



Chargers of  
Electric Vehicles  
in Learning

**O2 - T3**  
**Collection of trainers’  
experiences and  
recommendations on training  
material**

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# 1 - Introduction

The C-Evil partners organised a Joint Staff training in January 2021.

**Aim:** Teaching teachers how to educate their Vocational and Technical students on the installation, maintenance and all ins- and outs of Electrical Vehicle charging.

**Need:** The market of Electric Vehicle Charging is evolving rapidly, and Vocational Curriculum development can't keep up. C-Evil bridges the gap by developing contemporary learning materials so teachers can inform their students about the latest trends, developments, and innovations in the sector.

## Outline of the programme:

- **Day 1:** An introduction to Electrical Vehicle charging
- **Day 2:** The past, present and future of Electric Vehicle charging
- **Day 3:** Technologies, installation and maintenance
- **Day 4:** Evaluation & Teaching methodologies and methods

	2021.01.18	2021.01.19	2021.01.20	2021.01.21
	Monday	Tuesday	Wednesday	Thursday
09:00 - 10:00	Welcoming, registration	Individual activities	Individual activities	Individual activities
10:00 - 11:00	Introduction	Individual activities	Individual activities	Individual activities
11:00 - 12:00	Preparation	Individual activities	Individual activities	Revision
12:00 - 13:00	Workshop 1	Session for EV charger basics and management	Session for installation and maintenance	Workshop 2
13:00 - 14:00				
14:00 - 15:00				

During the training week, the C-Evil consortium collected the participating VET teachers/trainers experiences and recommendations on the C-Evil training materials. Based on the feedbacks of the workshop, a summary was created including all the professional and technical comments concerning the training material.

LHF, CAM and EGE developed extensive surveys using different tools to guarantee a proper and thorough evaluation. The evaluation included:

- Evaluation of the training week using Google forms
- Impact and expectation evaluation using the evaluation tool Wooclap
- PRE and POST tests for EGE's chapters were taken in Quizizz

- Roundtable sessions using online collaboration platform Miro. Partners have suggested concrete ideas for creative and innovative visualisation, digital tools, worksheets, classroom activities and assignments that will be useful in the teaching activities.

The evaluations will result in a short list of final recommendations which will be adapted in the final C-Evil materials.

The next table gives an overview of the background, profile and connection to the topic of VET teachers and trainers that participated.

<b>Background, Profile and connection to the topic</b>	
<b>Kecskeméti Szakképzési Centrum 012105 Kandó Kálmán Szakközépiskolája és Szakiskolája</b> <b>HUNGARY</b>	
<b>Teacher of:</b>	
- electronics technicians, - automobile mechatronics students	
He has experience in both: the knowledge of electrotechnics, life protection and electric supply on the one hand and battery management of electric vehicles on the other.	
He teaches electrotechnics, electronics, electric batteries (types, structure and operation, including charging, discharging, and safety), protection against electric shock	
Electrical engineer, but not teaching electrical subjects.	
He teaches English. He is in charge of coordinating and controlling trade based theoretical vocational education, as well as company partnership and cooperation in practical training. His basic qualification is on electrical installation, and protection against electric shock.	
<b>Teacher of:</b>	
- mechatronics technicians, - electricians.	
He has experience in the training of electricians who are responsible for electric installations. Background in PLC programming (practice and theory), electrical installation, electric machines, protection against electric shock, AC and DC current knowledge	
<b>Servicios Extremeños Enseña S.L.</b> <b>SPAIN</b>	
In charge of coordinating and designing all training programmes and course of ENSEÑA. Responsible for the training and preparation of teachers and trainers.	
Coordinator of the courses in the area of electricity	
Trainer in the courses in the field of electricity	
Trainer at the electrics course.	
<b>Colegiul "Stefan Odobleja"</b> <b>ROMANIA</b>	
1. Master's postgraduate studies „Energy quality and electromagnetic compatibility in electrical systems” EV specific topics	
- Electrical transport equipment	
- Advanced modeling, simulation and design methods for electrical systems and drives	
- Advanced methods for monitoring and diagnosing electrical systems	
2. Participation in scientific events at national level, related with EV topics	
3. Author MER (Ministry of Education and Research) approved school curriculum for EQF level 3 and 4 qualifications, in the electrical field (for example, Automotive Electrical Technician, Electrotechnician, Electrical Installation Technician)	
Teaches:	
• Applied electrical engineering,	
• Electrical circuits	
• Electronic components and circuits	
• Appliances	
• Electric drive systems	
• Sensors, transducers and PLCs	
Automated technological processes	
I am a graduate of the Faculty of Mechanics in Craiova, Department of Machine Construction Technology. I taught in the 11th grade E, Car electrician electronics technician, Module 2 - Using CAD applications.	
Although I do not have much experience, I am attracted to this field and I consider it a good opportunity to gain new knowledge.	
Faculty of Mechanics – Car Construction Technology section graduate. I am a teacher at a high school with electrician and automotive electronics classes.	
- I am affiliated with a car parts company called „Car Parts Market”	
- I took part in national and international symposiums about the automotive industry	
- I participated with my students in automotive technology school competitions	

- I have 27 years of teaching experience in mechanics
- I participated in informative workshops pertaining to the automotive industry
- I coordinated preparation training courses for students at the Ford Romania company



## 2 – Baseline questionnaire

### Description

Before the training started the participants were asked to answer the following questions:

- Evaluate yourself by following questions the program. (1-10 weak to very strong scale)
  - I don't know all about EV chargers
  - I know all about EV chargers
  - I'd like to learn about EV chargers
- Write down the first three words that come to your mind about EV Chargers. (Wordcloud)

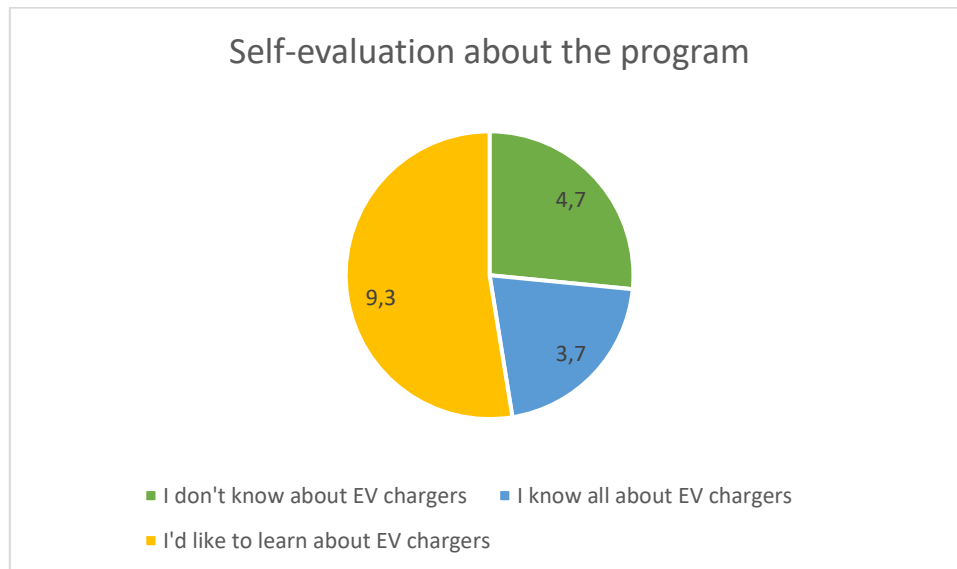
In addition to impact related questions, general questions were asked:

- Do you teach subjects about EV chargers in your curriculum? (Yes / No)
- Considering the knowledge and skills about EV chargers, which subjects do you think are most important for your students? (open ended)
- How is it possible to achieve 100% green EVs? Please state your suggestions. (open ended)
- What are the barriers in deployment of EVs in Europe? (open ended)
- Can you give us some local examples of barriers for deployment of EVs in in your Country? (examples be like, unskilled personnel, lack of governmental incentives). Please write down the name of your Country before your answer. (open ended)
- How do you think we can overcome the barriers in deployment of EVs? (open ended)
- Which skills and knowledge about EV chargers do the VET students in Europe missing? (open ended)
- What are your expectations from this training? (open ended)

## Results

### Training's self-evaluation

In terms of the first point in "Evaluation of the Starting point", the respondents were given three choices to grade, on the scale from 1 to 10 with 1 is the weakest point and 10 is the strongest.



*Figure 1:* Self-evaluation about the program

From figure 1, the option "I'd like to learn about EV chargers" received the highest score (9.3). This means that the program's participants were excited about its topic and willing to gain some (more) knowledge about them. The option "I know all about EV chargers" received the lowest score (3.7), which shows that not many participants had a prior knowledge about the EV chargers.

### EV-chargers impressions

In this section, the participants were asked to write down the first 3 words that came to their minds about the EV chargers, or charging stations. The answers were received and presented in the table below:

Electric mobility	Sustainable	Future, environment, economy
Ecofriendly, modern, future	Installation	DC charger, over current, problems with chargers
Green deal	Infrastructure	Cars
Electric vehicles	Fast charging	Fast charging
Economy	Environmental friendliness, problems with distant travels, expensive cars	Green, future, cars

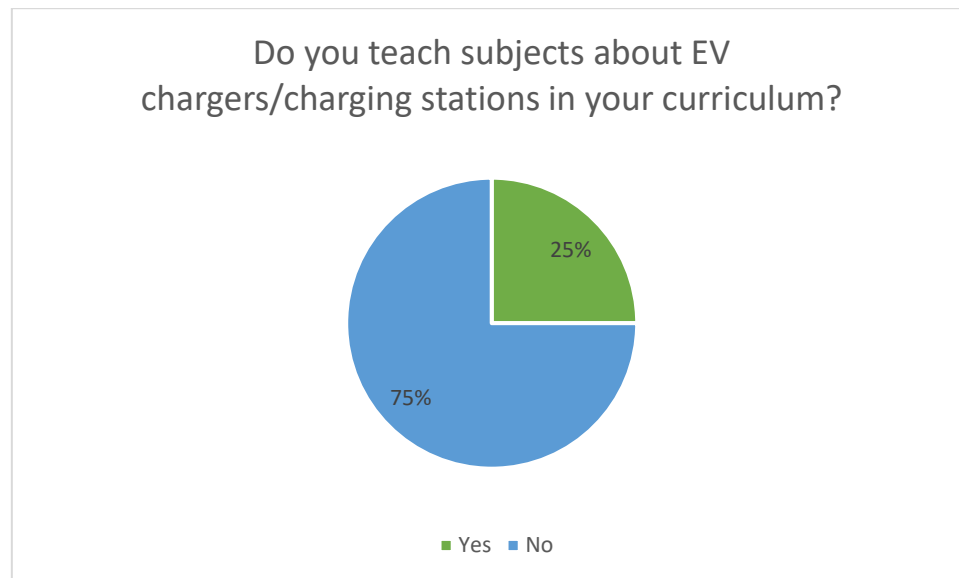
*Table 1:* EV-chargers impressions

As can be seen from table 1 that the participants have a general knowledge about EV chargers, such as its features, its sustainability, its advantages & disadvantages

and its future applicability. These are the knowledge that the participants have, combining with the result from figure 1, it can be said that the participants were open in learning more things about EV chargers/ charging stations besides their current knowledge.

### Teaching about EV chargers/ charging stations at schools

The next question in the questionnaire was about whether the participants teach, or have subjects about the EV chargers/ charging stations in their curriculum.



*Figure 2:* Teaching about EV chargers/ charging station at schools

It can easily be seen from figure 2 that 75% of the school's participants includes the subjects EV chargers/ charging stations in their teaching curriculum. Meanwhile, 25% of the participants said that their school's curriculum does not teach about these subjects.

### Most important subjects about EV chargers/ stations

Another question to the teachers (participants) were about which knowledge and skills they think are the most important for their students. The summary of the responses is illustrated below.

Understanding the transition towards a greener economy	Maintenance, Maintenance of safety
Assembly information	Overcurrent protection
Structure	Electrical safety technic, Battery handling
Principle of operation and installation	Fire protection
Principle of function	Touch protection in electrical installation
Technics	Failure

*Table 2:* The most important subjects about EV chargers/ stations for students

Table 2 points out that the subjects that are thought to be the most important for students are: understanding about the transition from fossil energy sources to the greener sources, their

assembly information, their structure, operating & installing principles, their function (usage), maintenance and safety in different forms, battery handling and existing pitfalls.

### Ways to achieve 100% green EVs

After that is a question about finding out about the possible ways to achieve 100% green EVs. The participants gave their suggestions on this topic and their responses were summarized in table 3.

The use of renewable energy e.g. photovoltaic panel, solar panels, wind energy	Recycling
Non-polluted operation	Deposit if waste battery makes it too difficult
Research (more R+D)	Fuel cells using in the future
A major change in human awareness/mindset	

*Table 3:* Ways to achieve 100% green EVs

The most common suggestion was to use the renewable energy instead of the fossil fuel one. Some examples were given in table 3. Other suggestions such as the use of non-polluted operation for these EVs, more research and development, making a change in the society's mindset/ awareness about EVs, recycling and future fuel cells usage.

### Barriers in deployment of EVs in Europe

Next, the participants were asked to think of the existing barriers that can hinder the EVs' deployment in Europe. For this question, 4 main barriers were summarized based on the answers.

Lack of charging stations	Short driving range
Existing infrastructure	Money

*Table 4:* Barriers in deployment of EVs in Europe

The first barrier is the lack of charging stations. The participants also added that recently, the smart charging stations for these EVs are not widely distributed as they are mainly located in big cities or great towns. Moreover, the existing infrastructure that is not suitable for running these EVs and building more charging stations also contributes to the first barrier. Besides, the driving range of the current EVs is too short, which makes it less ideal for the users. Another barrier is money, or the price, for buying/loaning these EVs as well as the energy costs for running it.

### Local examples for the barriers

From the list of barriers above, the attendees then were asked to give some local examples for them. The examples are listed in table 5.

<b>Hungary</b>	<b>Challenges</b>	Lack of enough charging stations
		Lack of qualified personnel for the maintenance
	<b>Improvements</b>	Government support for Battery Electric Cars buying
		Subsidary for buying electric cars
		Increasing number of charging stations
<b>Romania</b>	<b>Challenges</b>	Lack of governmental incentives

	Low salary for this sector
	Small number of charging stations
	Unqualified staff
<b>Others</b>	Rapid development for the parking lots, filling stations, etc but not enough

*Table 5:* Local examples for the EVs deployment barriers

### Solutions for the barriers

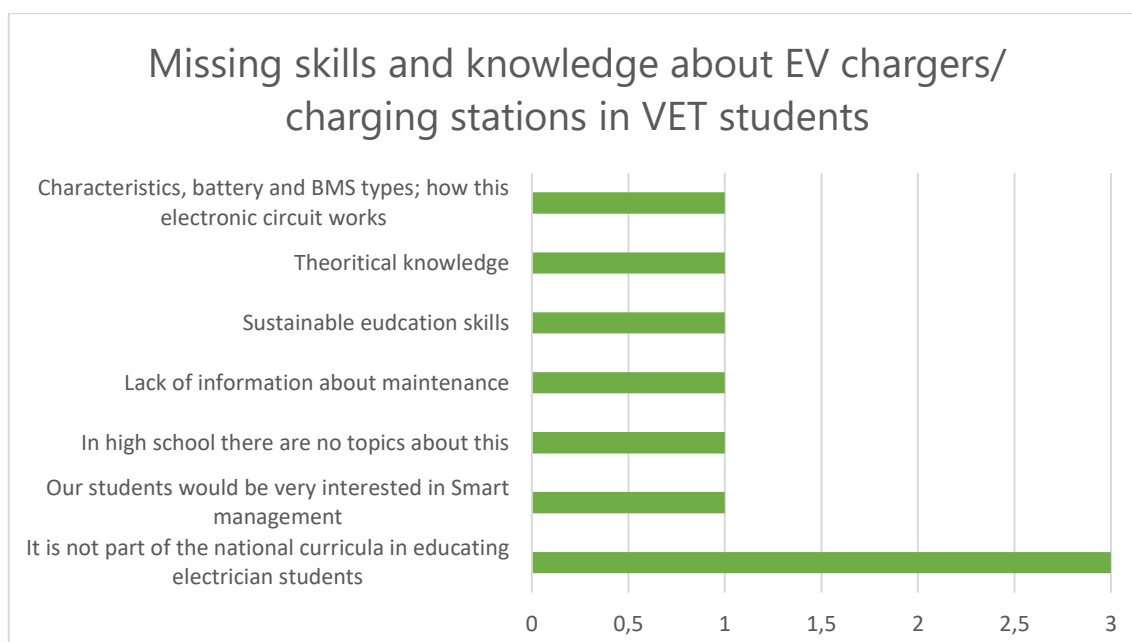
To cope with the existing barriers in deployment of EVs in Europe, the partnering participants have proposed some solutions which are shown in table6..

Waiting, until the EVs concept become more common and more widely supported
Cooperating with local leadership and company experts to educate their electricians
Investing in education for the future electricians
Lowering the electric cars' price
Developing the infrastructure development (build more stations on the motorways) + Standardizing the parameters on the charging stations
Subsidizing procurement
Adapting single market to the current challenges

*Table 6:* Solutions for the barriers

### Missing skill and knowledge about EV chargers/ charging stations in VET students

Moving on to the main target group of C-Evil project – VET students. A question about missing skill and knowledge about EV chargers/ charging station was asked and some answers were given. The responses were classified because there were several similar responses. The horizontal numbers in figure 3 represent the number of times a particular answer has been given.



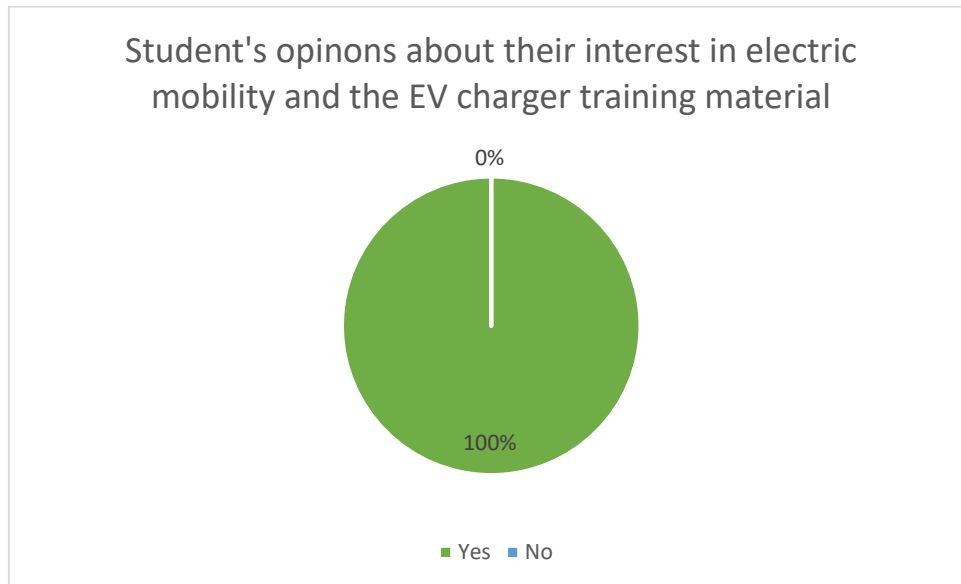
*Figure 3:* Missing skill and knowledge of EV chargers/ charging stations in VET students

The top reason in figure 3 is "It is not part of the national curricula in educating electrician students". The respondents who gave this answer also added that the EV chargers is not considered to have appropriate balance in their curriculum or one let us know that in their high

school curriculum there are no topics about this. This shows that this topic is not really focused yet at this moment.

### Student's opinions about electric mobility

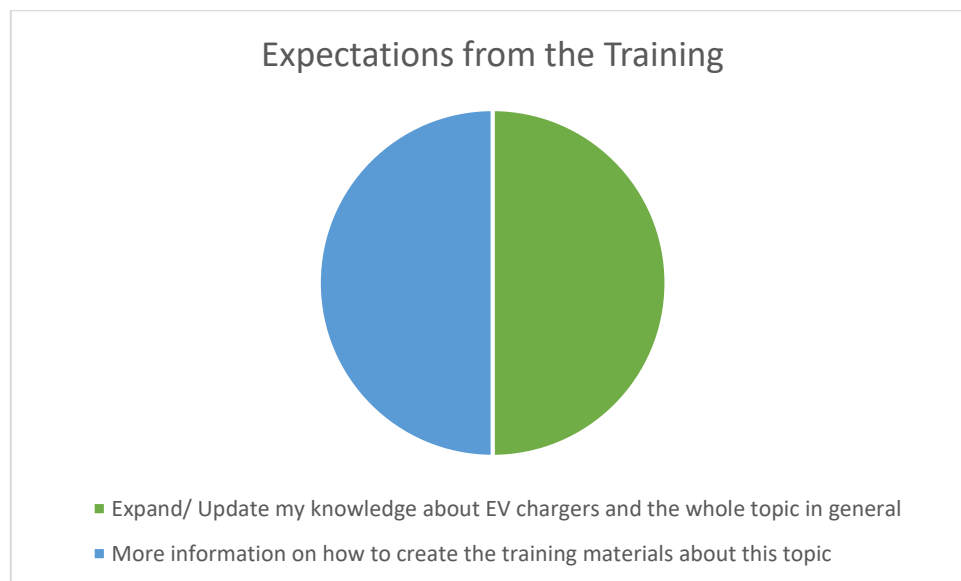
This section contains 2 question for the students, whether they are interested in electric mobility and the EV charger training material. A 100% Yes were given to these answers! This means the students are enthusiastic in sustainability as well as the modern technology (electric mobility).



*Figure 4:* Student's opinions about their interest in the asking questions

### Training's expectations

The last question from this questionnaire was about the participant's expectations from this trainings. The responses were divided into 2 categories:



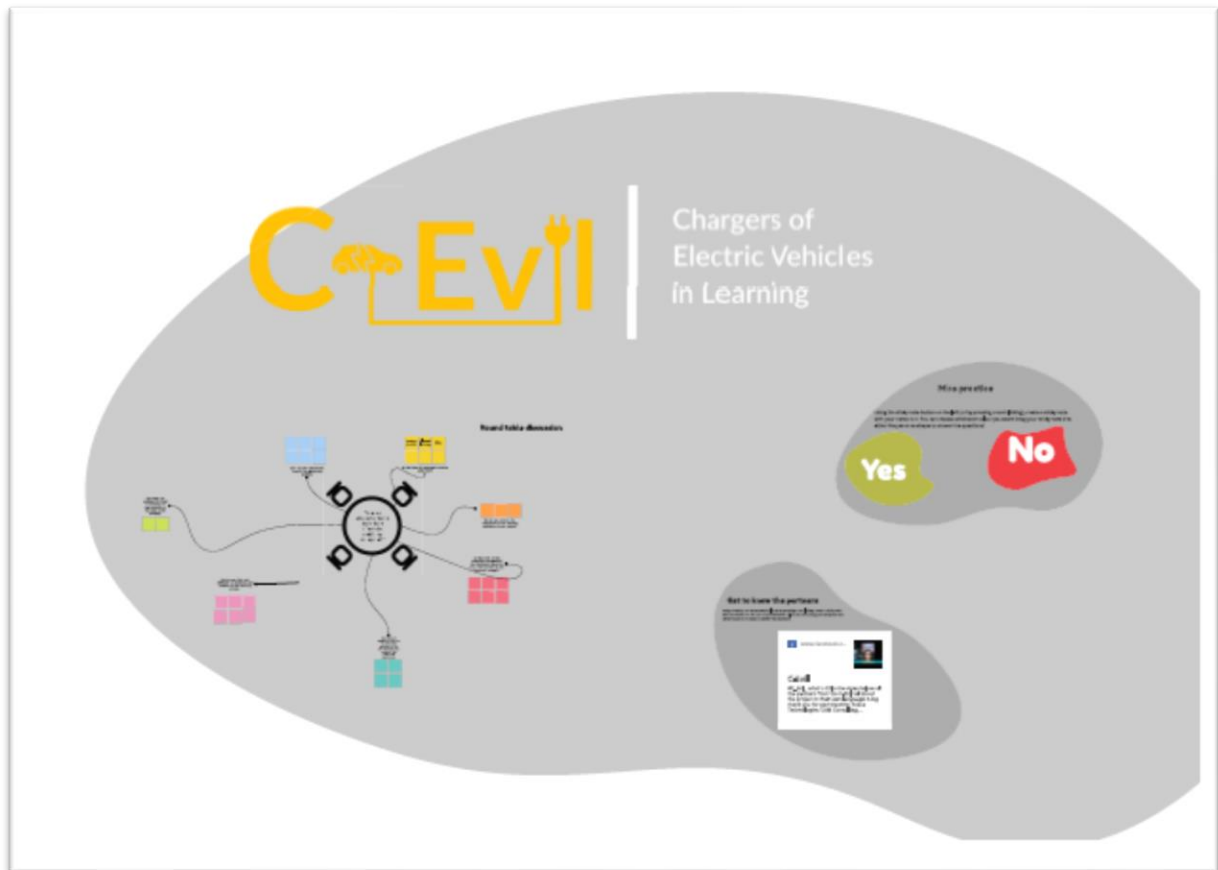
*Figure 5:* Participant's expectations from the training

Figure 5 shows that the expectations from the training's attendees are divided into 2 categories and these categories are equally divided (50-50). For the expectation "More information on

how to create the training materials about this topic”, half of the answerers wrote down their concerns such as “What curriculum will be developed from this topic?, How is the efficiency of using electric cars? The comparison between traditional and electric cars”. This means half of the participants would like to have more information to make a successful local training.

### 3 – Round table sessions

At the final day of the Joint Staff training, a 'round table setting' was created digitally (using the online collaborative tool MIRO) around the central question 'How do students learn best about EV charging?'.



#### Question 1: In what form do Vocational students learn best?

- By applying the theoretical knowledge into practice (e.g. case studies)
- Learning by doing (blended learning)
- Problem-based learning
- Project-based learning
- Using visual elements in the learning materials (videos, images, etc)

#### Question 2: How do you envision the integration of the learning materials in your school?

- Proposing a curriculum about this topic to school and collaborating with the Ford Romania SA (an EV manufacturer)
- Proposing a curriculum about this topic to the economic agents, or local development department
- Incorporating the touch protection into the curriculum (for the electrical trainings)

#### Question 3: Is the level of the materials appropriate for Vocational Education (too academic or not practical enough)?



- The curriculum is at the university level at some points. They can be taken out to ensure a smooth understanding for the students
- Some information in the materials are too academic while the practical exercises are too less
- Some curriculums need to be more in-depth
- The important curriculums are omitted
- The materials are in line with the level of the students (Monica)

**Question 4: What kind of methods do you use to assess and evaluate if the VET students have acquired the skills and competences?**

- Projects
- Practical tests
- Problem-solving tests
- Evaluation test
- E-Learning tests
- Asking questions
- Studying cards (Flashcards)

**Question 5: What do you find most difficult in involving your students in the learning process?**

- Providing real-life experiences or connection to the topic (EV): the topic is not in attention for the learning process, which makes it the most difficult challenge
- Carrying out practical trainings for this topic is difficult: as they only have pictures and videos to show for now
- Many students do not have an electrics workshop at home since home schooling is the main method at this moment
- No economic agents in the area to provide the practical trainings
- School does not have the necessary equipment to perform the trainings

**Question 6: How would you evaluate the level of knowledge of students on the topic of EV chargers?**

- Quizzes (in the end or beginning of the lesson), because of its simplicity
- Asking professional, theoretical, and practical questions to the students. Then test their practical knowledge by building circuit
- The EV topic is not included in the curriculum (3 out of 4 participants had this answer)

**Question 7: What are your expectations towards the e-Learning platform?**

- A transparent platform with easy-to-navigate menu items
- User-friendly and interactive interface e.g. virtual experiments, demonstrative films, power point presentation, simulation behaviours for practical exercises

## **4 – Training week evaluation**

### **Description**

At the final day of the Joint Staff Training, the training week was evaluated. The evaluation included the following open-ended questions:

#### **EVALUATION OF THE TRAINING (1-10 weakest-strongest scale)**

- The Joint Staff Training Event Programme
- Learning Programme
- Instructor
- Content
- Course delivery method

#### **ADDITIONAL THOUGHTS ON OVERALL PROGRAMME**

#### **MOST-LIKED THINGS ABOUT THE TRAINING**

#### **SATISFACTION LEVEL FOR THE TRAINING**

The evaluation also contains the following aspects (1-5 agree-disagree scale):

#### **ORGANIZATION**

- The goals of the training were clear to me.
- Length of the training was adequate for the quantity of the content.
- The used online channel (Microsoft Teams) was adequate for the training purpose.
- The used online platforms for activities were adequate for the training purpose and were easy-to-use.
- The organization of the training started in time.

#### **CONTENT**

- The programme was well-built.
- All presented information was relevant from the EV charger topic.
- There were no issues remained unclear after the training.
- The presenters were easy-to-follow.
- The presentations were relevant and supported the training.

#### **AT THE TRAINING**

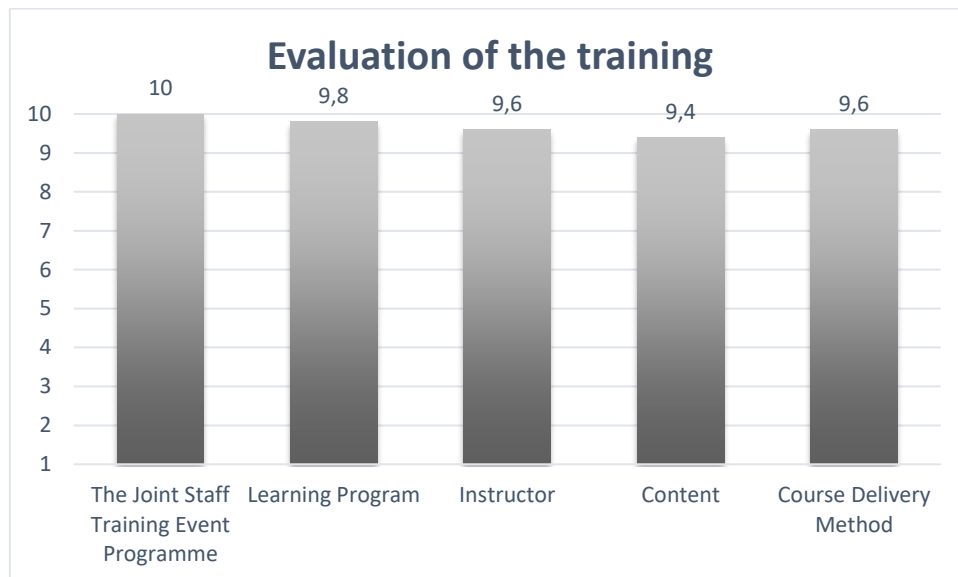
- Despite meeting virtually, participants worked well together at the training.
- Discussions at the workshops were productive.
- I learnt about new areas that I had not known before.
- I will be able to benefit from the introduced knowledge.
- The training objectives were met.
- All opinions were heard and respected at the training.
- I was comfortable expressing my point of view and bringing up new ideas at the training.
- I am satisfied with the overall organization of the joint staff training.

- Please leave a comment about your personal experience. What did you like the most and what was challenging for you? {free text answer}.

## Results

### Evaluation of the Training

The first aspect in the general evaluation for the training. Participants, or "Users" in this part, need to grade 5 factors for this aspect on the scale from 1 to 10 with 1 is the weakest grade and 10 is the strongest.



*Figure 6:* The training's evaluation

The factor "The joint staff training event programme" is the best factor of the training. It scored 10 for all 5 factors. Then there is the "Learning program" factor, with the average grade for all 5 factors is 9.8. The two factors "Course of delivery method" and "Instructor" got the same 9.6/10 grade. The lowest factor in figure 6 is the "Content" of the programme. The participants did not rank the training's content as high as other factors.

### Additional thoughts on overall program

After the general evaluation, the participants were asked to provide their additional thoughts about the program. The information collected was put into 2 categories: Positive thoughts (Pros) and Negative thoughts (Cons).

Pros (+)	Cons (-)
interesting useful collaborative playfull	not applicable
The program was really well-arranged, suitable for the participans' timetable.	
Nice programme. Lots of tools to make it interactive	
It combined the individual tasks and lectures and workshops very well	
modern concept and super e-learning programs	
Training and competence of instructors.	

The presentation was interesting interactively and the materials were useful	
In addition it is a spectacular and all encompassing curriculum	
The trainers were really experienced in the topic. Thank you	

Table 7: Pros and Cons of the additional thoughts

Overall, the programme received quite lots of positive additional thoughts. The thoughts have shown that the users agreed that the programme is interactive, useful, collaborative and interesting. The only negative thought received is it is not applicable.

### **Most-liked things about the training**

After giving out some thoughts, the attendees need to answer what they liked most about the training.

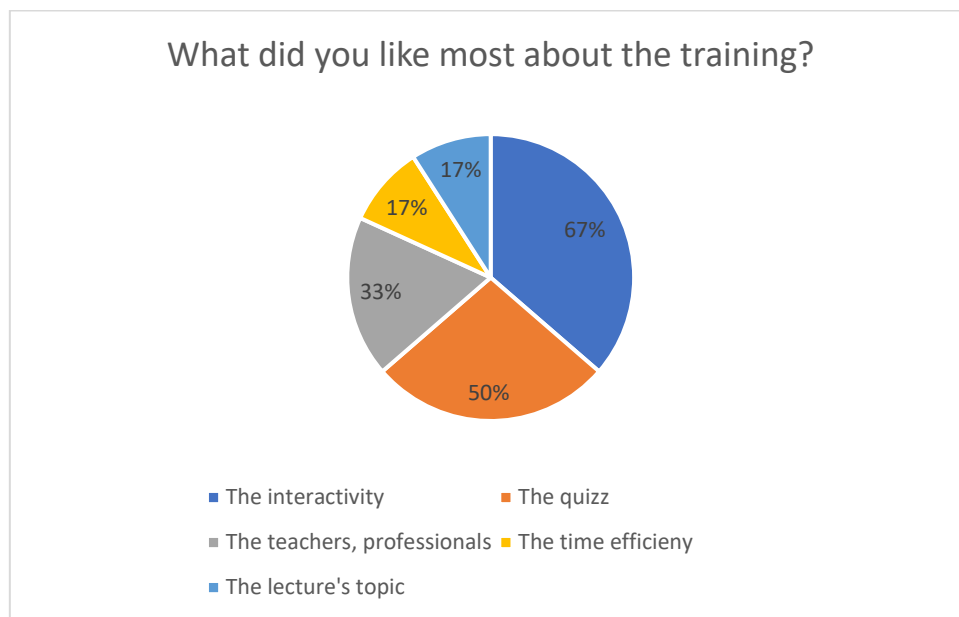
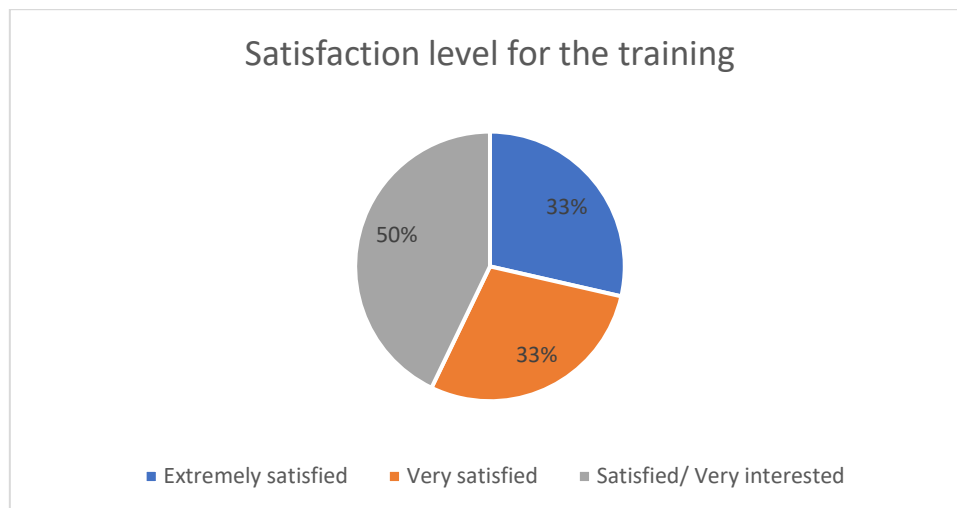


Figure 7: Most-liked things about the training

Figure 7 illustrates 5 most-liked things that represent the answers from the attendees. The top most-liked thing is the interactivity of the training, 67% of the users mentioned this is (one of) their most-liked thing(s). At the second rank is the training's quiz, which was mentioned by half of the users. After that is "The teachers & professionals", "The time efficiency" and "The lecture's topic".

### **Satisfaction level for the training**

Then, the satisfaction level for the training from the attendees was measured. Different expressions for the satisfaction level were used by the users, but we decided to categorize in three levels: Satisfied/ Very interested, Very satisfied and Extremely satisfied.



**Figure 8:** Training's satisfaction level

Half of the users said that they were satisfied with the training. The phrases they gave were "I liked the whole structure, I am delighted ... and very interesting". Other 2 levels received the same number of votes (33% each). The users in these two levels have expressed their satisfaction via phrases like "I'm maximally satisfied", "It's almost perfect. I enjoyed it a lot" or simply "I'm very satisfied".

## Organization

The upcoming three evaluations (for the training's organization, content and at the training) are described above. In these 3 evaluation, the scale-point was 1-5 as 1 means Very disagree and 5 is Very agree. This section is about the evaluation about the training's organization.

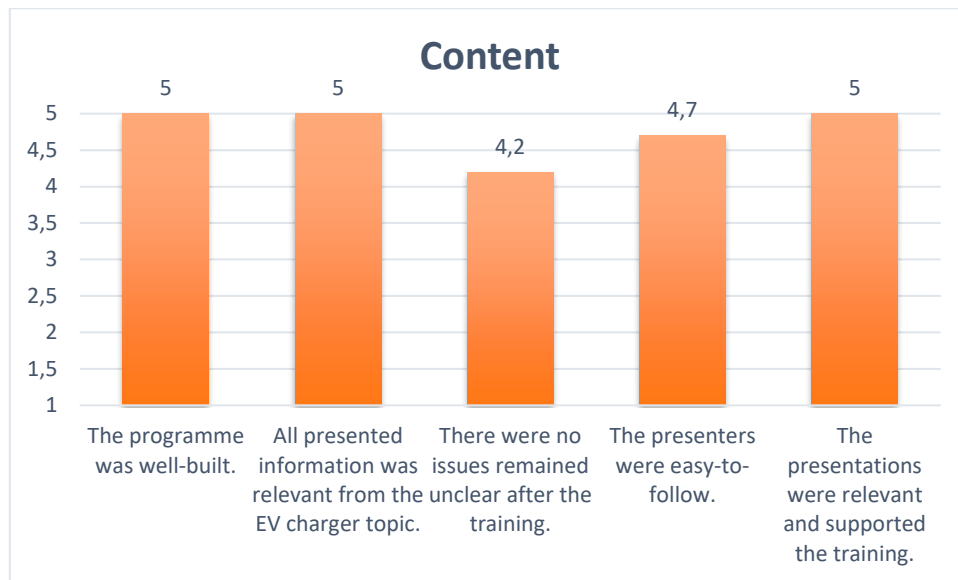


**Figure 9:** The training's organization evaluation

As can be seen, the factors "The use of online channel..." and "The use of online platforms for activities ..." have slightly lower scores than the rest (4.8 and 4.7). In the mean time, the other 3 factors scored the maximum grade, 5.

## Content

The next aspect is about the content of the training program. There are 5 different factors belong to it (figure 10). It is clearly seen that the middle factor received the lowest total scores (4.2/5), which means there were some issues remained unclear for the participants after the training. The factor about the easiness of the presenters has the second-lowest score, which shows that some attendees found it not too easy-to-follow. The remaining 3 factors received the highest grade, 5/5 for all 5 factors.



*Figure 10:* The training's content evaluation

## At the training

The last aspect of the training's evaluation is about how things happened during the training period. For this part, 7 factors were asked to the attendees (figure 11). Figure 11 shows that 4/7 factors have satisfied every user: Discussions at the workshops were productive, I learnt about new areas that I had not known before, I will be able to benefit from the introduced knowledge and Participants worked well together at the training. These factors received a 5 from all the respondents. The factors "I was comfortable expressing my point of view and bringing up new ideas" and "Productive discussions at the workshops" got 1/5 times the 4 grade. The remaining factor "I learnt about new areas that I had not known before" has the lowest grade, with 2/5 times the 4 grade. This can be understood as from the summary of section 2, some users already had prior knowledge about EV chargers/ charging stations and some even teach them at their schools.



Figure 11: The training's evaluation

## 5 – C - Evil JST Test Results

### Description

In order to attempt to measure the effectiveness of the Joint Staff Training (JST), the before & after (B&A) tests were conducted among the participants to explore their knowledge and possible development due to the training. CAM organized the overall B&A tests via Google Sheets, while EGE prepared a test on Quizizz platform focusing on their own part of the training material.

The methodology behind the B&A tests were to create a questionnaire with several type of questions (multiple choice, true or false, open-ended) that cover different parts of the training material, and to use it both and after the event/training session. By making the participants to fill out the same questionnaire, the organizers could measure quantified whether the participants could achieve any progress due to the training.

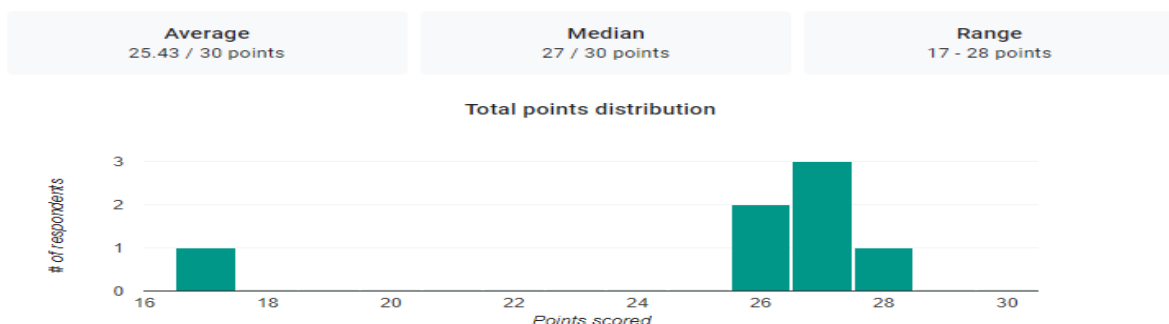
### Results

#### Results of the overall B&A Tests

The results achieved from the B&A tests during the Joint Staff Training were shown below.

#### Insights

Before test



#### Insights

After Test

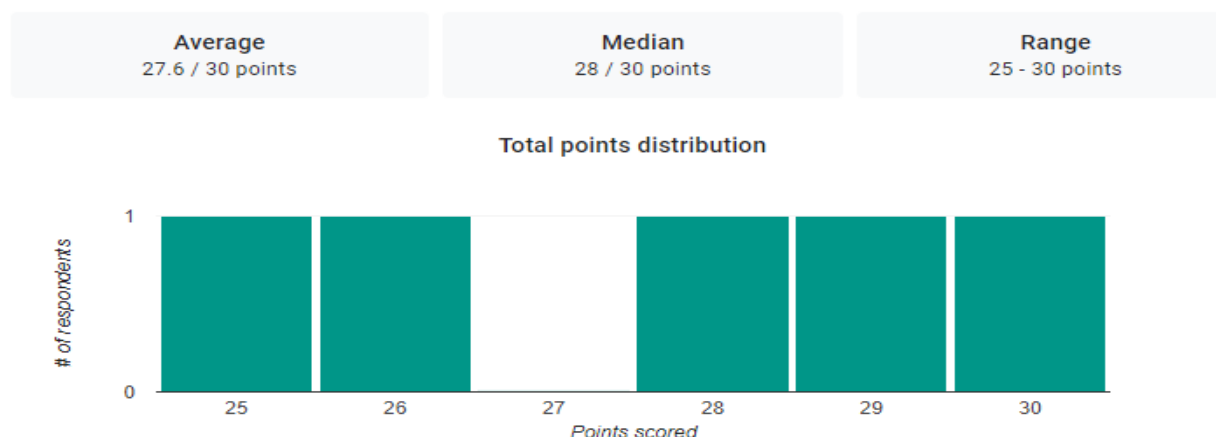




Figure 12: Results of the B&A tests

Figure 12 shows that the average score on the After test is 2.17 points higher than on the Before test. This is equivalent to a 108.53% increase in the participants' knowledge gained. The median scores in 2 charts observe 1-point difference only, which tells that with or without the knowledge learnt during JST, the participants still managed to complete many questions in the tests. In the end, the score range of the 2 tests increased sharply, from "17-28 points in the Before test" to "25-30 points in the After test". Along with the positive increase in the number of After-test respondents, this means that the EV training and topic is relevant and that teachers in the field are interested in it.

Regarding of the personal progress, we received a mixed picture (table below). Not everybody could submit their answers before deadline in case of the After test. If we take them out from the evaluation of the personal results, we can see that more people could increase their points. But there were some participants who lost points compared to the Before test. However, we should also add that even the Before test had already been quite a successful test with high points.

Participant ID	Before Score	After Score	
No. 1	26 / 30	28 / 30	+2
No. 2	27 / 30	0 / 30	-27
No. 3	28 / 30	30 / 30	+2
No. 4	27 / 30	29 / 30	+2
No. 5	27 / 30	26 / 30	-1
No. 6	26 / 30	25 / 30	-1
No. 7	17 / 30	0 / 30	-17

Concerning methodology, the most frequently missed question was the same in both tests. It was a multiple-choice question with more than one correct answer. It is worth nothing for future reference while making the test questions for an online platform that this type of question can be more challenging for users, but they can contribute to a better understanding in a long term.

### **Results of the partial B&A test conducted by EGE**

In case of the B&A test conducted by EGE, the results are also promising. While the average point in the before test was 6085.71, and after the session it rose up to 10,127.50. It is a 66,41% increase!

As the image below shows, all participants could make a progress due to the presentation and explanations during the training session. Participant 6 made the greatest progress, the accuracy of his/her answers increased by 40% points; after the session he/she reached twice as many points as before.

Players	PRE TEST		POST TEST	
	Score	Accuracy	Score	Accuracy
Participant 1	8700	67%	14915	93%
Participant 2	7260	53%	11380	80%
Participant 3	6610	47%	9860	73%
Participant 4	6380	47%	-	-
Participant 5	5550	40%	7710	53%
Participant 6	4750	33%	9670	73%
Participant 7	3350	27%	7230	60%

## 6 – Recommendations

A recommendation for further training, or practices, would be about how to enhance the society's awareness about the EVs chargers/charging stations. Since it is the first basic thing in spreading something new. Therefore, the topics can have wider acceptance from the social public, which can make some changes to the energy reformation in Europe. Moreover, in question 5, chapter 3 the participants mentioned some challenges in involving their students in the learning process. This can be taken into account for further discussion. Since the target groups of C-Evil is the VET education, especially the electricians studies. One suggestion for these recommendations would be existing case studies, methods or programs for awareness raising in EVs or a similar topic. It is also a good idea to link up with local leaders and company experts in the field, who can then assist partially in conducting practical training with the students. This will gradually help students achieving better skills, thus more qualified future staff.

For the training itself, figure 7 shows that the training's content can be prepared better next time as it got the lowest scores than others. In order to improve this, more attention should be given to future participants' concerns or problems. More questions can be asked, directly or indirectly during the training (via survey, feedback forms, etc). Furthermore, the future presenters should be reminded to give a simple, understandable speeches when conveying the training's knowledge to the attendees. Besides that, figure 10 points out the use of the online platform and online channel can be improved better. They received lower total score than others which means that some users still found it not really adequate or easy-to-use.

An additional recommendation for future digital questionnaire's makers is to consider carefully before using the multiple-choice question with more than one correct answer as it can be challenging for some users. However, this question type can help to bring a better understanding in a long term for the users.

**Annex 1: Full results Evaluation of  
starting point (day 1)**

**Annex 2: Full results Evaluation of  
the trainingweek (day 4)**

**Annex 3: Full results round table  
session**