

DELIVERABLE REPORT

WP7 Communication, dissemination and training

D7.7

REPORT ON TRAINING ACTIVITIES

Due date

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EXECUTIVE SUMMARY

The present document is the Deliverable D7.7 "Report on training activities" of the **e-SAFE** project (Grant Agreement No. 893135 [1]), funded by the European Commission under its Horizon 2020 Research and Innovation Programme (H2020).

The document describes the training activities carried out within the project, which contributed to provide – during the project duration – training to possible stakeholders in different EU countries. These training activities have been conducted both through face-to-face events and by means of webinars and video-tutorials, made available on the **e-SAFE** social channels.

The training activities aimed to disseminate the knowledge of the **e-SAFE** technologies amongst professionals and construction companies, while stimulating curiosity about **e-SAFE** related technical issues and the desire of becoming either an **e-SAFE** client or an **e-SAFE** designer, thus enhancing future **e-SAFE** exploitation.

GLOSSARY OF TERMS

ACRONYM	DESCRIPTION
AB	Advisory Board
DEG	Dissemination & Exploitation Group
EC	European Commission
GAg	Grant Agreement
GA	General Assembly
IP / IPR	Intellectual Property / Intellectual Property Right
PC	Project Coordinator
PO	Project Officer
STC	Scientific and Technical Committee
TM	Technical Manager
WP	Work Package
WPL	Work Package Leader

1. INTRODUCTION

1.1 Purpose of this report

The present report describes the training activities carried out during the **e-SAFE** project.

The planned training activities included a series of five face-to-face events (in four different countries) as well as a series of webinars and video tutorials. These training activities were intended to target engineers, architects, manufacturers, and construction companies, and aimed at stimulating curiosity and awareness about the **e-SAFE** technologies among prospective users, while also triggering their willingness to be involved in future exploitation, design and market activities.

The experience gained with these training events is then used to prepare a protocol that will orient training activities after the end of the project. Indeed, training activities will continue as a tool to prepare a generation of professionals (designers, builders) ready to adopt and implement the **e-SAFE** technologies throughout the European Union.

1.2 Relation with other Deliverables

The plan for the training activities to be performed during the **e-SAFE** project has been presented in Deliverable D7.6 "Training Protocol (**e-TRAINING**)" [2], together with the resources to be employed in this activity.

The training activities in Catania and Timisoara were carried out in cooperation with the Local Platform, as described in Deliverable D7.8 "Report on outreach activities at local level" [3].

2. FACE-TO-FACE TRAINING EVENTS

2.1 Face-to-face events: where, how and when

2.1.1 Selected locations for the face-to-face events

The Grant Agreement plans that “at least five face-to-face training events” are organized, “held in at least four different countries”. For this reason, the partners agreed in Deliverable D7.6 [2] that the following face-to-face training events would be held by the end of the project:

- 2 events in Italy (Bologna – managed by UNIBO, and Catania – managed by UNICT)
- 1 event in Greece (Athens – managed by SALFO)
- 1 event in the Netherlands (Amsterdam – managed by WEBO)
- 1 event in Romania (Timisoara – managed by BPIE)

BPIE is the only partner that will not organize the event in its Country. The reason is that Romania is a much more strategic country than Belgium in terms of potential interest for energy and seismic building renovation actions, and BPIE can utilise the contacts with the Local Stakeholders involved in the “virtual pilots” (above all, Politehnica University in Timisoara).

However, WEBO encountered some difficulties in the organization of the training event in Amsterdam. Despite the diffusion of the leaflet through several different channels, the number of people registered to the event was very low. For this reason, WEBO and UNICT agreed to move the training event in Delft (Netherlands), in recognition of the interest shown by two researchers of the Delft University of Technology (Prof. Simona Bianchi and Prof. Mauro Overend).

In fact, they are coordinating the H2020 Project MULTICARE (“Multi-hazard low-carbon resilient technologies and multi-scale digital services for a future-proof, sustainable & user-centred built environment”): this research project was financed in 2024 and addresses the seismic-and-energy renovation of the EU residential building stock. MULTICARE shows several similarities with e-SAFE, and the Coordinators are happy to create a link with e-SAFE by:

- hosting the training event, with the participation of Dutch students and professionals.
- participating in the final e-SAFE clustering event in Brussels

Thus, the final calendar of the e-SAFE face-to-face training events is reported below:

- Catania (16-17 January 2025, hosted and managed by UNICT)
- Bologna (10-11 February 2025, hosted and managed by UNIBO)
- Athens (10-11 April 2025, hosted and managed by SALFO)
- Timisoara (17-18 June 2025, hosted by Politehnica University, managed by BPIE)
- Delft (8 July 2025, hosted by TU Delft, managed by WEBO)

2.1.2 General structure of the face-to-face events

As far as the organization of the face-to-face training events is concerned, it has been agreed that the duration of each event is 1.5 days, split into two parts:

First part: half a day (4 hours) with a general presentation about e-SAFE technologies, scopes, and tools. This module will be repeated, with few differences, in all face-to-face events. The presentations will be supplied in English, but the slides will be translated into the local language, to facilitate the trainees. Alternatively, should the level of English proficiency of the participants be insufficient, the presentation will be supplied in the local language. Table 1 reports the general structure of the half-day introductory seminar in Catania: some changes have been agreed for the other events, which will be explained in Section 2.2.

Table 1: Structure of the seminar: introduction to e-SAFE

TOPIC	PARTNER
Introduction to seismic and energy renovation	UNICT
e-CLT and e-PANEL : technological features and design principles	UNICT
e-EXOS : technological features and design principles	UNIBO
Structural design for e-CLT and e-EXOS	UNICT – SALFO - UNIBO
e-THERM and e-TANK : technical features and design principles	UNIBO – UNICT
Architectural renovation with e-SAFE	UNICT
Decarbonization of the building stock: the role of e-SAFE	UNICT – UNIBO
The co-design experience in e-SAFE	UNICT
e-DSS : a tool to support e-SAFE design	ENGINEERING
Production of wood-based panels	WEBIO
Financial tools within e-SAFE	DELOITTE
Questions and discussion	-

Second part: one full day (8 hours) with more specific technical content, including active involvement of the attendees in a workshop. After a short recap about the features of the **e-SAFE** technical solutions and the general criteria to select the most appropriate one according to a building's features (height, context, degradation of the structures, availability of technical spaces, glazed surface, etc.), the trainers present several case studies. Then, the trainees are divided into working groups composed of 4-5 people, and each group shall:

- Analyze the proposed buildings, trying to understand how the **e-SAFE** solutions can apply.
- Choose one building and use the **e-DSS** to assess the feasibility of the various solutions and to estimate energy and cost performance.
- Distribute the **e-PANEL** and **e-CLT** on the opaque walls, by following an optimization criterion.
- Identify possible positions for the **e-EXOS** trusses.
- Identify the size and the position of the **e-THERM** components, including the **e-TANKs**.
- Sketch the selected **e-SAFE** solutions applied to the building.

At the end, each group shall discuss the outcomes of its work, possibly by means of a presentation. The trainers shall analyze these outcomes and comment on their suitability.

However, after the training event in Athens, it became evident that professionals find it difficult to cope with the entire duration of the training event, due to their numerous professional commitments; thus, it was agreed that in the last two training events (Timisoara, Delft) the workshop would only last 4 hours instead of 8 hours. The leaflets with the programme of the five events are reported in Appendix 1: of course, the participation to the training events shall be free of charge.

At the beginning of the workshop, participants are provided with supporting material to work on, including CAD files containing floor plans, elevations and sections, photographs of the building, and a printed information sheet (see Appendix 2). At the end of the workshop, a training evaluation survey shall be distributed to the trainees to verify their appreciation of the training event, and their opinion regarding both the **e-SAFE** technical solutions (applicability, design, market uptake) and the **e-DSS** (see Appendix 3). The outcomes of the survey shall be immediately disclosed to have a fruitful discussion on possible improvements.

2.2 Unfolding the face-to-face events

2.2.1 Training event in Catania (Italy)

When: 16-17 January 2025 (12 hours)

Where: University of Catania, Faculty of Engineering

Participants: 42 people to the seminar, 20 people to the workshop

Credits: the event was supported by the local Chambers of Engineers and Architects, which have awarded the participants 12 professional credits (in Italy, gaining sufficient professional credits every year is compulsory to keep the registration as a licensed engineer/architect).

Notes: due to a storm in Catania, the workshop was postponed to 24 January 2025.

Outcomes: Figure 1 shows some pictures from the training event in Catania. Figure 2 and Figure 3 present some of the results shared by the participants at the end of the workshop. One group chose the school of Timisoara as a case study and – inspired by the school's murals – proposed the use of the **e-EXOS/e-PANEL** combination, focusing primarily on the former (Figure 2). They conducted a study on its dimensions and the arrangement of colored panels. In parallel, the **e-DSS** tool was used to carry out preliminary assessments of the expected performance of the proposed intervention. Another group selected the residential building located in Via Don Carlo Gnocchi in Catania as their case study. Their proposed solution involves the use of the **e-CLT** and **e-PANEL** combination (Figure 3). The architectural choices were guided using accent colors to create volumes and a sense of verticality. In parallel, a preliminary sizing of the panels was defined with a view to standardization, along with a preliminary plant system layout planned for the roof.



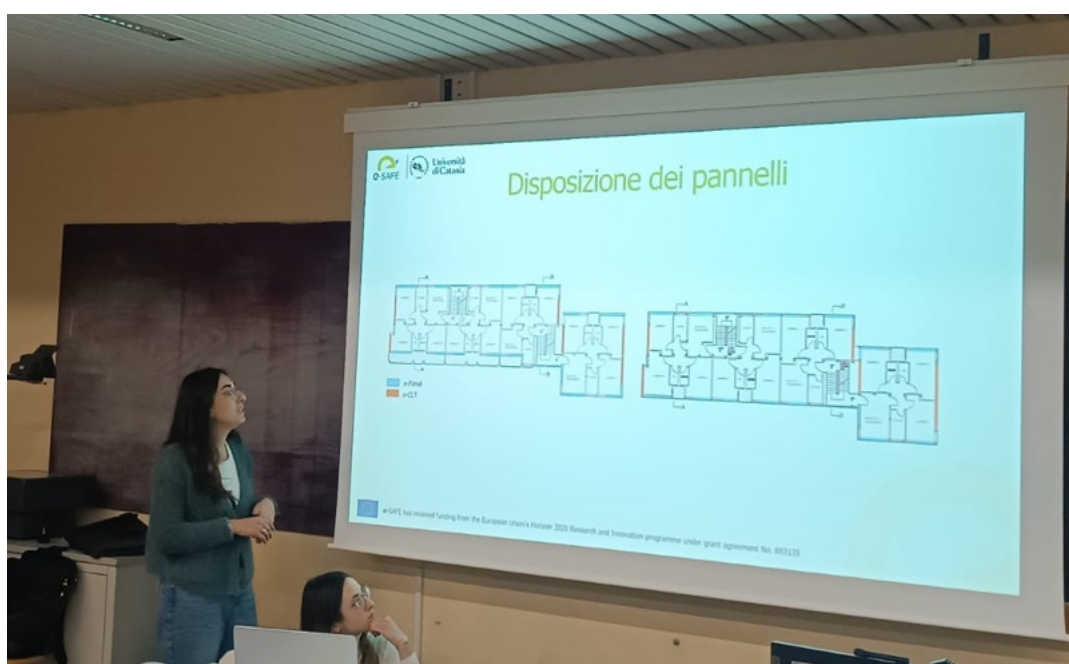
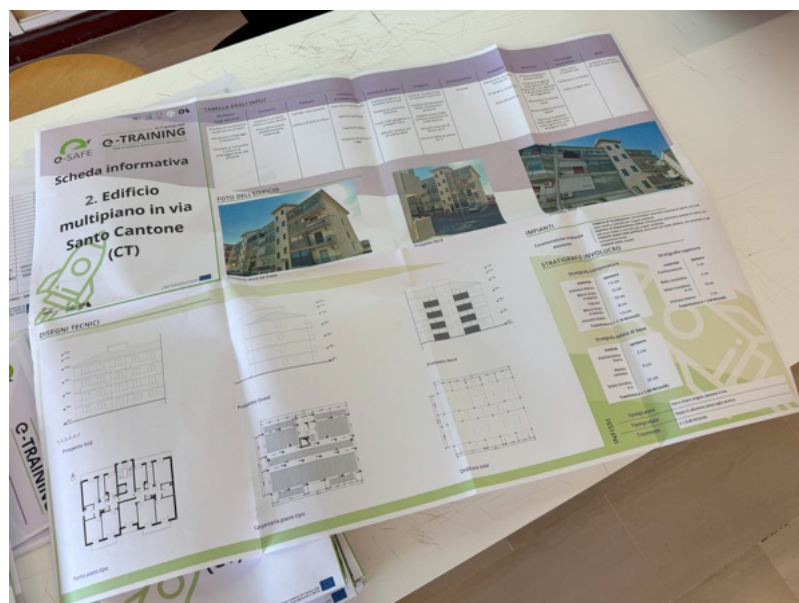


Figure 1: Pictures from the training event in Catania

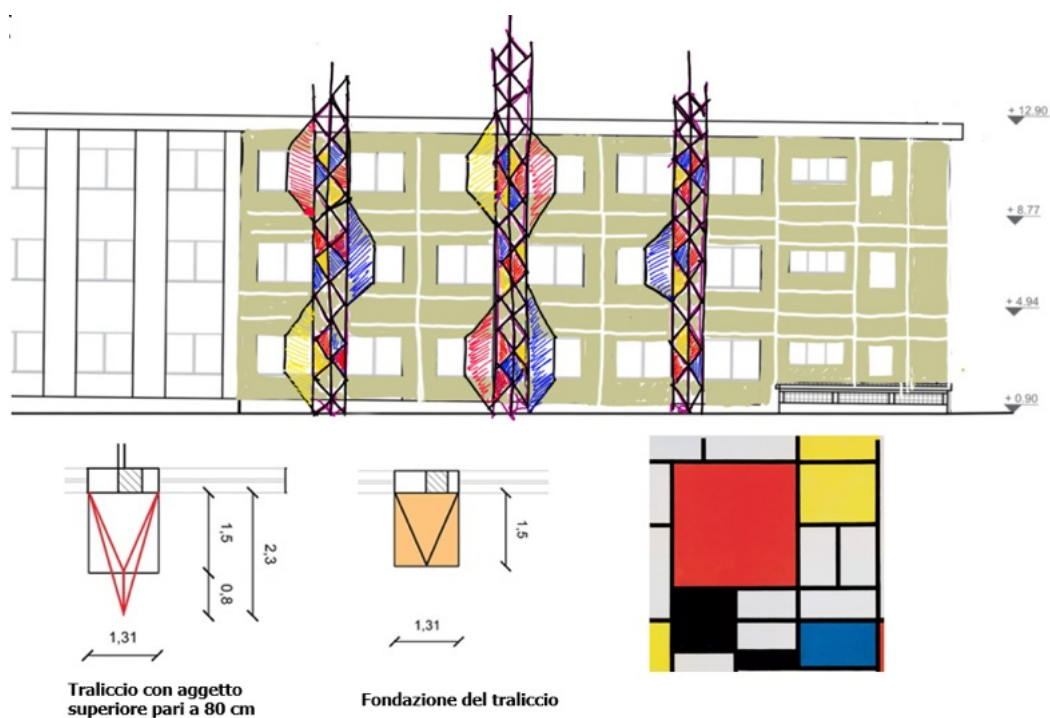


Figure 2: One group chose the school of Timisoara as a case study.

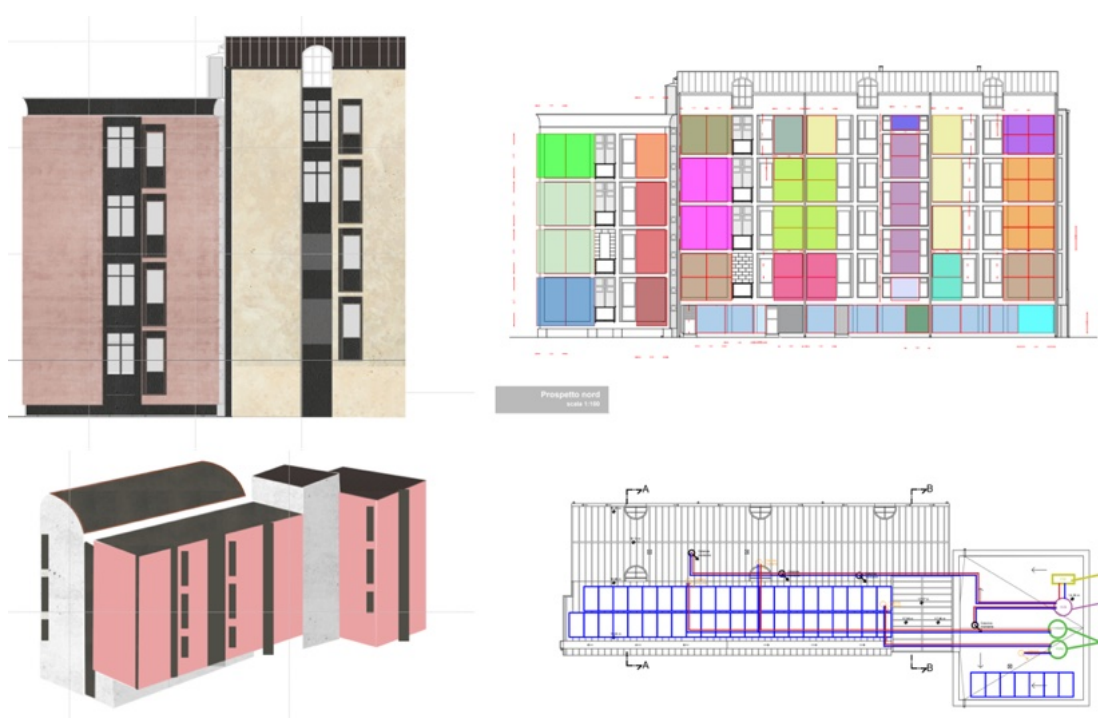


Figure 3: Another group selected the residential building located in Via Don Carlo Gnocchi in Catania.

2.2.2 Training event in Bologna (Italy)

When: 10-11 February 2025 (12 hours)

Where: Alma Mater University in Bologna, Faculty of Engineering

Participants: 63 people to the seminar, 14 people to the workshop

Credits: the event was supported by the local Chambers of Engineers and Architects, which have awarded the participants 12 professional credits (in Italy, gaining sufficient professional credits every year is compulsory to keep the registration as a licensed engineer/architect).

Outcomes: Figure 4 shows some pictures from the training event in Bologna. Figure 5 presents some of the results shared by the participants at the end of the workshop.

One group selected the residential building located in Via Don Carlo Gnocchi in Catania as their case study. Their proposed solution involves the use of both **e-CLT** and **e-EXOS**. In particular, the **e-EXOS** modules were designed to integrate new balconies and expand the private outdoor spaces. A preliminary sizing of the panels was carried out following a logic of maximum standardization, and, with the support of the **e-DSS**, a hypothesis for the sizing of the rooftop photovoltaic system was also developed.





Figure 4: Pictures from the training event in Bologna.

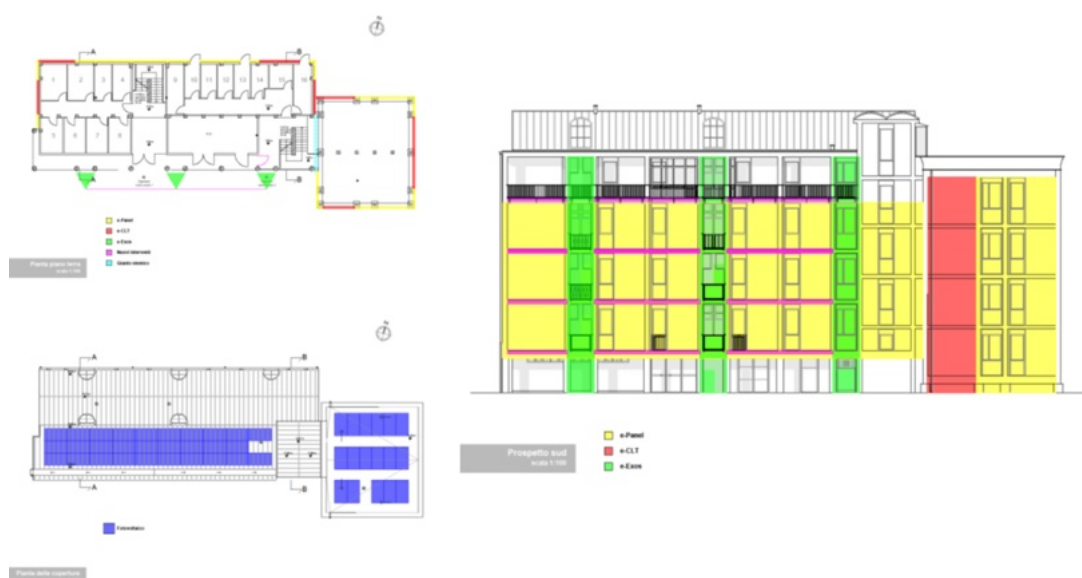


Figure 5: One group selected the residential building located in Via Don Carlo Gnocchi in Catania.

2.2.3 Training event in Athens (Greece)

When: 10-11 April 2025 (12 hours)

Where: Technical Chamber of Greece

Participants: 20 people to the seminar, 4 people to the workshop

Notes: -

Outcomes: Figure 6 shows some pictures from the training event in Athens. Figure 7 presents some of the results shared by the participants at the end of the workshop.



Figure 6: Pictures from the training event in Athens



Figure 7: Outcomes from the working groups

2.2.4 Training event in Timisoara (Romania)

When: 17-18 June 2025 (8 hours)

Where: Politehnica University, Faculty of Civil Engineering

Participants: 26 people to the seminar, 17 people to the workshop

Notes: since this training event has a shorter duration than in Catania, Bologna and Athens, some presentations were canceled from the seminar, i.e.:

- Decarbonization of the building stock: the role of **e-SAFE**
- The co-design experience in **e-SAFE**
- Financial tools within **e-SAFE**

Outcomes: Figure 8 shows some pictures from the training event in Timisoara. Figure 9 presents some of the results shared by the participants at the end of the workshop.





Figure 8: Pictures from the training event in Timisoara



Figure 9: Outcomes from the working groups

2.2.5 Training event in Delft (Netherlands)

When: 8 July 2025 (8 hours)

Where: TU Delft, Faculty of Architecture and the Built Environment

Participants: 10 people to the seminar, 5 people to the workshop

Credits: this event can also be seen as a clustering activity with the H2020 project "MULTICARE" ("Multi-hazard low-carbon resilient technologies and multi-scale digital services for a future-proof, sustainable & user-centred built environment", (Grant Agreement no. 101123467), coordinated by TU Delft.

Notes: since this training event has a shorter duration than in Catania, Bologna and Athens, some presentations were canceled from the seminar, i.e.:

- Decarbonization of the building stock: the role of **e-SAFE**
- **e-DSS**: a tool to support **e-SAFE** design
- The co-design experience in **e-SAFE**
- Financial tools within **e-SAFE**

Moreover, considering the expected attendance – mainly experts and PhD students in civil engineering – the focus was more on the building renovation, while thermal systems were only marginally dealt with.

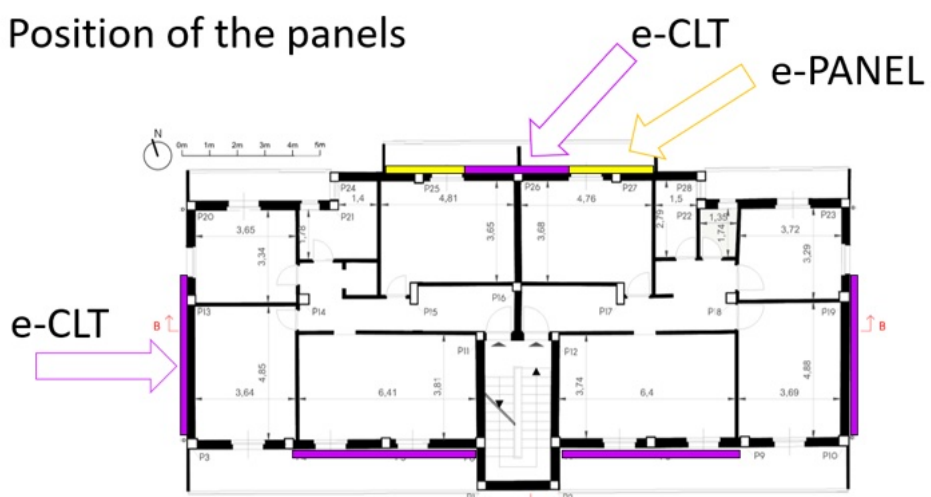
Outcomes: Figure 6Figure 10 shows some pictures from the training event in Delft. Figure 11 presents some of the results shared by the participants at the end of the workshop. The group selected the residential building located in Via Acquicella Porto in Catania as their case study. Their proposed solution involves the **e-CLT** + **e-PANEL** system. Specifically, the structural panel sizing was based on a principle of symmetry between opposing facades. On the south elevation, to allow for the installation of **e-CLT** modules, some openings were modified: balcony-doors were turned into windows, enabling the use of **e-CLT** panels with a reduced opening ratio to preserve their structural effectiveness. On the north elevation, to install adequately sized **e-CLT** modules, the demolition and reconstruction of the small loggias wall separating the two apartments was considered. A proposal was also made for the panel cladding, with timber being the chosen material.





Figure 10: Pictures from the training event in Delft

Position of the panels



Cladding

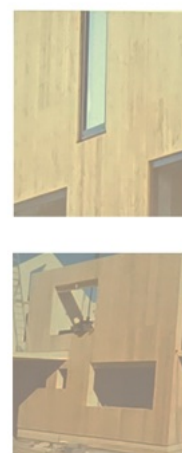
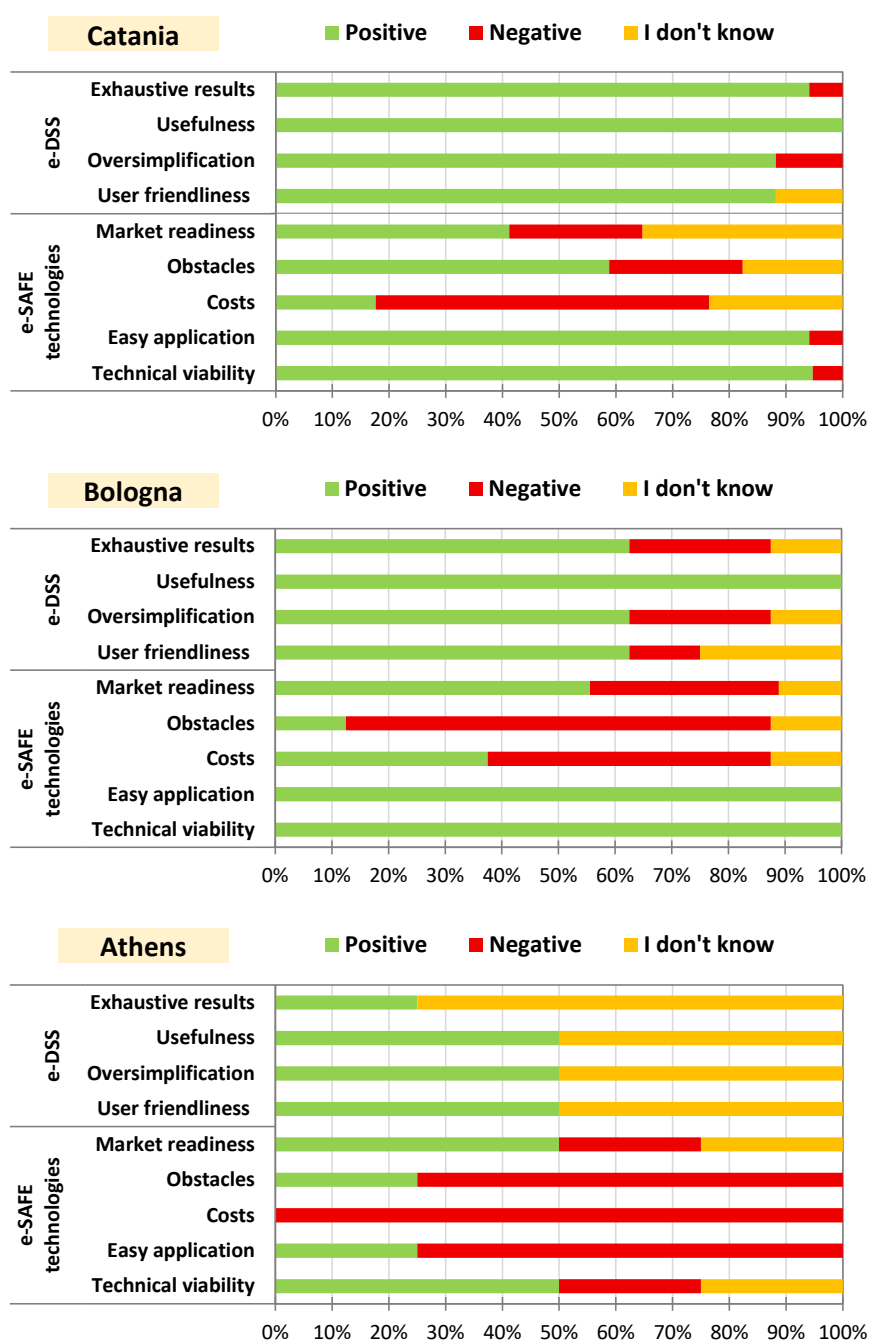


Figure 11: Outcomes from the working groups

2.3 Outcomes of the questionnaires

This section reports the outcomes of the questionnaires administered to the trainees at the end of each face-to-face training session (Appendix 2 shows the questions included in the questionnaire).

Figure 12 shows the distribution of the answers to the nine technical questions: these were handed out by means of the mobile app "Mentimeter", so that the participants could answer directly on their mobile phones after scanning a QR code. Here, the possible answers are reported as "positive" when the answer is favorable to **e-SAFE**, and negative when it expresses doubts or limitations about the **e-SAFE** technologies. For instance, in the question regarding costs ("Do you believe that **e-SAFE** technologies will be too expensive, and that this would be an obstacle to their market penetration?"), "positive" means that the **e-SAFE** solutions are considered affordable, while "negative" means that the **e-SAFE** solutions are considered too expensive.



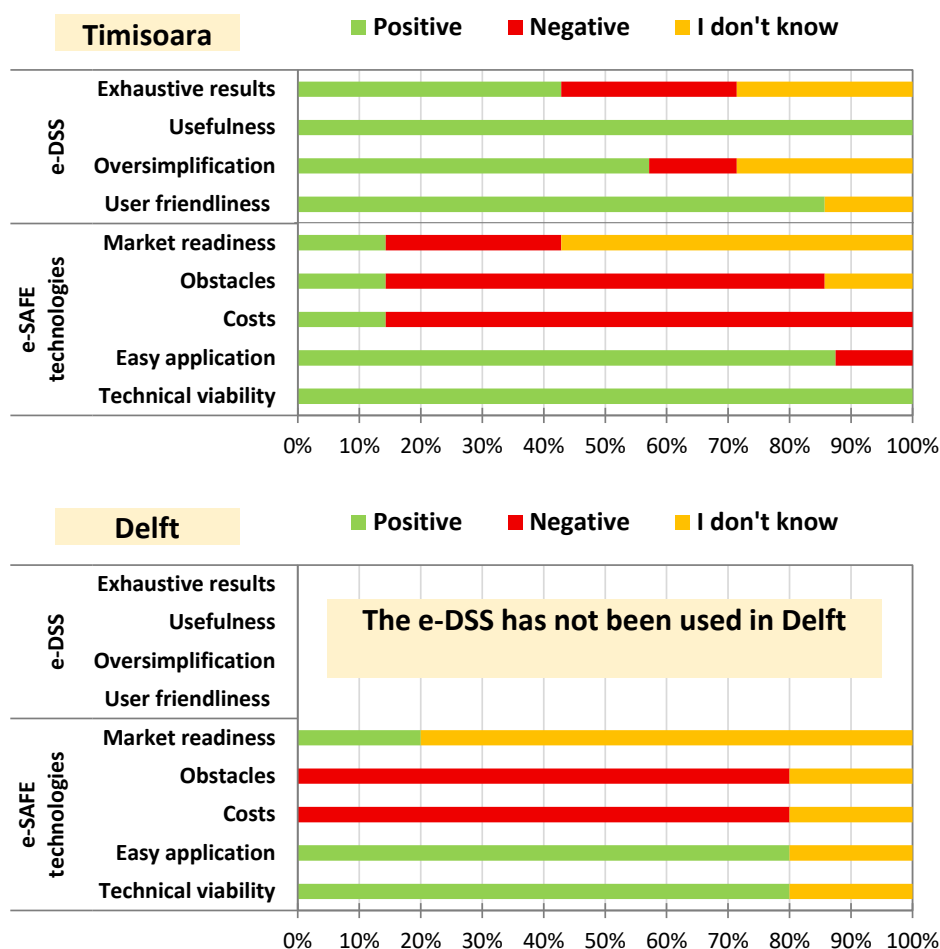


Figure 12: Answers to the questionnaire administered at the end of each workshop

On average, both the **e-SAFE** solutions and the **e-DSS** received good feedback by the trainees. However, in almost all cases the trainees observed that the **e-SAFE** technologies appear expensive at the moment, and this could be the main obstacle to their market penetration: this suggests that this aspect deserves more attention before a full market uptake. Instead, the technical viability has been positively assessed. As far as the **e-DSS** is concerned, someone has suggested that more exhaustive results are provided, including:

- Unit costs (per square meter) made visible.
- Unit energy needs (per square meter) made visible.
- Separation of the renovation costs associated with energy and seismic improvement.
- Automatic preliminary sizing of the heat pump.

The questions regarding the appreciation of the **e-TRAINING** format were handed out physically (Appendix 2), and they were delivered blindly at the end of the workshop. These questions received on average very positive answers; the format was greatly appreciated, even if several participants underlined that they would have appreciated:

- Some more time to elaborate on their design proposal during the workshop.
- More detailed information regarding the costs and the on-site implementation.

3. WEBINARS AND VIDEO-TUTORIALS

The training activities included additional ways to engage **e-SAFE** stakeholders and enlarge the audience that can be interested in **e-SAFE** products: **webinars** and **video tutorials**.

The planned activities have been successfully implemented and are now collected under the “**e-SAFE Academy**”. These initiatives have played a key role in increasing the visibility of the project, fostering stakeholder engagement, and promoting a deeper understanding of **e-SAFE** technologies among a broad and diverse audience. By offering accessible and practical content, they have contributed to building a stronger community around the project and supporting its long-term objectives.

All recordings are available on the **e-SAFE** YouTube channel in a dedicated playlist titled [e-SAFE Academy](#), ensuring easy and open access for professionals, stakeholders, and the general public as a lasting legacy of the project.

3.1 e-SAFE webinars

The **e-SAFE** webinars have been successfully delivered as part of the “**e-SAFE Academy**” series, aimed at sharing key project outcomes with a wide audience of stakeholders and professionals. The series consisted of three online sessions hosted by MOVERIM on the Zoom platform, each lasting approximately 60 minutes (45 minutes of presentation followed by 15 minutes of Q&A). Registration was managed through the same platform to ensure accessibility and ease of participation.

3.1.1 e-SAFE business model(s) and financial schemes

Delivered by **DELOITTE** on **12 December 2024**, this webinar presented an in-depth analysis of the business models and financial mechanisms developed to support the commercialization and scalability of **e-SAFE** solutions. **61 people registered** for this webinar.



3.1.2 Envelope Solutions for Seismic & Energy Renovation

Held on **18 February 2025**, this session was led by **UNICT, UNIBO and NMBU** and explored the design principles and integration strategies of the **e-SAFE** envelope solutions, with a focus on compatibility with existing building structures. **67 people registered** for this webinar.



3.1.3 e-THERM: an efficient solution for renovating the thermal systems

Presented by **UNIBO and UNICT** on **8 May 2025**, this final webinar provided detailed insights into the **e-THERM** system, covering both technical features and practical design/control strategies for thermal renovation. **47 people registered** for this webinar.



3.2 e-SAFE video tutorials

The **e-SAFE** video tutorials were created to highlight essential technical features of the project's solutions in a short, user-friendly format. Designed to be clear and accessible, the tutorials have helped simplify complex content and extend the project's reach to a broader audience of professionals and stakeholders.

So far, the first two tutorials have been completed and published (Table 3). Both videos were recorded and post-produced between December 2024 and May 2025 and released in June 2025, as a part of dedicated communication campaigns. They have contributed to raising awareness of **e-SAFE** innovative tools and processes.

The two last tutorials are still in progress and will be finalized once the pilot activities are completed. To record them, the construction works at the pilot site must be finished — this is expected to occur by the end of July.

Table 2: Video tutorials scheduled in **e-SAFE**

Tutorial title	Main partner	Release	Views
e-SAFE Decision Support System (e-DSS): how does it work?	ENG	June 2025	26
e-PANEL production: how to produce multifunctional timber panels with low environmental impact.	WEBO	June 2025	64
How to implement e-CLT and e-EXOS on site	UNICT	<i>TBC</i>	<i>NA</i>
e-THERM : installation and control logic for optimum performance.	UNIBO	<i>TBC</i>	<i>NA</i>

All published tutorials are available in the **e-SAFE** Academy playlist on the **e-SAFE YouTube channel**, forming part of the project’s long-term legacy and supporting ongoing knowledge sharing beyond the project’s duration.

4. CONCLUSIONS: the e-TRAINING protocol

Unlike the face-to-face training events organized during the project – primarily aimed at disseminating **e-SAFE** technologies and broadening the potential stakeholder base – the post-project training activities will be specifically targeted at professionals (e.g., designers, builders) who will apply **e-SAFE** technologies in their daily practice, either in design or construction supervision roles. To this end, an **e-TRAINING** protocol must be developed to effectively structure and manage the training process. These training activities, based on the protocol, will form an integral part of the **e-SAFE** exploitation strategy and may also serve as a potential source of revenue for the EEIG “**e-SAFE**”, which has been established to replace the **e-IPR** originally foreseen in the Grant Agreement [1].

The training experience gained during the project, and more specifically through the five face-to-face training events, highlighted the following key lessons:

- The adopted format, consisting in a preliminary seminar followed by a workshop, is appreciated and proved to be didactically effective.
- The duration of the workshop should be at least one full day. Several participants would have appreciated more time to elaborate on their design proposal: however, the **e-SAFE** Advisory Board suggested that the duration should not exceed two or three days, since SMEs with few employees find it difficult to attend long training sessions.
- At the beginning, **e-TRAINING** should be offered free of charge, as individuals are generally reluctant to pay for courses on solutions that still require further replication to fully demonstrate their potential.
- A good way to encourage participation from professionals and builders is to collaborate with local Chambers of Engineers and Architects so that attendees can earn professional development credits (in Italy, obtaining a minimum number of these credits is mandatory to maintain registration as a licensed engineer or architect). Without this incentive, participation may remain low, even if the training is offered free of charge. Introducing a certification for **e-SAFE** designers could later justify charging a fee for the training.
- The **e-DSS** is a very useful and user-friendly tool according to professionals, and its use during the training activity is encouraged.
- Using user-friendliness material for training is also very important, and this needs to be translated into different languages.
- The number of participants in face-to-face training events should be limited to maintain the effectiveness of the workshop. However, a minimum threshold is also necessary to ensure adequate exploitation potential. We suggest that each event include between 10 and 20 participants. An exception could be made for the first module – which provides a general overview of **e-SAFE** and its technologies – as it may be suitable for a larger audience.

Another important aspect to consider is the timing of the training courses. Effective training should ideally include practical case studies of renovations completed using **e-SAFE** technologies. This, however, requires time to finalize at least a few pilot projects. Therefore, we recommend that the training courses begin no earlier than one year after the end of the project.

Finally, it is advisable to take into account the European Credit System for Vocational Education and Training (ECVET) and apply the relevant methodology accordingly.

ACKNOWLEDGEMENTS

This Deliverable was carried out in the framework of the *Energy and seismic affordable renovation solutions (e-SAFE)* project, which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 893135.

REFERENCES

- [1] **e-SAFE** Grant Agreement
- [2] Deliverable D7.6 – Training Protocol (**e-TRAINING**)
- [3] Deliverable D7.8 – Report on outreach activities at local level

APPENDIX 1: leaflets of the training events

A1.1 Training event in Catania



e-SAFE

e-TRAINING

16-17 gennaio 2025

Città Universitaria, Aula D02 (edificio 14), Aula IT (edificio 4)

La partecipazione all'intera durata dell'evento permette il riconoscimento di **12 CFP** per gli iscritti agli Ordini professionali
La partecipazione all'evento è **gratuita**

OBIETTIVI

L'evento formativo proposto si rivolge a Ingegneri, Architetti e imprese di costruzione, con l'obiettivo di **fornire le conoscenze tecniche per affrontare il progetto di riqualificazione sismico-energetica** degli edifici con struttura in calcestruzzo armato tramite le tecnologie e-SAFE.

PROGRAMMA

Giovedì 16 Gennaio 2025: seminario con presentazione generale delle tecnologie, degli scopi e degli strumenti progettuali nell'ambito di e-SAFE (Aula D02)

15:00 - 15:05 Saluti istituzionali

15:05 - 19:00

Giuseppe Margani, Gianpiero Evola, Università di Catania
Introduzione al tema della riqualificazione sismica ed energetica

Carola Tardo, Università di Catania
e-CLT e e-PANEL: *aspetti tecnologici e progettuali*

Luca Guardigli, Università di Bologna
e-EXOS: *aspetti tecnologici e progettuali*

Edoardo Marino, Francesca Barbagallo, Università di Catania
Il progetto strutturale di e-CLT e e-EXOS

Giovanni Semprini, Università di Bologna
e-THERM e e-TANK: *aspetti tecnologici e progettuali*

Sebastiano D'Urso, Grazia Maria Nicolosi, Università di Catania
La riqualificazione architettonica in e-SAFE

Pausa caffè

Vincenzo Costanzo, Università di Catania
Decarbonizzazione del parco edilizio: *il contributo di e-SAFE*

Laura Saija, Giulia Li Destri Nicosia, Università di Catania
La co-progettazione nell'ambito di e-SAFE

Caterina Sarno, Engineering Ingegneria Informatica S.p.A.
e-DSS: *uno strumento di supporto decisionale per il progetto e-SAFE*

Bart Voortman, WEBO
La produzione dei pannelli prefabbricati a base legno

Anthi Chatzikyriakou, Deloitte
Strumenti finanziari nell'ambito di e-SAFE

Dibattito e conclusioni

Patrocinio di
ANCE CATANIA
FOA PPC CT

Project funded by EU's Horizon 2020 program - Grant Agreement n° 893135



PROGRAMMA



Venerdì 17 Gennaio 2025: workshop progettuale assistito dagli esperti e-SAFE (Aula IT)

09:00 - 10:00

Presentazione e selezione dei casi studio: verranno presentati numerosi edifici su cui potenzialmente applicare le tecnologie e-SAFE. I partecipanti dovranno analizzare gli edifici ed individuare le caratteristiche che potrebbero escludere o limitare l'applicazione di una o più tecnologie e-SAFE

10:00 - 13:00

Lavoro di gruppo: i partecipanti verranno divisi in 5 gruppi da 5 persone, ciascuno dei quali lavorerà su un caso studio tra quelli analizzati al punto precedente. I componenti del gruppo lavoreranno su aspetti diversi del progetto, ma in un'ottica di progettazione integrata e di co-design:

- **Aspetti tecnologici:** posizionamento di e-CLT, e-PANEL ed e-EXOS
- **Aspetti impiantistici:** dimensionamento di massima di e-THERM, layout di impianto
- **Aspetti architettonici:** scelta delle finiture e composizione dell'immagine architettonica
- **Aspetti energetici ed economici:** simulazione dell'intervento di riqualificazione con e-DSS, stima dei risparmi energetici e dei costi

Il lavoro di gruppo beneficerà del confronto continuo con i tecnici e-SAFE, che potranno fornire supporto e suggerimenti circa il corretto utilizzo e dimensionamento delle tecnologie

Pausa pranzo, offerto dal progetto e-SAFE

14:00 - 16:00

Lavoro di gruppo: prosecuzione delle attività

16:00 - 17:00

Presentazione degli elaborati e delle idee progettuali: tramite una presentazione PowerPoint (10 minuti per gruppo). La presentazione sarà seguita da una breve sessione di domande e osservazioni da parte degli esperti e-SAFE

17:00 - 18:00

Questionario di valutazione della formazione: al termine della seconda giornata verrà distribuito ai partecipanti un questionario per verificare l'apprezzamento delle soluzioni e-SAFE ed il loro grado di applicabilità, il gradimento dell'evento formativo e l'interesse dei partecipanti ad essere coinvolti in future attività. I risultati del sondaggio relativi alle tecnologie e-SAFE saranno subito divulgati per avviare uno scambio di vedute sull'esperienza e sul possibile futuro delle tecnologie e-SAFE

COME ISCRIVERSI

Chi fosse interessato, è pregato di compilare il Google Form accessibile tramite il **QR code** o tramite il link <https://forms.gle/NnBKWRZ6XJ9WLmqK9>.



Patrocinio di

ANCE CATANIA



Project funded by EU's Horizon 2020
program - Grant Agreement n° 893135



A1.2 Training event in Bologna



architettibologna



e-TRAINING – Seminario formativo sul sistema integrato e-SAFE per la riqualificazione energetica e sismica degli edifici

Presentazione generale delle tecnologie, degli scopi e degli strumenti progettuali nell'ambito di e-SAFE

OBIETTIVI

L'evento formativo proposto si rivolge a Ingegneri, Architetti e imprese di costruzione, con l'obiettivo di fornire le conoscenze tecniche per affrontare la riqualificazione sismico-energetica degli edifici con struttura in calcestruzzo armato tramite le tecnologie sviluppate nell'ambito del progetto europeo H2020 "e-SAFE – Energy and Seismic Affordable rEnovation solutions" (<https://esafe-buildings.eu/en/>).

PROGRAMMA

Lunedì 10 febbraio 2025, 14:00-18:00

Aula Magna, [Facoltà di Ingegneria dell'Università di Bologna, Viale del Risorgimento, 4, 40136 Bologna BO](#)

14:00 Saluti Istituzionali

14:10 Annarita Ferrante, Giovanni Semprini, (Università di Bologna)

Introduzione al tema della riqualificazione sismica ed energetica

Veronica Guardo (Università di Catania)

e-CLT and e-PANEL: aspetti tecnologici e progettuali

Luca Guardigli (Università di Bologna)

e-EXOS: aspetti tecnologici e progettuali

Claudio Mazzotti (Università di Bologna)

Le verifiche strutturali dei pannelli e-CLT ed e-EXOS

Giovanni Semprini (Università di Bologna)

e-THERM: aspetti tecnologici e progettuali

Grazia Maria Nicolosi (Università di Catania)

La riqualificazione architettonica in e-SAFE

15:45 Pausa caffè

16:00 Annarita Ferrante, Anna Chiara Benedetti (Università di Bologna)

Decarbonizzazione del parco edilizio: potenzialità a scala urbana

Grazia Maria Nicolosi (Università di Catania)

La co-progettazione nell'ambito di e-SAFE

Caterina Sarno (Engineering Ingegneria Informatica srl)

e-DSS: uno strumento di supporto decisionale per il progetto e-SAFE

Bart Voortman (WEBO)

La produzione dei pannelli prefabbricati a base legno

Anthi Chatzikyriakou (Deloitte)

Strumenti finanziari nell'ambito di e-SAFE

17:30 Dibattito e Conclusioni

L'evento è aperto a ingegneri e architetti fino ad un massimo di 150 partecipanti.



e-SAFE has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No. 893135



A1.3 Training event in Athens



10 - 11 Απριλίου 2025

Η ΣΑΛΦΩ και Συνεργάτες ΑΕ οργανώνει διήμερο σεμινάριο γνωριμίας-εκπαίδευσης στις τεχνολογικές λύσεις e-SAFE. Σχεδιάστηκαν στα πλαίσια του προγράμματος e-SAFE (HORIZON- EU) στο οποίο η εταιρεία συμμετέχει με άλλους 11 εταίρους από 8 χώρες.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 893135.



**Συνδυασμένη αντισεισμική
και ενεργειακή αναβάθμιση
κτιρίων στην Ευρωπαϊκή
Ένωση**

Η εμπειρία από το πρόγραμμα e- SAFE

ΑΤΖΕΝΤΑ ΗΜΕΡΑ 1η

Κεντρική Αίθουσα ΤΕΕ, Νίκης 4 - 1ος Όροφος

15:00	Προσέλευση - Εισαγωγή στη συνδυασμένη ενεργειακή και σεισμική αναβάθμιση, SALFO
15:20	e-CLT & e-PANEL Σχεδιασμός Τεχνικά Χαρακτηριστικά, UNICT
15:40	e-EXOS Σχεδιασμός Τεχνικά Χαρακτηριστικά, UNIBO
16:00	Θέματα κατασκευαστικής ανάλυσης. UNIBO-SALFO
16:20	e-THERM Σχεδιασμός, απόδοση και τεχνικά χαρακτηριστικά, UNIBO
16:40	Αρχιτεκτονικά θέματα στο e-SAFE, UNICT
17:00	ICT-tools- Decision Support System, ENG
17:20	Παραγωγή panel CLT, WEBO
17:40	Χρηματοοικονομικά εργαλεία, DELOITTE
18:00	Ερωτήσεις - Συζήτηση

Για την παρακολούθηση της πρώτης ημέρας παρακαλώ δηλώστε την πρόθεσή σας να συμμετέχετε με e-mail στη διεύθυνση: fmichalopoulou@salfo.gr

Partners





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 893135.



**Συνδυασμένη αντισεισμική
και ενεργειακή αναβάθμιση
κτιρίων στην Ευρωπαϊκή
Ένωση**
Η εμπειρία από το πρόγραμμα e- SAFE

ATZENTA ΗΜΕΡΑ 2η

ROYAL OLYMPIC HOTEL ΑΘ. Διάκου 28-34, ΑΘΗΝΑ (στήλες Ολυμπίου Διός)
10:00 - 18:00

- 1 Παρουσίαση των θεμάτων μελέτης (test cases)
- 2 Σχηματισμός ομάδων εργασίας
- 3 Προκαταρκτικός σχεδιασμός με χρήση τεχνολογίας e-Safe
- 4 Χρήση e-DSS για εκτίμηση κόστους και ενεργειακής απόδοσης
- 5 Παρουσίαση αποτελεσμάτων
- 6 Συμπλήρωση ερωτηματολογίων

Για την συμμετοχή στις ομάδες εργασίας της δεύτερης ημέρας, λόγω του περιορισμένου αριθμού θέσεων **(20)** παρακαλώ δηλώστε την πρόθεσή σας με e-mail στη διεύθυνση: **aprotopsaltis@salfog.gr** και θα ενημερωθείτε έγκαιρα.

Σημειώνεται επίσης ότι οι συμμετέχοντες στις ομάδες εργασίας **θα πρέπει να έχουν μαζί τους φορητό υπολογιστή με λογισμικό σχεδίασης (αρχεία dwg).**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 893135.

A1.4 Training event in Timisoara



INVITATION FOR „e-Safe” TRAINING (Energy and Seismic Affordable Renovation Solutions)

Dear Prof. dr. ing. Gianpiero Evola,

We are very pleased to invite you to participate in the "e-Safe" training session, dedicated to affordable solutions for energy and seismic renovation of buildings, an event organized within the European e-SAFE project.

The event will take place in Timișoara, between June 17–18, 2025, in the Constantin Avram amphitheater, 1st floor, inside the Faculty of Civil Engineering (2 Traian Lalescu Street).

The training is addressed to professionals in the field of construction, architecture, engineering, public administration and other stakeholders involved in the rehabilitation process of the built fund, and aims to provide knowledge and practical tools related to the innovative technologies developed within the e-SAFE project.

The agenda of the event will include thematic presentations, case studies, interactive sessions and exchanges of best practices with national and international experts.

Please confirm your participation by filling out the registration form:

<https://forms.gle/d9vRN3SAESkrU6Vw6>

We gratefully thank Assoc. Prof. dr. ing. Adriana Tokar, Assoc. Prof. dr. eng. Codruț Sorin-Florin and Assoc. Prof. dr. arch. Cătălina-Maria Bocan for their involvement and dedication in organizing this event, their contribution being essential for its realization.

Organizing team e-SAFE



This project received funding from the European Union Research and Innovation Programme 2020 in accordance with agreement no. 893135.



e-TRAINING module in Timisoara

17th June 2025

Seminar (3.5 hours, 15:00-18:30)

- | | |
|---|--------|
| • Introduction to seismic and energy renovation (G. Margani, UNICT) | 20 min |
| • e-CLT and e-PANEL: features and design principles (G. Margani, UNICT) | 20 min |
| • e-EXOS: features and design principles (L. Guardigli, UNIBO) | 20 min |
| • Structural issues (A. Protopsaltis, SALFO) | 20 min |
| • e-THERM: main features and design principles (G. Evola, UNICT) | 20 min |
| • Architectural issues in e-SAFE (G. Nicolosi, UNICT) | 10 min |
| Short break | |
| • ICT tools: the decision support tool (C. Sarno, Engineering on-line) | 20 min |
| • Production of the panels (B. Voortman, WEBO) | 15 min |
| • Questions and discussion | 30 min |



e-SAFE has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 893135.

e-TRAINING module in Timisoara

18th June 2025

Workshop (4.5 hours, 9:00-13:30)

- Presentation of the workshop
- Creation of the groups and selection of the case studies
- Preliminary design of a renovation with e-SAFE technologies
- Use of the e-DSS for energy and cost assessment
- Presentation of the results
- Questionnaires (e-TRAINING format, e-SAFE appreciation)



e-SAFE has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 893135.

A1.5 Training event in Delft



e-SAFE

Seminar and Workshop
Tuesday July 8th 2025

Seismic-energy renovation of non-historic buildings: the Horizon 2020 "e-SAFE" project

ARCH-Hall C, 08.01.Oost.370
TU Delft Faculty of Architecture & the Built Environment
Julianalaan 134, 2628 BZ Delft, Netherlands

free admission – limited to 25 participants

ABOUT THE EVENT

This training event is designed for PhD students and researchers, offering valuable technical insights and practical tools to address the seismic and energy retrofit of reinforced concrete buildings using e-SAFE technologies.

PROGRAMME

09:00 - 12:30 Seminar on e-SAFE solutions

- Introduction to seismic and energy renovation
- e-CLT and e-PANEL: technology and design criteria
- e-CLT: structural aspects
- e-EXOS: technology and structural aspects
- e-THERM: features, effectiveness and design principles
- Architectural improvement with e-SAFE
- Production of the timber-based e-SAFE panels

[All presentations will be given by experts from the University of Catania (Italy), University of Bologna (Italy), Timmerfabriek WEBB BV (Netherlands)]

Questions and discussion

Lunch break, offered by the e-SAFE project

13:30 - 18:00 e-TRAINING assisted by e-SAFE experts

- Presentation of the workshop
- Creation of the groups and selection of the case studies
- Use of the e-DSS for energy and cost assessment
- Preliminary design of a renovation with e-SAFE technologies
- Presentation of the results
- Questionnaires

HOW TO PARTECIPATE

If you are interested, please fill in the Google Form accessible via the link <https://forms.gle/NnBKWRZ6XJ9WlmgK9>.

Project funded by EU's Horizon 2020 program - Grant Agreement n° 893135



APPENDIX 2: Workshop information sheets

As an example, the information sheets distributed during the workshop held in Catania are included here, since the materials used in subsequent events were largely similar.

[illegible]

TABELLA DEGLI INPUT

Richieste degli abitanti	<p>Richiesta di mantenere le vetrate sui presinti</p> <p>Attualizzare il linguaggio architettonico</p> <p>Richiesta di mantenere il sistema di ombreggiamento ove presente</p>	<p>Poliedrica in contesto urbano</p> <p>Area a destinazione prevalentemente residenziale</p>
--------------------------	--	--

Finiture	Caratteri architettonici
Insonaco calce-cemento	Piano terra sopraelevato
Insonato di finitura chiaro	Aperture puntuali
	Copertura piana
	Presenza di balconi e logge

Elementi di rilievo	Impianti
Presenza di balconi su prospetto Nord e Sud	Impianto fotovoltaico; climatizzatori autonomi
Presenza di cornice semicircale	Impianto climatizzatore estivo; climatizzatori autonomi
Corpo scala sporgente su prospetto Nord	Impianto Aqua Calda Solarium con boiler elettrico
Balcone continuo sul prospetto Nord	Set point invernale di calcolo: 20 °C Set point estivo di calcolo: 26 °C

Orientamento	Posizione
Est-Ovest	Nesima (CT), Via Santo Cantonio 20 37°50'38" N 15°02'25" E Zona climatica: B

Struttura	Tecnologia costruttiva	Altro
Struttura inelastica in cemento armato	Solai pieni in calcestruzzo	Condizione al contorno del solaio di base: terreno
Presenza di maglie di rinforzo trasversali e con aperture di grandi dimensioni sui lati longitudinali	Temperatura a cassetta Infissi a singolo vetro	
Mecanismo di collasso locale		
Buona snervitura di travi e pilastri		
Mancanza di elementi molto rigidi (pilastri rotti, elementi di travi emergenti corte)		

FOTO DELL'EDIFICIO



Prospecti Nord ed Ovest

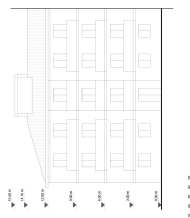


Prospetto Nord

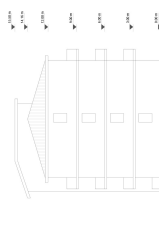


Prospetto Nord

DISEGNI TECNICI



Prospecto Sud



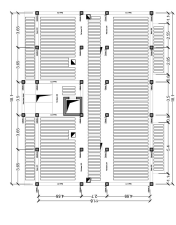
prospetto Ovest



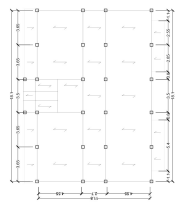
Prospetto Nord



Pianta piano tipo



Carpenteria piano tipo



Orditura solai

IMPIANTI

impianto di riscaldamento: climatizzatori autonomi a pompa di calore, con tubi poco isolati e controllo per singolo ambiente
 impianto di climatizzazione estivo: climatizzatori autonomi a pompa di calore, con tubi poco isolati e controllo per singolo ambiente
 impianto acqua calda sanitaria: autonomo con boiler elettrici, con accumulo e tubi scarsamente isolati
 impianti solari: assenti

STRATIGRAFIE INVOLUCRO

stratigrafia tamponature	spessore
Intonaco esterno	1,5 cm
Blocco forato in laterizio	12 cm
Gap aria	10 cm
Blocco forato in laterizio	8 cm
Intonaco interno	1,5 cm

Trasmittanza $U = 1,10 \text{ W/(m}^2\text{K)}$

stratigrafia solaio di base	spessore
Pavimentazione interna	2 cm
Massetto cementizio	5 cm
Solaio monolitico in cls	22 cm

Trasmittanza $U = 1,89 \text{ W/(m}^2\text{K)}$


Stratigrafia copertura	
materiale pavimentazione	spessore 2 cm
malta cementizia	2 cm
isolante mattone acustico monolitico in cls	22 cm
intonaco interno	2 cm

Trasmittanza U = 2,00 W/(m²K)

Tipologia vetro	Vetro chiaro singolo, spessore 4 mm
Tipologia telaio	Telaio in alluminio senza taglio termico
Trasmittanza	U = 6,00 W/(m ² K)

ISSI

DISEGNI TECNICI (1:200)




e-SAFE

15-17 gennaio 2025

e-TRAINING

Città Universitaria, Aula IT edificio 4 / DSA edificio da



Progetto: "e-SAFE" (H2020-893135)

4. Istituto

Omnicomprendivo

Statale "Angelo Musco" (CT)






TABELLA DEGLI INPUT

Richieste degli abitanti	Contesto	Finiture	Caratteristiche architettoniche	Elementi di rilievo	Impianti	Orientamento	Posizione	Struttura	Tecnologia costruttiva	Altro
Attualizzare l'ingaggio architettonico	Edificio scolastico isolato prevalentemente residenziale	Intruso calce-cemento	Piano terra sopraelevato	Range di ingresso in cortina di vetro (reggi accessi)	Impianto riscaldamento (caldaie a gasolio con termofoni)	Blocco aula: Nord Sud	Catania, V.le da Verzuolo	Struttura intelaiata in cemento armato	Tamponeatura a cassetta	Condizione di contorno ad est, con edifici non regolati
Migliorare le condizioni di omologamento		Intruso di finitura	Copertura plana	Murales realizzati dagli studenti in facciata	Impianto climatizzazione esterne assente	Blocco amministrazione: Est-Ovest	37°59'06"N, 15°02'56"E	Tre corpi strutturali con facciata in aderenza	Solito laccocementizio	
			Scuola ad impianto a corridoio dalla forma a L	Corridore a coronamento dell'edificio	Impianto Acqua Calda Sanitaria assente			Grandi aperture su tutta le campate delle facciate longitudinali	Infilza in alluminio, non a taglio termico a singola vertice-canna	
			Elevato numero di infissi		Servizi igienici, di calcolo			Mecanismo di calcolo di piano		
			Articolazione alimetica e spaziale dei volumi		Servizi igienici, di calcolo					






FOTO DELL'EDIFICIO

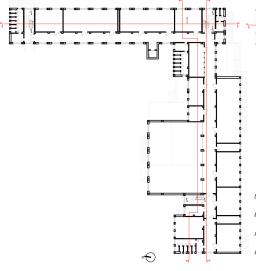


Porzione di prospetto Nord ed Ovest

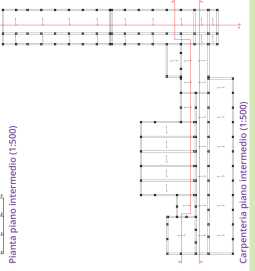


Porzione di prospetto Ovest

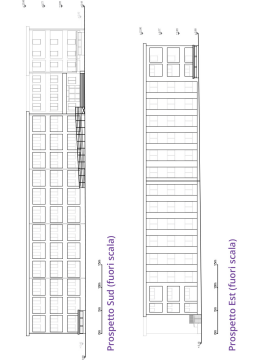
DISEGNI TECNICI




Pianta piano intermedio (1:500)



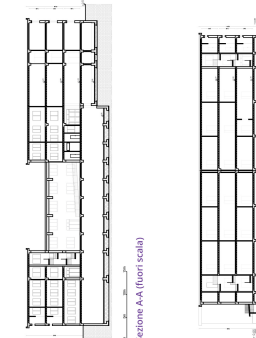
Carpenteria piano intermedio (1:500)



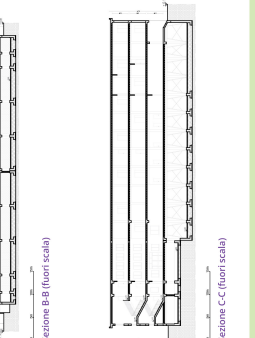
Prospetto Sud (fuori scala)



Prospetto Est (fuori scala)



Prospetto Nord (fuori scala)



Prospetto Ovest (fuori scala)

IMPIANTI

Caratteristiche impianto esistente

Impianto di riscaldamento: centralizzato con caldaie a gasolio, termofoni e condotti in galleria sottotetto, tutti non isolati

Impianto di climatizzazione estiva assente

Impianto acqua calda sanitaria assente

Impianti sanitari: presenti

STRATIGRAFIE INVOLUCRO

Stratigrafia tamponature

materiale	spessore
Intruso esterno	1,5 cm
Blocco forato in laterizio	12 cm
Gap aria	9 cm
Blocco forato in laterizio	9 cm
Gap aria	8 cm
Intruso interno	1,5 cm
Trasmittanza U = 1,40 W/m²K	

Stratigrafia solaio di base

materiale	spessore
Pavimentazione interna	1 cm
Matta cementizia	4 cm
Massetto cementizio	4 cm
Solaio in laterocemento	20 cm
Trasmittanza U = 1,30 W/m²K	

Stratigrafia copertura

materiale	spessore
Pavimentazione	2 cm
Matta cementizia	2 cm
Massetto perpendine	14 cm
Solaio in laterocemento	20 cm
Intruso interno	2 cm
Trasmittanza U = 1,20 W/m²K	

INFISSI

Tipologia vetro	Trasmittanza
Doppio vetro con gap d'aria, Vetri da 4 mm e gap d'aria da 6 mm	U = 3,75 W/m²K
Telaio in alluminio senza taglio termico	U = 3,75 W/m²K

16-17 gennaio 2025
G-TRAINING
Città Universitaria, Aula IT polifunzionale, 2024 corso IV

Scheda informativa

5. Istituto

scolasticosportivo

"Banatul Sports Highschool"

Timisoara (ROM)

TABELLA DEGLI INPUT

Richieste degli abitanti	Contesto	Finiture	Caratteri architettonici	Elementi di rilievo	Impianti	Orientamento	Posizione	Struttura	Tecnologia costruttiva	Altro
Migliorare le condizioni di ombreggiamento	Edificio scolastico isolato	Intonaco alessamento	Piano terra sopraelevato	Composizione sporgente	Impianto riscaldamento e ACS centralizzato combi	Corpo A: Est-Ovest	Timisoara, Strada 1C, Ripetita 29	Tre corpi strutturali con facciata in laterizio	Trasmissione esterne in laterizio pieno	Condizione di isolamento del salcio di base: ambienti non riscaldati
Attualizzare il linguaggio architettonico	Intonaco di finitura chiaro	Intonaco di finitura chiaro	Copertura a falde	Presenza di impieghi di metallo in prossimità degli accessi	Impianto di climatizzazione estiva: assente	Corpo B: Nord-Sud	45°N 23°E, 21°14'46"E	Grandi aperture su tutte le campate delle facciate longitudinali	Solletta piena in calcestruzzo	
			Elevato numero di infissi	In alcuni casi in cui l'accesso in rilievo	Set punti esterni di calcolo: 20 °C	Corpo C: Est-Ovest	Zona climatica: -	Struttura di travi e pilastri	Infissi in PVC a singola vetrocamera	
			Articolazione in pianta di tre volumi a delle tre campate della		Set punti interni di calcolo: 20 °C			Generalmente buona, ad eccezione dei pilastri centrali del piano terra		
			Assenza di balconi					Mancanza di elementi		
			In alcuni, plastici e travi neri in rilievo					molto rigidi (pilastri tozzi, travi emergenti come)		

FOTO DELL'EDIFICIO

DISEGNI TECNICI

IMPIANTI

Impianto di riscaldamento: centralizzato con collegamento a rete di riscaldamento, termoisolatore e regolazione manuale per piano, tutti poco isolati

Impianto di climatizzazione estiva: assente

Impianto acqua calda sanitaria: combinato con riscaldamento

Impianti sanitari: assenti

STRATIGRAFIE INVOLUCRO

Stratigrafia tamponature

materiale	spessore
Intonaco esterno	1,5 cm
Blocco forato in c.a.	12 cm
Gap aria	9 cm
Blocco in c.a. con intonaco	8 cm
Intonaco interno	1,5 cm
Trasmissione U = 1,10 W/(m²K)	

Stratigrafia solaio di base

materiale	spessore
Pavimento in c.a.	1 cm
Matta cementizia	1 cm
Massetto cementizio	4 cm
Intonaco laterocemento	20 cm
Trasmissione U = 1,30 W/(m²K)	

Stratigrafia copertura

materiale	spessore
Pavimentazione	2 cm
Matta cementizia	2 cm
Massetto perimetrale	14 cm
Intonaco laterocemento	20 cm
Intonaco interno	2 cm
Trasmissione U = 1,20 W/(m²K)	

ISSI IN

Tipologia vetro	Tipologia telaio	Trasmissione
Vetro chiaro singolo, spessore 4 mm	Telaio in alluminio senza sigillo termico	U = 6,00 W/(m²K)

APPENDIX 3: Training evaluation survey

TECHNICAL ASPECTS and MARKET UPTAKE

- Do you believe that **e-SAFE** technologies are technically viable for a large energy and seismic renovation of the local building stock?
- Do you believe that the application of **e-SAFE** technologies (design, installation) is too complicated, and that this may hinder their adoption?
- Do you believe that **e-SAFE** technologies will be too expensive, and that this would be an obstacle to their market penetration?
- In your opinion, are there any obstacles in the adoption of **e-SAFE** technologies? If so, think about how these obstacles can be overcome.
- Do you believe that the local market is ready to favour the adoption of **e-SAFE** technologies?

USE of the **e-DSS**

- Did you find the **e-DSS** user friendly and intuitive?
- Did you find the data input too simplified? If so, think about which data should be introduced more rigorously?
- Do you believe that **e-DSS** can be useful to designers willing to preliminarily evaluate a retrofit based on the **e-SAFE** system?
- Did you find the results exhaustive to highlight the benefits of the **e-SAFE** renovation? If not, think about other results that would be necessary

TRAINING APPROACH

- Overall, how do you rate the training event (excellent, good, fair, poor)? Please justify your answer.
- Do you think that the training should present more in-depth technical aspects? If so, which ones?
- Did you find the event too long, short or of the correct duration?
- Please also add further comments about your training experience.



Timisoara, 18 June, 2025

e-TRAINING

Training Evaluation Questionnaire

1. Overall, how would you evaluate the training event?

- ☐ Excellent
- ☐ Good
- ☐ Satisfactory
- ☐ Poor
- ☐ Very poor

Kindly elaborate on your response:

2. In your opinion, should more advanced technical aspects have been addressed? If so, which ones?

3. Did you find the duration of the event to be too long, too short, or appropriate? Suggestions for improvement are welcome.

4. Please feel free to share any additional comments or observations you consider relevant:

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