



Co-funded by the
Erasmus+ Programme
of the European Union



FINAL EVALUATION REPORT

PRODUCED BY ISQ

June 2023



Erasmus+

SUSTAIN-CE: Project Number 2020-1-TR01-KA203-093522



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1 BACKGROUND

SUSTAIN-CE addresses circular economy concepts and principles within the construction sector, aiming at integrating principles of sustainable development and circular economy (SD/CE) in civil engineering curricula, which should consider all steps from raw material to the life cycle of the end-product in the construction sector.

Infrastructure is the backbone of sustainable development and forms much of the foundation for quality of life. However, it consumes vast material resources and energy. For this reason, it is of paramount importance that prospective engineers, who will design, construct, and maintain these systems for the next 50 or more years, are equipped with the awareness and knowledge of sustainable infrastructure design.

Civil engineering covers a wide range of disciplines that incorporates infrastructures: construction, environmental, geotechnical, water resources, structural and transportation engineering. Therefore, it is imperative civil engineering undergraduate students get accustomed to concepts and principles needed to meet the requirements of sustainability in civil engineering projects. As a response, SUSTAIN-CE project will attempt to enrich the contemporary civil engineering undergraduate programs' curricula, which are mainly focused on regulations, standards, codes and safety and serviceability of infrastructure systems, by incorporating sustainability, resilience and circular economy concepts in various stages of the design courses.

SUSTAIN-CE resulted in the co-creation of a new innovative undergraduate civil engineering curriculum that covers sustainable infrastructure design to ensure graduates can apply concepts and principles of sustainable design (SD) and circular economy (CE) in the design and construction of civil engineering projects.

In short, SUSTAIN-CE resulted in the following deliverables:

- 1) The syllabus and contents of a new course supporting the SD/CE concepts in civil engineering
- 2) Three Training Events – Training Academies - implemented in Portugal, Greece, and Turkey.
- 3) Three evaluation reports summarizing the results of the three Training Academies
- 4) A guideline for other educational institutions willing to implement SUSTAIN-CE Training Academies.
- 5) One VLE platform (design, develop and content)

Regarding quality evaluation for the SUSTAIN-CE project, this is the final quality evaluation report.

2 PARTNERSHIP

SUSTAIN-CE project was conducted by a consortium of six partners from three European countries: Turkey, Greece and Portugal. Comprised of three universities, one research centre, one construction company and one partner with extensive experience in curriculum design and circular economy, SUSTAIN consortium covers the expertise needed to successfully implement the project goals. Table 1 presents all six partners.

Table 1

PARTNER	Acronym	COUNTRY
YASAR UNIVERSITESI COORDINATOR	YU	Turkey
IZMIR INSTITUTE OF TECHNOLOGY	IYTE	Turkey
ARISTOTLE UNIVERSITY OF THESSALONIKI (ARISTOTELIO PANEPISTIMIO THESSALONIKIS)	AUTh	Greece
SOUTH-EAST EUROPEAN RESEARCH CENTRE (KENTRO EREVNON NOTIOANATOLIKIS EVROPIS ASTIKI MI KERDOSKOPIKI ETAIREIA)	SEERC	Greece
INSTITUTE FOR TECHNOLOGY AND QUALITY (INSTITUTO DE SOLDADURA E QUALIDADE)	ISQ	Portugal
FOLKART YAPI SANAYI TICARET A.S.	FOLKART	Turkey

3 QUALITY EVALUATION AND MONITORING STRATEGY

ISQ approved a Quality and Evaluation Handbook where the methodology and tools used to evaluate and monitor the quality of the project and its deliverables were defined and agreed upon by all partners.

Focusing on the 3P model¹ developed by ISQ (see next sub-section), the Quality and Evaluation Handbook was designed to support the project management and to guide all partners on evaluation and quality issues. As such, besides the definition of the evaluation methodology, rooted in the 3P model and in specific questionnaires designed for the evaluation of (a) meetings, (b) training activities and (c) multiplier events, the Quality and Evaluation Handbook includes a set of **performance indicators** (see table 4 of the Quality and Evaluation Handbook), agreed upon by all partners, aiming at providing a quantitative measure of the project quality and performance and, hence, the possibility to act upon any less positive result in due time. In terms of quality evaluation and monitoring, major milestones were the *interim* and *final* reports. In-between these, quality evaluation was made every 6 to 7 months in the form of biannual quality reports which aimed at gathering all quality results collected by the quality evaluation tools applied in that period. These comprise quality evaluation questionnaires specifically designed for (1) meetings, (2) learning activities and (3) multiplier events.

The Final report evaluates whereas whatever was hindering the project best results was overcome, as well as main results achieved by the consortium. This **Final Evaluation Report** pertains the 2nd half of the project lifetime (months 18 to 32).

The main goals of this evaluation report are:

¹ 3P stands for (i) Process and Project Management; (ii) Partnership and (iii) Products, the three dimensions evaluated at the middle and at the end of the project lifecycle.

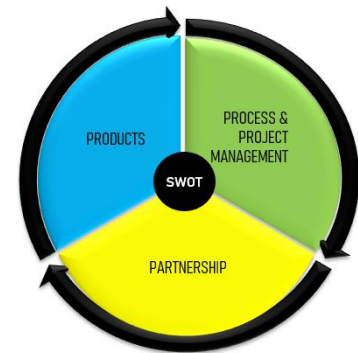
- To summarise the results of the evaluation process carried out by the partnership;
- To report on the performance of the project and present a set of conclusions about the performance indicators;
- To present the strengths and the issues that arose in the project;
- To facilitate the project reporting to the National Agency;
- To share with all partners the results of their perspective on the project

4 THE 3P EVALUATION AND MONITORING MODEL

The 3P evaluation model adopted for SUSTAIN project allows a tri-dimensional assessment of project progress: i) Process and Project Management; (ii) Partnership; (iii) Products.

This model aims to:

- ✓ Develop clarity and realism about the project objectives;
- ✓ Recognize the importance of a partnership in creating value;
- ✓ Facilitate an environment of knowledge sharing;
- ✓ Increase motivation and confidence;
- ✓ Monitor and assess performance;
- ✓ Identify strengths and weaknesses of the project;
- ✓ Implement improvement measures just in time;
- ✓ Create useful products and value for end-users.



The way **SUSTAIN project** is driven forward and managed is to be assessed and measured considering the following aspects:

- ✓ Clarity and feasibility of the project objectives;
- ✓ Fulfilment of the planned schedule;
- ✓ Adequacy of the management model;
- ✓ Efficiency of the project communication processes;
- ✓ Adequacy of the planning, logistics and usefulness of project activities;
- ✓ Reengineering working processes;
- ✓ Involvement of all partners in the continuous improvement of processes.



Checking the effectiveness of the **partnership** will give a sense of progress and direction for the future. The partnership interaction is to be evaluated at an internal level, considering the following aspects:

- ✓ Clarity and importance of the project objectives for each partner;
- ✓ Level of sharing, SUSTAIN, clarity of responsibilities and tasks;
- ✓ Promotion of high-quality results within working groups;
- ✓ Geographical distance between partners and ways to overcome it;
- ✓ Assurance of the IOs planning and control;
- ✓ Promotion of empowerment and communication;
- ✓ Monitoring of partnership performance;



The level of quality of the **products**, their usefulness to partners, end-users and stakeholders and how they are developed will be explored, in a context of future sustainability, considering the following topics:

- ✓ Level of the products quality taking into account the specified set of attributes or requirements defined by the partnership;
- ✓ Level of the products incorporation potential by each of the partners;
- ✓ Level of the products transferability potential to external stakeholders;
- ✓ Identification of weak and strong points of the products;
- ✓ Reengineering of products to ensure their sustainability.



In Chapter 4 we present an analysis of the SUSTAIN evaluation results for the second year of the project.

4.1 THE 3P EVALUATION RESULTS

The global results of the 3P evaluation questionnaire in the final evaluation of the project were very positive, with the **“Process and Project Management”** and **“Partnership”** dimensions rating *excellent performance (rating above 95%²)*. The **“Products”** dimension was evaluated as *Good²* in the first year of the project, but got a rating of excellence in the second year of the project (Figure 1). With the exception of **“Partnership”**, all dimensions showed a positive progress from the first to the second year of the project.

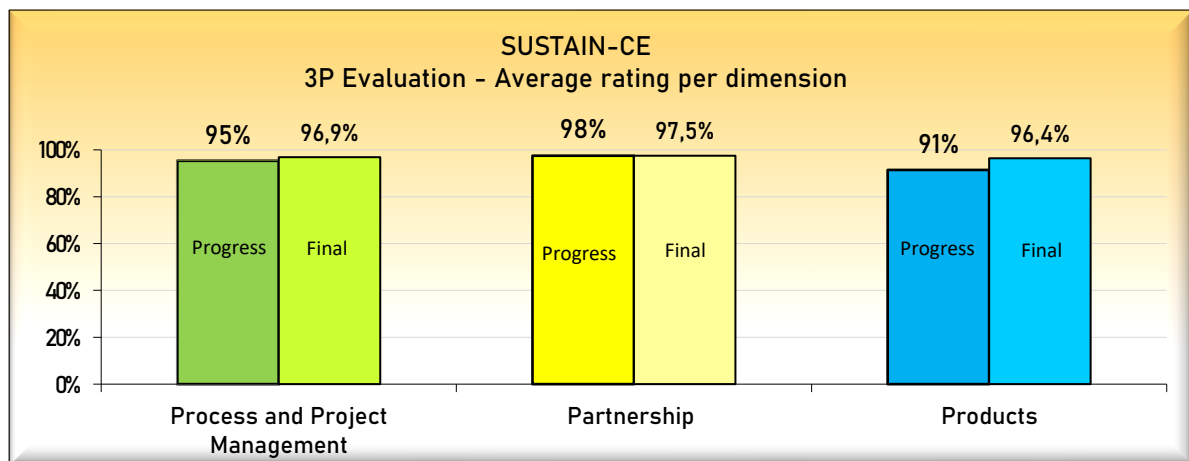


Figure 1

Each of the 3P dimensions’ evaluation will be looked at with more detail in the following sections.

² Performance scale used:

- Bad (<60%),
- Adequate (<60% - 85%);
- Good (< 85% - 95%)
- Excellent (< 95%)

4.1.1 Process and Project Management

To evaluate the **Process and project management** 3P dimension, the 3P questionnaire included a total of 21 questions: 20 closed and 1 open.

The closed-end questions considered seven sub-dimensions, namely:

- a) Project objectives
- b) Intellectual Output (IO) objectives and activities
- c) Workplan and timetable
- d) Management Model
- e) Financial resources
- f) Communication channels and
- g) Intellectual Outputs' leadership

From these, the best rating subdimension was **IO Leadership** with 100% satisfaction (**Error! Reference source not found.**). Following this rate of satisfaction is **Management model** (99%) and **Communication channels** (97,9%). In general, all subdimensions under **Process and Project management** rated above 90%.

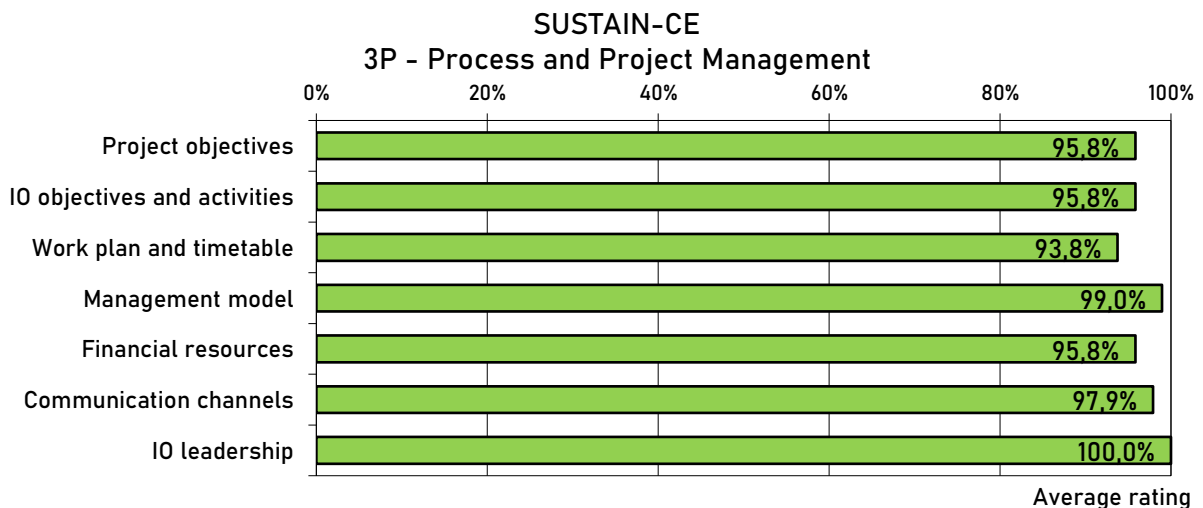


Figure 2

Error! Reference source not found. depicts the results obtained for each individual question under the first five sub-dimensions of the **Process and Project Management** 3P descriptor (all but "IO Leadership").

The results from Figure 3 show an overall positive evaluation for the “Process and Project Management” descriptor. Taking in mind the results from the interim report only three questions showed a less positive rating: “Project objectives are clear and feasible”, “Project budget available was suitable”, “Project communication flow periodicity and tools were adequate”. With that exceptions, all the indicators show a positive evolution from the first to the second year of the project.

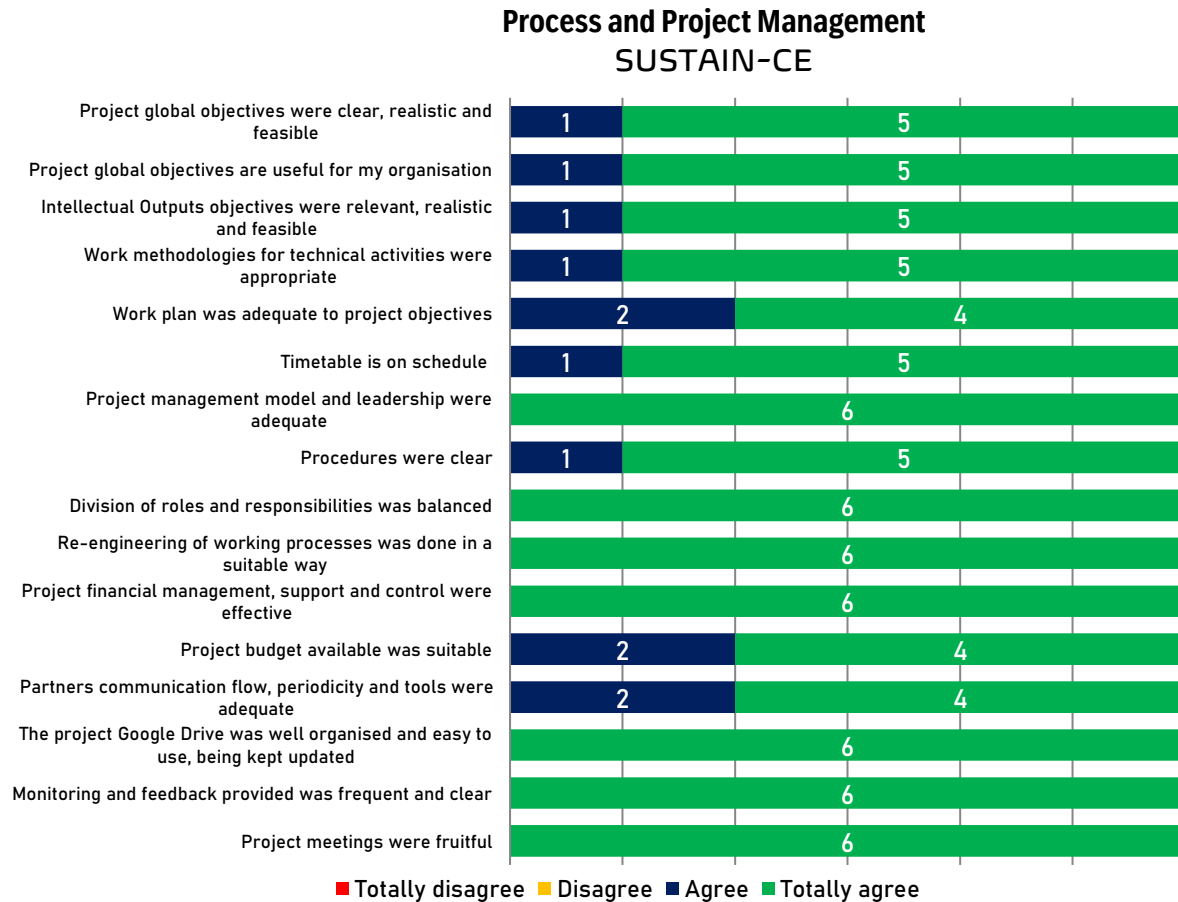


Figure 3

As per the individual questions under IO leadership results, they were very positive, with a unanimous maximum rating from all partners as shown in **Error! Reference source not found.**

Performance of the IO leading organisation was satisfactory SUSTAIN-CE

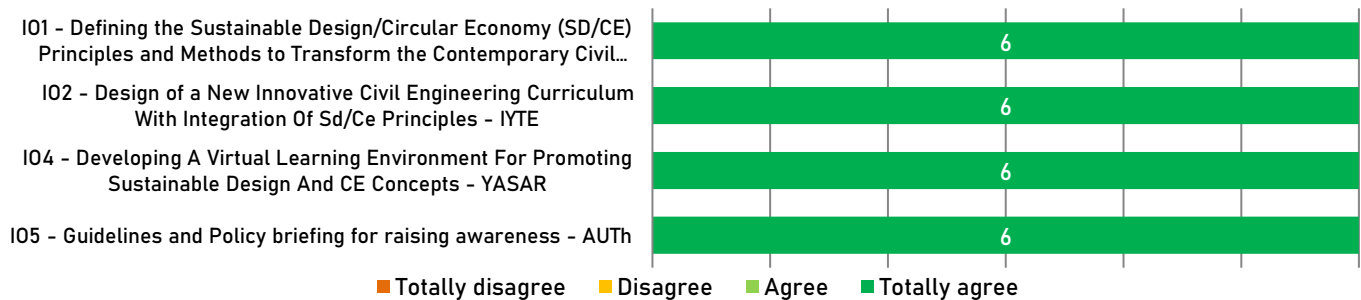


Figure 4

Answers to the open question “Please state your comments regarding this dimension of the 3P model. Any less positive rating given in the aspects above should be justified here” are shown in [Box 1](#)**Error! Not a valid bookmark self-reference.** They shed some light onto the underlying reasons for some of the less positive ratings given to these three questions. According to these, communication flow was partially compromised due to work overload.

Box 1: Comments regarding the *Process and Project Management* dimension of the 3P model

The process and project management was excellent.

Communication flows between the coordinator and partners in some cases were more difficult due to partners' work overload.

4.1.2 Partnership

To evaluate the **Partnership** 3P dimension, a total of 17 questions (16 closed and 1 open) were developed, organized in five sub-dimensions, considering, among others, aspects such as commitment and preparedness of partners, level of sharing, trust, clarity of responsibilities and tasks, promotion of empowerment and communication.

Figure 5 depicts overall results obtained for this dimension. **Human resources** was the best evaluated sub-dimension (rated 100% satisfaction). Still, all but **Involvement of partners** were rated as excellent – with the latter scoring yet just above 90%.

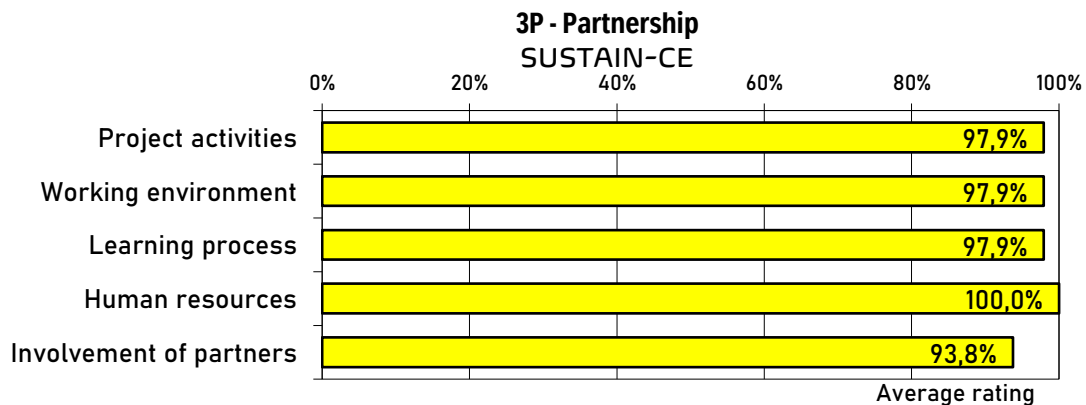


Figure 5

Figure 6 shows the results obtained for all individual questions under the first four sub-dimensions (all but **Involvement of partners**). Partnership general aspects show excellent results.

Partnership general aspects SUSTAIN-CE

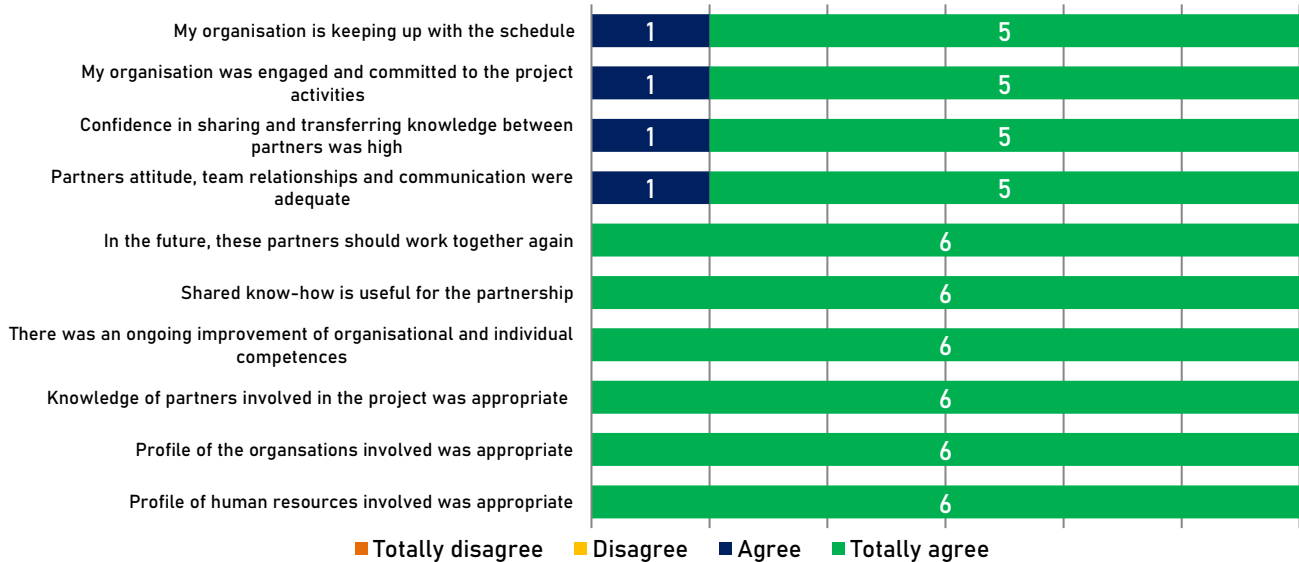


Figure 6

Results obtained to the evaluation of partners performance and participation are shown in Figure 7. A positive evolution emerges from this evaluation when compared with the first year of the project. Every partner was positively evaluated in respect to an active participation and usefulness in SUSTAIN-CE project. A lower but still positive evaluation for ISQ is justified in the comments regarding this dimension: there were minor communication problems between the project coordinator and ISQ related to a change in the personnel assigned to the project. Despite this, evaluation shows an excellent partnership.

Involvement of Partners in the SUSTAIN-CE project: There was an active participation and usefulness of...

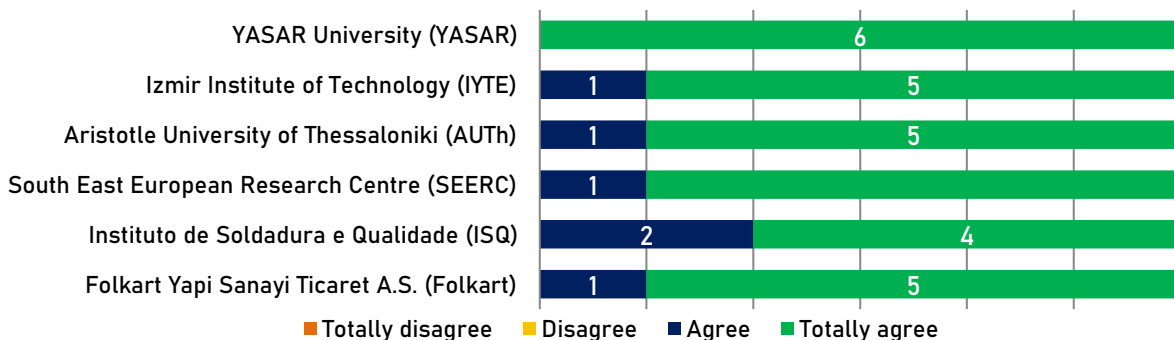


Figure 7

Box 2: Comments regarding the *Partnership* dimension of the 3P model

Excellent Partnership

Very committed coordinator

As stated before, there were minor communication problems between the coordinator and ISQ, not because of the partner's attitude or will to collaborate but due to a change in the personnel assigned to the project, resulting in delays. Nevertheless, the coordinator is looking forward to further collaboration with ISQ in future common projects.

4.1.3 Products

The last 3P dimension was assessed by 11 questions (10 closed and 1 open). The closed questions considered three sub-dimensions: products developed, transfer to partners and sustainability. The open question was designed to provide more insight and, preferably, a justification for less positive evaluations.

Figure 8 shows overall results obtained for each of these subdimensions' rating. *Transfer to partners* was the best evaluated dimension, with a 98% score. *Sustainability* was the least positively evaluated, although still with a 94% satisfaction rate.

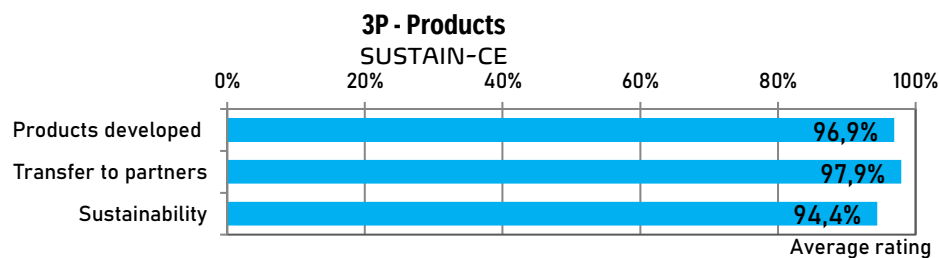


Figure 8

Figure 9 shows results obtained for each question under the the subdimensions *Transfer to partners* and *Sustainability* and Figure 10 depicts results specific to the *Products developed* subdimension.

Products general aspects evaluation was in general very positive showing no negative evaluations. This shows the progress made in comparing to the previous 3P evaluation, as the general results from the first year were less positive in this dimension.

As for the evaluation of the final products - *Products developed* -, this was overall positive, with no negative ratings given (Figure 10). Likewise, the same positive evolution is shown in the general quality and usefulness of deliverables during this second year of the project.

Products (general aspects) SUSTAIN-CE

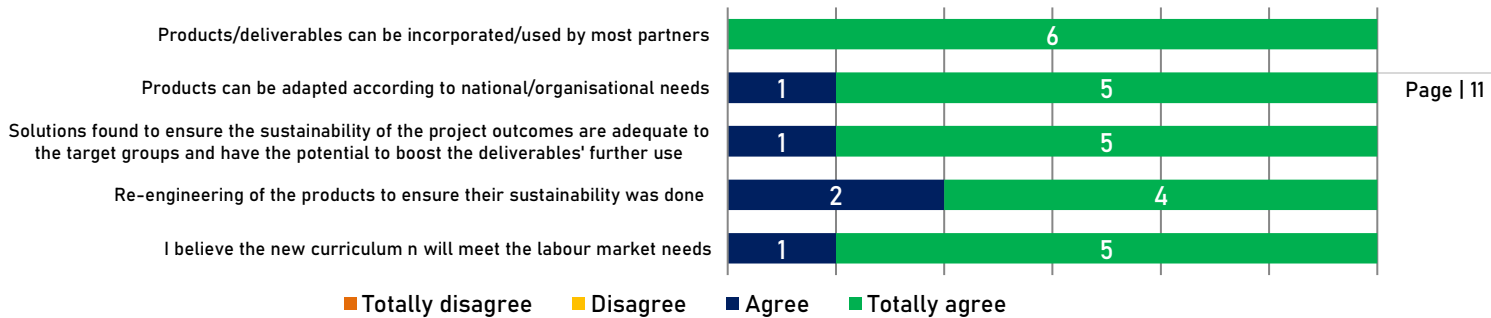


Figure 9

General quality and usefulness of deliverables developed during the project were adequate SUSTAIN-CE

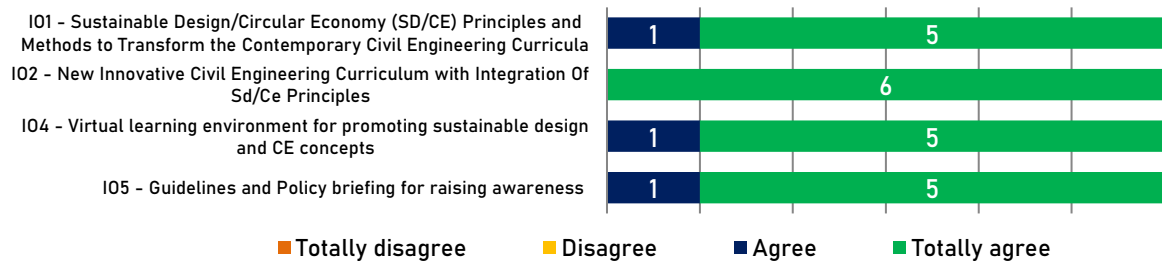


Figure 10

The comments regarding this dimension of the 3P model are presented in the next box.

Box 3: Comments regarding the *Products* dimension of the 3P model

The new curriculum is very mature and has been by our organisations.
 The contents should be possible to transfer to other virtual platforms such as Moodle.
 The main project's deliverable (the Virtual Learning Environment (VLE) platform) is assuring the sustainability of project results and their transferability to other educational institutions.

4.1.4 SWOT Analysis

In the SWOT analysis part of the questionnaire, partners were asked to list what, in their opinion, were the main strengths (S), weaknesses (W), opportunities (O) and threats (T) regarding the SUSTAIN-CE project.

As it was clearly explained in the questionnaire text:

- Strengths refer to those characteristics of the project that give it an advantage over others
- Weaknesses are aspects that place the team at a disadvantage relative to other projects
- Opportunities include anything that the project could exploit to its advantage and
- Threats refer to any event, action, or elements in the environment, that could hinder project objectives and outcomes.

Table 2 shows all the answers under SWOT analysis.

What immediately stands out in table 2 is the number of strengths listed by partners. Strengths presented count for the commitment and experience of the consortium, the overall quality of the product as an

innovative curriculum, an accessible methodology implementation and the easiness of its transferability. This quality outputs offered, in the partners perspective, an excellent opportunity for the fulfilment of market needs. The weaknesses and threats this project faced can be resume to the circumstances of COVID- 19, one that forced partners to come up with alternatives that were not expected.

Table 2: Answers to the SWOT analysis part of the 3P questionnaire

STRENGTHS <ul style="list-style-type: none">▪ A valuable and innovative idea reflecting the need of incorporating sustainability and circular economy concepts in future engineers' education;▪ High-quality and timely delivery outputs;▪ Excellent and dedicated lead partner;▪ Good communication among partners;▪ The distance learning methodology makes it accessible to a much wider number of people;▪ A high-quality and committed consortium were partners from academia and industry co-created and designed the new curriculum;▪ Easiness of transferability of the project results to other educational institutions;▪ Concrete results that can be sustained in the future.	WEAKNESSES <ul style="list-style-type: none">▪ The implementation model included too many face to face learning activities which increases the effort implementation and resources.▪ The project had to be implemented during the COVID-19 pandemic forcing the collaboration between partners at the beginning of the project to an online mode;
THREATS <ul style="list-style-type: none">▪ The project was implemented partially during the COVID pandemic, which as many other projects demanded for a higher consumption of resources to come up with alternatives that were not planned in advance;▪ The education bodies lack the appetite to embrace the output of the project for adaptation which makes it's use uncertain	OPPORTUNITIES <ul style="list-style-type: none">▪ Innovative curriculum that can be applied in civil engineering curricula that is fulfilling the market needs;▪ To include the concept of sustainability in students curriculum in an early stage;▪ Opportunities for maturing the team under the means of sustainability and circular economy and developing guidelines and norms for certifying procedures in civil engineering constructions;▪ It provides further ideas and networks for future projects.

4.1.5 IMPACT ANALYSIS

SUSTAIN-CE aims to update civil engineering curricula for the new challenges to the living environment. This project is expected to have both an immediate and long-term impact as the more relevant and actionable results of the project, - hands-on and practical training in specific topics of civil engineering - will also result in lengthy transformations, such as the acknowledgement of the importance and need of sustainable designs, competitive advantages in between peers, the transformation of cities and towns into sustainable living environments. In that sense, the main impact of the project is expected to take place on the civil engineering education and students (including universitys students from civil engineering and architectural backgrounds; HEI's civil engineering departments and research institutes; civil engineers and architects working in design and construction; city planning and urban development departments of municipalities and chambers of civil engineers and architects). But it is also expected to impact the community, at local, regional, national and european and international levels, mainly through the practices of Sustainable Development and Circular economy.

Assessing the expected impacts in each partners country in the final evaluation moment of the projet, three questions were asked: one regarding the sustainability of the SUSTAIN-CE products in each partner country; one considering the next steps planned to ensure the further use of SUSTAIN-CE products; and another one regarding the expected impact on each partner's national education system.



“Why are SUSTAIN-CE product sustainable in your country?”

- The outputs of the SUSTAIN-CE projects are filling an important gap that exists in the country related to the application of sustainability and circular economy concepts in civil engineering curricula, as well they have an important contribution to the policy settings in terms of the promotion of these concept on the quadruple-helix level. Therefore, the project has a great impact to the country's transition towards sustainable development and circular economy in the respective sectors.
- We have lack of these means in our curricula.
- The curriculum was built in a modular way, allowing to be used in different context- University and VET. It addresses a gap of competencies in curriculums in the construction and associated areas.
- Universities in our country (Turkey) will be able to easily adopt the re-designed curriculum and incorporate it into their Civil Engineering programs. YASAR University and IYTE will start using it in the coming academic year. Also, the VLE platform provides a Virtual Learning environment open and free to learners all around the world over the internet.
- It is needed to adapt the sustainability and circular economy contents to the existing curricula. Hence, there will be demand.

“Which next steps are you planning to ensure the further use of SUSTAIN-CE products?”

- Using sustainable materials in new projects.
- To ensure the further use of the SUSTAIN-CE outputs, the introductory modules to sustainability and circular economy will be implemented in the teaching programmes of University of York Europe Campus, CITY College within the bachelor curricula of the business administration and economics department, as well as the structure/methodology of the project will be implemented in existing and future projects.
- Utilize the platform.
- To review it deeply again to be fully adjusted to the Portuguese national context and transfer it to the training offer of ISQ.
- Participation in various seminars/ conferences is already planned to further disseminate the results of the project and will also continue after the project's end.
- Adoption of the new curriculum and the VLE by partner organizations in their training/educational programs.
- To create a showcase by promoting the adaptation of Sustain-CE products in our institutes.

“What is the expected impact of SUSTAIN-CE on your national education system?”

- Awareness and value.
- The expected impact of SUSTAIN-CE on the national education system is the contribution to further promote the importance of adoption of sustainability and circular economy concepts in the civil engineering curricula, and the transferability of the delivered knowledge in practices in the business sector, as well as in contributing to the policy-development on national level
- A wide discussion has already begun, and the results of SUSTAIN-CE initiate these discussions. It focused in including at an early stage as much as possible (at university level and new graduated people) the dimension of sustainability in a sector which still has a lot of environmental impact.
- Universities in Turkey seeking accreditation by Washington ACCORD/ MUDEK (national accreditation agency) will need to adopt their curricula in the near future embedding sustainability concepts. The results of SUSTAIN-CE project are going to be valuable in their efforts.
- Adoption of the new curriculum and the VLE by partner organizations in their training/educational programs.
- It will show the pupils the importance of the concept and how seriously it is taken, hence embedded in education curriculum



The sustainability of SUSTAIN-CE products is related to the application of sustainability and circular economy concepts in civil engineering curricula responding to a gap in the HEI's and VET curricula as identified by the partners. This sustainability is further been assured by the consortium SUSTAIN-CE as partners have made plans for the curricula applicability in each country organisation.

Regarding the expected impacts of SUSTAIN-CE in national education systems there was an agreement that a project like this offers a valuable contribution to the promotion of sustainability and circular economy concepts, not only in the civil engineering curricula but also regarding the transferability of knowledge into practices of the business sector and its consequences in policy-developments on national levels.

5 PROJECT PERFORMANCE INDICATORS

Error! Reference source not found. depicts results for the performance of the quality indicators applicable (bound to be evaluated) in the current state of the project. These are classified according to a 3-colour scale:

- (1) **Green** for absolute compliance
- (2) **Amber** for minor deviations
- (3) **Red** for unaccomplished targets

Table 4- quality indicators performance

IO/Activity	LEADER	PI	Colour Rate
IO1	SEERC	1.1. A quadruple-helix co-creation methodology is created identifying, at least 24 best practices; 1.2. Three stakeholders' lists (1 per country) are created; 1.3. Minimum of 120 responses, in total, from project stakeholders to the skills gap survey; 1.4. Minimum of 60 best practices, in total, on a global or national level, are identified by partners on a benchmarking exercise of SD/CE; 1.5. One focus group per country (three in total) is formed to confirm and further elaborate on the skills matrix and benchmarking results; 1.6. The blueprint has recommendations for the new innovative curriculum be compatible with ECTS, ECVET and EQAVET systems; 1.7. Partners are satisfied by the time of the Final Output quality check (all positive feedback); 1.8. All partners evaluate the IO leadership in a positive way.	
IO2	IYTE	2.1. A list of SD/CE concepts is produced by the academic partners and incorporated to existent courses of Civil Engineering Curricula, for each of the previous selected thematises; 2.2. The New Innovative Civil Engineering Curriculum has contributions from academic and non-academic partners and is peer-validated by the national focus groups; 2.3. The New Innovative Civil Engineering Curriculum is tested during the Pilot Training Academies; 2.4. The New Innovative Civil Engineering Curriculum is made available in the VLE platform, on modular basis, on time; 2.5. Partners are satisfied by the time of the Output quality check (all positive feedback); 2.6. All partners evaluate the IO leadership in a positive way.	



<p style="text-align: center;">IO4</p>	<p style="text-align: center;">YU</p>	<p>4.1. The VLE Platform has contributions from academic and industry partners;</p> <p>4.2. The VLE platform is designed to support self-paced and facilitated/ instructor-led learning features;</p> <p>4.3. The course to introduce the basic material cycles in the nature and the basic concepts of the SD/CE covers, at least, 14 weeks of self-study;</p> <p>4.4. The specialized modules in the selected thematic areas are designed with a minimum of 3 to 6 hours of directed instruction;</p> <p>4.5. The content material is delivered using different media elements such as text, Figures, audio and videos;</p> <p>4.6. The VLE platform is tested as a beta-version before its launching;</p> <p>4.7. The VLE platform is tested during C3 and C4 academies;</p> <p>4.8. The VLE platform users' feedback is used for its continuous improvement, during the project lifecycle;</p> <p>4.9. A quality framework is developed to evaluate the VLE platform and training materials, considering social presence, interaction, cognitive strategies, collaborative learning and learner centeredness dimensions;</p> <p>4.10. Partners are satisfied by the time of the Output quality check (all positive feedback);</p> <p>4.11. All partners evaluate the IO leadership in a positive way.</p>	
<p style="text-align: center;">IO5</p>	<p style="text-align: center;">AUPh</p>	<p>5.1. Minimum of 10 interviews, in total, with university management representatives are made, by the academic partners, to feed the Policy Recommendations and Governance Settings Guide;</p> <p>5.2. Minimum of 10 interviews, in total, with policymakers' representatives are made, by the industry partners, to feed the Policy Recommendations and Governance Settings Guide;</p> <p>5.3. A Policy Recommendations and Governance Settings Guide is developed including inputs about systemic transformation of universities, content adaptation, co-creation and digital transformation;</p> <p>5.4. Four specialized policy briefings, one per helix, are produced;</p> <p>5.5. One recommendation paper is produced addressing three transformation processes: a) recommendations for interpretation, b) recommendations for decision, and c) recommendations for action.</p> <p>5.6. Guidelines for other universities (IO5) is made available through the project website and VLE platform by the end of the project;</p> <p>5.7. Partners are satisfied by the time of the Output quality check (all positive feedback);</p> <p>5.8. All partners evaluate the IO leadership in a positive way</p>	



<p style="text-align: center;">Project Management</p>	<p style="text-align: center;">YU</p>	<p>6.1. Five transnational project meetings (TPMs) are organised, provided that travelling is allowed under the new COVID-19 restrictions. Alternatively, TPMs can be replaced by online meetings, if necessary;</p> <p>6.2. All partner organisations attend all TPMs (online or virtual);</p> <p>6.3. At least, two “catch-up” virtual project meetings are organised during the project lifetime;</p> <p>6.4. TPM meeting agenda sent to all partners at least 3 weeks before the meeting;</p> <p>6.5. Virtual project meetings sent to all partners at least 1 weeks before the meeting;</p> <p>6.6. Meeting minutes sent to all partners within 2 weeks after the meeting;</p> <p>6.7. To-do lists updated every 3 months;</p> <p>6.8. All partners evaluate the project meetings in a positive way;</p> <p>6.9. All partners evaluate the management model in a positive way;</p> <p>6.10. Positive feedback from the NA to the interim report of the project;</p> <p>6.11. Minimum 85% positive feedback from partners concerning Project Coordination & Management (management, communication, coordination capabilities);</p> <p>6.12. Minimum 85% positive feedback from partners concerning internal communication process (platforms, shared drive, etc.);</p> <p>6.13. Minimum 85% positive feedback from partners concerning project’s Financial Management;</p> <p>6.14. Financial reports sent by partners to the coordinator according to the schedule.</p>	
<p style="text-align: center;">Dissemination and Exploitation</p>	<p style="text-align: center;">YU</p>	<p>7.1. The project website is created within the first six months of the project;</p> <p>7.2. Training activities C2 and C3 will be organised, by the leading partner in combination with the national multiplier event predicted for the same period: E2/C2 in Portugal, by ISQ and E3/C3 in Greece, by AUTH.</p> <p>7.3. Minimum of 30 participants in national multiplier events;</p> <p>7.4. Minimum of 50 participants in the Final Conference;</p> <p>7.5. At least, 2 project e-newsletters are released, per year, by the partnership during the project lifetime;</p> <p>7.6. Minimum of three social media channels, for dissemination purposes, are identified and used during the project lifetime (Facebook, LinkedIn, Twitter and other(s));</p> <p>7.7. At least, two conference papers are published in internal academic conferences, during the project lifetime;</p> <p>7.8. At least, one journal paper is published in international academic journals during the project lifetime;</p> <p>7.9. Dissemination plan and reports delivered on time by all partners.</p>	
<p style="text-align: center;">Quality and Evaluation</p>	<p style="text-align: center;">ISQ</p>	<p>8.1. Quality and Evaluation Handbook with inputs from all partners;</p> <p>8.2. All partners answer to the evaluation tool for the project meetings;</p> <p>8.3. All partners answer to the evaluation tool for the project annual assessment focused on 3P model;</p> <p>8.4. All partners use the evaluation tool for the Multiplier Events (E2-E5);</p> <p>8.5. All partners compile and deliver the National Multiplier Event Reports, on time;</p>	

- 8.6. All partners use the evaluation tool for the Training Activities Events (C1-C4);
- 8.7. All partners compile and deliver the Training Activities Events Reports, on time;
- 8.8. Interim Evaluation report delivered on time;
- 8.9. Final evaluation report delivered on time.

As the previous table shows, only one of the project PI's was rated "Amber":

8.4/8.5: Even though a common evaluation tool was not prepared for the National Multipliers Events, partners agreed to prepare evaluation tools tailored to their events. Apart from the ME in Greece, the remaining ME were evaluated in national reports.³

6 OTHER ASSESSEMENT TOOL

This report also took into consideration other assessment tools developed by ISQ and used by all partners during the project:

- **Transnational project meetings** - To evaluate several aspects related with the meetings organisation, management and achievements.
- **C4 Learning activity** - To report on the type of participants and evaluate content delivery, facilitators' performance, level of general satisfaction, most positive and less positive aspects of the event.

6.1 MEETINGS

Table 3 presents all Transnational Project Meetings (TPMs) held regarding the SUSTAIN-CE project: from November 2020 to June 2022, excluding online Follow-Up Meetings (FUMs).

Table 3: Meetings held in the period under analysis

MEETING	DATE
TPM1 - Kick-off meeting	14/12/2020
TPM2 - Thessaloniki	2&3/Nov/21
TPM3 - Lisbon	15&16/Mar/22
TPM4 - Thessaloniki	22&23/Jun/22
TPM5 - Izmir	11/May/23

³ The first ME event of the project was held online in March of 2022 and counted with 160 participants. It was evaluated with an online questionnaire (9 closed questions and 2 open questions) which gathered 40 valid answers. The attendees were mainly employees from public administration bodies and the construction sector interested in learning about sustainable construction within circular economy. The event gathered about 93% satisfaction (the evaluation included the choice of topics, organisation and general satisfaction). About 95% of the attendees considered their time well spent, learned something new, and considered the event useful and up to expectations. The Final Multiplier event/"Final Conference" happened in May of 2023 and got together 135 participants around the theme of Sustainability and Circular Economy in Engineering Education. It was mainly attended by academics from the civil engineering field. The evaluation questionnaire for this event gathered 21 valid responses and around 95% satisfaction. About 86% of the attendees considered their time well spent, learned something new, and considered the event useful and up to expectations.

Consortium meetings (TPMs) are the only meetings evaluated for quality purposes, by means of a questionnaire designed by ISQ which considers 4 subdimensions, namely:

- (1) Before the meeting
- (2) During the meeting
- (3) After the meeting
- (4) Technical discussions

As to the comments regarding this dimension of the 3P model, partners referred not to evaluate follow-up meetings.

6.1.1 5th Transnational Project Meeting, Izmir, 11th May 2023

The Final Project Meeting took place in Izmir in May of 2023. The evaluation accounts for the following dimensions: BEFORE THE MEETING, DURING THE MEETING, AFTER THE MEETING and TECHNICAL DISCUSSIONS. The overall evaluation showed excellent performance levels, with an overall rating of 96%. More detailed results are presented next from Figure 11 to 15.

All the dimensions were positively evaluated, showing very similar results. Along with BEFORE THE MEETING and AFTER THE MEETING who gathered the more consensual results, - with ratings close to the maximum scores, - the other two dimensions also showed good performances with no negative evaluations being given in any aspect in consideration.

All of the partners who participated in this evaluation questionnaire stayed for the whole meeting.

The comment section further enhanced this positive evaluation – partners referred to a very well-organized meeting and one who had fruitful results, as clear decisions were made about the final steps to the finalization of the project.

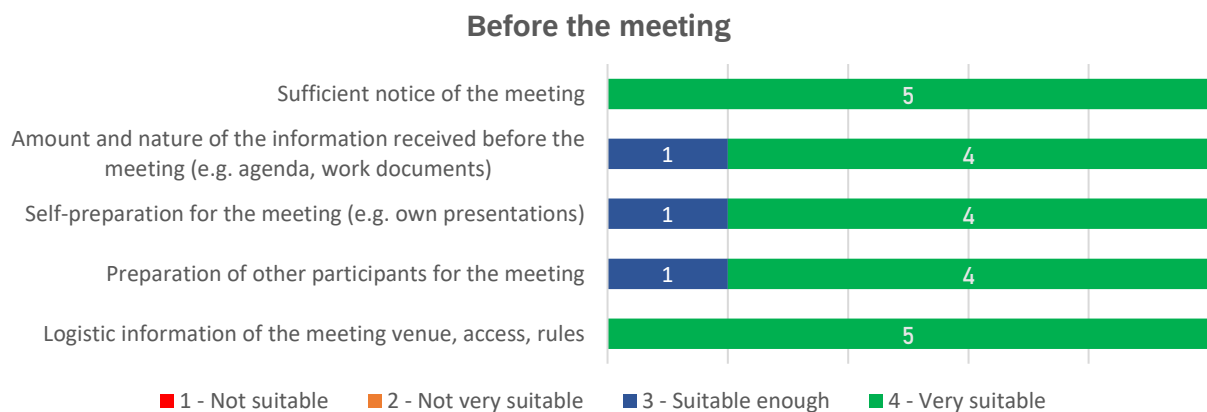


Figure 11

Meeting evaluation

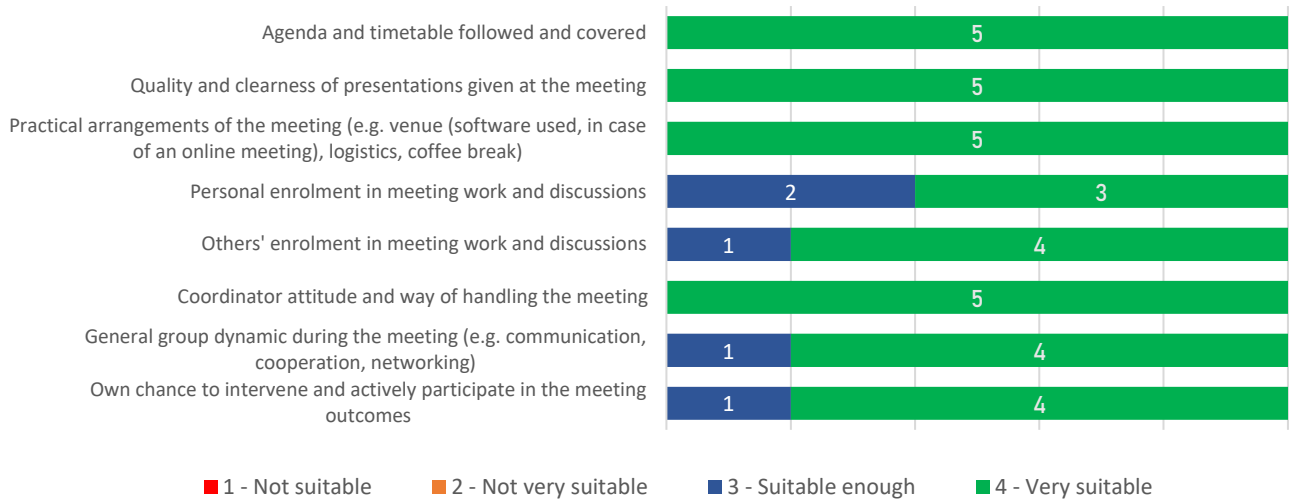


Figure 12

After the meeting

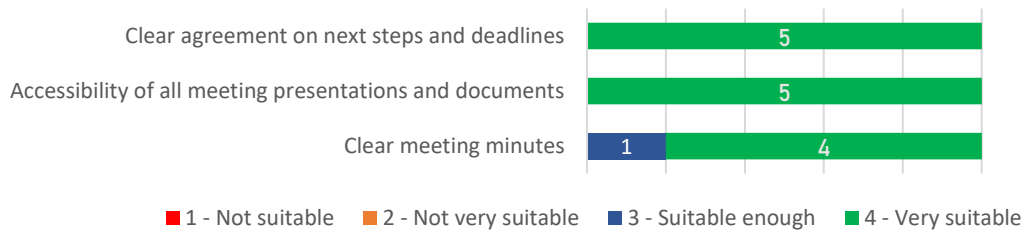


Figure 13

Did you stay for the whole meeting duration?



Figure 14

Technical discussions evaluation

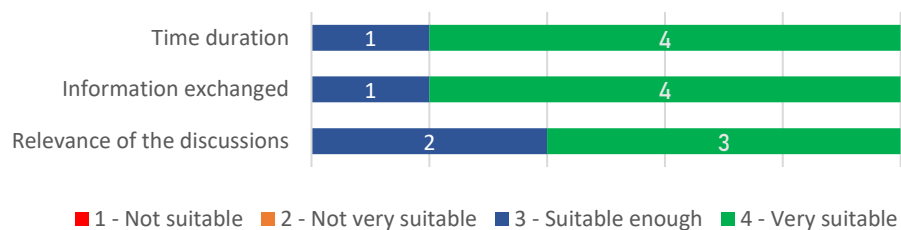


Figure 15

Box 7 – Comments on the 5th Transnational Project Meeting

Everything was organized very well

The closing meeting was very successful with the participation of all partners (even the ones who had to participate online) and clear decisions taken for the final steps needed for completing the project.

6.1.2 Transnational project meetings quality evaluation results

Evaluation results for the first transnational project meeting (the kick-off meeting) were presented in the first biannual evaluation report. Results for the second transnational project meeting, as well as TPMs evaluation evolution results were included in the second biannual report. The third transnational project meeting and the fourth transnational project meeting are evaluated in the fourth biannual report. Additionally, a meetings evaluation progress was contemplated in the Progress Evaluation Report, regarding the first year of the project.

Nonetheless, all the detailed information collected and already presented in the first, second and fourth biannual reports, as well as in the Progress Evaluation Report (also the third biannual report) will be taken into consideration for the overall analysis under the final quality evaluation exercise this report aims to deliver.

Figures 16 and 17 present these overall results.

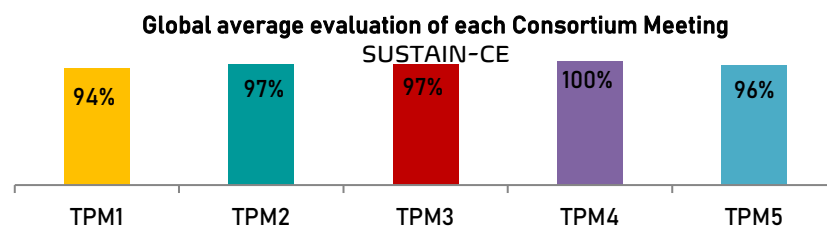


Figure 16

In general, the TPM's were very positively evaluated, showing results above 90%. With a top evaluation score, TPM4 was the best evaluated meeting. Even though up to the fourth meeting the global average evaluation positively increased, the final meeting did not meet this trend, showing a lower evaluation score (Figure 16). Looking at Figure 17, DURING and AFTER THE MEETING were the dimensions pertaining better evaluation results from all the factors analysed. Overall, TECHNICAL DISCUSSIONS has the lower performance rating, averaging in around 95%. A closer look into the Figures 18 to 21 can help us understand these trends.

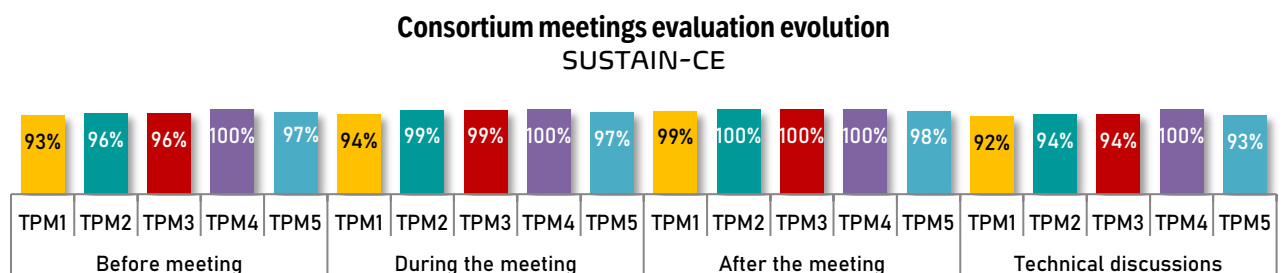


Figure 17



Before the meeting SUSTAIN-CE

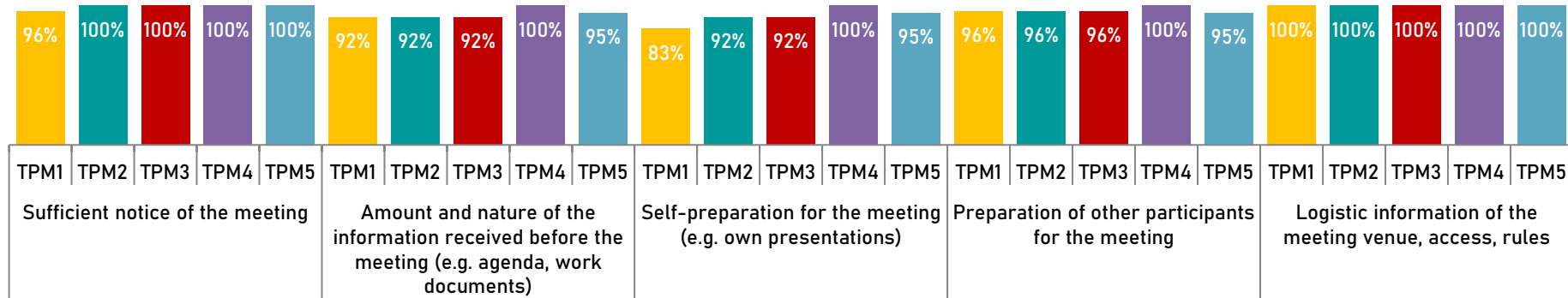


Figure 18

During the meeting SUSTAIN-CE

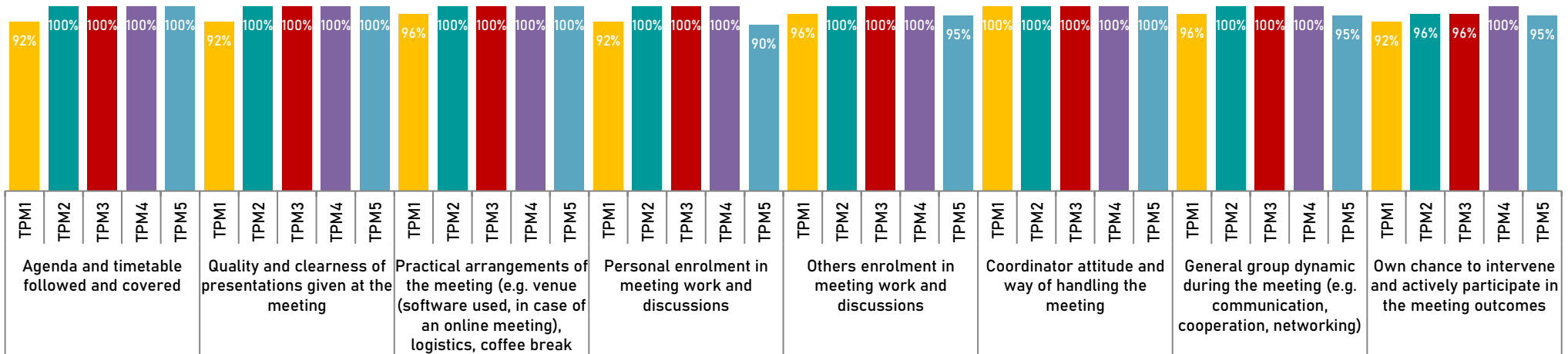


Figure 19

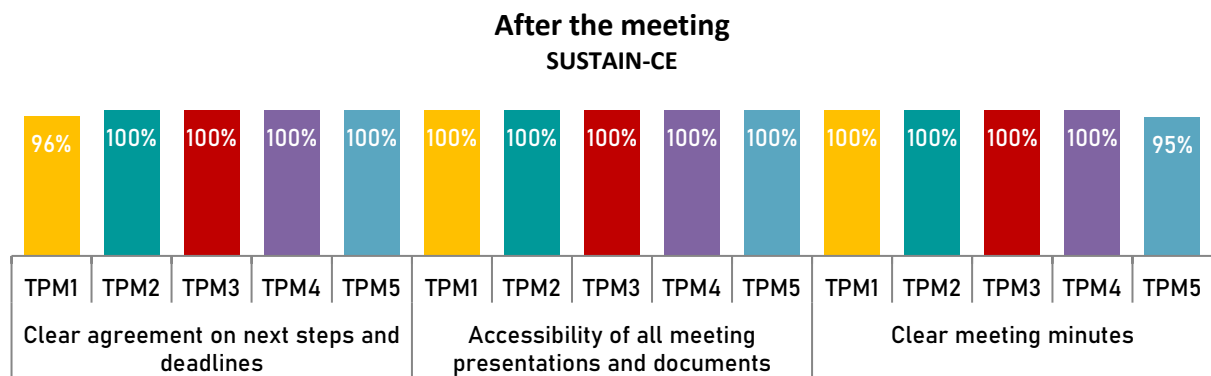


Figure 20

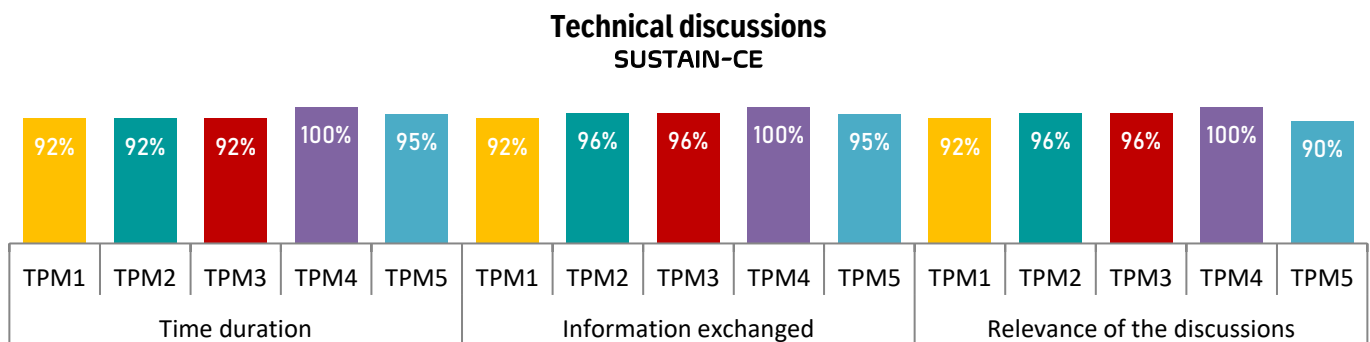


Figure 21

BEFORE THE MEETING was the third best evaluated dimension. Here, *Logistics information* has the best score, but opinions differ as of the other subdimensions, as can be seen [in Figure 18](#). In general, we can see a progress on the overall rating of this dimension, with better evaluation scores as the meetings progress.

DURING THE MEETING was the second best subdimension evaluated. In the section, *Coordinator attitude and way of handling the meeting* showed the best performance results, followed by *Practical arrangements of the meeting*. In contrast, *Own chance to intervene and actively participate in the meeting outcomes* gathered a lower, but still very positive score. As said above, first and final meetings differ from the other meetings with lower evaluations in almost all the subdimensions.

The excellent results in the AFTER THE MEETING subdimension are mainly due to the *Accessibility of all meeting presentations and documents*, an indicator who was unanimously evaluated with the top score in all meetings. *Clear agreement on next steps and deadlines* and *Clear meeting minutes* also show great evaluations throughout.

TECHINAL DISCUSSIONS is the dimension with lower evaluation scores, with less positive opinions on *Time duration* and *Relevance of discussions*. TPM4 gathers the most positive score and TPM1 and TPM5 gather less positive ratings. Yet, this dimension was always evaluated above 90% in all transnational project meetings.

6.2 Training Activities

In the period under evaluation in this report only the third learning activity (C4) took place.

6.2.1 C4 – 3rd Training Academy

Izmir received the final training academy of SUSTAIN-CE. Focused on **Structural and geotechnical engineering**, this event counted with presentations regarding the “Fundamental of sustainable infrastructure and circular economy” and “structural engineering for a sustainable world”. Over the course of three days, several experts presented lectures on the fundamentals of Sustainable infrastructures and circular economy, the pillars of sustainability and circular economy as an enabler, the principles of sustainable design and construction, sustainable and resilient structural design, structural design with secondary materials and adaptable structural design and structural systems. Following this expert key notes, discussion evolved around Green Building and Materials in today’s world, Sustainable Cities and Infrastructures and Innovative Techniques for Seismic Design of structures. The event counted with more than 50 participants. The questionnaire designed to evaluate this event gathered 12 valid answers. Figures 22 and 23 depict the results the two first questions on the C4 participants profile.

In your job, your role is mainly to...

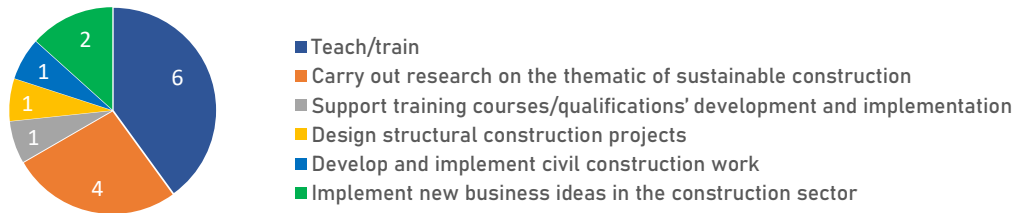


Figure 22

Main interest in participating in the C3 event

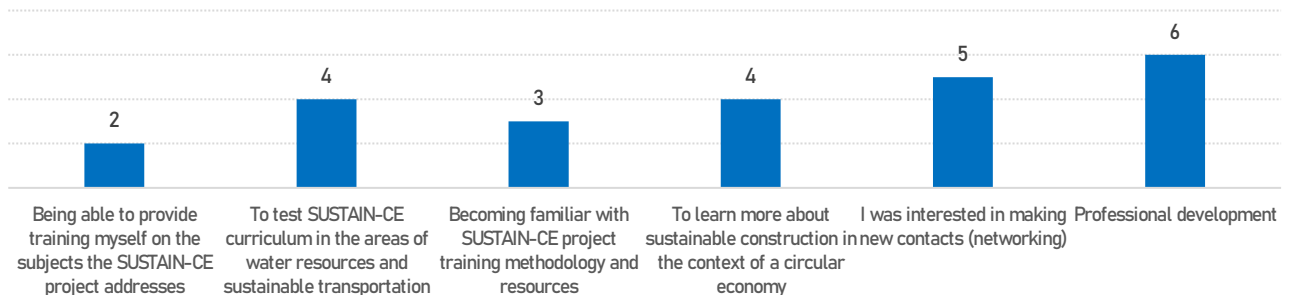


Figure 23

As Figure 22 and 23 show, the target group for this learning activity were academics, as they role is related to teaching and carrying out research as well as implementing new business ideas in the construction sector. Their main interest in attending this event was related to professional development and making new contacts in the field.

The following Figures show participants evaluation on aspects related to content delivery, facilitators and general satisfaction with the event.



Content delivery - General

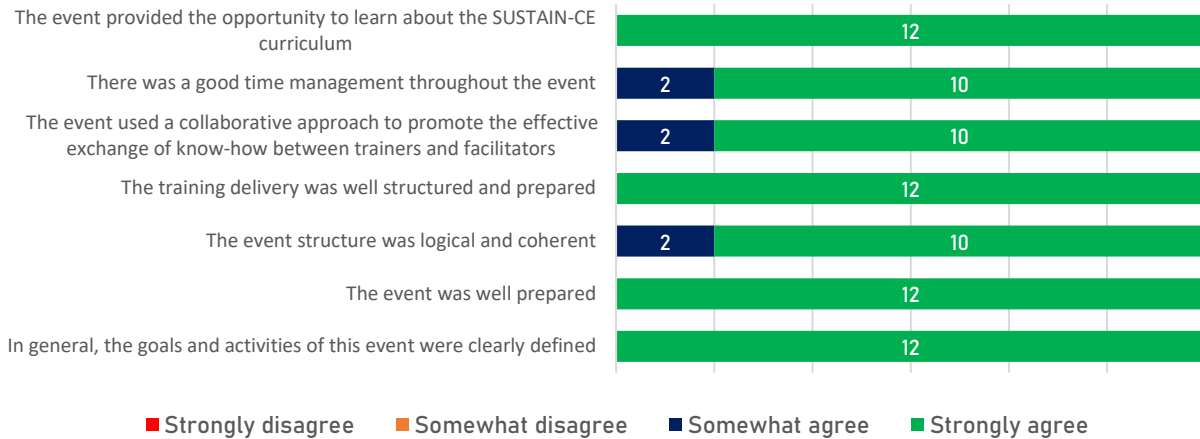


Figure 24

Facilitators Evaluation

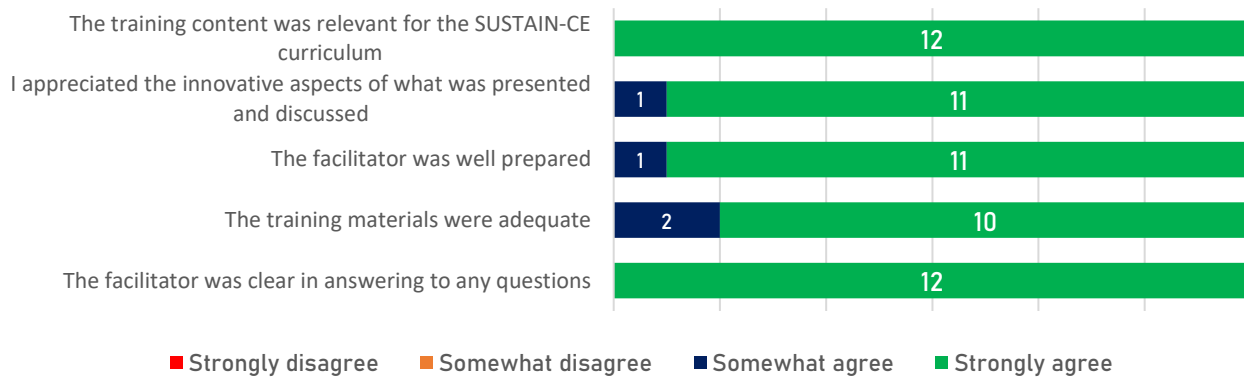


Figure 25

General satisfaction

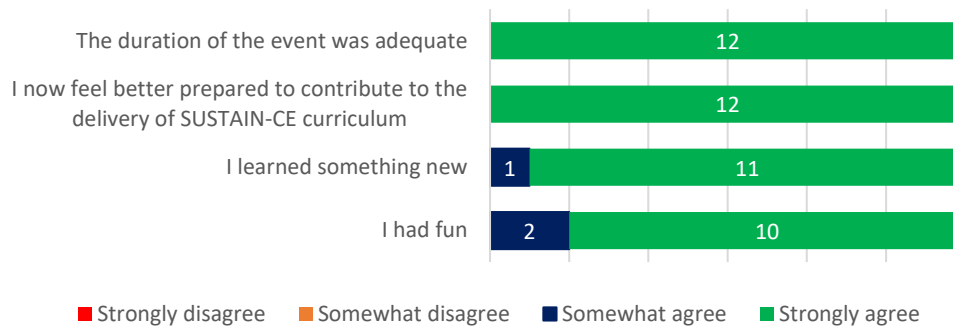


Figure 26



Figure 27

As Figures 24 to 27 show, this event received only positive evaluations. In the first dimension “Content delivery”, ratings were consensual regarding the opportunity to learn about the SUSTAIN-CE curriculum, the offer of a well-structured and prepared training, the well preparation of the event and the goals definition of the activities of the event.

The presentations throughout the event were also very positively evaluated. The facilitators gathered excellent performance ratings, with two aspects gathering the maximum rating: “The training content was relevant for the SUSTAIN-CE curriculum” and “The facilitator was clear in answering to any questions”.

Overall, all participants showed high levels of satisfaction with this event with a consensual maximum rating in the adequate duration of the event and the preparedness of the delivery of the SUSTAIN-CE curriculum. This general satisfaction was further confirmed by the positive comments (see Box 8) with participants emphasizing the importance of the interactions made between sustainability and construction experts. Besides, they also highlighted the opportunity to learn new information about sustainability and to discuss sustainability related topics.

Box 8: Answers to the question “What was the most positive aspect of this workshop? Why?”

I realized that new business areas could be created in the future.
World need sustainable construction and this workshop allowed us to develop our imagination.
I think I improved my presentation skills. It was a place where I could meet new people and chat with them about sustainability
it was very enjoyable to learn new information related to the increase in energy demands in today's world and the rise of renewables and sustainability.
Very good material
The interactions between sustainability and construction experts
The interaction between students and trainers and the enthusiasm of the teams!

Box 9: Further comments and suggestions

More suggestions and opinions can be given for sustainability in the field environment.
With this project team we can contest for the best and easier sustainable project and then build anywhere on world. we can do this program again at that place.
I think it is a very good and useful organization. I think it should be done more often in every school and city because you can learn a lot about real life as a student.
Thank you for your attention and well-planned organization.
Looking forward for the next Academy in another project

7 EVALUATION PLAN: OVERVIEW

Between December 2020 and June 2023, the following evaluation instruments were applied:

Activity	Evaluation Dimension	Performance*				Instrument	Responsibility
		B	A	G	E		
TPM1 – KOM	1. Before the meeting 2. During the meeting 3. After the meeting 4. Technical discussions			94%		Online questionnaire 19 closed questions 1 open question	All partners
C1 – Thessaloniki 1-4/Nov/21	1. Content delivery 2. Facilitators 3. General satisfaction				97%	Online questionnaire 18 closed questions 1 open question	All participants
Progress Evaluation Report	1. Process and project management 2. Partnership 3. Products 4. SWOT analysis			95%		Online questionnaire 65 closed questions 8 open questions	All partners
TPM2 – Thessaloniki 2-3/Nov/21	1. Before the meeting 2. During the meeting 3. After the meeting 4. Technical discussions				97%	Online questionnaire 19 closed questions 1 open question	All partners
TPM3 – Lisbon 15-16/Mar/22	1. Preparation 2. Meeting 3. Follow-up				97%	Online questionnaire 19 closed questions 1 open question	All partners
C2 – Lisbon 15-17/Mar/22	1. Content delivery 2. Facilitators 3. General satisfaction			95%		Online questionnaire 18 closed question 1 open question	All participants
TPM4 – Thessaloniki 22-23/Jun/22	1. Before the meeting 2. During the meeting 3. After the meeting 4. Technical discussions				100%	Online questionnaire 19 closed questions 1 open question	All partners
C3 – Thessaloniki 22-23/Jun/22	1. Content delivery 2. Facilitators 3. General satisfaction				98%	Online questionnaire 18 closed questions 1 open question	All participants
C4 – Izmir 9-11/Nov/22	1. Content delivery 2. Facilitators 3. General satisfaction				99%	Online questionnaire 18 closed questions 1 open question	All participants
TPM5 – Izmir 11/May/23	1. Before the meeting 2. During the meeting 3. After the meeting 4. Technical discussions				96%	Online questionnaire 19 closed questions 1 open question	All partners
Progress Evaluation Report	1. Process and project management 2. Partnership 3. Products 4. SWOT analysis				97%	Online questionnaire 65 closed questions 8 open questions	All partners

*Bad (< 60%), Adequate (<60% -> 85%); Good (< 85% - <95%); Excellent (< 95%)



8 FINAL REMARKS

Some considerations can be made, at the end of the SUSTAIN-CE project, based on the feedback gathered from partners through the evaluation instruments used in this second half of the project:

- In global terms, the project is highly appreciated by the consortium- the three dimensions concerning the 3P Evaluation score above 95%, that is at excellent level. This is true for the two years of the project (except for Products in the first year).
- In the first dimension of the 3P- “**Process and management**”, the IO leadership is highly appreciated by the consortium, as well as the management model. Aspects like work plan, budget available and partners communication flows showed less consensus. Still, they gathered a very positive evaluation.
- The second dimension – “**Partnership**”- the following comment sums up the complete evaluation: “Excellent partnership”. All partners showed great appreciation of human resources associated with the project, the project activities, the working environment and the learning process. *Partners involvement* did not meet this high standard. Yet, it still represented a very positive evaluation, rating a good performance.
- “**Products**” – the third dimension of the 3P model- showed the best progress in terms of evaluation, as from the first to the second year of the project the average rating grew more than 5%. Either *Products developed* and *Transfer to partners* performed at an excellence level. All of the aspects in consideration were evaluated with a positive score. Close behind is the *sustainability* of the products that was evaluated at good performance levels – yet, partners assured the sustainability was guaranteed as we can see in the next comments: “*The contents should be possible to transfer to other virtual platforms such as Moodle.*” And “*The main project's deliverable (the Virtual Learning Environment (VLE) platform) is assuring the sustainability of project results and their transferability to other educational institutions.*”
- In the **SWOT analysis**, the projects STRENGTHS, WEAKNESSES, OPPORTUNITIES and THREAT were assessed. SUSTAIN-CE major STRENGTHS amount to the actuality of the subject as sustainability is an urgent and important subject, particularly in civil engineering area which still has a strong environmental impact. The products developed too represent a strong component of the project as they are of quality and innovative and are prepared to be transferred to various educational institutions due to a distance learning methodology. This product resulted from a high-quality partnership, ranging from academia to industry associates, coordinated by a dedicated lead partner. Still, one of the WEAKNESSES appointed to SUSTAIN-CE was the implementation model, which, according to some partners, remained with too many face-to-face learning activities, increasing the efforts and resources mobilized. Even though the implementation partially occurred during the COVID pandemic – one of the THREATS appointed, demanding a higher consumption of resources and unexpected change of plans, - it didn't compromise the established goals. Another THREAT associated with this project was the reception of education bodies, who could resist embracing the project's outputs, especially if needed adaptation. Nonetheless, education bodies represent one of the great OPPORTUNITIES of SUSTAIN-CE as the innovative curriculum developed in this context fulfils a market need. It was also said this represents an opportunity to include the concept of sustainability in the students' curricula from an early age. Maturing the teams involved in these concepts, as well as developing guidelines and norms for certifying procedures in civil engineering also represented opportunities for partners. Likewise, this valuable partnership seemed to represent a great opportunity to establish networks and collaborations for future projects.
- In what concerns the **Impact analysis**, the partners firmly believe in the sustainability of the project as they note there are gaps in the civil engineering curricula, particularly in the application of



sustainability and circular economy concepts in their respective countries. The modular methodology likewise permits the project usability in different contexts. In fact, partners are already prepared to use the SUSTAIN-CE products in their organisations training and educational programs. Ones for instance are introducing the sustainability and circular economy concepts in teaching programmes of various universities and others are assuring the participation in various seminars and conferences to further disseminate the project results. In the final impact question, which regarded the expected impact of SUSTAIN-CE in national education systems, partners highlighted that they expect that SUSTAIN-CE results in the promotion of sustainability and circular economy concepts in the civil engineering curricula, as well as in the transferability of knowledge to practices of the business sector, contributing to policy-developments on national level.

- Regarding Project Performance Indicators, 63 showed a green performance (all accomplished) and only 2 PI suffered minor deviations, yet, justified by a common agreement between partners.
- The 5th Transnational Project Meeting evaluation gathered an all positive score in every subdimension considered. The feedback of partners was in line with the previous meetings, showing a fruitful meeting that resulted in clearly established next steps for the finalization of the project.
- The transnational projects meetings showed a very positive global average evaluation resulting in an above 90% performance average. This not only happened in the global average results but also in the more specific dimensions evaluated, with almost all aspects considered rating above 90%.
- The fourth training activity revolving around Structural and geotechnical engineering took place in Izmir and was the final Learning activity of the SUSTAIN-CE project. The questionnaire applied to the participants showed a well-structured and prepared event, with very positive ratings in all aspects in question and an overall performance of around 99%.

9 APPENDICES

9.1 3P Evaluation Questionnaire

SUSTAIN-CE | 3P Evaluation Questionnaire | 2023

The Internal evaluation model adopted for SUSTAIN-CE project is based on a tri-dimensional assessment of the project progress (3P model):

- i) Process and Project Management;
- ii) Partnership;
- iii) Products.

For the purpose of carrying out this final project evaluation, please take some time to reflect on the dimensions and items related to the 3P Model, followed by a SWOT analysis and a short impact analysis.

It is required one response per partner organisation.

Thank you for your contribution!



IDENTIFICATION	
1) Name:	
2) Organisation:	

3P Evaluation: PROCESS & PROJECT MANAGEMENT

The way SUSTAIN-CE project has been driven forward and managed is to be assessed considering aspects such as the clarity and feasibility of the project objectives, the adequacy of the management model or the involvement of all partners in the continuous improvement of processes.

3) Concerning the project processes, development and management in general:				
	1 - Totally disagree	2 - Disagree	3 - Agree	4 - Totally agree
Project global objectives were clear, realistic and feasible				
Project global objectives are useful for my organization				
Intellectual Outputs objectives were relevant, realistic and feasible				
Working methodologies for technical activities were appropriate				
Work plan was adequate to project objectives				
Timetable is on schedule				
Project management model and leadership were adequate				
Procedures were clear				
Division of roles and responsibilities was balanced				
Reengineering of working processes was done in a suitable way				
Project financial management, support and control were effective				
Project budget available was suitable				
Partners communication flow, periodicity and tools were adequate				
The project SharePoint is well organised and easy to use				
Monitoring and feedback provided was frequent and clear				
Project meetings were fruitful				

4) Performance of the Intellectual Output leading organisation (developed during the second half of the project) was satisfactory: (please justify a less positive appreciation in the space at the end of this section)				
	1 - Totally disagree	2 - Disagree	3 - Agree	4 - Totally agree
IO1: Defining the Sustainable Design/Circular Economy (SD/CE) Principles and Methods to Transform the Contemporary Civil Engineering Curricula - SEERC				
IO2: Design of a New Innovative Civil Engineering Curriculum With Integration Of Sd/Ce Principles - IYTE				
IO4: Developing a virtual learning environment for promoting sustainable design and CE concepts - YASAR				



I05: Guidelines and Policy briefing for raising awareness - AUTh				
5) Please state your comments (e.g. important remarks, critical points, risks, suggestions for improvements). Any less positive rating should be justified here:				

3P Evaluation: PARTNERSHIP

6) Concerning the partnership:				
	1 - Totally disagree	2 - Disagree	3 - Agree	4 - Totally agree
My organisation is keeping up with the schedule				
My organisation is engaged and committed to the project activities				
Confidence in sharing and transferring knowledge between partners was high				
Partners attitude, team relationships and communication are adequate				
In the future, these partners should work together again				
Shared know-how is useful for the partnership				
There was an ongoing improvement of organisational and individual competences				
Knowledge of partners involved in the project is appropriate				
Profile of the organisations involved is appropriate				
Profile of human resources involved is appropriate				

7) According to your perception, how active and useful do you find each partner to be for WELDONE project development and common activities:				
	1 - Totally disagree	2 - Disagree	3 - Agree	4 - Totally agree
P.1. YASAR University				
P.2. IYTE				
P.3. AUTh				
P.4. SEERC				
P.5. ISQ				
P.6. Folkart				

8) Please state your comments (e.g. important remarks, critical points, risks, suggestions for improvements): Any less positive rating should be justified here.				



3P Evaluation: PRODUCTS

9) General quality and usefulness of products developed during the second half of the project were adequate:				
	1 - Totally disagree	2 - Disagree	3 - Agree	4 - Totally agree
IO1 - Sustainable Design/Circular Economy (SD/CE) Principles and Methods to Transform the Contemporary Civil Engineering Curricula				
IO2 - New Innovative Civil Engineering Curriculum With Integration Of Sd/Ce Principles				
IO4 - Virtual learning environment for promoting sustainable design and CE concepts				
IO5 - Guidelines and Policy briefing for raising awareness				

10) Taking into account the work done during the project, what do you think about the quality of the products/deliverables, their usefulness for partners, users and stakeholders? And what about their future sustainability? Please rate the following sentences according to your opinion.				
	1 - Totally disagree	2 - Disagree	3 - Agree	4 - Totally agree
Products/deliverables can be incorporated/used by most partners				
Products can be adapted according to national/organisational needs				
Solutions found to ensure the sustainability of the project outcomes are adequate to the target groups and have the potential to boost the deliverables' further use				
Reengineering of the products to ensure its sustainability was done				
I believe the new curriculum will meet the labour market needs				

11) Comments (e.g. important remarks, critical points, risks, suggestions for improvement): Any less positive rating should be justified here.

SWOT ANALYSIS

In the SUSTAIN-CE project evaluation strategy, we use a SWOT analysis as a tool for reflection for a strategic exploitation of results beyond the project duration.

Kindly answer the next set of questions, sharing your thoughts.

12) What were the strengths of the WELDONE project?
13) What were the project weaknesses?



14) What opportunities did the project bring?
15) What were/are the (external) threats to the project?

IMPACT ANALYSIS

Please take a few moments to explain what the expected impact of the project is.

16) Why are SUSTAIN-CE product sustainable in your country?
17) Which next steps are you planning to ensure the further use of SUSTAIN-CE products?
18) What is the expected impact of SUSTAIN-CE on your national education system?

9.2 Meeting Evaluation

SUSTAIN-CE | Meeting Evaluation

This Internal Evaluation Questionnaire is designed with the intent to have partners' opinions about the organization and working progress of each project meeting in order to verify the critical points that may exist and to improve the internal quality of this matter.

It is required **one evaluation per partner organisation.**

Thank you in advance for your collaboration!

1) Concerning the meeting preparation, please rate the following aspects:	1 – Not suitable	2 – Not very suitable	3 – Suitable enough	4 – Very suitable
Sufficient notice of the meeting				
Amount and nature of the information received before the meeting (e.g. agenda, directions, working documents)				
Self-preparation for the meeting (e.g. own presentations)				
Preparation of other participants for the meeting				
Logistic information of the meeting venue, access, rules				
2) Concerning the meeting itself, please rate the following aspects:	1 – Not suitable	2 – Not very suitable	3 – Suitable enough	4 – Very suitable
Agenda and timetable followed and covered				



Quality and clearness of presentations given at the meeting				
Practical arrangements of the meeting (e.g. venue, logistic)				
Personal enrolment in meeting work and discussions				
Coordinator attitude and way of handling the meeting				
Others' enrolment in meeting work and discussions				
General group dynamic during the meeting (e.g. communication, co-operation, networking)				
Own chance to intervene and actively participate in the meeting outcomes				
3) Did you stay for the whole meeting duration?	Yes		No	
4) Concerning the work carrying out after the meeting, please rate the following aspects:	1 – Not suitable	2 – Not very suitable	3 – Suitable enough	4 – Very suitable
Clear agreement on next steps and deadlines				
Accessibility of all meeting presentations and documents				
Clear meeting minutes (if not available by the time you answer to this questionnaire, just give it 1 and state it in the next question)				
5) Suggestions and comments:				
4) About the technical discussion, what do you feel about them regarding...?:	1 – Not suitable	2 – Not very suitable	3 – Suitable enough	4 – Very suitable
Time duration				
Information exchanged				
Relevance of the discussions				

9.3 C4 - Learning Activity Evaluation

C4 3rd Training Academy Evaluation (Izmir) 9th September – 11th October 2021

Your opinion is very important for SUSTAIN-CE project and your feedback will be used to improve the project's outcomes and evaluate the project performance.

We kindly ask that **all C4 participants from the SUSTAIN-CE Consortium** reply to this questionnaire. Thank you in advance for your response.



1. Name and Organisation: _____
2. In your job, your role is mainly
 - To teach/train
 - To carry out research on the thematic of sustainable construction
 - To support training courses/qualifications' development and implementation
 - Design structural construction projects
 - Develop and implement civil construction work
 - Implement new business ideas in the construction sector
 - Other: _____

3. What is the main reason for attending this event?
 - Being able to provide training myself on the subjects the SUSTAIN-CE project addresses
 - I wanted to obtain and share ideas about circular economy and sustainable construction
 - Becoming familiar with SUSTAIN-CE project training methodology and resources
 - To learn more about sustainable construction in the context of a circular economy
 - I was interested in making new contacts (networking)
 - Professional development
 - To test SUSTAIN_CE curriculum in the areas of structural and geotechnical engineering
 - Other: _____

4. Content delivery- general				
	1. Strongly Disagree	2. Somewhat Disagree	3. Somewhat Agree	4. Strongly Agree
In general, the goals of the event were clearly defined				
The event was well prepared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The event structure was logical and coherent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The training delivery was well structured and prepared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The event used a collaborative approach to promote the effective exchange of know-how between trainers and facilitators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There was a good time management throughout the event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The event provided the opportunity to learn about the SUSTAIN-CE curriculum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Facilitator(s) -				
	1. Strongly Disagree	2. Somewhat Disagree	3. Somewhat Agree	4. Strongly Agree
The training content was relevant for the SUSTAIN-CE curriculum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I appreciate the innovation aspects of what was presented and discussed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The facilitators were well prepared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The training materials were adequate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



The facilitators were clear in answering any questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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10. General satisfaction

	1. Strongly Disagree	2. Somewhat Disagree	3. Somewhat Agree	4. Strongly Agree
The duration of the event was adequate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I now feel better prepared to contribute to the delivery of SUSTAIN-CE curriculum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I learned something new	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I had fun	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. How would you rate your level of satisfaction with this event?

- High
- Medium
- Low

12. What was the most positive aspect of this learning activity? Why?

13. Further comments and suggestions:

Thank you for your participation.