

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.



PROJECT DURATION
42 months
Start date: August 2016
End date: January 2020



8 WORK PACKAGES
5 Technical work packages
1 Exploitation, Dissemination and Communication
1 Management
1 Ethic requirements



14 PARTNERS
Partners from Italy, Belgium, Poland, the United Kingdom, Germany, Spain, the Netherlands and the Czech Republic



PROJECT BUDGET
6,5 mil. EURO

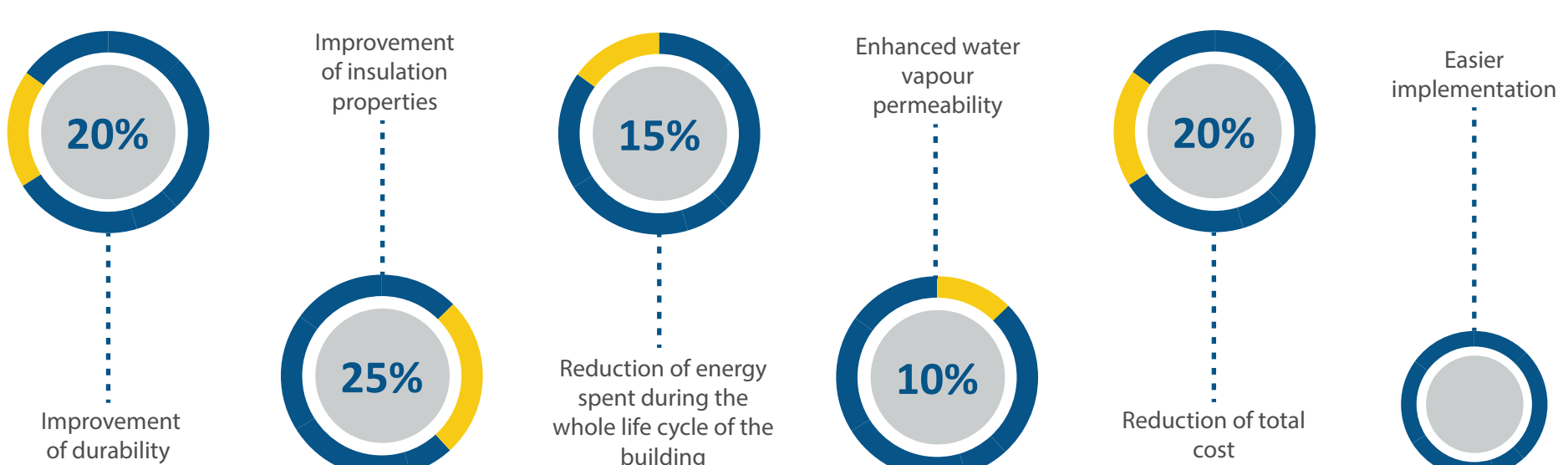
GOALS



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 limits 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:



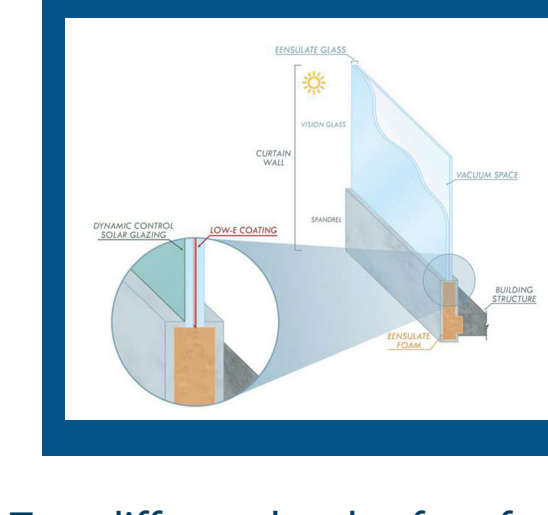
PRODUCT

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.

EENSULATE Basic modules

Thermal and acoustic insulation will be provided by the novel VIG and "smart foam" in the spandrel combined with state of the art low-E coated glass.



EENSULATE Premium modules

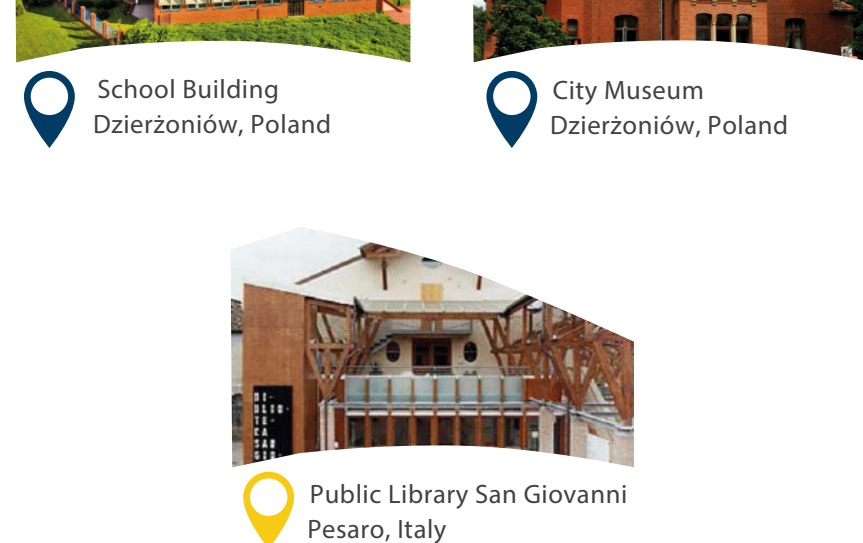
Multifunctionality by integrating novel thermo-chromic coated glass with additional self-cleaning and anti-fogging properties.

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
This project has received funding from European Union's Horizon H2020 research and innovation programme under grant agreement No. 723868. 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 Colantonio from FENIX TNT during the Workshop of the Partnership in Public and Private Sector in HORIZON 2020. The event was organised by the Technology centre CAS in Prague, the Czech Republic and took place on 24th May 2017. The aim of the workshop was to inform audience about results made during the programs PPP Factories of the Future, Energy-efficient Buildings and SPIRE 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 6th edition of the EeB PPP Project Review 2017. This yearly publication presents the progress and results of 110 co-funded projects within the EeB PPP under the 7th 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 26th-29th April 2017. Fairs in Brno are well known for a unique presentation of all aspects of housing and house constructions, building management services, technical solutions, equipment, interior design and furniture. Visitors can learn about the latest developments, trends, products and services in various fields.



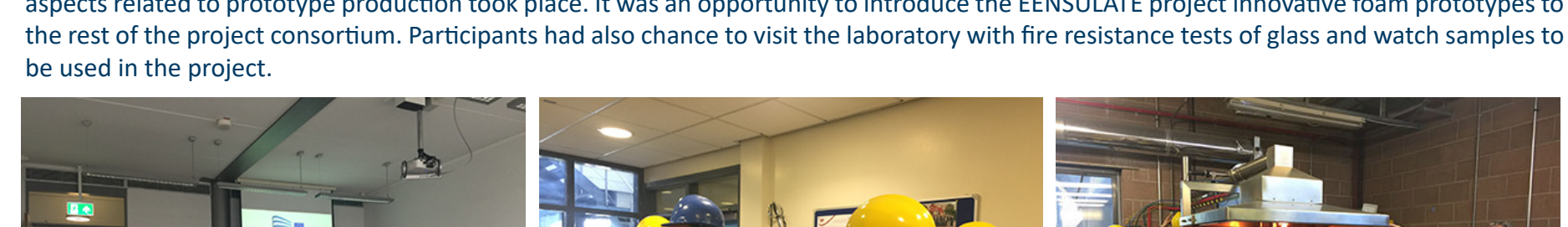
21.4.2017 | EENSULATE on BUILD UP PORTAL

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 legislations, financial issues, and innovative ideas. We are proud to invite you to the EENSULATE project information page on the Build UP portal.



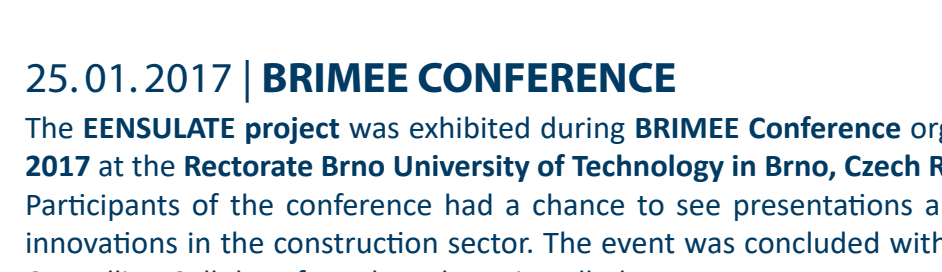
13.-14.03.2017 | EENSULATE PROJECT MEETING M6

The meeting of the EENSULATE project took place on 13th and 14th 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 fire resistance tests of glass and watch samples to be used in the project.



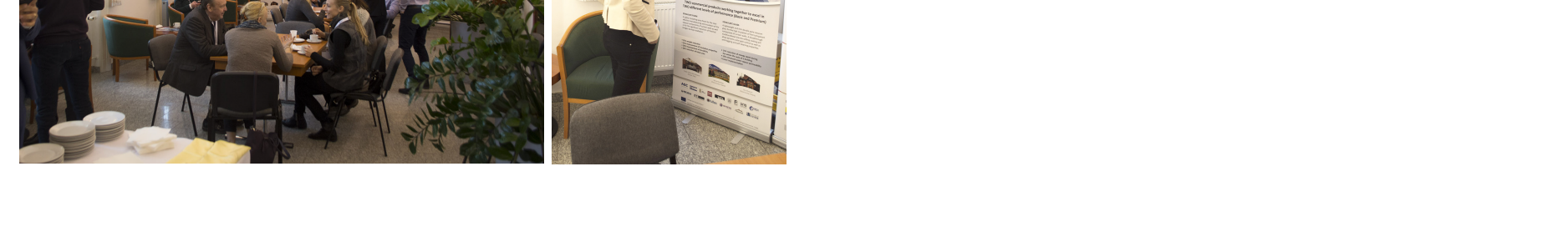
25.01.2017 | BRIMEE CONFERENCE

The EENSULATE project was exhibited during BRIMEE Conference organised by FENIX TNT. The conference took place on the 25th January 2017 at the Rectorate 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 foam were 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 16th-21st 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&M 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, 23rd November 2016. The workshop, co-organized by FENIX TNT and Rina 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.

30.08. - 01.09.2016 | KICK-OFF MEETING

The kick-off meeting was held in Brussels, Belgium on 30th August - 1st September 2016. The EENSULATE project consortium consists of 14 partners from 8 countries of EU (Italy, Belgium, Poland, the United Kingdom, Germany, Spain, the Netherlands and the Czech Republic).

