

DELIVERABLE REPORT

WP2 Stakeholders' engagement

D2.4 CALL FOR EXPRESSION OF INTEREST FOR VIRTUAL PILOTS

Due date

M19 30.04.2022

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E-SAFE	Energy and Seismic Affoliable renovation solutions
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01.10.2020	market for buildings renovation

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Victoria TARANU (BPIE)

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DISSEMINATION LEVEL

- ☑ P Public
- □ PP Restricted to other programme participants & EC:
- □ RE Restricted to a group

(Specify) (Specify)

- □ CO Confidential, only for members of the consortium
- TYPE
- 🛛 R Report
- □ DEM Demonstrator
- \Box DEC Websites, patents filling, videos, etc.
- □ ETHICS Ethics requirement
- OPRP Open Research Data Pilot
- DATA Data sets, microdata, etc.





REPORT DETAILS

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EXECUTIVE SUMMARY

The current call for expression of interest aims to collect applications for two virtual pilots in the context of the H2020 project **e**-SAFE. The project aims to develop a market-ready solution for integrated seismic and energy renovation of non-historic buildings (i.e. built around 1950-1990) with reinforced concrete (RC) frame. From a technological point of view, the **e**-SAFE system consists of the following components/solutions: **e**-PANEL, **e**-CLT, and **e**-EXOS, as well as **e**-THERM and **e**-TANK. In the context of the project, the system will be tested on a real pilot in Catania (Southern Italy) and two virtual pilots in Europe.

The choice of linking virtual pilots with a call for expression of interest is motivated by the need to match the design opportunities offered by **e**-SAFE with highly motivated early adopters, enhancing their capabilities and interests to act on deep renovation.

The building owners of the virtual pilots will benefit from receiving a 3D survey of the building, 3D physical and digital models, a survey of the energy consumptions and the potential energy savings and a detailed design of the energy-efficient and anti-seismic renovation solution, which will be defined through a co-design process that will actively involve owners and occupants.

The demonstration activity at the virtual pilots will end with the production of a detailed **e**-SAFEbased design, including the suggestion of possible **viable financial schemes**, according to the needs of the requesting entity. The demonstration activity does not include the actual implementation of the renovation works.

Owners or managers of multi-storey, non-historic buildings located in earthquake-prone areas in Europe are eligible. However, priority will be given to EU countries other than Italy, where the real pilot is being renovated. The public or private entities which administer social/public housing or public buildings (e.g. schools) are highly encouraged to apply, as well as private actors such as building owners and real estate brokers. The detailed eligibility conditions and application method are detailed in the call.

The current call is available in six languages: English, Turkish, Romanian, Greek, Italian and Bulgarian, these being the target countries of the call due to their relevant seismicity and different climatic conditions. The complete calls are available on the <u>e-SAFE website</u>. Additionally, other promotional material (flyers) was elaborated, with statistics adjusted to the target country (see Appendix 1).







GLOSSARY OF TERMS

ACRONYM	DESCRIPTION
3D	Three Dimensions
CLT	Cross Laminated Timber
DSS	Decision Support System
EC	European Commission
RC	Reinforced Concrete
WP	Work Package
WPL	Work Package Leader







1. Call for expression of interest for virtual pilots

1.1 e-SAFE Project

e-SAFE Project aims at combining energy-efficient and anti-seismic renovation solutions for nonhistoric buildings in earthquake-prone regions of Europe. The main scope of **e**-SAFE is to develop a market-ready, multi-purpose deep renovation system for buildings, encompassing technological, functional, aesthetic, financial, and economic aspects, while being easily adaptable to specific climatic conditions, seismicity levels, and other boundary conditions.

e-SAFE integrates energy and seismic upgrades through innovative and integrated technological solutions, namely **e**-PANEL, **e**-CLT, **e**-EXOS, **e**-THERM, and **e**-TANK (for more details, see http://esafe-buildings.eu/en/technologies-and-solutions/). Hence, **e**-SAFE will contribute to the decarbonisation of the EU building stock, reducing the occurrence of natural hazards related to climate changes, and, at the same time, it will contribute to the improvement of the social resilience against earthquakes. The **e**-SAFE system consists mostly of prefabricated elements, applied from the outside of the buildings employing cranes, thus offering a cost-effective, low-disruptive renovation experience for the residents.

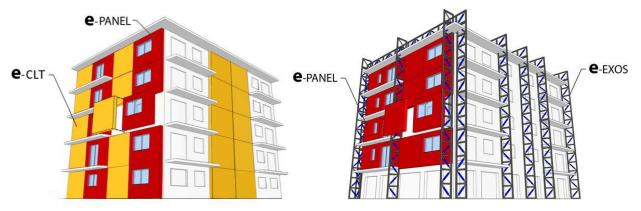


Figure 1. Technological solutions of the e-SAFE system – BUILDING ENVELOPE

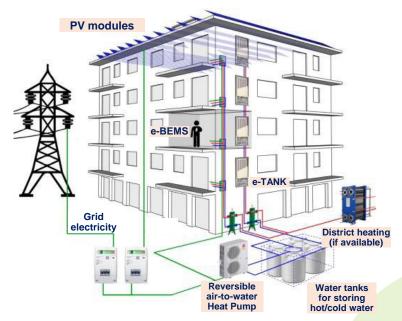


Figure 2. Technological solutions of the e-SAFE system – TECHNICAL SYSTEMS





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



1.2 Advantages of participating as a virtual pilot

The virtual pilots will be used as case studies for the virtual implementation of the **e**-SAFE system, including its technical, co-design, engagement, and financial protocols.

The building owners of the virtual pilots will benefit from receiving:

- 3D survey of the building;
- 3D physical and digital models of the building;
- energy audit, energy analysis, and structural simulations of the building;
- detailed design of the architectural, energy-efficient and anti-seismic renovation solutions obtained through a co-design process that will actively involve dwellers;
- suggestion of attractive and viable financial schemes according to the needs of the requesting entity and the specific socio-economic context;
- strengthening of relationships with residents through co-design;
- strengthening of relationships with local stakeholders of the building sector through the establishment of a <u>local platform;</u>
- increased visibility at the local and European levels.

The demonstration activity in the virtual pilots thus ends with the production of the detailed **e**-SAFE-based design associated with viable financial schemes, without actual implementation of the renovation works in the pilot.

Property owners will be able to use the detailed design offered by **e**-SAFE for future actual renovation to be implemented with their funding.

The following **benefits** are expected from the implementation of the **e**-SAFE renovation system:

- primary energy savings and reduction of the CO₂ emissions of at least 70-80% compared to the current energy performance;
- **significant reduction of the energy bills** for space heating, cooling and domestic hot water;
- **decrease of the renovation cost by at least 20%** in comparison with traditional renovation solutions;
- reduction of time needed on-site for renovation works by at least 45% in comparison with traditional renovation solutions;
- **increase of the seismic resistance** up to levels comparable to those required by current standards.

1.3 Services provided by e-SAFE in a virtual pilot

As a first step, **e**-SAFE experts will perform preliminary data collection and co-analysis. They will collect spatial data on the building geometry, through laser scan technologies, if necessary assisted by drones, with the goal to develop physical and digital 3D models of the building.

The second phase will consist of co-design activities with residents. The co-design activities will be assisted by a Decision Support System software tool (called **e**-DSS), developed by the **e**-SAFE experts, which will allow the residents to be aware of the benefits ensured by renovating their building with the **e**-SAFE solution, in terms of energy savings, reduction in the energy bill and decarbonisation potential, as well as the time and costs needed for the renovation works.

Then, based on the outcomes of the co-design activities, **e**-SAFE experts will work on:

• preliminary simulations of the energy performance of the renovated building;





- preliminary simulations of the seismic resistance of the renovated building;
- detailed co-design of the e-SAFE building envelope components needed for renovation;
- detailed co-design of the **e**-SAFE technical systems, with the sizing of all the necessary components and a suggested piping distribution scheme;
- 3D renders of the building after renovation;
- identification of the most attractive and viable financial schemes;
- identification of possible shortcomings and the corresponding necessary adjustments.





2. THE PROCEDURE OF THE CALL

2.1 The procedure and important dates

The present call is a two-round process: the first round is a request for a letter of interest. Applications will then be examined to select a reduced number of potential buildings. The owners of the selected buildings will then be asked for more information, allowing a more thorough final selection of the two virtual pilots on September 25th, 2022.

Stages of the call

- Phase 1: Submission of a letter of interest;
- Phase 2: Presentation of more detailed documentation.

Timeline

15th July 2022 deadline of Phase 1, submission of expression of interest, by filling in the form.

1st August 2022 announcement of the shortlisted candidates.

10th September 2022 deadline of Phase 2, submission of documentation.

25th September 2022 final selection of two virtual pilots.

2.2 Eligibility criteria

Location

The buildings must be located in European countries with **medium-to-high seismic hazards**, such as Bulgaria, Croatia, Cyprus, Greece, Portugal, Romania, Slovenia, and Spain, as well as countries that do not belong to the EU-28 group, such as Turkey, Ukraine, Albania, Kosovo, Serbia, Montenegro, Macedonia, Bosnia, Iceland.

Applications from Italy are possible, but they will be considered in case the applications from other countries are not eligible since a pilot building is already being renovated in Southern Italy.

Typology and technical requirements of the building

Private and public buildings are eligible, with any type of use. However, public, and private entities administrating multifamily **social/public housing**, or public buildings, such as **schools**, are strongly encouraged to apply and will be given priority.

We require **non-historic buildings** (i.e. built around 1950-1990) that are **not listed** under heritage protection and **with a reinforced concrete structural frame**. The building must be highly representative of the building features in the same district/city/country in order to increase the potential replication of the **e**-SAFE renovation system.

Detached buildings are better suitable since the prefabricated panels proposed by **e**-SAFE (i.e. **e**-PANEL and **e**-CLT, Figure 1) can be externally added to each front. These panels are applied by means of cranes, hence sufficient space for crane operation around the building is needed.

Specific technical requirements will be checked by **e**-SAFE experts to verify the applicability of the two **e**-SAFE anti-seismic solutions, as specified below.







Seismic strengthening by e-EXOS

Detached buildings are mandatory, with at least 3 m of free space around the whole building envelope, which is necessary for the installation of the external vertical trusses (metal exoskeleton, Figure 1).

Seismic strengthening by e-CLT

The target buildings must have regular openings on façades, vertically aligned, which allows to uniformly apply the structural **e**-CLT panels to each building storey.

Garages located at the ground floor of the building or commercial premises with many and large shop windows preclude the **e**-CLT application unless the surface of the openings will be reduced during the renovation works. Moreover, also a large use of bow-windows limits the application of the **e**-CLT panels, which in this case cannot be connected directly to the beams of the RC structure, reducing considerably the effectiveness of this solution.

Another limitation to the effective use of the **e**-CLT regards the number of floors. The solution is less efficient for high-rise buildings and specific simulations are ongoing to adequately investigate in this regard. Hence, **buildings with more than 6 floors are not eligible**.

Other selection criteria

Preference will be given to buildings that:

- are located in climates other than the Mediterranean (e.g. continental climate);
- provide the opportunity for testing e-EXOS or e-EXOS and e-CLT for structural strengthening;
- offer the possibility for designing the e-SAFE system in relation to different building typologies and functions;
- are connected to district heating networks.

Logistics requirements

Applicants will be requested to support **e**-SAFE experts in contacting local residents and interacting with them (with translation from and to English) and providing a working space/room on-site.

2.3 How to apply

To apply as a virtual pilot within the **e**-SAFE Project, please fill in the following form.

For further inquiries, visit the <u>e-SAFE page</u> and do not hesitate to contact Giuseppe MARGANI (<u>margani@unict.it</u>) from UNICT or Victoria TARANU (<u>victoria.taranu@bpie.eu</u>) from BPIE.





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.







APPENDIX 1 - FLYERS

BECOME AN e-SAFE PILOT SITE!

Upgrade your building to be energy efficient and seismic safe! It is estimated that 500,000 detectable earthquakes occur in the world each year.

WHAT YOU GAIN

- Building owners will receive, free of charge
- 3D survey of the building 3D physical and digital models
- An energy audit and energy analysis of the building
 A detailed e-SAFE-based renovation project through a co-design
- process with the residents Visibility at the local and European level

Although being selected as a pilot does not entail the actual implementation of the e-SAFE renovation technologies, the building owners will be able to use the detailed design project for future renovation works. Building owners will benefit from a tailor-made renovation design made by e-SAFE technical experts in addition to suggestions about available funding instruments and subsidies for building requestion. building renovation.

WHO'S ELIGIBLE?

Multi-storey non-historic buildings that are located in earthquake-prone areas in Europe (e.g. Romania, Bulgaria, Turkey, Macedonia, Greece, Cyprus, Croatia, etc.) and in need of renovation. The application can be submitted by:

- Building owners or building managers
 Public or private entities that administer social housing or public buildings (e.g. schools)
- Real estate brokers

Find more about the building's technical requirements here

WHAT WE NEED FROM YOU

- Building owners should provide:
- Access to the building to do a detailed survey
- Support in interacting with the residents in the local language (3 weekends)
 Availability to participate in the <u>co-design</u> activities
- A working space/room on-site
- The European H2020 project e-SAFE is developing a market-ready solution for integrated seismic and energy renovation of non-historic buildings with reinforced concrete structure. The e-SAFE renovation package includes innovative components and efficient solutions for renovating both the building envelope and the thermal systems. The system is already being tested on a pilot site in Catania, Sicily, and we are now looking for two more pilot sites in seismic regions of Europe. **C**-SAFE -ÌШ Interested? Apply by July 15th, 2022 If you wish to submit your application and become a pilot within the e-SAFE Project, please fill in this form APPLY HERE! The full technical details and requirements can be found here TIMELINE 15th July 2022 1st August 2022

ABOUT THE e-SAFE TECHNOLOGIES

AND THE PILOT BUILDING

10th September 2022 Announcement of the Deadline of Phase 2 > shortlisted candidates Submission of documentation

25th September 2022 Final selection > of two pilots

Learn more about the project by visiting the website https://esafe-buildings.eu/en/ and watching this short video

Figure 3. Promotional material for the call, flyer in English

>

Deadline of Phase 1

Submission of

expression of interest





BİR e-SAFE PİLOT SAHASI OLUN!

Binanızı enerji açısından verimli ve sismik açıdan güvenli olacak şekilde iyileştirin! Türkiye'de son 30 yılda 10 büyük deprem kaydedildi ve bu depremler 20.173 kişinin canına mal oldu.

KAZANCINIZ

- Bina sahipleri **ücretsiz olarak** sunlara sahip olacaktır
- Binanın 3 boyutlu etüdü
- 3 boyutlu fiziksel ve dijital modeller
- Binanın enerji denetimi ve enerji analizi Bina sakinleri ile ortak tasarım süreci üzerinden ayrıntılı bir e-SAFE
- tabanlı renovasyon projesi Yerel ve Avrupa düzeyinde görüş netliği

Pilot uvgulama icin secilmek, e-SAFE renovasvon teknolojilerinin fiilen uygulanmasını gerektirmes eta, bina sahipleri detaylı tasarım projesini gelecekteki yenileme çalışmaları için kullanabilecektir. Bina sahipleri, bina renovasyonuna yönelik mevcut finansman araçları ve sübvansiyonlar ile ilgili önerilere ek olarak, e-SAFE teknik uzmanları tarafından kendilerine özel olarak hazırlanmış bir renovasyon tasarımından yararlanacaktır.

KİMLER UYGUN?

Avrupa'da (örn, Romanya, Bulgaristan. Türkiye. Makedonya. Yunanistan, Kıbrıs, Hırvatistan vb.) depreme yatkın bölgelerde bulun ve tadilat ihtiyacı olan, tarihi olmayan, çok katlı, betonarme yapıya sahip binalar. Başvurular aşağıdaki kişi veya kuruluşlar tarafından yapılabilir

- Bina sahipleri veva bina vöneticileri
- Sosyal konutları veya kamu binalarını (örn. okullar) yöneten kamu kuruluşları veya özel kuruluşlar
- Gayrimenkul komisyonculari
- Binanın teknik gereksinimleri hakkında daha fazla bilgi için **tıklayın**

SIZDEN ISTEDIKLERIMIZ

Bina sahipleri aşağıdakileri sağlamalıdır

- Ayrıntılı bir araştırma yapmak için, binaya erişim Bina sakinleri ile yerel dilde karşılıklı iletişim desteği (3 hafta sonu)
- Ortak tasarım faaliyetlerine katılma imkanı
- Sahada bir çalışma alanı/oda

e-SAFE TEKNOLOJİLERİ VE PİLOT YAPILAR HAKKINDA

Avrupa H2020 projesi e-SAFE, betonarme vapılı tarih olmayan binaların entegre sismik ve enerji renovasyo nu için pazar kullanımına hazır bir çözüm geliştiriyor e-SAFE renovasyon paketi hem bina kabuğunu, hem de termal sistemleri onaracak yenilikçi bileşenler ve veriml cözümler icerivor

Sistem halihazırda Sicilya, Katanya'daki bir pilot sahada test ediliyor ve şu anda Avrupa'nın sismik bölgelerinde iki pilot saha daha arıyoruz.

ilgileniyor musunuz?

Son başvuru tarihi: 15 Temmuz 2022

Başvuruda bulunmak ve e-SAFE Projesi Isamında pilot uygulama olmak istiyorsanız lütfen bu formu doldurun.

🕀 BURADAN BAŞVURUN!

Tüm teknik ayrıntılar ve gereksinimler için tıklayın

10 Eylül 2022

ZAMAN ÇİZELGESİ 15 Temmuz 2022 1 Ağustos 2022

Faz 1 icin süre bitimi Niyet beyanının gönderilmesi

Finale kalan adavlar listesinin ilan

Faz 2 icin süre bitimi Belgelerin gönderilmesi

C-SAFE

İki pilot uygulamanın nihai seçimi

25 Eylül 2022

https://esafe-buildings.eu/en/ web sitesini ziyaret ederek ve bu kısa videoyu izleyerek, proje hakkında daha fazla bilgi edinin

Figure 4. Promotional material for the call, flyer in Turkish

ПРЕДЛОЖЕТЕ ПИЛОТНА СГРАДА ЗА ПРОЕКТ е-SAFE!

Общо 51 земетресения в периода между 2010 и 2016 г. са причинили щети в размер на 60 милиона лева.

КАКВО ПЕЧЕЛИТЕ

- ЗД физически и цифрови модели на сградата
- Видимост на местно и европейско равнище

Въпреки че изборът на сграда за пилотен обект не включва реалното използване на технологиите e-SAFE за обновяване, реалното използване на технологиите е-зкле за обновнане, собствениците на сградата це могат да използват подробния проект за бъдещи дейности. Те це разполагат с индивидуален проект, разработен от техническите експерти на е-SAFE, в допълнение към предложенията за налични инструменти за финансиране и субсидии за обновяването на сгради.

кои сгради са допустими?

Многоетажни неисторически сгради със стоманобетонна конструкция, които се намират в земетръсни зони в Европа (напр. Румъния, България, Турция, Македония, Гърция, Кипър, Хърватия и др.) и се нуждаят от саниране. Заявлението за кандидатстване може да бъде подадено от

- Собственици или управители на сгради
- Публични или частни субекти, които администрират социални жилища или обществени сгради (напр. училища) Брокери на недвижими имоти
- Повече информация за техническите изисквания на сградата
- можете да намерите тук

КАКВО ОЧАКВАМЕ ОТ ВАС

- Собствениците на сгради трябва да осигурят: • Достъп до сградата за извършване на детайлното проучване Съдействие при общуването с обитателите на местния
- език (З уикенда) юст за участие в дейностите по съвместно проектиране
- Работно пространство/помещение на място на обекта

Проектът е-SAFE по програмата "Хоризонт 2020" на EC разработва готово за употреба на пазара решение за интегрирано енергийно обновяване и сеизмично укрепване на неисторически сгради със стоманобетонна конструкция. Пакетът за обновяване е-SAFE включва иновативни компоненти и ефективни решения за обновяване както на външните ограждащи елементи на сградата, така и на топлинните системи.

ИНФОРМАЦИЯ ЗА ТЕХНОЛОГИИТЕ

е-SAFE И ПИЛОТНАТА СГРАДА

Системата вече се тества на пилотен обект в Катания, Сицилия, и в момента търсим още две пилотни сгради в сеизмични региони на Европа.

Заинтересовани ли сте?

- Кандидатствайте до 15 юли 2022 г.
 - Ако желаете да кандидатствате за участие в проект e-SAFE с пилотна сграда, моля, попълнете следния формуляр.

 - 🌐 кандидатствайте тук!

Цялата информация за техническите подробности и изисквания можете да намерите тук

1 август 2022 г.

Обявяване на

СРОКОВЕ НА ОТДЕЛНИТЕ ЕТАПИ

15 юли 2022 г. Краен срок на Фаза 1 даване на документи за изразяване на интерес

10 септември 2022 г. Краен срок на Фаза 2, избраните кандидати подаване на документацията

25 септември 2022 г. Окончателен > избор на две пилотни сгради

0 **C**-SAFE

-

1 11 8

За повече информация относно проекта, моля, посетете https://esafe-buildings.eu/en/ и гледайте това кратко видео

Figure 5. Promotional material for the call, flyer in Bulgarian



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

Обновете вашата сграда, за да бъде енергийно ефективна и сеизмично безопасна!

- Собствениците на сгради получават безплатно:
- ЗD заснемане на сградата
- Енергиен одит и енергиен анализ на сградата
- Подробен, базиран на е-SAFE проект за обновяване, изготвен чрез процес на съвместно проектиране с обитателите на сградата



ΠΑΡΤΕ ΜΕΡΟΣ ΩΣ ΠΙΛΟΤΙΚΗ ΤΟΠΟΘΕΣΙΑ ΣΤΟ ΠΡΟΓΡΑΜΜΑ e-SAFE!

Αναβαθμίστε το κτίριό σας για να γίνει ενεργειακά αποδοτικό και σεισμικά ασφαλές! Κάθε χρόνο, το Τμήμα Γεωλογικής Επισκόπησης Κύπρου καταγράφει περίπου 500 σεισμικές δονήσεις.

ΠΟΙΑ ΟΦΕΛΗ ΘΑ ΑΠΟΚΟΜΙΣΕΤΕ Οι ιδιοκτήτες των κτιρίων θα λάβουν χωρίς χρέωση

- Μια τρισδιάστατη μελέτη του κτιρίου
- Τρισδιάστατα φυσικά και ψηφιακά μοντέλα Ενεργειακό έλεγχο και ενεργειακή ανάλυση του κτιρίου
- Λεπτομερές πρόγραμμα ανακαίνισης, βασισμένο στο e-SAFE μέσω μιας διαδικασίας από κοινού σχεδιασμού με τους ενοίκους
- Προβολή σε τοπικό και ευρωπαϊκό επίπεδο

Αν και η επιλογή ως πιλοτική τοποθεσία δεν συνεπάγεται την εφαρμογή των τεχνολογιών ανακαίνισης e-SAFE στην πράξη, οι ιδιοκτήτες των κτιρίων θα μπορέσουν να χρησιμοποιήσουν το αναλυτικό έργο σχεδιασμού για μελλοντικές εργασίες ανακαίνισης. Οι ιδιοκήτες κτιρίων θα ωφεληθούν από το προσαρμοσμένο στα μέτρα τους σχέδιο ανακαίνισης που θα εκπονηθεί από τους τεχνικούς εμπειρογιώμονες του προγράμματος e-SAFE, από τις προτάσεις σχετικά με τα διαθέσιμα εργαλεία χρηματοδότησης και τις επιδοτήσεις για την ανακαίνιση κτιρίων

ΠΟΙΑ ΚΤΙΡΙΑ ΕΙΝΑΙ ΕΠΙΛΕΞΙΜΑ;

Πολυώροφα μη ιστορικά κτίρια από οπλισμένο σκυρόδεμα που βρίσκονται σε σεισμογενείς περιοχές στην Ευρώπη (π.χ. Ρουμανία, Βουλγαρία, Τουρκία, Δημοκρατία της Βόρειας Μακεδονίας, Ελλάδα, Κύπρο, Κροατία κ.λπ.) και χρήζουν ανακαίνισης. Αίτηση μπορούν να υποβάλουν:

- Ιδιοκτήτες ή διαχειριστές κτιρίων
 Δημόσιοι ή ιδιωτικοί φορείς που διαχειρίζονται εργατικές κατοικίες ή δημόσια κτίρια (π.χ. σχολεία)
- Κτηματομεσίτες

Μάθετε περισσότερα για τις τεχνικές προϋποθέσεις του κτιρίου <u>εδώ</u>

ΤΙ ΧΡΕΙΑΖΟΜΑΣΤΕ ΑΠΟ ΕΣΑΣ

- Οι ιδιοκτήτες κτιρίων πρέπει να παρέχουν: Πρόσβαση στο κτίριο για τη διεξαγωγή λεπτομερούς μελέτης
- Υποστήριξη κατά την επικοινωνία με τους ενοίκους στην τοπική γλώσσα (3 σαββατοκύριακα)
- Διαθεσιμότητα για τη συμμετοχή στις δραστηριότητες
- του από κοινού σχεδιασμού Ένα χώρο/δωμάτιο εργασίας στο σημείο των εργασιών

ΣΧΕΤΙΚΑ ΜΕ ΤΙΣ ΤΕΧΝΟΛΟΓΙΕΣ **e-SAFE ΚΑΙ ΤΟ ΠΙΛΟΤΙΚΟ ΚΤΙΡΙΟ**

Το πρόγραμμα e-SAFE, που διεξάγεται στο πλαίσιο του Το προγράρμα ετο τη που στεργάτη ετα το ποιατό του ευρωταϊκού προγράμματος «Ορίζοντας 2020», προσφέρει μια **έτοιμη για εφαρμογή στην αγορά λύση σεισμική και ενεργειακή ανακαίνιση** μη ιστορικών κτιρίων. Το πακέτο στοκαίνισης «SAFE περιλαμβάνει καινοτόμες συνοταύσες και αποτελεσματικές λύσεις για την ανακαίνιση τόσο του κελύφους των κτιρίων όσο και του ασακαίνηση τόσο του κελύφους των κτιρίων όσο και των θερμικών συστημάτων.

Το σύστημα βρίσκεται ήδη υπό δοκιμή σε μια πιλοτική το σοστημα βρίσκεται το Τούο σοκρήτι σε μια ποστική τοποθεσία στην Κατάνια της Σικελίας και επί του παρόντος αναζητούμε δύο επιπλέον πιλοτικές τοποθεσίες σε σεισμογενείς περιοχές της Ευρώπης.

Σας ενδιαφέρει;

Μπορείτε να υποβάλετε αίτηση έως τις 15 Ιουλίου 2022

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άν επιθυμείτε να υπο	βάλετε την αίτησή σας και να
	λοτικά στο πλαίσιο του
ρογράμματος e-SAFE,	συμπληρώστε αυτή τη φόρμα.
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💭 ΜΠΟΡΕΙΤΕ ΝΑ ΥΠΟΒΑΛΕΤΕ ΑΙΤΗΣΗ ΕΔΩ!	

Τα πλήρη τεχνικά στοιχεία και οι προϋποθέσεις δημοσιεύονται εδώ

>

10 Σεπτεμβρίου 2022

Υποβολή εγγράφων

ΧΡΟΝΟΔΙΑΓΡΑΜΜΑ

15 Ιουλίου 2022 1^η Αυγούστου 2022 καταληκτική ημερομηνία 1^{ου} σταδίου Υποβολή αίτησης εκδήλωσης ενδιαφέροντος ανακοίνωση των > επικρατέστερων υποψηφίων

καταληκτική ημερομηνία 2° σταδίου τελική επιλογή των δύο πιλοτικών κτιρίων

C-SAFE

-

25 Σεπτεμβρίου 2022

C-SAFE

Μάθετε περισσότερα για το έργο στον ιστότοπο https://esafe-buildings.eu/en/ και δείτε αυτό το σύντομο βίντεο

Figure 6. Promotional material for the call, flyer in Greek for Greece

ΠΑΡΤΕ ΜΕΡΟΣ ΩΣ ΠΙΛΟΤΙΚΗ **ΤΟΠΟΘΕΣΙΑ ΣΤΟ ΠΡΟΓΡΑΜΜΑ e-SAFE!**

Αναβαθμίστε το κτίριό σας για να γίνει ενεργειακά αποδοτικό και σεισμικά ασφαλές! Η Ελλάδα δοκιμάζεται συχνά από σεισμούς μεγάλης κλίμακας, ενώ ένας σεισμός μέτριας ή μικρής κλίμακας γίνεται αισθητός κάθε 2-3 ημέρες κατά μέσο όρο.

ΠΟΙΑ ΟΦΕΛΗ ΘΑ ΑΠΟΚΟΜΙΣΕΤΕ

Οι ιδιοκτήτες των κτιρίων θα λάβουν χωρίς χρέωση

- Μια τρισδιάστατη μελέτη του κτιρίου
- Τρισδιάστατα φυσικά και ψηφιακά μοντέλα Ενεργειακό έλεγχο και ενεργειακή ανάλυση του κτιρίου Λεπτομερές πρόγραμμα ανακαίνισης, βασισμένο στο e-SAFE μέσω
- μιας διαδικασίας από κοινού σχεδιασμού με τους ενοίκους Προβολή σε τοπικό και ευρωπαϊκό επίπεδο

Αν και η επιλογή ως πιλοτική τοποθεσία δεν συνεπάγεται την εφαρμογή Αν και η επολητιώς πουτική τοποθειτά θεν συνετισγετά την εφαρμογή των τεχνολογιών ανακαίνισης e-SAFE στην πράξη, οι ιδιοκτήτες των κτρίων θα μπορέσουν να χρησιμοποιήσουν το αναλυτικό έργο σχεδιασμού για μελλοντικές εργασίες ανακαίνισης. Οι ιδιοκτήτες κτιρίων Ο μαιριόν τια υποτικά μεγολάς ματά το τους τεχνικούς εμπερογνώμονες του προγράμματος e-SAFE, από τις προτάδριομένο στα μέτρα τους σχέδιο ανακαίνισης που θα εκπονηθεί από τους τεχνικούς εμπερογνώμονες του προγράμματος e-SAFE, από τις προτάδοιες σχετικά με τα διαθέσιμα εγγαλεία χρηματοδότησης και τις επιδοτήσεις για την ανακαίνιση κτρίων.

ΠΟΙΑ ΚΤΙΡΙΑ ΕΙΝΑΙ ΕΠΙΛΕΞΙΜΑ;

Πολυώροφα μη ιστορικά κτίρια από οπλισμένο σκυρόδεμα που βρίσκονται σε σεισμογενείς περιοχές στην Ευρώπη (π.χ. Ρουμανία, Βουλγαρία, Τουρκία, Δημοκρατία της Βόρειας Μακεδονίας, Ελλάδα, Κύπρο, Κροατία κ.λπ.) και χρήζουν ανακαίνισης. Αίτηση μπορούν να υποβάλουν:

- Ιδιοκτήτες ή διαχειριστές κτιρίων
- Δημόσιοι ή ιδιωτικοί φορείς που διαχειρίζονται εργατικές κατοικίες ή δημόσια κτίρια (π.χ. σχολεία)
- Κτηματομεσίτες

Μάθετε περισσότερα για τις τεχνικές προϋποθέσεις του κτιρίου εδώ

ΤΙ ΧΡΕΙΑΖΟΜΑΣΤΕ ΑΠΟ ΕΣΑΣ

- Οι ιδιοκτήτες κτιρίων πρέπει να παρέχουν: Πρόσβαση στο κτίριο για τη διεξαγωγή λεπτομερούς μελέτης
- Υποστήριξη κατά την επικοινωνία με τους ενοίκους στην τοπική γλώσσα (3 σαββατοκύριακα)
- Διαθεσιμότητα για τη συμμετοχή στις δραστηριότητες του από κοινού σχεδιασμού
- Ένα χώρο/δωμάτιο εργασίας στο σημείο των εργασιών



ΣΧΕΤΙΚΑ ΜΕ ΤΙΣ ΤΕΧΝΟΛΟΓΙΕΣ

Το πρόγραμμα e-SAFE, που διεξάγεται στο πλαίσιο του ευρωπαϊκού προγράμματος «Ορίζοντας 2020», προσφέρει μια **έτοιμη για εφαρμογή στην αγορά λύση** από οπλισμένο σκυρόδεμα γ**ια την ολοκληρωμένη** σεισμική και ενεργειακή ανακαίνιση μη ιστορικών κτιρίων. Το πακέτο ανακαίνισης e-SAFE περιλαμβάνει καινοτόμες συνιστώσες και αποτελεσματικές λύσεις για την ανακαίνιση τόσο του κελύφους των κτιρίων όσο και των θερμικών συστημάτων.

Το σύστημα βρίσκεται ήδη υπό δοκιμή σε μια πιλο τοποθεσία στην Κατάνια της Σικελίας και **επί του** παρόντος αναζητούμε δύο επιπλέον πιλοτικές τοποθεσίες σε σεισμογενείς περιοχές της Ευρώπης.

Σας ενδιαφέρει; Μπορείτε να υποβάλετε αίτηση έως τις 15 Ιουλίου 2022

- Εάν επιθυμείτε να υποβάλετε την αίτησή σας και να συμμετάσχετε πιλοτικά στο πλαίσιο του προγράμματος e-SAFE, συμπληρώστε αυτή τη φόρμα.
 - Η ΜΠΟΡΕΙΤΕ ΝΑ ΥΠΟΒΑΛΕΤΕ ΑΙΤΗΣΗ ΕΔΩ
- Τα πλήρη τεχνικά στοιχεία και οι προϋποθέσεις δημοσιεύονται εδώ
- 15 Ιουλίου 2022 1^η Αυγούστου 2022 10 Σεπτεμβρίου 2022 25 Σεπτεμβρίου 2022 καταληκτική ημερομηνία 1°° σταδίου ανακοίνωση των επικρατέστερων καταληκτική ημερομηνία **2^{οι} σταδίου** Υποβολή εγγράφων τελική επιλογή των δύο πιλοτικών κτιρίων Υποβολή αίτησης εκδήλωσης ενδιαφέροντος υποψηφίων
 - Μάθετε περισσότερα για το έργο στον ιστότοπο https://esafe-buildings.eu/en/ και δείτε αυτό το σύντομο βίντεο

Figure 7. Promotional material for the call, flyer in Greek for Cyprus



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

ΧΡΟΝΟΔΙΑΓΡΑΜΜΑ



DEVENITI CLĂDIRE-PILOT e-SAFE!

Renovați-vă clădirea, pentru protecție împotriva seismelor și pentru eficientizare energetică! În anul 2020, în România au avut loc 118 mișcări seismice cu o magnitudine de peste 3,0 grade.

CE AVEȚI DE CÂȘTIGAT

- Proprietarii clădirii vor beneficia, în mod gratuit, de următoarele:
- un releveu 3D al clădirii machete 3D fizice și digitale
- un audit energetic si analiză privind consumul de energie al clădirii
- un proiect de renovare detaliat, bazat pe sistemul e-SAFE, realizat în
- urma unui proces de proiectare participativă cu locatarii
- vizibilitate la nivel local și european

Deși selectarea ca proiect-pilot e-SAFE nu implică și implementarea Desi selectarea ca proteccipilot e sovre nu impito a impito a si mpito a si protectarea ca propriu-zisà a tehnologilor de renovare, proprietarii imobilului vor putea folosi proiectul detaliat pentru lucrările de renovare viitoare. Proprietarii clădirii vor primi un proiect de renovare perfect adaptat clădirii lor, realizat de către experții tehnici e-SAFE, împreună cu recomandări cu privire la instrumentele de finanțare și la subvențiile disponibile pentru renovarea clădirilor.

CARE CLĂDIRI SUNT ELIGIBILE?

Clădirile cu mai multe etaje, care nu fac parte din categoria patrimoniu, care sunt construite pe structură din beton armat, care se află în regiuni cu risc seismic din Europa (de ex., România, Bulgaria, Turcia, Macedonia, Grecia, Cipru, Croatia etc.) și care necesită lucrări de renovare. Solicitările pot fi depuse de către

- proprietarii clădirii sau administratorii acestela
- entități publice sau private care administrează locuințe sociale sau clădiri de utilitate publică (de ex., școli)
- dezvoltatori imobiliari
- Aflați mai multe despre cerințele tehnice ale clădirii aici

CE TREBUIE SĂ NE OFERIȚI DVS.

- Proprietarii clădirii trebuie să ofere următoare
- acces în clădire, în vederea efectuării unui releveu detaliat asistență în discuțiile cu locatarii, în traducerea în limba română (3 weekenduri)
- disponibilitate de implicare în activitățile de proiectare participativă
- un spațiu de lucru/o încăpere la fața loculu

MAI MULTE INFORMAȚII DESPRE TEHNOLOGIILE e-SAFE ȘI DESPRE CLĂDIREA-PILOT

Proiectul e-SAFE, finanțat prin programul Horizon 2020 al UE, dezvoltă o soluție integrată pentru renovare antiseismică și eficientizarea energetică a dădirilor care nu fac parte din categoria patrimoniu și care sunt construite cu structură de beton armat. Pachetul de renovare e-SAFE include componente înovatoare și soluții eficiente pentru renovarea anvelopei clădirii și a instalațiilor temire care o desenves: termice care o deservesc

Sistemul este deja în curs de testare într-un proiect-pilot din Catania, Sicilia, iar î**n prezent căutăm alte două** clădiri-pilot în zone cu risc seismic din Europa.

V-am trezit interesul? Depuneți solicitarea până la 15 iulie 2022

acă doriți să depuneți o solicitare și să deveniți clădire-pilot în cadrul proiectului e-SAFE, vă rugăm să completați acest formular.

DEPUNEȚI SOLICITAREA AICI

Toate informatiile și cerințele tehnice pot fi găsite aici

DATE IMPORTANTE

15 iulie 2022

Depunerea solicitărilo

termenul-limită candidatilor preliminari pentru Etapa 1

selecția finală a două clădiri-pilot pentru Etapa 2

C-SAFE

-

25 septembrie 2022

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Aflați mai multe despre proiect vizitând https://esafe-buildings.eu/en/ sau urmărind acest scurt videoclip

1 august 2022

nunțul listei

Figure 8. Promotional material for the call, flyer in Romanian

DIVENTA UN EDIFICIO PILOTA DI e-SAFE!

Rigualifica il tuo edificio per renderlo antisismico ed energeticamente efficiente! Si stima che si verifichino circa 500,000 terremoti ogni anno nel mondo.

COSA GUADAGNI

I proprietari degli edifici pilota riceveranno, senza alcuna spesa:

- Rilievo 3D dell'edificio
- Modello digitale 3D dell'edificio
- Audit energetico, analisi energetica e simulazioni strutturali dell'edificio Progetto preliminare di riqualificazione basato sulle tecnologie
- e-SAFE, tramite un processo di co-progettazione con i residenti
- Visibilità su scala locale ed europeal

Anche se gli edifici pilota non verranno fisicamente ristrutturati nell'ambito del progetto e-SAFE, i proprietari potranno utilizzare il progetto preliminare, preparato dagli esperti e-SAFE, per avviare i lavori di ristrutturazione a spese proprie o tramite opportune forme di finanziamento. Gli esperti e-SAFE saranno in grado di suggerire le forme di finanziamento disponibili, in base al contesto socio-economico in cui si trova l'edificio.

CHI PUÒ PARTECIPARE?

Edifici non storici a più piani con struttura in calcestruzzo armato, siti in aree a rischio sismico in Europa (ad esempio Romania, Bulgaria, Croazia, Cipro, Grecia, Portogallo, Slovenia, Spagna, Turchia, Albania, Italia, etc.). che necessitino di riqualificazione. La richiesta può essere effettuata da:

- Proprietari e amministratori di condominio
- Enti pubblici o privati che amministrano edifici pubblici (ad esempio, scuole) e case popolari • Agenzie immobiliari

Puoi trovare maggiori informazioni sui requisiti tecnici degli edifici qui

DI COSA ABBIAMO BISOGNO DA PARTE TUA

- I proprietari degli edifici pilota dovranno fornire:
- Accesso all'edificio per effettuare il rilievo Supporto per interagire con i residenti (3 weekend)
- Disponibilità a partecipare alle attività di co-progettazione
 Uno spazio di lavoro sul sito

Figure 9. Promotional material for the call, flyer in Italian



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

LE TECNOLOGIE e-SAFE E L'EDIFICIO PILOTA

10 septembrie 2022

termenul-limită

erea docu

Il progetto Europeo H2020 "e-SAFE" sta sviluppando una soluzione innovative per la riqualificazione integrate sismica ed energetica degli edifici non storici e non vincolati, caratterizzati da struttura in calcestruzzo armato. Il sistema e-SAFE include componenti innovativi ed efficienti per riqualificare sia funducre edilizio e il impianti termid l'involucro edilizio, sia gli impianti termici.

Il sistema e-SAFE sarà testato su un edificio pilota sito a atania, ma stiamo cercando altri due edifici pilota situati in regioni sismiche d'Europa

Sei interessato? Fai domanda entro il 15 Luglio 2022

Se vuoi fare domanda per diventare un edificio pilota di e-SAFE, compila il modulo

1 Agosto 2022 10 Settembre 2022 Annuncio della lista Scadenza Fase 2) di candidati selezionati Invio documentazione dettagliata

25 Settembre 2022 Selezione finale dei due edifici pilota

C-SAFE

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TIMELINE 15 Luglio 2022 Scadenza Fase 1 Manifestazione

