructors constantly handle highly complex, emerging environmental topics.

Training Environment and Technical Infrastructure

Infrastructure was rated highly, particularly in Portugal (4.86 / 5.00 for learning environment) where the CTCP conference halls and virtual digital formats were highly praised, and in Turkey where VET center infrastructure was fully adequate. In Italy, conference room logistics received a slightly lower 3.94 / 5.00, suggesting that larger, highly interactive venues would further support comfort and group exercises in future editions. In Turkey's Ortaklar Business Center, trainers successfully overcame facility limits by bringing portable projection equipment to the manufacturing floor. Recommendation: Maintain flexible physical/digital options and allocate more group interaction spaces to improve active collaborative learning.

7. Overall Conclusions and Recommendations

The consolidated evaluation of Work Package 3 (WP3) confirms that the TWIN TRANSFORMATION training program has been a clear success across Portugal, Turkey, Italy, and Spain. By qualifying 14 trainers and subsequently training 152 diverse industry personnel, apprentice students, entrepreneurs, and sector specialists, the project has successfully built a solid foundation of environmental engineering skills in regional footwear and manufacturing clusters.

While Spain and Portugal reported exceptionally high performance, all partners managed to deliver outstanding educational pathways. The key lesson learned across all territories is that while technical sustainability compliance (greenhouse gas, water, and product carbon footprint calculation) is urgent and

critical, its complexity requires a continuous support structure. Future project phases must focus on expanding hands-on tools, simplified checklists, and digital platforms that facilitate the immediate, hassle-free transfer of ISO standard compliance directly to the factory floor, ensuring a competitive, highly digitized, and sustainable green transition for European SMEs.