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**D6.8 Policy workshops and awareness campaign  
WP6**

Lead Partner: FENIX TNT

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<b>Project Acronym</b>	EENSULATE
<b>Project Title</b>	Development of innovative lightweight and highly insulating energy efficient components and associated enabling materials for cost-effective retrofitting and new construction of curtain wall facades
<b>Grant Agreement n°</b>	723868
<b>Funding Scheme</b>	Innovation Action
<b>Call</b>	H2020- EEB-2016
<b>Topic</b>	EEB-01-2016 Highly efficient insulation materials with improved properties
<b>Starting Date</b>	1 <sup>st</sup> August 2016
<b>Duration</b>	58 Months

### **Executive Summary**

This document deliverable D6.8 “Policy workshops and awareness campaign” is the follow up of the deliverable D6.2 “Communication and Dissemination Plan” and presents the final EENSULATE project communication and dissemination strategy, activities performed to raise awareness and promote the project results within the task T6.3 “Communication and Dissemination” under the work package WP8 “Exploitation, Dissemination and Communication”.

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### Abbreviations and Acronyms

<b>D</b>	Deliverable
<b>M</b>	Month
<b>ESCO</b>	Energy Service Company
<b>WP</b>	Work Package
<b>VIG</b>	Vacuum Insulated Glass
<b>T</b>	Task
<b>KPI</b>	Key Performance Indicator
<b>GA</b>	Grant agreement

## 1 Introduction

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The objective of the Communication and Dissemination Plan was to identify and organize the activities to be performed to promote the holistic exploitation of the project's results and the widest dissemination of knowledge from the EENSULATE project. The plan was expanded in two directions: towards the marketing activities to enhance the commercial potential of EENSULATE solutions and towards the notification of project's results in the scientific, EC and general R&D sector. This document summarizes the consortium's strategy and concrete actions to disseminate and communicate the results generated by the EENSULATE project. Moreover, information related to the Communication and Dissemination Plan aiming to raise public awareness of project results and to demonstrate to potential end-users' advantages of the new products/technologies is presented.

An overview of dissemination opportunities was identified through traditional channels such as event attendance and organization (conferences, seminars, workshops, fairs, etc.), project publications (leaflets, posters, press releases as well as conference papers, articles in professional journals, newspapers, etc.) and project presentations (e.g., to local stakeholders), complemented also by online activities based around the project website, and through the main social platforms. The dissemination activities were designed to target key audiences and stakeholders and to maximize awareness of the EENSULATE project and its results. By the time the project was in its final stage, the coronavirus pandemic was impeding the traditional dissemination opportunities. Events were being postponed and cancelled. Therefore, the EENSULATE project put an emphasis to the online dissemination activities based around the project website, social media, video and webinar organization.

## 2 Obligation to disseminate project results

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As stated in the EENSULATE Grant Agreement article 29, unless it goes against their legitimate interests, each beneficiary must - as soon as possible - **disseminate** its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications.

A beneficiary that intends to disseminate its results must give advance notice to the other beneficiaries of - unless agreed otherwise - **at least 45 days**, together with sufficient information on the results it will disseminate.

Any other beneficiary may object within - unless agreed otherwise - **30 days** of receiving notification, if it can show that its legitimate interests in relation to the results or background would be significantly harmed. In such cases, the dissemination may not take place unless appropriate steps are taken to safeguard these legitimate interests.

If a beneficiary intends not to protect its results, it may - under certain conditions - need to formally notify the Commission before dissemination takes place.

Each beneficiary must ensure **open access** (free of charge online access for any user) to all peer-reviewed scientific publications relating to its results.

In particular, it must:

- (a) as soon as possible and at the latest on publication, deposit a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication in a repository for scientific publications.

Moreover, the beneficiary must aim to deposit at the same time the research data needed to validate the results presented in the deposited scientific publications.

- (b) ensure open access to the deposited publication — via the repository — at the latest:
  - (i) on publication, if an electronic version is available for free via the publisher, or
  - (ii) within six months of publication (twelve months for publications in the social sciences and humanities) in any other case.
- (c) ensure open access — via the repository — to the bibliographic metadata that identify the deposited publication.

The bibliographic metadata must be in a standard format and must include all of the following:

- the terms “European Union (EU)” and “Horizon 2020”;
- the name of the action, acronym and grant number;
- the publication date, and length of embargo period if applicable, and
- a persistent identifier.

### 3 Dissemination and communication strategy

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Among others, the goal of WP6 was to reach the widest dissemination of the results generated by the EENSULATE project and raise public awareness about the development of innovative lightweight and highly insulating energy efficient components. In this context, a strong communication strategy was set up to reach the targeted impact. The whole consortium committed to perform dissemination activities and proactively look for dissemination opportunities (dissemination channels, contribution to presenting project results publicly, prepare scientific publications). These basic principles were the following:

- target audiences and contents were carefully identified
- communication messages were formulated in accordance with the target audience
- information channels and tools were carefully identified to optimally reach the target audience and to clearly convey the project ideas.

#### Objectives

The objectives of the dissemination activities within the framework of the EENSULATE project were:

- to provide up-to-date information about the EENSULATE project
- to increase the level of awareness of the EENSULATE results in the industrial community
- to share the technical results of the EENSULATE project with the scientific community
- to promote the research and receive useful inputs from other scientists and communities
- to create a strong base for future partnerships, collaborations, and information exchange between relevant communities
- to create European communication channels within industry and scientific communities
- to attract potential customers
- to gather feedback from peers, experts, scientists, researchers, potential customers, industry, and the general public

#### Target audience and stakeholders

The focus for all dissemination activities was on the insulation materials, energy efficiency and the building sector in general. Possible target groups were stakeholders involved in construction industry and renovation projects:

- policy makers
- business representatives
- public authorities (local, municipal authorities granting building permits)
- sectorial and industry associations
- education institutions and society
- investors (financial institutions, bankers, project developers)
- service providers (thermo-technical companies, engineers, construction companies, ESCOs)
- Industry/Manufacturers (raw materials producers, installers)
- Civil society/End-users (building managers, public buildings owners, homeowners, architects, and housing associations)
- Standardization/certification bodies (technical chambers, National standard organizations)
- Experts (ECTP experts and EEB experts, other EU funded research project partners, researchers in the field)

The role of target groups was to give feedback on ongoing and foreseen development activities, bring useful inputs related to research findings, existing tools, best practices and market evolution, to help to define the market needs and also contribute to advocating for future regulations.

### **Messages**

Key messages that the EENSULATE project gave to the targeted audience and stakeholders were defined, following the communication principles as described below. Key messages were agreed between partners and are demonstrated through the project website, brochure, flyer, poster, etc.

1. Message to be clear, simple, easy to understand (using infographics, video, simplification, non-technical language used to reach the widest audience as possible)
2. Message to be tailored to the receiver (carefully considered what receiver should know about the project, relevance of the message checked each time)
3. Message of different projects related to the same subject to be coordinated to enhance impact (clustering activities with other EU funded projects with the same topic enhanced)
4. Information to be correct and realistic (the content and activities towards the audience approved by Steering Committee)

### **Tools**

Dissemination activities were targeted both nationally and internationally. Tools that were used for dissemination were the following:

- Publications (scientific, technical, and economical journals, popular magazines, newspapers)
- Conferences, congresses, workshops, seminars, forums participation
- Fairs, exhibitions participation
- Public workshops and webinars organization
- Press releases in thematic portals
- Internet (project website, social network profiles)
- Links to other projects, clustering activities
- Common visual identity, logo, brochure, flyer, poster
- Video production (project promo video, videos from the demos)
- E-newsletters, info graphics
- Training activities.

### **Commitment of project partners**

Each EENSULATE partner proactively participated in communication and dissemination activities related to the EENSULATE project by exploiting their communication channels to reach the widest audience. This was performed in a structured way, such that the coordinator was able to track these activities. The partner who was the most experienced one and who possessed the greatest expertise in a certain dissemination activity carried out the just mentioned activity. For the tracking of actions executed by EENSULATE partners a set of tools for the collection of inputs regarding planned activities has been developed:

- List of scientific publications table
- List of dissemination events table
- Detailed description of events performed table
- List of dissemination and communication activities table



## 3.2 Key performance indicators

Like all other elements of a project, dissemination and communication activities are targeted and can be evaluated whether they were successful or not. To find out if the dissemination and communication strategy was well chosen and well implemented, it is important to build an evaluation component into all major dissemination activities to monitor the quality and to see if they have achieved their aims. Key performance indicators that have been defined and their value at the end of the project are shown in the table below.

Table 1: Key Performance Indicators

Channel	Description	KPI defined at the beginning of project	Success indicator at the end of project (M58)
<b>Project website</b>	Public area providing all relevant project information for the public (project objectives, partnership and public deliverables, news and events, promo material, social network profiles links, newsletter subscription), private part used as a collaborative working space for the Project.	> 20 000 views > 2 000 users	<b>31 490 views</b> <b>4 653 users</b>
<b>Promo material</b>	Project brochure, roll-up poster, project presentation, updated based on the project development.	> 500 downloads > 3000 printing	<b>5 814 downloads</b> <b>3 200 printed copies</b>
<b>Social media campaign</b>	Project profiles - LinkedIn, Facebook, Twitter, YouTube.	> 200 followers in total > 100 000 impressions in total	<b>666 followers in total</b> <b>136 453 impressions in total</b>
<b>Promo video</b>	Graphical video at the beginning of the project. Final project video when the system developed.	> 2 videos > 200 views in total	<b>7 videos</b> <b>641 views in total</b>
<b>e-Newsletter</b>	An e-mail newsletter distributed at six-month intervals to identified stakeholders and subscribers.	8 issues > 300 subscribers + downloads	<b>5 issues</b> <b>5 641 subscribers + downloads</b>
<b>Publication</b>	Consortium partners published (according to the IPR protection strategy) the results in the scientific literature, dedicated journals and magazines. Open Access to peer-reviewed scientific publications provided.	> 5 scientific papers > 20 articles in scientific and industrial websites, magazines, online newspapers	<b>10 scientific papers</b> <b>1 journal article</b> <b>3 magazine articles</b> <b>15 press releases on thematic portals</b>
<b>Events organization</b>	Workshops with other European Technology Platforms and Associations meetings. At the end of the project, the final conference to be organized.	> 1 final conference > 80 participants	<b>1 public webinar</b> (50 participants)
<b>Events participation</b>	Project presentation in a number of national and international conferences, fairs, seminars, workshops, etc.	> 30 events	<b>8 conferences</b> <b>4 fairs</b> <b>9 workshops</b> <b>7 other</b>



<b>Clustering activities</b>	Clustering activities with other European related projects and the related European and National Technology Platforms, associations (e.g. ECTP)	> 2 cluster events	<b>2 cluster events participated</b> <b>1 cluster event organized</b> <b>250 attendees in total</b>
<b>Thematic portals</b>	Liaison and promotion of the Project on relevant thematic portals (BuildUp) and other relevant news and community portals.	> 2 portals > 2 000 views	<b>15 press releases on 4 portals</b> (Build Up, EU Agenda, ECTP, Construction21) <b>9 807 views in total</b>
<b>Training activities</b>	Education and professional training sessions offered at local as well as international level to students (undergraduate and postgraduate), researchers and professionals.	> 5 education or training courses/activities	<b>2 training booklets</b> <b>2 webinar recordings shared on YouTube</b> <b>2 videos from demo sites installation</b>

### 3.3 Project identity and public image

Visual and graphic point of view allows an easier identification for the public as well as an easier visibility to obtain a branding for the EENSULATE project during the dissemination activities as shown in the following section.

#### Project logo and logo manual

EENSULATE logo was created at the beginning of the project in order to define a project identity. In such a way any kind of internal or public document (deliverables, reports, internal communications, publications, etc.) can be identified.



Figure 2: EENSULATE logo

The project logo was used in the following cases:

- in all documents developed within the framework of the EENSULATE project; in documents to be submitted to the EC (e.g., deliverables)

- in PowerPoint presentations to be used for communication and dissemination activities to be carried out by each participant within the framework of the project
- on the EENSULATE website, and on websites of the participants with a link to the project website and social profiles

It is important to follow and respect the project visual identity in order to maximize the impact on the audience. For this reason, a Logo manual was prepared, outlining the visual identity guidelines (master brand logo, colour, logo usage, logo clear zone, relation to other logos, typography, file formats, applications, and errors to avoid). The EENSULATE logo manual is available on the project website (<http://www.eensulate.eu/filedelivery.php?docId=97>).

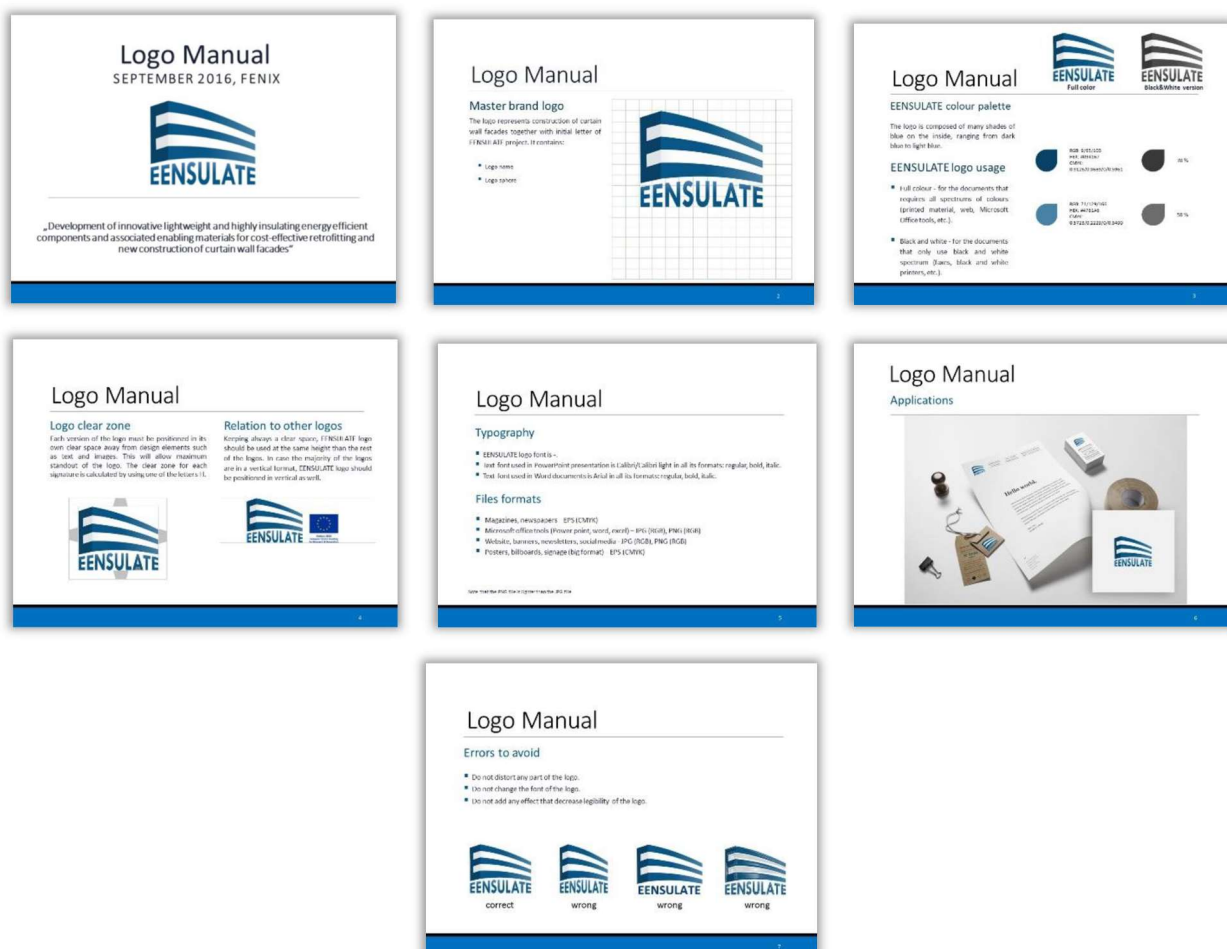


Figure 3: EENSULATE logo manual

### Partners' logos

Partners' logos were also included according to the dissemination activity such as events, presentations, publications, brochures, posters, and the website. An important factor for successful dissemination during the project is its awareness on the market and attention about the EENSULATE project, especially when the project is completed. Partners' logos changes were monitored throughout the project and promotion material updated accordingly.



Figure 4: EENSULATE partners' logos

### Statement of financial support

As stated in the EENSULATE Grant Agreement and article 27.3 Information on EU funding applications for protection of results (including patent applications) filed by or on behalf of a beneficiary must - unless the Commission requests or agrees otherwise or unless it is impossible - include the following:

“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 723868”.



Figure 5: EU logo (flag)

### Disclaimer statement

Any dissemination of results indicates that it reflects only the author's view and that the Commission is not responsible for any use that may be made of the information it contains:

*“This dissemination material reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.”*

## 4 Dissemination and communication activities for EENSULATE project

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The following sections describe completed dissemination and communication activities within the EENSULATE project (August 2016 – May 2021).

### 4.1 EENSULATE website

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The website was set up in the early stage of the project for both consortium members and the wide public. The website was actively maintained and updated during the course of the project by FENIX. The aim of the website was to increase the recognition of the EENSULATE project to the public. It is divided into two sections.

- 1) The public area of the project website provides all relevant project information for the public. Public information includes background information of the project, update of progress, information about the demonstration sites public documents with the possibility of downloads (brochures, working papers, presentations, reports, etc.), news and events (workshops, seminars, conferences etc.), information about the consortium partners (including links to their websites) and dedicated sections to important elements of the project (AMANAC cluster, Webinar, etc..).
- 2) The private section is available only for the project's partners and offers several documents with confidential content.

The website link: [www.eensulate.eu](http://www.eensulate.eu)

#### **Main objectives:**

- The content is in a clear, understandable language.
- The website provides private area (password protected) for the consortium members.
- Coordinator and all partners' information are included.
- Illustrations, designs, photos, videos, brochures and a downloadable informative poster available
- Information regarding events and conferences is included
- Web address is registered to search engines
- Social network profile links and newsletter subscription are included

The website was developed and maintained by FENIX. It was updated several times during the course of the project to reflect on the latest progress and results. The project is planned to be alive 4 years after the project ends.

#### **Public area**

**Home:** The index page 'Home' is dedicated to summarizing the concept and shows sections of project description.



[HOME](#)
[PROJECT DESCRIPTION](#)
[PROCESS](#)
[DEMONSTRATION](#)
[WEBAR](#)
[ANALYTIC CENTER](#)
[DOCUMENTS](#)

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## Project description

Due to the variable ratio between the span and the glass, Eensulate will match any existing facade design (where there are no constraints on original architecture) as well as new buildings. Furthermore, Eensulate is expected to allow for fast retrofitting due to its characteristics, which would minimize the duration of business and impact on occupants. The innovation potential and market competition advantage lies in the combination of three different material innovations in a single product platform, scalable from Basic to Premium. Eensulate components will make use as much as possible of existing components such as frames, structural silicon, gaskets, etc.) although some kind of adaptation will certainly be required.

### EENSULATE Technology

EENSULATE project aims to develop innovative lightweight (20% weight reduction compared to the current best performing products), highly insulating energy efficiency components as well as associated enabling materials for cost-effective retrofitting and new construction of curtain wall facades. Eensulate represents an ambitious project which aims to introduce a new curtain wall and system capable of meeting the market demand to respond to an effective 20% reduction of total replacement costs, high performance performance facade retrofitting solution with reduced weight and thickness, is aimed at bringing existing curtain wall buildings to "near zero energy" standards, reducing energy bills by at least 20% while complying with the structural limit of the original building structure and internal flooring levels.

**Eensulate draws a strategy for sustainability of curtain walls by leveraging on:**

- High durability maximum service life of the enabling materials and overall components
- Good thermal bridge between the curtain wall and the substructure through the innovative design form
- High value due to the lightweight design as more achievable with existing glazing systems but with lower weight and less material use. Also, the low temperature manufacturing process for the security glass allows the use of dual and specialty selective glass coatings, which can significantly reduce energy loads and improve comfort close to the wall.

#### Market Demand & Expected Impacts

- Improvement by at least 20% of the insulation properties
- Reduction by at least 20% of the total costs
- Improvement by at least 20% of the durability
- At least a 10% reduction of the energy spent during the whole life cycle of a building
- Earlier implementation

#### Environmental, social and regulatory drivers

- Facades for sustainability principles
- Improvements in indoor air quality
- Contributions to standardization and certification activities

### EENSULATE Products

Due to the variable ratio between the span and the glass, Eensulate will match any existing facade design (where there are no constraints on original architecture) as well as new buildings. Furthermore, Eensulate is expected to allow for fast retrofitting due to its characteristics, which would minimize the duration of business and impact on occupants. The innovation potential and market competition advantage lies in the combination of three different material innovations in a single product platform, scalable from Basic to Premium. Eensulate components will make use as much as possible of existing components such as frames, structural silicon, gaskets, etc.) although some kind of adaptation will certainly be required.

The project is based on a product family that will be composed of two different levels of performance. First, Eensulate Basic expects to deliver both the best glass and glazing, and especially reduce thermal bridges associated with interfaces between the glazing and the sub-structure. Second, Eensulate Premium expects to take through thermal bridging, the dynamic load control behavior in a cost-effective way, and bring the multifunctional and self-healing and anti-fogging properties. During the installation of these products, each step from Eensulate will have to be followed in the order of the building.

#### Eensulate Basic modules

Thermal and acoustic insulation will be provided by the new HD and "green foam" in the dynamic controlled surface of the air-tight glazing glass.

#### Eensulate Premium modules

Manufacturing, by integrating new thermochromic coated glass and additional self-healing and anti-fogging properties.

**Two key commercial insulating products**

#### EENSULATE FOAM

Highly insulating multi-component and environmentally friendly spray foam for the cost-effective manufacturing and installation of the facade components (curtain walls) as well as for strengthening reduction of thermal bridges during installation.

#### EENSULATE GLASS

Lightweight and thin double-pane curtain glass for the installation of the cheapest component of curtain walls, manufactured through an innovative low temperature process using polymer flexible adhesive and distributed glass technology, that allowing to use both annealed and laminated glass (strongly protected safety glass) as well as low-emissivity coatings (the emissivity). A multifunctional thermochromic coating will also be applied to one glass pane to allow an anti-fogging and self-healing mechanism.

### EENSULATE Targets and Objectives

- Characterize and understand how the Eensulate Basic and Premium components work in real conditions considering the dynamic and thermochromic characteristics of the glass coating, measuring actual wall cooling performance based on Uf, insulation performance indicators and energy losses.
- Develop quality control procedures enabled by precision and insulating measuring techniques.
- Quantify the benefits for users (CO<sub>2</sub> reduced, etc.).
- Develop a communication strategy and associated Business Plan with potential economic benefits assessing return metrics, with fundamental modeling the business plan, including new business model based on lease or rental management, including other services to accompany an optimal facade and building management.

### EENSULATE Demo versions

The performance of the Eensulate Insulating System will be assessed at full scale in various demonstration settings, as tested in three different (Green Day and House). The focus will be placed on the thermochromic behavior of some buildings and their comfort and different parameters will be monitored:

- Interior climate
- Thermal and acoustical temperature
- Heat flux
- Energy consumption and humidity
- Sound transmission loss

These different scenarios buildings with different conditions and historical buildings will be used for the installation of walls:

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#### News

12.03.2021 **Eensulate project has been featured in the Energy Manager magazine!**  
Read the article in English (English) or in Italian (Italian) on [Energy Manager](#)

12.03.2021 **New article was published in "Energie" - a Solar Energy journal!**  
The Eensulate project is featured in the journal "Energie" - a Solar Energy journal. The article describes the project goals, the technical details, the construction process, the installation and the operation of the Eensulate system. The article is available in English (English) and Italian (Italian) on [Energie](#)

#### Social Media

**Tweets** by @Eensulate

**EENSULATE project**  
Watch the installation process of the EENSULATE facade module and one of the demonstration sites - Palazzo Vecchio in Florence

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#### Eensulate Project

Project description  
Process  
Demonstration  
WebAR  
Analytic Center  
Documents

#### Contact

Business contact  
info@eensulate.eu

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#### Newsletter

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Figure 7: EENSULATE website - Project description page



**Progress:** As the project progressed, it was important to reflect on the technical progress that have been made and disclose it to the visitors of the website. Therefore, the progress section was created and updated regularly.

**Project Progress**  
Eensulate Module

EENSULATE uses wet module when the thermal and acoustic insulator are extruded in glass bases on the wetting and EENSULATE foam (TG) in the quartz container with hot ions sealed glass using the vacuum insulated glass (VIG) technology.

**Vacuum Insulated Glass (VIG)**

A number of prototype VIG wettable have been tested at their primary using wet module technology to VIG. These include a hot ion wettable and an ionic wire. This stage was completed on 10th June 2019. The process is to produce the wettable technology, involving a new wetting technology for wettable and the production of panels that are used to produce wettable and in a hot ion wettable. The VIG wettable have been tested from the hot ion wettable technology using a combination of wettable and hot ion wettable glass. Based on testing, a series of VIG wettable have been developed. It is a challenge to produce a VIG wettable and a hot ion wettable and a hot ion wettable in the same process. The hot ion wettable is a challenge and the hot ion wettable is a challenge and the hot ion wettable is a challenge.

**Eensulate Sealant**

Four sealant types have been investigated:

1. FABRICATED POLYURETHANE
2. POLYURETHANE
3. POLYURETHANE
4. POLYURETHANE

Current effort is currently a 10% based on the wettable technology to VIG wettable. The sealant is currently a 10% based on the wettable technology to VIG wettable.

**Eensulate Getter**

Three getter types have been investigated:

1. 2000-170
2. 2000-170
3. 2000-170

The EENSULATE getter is currently a 2000-170 based on the wettable technology to VIG wettable. The getter is currently a 2000-170 based on the wettable technology to VIG wettable.

**Eensulate One-Component Foam and Two-Component Foam**

The one-component foam (OCF) and two-component foam (TCF) are currently being investigated. The OCF is currently being investigated and the TCF is currently being investigated. The OCF is currently being investigated and the TCF is currently being investigated.

**EENSULATE glass prototypes**

EENSULATE small scale prototype assembly and preliminary tests

The assembly process for the EENSULATE VIG prototype (200mm x 200mm) received a significant and positive effect by wet glass bases, namely 200mm and 200mm, containing in the wettable of the wettable. The wettable is currently being investigated and the wettable is currently being investigated. The wettable is currently being investigated and the wettable is currently being investigated.

The next challenge in this process concerned the geometry of the wettable insulation due to its high thermal conductivity. The wettable is currently being investigated and the wettable is currently being investigated. The wettable is currently being investigated and the wettable is currently being investigated.

The second administrative concern is a glass system consisting in a secondary thermal insulation of glass-based ions to maintain the effect of the edge geometry, and the edge geometry of glass surface and VIG components. The glass system is based on multi-layered wettable with a 200mm glass ion. The glass system is based on multi-layered wettable with a 200mm glass ion. The glass system is based on multi-layered wettable with a 200mm glass ion.

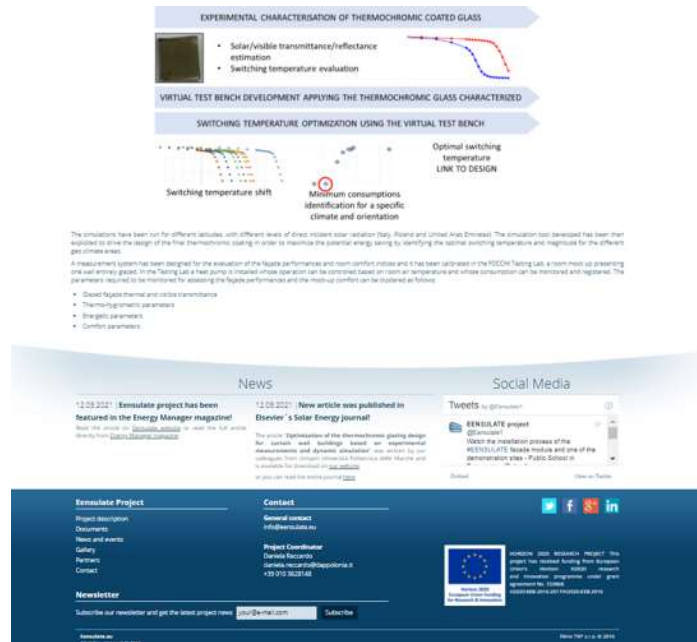
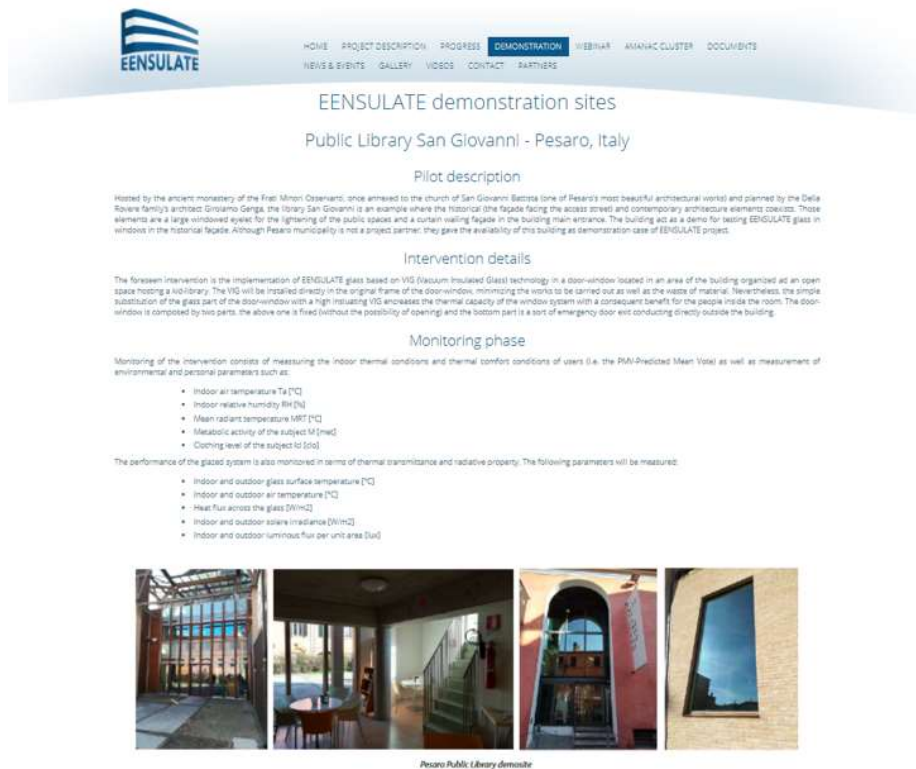


Figure 8: EENSULATE website - Progress page

**Demonstration:** the EENSULATE project has three demonstration sites. To give the users of the website an overview about the sites, approach, intervention, etc., a dedicated section was created.





## Polish School - Dzierżoniów, Poland

### Pilot description

The Polish school is located in a curtain wall building that the Dzierżoniów municipality would like to refurbish improving the façade performances. The renovation intervention consists of introducing glazing curtain walls enhancing the building profile to zero energy in line with EU and national targets for public buildings. After the implementation of EENSULATE solution, the building will be a real show case proving the project results to non-national and international stakeholders, enhancing also the image of Dzierżoniów municipality.

### Intervention details

The renovation intervention consists of the full substitution of the curtain wall façade (including frame) of the school building. The selected façade is one of the three façades of the overall building. The building area subject to the refurbishment is organized as an open-space where students spend their free time during breaks. In order to compare the performances of the project developed position, the two floors building façade are covered in part by EENSULATE module with VIG and the rest by the same module insulating standard TSG (Triple Glass Unit) in the frame. The EENSULATE module consists of two parts: the vision part (65%) covered with VIG and the spandrel part (35%) insulated with the innovative TCF foam. Thanks to the high insulation of the EENSULATE module, the new façade system significantly increases the energy efficiency of the building area under renovation ensuring an improved internal thermal comfort. One of the main requirements for the intervention was represented by the similarity of the proposed solution with respect to the already refurbished areas keeping the same visual appearance. This aspect has been respected thanks to the flexibility and adaptability of the EENSULATE modules developed in the project enhanced by the ad hoc profiles designed by POCOH as well as the small thickness of VIG manufactured by BGTec. This pilot represents the demonstration case of the main project results.

### Monitoring phase

The pilot will be exploited to monitor the Eensulate VIG system performances in a real installation in comparison to a common low energy triple glass. In order to perform that relative characterization both the system will be monitored with thermal and irradiance sensors. A picture of the primary school facade is reported in Figure 1, with embedded in red the Eensulate VIG system and in yellow the standard glass installed in a frame close to the Eensulate one. The main quantities to be monitored are:

- Internal and external glass surface temperature
- Indoor and outdoor air temperature
- Heat flux through the glass
- Visible external and internal radiation
- Solar external and internal radiation



## Muzeum Miejskie Dzierżoniowa - Dzierżoniów, Poland

### Intervention details

The foreseen intervention is the implementation of EENSULATE glass based on VIG (Vacuum Insulated Glass) technology in a selected number of museum windows. Being an historical building, the renovation works, including the ones related to the windows, are subject to several and severe restrictions to preserve its artistic value. For this reason, the implementation of VIG directly in the original windows minimize the impact of the intervention increasing their insulation capacity with a consequent benefit for the people inside the room. This kind of operation is possible thanks to the small thickness of the VIG (12,2 mm) and lightweight perfectly adaptable to the original windows increasing their performances without changing neither the materials (the window frame is the original one simply refurbished) nor the aesthetic aspect.

### Monitoring phase

This pilot will be monitored to estimate relative glass thermal and optical transmittance performances, therefore two glass systems will be monitored: the one that includes the Eensulate system and the traditional one. The main quantities to be monitored are:

- Internal and external glass surface temperature
- Indoor and outdoor air temperature
- Heat flux through the glass
- Visible external and internal radiation
- Solar external and internal radiation

In addition, in the Dzierżoniowie Museum, the thermal comfort will be monitored. To this aim the following quantities will be measured:

- Room mean radiant temperature
- Relative humidity
- Velocity of the air in the room.



Figure 9: EENSULATE website - Demonstration page

**Events:** All events including webinar are described on section Events. As EENSULATE participated in the Advanced Materials and Nanotechnology for Construction (AMANAC) cluster, information about the cluster and its projects is included as well.



The screenshot shows the EENSULATE website's 'Events' page. At the top, there is a navigation menu with links for HOME, PROJECT DESCRIPTION, PROGRESS, DEMONSTRATION, WEBINAR (highlighted), AMANAC CLUSTER, and DOCUMENTS. Below the menu, the page title reads 'Webinar | Lightweight solutions for high insulating building envelopes - The EENSULATE project'. A central image features a building facade with a blue-tinted overlay and text for a 'WEBINAR' event on 11 February 2021, hosted by BUILD UP. Below this is a video player showing the webinar recording. A 'REGISTER HERE!' link is prominently displayed. The main text explains that buildings account for 40% of energy consumption and 36% of CO2 emissions in the EU, and that the EENSULATE project aims to develop innovative, lightweight, and highly insulating energy-efficient components for retrofitting and new construction of curtain wall facades. An 'Agenda' section lists the webinar topics: Welcome and introduction (12:00-12:05), EENSULATE project introduction (12:05-12:15), EENSULATE facade module integration (12:15-12:30), EENSULATE real-scale demonstration (12:30-12:45), and Q & A (12:45-13:00). At the bottom, there are sections for 'News' (featuring articles in Energy Manager magazine and Elsevier's Solar Energy journal) and 'Social Media' (showing tweets about the project). A footer contains project and contact information, along with social media icons for Twitter, Facebook, Google+, and LinkedIn.

Figure 10: EENSULATE website - Events page

The screenshot displays the EENSULATE website's 'Advanced Materials And Nanotechnology Cluster' page. At the top, there is a navigation menu with links for HOME, PROJECT DESCRIPTION, PROGRESS, DEMONSTRATION, WEBINAR, AMANAC CLUSTER, and DOCUMENTS. Below the navigation is the AMANAC logo, a circular emblem with green and blue segments.

The main text describes the scope of the AMANAC-CSA, stating it aims to create an effective and long-lasting collaboration and coordination platform within all the Advanced Materials and Nanotechnology projects (AMANAC), approved in the frame of the EeB-PPP. It mentions that AMANAC-CSA aims to maximize the impact of the cluster participating projects towards the European Industry and Society and hence effectively support the objectives established by European Commission and the EeB-PPP by addressing in a holistic way the relevant technical/technological, industrial, economic, societal, organizational and regulatory challenges.

Below this, there is a list of six Thematic Areas:

- Insulation material: AEROCOINS, HIPIN, VIP4ALL, HOMESKIN, ENE-HVAC, NANOHVAC, nanoCOOL, EENSULATE, GELCLAD, WALL IN ONE, INNOVIP
- Embodied Energy: SUS-CON, LEEMA, BioBuild, Eco-Binder, ISOBIO
- Smart Windows: HARWIN, MEM4WIN, SMARTBLIND, WINSMART
- Lightweight Components: ADAPTWALL, ELUSSA, MF-RETROFIT, SESBE, FoAM-Build
- Indoor Environment: Brimee, Eco-SEE, H-HOUSE, OSIRYS, CETIB
- Pilot Production: NANOLEP

The main objective of AMANAC is to join efforts in order to promote synergies and fields of cooperation among Projects whose activities focus on energy efficiency in the building environment. AMANAC Cluster will allow the involved projects to be more productive, competitive, successful and supports them to establish a broader social and industrial impact.

The section titled '"Insulation material" Thematic Area Sister Projects details:' features a grid of project logos and brief descriptions:

- AEROCOINS**: Aerogel-Based Composite/Hybrid Nanomaterials for Cost-Effective Building Super-Insulation Systems. Website: aerocoins.eu
- hipin**: High Performance Insulation based on Nanostructure Encapsulation of Air. Website: hipin.eu
- VIP4ALL**: Highly Sustainable and Effective Production of Innovative Low Cost Vacuum Insulation Panels for Zero Carbon Building Construction. Website: vip4all.com
- HOME Skin**: Homes key insulating material. Website: homeskin.net
- ENE-HVAC**: Energy efficient heat exchangers for HVAC applications. Website: ene-hvac.eu
- NANOHVAC**: Novel Nano-enabled Energy Efficient and Safe HVAC ducts and systems contributing to a healthier indoor environment. Website: nanohvac.eu
- nanocoOL**: An energy efficient air conditioning system based on the combination of a liquid desiccant cycle with an adapted conventional air cooling system. Website: nanocooproject.eu
- GELCLAD**: Highly efficient cladding eco-panels with improved nano-insulation properties. Website: gelclad.eu
- INNOVIP**: Innovative multi-functional Vacuum-Insulation-Panels (VIPs) for use in the building sector. Website: innovip-2020.eu
- Wall ACE**: Wall insulation novel nanomaterials efficient systems. Website: www.wall-ace.eu

At the bottom of the screenshot, there is a 'News' section with two articles from Elsevier's Solar Energy journal and a 'Social Media' section showing tweets from @Eensulate1. The footer contains contact information, a newsletter subscription form, and a logo for Horizon 2020 Research Project.

Figure 11: EENSULATE website - AMANAC and cluster projects

**Documents:** In this section, any user can download dissemination material such as scientific papers, presentations, posters, brochures, photos of the consortium, etc. The Documents section is split into subsections Reports, Promo material, Papers, Presentations, Newsletter etc.

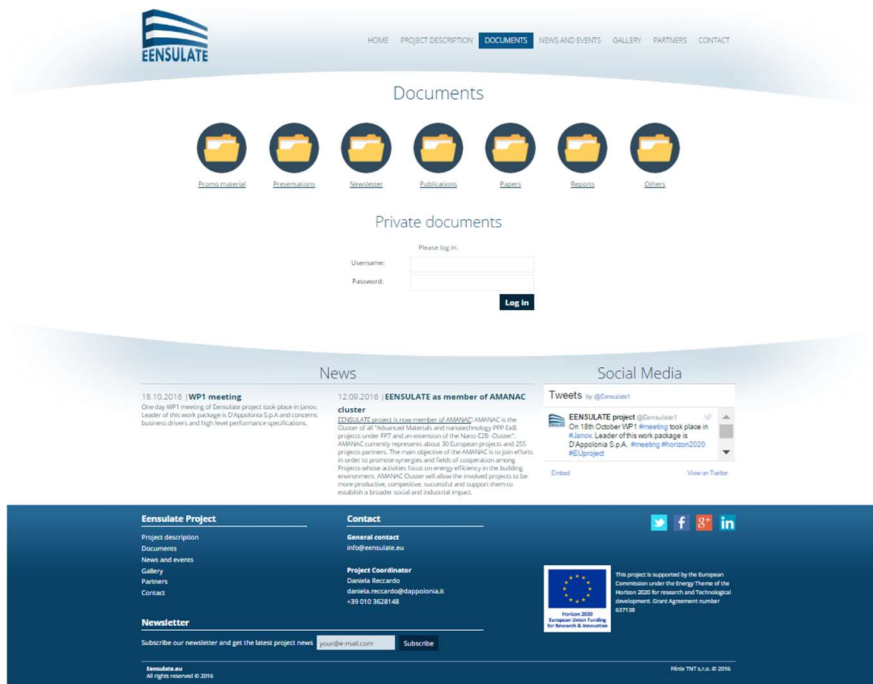


Figure 12: EENSULATE website - documents page

**News:** This section informs users about news regarding the EENSULATE project, and the latest events (including all meetings of the project partners and important events in which a large group of the consortium partners participate, such as conferences, fairs, workshops, etc.).

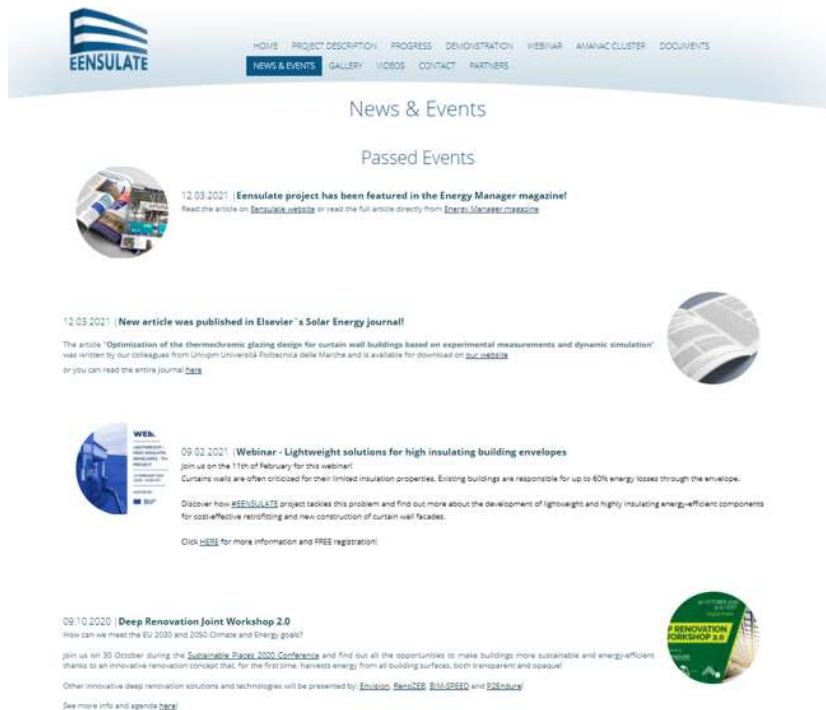


Figure 13: EENSULATE website - News section

**Gallery:** In this section, a user can have a look at and download images from meetings, events, etc.



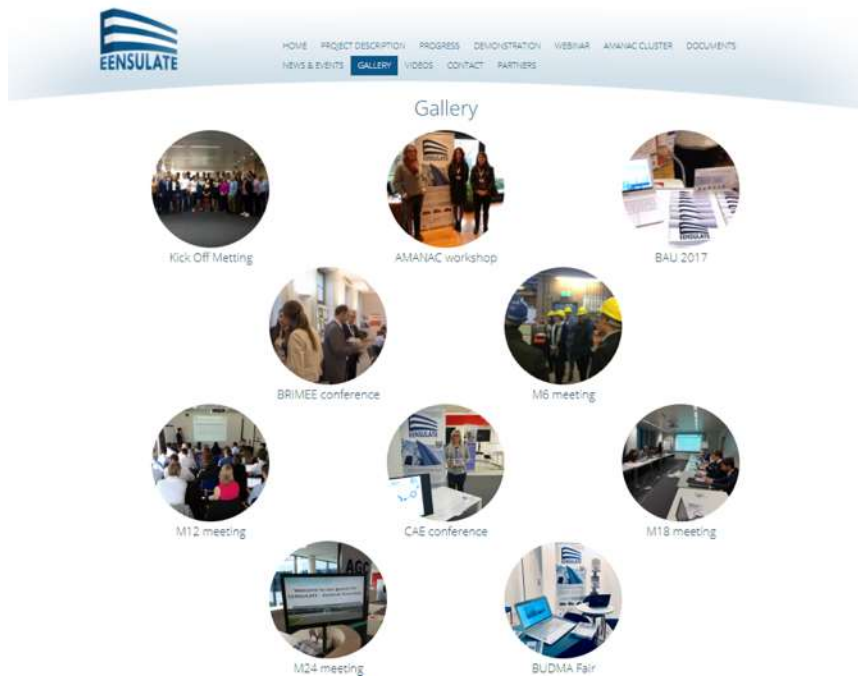


Figure 14: EENSULATE website - Gallery page

**Videos:** This section allows the user to watch all the videos created in the framework of the EENSULATE project

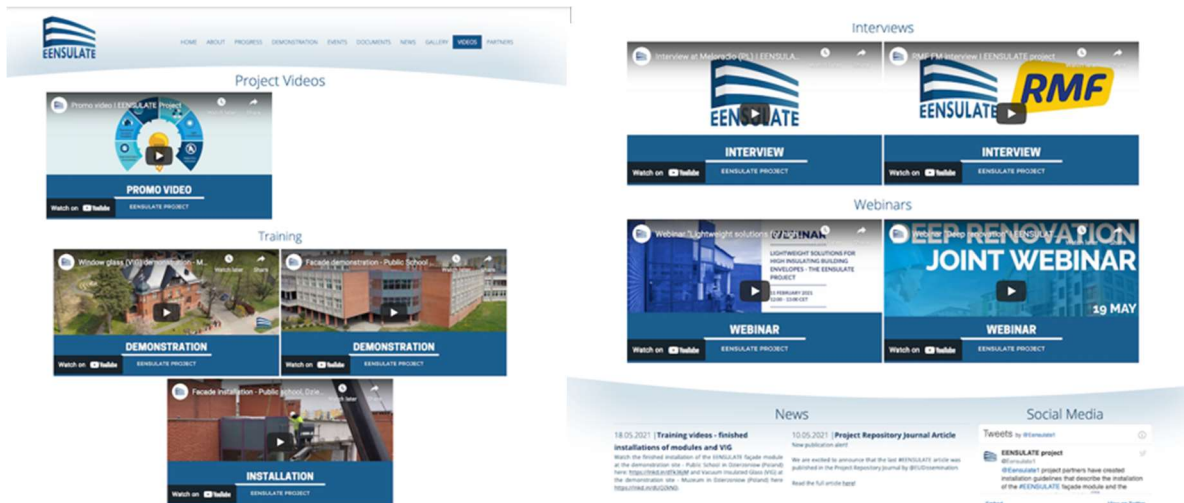


Figure 15: EENSULATE website - Videos page

**Partners:** This part of the web site contains information about the partners involved in the EENSULATE project. It shows each partner's name, logo and a link to the partner's homepage.

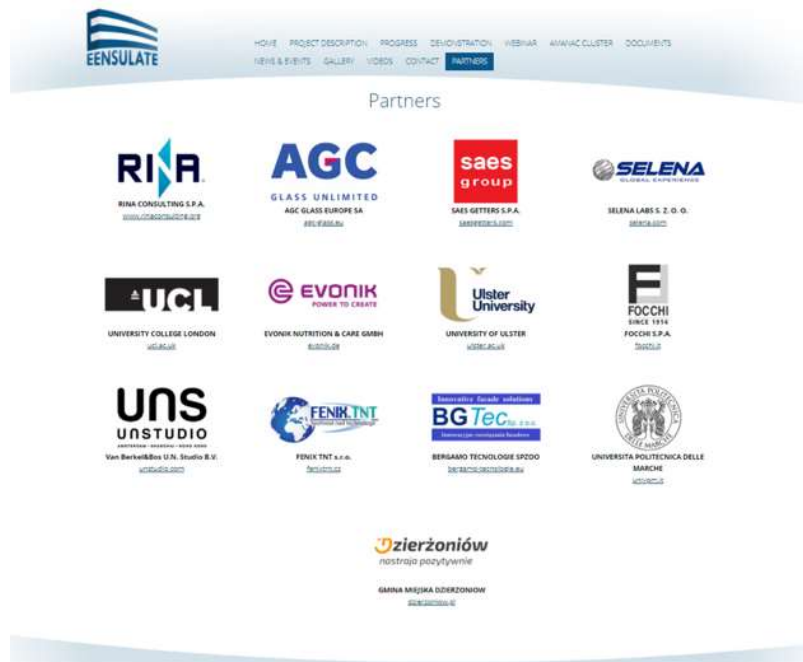


Figure 16: EENSULATE website - Partner's page

**Contact:** This section contains contact information of the coordinator. It is intended for any inquiries by interested parties.

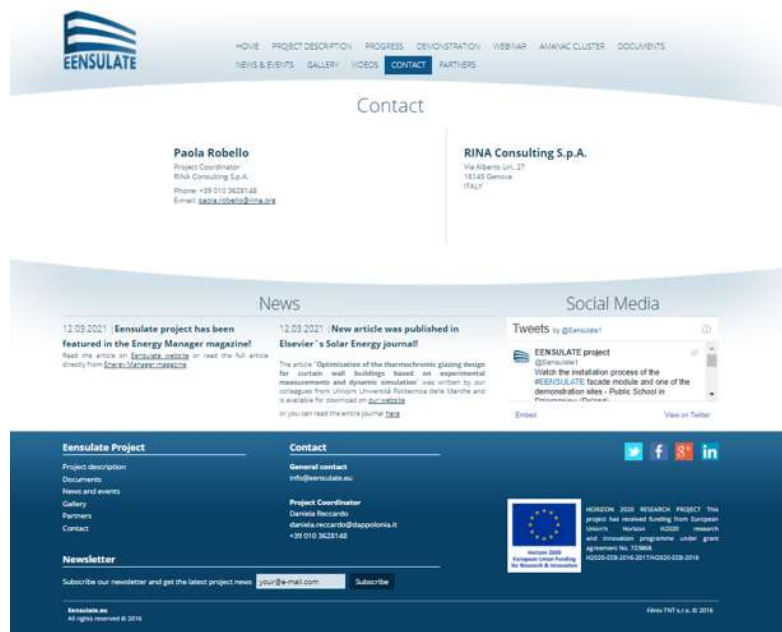


Figure 17: EENSULATE website - Contact page

### Private area

The second part of the website is a secure area accessed only by the project partners. In this section, the partners can login using their individual access data. Each partner is provided with a username and password in order to validate their access to the secure area. In this area, internal consortium documents are being kept (confidential deliverables, presentations from meetings, etc.). In this section the administrator (FENIX)

can manage to update section News and Events, upload public and private documents, upload pictures, photos to the Gallery and make changes of the website content.

#### 4.1.1 Website statistics

FENIX is constantly monitoring statistics regarding the number of the website visits, users, sessions as well as the demographics, geographic and language. Current statistics are showing a wide interest and public awareness regarding the project. With more thirty thousand views, the page has reached the set up Key Performance Indicator.

The biggest percentage of visitors comes from the Italy (12,5%), followed by visitors from France (9,36%), the United States (9,04%), United Kingdom (5,61%), Czech Republic (4,62%), Germany (4,34%), Poland (4,02%), China (3,38%), Spain (3,38%), Belgium (3%). Male visitors are represented by 54,15% and female by 45,85% in the age between 18-44.

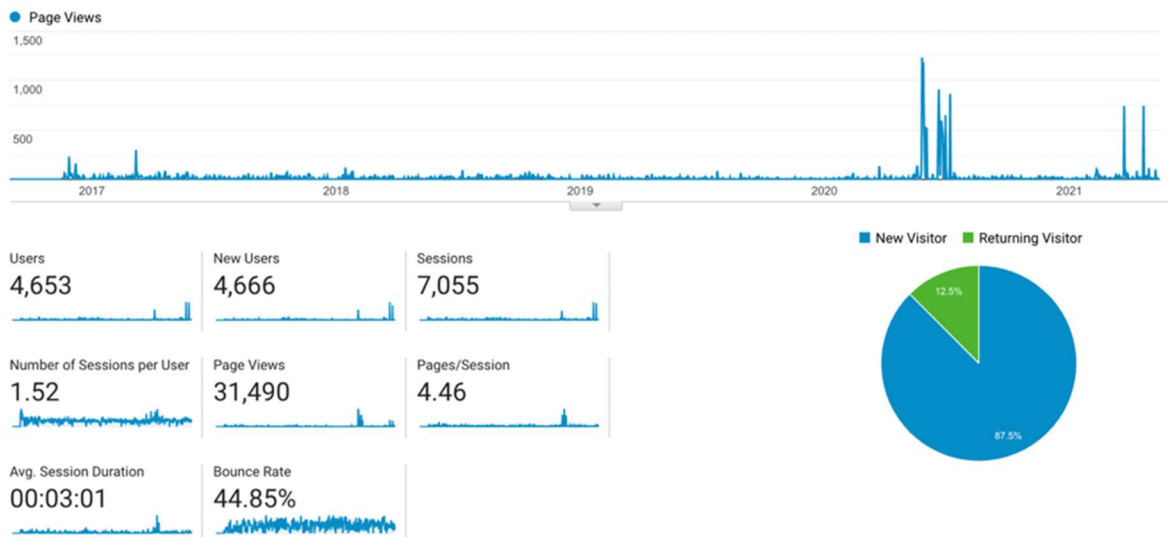
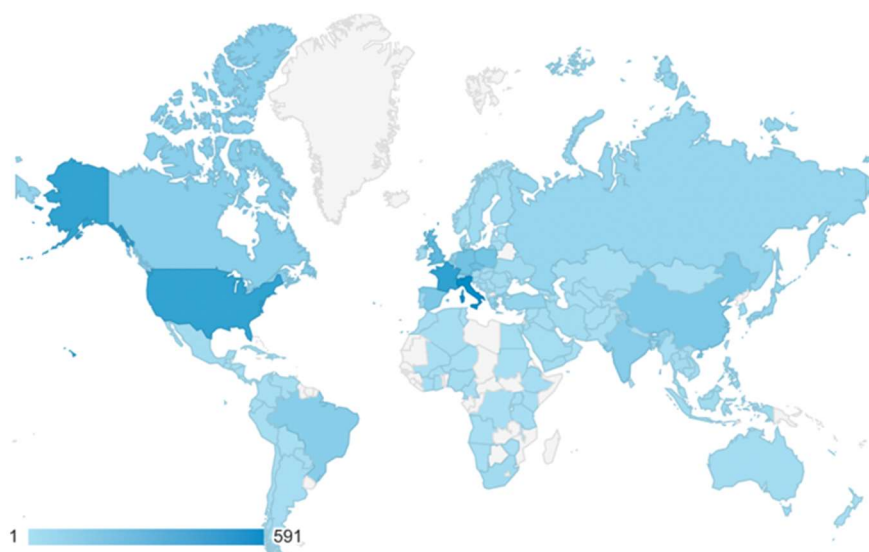


Figure 18: EENSULATE website – number of views and users



Country	Acquisition			Behaviour			Conversions		
	Users	New Users	Sessions	Bounce Rate	Pages/Session	Avg. Session Duration	Goal Conversion Rate	Goal Completions	Goal Value
	4,653 % of Total: 100.00% (4,653)	4,668 % of Total: 100.04% (4,666)	7,055 % of Total: 100.00% (7,055)	44.85% Avg for View: 44.85% (0.00%)	4.46 Avg for View: 4.46 (0.00%)	00:03:01 Avg for View: 00:03:01 (0.00%)	0.00% Avg for View: 0.00% (0.00%)	0 % of Total: 0.00% (0)	US\$0.00 % of Total: 0.00% (US\$0.00)
1. Italy	591 (12.57%)	595 (12.75%)	992 (14.06%)	41.94%	3.65	00:02:40	0.00%	0 (0.00%)	US\$0.00 (0.00%)
2. France	440 (9.36%)	438 (9.38%)	492 (6.97%)	65.24%	1.94	00:01:29	0.00%	0 (0.00%)	US\$0.00 (0.00%)
3. United States	425 (9.04%)	424 (9.08%)	489 (6.93%)	67.89%	1.93	00:00:45	0.00%	0 (0.00%)	US\$0.00 (0.00%)
4. United Kingdom	264 (5.61%)	264 (5.66%)	367 (5.20%)	41.96%	3.75	00:02:23	0.00%	0 (0.00%)	US\$0.00 (0.00%)
5. Czechia	217 (4.62%)	213 (4.56%)	1,098 (15.56%)	35.06%	14.26	00:09:24	0.00%	0 (0.00%)	US\$0.00 (0.00%)
6. Germany	204 (4.34%)	203 (4.35%)	250 (3.54%)	35.60%	3.67	00:02:19	0.00%	0 (0.00%)	US\$0.00 (0.00%)
7. Poland	189 (4.02%)	186 (3.98%)	336 (4.76%)	51.49%	3.82	00:03:16	0.00%	0 (0.00%)	US\$0.00 (0.00%)
8. China	159 (3.38%)	159 (3.41%)	169 (2.40%)	49.70%	1.74	00:00:34	0.00%	0 (0.00%)	US\$0.00 (0.00%)
9. Spain	159 (3.38%)	158 (3.38%)	247 (3.50%)	38.06%	3.27	00:01:51	0.00%	0 (0.00%)	US\$0.00 (0.00%)
10. Belgium	141 (3.00%)	132 (2.83%)	174 (2.47%)	41.38%	3.24	00:02:46	0.00%	0 (0.00%)	US\$0.00 (0.00%)

Figure 19 EENSULATE project website – geographic analysis

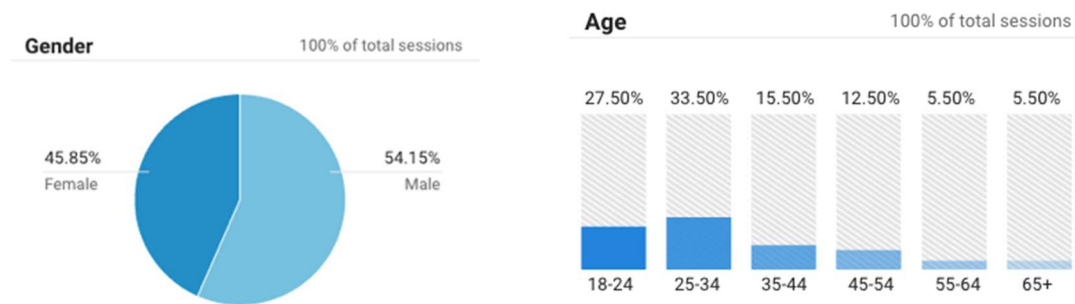


Figure 20 EENSULATE project website – demographics analysis

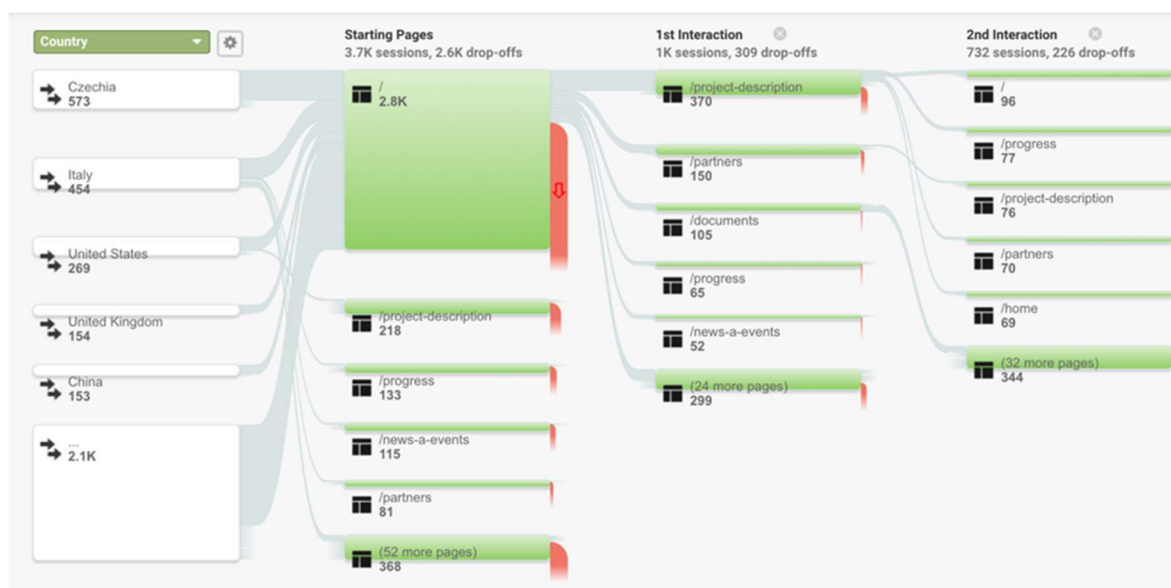


Figure 21 EENSULATE project website – users flow



FENIX was also monitoring downloads of public materials on the EENSULATE project website. The statistics are shown below.

Table 2: Downloads statistics from the EENSULATE website

Downloads from the EENSULATE website	
Brochure, flyer	1 622
Posters (project poster, event poster)	1 789
Presentation	2 042
Logo	361
1st Newsletter	1 155
2nd Newsletter	1 395
3rd Newsletter	1 216
4 <sup>th</sup> Newsletter	87
Publications	2 088
Public deliverables	489
Training booklets	35
<b>Total</b>	<b>12 279</b>

## 4.2 Project presentation

The project presentation in PowerPoint has been designed for the EENSULATE project at the end of month M5. The project presentation describes project concept, main objectives, key products, and demonstration sites. Furthermore, contact information, partners logos and the statement of the EU financial support are given as well.

The project presentation is a crucial part of the dissemination of the project as it serves as a tool to inform the public about the basic characteristics of a newly developed product. The aim is to address a wide range of prospect consumers and ensure its memorability. The presentation was regularly updated during the project duration and the latest version is shown below.



Figure 22: EENSULATE project presentation

### 4.3 Project description, brochure, and roll-up poster

The following pictures display the latest design of two pages project description, four pages brochure, and roll-up poster that were prepared for the EENSULATE project to increase the awareness of the project during dissemination events. The two pages project description in the form of a flyer has been designed for the EENSULATE project at the end of month M5. It contains project concept, demo sites information, website link and QR code, logos of project partners and the statement of the EU financial support. The brochure and poster were created at the end of month M3 with a more general overview about the project. The brochure describes project concept, main objectives, and demo site information. Furthermore,

it gives a website link and QR code, contact information, logos of partners and the statement of the EU financial support.

The roll-up poster contains project concept, main products, advantages, demo site information, website link and QR code, logos of partners and statement of the EU financial support as well.

The above-mentioned promo materials have been updated regularly following the project progress and can be downloaded from the project website: <http://www.eensulate.eu/documents/promo-material>.



Figure 23: EENSULATE project description – flyer



Figure 24: EENSULATE brochure



Development of innovative lightweight and highly insulating energy efficient components and associated enabling materials for cost-effective retrofitting and new construction of curtain wall façades.




[www.eensulate.eu](http://www.eensulate.eu)

**TWO commercial products working together to excel in TWO different levels of performance (Basic and Premium)**

**EENSULATE FOAM**

A highly insulating spray foam for the cost-effective manufacturing and insulation of the opaque components of curtain walls as well as for the significant reduction of thermal bridges during installation.

- 35% weight reduction
- 25% improvement of insulation properties
- 20% improvement of durability
- 20% reduction of total costs

**EENSULATE GLASS**

A lightweight and thin double pane vacuum glass for the high insulation of the transparent component of curtain walls. A breakthrough multifunctional thermo-setting coating will allow dynamic solar gain control as well as anti-fogging and self-cleaning properties.

- 13% reduction of energy spent during the whole life cycle of a building
- 10% enhanced water vapour permeability
- Easier implementation



Public Library San Giovanni  
(Pesaro, Italy)



School Building  
(Dzierżonów, Poland)



City Museum  
(Dzierżonów, Poland)



HORIZON 2020 RESEARCH PROJECT  
 This project has received funding from the European Union's Horizon H2020 research and innovation programme under grant agreement No. 770865 (H2020-891019-1-001/19-001-000-000)

Figure 25: EENSULATE roll-up poster

For specific dissemination events additional posters were designed as shown below.

Development of innovative lightweight and highly insulating energy efficient components and associated enabling materials for cost-effective retrofitting and new construction of curtain wall facades

**EENSULATE** Deep Renovation Joint Workshop  
Rome, 5<sup>th</sup> October 2018

COMPANY NAME: EENSULATE  
CONTACT: info@eensulate.com  
WEBSITE: www.eensulate.com

### EENSULATE highly insulating environmentally friendly bi-components foam

TCF is highly insulating polyisocyanurate (PIR) foam based insulation materials enhanced with eco-friendly lamellar inorganic fillers contributes to meet energy performance requirements, environmental challenges and cost reduction without undue compromise of the overall building fire safety. The TCF is used to be injected and workable for the manufacturing of spandrel elements replacing cut-to-measure mineral wool panels (TCF is used within the manufacturing line).

TECHNICAL DATA FOR TCF	
<b>FOAM PROPERTIES</b>	
Density in finished product (kg/m <sup>3</sup> )	35-40
EN 1602: 1999	
Fire class (EN 13501 – A1-2010)	B s1 d0
test method EN ISO 11925 – 2, EN 13823	
Thermal conductivity λ [mW / m <sup>2</sup> K]	>22
EN 12667: 2001	
Content of closed cells (%)	>90
ISO 4590 : 2014	

### INNOVATION & ADVANTAGES

The advantages of the TCF system during the production process are the increased efficiency 35kg/m<sup>3</sup> and the ease of processing. PIR system with layer fillers provides fire reaction properties because favor the formation of a reinforced top layer, providing an effective barrier against heat and oxygen, release non-flammable gases, and at the same time effectively suppress smoke and gases during the combustion process.

**Acknowledgments**

The EENSULATE project is founded under the EU Programme H2020 - EEB 01-2016 - Highly efficient insulation materials with improved properties, under the Grant Agreement Number 723868. The information in this publication does not necessarily represent the view of the European Commission.

Figure 26: EENSULATE poster - highly insulating environmentally friendly bi-components foam

Development of innovative lightweight and highly insulating energy efficient components and associated enabling materials for cost-effective retrofitting and new construction of curtain wall facades

**EENSULATE** Deep Renovation Joint Workshop  
Rome, 5<sup>th</sup> October 2018

COMPANY NAME: EENSULATE  
CONTACT: info@eensulate.com  
WEBSITE: www.eensulate.com

### EENSULATE Vacuum Insulated Glass

Narrow vacuum cavity (0.25mm) provides superior thermal insulation compared to traditional IGU's  
Array of micro spacers maintains separation of glass panes under atmospheric loading  
Hermetic edge seal required to provide gas tight barrier over lifetime of glazing  
Getter prolongs vacuum and enhances service life of glazing  
Reduced thickness increases the potential range of applications (Historic Buildings)

### INNOVATION & ADVANTAGES

Innovative low temperature edge seal using flexible polymeric adhesives  
Distributed getter technology reduces pressure gradients and accommodates permeation through edge seal  
Fabricated using Toughened glass:  
Compliance with Building Regulations for safety in buildings  
Enhanced mechanical stability under load  
Increased pillar separation, improves thermal performance  
Novel multifunctional thermotunable coating for dynamic solar gain control with anti-fogging and self-cleaning properties

**Acknowledgments**

The EENSULATE project is founded under the EU Programme H2020 - EEB 01-2016 - Highly efficient insulation materials with improved properties, under the Grant Agreement Number 723868. The information in this publication does not necessarily represent the view of the European Commission.

Figure 27: EENSULATE poster - Vacuum Insulated Glass

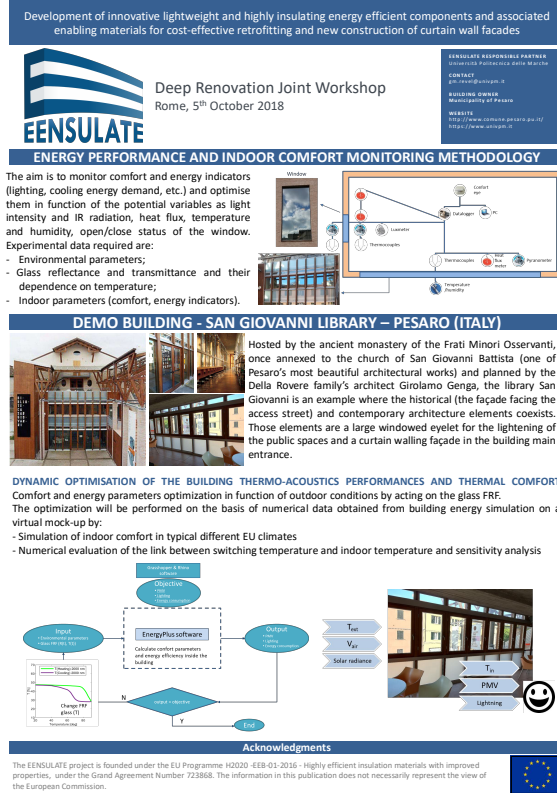


Figure 28: EENSULATE poster - Energy performance and indoor comfort monitoring methodology

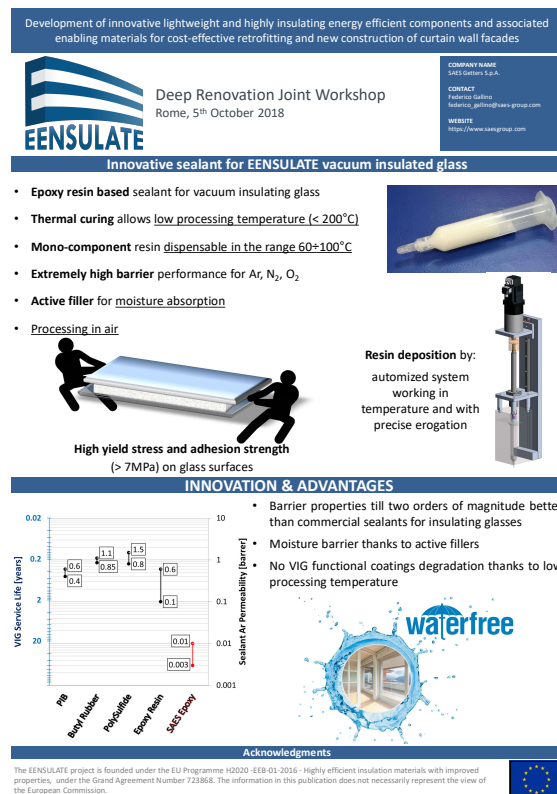


Figure 29: EENSULATE poster - Innovative sealant for EENSULATE vacuum insulated glass

## 4.4 Newsletter

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E-newsletter in the way of infographics was designed by FENIX with technical contribution of project partners, the first release was in month M9, subscription is possible directly from the EENSULATE project website. EENSULATE project released 5 newsletters, the last one in month M58. EENSULATE newsletters were promoted through social network profiles, project website, BuildUp portal, EU Agenda and EENSULATE partners' channels. Link for newsletters download from the project website: <http://www.eensulate.eu/documents/newsletter>).

### **GDPR compliance**

EENSULATE project management and project Consortium ensures that data generated and obtained during the project duration is in line with the norms of the EU and Commission [as expressed in the General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679)]. The GDPR came into force on 25 May 2018. The responsibility of protection and use of personal data is on the project partner collecting data. The questionnaire answers are anonymized in early stage of the process, and data making possible to connect the answers to individual persons are being destroyed. The questionnaire participants do not include children or other groups requiring a supervisor. When asking for somebody's contact information, the asking party explains why this information is asked and for what purposes it will be used.

The right to be forgotten entitles the data subject to have the data controller erase his/her personal data, cease further dissemination of the data, and potentially have third parties halt processing of the data. The conditions for erasure include the data no longer being relevant to original purposes for processing, or a data subjects withdrawing consent. It should also be noted that this right requires controllers to compare the subjects' rights to "the public interest in the availability of the data" when considering such requests. If a data subject wants his/her personal data to be removed from a questionnaire, the non-personal data shall remain in the analysis of the questionnaire.

GDPR introduces data portability which refers to the right for a data subject to receive the personal data concerning them, which they have previously provided in a 'commonly use and machine-readable format' and have the right to transmit that data to another controller.

The personal data collected within EENSULATE project are in electronic form, mostly in Microsoft Excel file forms .xls or .xlsx. In case the data subject requests to transmit his/her data to another controller there should be no technical limitations for providing them.

Privacy by default means that the controller shall implement appropriate technical and organisational measures for ensuring that only personal data which are necessary for each specific purpose of the processing are processed. That obligation applies to:

- the amount of personal data collected,
- the extent of personal data processing,
- the period of personal data storage, and
- the accessibility of personal data.

Such measures shall ensure that by default personal data are not made accessible without the individual's intervention to an indefinite number of natural persons.

Personal data collected during the EENSULATE project are used only by project partners, including linked third parties, and only for purposes needed for the implementation of the project. Also, within the EENSULATE project, if someone of the project consortium asks for personal data, the partner holding the

data should consider whether that data is needed for the implementation of the project. If personal data is provided, the data shall not be distributed further within or outside the project.

Records of data processing and plans for the use of data will be kept by the WP Leaders of those work packages that collect personal data.

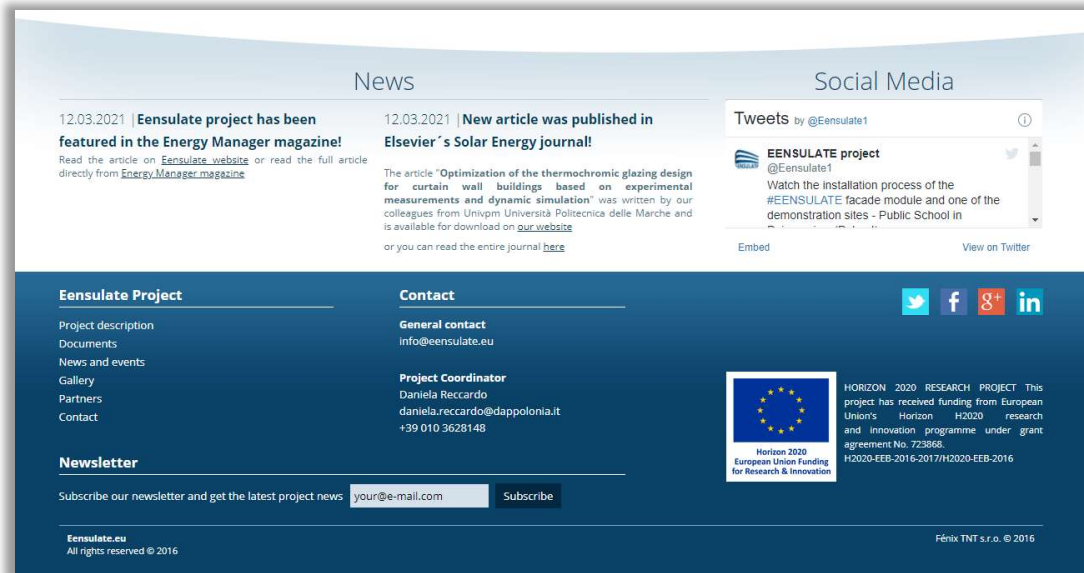


Figure 30: Newsletter subscription form on the project website



September 2017  
N°01

Dear Reader,

We proudly present the first EENSULATE newsletter. This newsletter was created to introduce the project more in detail and to provide you with an overview of the progress of the EENSULATE project. The project has reached a milestone of 13 months and it is at this point that we would like to share with you the latest news on the advances that were made in the past months as well as elaborate on our plans for the upcoming period.



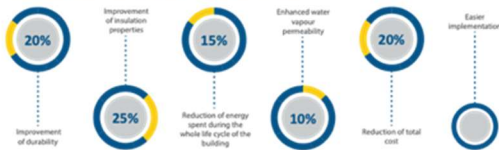
Development of innovative lightweight and highly insulating energy efficient components and associated enabling materials for cost-effective retrofitting and new construction of curtain wall façades.



EENSULATE will develop an affordable and lightweight solution for envelope insulation to bring existing curtain wall buildings to 'nearly zero energy' standards, reducing energy bills by at least 20% while complying with the structural levels of the original building structure and national building codes.

A product that will meet the market demand for prefabricated façade retrofitting system with limited weight and thickness at an affordable price.

The new solutions will bring significant changes in terms of:



**PRODUCT**

Two key commercial insulating products:

**EENSULATE FOAM**

A highly insulating mono-component and environmentally friendly spray foam, EENSULATE foam, for the cost-effective automated manufacturing and insulation of the opaque components of curtain walls as well as for the significant reduction of thermal bridges during installation leading to doubling of the thermal resistance of the whole façade.

**EENSULATE GLASS**

A lightweight and thin double pane vacuum glass, EENSULATE glass, for the high insulation of the transparent component of curtain walls, manufactured through an innovative low-temperature process. A breakthrough multifunctional thermo-tunable coating will allow for dynamic solar gain control as well as anti-fogging and self-cleaning properties.

Two different levels of performance:

The project output is a product family that will be promoted in two different levels of performance. First, EENSULATE Basic expects to tackle both the vision glass and spandrel, and drastically reduces thermal bridges associated with interfaces between the spandrel and the sub-structure. Second, EENSULATE Premium will provide the dynamic solar control behaviour in a cost-effective way and integrate multi-functionalities as self-cleaning and anti-fogging properties.



**WHERE WE ARE**



**DEMO**

The performances of the EENSULATE insulating solution will be assessed at the full-scale prototype. Demonstration buildings are located in two different climates (Italy and Poland). The focus will be placed on the thermo-acoustic behaviour of demo buildings and indoor comfort. Different parameters will be monitored, such as internal and external wall condition, indoor temperature and humidity, acoustic performance etc.



**PARTNERS**



**HORIZON 2020 RESEARCH PROJECT**

The project has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement No. 723668. H2020-EEB-2016-2017/H2020-EEB-2016

YOU CAN FIND US ALSO ON:



www.eensulate.eu

**NEWS AND EVENTS**

**24.05.2017 | WORKSHOP OF THE PARTNERSHIP IN PUBLIC AND PRIVATE SECTOR IN HORIZON 2020**  
The EENSULATE project was presented by Petra Colantoni from FENIX TNT during the Workshop of the Partnership in Public and Private Sector in HORIZON 2020. The event was organized by the Technology centre CAS in Prague, the Czech Republic and took place on 24<sup>th</sup> May 2017. The aim of the workshop was to inform audience about results made during the program PPP Factories of the Future, Energy efficient Buildings and SPRE - a Photonics.

**05.2017 | EENSULATE PROJECT PART OF THE EEB PPP PROJECT REVIEW 2017**  
The EENSULATE project is one of the 155 energy efficient H2020 and FP7 projects presented in the 8<sup>th</sup> edition of the EEB PPP Project Review 2017. This early publication presents the progress and results of 110 co-funded projects within the EEB PPP under the 7<sup>th</sup> Framework programme (FP7) for 2010, 2011, 2012 and 2013 and 45 co-funded projects under the HORIZON 2020 programme for 2014, 2015 and 2016.

**26.-29.04.2017 | BUILDING FAIRS IN BRNO**

The EENSULATE project was exhibited by FENIX TNT at the Building Fairs in Brno, Czech Republic. The event took place on the 26<sup>th</sup>-29<sup>th</sup> April 2017. Fairs in Brno are well known for a unique presentation of all aspects of housing and house construction, building management services, technical solutions, equipment, interior design and furniture. Visitors can learn about the latest developments, trends, products and services in various fields.



**21.4.2017 | EENSULATE ON BUILD UP PORTAL**

Build up is an interactive web portal targeting professionals in the building sector with interests in the latest developments on technical and practical levels, policy regulations, financial issues, and innovative ideas. We are proud to invite you to the EENSULATE project information page on the Build UP portal.



**13.-14.03.2017 | EENSULATE PROJECT MEETING M6**

The meeting of the EENSULATE project took place on 13<sup>th</sup> and 14<sup>th</sup> March 2017, in Ulster University Belfast, Northern Ireland. Partners discussed and presented the development and outputs of the project so far. The open discussion about foam development and technical aspects related to prototype production took place. It was an opportunity to introduce the EENSULATE project innovative foam prototypes to the rest of the project consortium. Participants had also chance to visit the laboratory with the resistance tests of glass and watch samples to be used in the project.



**25.01.2017 | BRIMEE CONFERENCE**

The EENSULATE project was exhibited during BRIMEE Conference organized by FENIX TNT. The conference took place on the 25<sup>th</sup> January 2017 at the Brno University of Technology in Brno, Czech Republic. Participants of the conference had a chance to see presentations about various topics linked to green materials, new technologies and innovations in the construction sector. The event was concluded with the BRIMEE project demo site visit, where panels made of the Nano Crystalline Cellulose foams have been installed.



**16.-21.01.2017 | BAU 2017**

The EENSULATE project was exhibited by FENIX TNT on BAU17, the World's Leading Trade Fair connected with civil engineering, which took place in Munich, Germany on the 16<sup>th</sup>-21<sup>st</sup> January 2017. BAU presented a display of architecture, materials and systems for commercial and residential construction and interior design, for both new-build and R&D projects. Every year around 2,000 exhibitors from more than 40 countries exhibit a comprehensive range of materials and technologies for planning and construction.



**23.11.2016 | AMANAC WORKSHOP**

The EENSULATE project was introduced to the expert community during AMANAC workshop in Milan, Italy, 23<sup>rd</sup> November 2016. The workshop, co-organized by FENIX TNT and Bino Consulting, aimed to connect research community, industry and other European projects.



**19.9.2016 | ARTICLE AND VIDEO ON THE WEBSITE OF CITY DZIERŻONIÓW**

The project partner city Dzierżoniów published on its website a video and a short article regarding their participation in the EENSULATE project. The demo building in Dzierżoniów is mentioned there.

Figure 31: EENSULATE 1<sup>st</sup> newsletter







**Newsletter # 4 | June 2020**

**Project progress**

**EENSULATE glass prototypes**

The assembly process for the small-scale VIG prototypes (500mm by 500mm) required a significant and sustained effort by two project partners, namely [University of Ulster](#) and [SAES](#), culminating in the achievement of the project performance goals and the definition of a reliable process protocol ready for technology transfer for large scale production. The partners faced many challenges unforeseen at the outset, however, this research has generated extensive knowledge and understanding of the complex range and interaction of parameters required for VIG production.

A number of significant challenges have been encountered and addressed in the latter project months, namely the application and processing of the polymer-based resin edge sealant, the incorporation and activation of the gettering system used to maintain the required vacuum pressure over the glazing lifespan and sealing of the pump-out hole through which evacuation of the VIG is achieved.

[Read more](#)

**EENSULATE façade modules**

To face the increasingly urgent need to reduce the energy demand in buildings, the Eensulate Project proposes a glazed façade system based on VIG technology coupled with a thermochromic coated glass, the EENSULATE curtain wall module.

Thermochromic thin film has become a recognized potential solution for the reduction of the solar radiation entering into a glazed system due to its intrinsic ability to modulate the solar heat gain of the glass as a function of its temperature. This "intelligent" property of the thermochromic film distinguishes the insulation nature of the window from any other passive solution, like VIGs that have the same degree of insulation whatever the ambient temperature. On the contrary, the thermochromic window has a dynamic behavior as it allows or not the solar radiation entering through the glazed facade depending on the temperature reached by the thermochromic coating. In fact, below a certain temperature, called switching temperature, the coating allows solar radiation entering the building while above this temperature the solar radiation is reflected outside preventing indoor overheating.

From previous investigations, it is known that thermochromic material properties (switching temperature, hysteresis gradient and width) can be altered through variation of synthetic routes, mainly by acting on the material doping. However, no attention has been paid to how such alterations affect the overall building energy performance and the consequent savings attributed to the materials.

[Read more](#)

**EENSULATE demonstration sites update**

We have released an update of our demonstration sites! Check out our new [section of the website](#) where you can find fresh information regarding the demonstration pilots and monitoring.

**Project news**

**Deep renovation joint workshop**

In May, the EENSULATE project participated in the Deep renovation joint webinar along with our sister projects [Ecozone](#) and [PENSURE](#). The aim of the webinar was to raise awareness on the most innovative building renovation and energy-saving solutions and to present the technologies developed by three innovative projects co-funded by the European Commission in the framework of Horizon 2020 research and innovation programme.

More than 120 stakeholders attended the webinar! You can watch the whole recording [here](#). If you would like to watch only the EENSULATE session, you can find the edited recording [here](#).

**Publication in the ACS Journal**

Our partners from [University College London](#) have released a research paper called "High-Performance Planar Thin Film Thermochromic Window via Dynamic Optical Impedance Matching" in the [ACS - Applied Materials and Interfaces Journal](#)! You can download the paper [here](#).

Our partners from [University College London](#) have released a research paper called "High-Performance Planar Thin Film Thermochromic Window via Dynamic Optical Impedance Matching" in the [ACS - Applied Materials and Interfaces Journal](#)! You can download the paper [here](#).

**Project partners**

**Follow EENSULATE on social media**

The project leading to this application has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 101019150.

This dissemination material reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.

Want to change how you receive these emails? You can update your preferences or unsubscribe from this list.

Figure 34: EENSULATE 4<sup>th</sup> newsletter



Newsletter #5

May 2021

## Thank you!

We have entered the final month of our project! EENSULATE started in **August 2016** and was planned for **42 months** (end in **January 2020**). Most of the tasks and work were delayed due to national and international restrictions and the project needed a 16-month extension to conclude all tasks and activities properly. Despite the COVID-19 situation, which was very challenging, the EENSULATE project successfully finishes its course in **May 2021**.



Thank you for subscribing to our newsletter and our following our project, do not forget to follow us on social media to learn about follow up activities!



## FINAL PROJECT VIDEO

## FINAL PROJECT VIDEO

The final project video concludes the results and presents the work of all the EENSULATE partners.

Watch it below:



EENSULATE PROJECT

## FINAL STATEMENT OF THE COORDINATOR

*"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."*

*"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."*

Paola Robello, RINA

## DEMONSTRATIONS

Figure 35: EENSULATE 5<sup>th</sup> newsletter



### Statistics

Number of newsletter subscribers and downloads from the EENSULATE project website were tracked and KPIs are shown in the table below.

Table 3: Subscribers/downloads/views for EENSULATE newsletter

Type of activity	Downloads /Subscribers/Views
Number of newsletter subscribers	423
Number of newsletter downloads from project website	3 853
Number of newsletter views on EUAgenda portal	1 365

The project did not release 8 newsletters as forecasted, this was mainly caused by the project suspension period, and COVID impact, when most of the project works were stopped or slowed down and thus not enough information to share with subscribers.

## 4.5 Social media

In order to raise a public awareness about the EENSULATE project and to enable interaction with the followers, social media profiles were created – LinkedIn, Twitter, Facebook and YouTube – their links were added to the EENSULATE website and to all e-newsletters. FENIX, as the administrator of the profiles, manages the updates and posts, at least once a week.

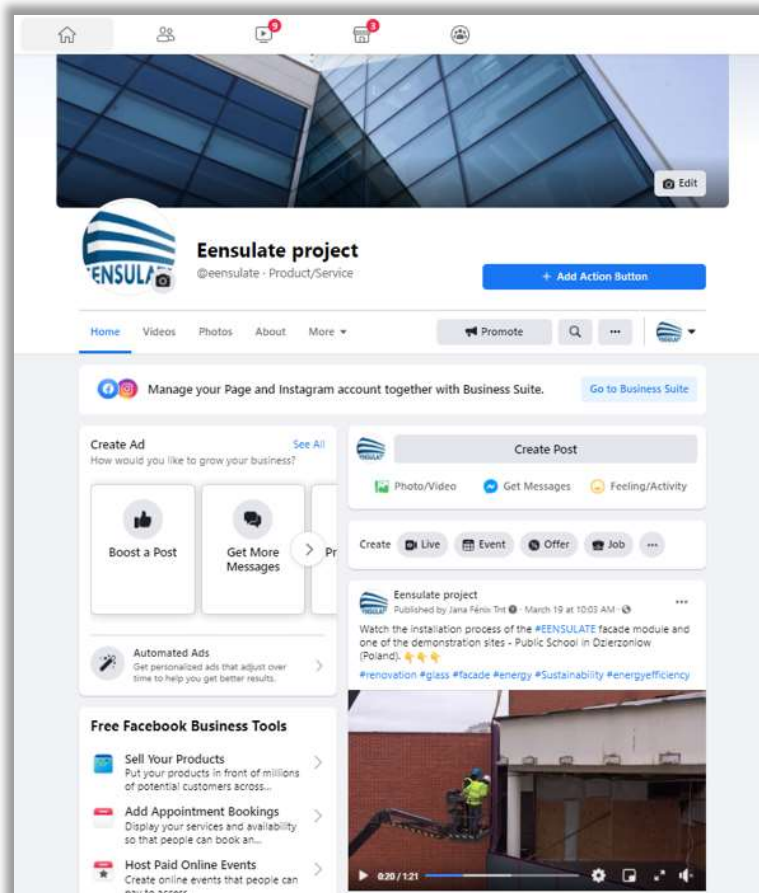


Figure 36: EENSULATE Facebook

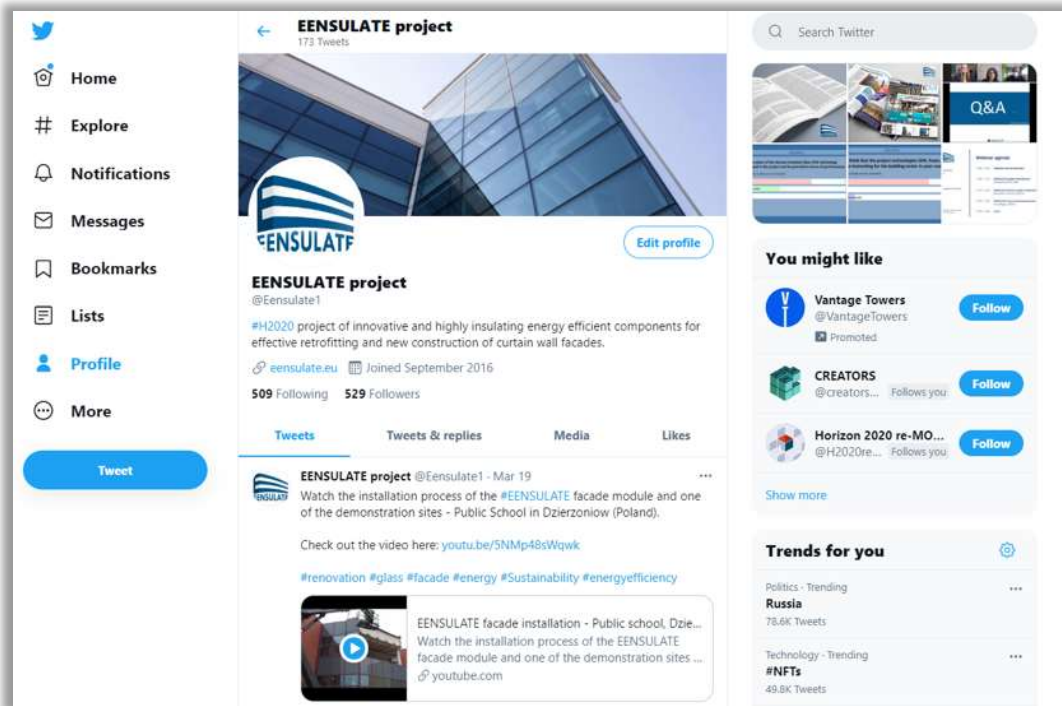


Figure 37: EENSULATE Twitter

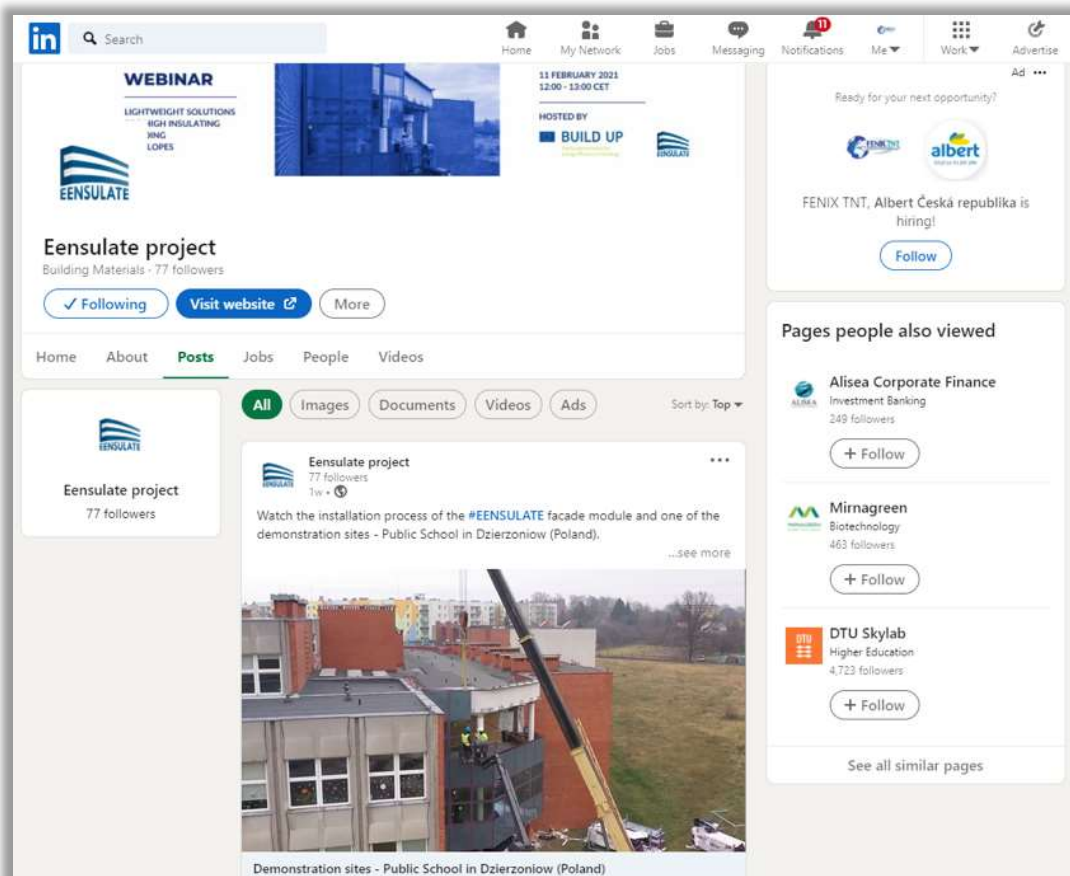


Figure 38: EENSULATE LinkedIn

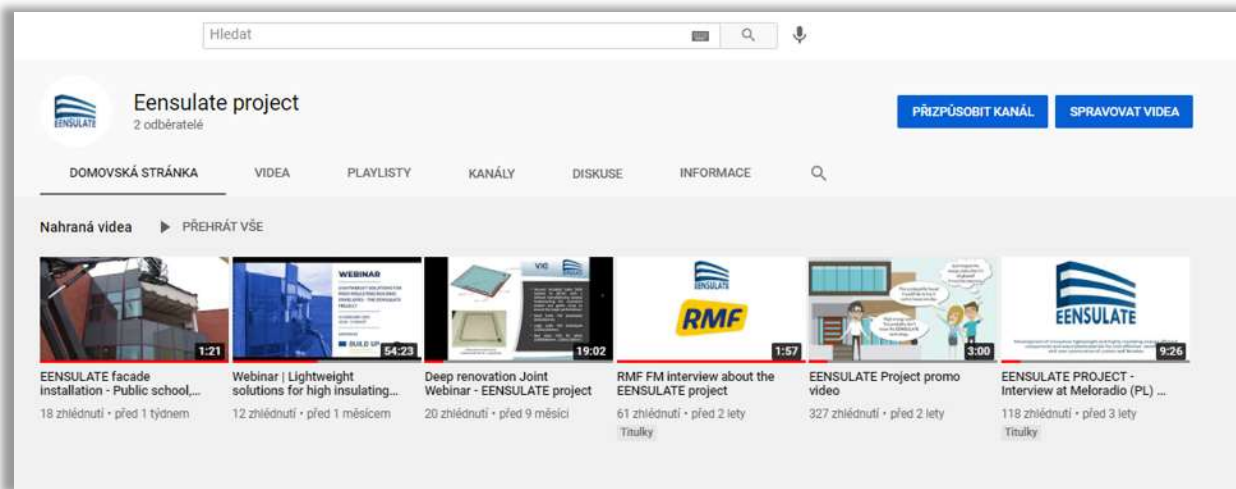


Figure 39: EENSULATE YouTube

FENIX was monthly monitoring the statistics of the each social media profile. The most successful social media profile is Twitter with more than 600 followers and more than 130 000 impressions. The overall performance of the social media campaign is considered successful as the initial KPI was exceeded 4 times. The detailed statistics are shown in the following table.

Table 4: EENSULATE Social media statistics

	Followers (M58)	Impressions/ Views (M58)	Link
Facebook	48	4 097	<a href="https://www.facebook.com/Eensulate-project-1794032404177300/">https://www.facebook.com/Eensulate-project-1794032404177300/</a>
Twitter	536	116 703	<a href="https://twitter.com/eensulate1">https://twitter.com/eensulate1</a>
LinkedIn	79	15 653	<a href="https://www.linkedin.com/company/eensulate-project">https://www.linkedin.com/company/eensulate-project</a>
YouTube	3	641	<a href="https://www.youtube.com/channel/UCIC6QSaaOrtw3EGRT0cxQ-g">https://www.youtube.com/channel/UCIC6QSaaOrtw3EGRT0cxQ-g</a>
<b>Total</b>	<b>666</b>	<b>137 094</b>	

## 4.6 Videos

One of the key methods for the effective product dissemination was agreed to be the creation and publication of a project promo video designed by FENIX with in-house production. The assignment was justified by the long-time experience of FENIX in the marketing and advertising field, with specific focus on penetration campaign planning. Two promo videos were released – one graphical with music showing general introduction about the project and complex promo video – story of the project with interviews, graphics, filming from the demo sites, music, and voice over. The goal of both videos is to introduce the EENSULATE project to a scientific audience, industry and wide public. For this reason, the project YouTube channel was created: <https://www.youtube.com/channel/UCIC6QSaaOrtw3EGRT0cxQ-g>.

This channel is also used as a platform for other videos produced during the project, such as radio interview recordings, recording from webinar, technical and training videos.

**Graphical video:** First project graphical video was created by FENIX in month M21. The video focuses on the general introduction of the project and its main concept, objectives, expected impact and demo-site details.

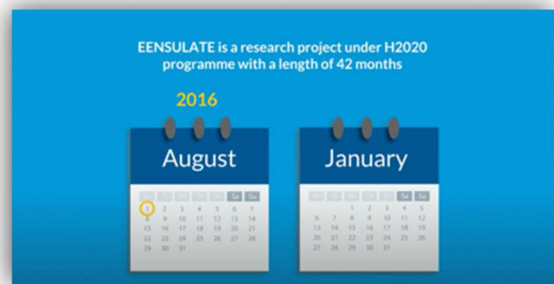
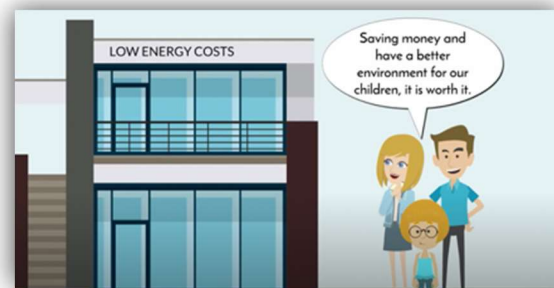


Figure 40: EENSULATE graphical video



**Installation of the EENSULATE facade module – Public school, Dzierżoniów:** The video focuses on the installation process of the EENSULATE façade module on the demonstration site in Dzierżoniów.

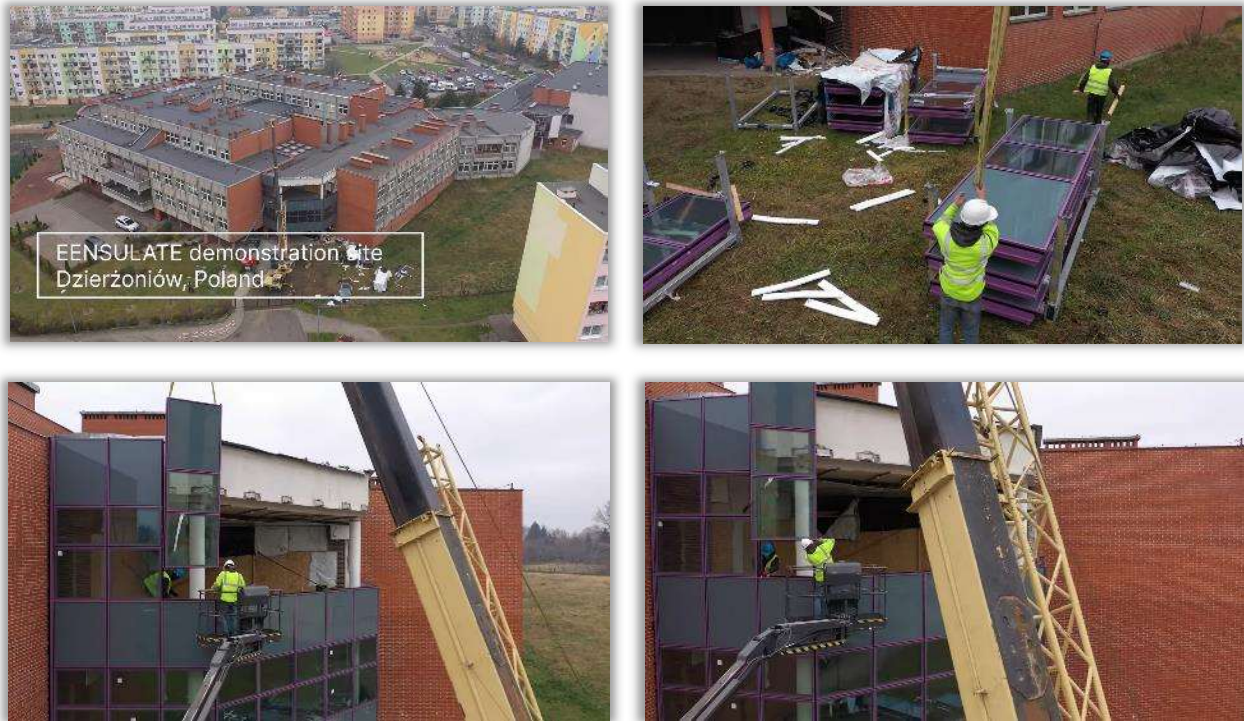


Figure 41: Installation of the EENSULATE facade module video

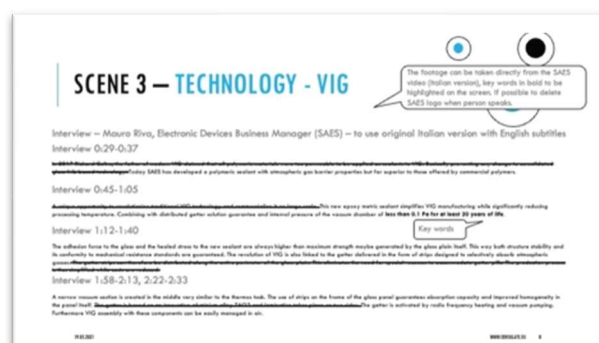
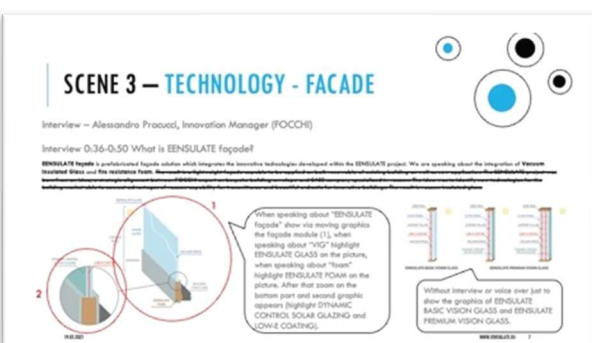
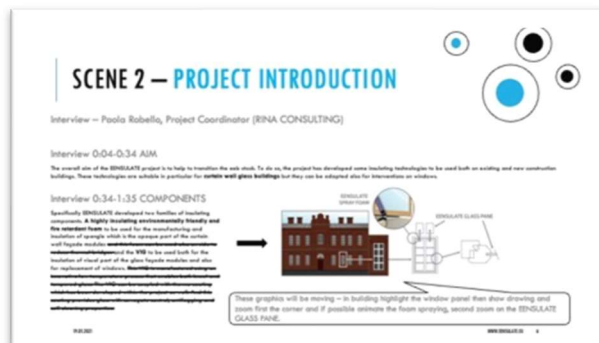
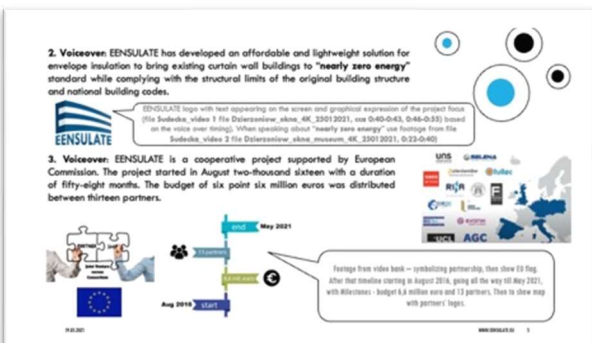
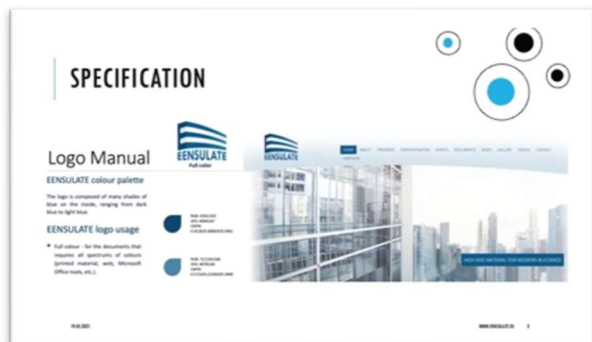
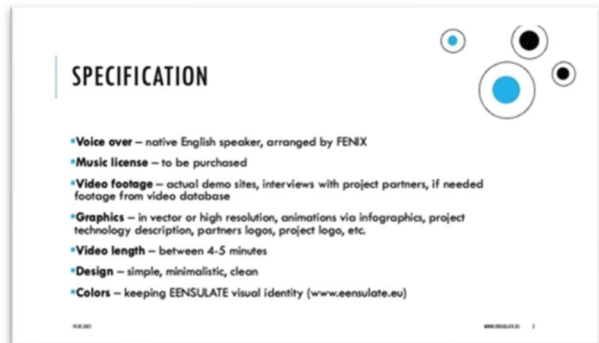
**Window glass (VIG) demonstration - Muzeum Dzierżoniów:** The video focuses on the installation process of the EENSULATE VIG on the demonstration site in Dzierżoniów.



Figure 42: Installation of the EENSULATE VIG video



**Final promo video:** At the end of the project the final promo video has been released. The video includes the introduction to the problematics, project's objectives, technology description, interviews with key technical partners, demo sites filming, project impact and information about the EU funding. The video was shared through all EENSULATE communication channels (project website, social media, thematic portals, final newsletter, etc.)



### SCENE 3 – TECHNOLOGY – VIG ASSEMBLY

Interview – Chiara Solaris, Research Associate (EUSTEP)

Interview: 0:36-1:17

The assembly process started as to achieve the best possible U-value for VIG with existing structural integrity, for glazing for safety purposes. The VIG assembly process was based around the existing structure, for EBC, structural steel and used previously proven technology from EUSTEP activity. In fact we developed an innovative joint and off-shoot process using bubble panels which enable us to do the VIG after renovation. [https://www.youtube.com/watch?v=9m3888888888](#)

No footage to be used, only interview.

### SCENE 4 – TESTING

Interview with the Project Coordinator – Paolo Rabella, RINA CONSULTING

Interview: 2:30-3:13

The testing phase is already completed. First of all, we have tested single components on the frame and the VIG and then we carried out the overall performance test on the module of the overall facade module. We will be done via footage from FOCHE 2021/02/24, 1:58:03, to choose the most suitable part on the video is double, maybe slow motion. Then go back to Paolo interview, highlight key word U, A, W, R, G, K.

First interview with Paolo, when speaking about "performance test on the module of the overall facade module" we will be done via footage from FOCHE 2021/02/24, 1:58:03, to choose the most suitable part on the video is double, maybe slow motion. Then go back to Paolo interview, highlight key word U, A, W, R, G, K.

### SCENE 5 – DEMO SITES

1. Veisiejai. The performance of the EENSULATE insulating solution was assessed using full-scale prototypes. Demonstration buildings were located in two different climates - in Italy and in Poland. The focus was placed on the thermo-acoustic behaviour of the demo buildings and indoor comfort where various parameters were monitored.

To show photos (FOCHE holder) while voice over saying "full scale prototypes", then stop appears with pins locating Poland and Italy, then zoom in and show first demo site Polish school.

20210224\_130023, 20210224\_130031, 20210224\_144837

### 2. Value even: The first demo is a public school that resides in a curtain wall building. The renovation intervention consisted of the full substitution of one curtain wall facade (including frame) of the school building. The aim was to enhance the building profile to zero energy in line with EU and national targets for public buildings.

First to show title of the demo location and video of the whole building (Rabella video file 0 - video Dzierzonow\_alm\_4K\_20042021) cut the best parts of above footage - while building and stand on the renovated building, then highlight the facade part which was renovated and describe the retrofitting process step by step via photos + description (Julia Plot photos + description and translation footage video Rabella, video 1 file Dzierzonow\_alm\_4K\_20012021).

PHOTO-2020-11-27-09-06-16\_1, PHOTO-2020-12-02-11-46-51\_1, PHOTO-2020-12-05-14-58-07\_1, Rabella video 1 file Dzierzonow\_alm\_4K\_20012021

0:06 – 1:06 (Possible to shorten more)

### MUZEUUM MIEJSKIE DZIERZONOWA - DZIERZONOW

3. Value even: Second demo is Museum Miasteczko Dzierzonowa in Poland. The intervention and the implementation of EENSULATE glass based on Vacuum Insulated Glass technology were done in a selected number of museum windows. Being a historical building, renovation works are always subject to restrictions to preserve its artistic value. For this reason, the implementation of Vacuum Insulated Glass directly in the original windows minimized the impact of the intervention and increased the insulation capacity.

First to show title of the demo location and video of the whole building (Rabella video file 2 - video Dzierzonow\_alm\_renovation\_4K\_20042021) cut the best parts of above footage - while building and stand on the renovated facade.

### PUBLIC LIBRARY SAN GIOVANNI - PESARO

4. Value even: Third demonstration site is Public Library in San Giovanni, Italy. The library is an example where the historical and contemporary architecture elements coexist. The building acted as a demo for testing EENSULATE glass in one door window. The simple substitution of the glass part of the door window with a high insulating Vacuum Insulated Glass increased the thermal insulation of the window system.

Video from demo site = 2 minutes

Video from demo site = 1.5 minutes

20210129\_110158, 20210129\_091324

### SCENE 6 – RESULTS, NEXT STEPS

Interview with the Project Coordinator – Paolo Rabella, RINA CONSULTING

Interview: 3:39-4:51

The EENSULATE glass based on vacuum insulated glass technology has been tested on several buildings in Europe and the results are very positive. The project and overall work were successful and gathering more information about it will be needed after the end of the project - scale up of the production process but we expect that the module will be available on the market in two years after the project ends. The next step is to start the substitution of the production process ensuring that the same level of quality is maintained throughout the production process which is fundamental in order to be competitive on the market. But there are also some specific technical building steps that need to be implemented after the renovation to ensure proper and lasting use of the VIG installation.

Leave just the interview.

### SCENE 7 – END USERS

Interview with the Project Coordinator – Paolo Rabella, RINA CONSULTING

Interview: 3:16-3:37

Anyone undertaking or being involved in deep renovation project can be considered an end user of the EENSULATE technologies, e.g. engineers, architects, construction companies, but also building owners both in the private and public sector and also ESCO companies.

The Scene can be deleted in case video is too long.

Because Paolo is speaking about end users like if somebody asks the question, we maybe show you slide with the question "Who is the end user?". The categories can be shown via photos/short footage appearing on screen like picture.

### SCENE 8 – IMPACT

Interview – Paolo Rabella, Project Coordinator (RINA CONSULTING)

Interview: 1:05-2:30

The impact we expect to obtain with the application of EENSULATE technologies are of course the improvement of insulating properties at component level, and these result in reduction in energy spent during the building life cycle. A durability of service life on component level and an easy implementation. The VIG has reduced thickness, so less adaptation works are needed both in terms of installation and design and the VIG is also less heavy with respect to commercial products so it is easy to be handled on site. The frame is faster and easy to be applied with respect to existing products.

Leave just the interview.

### SCENE 8 - CONTACT

PROJECT WEBSITE

1. Veisiejai. For more information visit EENSULATE website and follow the project's latest news on all social platforms.

Having graphics with actual EENSULATE values, lists of social media profiles.

End slide with EU logo and "Handling the Europe 2020 logo."

Figure 43: Storyboard for the EENSULATE final promo video

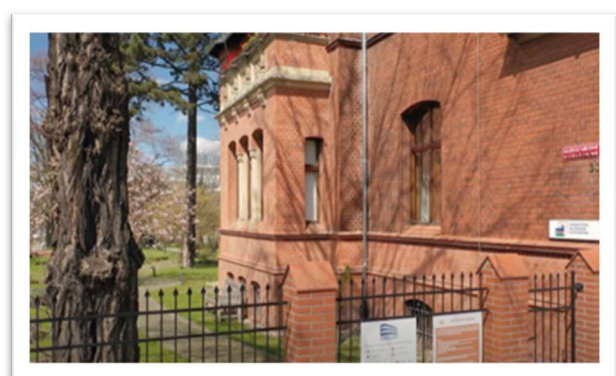
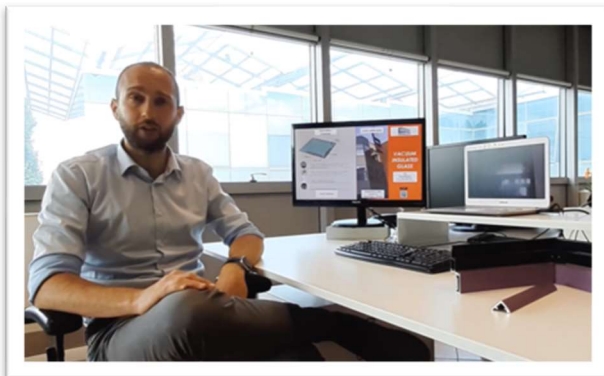
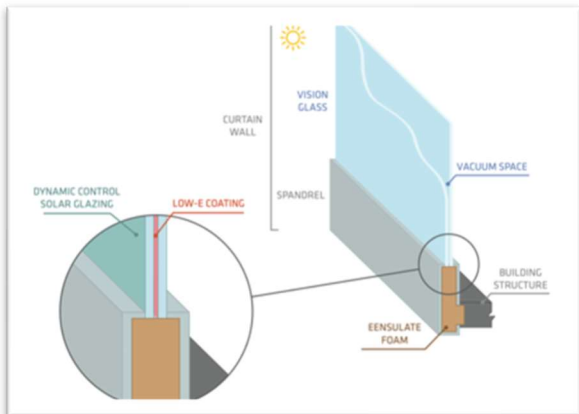
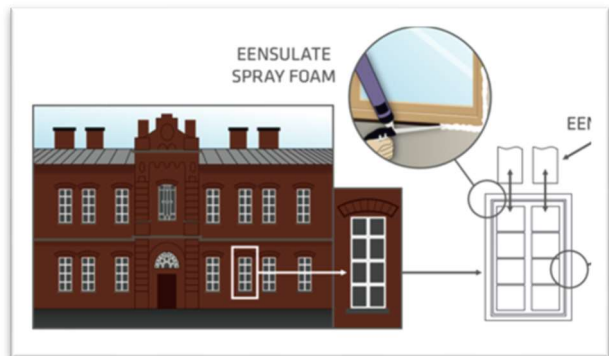






Figure 44: EENSULATE final promo video

### Statistics

Number of views on YouTube channel is shown in the table below.

Table 5 Views on EENSULATE YouTube channel

Video type	Released	Number of views
Interview at Meloradio (PL)	M12	122
Graphical promo video	M21	355
RMF FM interview	M30	63
Webinar "Deep renovation"	M47	21
Webinar "Lightweight solutions for high insulating building envelopes"	M55	25
Facade installation - Public school, Dzierzoniow	M56	57
Window glass (VIG) demonstration - Muzeum Dzierzoniow	M57	10
Facade demonstration - Public School Dzierzoniow	M57	15
Final promo video	M58	-

## 4.7 Publications

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Unless it goes against their legitimate interests, each beneficiary must - as soon as possible - ‘disseminate’ its results by disclosing them to the public by appropriate means (other than those resulting from protecting or exploiting the results), including in scientific publications (in any medium).

A beneficiary that intends to disseminate its results must give advance notice to the other beneficiaries of - unless agreed otherwise - at least 45 days, together with sufficient information on the results it will disseminate.

Any other beneficiary may object within - unless agreed otherwise - 30 days of receiving notification if it can show that its legitimate interests in relation to the results or background would be significantly harmed. In such cases, the dissemination may not take place unless appropriate steps are taken to safeguard these legitimate interests.

Any dissemination of results (in any form, including electronic) must display the EU emblem and include the following text: *“This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 723868”*.

### Scientific publications

Each beneficiary must ensure open access (free of charge online access for any user) to all peer reviewed scientific publications relating to its results.

In particular, it must:

- as soon as possible and at the latest on publication, deposit a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication in a repository for scientific publications; moreover, the beneficiary must aim to deposit at the same time the research data needed to validate the results presented in the deposited scientific publications.
- ensure open access to the deposited publication — via the repository — at the latest:
  - on publication, if an electronic version is available for free via the publisher, or
  - within six months of publication (twelve months for publications in the social sciences and humanities) in any other case.
- ensure open access — via the repository — to the bibliographic metadata that identifies the deposited publication.

The bibliographic metadata must be in a standard format and must include all the following:

- the terms “European Union (EU)” and “Horizon 2020”.
- the name of the action, acronym, and grant number.
- the publication date, and length of embargo period if applicable, and
- a persistent identifier.

The detailed list of scientific and popularized publications published by the EENSULATE project is shown in the table below. **The project consortium has published 10 scientific papers, 1 journal publication and 3 magazine publications.**



Publication title	Publication type	DOI	ISSN or eSSN	Authors	Periodical name/ Publisher	Number, Date	Place	Relevant pages	Public & private participation	Peer / review	Open access	Partner
Evonik participates in EU project	Article in journal	10.5281/zenodo.4607831	N/A	Holger Seier	Evonik Industries	Nov 2016	N/A	1	NO	NO	YES	EVONIK
Theoretical Study of Flexible Edge Seals for Vacuum Glazing;	Scientific paper	scholar.waset.org/1307-6892/10007776	1881 - 8153	Farid Arya and Trevor Hyde	19 <sup>th</sup> International Conference on Sustainable Buildings Design and Construction, World Academy of Science, Engineering and Technology	Aug 2017	Japan, International Journal of Structural and Construction Engineering Vol:11, No:8, 2017	1133-1137	NO	YES	YES	ULSTER
EENSULATE project	Article in magazine	10.5281/zenodo.4607851 <a href="http://www.europeanenergyinnovation.eu/OnlinePublication/Summer2018/mobile/index.html#p=34">http://www.europeanenergyinnovation.eu/OnlinePublication/Summer2018/mobile/index.html#p=34</a>	ISSN: 2219 - 9446, ISBN: 978-92-64-28230-8	P. Topolčanová, M. Bakešová	European Energy Innovation magazine/ Prologue Media Ltd.	May 2018	UK	35	NO	NO	YES	FENIX

Assessment of fire behaviour of polyisocyanurate (PIR) insulation foam enhanced with lamellar inorganic smart fillers	Scientific paper, proceedings published in Journal of Physics: Conference Series, referenced in Scopus and Web of Science	10.1088/1742-6596/1107/3/032004	17426588	Eleni ASIMAKOPOULOU, Jianping ZHANG, Maurice McKEE, Kinga WIECZOREK, Anna KRAWCZYK, Michele ANDOLFO, Marco SCATTO, Michele SISANI and Maria BASTIANINI	3 <sup>rd</sup> ESFSS 2018: European Symposium on Fire Safety Science	Sep 2018	Nancy (France), UK	032004	YES	YES	YES	ULSTER, SELENA
The Effect of Glass Thickness on Stress in Vacuum Glazing	Scientific paper	10.5281/zenodo.1474705 (paper) <a href="https://pure.ulster.ac.uk/en/publications/the-effect-of-glass-thickness-on-stress-in-vacuum-glazing">https://pure.ulster.ac.uk/en/publications/the-effect-of-glass-thickness-on-stress-in-vacuum-glazing</a>	91950263	Farid Arya, Trevor Hyde, Andrea Trevisi, Paolo Basso, and Danilo Bardaro	ICHREET 2018: 20th International Conference on Home Renewable Energy and Efficiency Technologies Vol. 12, Issue 9 Open Science publisher	Oct 2018	London, UK	685-689	YES	NO	YES	ULSTER, RINA
The Effect of Glass Thickness on Stress in	Certificate of best	10.5281/zenodo.4609772	N/A	Farid Arya, Trevor Hyde, Andrea Trevisi, Paolo Basso,	International research conference	15-16 Oct 2018	London, UK	N/A	N/A	N/A	N/A	ULSTER, RINA

Vacuum Glazing	paper award			and Danilo Bardaro									
Investigation of synergistic effects of inorganic smart fillers and expanded graphite on the flame retardancy of polyisocyanurate insulation foam	Conference proceedings	10.18720/spbpu/2/k19-40 <a href="https://zenodo.org/record/4808201#.YK4tDZO A63K">https://zenodo.org/record/4808201#.YK4tDZO A63K</a> <a href="https://pure.ulster.ac.uk/ws/portalfiles/portal/77057992/ISFE_H9_paper_68_Revised.pdf">https://pure.ulster.ac.uk/ws/portalfiles/portal/77057992/ISFE_H9_paper_68_Revised.pdf</a> <a href="https://elib.spbstu.ru/dl/2/k19-40.pdf/download/k19-40.pdf?lang=en">https://elib.spbstu.ru/dl/2/k19-40.pdf/download/k19-40.pdf?lang=en</a>	N/A	Eleni ASIMAKOPOU LOU, Jianping ZHANG, Maurice McKEE, Kinga WIECZOREK, Anna KRAWCZYK, Michele ANDOLFO, Marco SCATTO, Michele SISANI and Maria BASTIANINI	9 <sup>th</sup> International Seminar of Fire and Explosion Hazards  Published by Saint-Petersburg Polytechnic University Press	Apr 2019	Saint-Petersburg, Russia	1000-1009	NO	YES	YES	ULSTER, SELENA	
Fire Retardant Action of Layered Double Hydroxides and Zirconium Phosphate Nanocomposites Fillers in Polyisocyanurate Foams	Scientific paper	<a href="https://doi.org/10.1007/s10694-020-00953-7">https://doi.org/10.1007/s10694-020-00953-7</a>	1572 8099, 0015 2684	Eleni ASIMAKOPOU LOU, Jianping ZHANG, Maurice McKEE, Kinga WIECZOREK, Anna KRAWCZYK, Michele ANDOLFO, Marco SCATTO, Michele	Fire Technology - Springer	Feb 2020	Netherlands	1755-1766	NO	YES	YES	ULSTER, SELENA	

				SISANI, Maria BASTIANINI, Anastasios KARAKASSIDES and Pagona PAPAKONSTA NTINO								
Effect of layered double hydroxide, expanded graphite and ammonium polyphosphate additives on thermal stability and fire performance of polyisocyanurate insulation foam	Scientific paper	<a href="https://doi.org/10.1016/j.tca.2020.178724">https://doi.org/10.1016/j.tca.2020.178724</a>	0040 - 6031	Eleni ASIMAKOPOULOU, Jianping ZHANG, Maurice McKEE, Kinga WIECZOREK, Anna KRAWCZYK, Michele ANDOLFO, Marco SCATTO, Michele SISANI, Maria BASTIANINI, Anastasios KARAKASSIDES and Pagona PAPAKONSTANTINO	Thermochimica Acta - Elsevier, vol. 693	Aug 2020	Netherlands	To be defined	NO	YES	Embargo period ending 30.8.2021	Ulster, SELENA
Combined Effect of Temperature Induced Strain and Oxygen Vacancy on	Scientific paper	<a href="https://doi.org/10.1002/adfm.202005311">https://doi.org/10.1002/adfm.202005311</a> <a href="https://onlinelibrary.wiley.com/doi/epdf/10.1002/adfm.202005311">https://onlinelibrary.wiley.com/doi/epdf/10.1002/adfm.202005311</a>	1522 - 2365	Kargal L Gurunatha, Sanjayan Sathasivam, Jianwei Li, Mark Portnoi, Ivan P. Parkin,	Advanced functional materials journal	Sep 2020	Weinheim, Germany	1-9	NO	YES	YES	UCL

Metal-Insulator Transition of VO <sub>2</sub> Colloidal Particles		<a href="https://doi.org/10.1002/adfm.202005311">0.1002/adfm.202005311</a>		Ioannis Papakonstantinou	Published by Wiley-VCH GmbH								
High-Performance Planar Thin Film Thermochromic Window via Dynamic Optical Impedance Matching	Scientific paper	<a href="https://doi.org/10.1021/acscami.9b18920">https://doi.org/10.1021/acscami.9b18920</a> <a href="https://pubs.acs.org/doi/10.1021/acscami.9b18920">https://pubs.acs.org/doi/10.1021/acscami.9b18920</a>	8140-8145	Christian SolMark PortnoiTao LiKargal L. GurunathaJohannes SchläferStefan GuldinIvan P. ParkinIoannis Papakonstantinou	ACS Appl. Mater. Interfaces	Jan 2020	USA	8140-8145	NO	YES	YES	UCL	
The Integration of Vacuum Insulated Glass in Unitized Façade for the Development of Innovative Lightweight and Highly Insulating Energy Efficient Building Envelope—The Results	Scientific paper	<a href="https://doi.org/10.3390/designs4040040">https://doi.org/10.3390/designs4040040</a> <a href="https://www.mdpi.com/2411-9660/4/4/40">https://www.mdpi.com/2411-9660/4/4/40</a>	2411-9660	Alessandro Pracucci, Oscar Casadei, Sara Magnani	Designs Journal Published by MDPI	Sep 2020	Taiwan	1-15	NO	YES	YES	FOCCHI	



of Eensulate Façade System Design													
Optimization of the thermochro mic glazing design for curtain wall buildings based on experimental measuremen ts and dynamic simulation	Scientifi c Paper	DOI: 10.1016/j.sole ner.2021.01.0 13  <a href="https://www.sciencedirect.com/science/article/pii/S0038092X21000281">https://www.sciencedirect.com/science/article/pii/S0038092X21000281</a>	0038 - 092X	Arnesano, M., Pandarese, G., Martarelli, M., Naspi, F., Gurunatha, K.L., Sol, C., Portnoi, M., Ramirez, F.V., Parkin, I.P., Papakonstanti nou, I., Revel, G.M.	Solar Energy – Elsevier, Vol. 216	Mar 2021	USA	14-25	NO	YES	YES	UNIVPM	
The EENSULATE project	Article in magazin e	10.5281/zeno do.4607797	N/A	Filip Fišer	Energy Manager Magazine, Published by Energy Manager	Mar 2021	UK	4	NO	NO	YES	FENIX	
The EENSULATE project	Article in magazin e	<a href="https://edition.pagesuite-professional.co.uk/html5/reader/producti on/default.aspx?pubname=&amp;edid=f0cd4626-ba9b-4718-8e54-5e7da5346ec4">https://edition .pagesuite- professional.c o.uk/html5/re ader/producti on/default.asp x?pubname=&amp; edid=f0cd4626 -ba9b-4718- 8e54- 5e7da5346ec4</a>	2632 - 4067	Filip Fišer	EDMA The Project Repository Journal, Vol. 9	Apr 2021	UK	130- 133	NO	NO	YES	FENIX	

## 4.8 Press releases, thematic portals

EENSULATE project published press releases on various portals with topic of energy efficiency and sustainability such as BuildUp portal, ECTP, EU Agenda, Construction21, etc. During the project, **15 press releases** have been published in total with views exceeding **9 000**. List of all press releases published during the project and the views statistics is present in the following table.

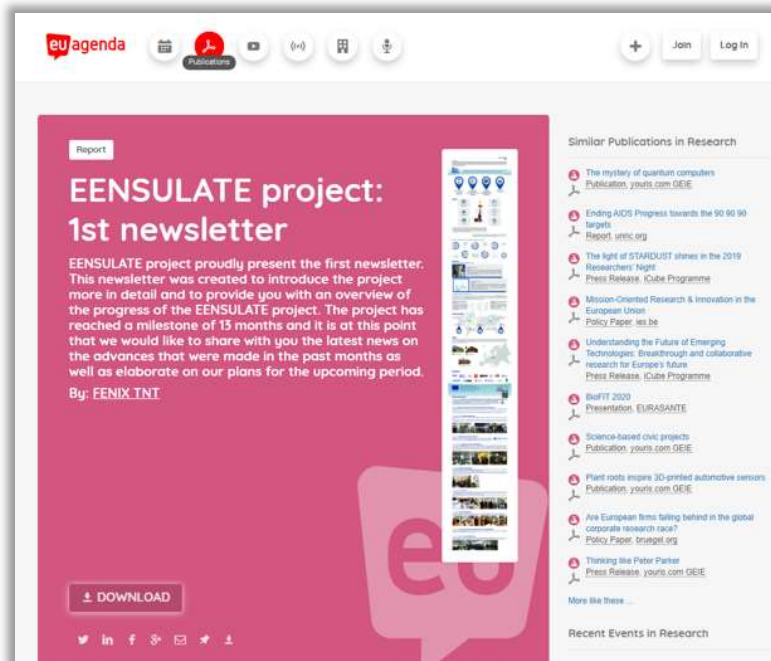


Figure 45: EENSULATE on EU Agenda portal

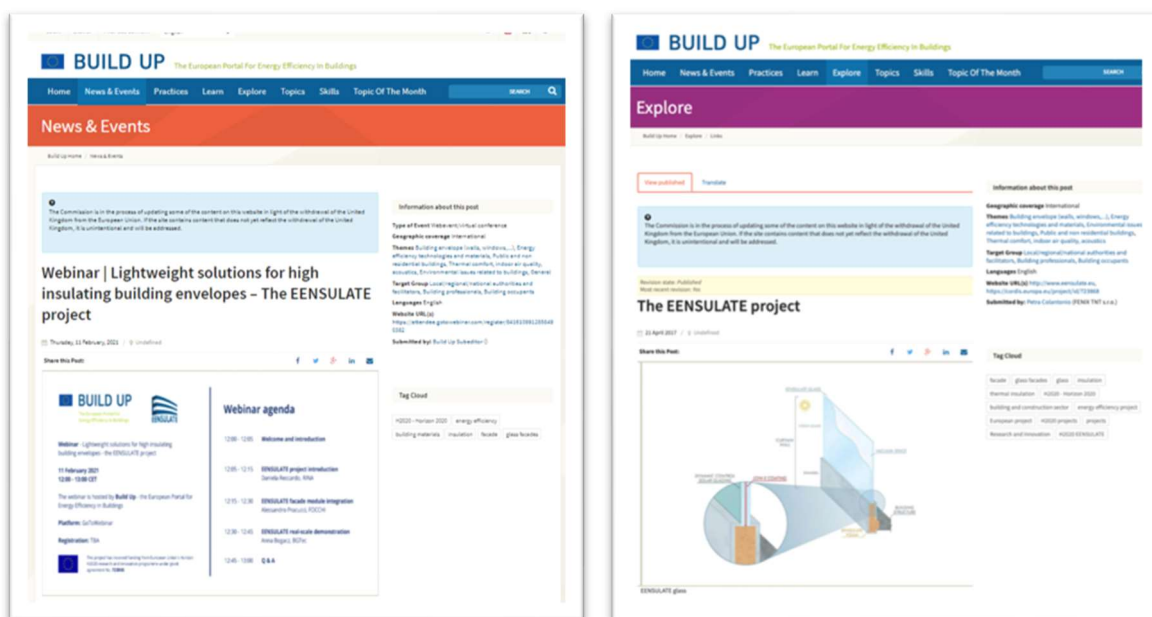


Figure 46: EENSULATE on BuildUp portal

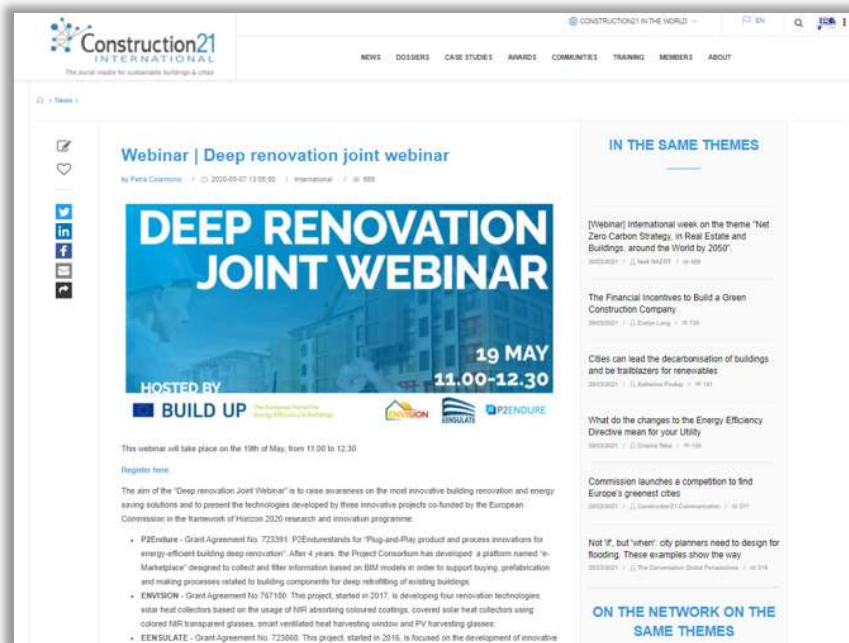


Figure 47: EENSULATE on Construction21 portal

EENSULATE project is also part of “The European Construction, built environment and energy efficient building Technology Platform” (ECTP), which is a leading membership organisation promoting and influencing the future of the Built Environment.

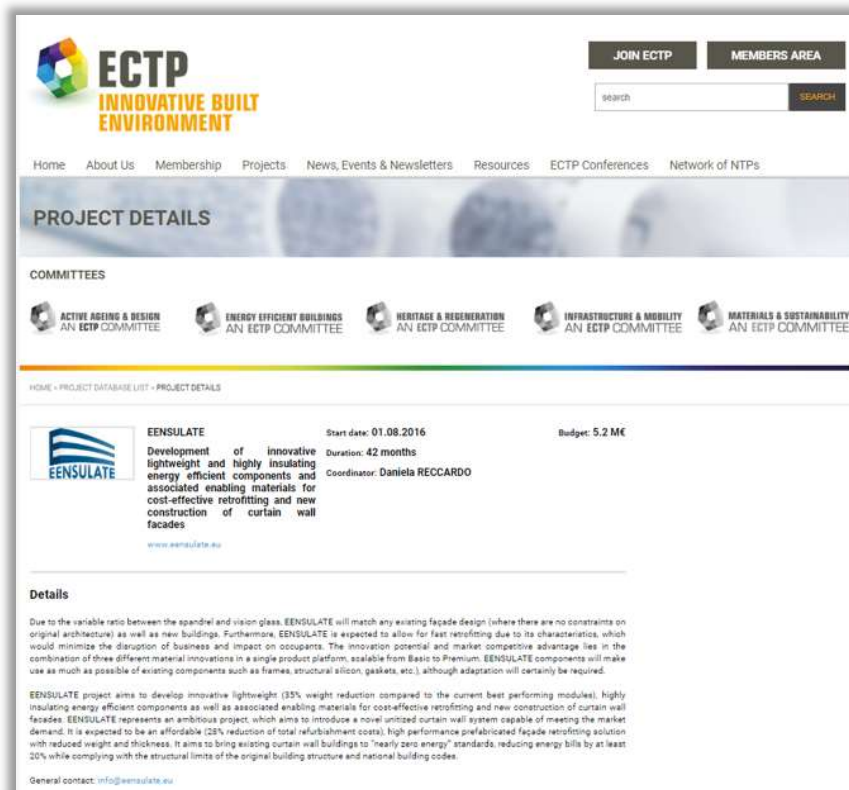


Figure 48: EENSULATE in ECTP database

Table 6: List of EENSULATE press releases

Portal	Subject	Link	Uploaded	Views
ECTP	EENSULATE	<a href="http://www.ectp.org/project-database-list/project-details/development-of-innovative-lightweight-and-highly-insulating-energy-efficient-components-and-associated-enabling-materials-for-cost-effective-retrofitting-and-new-construction-of-curtain-wall-facades/">http://www.ectp.org/project-database-list/project-details/development-of-innovative-lightweight-and-highly-insulating-energy-efficient-components-and-associated-enabling-materials-for-cost-effective-retrofitting-and-new-construction-of-curtain-wall-facades/</a>	Aug 2016	N/A
BUILDUP	The EENSULATE project	<a href="http://buildup.eu/en/explore/links/eensulate-project-0">http://buildup.eu/en/explore/links/eensulate-project-0</a>	Apr 2017	1 955
EU AGENDA	EENSULATE project: 1 <sup>st</sup> newsletter	<a href="https://euagenda.eu/publications/eensulate-project-1st-newsletter">https://euagenda.eu/publications/eensulate-project-1st-newsletter</a>	Sep 2017	907
EU AGENDA	EENSULATE Project promo video	<a href="https://euagenda.eu/videos/29787">https://euagenda.eu/videos/29787</a>	Apr 2018	N/A
ECTP	More about EENSULATE project in its 2nd Newsletter	<a href="http://www.ectp.org/news-events-newsletters/news/news-detail/eensulate-project-2nd-newsletter/">http://www.ectp.org/news-events-newsletters/news/news-detail/eensulate-project-2nd-newsletter/</a>	Apr 2018	N/A
EU AGENDA	EENSULATE project: 2nd newsletter	<a href="https://euagenda.eu/publications/eensulate-project-2nd-newsletter">https://euagenda.eu/publications/eensulate-project-2nd-newsletter</a>	Apr 2018	797
EU AGENDA	EENSULATE project: 3rd newsletter	<a href="https://euagenda.eu/publications/eensulate-project-3rd-newsletter">https://euagenda.eu/publications/eensulate-project-3rd-newsletter</a>	Nov 2018	832
CONSTRUCTION 21	Webinar   Deep renovation joint webinar	<a href="https://www.construction21.org/article/s/h/webinar-deep-renovation-joint-webinar.html">https://www.construction21.org/article/s/h/webinar-deep-renovation-joint-webinar.html</a>	May 2020	741
EU AGENDA	Webinar   Deep renovation joint webinar	<a href="https://euagenda.eu/events/2020/05/19/webinar-deep-renovation-joint-webinar">https://euagenda.eu/events/2020/05/19/webinar-deep-renovation-joint-webinar</a>	May 2020	452
BUILD UP	Webinar   Deep renovation joint webinar	<a href="https://www.buildup.eu/en/events/webinar-deep-renovation-joint-webinar">https://www.buildup.eu/en/events/webinar-deep-renovation-joint-webinar</a>	May 2020	1237
BUILD UP	Webinar   Lightweight solutions for high insulating building envelopes – The EENSULATE project	<a href="https://www.buildup.eu/en/events/webinar-lightweight-solutions-high-insulating-building-envelopes-eensulate-project">https://www.buildup.eu/en/events/webinar-lightweight-solutions-high-insulating-building-envelopes-eensulate-project</a>	Feb 2021	1253
EU AGENDA	Webinar   Lightweight solutions for high insulating building envelopes – The EENSULATE project	<a href="https://euagenda.eu/events/2021/02/11/webinar-lightweight-solutions-for-high-insulating-building-envelopes-the-eensulate-project">https://euagenda.eu/events/2021/02/11/webinar-lightweight-solutions-for-high-insulating-building-envelopes-the-eensulate-project</a>	Feb 2021	181
CONSTRUCTION 21	"Deep renovation Joint Workshop 2.0" at Sustainable Places 2020	<a href="https://www.construction21.org/article/s/h/deep-renovation-joint-workshop-2-0-at-sustainable-places-2020.html">https://www.construction21.org/article/s/h/deep-renovation-joint-workshop-2-0-at-sustainable-places-2020.html</a>	Oct 2020	516

BUILD UP	Video: EENSULATE façade installation	<a href="https://www.buildup.eu/en/explore/links/video-eensulate-facade-installation">https://www.buildup.eu/en/explore/links/video-eensulate-facade-installation</a>	Mar 2021	539
CONSTRUCTION 21	Video: EENSULATE façade installation	<a href="https://www.construction21.org/articles/h/video-eensulate-facade-installation.html">https://www.construction21.org/articles/h/video-eensulate-facade-installation.html</a>	Mar 2021	397
<b>Total (15 press releases)</b>				<b>9 807</b>

## 4.9 Workshops organization

EENSULATE project organized and participated in several public workshops with cluster projects in order to increase the dissemination impact, share knowledge and audience. The detailed description of the workshops is listed below.

### 4.9.1 AMANAC workshop

The cooperation with the Advanced Materials and Nanotechnology (AMANAC) cluster has been mentioned in the chapter 3.1 of this deliverable. In November 2016, the cluster organized a workshop in Milan, Italy. The AMANAC WORKSHOP - “BRIDGING THE GAP BETWEEN RESEARCH AND MARKET UPTAKE: Innovative Energy Efficiency Building Solutions” was attended by 50 visitors. The purpose of the workshop was to identify and analyse drivers and barriers for the market uptake of innovative products or services, by involving key European stakeholders from the “Construction & Building value chain”. EENSULATE project was presented during this event.



Figure 49: Photos from the AMANAC Cluster workshop in Milan, Italy

### 4.9.2 Deep renovation joint workshops / webinars

A strong clustering partnership was established with sister projects P2ENDURE and ENVISION. The cooperation resulted in a joint workshop called “**Deep renovation joint workshop**” which took place in October 2018 in Rome, Italy and was attended by 80 people. The objective of the Workshop was to raise awareness on the most innovative building renovation and energy saving solutions.

The Deep Renovation Joint Workshop has been organised to learn about the most innovative systems and technologies for building deep renovation and to introduce them to the stakeholders representing building sectors from different European countries.



Event agenda:

**P2ENDURE** project - Plug-and-Play Product and Process Innovation for Energy-efficient Building Deep Renovation

**4RinEU** project - Robust and Reliable technology concepts and business models for triggering deep Renovation of Residential buildings in EU. Presented by Roberto Lollini (EURAC Research).

**Pro-GET-onE** project - Integration of Plug-and-Play solutions and users' centered approach to solve both energy and seismic requirements during deep renovation of residential buildings. Presented by Anastasia Fotopoulou (University of Bologna).

**ENVISION** project - Plug-and-Play Product and Process Innovation for Energy-efficient Building Deep Renovation. Presented by Bart Erich (TNO).

**EENSULATE** project - Plug-and-Play Product and Process Innovation for Energy-efficient Building Deep Renovation. Presented by Paola Robello (RINA Consulting).

During the poster session one more project has been presented – **ENERFUND**, which provides a tool that rates and scores deep renovation opportunities.

Presentations of the synergy projects can be found here:

<https://www.p2endure-project.eu/en/dissemination/presentations>.



Figure 50: Photos from the Deep renovation joint workshop in Rome, Italy

As the workshop was successful, the projects decided to continue in cooperation and organize another joint workshop in 2020. Unfortunately, in March 2020, the coronavirus pandemic impacted the possibility of physical dissemination events and therefore a solution had to be found – the workshops moved to digital platform. The “**Deep Renovation Joint Webinar**” took place in May 2020 and was visited by 120 attendees. The “**Deep Renovation Joint Workshop 2.0**” was organized within the Sustainable Places 2020 Conference in October 2020 and was visited by 50 attendees.

The “Deep Renovation Joint Webinar” was organised in cooperation with BUILD UP, the European Portal For Energy Efficiency in Buildings. The aim of the webinar was to raise awareness on the most innovative building renovation and energy saving solutions and to present the technologies developed by three innovative projects P2Endure, ENVISION and EENSULATE.

Event agenda:

**Introduction:** Agenda, Speakers, the importance of Deep renovation to meet the EU targets – Paola Robello – RINA Consulting S.p.A.

**P2Endure Project** – Gian Marco Revel (UNIVPM) – Project Technical Coordinator

**ENVISION Project** – Bart Erich (TNO) – Project Coordinator

**EENSULATE Project** – Daniela Riccardo (RINA) – Project Coordinator

**Final Q&A** - all speakers

Webinar recording can be found here: <https://www.youtube.com/watch?v=gkCm0Ztoc-4>.



Figure 51: Deep renovation joint webinar flyer

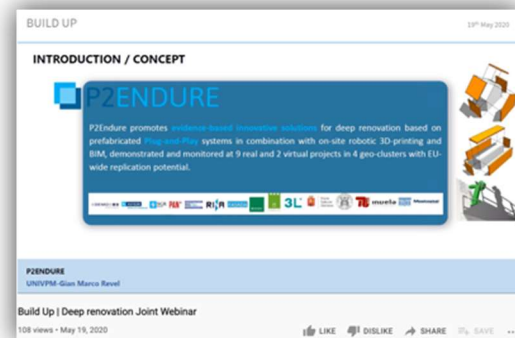
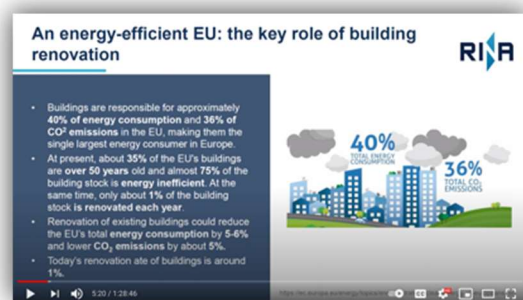




Figure 52: Deep renovation joint webinar recording

“**P2Endure Deep Renovation Joint Workshop 2.0**” aimed at bringing together stakeholders representing key decision makers and implementers in the field of deep renovation of buildings, along with retrofitting solutions users, and developers for an array of interactive poster sessions and discussions, and a unique hands-on showcase of innovative deep renovation of building solutions.

The objective of the workshop was to raise awareness on the most innovative building renovation and energy saving solutions.

Participating projects : **P2Endure, EENSULATE, RenoZEB, and BIM-Speed**

Chair of the workshop: Michelle Giordano (RINA Consulting)

Webinar recording can be found here: <https://www.sustainableplaces.eu/home/previous/sp20-workshops-events/sp20-deep-renovation-joint-workshop-2-0/>

Event agenda:

**Introduction** - Michelle Giordano, RINA Consulting

**P2Endure Project** – Plug-and-Play product and process innovation for Energy-efficient building deep renovation André Van Delft, Demo Consultants

**P2ENDURE Demo Buildings Genoa Demo, Italy** – Fabrizio Tavaroli, RINA Consulting; Gdynia Demo, Poland – Agnieszka Lukaszewska, Prefasada; Warsaw Demo, Poland – Piotr Dymarski, Mostostal Warszawa SA

**Results of P2Endure Project Project Survey** - Claudia Portulano, RINA Consulting

**ENVISION Project:** a full renovation concept that, for the first time, harvests energy from all building surfaces, transparent and opaque - Paola Robello, RINA Consulting

**EENSULATE Project:** innovative lightweight and highly insulating energy efficient components and associated enabling materials for cost-effective retrofitting and new construction of curtain wall facades - Daniela Reccardo, RINA Consulting (PDF)

**RenoZEB Project:** innovative components, processes and decision making methodologies to guide all value-chain actors in the nZEB building renovation process - Enrico Scoditti, RINA Consulting (PDF)

**BIM-SPEED Project:** innovative methodologies and tools with one central information source at its core: the Building Information Model (BIM), a digital representation of a building - Timo Hartmann, TU-Berlin (PDF) Q&A



Figure 53: Deep renovation joint workshop 2.0 flyer



Figure 54 Deep Renovation Joint Workshop 2.0

## 4.10 Public and policy workshops organization

In order to ensure that the new technologies are going to be considered by policymakers, two public workshops were planned towards the end of the project involving representative cities, industries and EU officials. The workshops should have been held close to the demo site as to have a showcase of the proposed technical solutions applied in a real-scale environment. Unfortunately, the coronavirus pandemic and subsequent government restrictions caused that the physical workshops could not have been held.

The global wave of online events has just emerged, so the solution was clear – to organize a webinar in cooperation with a respected partner – in order to attract bigger audience. The chosen partner was the Build Up portal – The European Portal For Energy Efficiency in Buildings, and the cooperation was great, Build Up



has offered a webinar platform and acted as a media partner of the event. The “Lightweight solutions for high insulating building envelopes” webinar was a successful event which attracted 50 attendees.

The webinar focused on the project results and progress along with EENSULATE key themes, such as: EENSULATE main technologies introduction, the development process, design, and its benefits; EENSULATE real-scale demonstration, etc. The format of the webinar was a moderated panel discussion with three speakers and a moderator. The session was highly interactive, there were 2 polls for the audience to participate in and the video from the installation of the EENSULATE façade module was played in real time. There was also a Q & A session, where the audience raised various questions and the EENSULATE experts answered them in detail. The whole webinar was recorded and shared on the project website (<http://www.eensulate.eu/webinar>) and YouTube channel (<https://www.youtube.com/watch?v=cg8TRDwd6mE&t=1500s>) for further training and educational purposes.

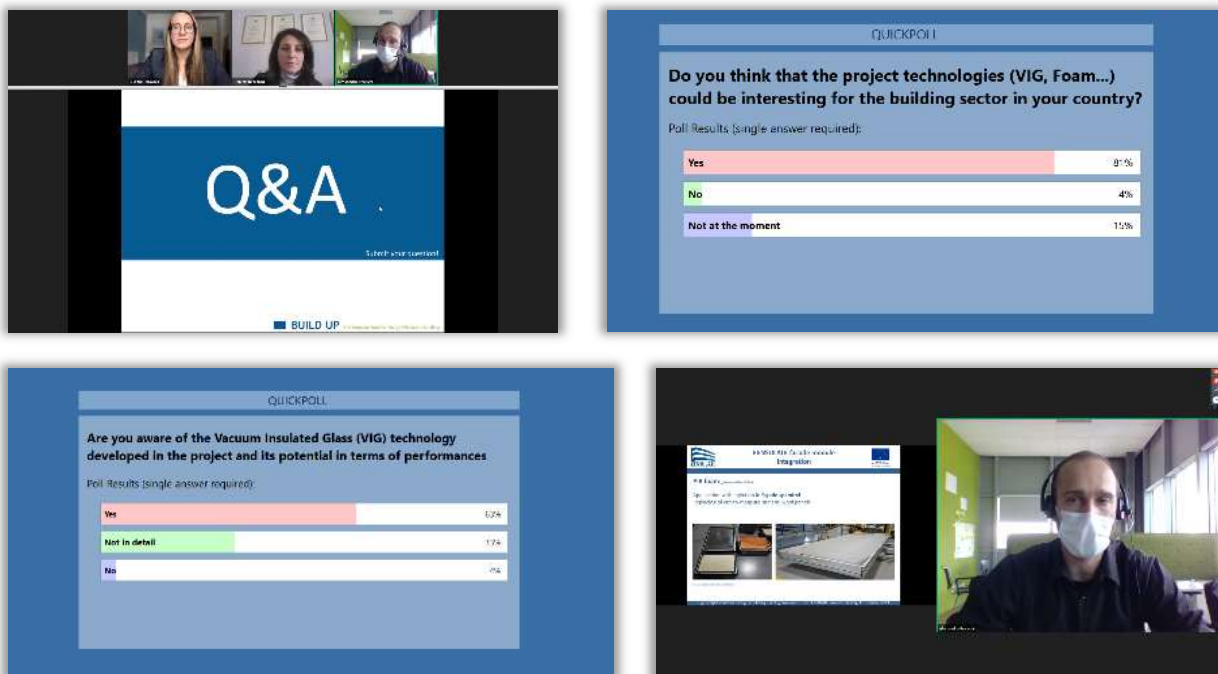


Figure 55: EENSULATE webinar







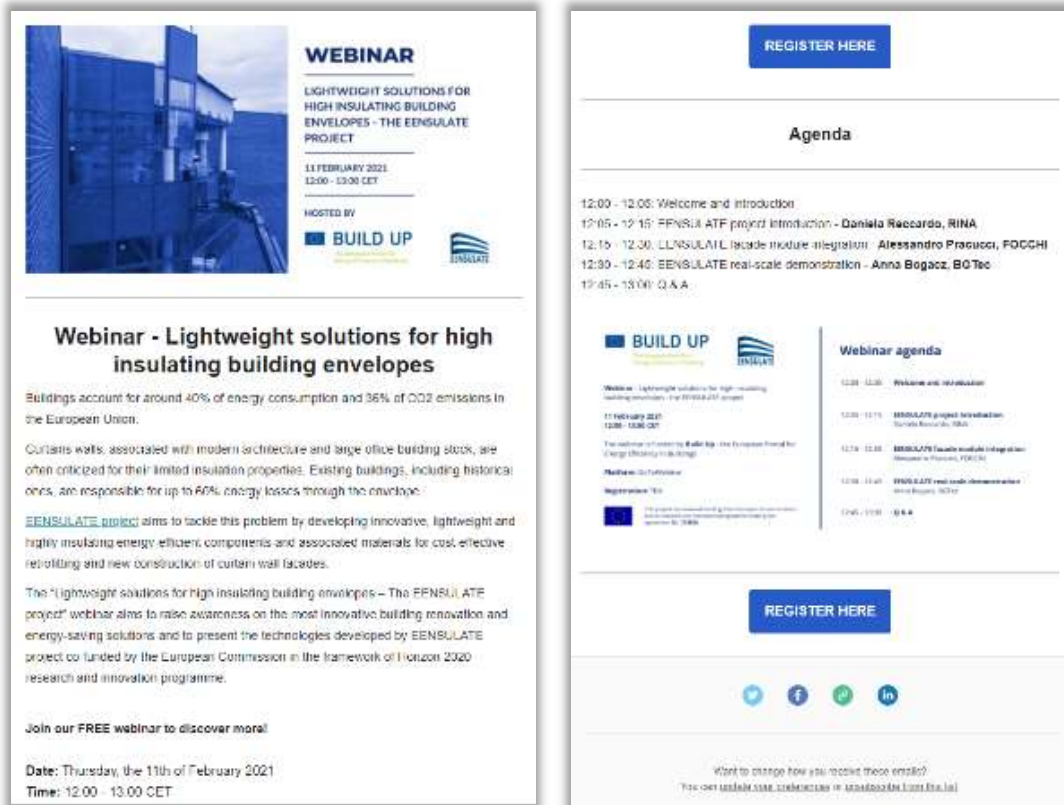


Figure 58: E-mail invitation to the EENSULATE webinar

### Dedicated website section

To store general information about the webinar at one place, such as agenda, background, topics and registration link, a dedicated website section was created: <http://www.eensulate.eu/webinar>.



Figure 59: Dedicated webinar section on the EENSULATE website

### Social media campaign

An extensive social media campaign was launched on all the EENSULATE project social media profiles (Facebook, Twitter, LinkedIn).

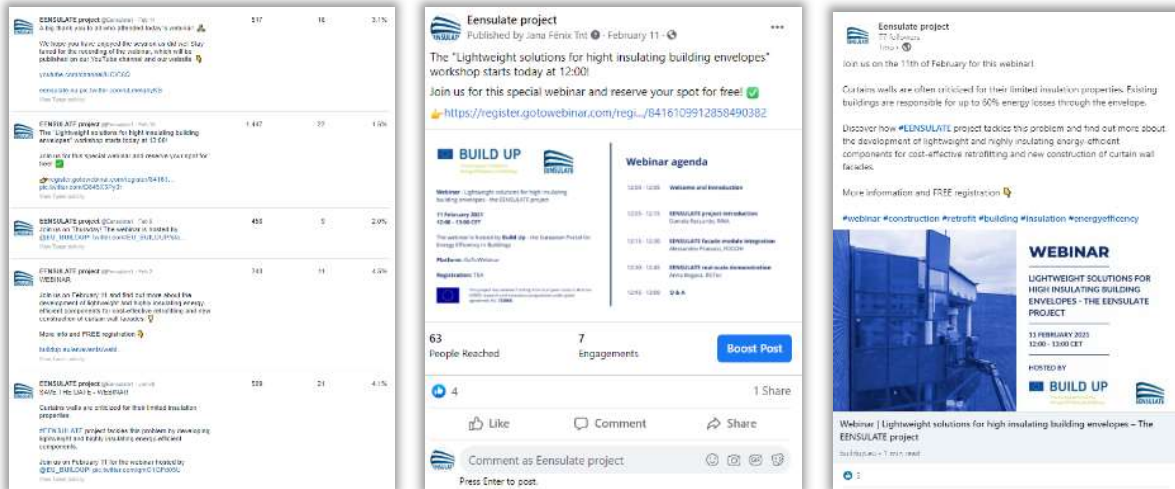


Figure 60: EENSULATE webinar social media campaign

### 4.11 Dissemination events

During the course of the project, EENSULATE was presented during various types of events by project partners, detailed list and description of all events can be found in the Appendix 1 – List of dissemination events. The project was presented at 31 events in total - 8 conferences, 4 fairs, 9 workshops, 3 webinars and 7 various other events (Meetings, forums, seminars, etc..).

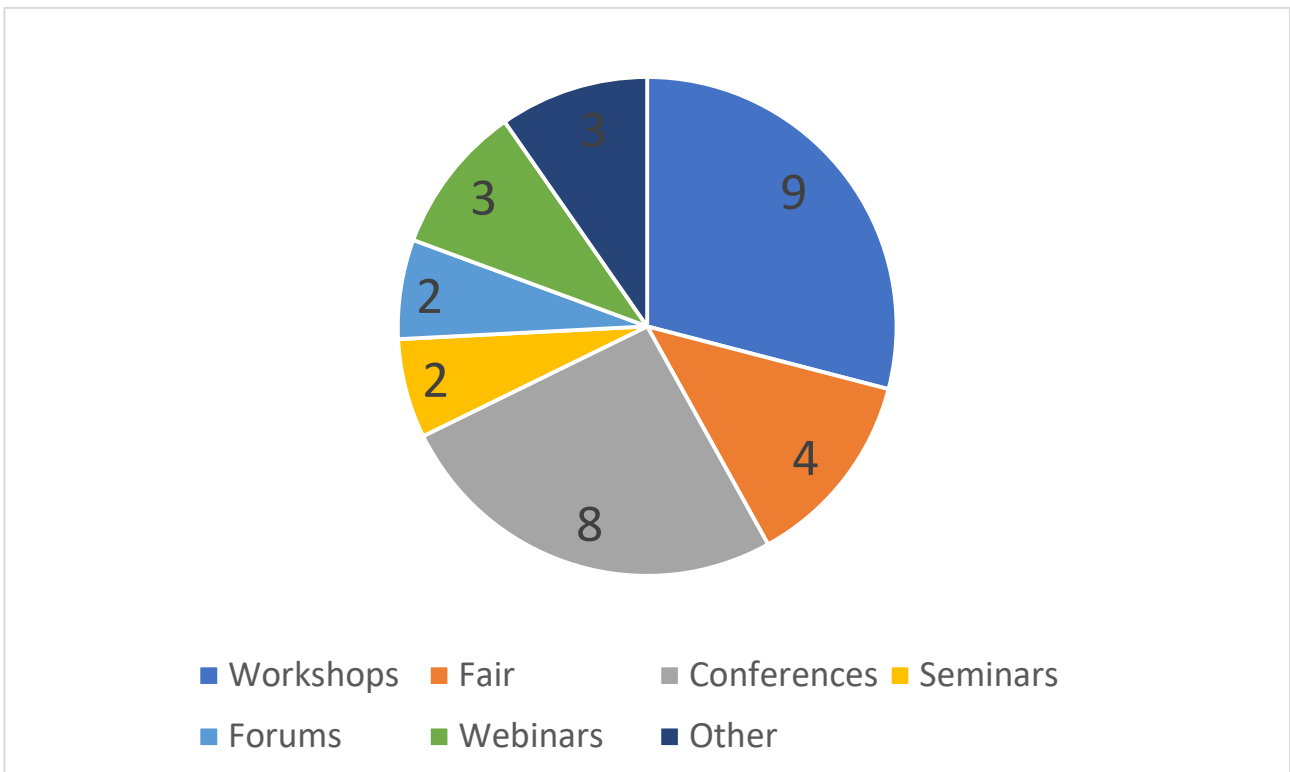


Figure 61: Overview of EENSULATE dissemination events participation

## 4.12 Training activities

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The main goal of the training activities for the EENSULATE project was to train professionals and stakeholders involved in the insulation materials, energy efficiency and the construction sector in general as well as to disseminate the EENSULATE Best Practices.

In order to define the content of training materials and guidelines, different stakeholders have been identified together with their themes of interest. The target audience was identified as follows:

- Educators (academic staff, researchers, higher education, public administration in charge of energy and building, etc.);
- Technical Experts (architects, engineers, designers, construction industry, installers, etc.);
- Decision Makers (Investors and developers, local and regional authorities, etc.);
- Service providers (thermo-technical companies, construction companies, ESCOs);
- Standardization/certification bodies (technical chambers, National standard organizations);
- End users.

The themes of interest were identified as follows:

- EENSULATE technology development and its benefits;
- EENSULATE real-scale demonstration;
- Retrofit process application at the individual demonstration site interventions;
- Final state of the demonstration interventions;
- EENSULATE Best practice and recommendations.

According to the themes of interests of each target audience group, different training materials have been prepared. More details about the training activities can be found in the deliverable D6.10 Report on training activities.

- Training manual – “EENSULATE Best Practice” booklet
- Training videos – Demonstration site installation process and finalisation
- Public webinar organization and the webinar recording
- EENSULATE installation guidelines
- Project website implementation

### 4.12.1 EENSULATE Best Practices booklet

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A 16 pages long booklet “BEST PRACTICE BOKLET” was created by FENIX in cooperation with technical partners. The Booklet is available on the EENSULATE project website and was intended for printing and distribution on physical events. The latter is not possible at the moment due to the coronavirus restrictions and the fact that physical events are being cancelled. Therefore, the EENSULATE project is putting more emphasis on the online dissemination of the material, social media profiles, press releases, newsletter, etc. The booklet is available on the project website, in the section “Training”.

<http://www.eensulate.eu/documents/training>



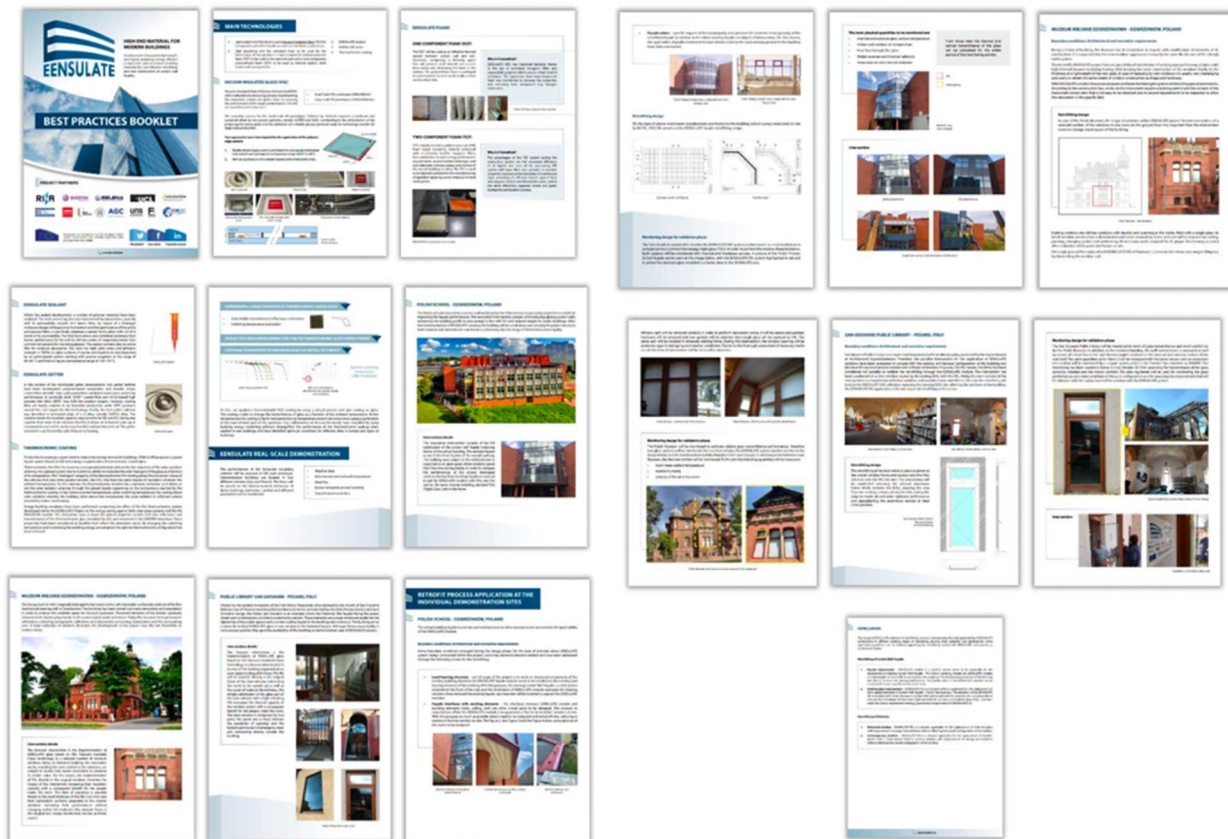


Figure 62: EENSULATE Best Practices booklet

#### 4.12.2 EENSULATE training videos

Three training videos were developed for the EENSULATE project. They are related to installation of the EENSULATE facade modules / windows at the demonstration sites. All EENSULATE project videos are stored in the project website (<http://www.eensulate.eu/videos>) as well as on the YouTube channel.

<https://www.youtube.com/channel/UCIC6QSaaOrtw3EGRT0cxQ-g>

##### **Installation of the EENSULATE façade module – Public school, Dzierzoniow**

The video focuses on the installation process of the EENSULATE façade module on the demonstration site in Dzierzoniow – the Public school.

##### **Final state of the EENSULATE façade module – Public school, Dzierzoniow**

The video showcases the final state of the EENSULATE façade module at the demonstration site in Dzierzoniow – the Public school.

##### **Final state of the EENSULATE VIG demo – Museum, Dzierzoniow**

The video showcases the final state of the EENSULATE VIG at the demonstration site in Dzierzoniow – the Muzeum.



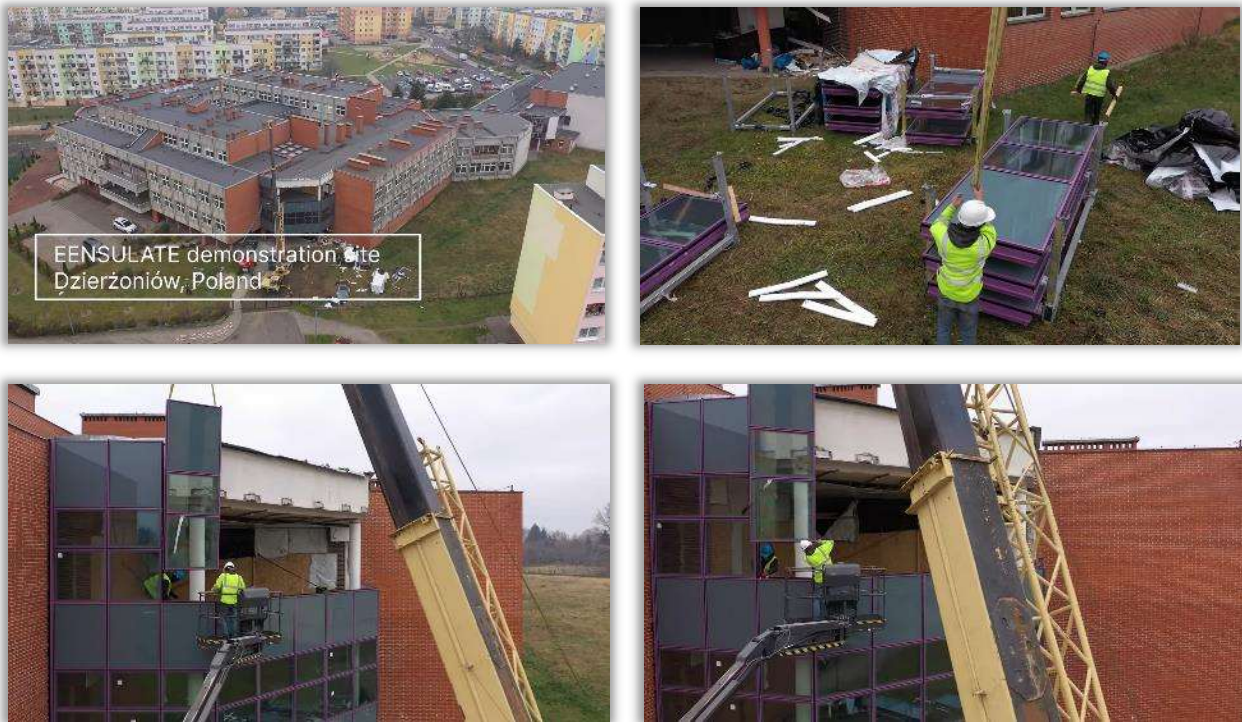


Figure 63: Training video - façade module installation video



Figure 64: Training video - Public School Dzierżoniów

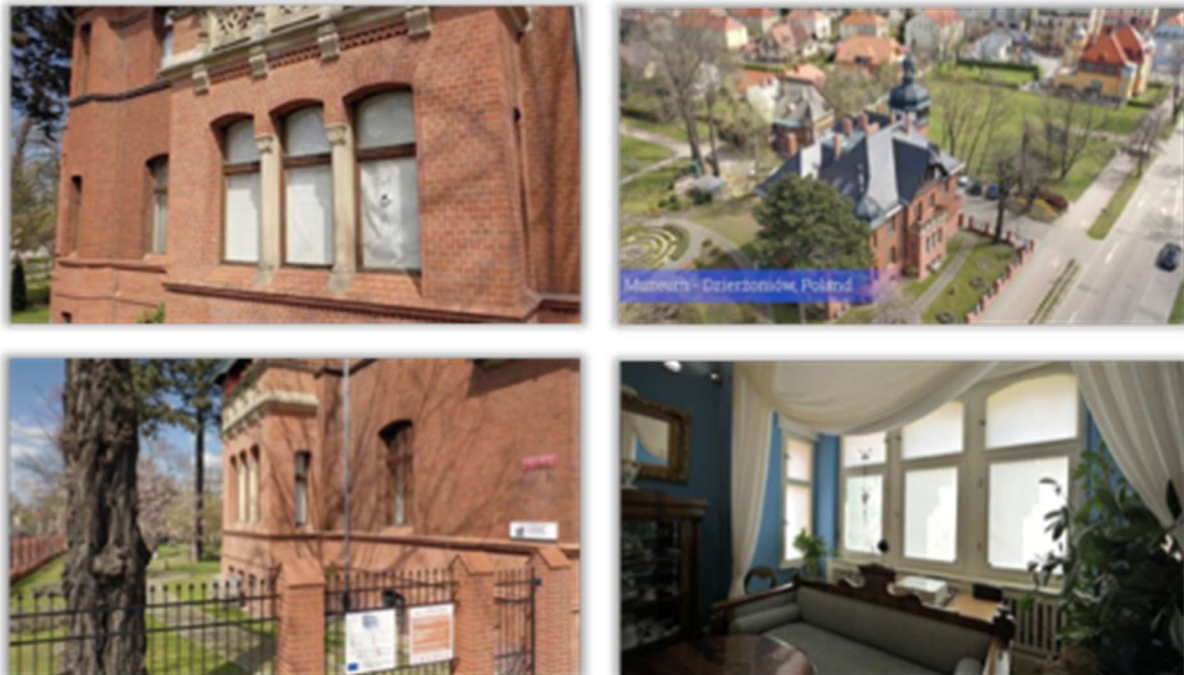


Figure 65: Training video – Muzeum Dzierzoniow

#### 4.12.3 EENSULATE Installation Guidelines

A booklet on “EENSULATE installation guidelines” was created by FENIX in cooperation with technical partners – especially BGTEC. The Guidelines are aimed at Technical Experts (architects, engineers, designers, construction industry, installers, etc.) and service providers (thermo-technical companies, construction companies, ESCOs) and therefore includes a more technical information. To be available as a standalone publication, the EENSULATE demo sites and the interventions are described similarly as in the “Best practice booklet”.

The guidelines are available on the EENSULATE project website and similarly as the “Best practice booklet” were intended for printing and distribution on physical events. EENSULATE project will, due to ongoing travel restrictions, put emphasis on the online dissemination of the material, social media profiles, press releases, newsletter, etc. The booklet will be available on the project website, in the section “Training”.

<http://www.eensulate.eu/documents/training>

The main topics covered in the guidelines are the following:

- EENSULATE products introduction – installation guidelines for - façade module, VIG
- EENSULATE real-scale demonstration – description of demo building and the conducted interventions
- EENSULATE retrofitting installation process in different scenarios – Curtain wall façade (facade replacement), windows (historical and contemporary)
- Individual steps of the interventions with images and descriptions
- Conclusions



## EENSULATE

**HIGH END MATERIAL FOR MODERN BUILDINGS**

Development of innovative lightweight and highly insulating energy efficient components and integrated existing materials for cost-effective selection and new construction of curtain wall facades.

### INSTALLATION GUIDELINES

EENSULATE REAL-SCALE DEMONSTRATION

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**PROJECT PARTNERS**

This project has received funding from the European Union's Horizon programme under grant agreement No 101017764

### EENSULATE PRODUCTS

- EENSULATE facade module**

The EENSULATE facade module is a part of curtain wall system including EENSULATE and EENSULATE components. It is a combination of a facade and a panel.
- EENSULATE VIG**

The EENSULATE facade module (EENSULATE) is a lightweight and easy-to-install facade for new buildings and historical buildings with curtain wall facades.

  - Facade module consisting of building proprietary, supporting system frame and insulative facade, taking into consideration all connections, sealing and finishing.
  - Installation of existing glazing with new glass only by window unit replacement.

**POLISH SCHOOL - DZIERZONIOW, POLAND**

The Polish school building is a curtain wall building which the Dzierzoniow municipality aims to renovate to improve the facade performance. The EENSULATE renovation intervention consisted of introducing curtain wall modules to replace the existing facade in two parts (1) and (2) and modern facade for public buildings. After the implementation of EENSULATE solutions, the building became a three color project: the project results in both national and international exhibitions and reducing the usage of Dzierzoniow municipality.



### INTERVENTION DETAILS

The renovation intervention consisted of the full substitution of the curtain wall facade preserving the rest of the curtain walling. The curtain wall facade was one of three facades of the building. The curtain wall facade was replaced as an open space where students spend their free time during breaks.

In order to compare the performance of the project developed facade, the facade was installed on existing EENSULATE modules with VIG and partially by the same module but using standard VIG (Triple Glass Unit).

Demarcation	Location	Total area	Type of intervention	Note
School	Dzierzoniow, Poland	1120m <sup>2</sup>	Triple glass units, VIG and VIG	1 facade with VIG and VIG

**MUZEUM MIĘSKIE DZIERZONIOWA - DZIERZONIOW, POLAND**

The Museum, built in 1912, originally belonged to Tomasz Czajka, Count Czajkowski collector and was one of the first neoclassical buildings in Dzierzoniow. The building has undergone many renovations and alterations in order to adjust the space for museum purposes. Presently, the building is partially covered by its former facade design for conservation needs. Today the museum hosts permanent exhibitions, including ethnographic collections concerning the development of the region and the late Polish kings.

### INTERVENTION DETAILS

The intervention and the implementation of EENSULATE glass based on VIG technology was done in a selected number of museum windows. During a historical building renovation works, including the new window to the windows, are subject to removal and some renovation to preserve historical value for the museum. The implementation of VIG directly in the original window allowed the repair of the intervention increasing the building quality with the preservation of the facade. The goal of the intervention is possible thanks to the low thickness (11.2 mm) and light weight of the VIG, partly adapting to the original window structure. These performance without changing neither the material the window frame (the original one) neither the aspect.

Demarcation	Location	Total area	Type of intervention	Note
Museum	Dzierzoniow, Poland	120m <sup>2</sup>	Windows	Facade renovation, substitution of the original window with VIG

### PUBLIC LIBRARY SAN GIOVANNI - PESARO, ITALY

Headed by the ancient municipality of the Pius XI Shrine (Cassarese), was presented to the church of San Giovanni Battista (one of the most beautiful brick churches in the world) and planned by the Carlo Rossini family's architect Gianluigi Gagnoli. The library San Giovanni is an example where the historical (the facade) together with the modern and contemporary architecture elements coexist. There are several a large window system for the lighting of the public space and a curtain walling facade in the building main entrance. The building acted as a driver for testing EENSULATE glass in an environment where the main curtain walling facade is through Pius Shrine (the project) which made this building suitable as demonstration case of the EENSULATE project.

### INTERVENTION DETAILS

The intervention was done by implementation of EENSULATE glass based on VIG technology in a demonstration located in an area of the building organized as an open space housing a library. The VIG was installed directly in the original frame of the door window, removing the work carried out as well as the waste of material. The simple substitution of the glass part of the door window with a high-insulating VIG increases the thermal insulation of the window system with a consequent benefit for the system. The demonstration is composed of two parts: the above one is based on the possibility of opening and the below part is an emergency case of window directly outside the building.

Demarcation	Location	Total area	Type of intervention	Note
Public Library	Pesaro Italy	2,20m <sup>2</sup>	door	1 door, substitution of the window

### EENSULATE RETROFITTING INSTALLATION PROCESS

The following retrofitting process was defined in order to demonstrate the applicability of EENSULATE components in different building existing cases.

- Curtain Wall Facade (facade replacement)**

EENSULATE module replacing existing curtain wall facade. Project: Primary School used the curtain wall part of the curtain wall system which integrates VIG and incorporation frame to fit the building structure in combination with a curtain wall. This lightweight solution contributes to reduce the weight on the load bearing structure of the building and to reduce the energy performance.
- Windows (historical and contemporary)**


EENSULATE VIG is a light and thin window glazing suitable for historical and existing windows.

Historical windows - VIG for replacement of old single glass units with improvement of energy performance without affecting the overall size of the window.

Contemporary windows - VIG for the replacement of standard double glazing windows with improvement of performance without affecting the overall size of the window.


### PRIMARY SCHOOL IN DZIERZONIOW - CURTAIN WALL

The building has been built in 1912 and it has a curtain wall facade area of around 1000 sqm. One of the three existing facades with an area of 113 square meters was demonstrated and the new EENSULATE facade was installed. The implementation of the building was to keep the same appearance in respect of its dimensions and colors in an existing urban facade to be compatible with the other facades.



### CURTAIN WALL FACADE RETROFITTING

### THE INTERVENTION



Installation process begins with proper positioning of the brackets located on the front side of the facade of the building. The brackets are installed in a way to be compatible with the existing facade. Proper brackets installation is crucial for a successful intervention.



The facade units are then fastened to the brackets installed in the building side. To secure the window curtain wall units into position and according to the brackets installed on the facade are performed from the outside of the building.

The units are fixed from a placement area on the ground near to the facade.



Particular modules are fitted and checked in the appropriate location by means of cranes that are positioned into position by the crane in order to be secured to the pre-arranged anchors.



Windows are attached sequentially following instruction marked on prepared documentation. To guarantee that the units are correctly in position and for guaranteeing permeability of the facade seal, it is necessary to pay attention that gaskets, seals and joints are properly applied.



The new EENSULATE facade is keeping the same dimension to fit in the existing facade.

### DZIERZONIOW CITY MUSEUM - WINDOW RETROFITTING

EENSULATE is able to fit in the existing window frames of existing glazing patterns and curtain walling located in new facades on the ground floor.



### INSTALLATION STEPS:

One of the historical windows of the building is replaced with EENSULATE VIG. The VIG is installed in the existing window frame with the help of the brackets installed on the facade.

### WINDOW RETROFITTING:

Existing windows were old double windows with double glass opening to the inside. Filled with a single glass. Support of intervention: replacement of old single glass with EENSULATE VIG of thickness 11.2 mm. By demonstrating the window with EENSULATE VIG, the building facade is able to be replaced by window panels, using the same material and maintaining the existing appearance and energy performance.

### THE INTERVENTION

Window units are removed carefully in order to perform maintenance.

The old glass is removed and the window seal elements are checked and renewed.



Before glazing is applied, window elements are protected with tape.

After cleaning the area for inserting VIG, the new glazing unit is applied.



The EENSULATE VIG is prepared with tailored dimensions for particular window units.

Previously manufactured EENSULATE VIG is installed into existing window frame, assisted by using cranes hoists.

To ensure isolation and joints, the VIG edges are painted with special coating with the same color as window frame. Then, window units are installed using the same color as existing windows.

To prevent the possible damage of the window, the facade unit is secured to the same construction.

Finally, the same surface with EENSULATE VIGs is installed in the existing facade on the...



Figure 66: EENSULATE Installation Guidelines

## 5 Conclusion

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This deliverable D6.8 “Policy workshops and awareness campaign” concludes the dissemination and communication strategy and activities performed in the framework of the EENSULATE project. Based on the analysis, the KPIs defined at the beginning of the project were met and, in many cases, far exceeded, thus, the dissemination and communication campaign is considered as highly successful. There is only one minor KPI that has not been fully met considering that 3 articles in popularized magazines have been published instead of 4. Nevertheless, the consortium addressed by publishing more scientific publications to ensure that the intended impact was achieved and mainly by focusing on publishing lots of press releases on thematic portals such as BuildUp, ECTP, EU Agenda or Construction21. These portals have good readership numbers in the project’s target groups, therefore the intended impact was met. As stated in the KPIs section, the project was very active on these portals posting on a regular basis.

The main communication channel with the wide public was the project website (31.490 views, 4.653 users), which was updated on regular basis with the latest project’s information and redesigned couple of times during the project in order to keep the viewer’s interest and update about the project results and technical development. The project website is supposed to be kept alive and updated at least 4 years after the project will finish.

The EENSULATE promo material composed of flyer, brochure and roll up poster was regularly updated.

Social media campaign was also successful, especially with the Twitter account. Not only followers were tracked, but also the impressions, meaning how many people viewed the posts and those numbers are multiple times higher than expected (666 followers, 136 453 impressions).

EENSULATE project released 7 videos with the total number of views exceeding the KPI that was initially set up (641 views).

The project released 5 newsletters and they were sent to the subscribers as well as shared through EENSULATE communication channels, KPIs on downloads and subscribers were also met (5 641 subscribers + downloads). The reduced number of newsletters with respect to the 8 forecasted was mainly caused by the project suspension period, and COVID impact, when most of the project works were stopped or slowed down and thus not enough information to share with subscribers.

The project partners published 10 scientific papers and 1 journal article with open access and 3 articles in popularized magazines.

EENSULATE partners were active also on their websites, social network profiles and company newsletters (in total 72 dissemination activities (detailed list in Appendix 1).

During the course of the project, EENSULATE was presented at 31 events in total - 8 conferences, 4 fairs, 9 workshops, 3 webinars and 7 various other events (meetings, forums, seminars, etc...). The project also organized 1 public webinar and two cluster webinars. Two policy workshops were planned towards the end of the project, but it wasn’t possible to host such an event due to the coronavirus pandemic; the consortium compensated this situation by focusing on online events, and in particular organising a webinar in cooperation with Build Up to attract a bigger audience. EENSULATE was actively clustering with other H2020 projects, participating to the workshops or conferences related to the topic of building materials, insulation, energy efficiency and construction sector in general.

Table A2a: List of dissemination events performed

Type of event	Event title	Objective	Date	Place	Partner contribution	Countries addressed	Number of people reached	Partner
Workshop	<b>AMANAC WORKSHOP</b> - "BRIDGING THE GAP BETWEEN RESEARCH AND MARKET UPTAKE: Innovative Energy Efficiency Building Solutions"	The purpose of the workshop was to identify and analyse drivers and barriers for the market uptake of innovative products or services, by involving key European stakeholders from the "Construction & Building value chain".	23 November 2016	Milan, Italy	Poster, Brochure	International	Research community, other EU projects, industry representatives, Audience 50.	FENIX/ DAPP
Fair	<b>BAU17</b>	World's Leading Trade Fair connected with civil engineering. BAU presented a display of architecture, materials and systems for commercial and residential construction and interior design, for both new-build and R&M projects. Every year around 2,000 exhibitors from more than 40 countries showcases a comprehensive range of materials and technologies for planning and construction. <a href="http://bau-muenchen.com/">http://bau-muenchen.com/</a>	14-19 January 2017	Munich, Germany	Poster, Brochure	International	Industry, engineers, installers, architects, research, end users, wide public. Audience 250,000 visitors, 2,120 exhibitors from 45 countries.	FENIX
Conference	<b>BRIMEE Seminar "Circular Economy in the building construction sector"</b>	The Seminar was dedicated to the dissemination of the idea of a new bio-renewable, easy-to-use panels, BRIMEE panels, drawing attention on questions important for end-users (architects, engineers, investors). Speakers from University of Technology and organisations connected with "green buildings" as well as representatives of BRIMEE project and other EU projects presented different topics related to the circular economy in the construction sector. Introduction of EENSULATE project through brochures.  Registration: <a href="https://www.eventbrite.co.uk/e/brimee-conference-at-brno-demo-building-tickets-30085397233">https://www.eventbrite.co.uk/e/brimee-conference-at-brno-demo-building-tickets-30085397233</a>	25 January 2017	Brno, Czech Republic	Poster, Brochure	International	Research community, construction companies, other EU projects representatives, wide public. Audience 40	FENIX



Meeting	Meeting with entrepreneurs	During this event Mayor of Dzierżoniów presented the project	27 Jan 2017	Dzierżoniów, Poland	Information about Project	Poland	Attendance: 105, local entrepreneurs and few investors	GMD
Fair	<b>IBF – International Building Fair</b>	A unique presentation of all aspects of housing and house constructions, building management services, technical solutions and equipment. EENSULATE project presented via booth.  <a href="http://www.bvv.cz/en/building-fairs-brno/">http://www.bvv.cz/en/building-fairs-brno/</a>	26-29 April 2017	Brno, Czech Republic	Poster, Brochure	International	Construction companies, HVAC engineers and installers, architects and designers, research community, policy makers, end users, wide public. Visitors about 44,000, number of companies about 830	FENIX
Workshop	<b>Workshop of the partnership in public and private sector in Horizon 2020</b>	Seminar about cPPP in EU research projects. To present EENSULATE as one of the H2020 project with Czech representatives. <a href="https://www.tc.cz/cs/akce/workshop-partnerstvi-verejneho-a-soukromeho-sektoru-v-horizontu">https://www.tc.cz/cs/akce/workshop-partnerstvi-verejneho-a-soukromeho-sektoru-v-horizontu</a>	24 May 2017	Prague, Czech Republic	Stakeholder panel, Discussion	National	Research community, other EU projects (national), industry representatives. Audience 80.	FENIX
Seminar	<b>Communication strategy in H2020 projects</b>	Seminar about how to do dissemination and communication in EU research projects The EENSULATE project presented via brochures. <a href="https://www.tc.cz/cs/akce/komunikacni-strategie-v-projektech-horizontu-2020-2">https://www.tc.cz/cs/akce/komunikacni-strategie-v-projektech-horizontu-2020-2</a>	20 June 2017	Prague, CZ	Project presentation, ppt, brochures, video	National	Research community, other EU projects (national), industry representatives. Audience 80.	FENIX
Forum	<b>EuroNanoForum</b>	Strengthening the competitiveness of European manufacturing industries through nano and advanced materials technologies and open innovation. <a href="http://euronanoforum2017.eu/">http://euronanoforum2017.eu/</a>	21-23 June 2017	Valletta, Malta	Presentation	International	Research community, other EU projects (national), industry representatives. 150 attendees.	SELENA
Conference	<b>ASHRAE Conference "Energy in Buildings" 2017</b>	The EinB 2017 International Conference will present and discuss current and anticipated innovation in the Energy Efficiency & Built Environment field. Main objective is to disseminate project achievements and discuss common issues with reference to energy efficiency in building projects.	October 21, 2017	Athens, Greece	Presentation	International	Research community, 30 people participated.	UNIVPM
Conference	<b>CAE conference</b>	CAE conference is an enriching two-day conference driven by industrial peers' and pioneers interrogates traditional methods and approaches in engineering; opening an engineering network source of new and adopted ideas. EENSULATE project presented via booth, <a href="http://www.caeconference.com/">http://www.caeconference.com/</a>	6.-7th November 2017	Vicenza, Italy	Poster, brochure, video, ppt	International	Academic community, industry, other EU projects representatives, 1200 worldwide participants.	FENIX

Info day	<b>Info day Horizon 2020</b>	EENSULATE project introduction within portfolio of FENIX projects.	22 November 2017	Prague, Czech Republic	Presentation, brochure	International	Other EU projects, industry, researchers, academic community, NCPs, 80 people.	FENIX
Forum	<b>EKOinnovation Forum</b>	<b>Sustainable Technologies for the Future – to accelerate the advent of modern solutions into everyday life. EENSULATE project introduced by FENIX (one of the speaker) under their portfolio of projects, nad via brochures.</b>	30 November 2017	Křtiny, Czech Republic	Presentation, brochure	National/International (with translation from czech to english)	Other EU and national projects, academic community, industry, 150 people.	FENIX
Conference	<b>Façade Master Degree Conference</b>	The purpose of the conference was to expose the Eensulate product to the future potential customers, such as architects and consultants.	02 November 2017	Cubillos del Sil, Spain	Presentation, brochures	National	Junior and Senior Architects of the façade sector and from the Universities of Madrid. Audience 20.	TVITEC
Workshop	<b>Sustainability benchmarking of advanced construction materials through life cycle (LCA) and life cycle cost analysis (LCCA)</b>	To give advice on how the design of KPIs related to the sustainable design of materials for energy efficiency in buildings could be improved with a forward looking to a comprehensive circular economy model. To build the basis and provide relevant policy recommendations based on evidence emerging from the H-2020 R&I AMANAC cluster of projects tackling the design of sustainable materials for construction with the double aim of attaining Energy and Circular Economy policies. To enhance the cooperation and to develop synergetic tools among the different projects for unlocking the potential of these novel technologies reach the market. To create a forum to discuss how to improve project outcomes for the development of future policy framework.	22 January 2018	Bruxelles, Belgium	Presentation, Brochure	International	Other EU and national projects, academic community, industry, 50 people.	RINA
Annual Meeting	<b>Meeting with entrepreneurs</b>	During this event Mayor of Dzierżoniów will present the project progress, plans for demonstration buildings.	26 January 2018	Dzierżoniów, Poland	Information about Project, radio interview	Poland	entrepreneurs, government, local media - audience 140	GMD
Workshop	<b>Workshop on Novel Energy Efficient Envelopes - H2020 EU PROJECTS</b>	The scope of the workshop is to create the opportunity to exchange around the latest development and progress in the (super) insulated energy efficient envelopes	23 January 2018	Bruxelles	Presentation, Brochure	International	Other EU and national projects, academic community, industry, audience around 30.	RINA

Fair	<b>BUDMA - INTERNATIONAL CONSTRUCTION AND ARCHITECTURE FAIR</b>	BUDMA is the largest construction industry trade fair in Poland and Central and Eastern Europe. Exhibitors exposure is complemented by a rich programme of events, debates, conferences and seminars regarding the latest trends and regulation industry held by the recognized industry authorities.	30.1.-2.2.2018	Poznań, PL	Poster, brochure, video, ppt	International	Construction companies, HVAC engineers and installers, architects and designers, research community, policy makers, end users, wide public. 45000 visitors, 5000 reached	FENIX
Workshop	<b>2018 AAAS Annual Meeting - Specific session: Smart Cities of Tomorrow (smart materials in the construction sector): EU Horizon 2020 to support globally better places for better lives</b>	During the event coordinators on EU funded Horizon 2020 projects will present interesting breakthroughs in the area of energy enabling materials in the construction sector. These running projects all address smart materials development for energy-efficient buildings. An overview of the advanced materials European strategy for energy-efficient building will be presented as well.	15-19 February 2018	Texas	Presentation	International	EU funded H2020 projects representatives, audience about 100 people	RINA
Fair	<b>IBF – International Building Fair</b>	A unique presentation of all aspects of housing and house constructions, building management services, technical solutions and equipment. EENSULATE project presented via booth. <a href="http://www.bvv.cz/en/building-fairs-brno/">http://www.bvv.cz/en/building-fairs-brno/</a>	25-28 April 2018	Brno, Czech Republic	Poster, Brochure, Video	International	Construction companies, HVAC engineers and installers, architects and designers, research community, policy makers, end users, wide public. Visitors about 44,000, number of companies about 830	FENIX
Workshop	<b>E2VENT Project– Horizon 2020 in practice</b>	EENSULATE project introduction via poster and brochure session. <a href="http://www.e2vent.eu/workshop-prague">http://www.e2vent.eu/workshop-prague</a>	30 May 2018	Prague, Czech Republic	Poster, brochures	International	Other H2020 projects, academic community, industry, NCPs, 35 attendees.	FENIX
Meeting	<b>China Academy of Building Research</b>	EENSULATE project was introduced to the representatives of the China Academy of Building Research (CABR) who visited the FENIX TNT premises. CABR is the largest comprehensive R&D institution in the building sector in China.	26 June 2018	Brno, Czech Republic	Presentation, brochures	International	4 people from CHABR + FENIX team	FENIX
Conference	<b>Euromembrane 2018</b>	The aim of the Conference is to bring together academic and industrial scientists from the field of membrane science and technology to stimulate contacts and to exchange new ideas on their research work.	9-13 July 2018	Valencia, Spain	Paper, ppt	International	Academic and industrial scientists from the field of membrane science and technology. Audience expected around 300.	SAES

Confere nce	<b>3rd ESFSS 2018 : European Symposium on Fire Safety Science</b>	The aim was to gather researchers from and beyond Europe to have exchanges and discussions about fire safety science. The program had oral and poster sessions for the presentation of fully peer-reviewed papers over the three days, including invited lectures from world's top fire science researchers.; <a href="http://www.esfss2018.com/">http://www.esfss2018.com/</a>	12-14 Sep 2018	Nancy (France)	Poster, paper	International	Academic and industrial scientists from the field of fire science.	ULSTER/SEL ENA
Worksh op	<b>ECO-Binder workshop "New ERA of concrete"</b>	Thirty professionals from various fields attended the workshop to share their knowledge and experience not only with the European projects but also with energy efficiency, building innovations, and new materials. EENSULATE project presented via poster and brochure session.	20 September 2018	Treviso, Italy	Brochure, poster	International	Other H2020 projects representatives, ECOBINDER project representatives, 30 attendees.	FENIX
Worksh op	<b>Deep renovation Joint Workshop P2ENDURE TCP Workshop</b>	The objective of the Workshop is to raise awareness on the most innovative building renovation and energy saving solutions and as well as to present and discuss altogether the main features of P2ENDURE e-marketplace. Dedicated interactive poster sessions and P2Endure e-marketplace workshops will take place	5 October 2018	Rome, Italy	PPT, poster, brochure	International	Other H2020 projects representatives, research community, industry representatives, attendance: approx. 80 people	RINA
Confere nce	<b>8th ECTP Conference - When EU Construction industry shapes high-tech Sustainable Built Environment</b>	The 8 <sup>th</sup> ECTP open Conference dedicated to present and discuss current and anticipated innovation in the built environment field. EENSULATE project was exhibited via booth in H2020 projects exhibition.  <a href="https://fr.xing-events.com/ECTPConference2018.html?page=1586931">https://fr.xing-events.com/ECTPConference2018.html?page=1586931</a>	13 - 14 November 2018	Brussels, Belgium	Brochure	International	Industry, academic community, researchers, H2020 projects representatives, EC, Project Officers, ECTP members, about 300 participants.	FENIX
Confere nce	<b>ANDAF conference</b>	The conference focused on financing options for various stakeholders and industries. Reč project introduced during the FENix company presentation as one of the project in portfolio.	25 February 2019	Padova (Italy)	Presentation	International	Industry representatives, 40 people.	FENIX
Worksh op	<b>"TODAY'S WASTE, TOMORROW MATERIAL" – Circular Economy in Construction</b>	Cluster workshop of RE4, FISSAC, VEEP, INNOWEE and GREENINSTRUCT project within the WSED conference. EENSULATE project presented via brochures and poster session.	28 Feb 2019	Wels, Austria	Brochures, Roll up poster	International	Cluster projects representatives, participant of the WSED conference, 25 attendees	FENIX

		<a href="https://www.wsed.at/en/programme/innovation-workshops-energy-and-buildings.html">https://www.wsed.at/en/programme/innovation-workshops-energy-and-buildings.html</a>						
Seminar	<b>From technologies enabler to research management. The PhD training to meet company strategies</b>	<p>Presentation by Alessandro Pracucci; 5th IDAUP WS  <a href="http://architettura.unife.it/it/eventi-next/archivio-eventi-next/raccolta-eventi-next/5th-idaup-ferrara-international-phd-workshop-edition-2019">http://architettura.unife.it/it/eventi-next/archivio-eventi-next/raccolta-eventi-next/5th-idaup-ferrara-international-phd-workshop-edition-2019</a>            Seminar: EFFECTIVE INNOVATIONS IN THE CONSTRUCTION SECTOR: evolutive interactions between research, global practice procedures and building industrial needs in the digitalization era</p>	21 March 2019	Ferrara, Italy	Presentation	International	PhD students, research community, industry, 50 people.	FOCCHI
Conference	<b>9th International Seminar on Fire and Explosion Hazards</b>	Conference on Fire Hazards (including Material flammability and flame retardancy)	21-26 April 2019	St. Petersburg, Russo	Paper	International	Academic and industrial scientists from the field of fire science. 300+	Ulster, SELENA
Workshop	<b>New Materials and Technologies for Energy Efficient Building workshop (organized within the Construmat Fair)</b>	<p>Presentation by Alessandro Pracucci; Construmat Fair - an exhibition venue oriented on innovation, new technologies and new materials.  <a href="https://www.eventbrite.com/e/new-materials-and-technologies-for-energy-efficient-building-tickets-58268013196?fbclid=IwAR0N4-QfToYNDTzfYZME_eqRGsJC61PdC0kSAAUqu5twqueVodHKGpWePE8">https://www.eventbrite.com/e/new-materials-and-technologies-for-energy-efficient-building-tickets-58268013196?fbclid=IwAR0N4-QfToYNDTzfYZME_eqRGsJC61PdC0kSAAUqu5twqueVodHKGpWePE8</a></p>	15 May 2019	Barcelona, Spain	Presentation	International	Industry representatives, architects and designers, research community, policy makers, end users, wide public. Attendees about 50.	FOCCHI
Fair	<b>EU Sustainable Energy Week 2019</b>	P2Endure and EENSULATE brochure Distribution at RINA Stand at the Networking Village	19 June 2019	Brussels, Belgium	Brochures	International	H2020 projects, industry, research community, attendees about 40	RINA
Workshop	<b>RINA Research Symposium 2019 (only for RINA employees)</b>	P2Endure and EENSULATE brochure Distribution. RINA Research Symposium aims at promoting research among RINA employees in order to raise awareness and to engage colleagues who are not part of the consortium with the aim to promote the project to their clients and potential stakeholders.	10 July 2019	Rozzano, Italy	Brochures	Italian	Research community, attendees about 100.	RINA
Fair	<b>EUSEW 2020</b>	EU Sustainable and Energy Week) conference – EENSULATE promoted via booth, brochures.	18 June 2020	Brussels, Belgium	Project Promotion	International	H2020 projects, industry, research	RINA



							community, attendees about 100.	
Webinar	<b>Deep renovation Joint webinar</b>	To disseminate EENSULATE project and other sister projects P2ENDURE and ENVISION.	19 May 2020	Online	Project Promotion	International	Project stakeholders, industry, scientific, wide public, 120+ attendees.	RINA
Workshop/Webinar	<b>Deep renovation Joint Workshop 2.0 at the Sustainable Places 2020</b>	To disseminate EENSULATE project and other sister projects P2ENDURE and ENVISION at the Sustainable Places 2020 Conference.	30 October 2020	Online	Project Promotion	International	Scientific community, industry, other EU projects, policy makers, ECTP members, about 50 attendees.	RINA, FENIX
Webinar	<b>LIGHTWEIGHT SOLUTIONS FOR HIGH INSULATING BUILDING ENVELOPES - THE EENSULATE PROJECT</b>	To disseminate EENSULATE project + Training.	11 February 2021	Online	Project Promotion	International	Project stakeholders, industry, scientific community, wide public, 53 attendees.	RINA, FENIX, FOCCHI, BGTEC

Type of activity	Link	Objective	Date	EENSULATE Partner contribution	Target audience, size	EENSULATE Responsible Partner
<b>Social media campaign</b>	Social network profiles: <b>Google+:</b> <a href="https://plus.google.com/105224604072251786221">https://plus.google.com/105224604072251786221</a> <b>LinkedIn:</b> <a href="https://www.linkedin.com/company/ensulate-project">https://www.linkedin.com/company/ensulate-project</a> <b>Twitter:</b> @Eensulate1 <b>Facebook:</b> <a href="https://www.facebook.com/Eensulate-project-1794032404177300/">https://www.facebook.com/Eensulate-project-1794032404177300/</a>	Increase the visibility of EENSULATE and availability for wider audience.	Aug 2016	Creation and administration of social profiles (Google+, LinkedIn, Facebook, Twitter)	All	FENIX
<b>Social media campaign</b>	<a href="https://twitter.com/FENIXTNT1/status/771689521469657088">https://twitter.com/FENIXTNT1/status/771689521469657088</a>	Increase the visibility of EENSULATE	Feb 2016	kick off meeting shared on Fenix twitter profile	All	FENIX
<b>Project website</b>	<a href="http://www.eensulate.eu">www.eensulate.eu</a>	Increase the visibility of EENSULATE	Oct 2016	Creation project website as the main communication instrument, continuous updates and modification	All	FENIX
<b>Project Brochure</b>	<a href="http://www.eensulate.eu/documents/promo-material">http://www.eensulate.eu/documents/promo-material</a>	Increase the visibility of EENSULATE	Nov 2016	Creation and design EENSULATE project brochure.	All	FENIX
<b>Project Roll Up</b>	<a href="http://www.eensulate.eu/documents/promo-material">http://www.eensulate.eu/documents/promo-material</a>	Increase the visibility of EENSULATE	Nov 2016	Creation and design EENSULATE project roll up.	All	FENIX

News on city website and social media facebook, Twitter	<a href="http://www.dzierzoniow.pl/pl/news/dzier-oni-w-wa-nym-europejskim-projekcie-badawczym">http://www.dzierzoniow.pl/pl/news/dzier-oni-w-wa-nym-europejskim-projekcie-badawczym</a>	promotion	Nov 2016	Info about the EENSULATE project, news	All	GMD
Article in Evonik intranet	<a href="http://www.eensulate.eu/documents/publications">http://www.eensulate.eu/documents/publications</a>	Visibility of EENSULATE in the Evonik group	22 Nov 2016	Creation of EENSULATE article	All employees of the Evonik group	Evonik
Project presentation	<a href="http://www.eensulate.eu/documents/presentations">http://www.eensulate.eu/documents/presentations</a>	Increase the visibility of EENSULATE	Feb 2017	Creation and design EENSULATE project presentation.	All	FENIX
Social media campaign	<a href="https://twitter.com/FENIXTNT1/status/834736618061832192">https://twitter.com/FENIXTNT1/status/834736618061832192</a>	Increase the visibility of EENSULATE	Feb 2017	info shared on Fenix twitter profile	All	FENIX
Article on the Build up portal	<a href="http://www.buildup.eu/en/explore/links/eensulate-project-0">http://www.buildup.eu/en/explore/links/eensulate-project-0</a>	Increase the visibility of EENSULATE	April 2017	Info about the EENSULATE project on BuildUp Portal (The European Portal For Energy Efficiency In Buildings).	All	FENIX
Cluster activity	<a href="http://e2vent.eu/cluster-projects">http://e2vent.eu/cluster-projects</a>	Increase the visibility of EENSULATE	July 2017	Information about EENSULATE on the E2VENT project website	All	FENIX
Newsletter	<a href="http://www.eensulate.eu/documents/newsletter">http://www.eensulate.eu/documents/newsletter</a>	Increase the visibility of EENSULATE	Aug 2017	Creation and design of first release project newsletter	All	FENIX
EU Agenda - newsletter	<a href="https://euagenda.eu/publications/eensulate-project-1st-newsletter">https://euagenda.eu/publications/eensulate-project-1st-newsletter</a>	Increase the visibility of EENSULATE	Sep 2017	Creation and design of first release project newsletter	All	FENIX
Social media campaign	<a href="https://www.facebook.com/fenixtnt.cz/posts/2035906583307064?_tn=-R">https://www.facebook.com/fenixtnt.cz/posts/2035906583307064?_tn=-R</a>	Increase the visibility of EENSULATE	Oct 2017	workshop in Technology Innovation Transfer Chamber shared on Fenix facebook profile	All	FENIX
Social media campaign	<a href="https://www.facebook.com/fenixtnt.cz/posts/2034177246813331?_tn=-R">https://www.facebook.com/fenixtnt.cz/posts/2034177246813331?_tn=-R</a>	Increase the visibility of EENSULATE	Oct 2017	interesting paper released shared on Fenix facebook profile	All	FENIX
ECTP portal	<a href="https://goo.gl/14LBnf">https://goo.gl/14LBnf</a>	Increase the visibility of EENSULATE	Jan 2018	Add the EENSULATE project to ECTP Projects database	All	FENIX
Social media campaign	<a href="https://www.facebook.com/fenixtnt.cz/posts/2169309419966779?_tn=-R">https://www.facebook.com/fenixtnt.cz/posts/2169309419966779?_tn=-R</a> <a href="https://twitter.com/FENIXTNT1/status/1013510692798951425">https://twitter.com/FENIXTNT1/status/1013510692798951425</a>	Increase the visibility of EENSULATE	Jan 2018	EeB PPP Project Review 2018 shared on facebook and twitter Fenix profile	All	FENIX
Social media campaign	<a href="https://www.facebook.com/fenixtnt.cz/photos/a.1535664493331278/2073830886181300/?type=3&amp;theaterhttps://twitter.com/FENIXTNT1/status/951815963434987521">https://www.facebook.com/fenixtnt.cz/photos/a.1535664493331278/2073830886181300/?type=3&amp;theaterhttps://twitter.com/FENIXTNT1/status/951815963434987521</a>	Increase the visibility of EENSULATE	Jan 2018	SUSTAINABILITY BENCHMARKING OF ADVANCED CONSTRUCTION MATERIALS THROUGH LIFE CYCLE (LCA) AND LIFE CYCLE COST ANALYSIS shared on facebook and twitter Fenix profile	All	FENIX

Video - Interview	<a href="https://www.youtube.com/watch?v=Yb7qPqOh9_M&amp;t">https://www.youtube.com/watch?v=Yb7qPqOh9_M&amp;t</a>	Increase the visibility of EENSULATE	Feb 2018	Created and added video "Interview at Meloradio" on the EENSULATE YouTube Channel	All	FENIX/GMD
Graphical promo video	<a href="https://www.youtube.com/watch?v=npk_KV84mGw&amp;t=6s">https://www.youtube.com/watch?v=npk_KV84mGw&amp;t=6s</a>	Increase the visibility of EENSULATE	April 2018	Creation of promo project video	All	FENIX
Newsletter	<a href="http://www.eensulate.eu/documents/newsletter">http://www.eensulate.eu/documents/newsletter</a>	Increase the visibility of EENSULATE	April 2018	Creation and design of second release project newsletter	All	FENIX
EUAgenda - video	<a href="https://euagenda.eu/videos/29787">https://euagenda.eu/videos/29787</a>	Increase the visibility of EENSULATE	April 2018	Publication of the project video on the EUagenda portal	All	FENIX
ECTP portal - newsletter	<a href="http://www.ectp.org/news-events/news/news-detail/eensulate-project-2nd-newsletter/">http://www.ectp.org/news-events/news/news-detail/eensulate-project-2nd-newsletter/</a>	Increase the visibility of EENSULATE	May 2018	Added the EENSULATE project newsletter on the ECTP portal website	All	FENIX
EU Agenda- newsletter	<a href="https://euagenda.eu/publications/eensulate-project-2nd-newsletter">https://euagenda.eu/publications/eensulate-project-2nd-newsletter</a>	Increase the visibility of EENSULATE	April 2018	Added the EENSULATE project newsletter on the EU Agenda portal website	All	FENIX
Social media campaign	<a href="https://twitter.com/FENIXTNT1/status/1005029199520911360">https://twitter.com/FENIXTNT1/status/1005029199520911360</a> <a href="https://www.facebook.com/fenix.tnt.cz/photos/a.1535664493331278/2148954082002313/?type=3&amp;theater">https://www.facebook.com/fenix.tnt.cz/photos/a.1535664493331278/2148954082002313/?type=3&amp;theater</a>	Increase the visibility of EENSULATE	June 2018	articles of magazine shared on twitter and facebook Fenix profiles	All	FENIX
Video - Interview	<a href="https://www.youtube.com/watch?v=U6-Pic3A4sQ">https://www.youtube.com/watch?v=U6-Pic3A4sQ</a>	Increase the visibility of EENSULATE	June 2018	Created and added video "RMF FM interview about the EENSULATE project" on the EENSULATE YouTube Channel	All	FENIX/GMD
Video subtitles	<a href="https://www.youtube.com/watch?v=Yb7qPqOh9_M&amp;t">https://www.youtube.com/watch?v=Yb7qPqOh9_M&amp;t</a>	Increase the visibility of EENSULATE	June 2018	Added polish subtitles to the video "Interview at Meloradio"	All	FENIX/GMD
Video subtitles	<a href="https://www.youtube.com/watch?v=U6-Pic3A4sQ">https://www.youtube.com/watch?v=U6-Pic3A4sQ</a>	Increase the visibility of EENSULATE	June 2018	Added polish subtitles to the video "RMF FM interview about the EENSULATE project"	All	FENIX/GMD
Newsletter	<a href="http://www.eensulate.eu/documents/newsletter">http://www.eensulate.eu/documents/newsletter</a>	Increase the visibility of EENSULATE	Nov 2018	Creation and design of second release project newsletter	All	FENIX
EU Agenda- newsletter	<a href="https://euagenda.eu/publications/eensulate-project-3rd-newsletter">https://euagenda.eu/publications/eensulate-project-3rd-newsletter</a>	Increase the visibility of EENSULATE	Nov 2018	Creation and design of second release project newsletter	All	FENIX
Social media campaign	<a href="https://www.linkedin.com/company/focchi-spa/">https://www.linkedin.com/company/focchi-spa/</a>	Increase the visibility of EENSULATE	January 2019	Social media post (LinkedIn)	All	FOCCHI
Website	<a href="https://www.rina.org/en/media/CaseStudies/Eensulate">https://www.rina.org/en/media/CaseStudies/Eensulate</a>	Increase the visibility of EENSULATE	January 2020	Description of project on RINA website	All	RINA
Social media campaign		Increase the visibility of EENSULATE	2020	Posts on RINA LinkedIn page and Twitter account	All	RINA
Construction 21-webinar	<a href="https://www.construction21.org/articles/h/webinar-deep-renovation-joint-webinar.html">https://www.construction21.org/articles/h/webinar-deep-renovation-joint-webinar.html</a>	Increase the visibility of EENSULATE	May 2020	Reminder of webinar on the Contrustion 21 portal website	All	FENIX

EU Agenda - webinar	<a href="https://euagenda.eu/events/2020/05/19/webinar-deep-renovation-joint-webinar">https://euagenda.eu/events/2020/05/19/webinar-deep-renovation-joint-webinar</a>	Increase the visibility of EENSULATE	May 2020	Reminder of webinar on the Eu Agenda portal website	All	FENIX
Build Up-webinar	<a href="https://www.buildup.eu/en/events/webinar-deep-renovation-joint-webinar">https://www.buildup.eu/en/events/webinar-deep-renovation-joint-webinar</a>	Increase the visibility of EENSULATE	May 2020	Reminder of webinar on the Build Up portal website	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1794522497461624/2642849069295625/?type=3&amp;theater">https://www.facebook.com/eensulate/photos/a.1794522497461624/2642849069295625/?type=3&amp;theater</a> <a href="https://twitter.com/Envision_h2020/status/1257962305993801728/photo/1">https://twitter.com/Envision_h2020/status/1257962305993801728/photo/1</a> <a href="https://www.linkedin.com/feed/update/urn:li:activity:6664123171735777280">https://www.linkedin.com/feed/update/urn:li:activity:6664123171735777280</a>	Increase the visibility of EENSULATE	June 2020	Webinar reminder on Facebook, Twitter, LinkedIn	All	FENIX
Newsletter	<a href="http://www.eensulate.eu/documents/newsletter">http://www.eensulate.eu/documents/newsletter</a>	Increase the visibility of EENSULATE	June 2020	Creation and design of 4th release of the project newsletter	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1794522497461624/2685943414986190/">https://www.facebook.com/eensulate/photos/a.1794522497461624/2685943414986190/</a>	Increase the visibility of EENSULATE	June 2020	The 4th newsletter reminder shared on facebook and twitter Fenix profiles	All	FENIX
Social media campaign	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6682197119048142848">https://www.linkedin.com/feed/update/urn:li:activity:6682197119048142848</a>	Increase the visibility of EENSULATE	June 2020	The 4th newsletter reminder shared on facebook and twitter Fenix profiles	All	FENIX
Social media campaign	<a href="https://twitter.com/Eensulate1/status/1276431216472928256/photo/1">https://twitter.com/Eensulate1/status/1276431216472928256/photo/1</a>	Increase the visibility of EENSULATE	June 2020	The 4th newsletter reminder shared on facebook and twitter Fenix profiles	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1794522497461624/2697775327136332/">https://www.facebook.com/eensulate/photos/a.1794522497461624/2697775327136332/</a>	Increase the visibility of EENSULATE	June 2020	Updated project presentation	All	FENIX
Social media campaign	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6687325655056560128">https://www.linkedin.com/feed/update/urn:li:activity:6687325655056560128</a>	Increase the visibility of EENSULATE	June 2020	Updated project presentation	All	FENIX
Social media campaign	<a href="https://twitter.com/Eensulate1/status/1281559813793685505/photo/1">https://twitter.com/Eensulate1/status/1281559813793685505/photo/1</a>	Increase the visibility of EENSULATE	June 2020	Updated project presentation	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1794522497461624/2700260306887834/">https://www.facebook.com/eensulate/photos/a.1794522497461624/2700260306887834/</a>	Increase the visibility of EENSULATE	July 2020	General Assembly meeting reminder	All	FENIX

Social media campaign	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6688425671527550976">https://www.linkedin.com/feed/update/urn:li:activity:6688425671527550976</a>	Increase the visibility of EENSULATE	July 2020	General Assembly meeting reminder	All	FENIX
Social media campaign	<a href="https://twitter.com/Eensulate1/status/1282659849160011776/photo/1">https://twitter.com/Eensulate1/status/1282659849160011776/photo/1</a>	Increase the visibility of EENSULATE	July 2020	General Assembly meeting reminder	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1794522497461624/2753794621534402/">https://www.facebook.com/eensulate/photos/a.1794522497461624/2753794621534402/</a>	Increase the visibility of EENSULATE	September 2020	Eensulate paper published	All	FENIX
Social media campaign	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6715252313147113473">https://www.linkedin.com/feed/update/urn:li:activity:6715252313147113473</a>	Increase the visibility of EENSULATE	September 2020	Another Eensulate paper published	All	FENIX
Social media campaign	<a href="https://twitter.com/Eensulate1/status/1304421089603465219/photo/1">https://twitter.com/Eensulate1/status/1304421089603465219/photo/1</a>	Increase the visibility of EENSULATE	September 2020	Eensulate paper published	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1794522497461624/2766568973590300/">https://www.facebook.com/eensulate/photos/a.1794522497461624/2766568973590300/</a>	Increase the visibility of EENSULATE	September 2020	Another Eensulate paper published	All	FENIX
Social media campaign	<a href="https://twitter.com/Eensulate1/status/1309486072779415553/photo/1">https://twitter.com/Eensulate1/status/1309486072779415553/photo/1</a>	Increase the visibility of EENSULATE	September 2020	Another Eensulate paper published	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1794522497461624/2798556943724836/">https://www.facebook.com/eensulate/photos/a.1794522497461624/2798556943724836/</a>	Increase the visibility of EENSULATE	October 2020	Deep renovation workshop 2.0	All	FENIX
Social media campaign	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6727925914895695872">https://www.linkedin.com/feed/update/urn:li:activity:6727925914895695872</a>	Increase the visibility of EENSULATE	October 2020	Deep renovation workshop 2.1	All	FENIX
Social media campaign	<a href="https://twitter.com/reno_zeb/status/1322121985686671360/photo/2">https://twitter.com/reno_zeb/status/1322121985686671360/photo/2</a>	Increase the visibility of EENSULATE	October 2020	Deep renovation workshop 2.2	All	FENIX
Social media campaign	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6738053769835122688">https://www.linkedin.com/feed/update/urn:li:activity:6738053769835122688</a>	Increase the visibility of EENSULATE	November 2020	Record of Deep renovation workshop 2.3	All	FENIX
Social media campaign	<a href="https://twitter.com/Eensulate1/status/1332287516729290752">https://twitter.com/Eensulate1/status/1332287516729290752</a>	Increase the visibility of EENSULATE	November 2020	Record of Deep renovation workshop 2.4	All	FENIX



	<a href="https://www.rina.org/en/media/events/2020/10/27/sustainable-places-2020">https://www.rina.org/en/media/events/2020/10/27/sustainable-places-2020</a>	Promote EENSULATE participation at Sustainable Places 2020	October 2020	Promotion on RINA channels	All	RINA
Social media	<a href="https://twitter.com/RINA1861/status/1316693453766569989">https://twitter.com/RINA1861/status/1316693453766569989</a>	Promote EENSULATE participation at Sustainable Places 2020	October 2020	Promotion on RINA channels	All	RINA
Social media	<a href="https://twitter.com/RINA1861/status/1321482330872205313">https://twitter.com/RINA1861/status/1321482330872205313</a>	Promote EENSULATE participation at Sustainable Places 2020	October 2020	Promotion on RINA channels	All	RINA
Social media	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6724274206990745603">https://www.linkedin.com/feed/update/urn:li:activity:6724274206990745603</a>	Promote EENSULATE participation at Sustainable Places 2020	October 2020	Promotion on RINA channels	All	RINA
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1794522497461624/2872444879669375/">https://www.facebook.com/eensulate/photos/a.1794522497461624/2872444879669375/</a> <a href="https://www.linkedin.com/feed/update/urn:li:activity:6760867420493111296">https://www.linkedin.com/feed/update/urn:li:activity:6760867420493111296</a> <a href="https://twitter.com/Eensulate1/status/1355100897324503041/photo/1">https://twitter.com/Eensulate1/status/1355100897324503041/photo/1</a>	Increase the visibility of EENSULATE	January 2021	Eensulate webinar	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1806650499582157/2876673772579819">https://www.facebook.com/eensulate/photos/a.1806650499582157/2876673772579819</a> <a href="https://www.linkedin.com/feed/update/urn:li:activity:6762308829603495936">https://www.linkedin.com/feed/update/urn:li:activity:6762308829603495936</a>	Increase the visibility of EENSULATE	January 2021	Eensulate webinar	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/a.1806650499582157/2876673772579819">https://www.facebook.com/eensulate/photos/a.1806650499582157/2876673772579819</a> <a href="https://twitter.com/EU_BUILDUP/status/1358732402819018753/photo/1">https://twitter.com/EU_BUILDUP/status/1358732402819018753/photo/1</a> <a href="https://www.linkedin.com/posts/ensulate-project_webinar-lightweight-solutions-for-high-activity-6762308829603495936-IALE">https://www.linkedin.com/posts/ensulate-project_webinar-lightweight-solutions-for-high-activity-6762308829603495936-IALE</a>	Increase the visibility of EENSULATE	February 2021	"Lightweight solutions for high insulating building envelopes" webinar	All	FENIX
Social media campaign	<a href="https://www.facebook.com/eensulate/photos/p.cb.2881536492093547/2881536305426899/">https://www.facebook.com/eensulate/photos/p.cb.2881536492093547/2881536305426899/</a> <a href="https://www.linkedin.com/feed/update/urn:li:activity:6765537688687788032">https://www.linkedin.com/feed/update/urn:li:activity:6765537688687788032</a> <a href="https://twitter.com/Eensulate1/status/1362702638001905667">https://twitter.com/Eensulate1/status/1362702638001905667</a>	Increase the visibility of EENSULATE	February 2021	Recording of webinar	All	FENIX

<b>Social media campaign</b>	<a href="https://www.facebook.com/eensulate/photos/a.1794522497461624/2897767180470478/">https://www.facebook.com/eensulate/photos/a.1794522497461624/2897767180470478/</a> <a href="https://twitter.com/Eensulate1/status/1367832910900920322">https://twitter.com/Eensulate1/status/1367832910900920322</a> <a href="https://www.linkedin.com/posts/eensulate-project_eensulate-renovation-glass-activity-6773599598146539520-BST1">https://www.linkedin.com/posts/eensulate-project_eensulate-renovation-glass-activity-6773599598146539520-BST1</a>	Increase the visibility of EENSULATE	March 2021	Article in magazine	All	FENIX
<b>Zenodo Portal</b>	<a href="https://zenodo.org/record/4609751#.YFHE9q9KiUk">https://zenodo.org/record/4609751#.YFHE9q9KiUk</a>	Increase the visibility of EENSULATE	March 2021	Add the EENSULATE publications to Zenodo database	All	FENIX
<b>Social media campaign</b>	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6778606611943432192">https://www.linkedin.com/feed/update/urn:li:activity:6778606611943432192</a>	Increase the visibility of EENSULATE	March 2021	post on socials - video of demonstration sites - Public School in Dzierzoniow (Poland).	All	FENIX
<b>Social media post</b>	<a href="https://www.linkedin.com/feed/update/urn:li:activity:6783416260546895872">https://www.linkedin.com/feed/update/urn:li:activity:6783416260546895872</a> <a href="https://twitter.com/Eensulate1/status/1377650063753756684">https://twitter.com/Eensulate1/status/1377650063753756684</a>	Project update	April 2021	post on socials - update	All	FENIX
<b>Press release - Build Up</b>	<a href="https://www.buildup.eu/en/news/eensulate-project-new-publication-alert-0">https://www.buildup.eu/en/news/eensulate-project-new-publication-alert-0</a>	Increase the visibility of EENSULATE	May 2021	Publication Alert	All	FENIX
<b>Press release - Construction 21</b>		Increase the visibility of EENSULATE	May 2021	Publication Alert	All	FENIX
<b>Press release - EU Agenda</b>	<a href="https://euagenda.eu/publications/eensulate-project-new-publication-alert">https://euagenda.eu/publications/eensulate-project-new-publication-alert</a>	Increase the visibility of EENSULATE	May 2021	Publication Alert	All	FENIX

Fotoreport from dissemination events:



Figure 67: AMANAC workshop, Milan, Italy 2016



Figure 68: Façade Master Degree Conference, Cubillos del Sil, Spain 2017



Figure 69: Communication strategy in H2020 projects workshop, Brno, Czech Republic 2017



Figure 70: IBF fair, Brno, Czech Republic 2017





Figure 71: BRIMEE conference, Brno, Czech Republic 2017



Figure 72: BAU fair, Munich, Germany 2017



Figure 73: BRIMEE seminar, Warsaw, Poland 2017



Figure 74: EKO-Innovation forum, Krtiny, Czech Republic 2017



Figure 75: Be successful in H2020 project, Brno, Czech Republic 2017



Figure 76: Infoday, Prague, Czech Republic 2017

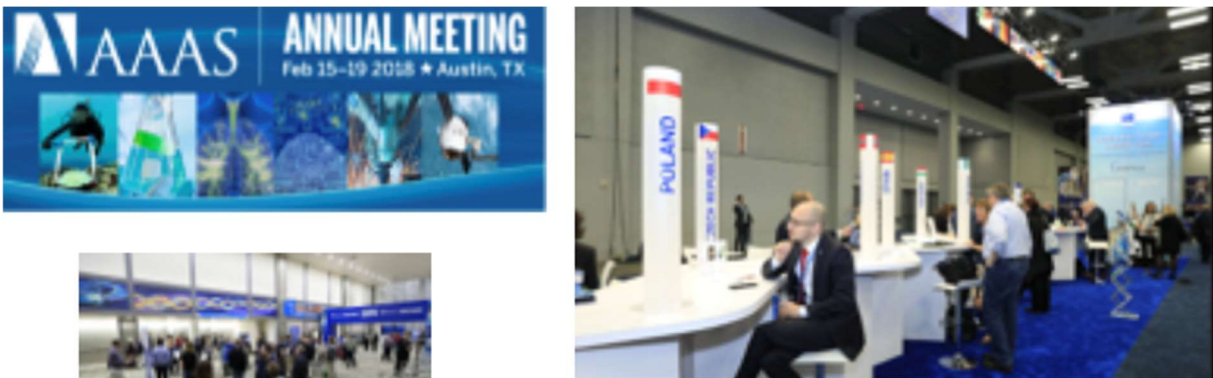


Figure 77: AAAS Annual Meeting, Austin, Texas 2018





Figure 78: CAE conference, Italy 2018



Figure 79: Meeting with CBR, Brno, Czech Republic 2018



Figure 80: ECOBINDER workshop, Bergamo, Italy 2018





Figure 81: BUDMA fair, Poznan, Poland 2018

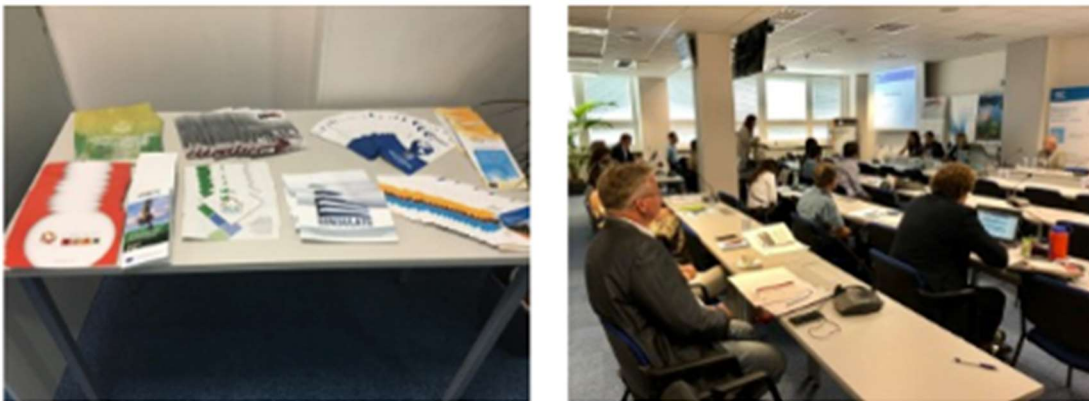


Figure 82 E2VENT workshop, Prague, Czech Republic 2018



Figure 83 ECTP conference, Brussels, Belgium 2018







Figure 84 IBF, Brno, Czech Republic 2018



Figure 85 WSED conference 2019