A 2 P B E E R
AFFORDABLE AND ADAPTABLE PUBLIC BUILDINGS THROUGH ENERGY EFFICIENT RETROFITTING

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Welcome to A2PBEER's third newsletter bringing you up to date with the progress of the project. Read about: the partners meeting in Brussels in March, how to download brochures, pull ups and posters and upcoming events in Europe with the new Events Guide.
The main feature of the newsletter will focus on the technological solutions looking at the development and testing of the prototypes.

Progress of the Project

If you are new to our newsletters, **A2PBEER** is a four year research project partially financed by the 7th Framework Programme and seeks to develop:
"A cost effective, energy efficient retrofitting methodology for public buildings",
This project draws on the expertise of over 21 partners from 11 European countries.
Don't forget to **follow us on Facebook and Twitter** for up-to-date news and click on the website for articles and downloads.

Project Posters

The First Brochures have now been completed - designed, translated and printed.

The project posters have been issued to all the partners, so they can be distributed in their own countries at events or seminars. Let us know of any events in your country so we can help promote and pass on the information.
The **A2PBEER** poster and pull ups are available to download in Publications on the website or click on this link: **POSTERS**

Project Video

This video captures the essence of the project from start to finish.
Click on the pictures below and enjoy watching it!

OR Click on https://youtu.be/1X9b8YrlmvY
The project video is also available on the home page of the A2PBEER website: http://www.a2pbeer.eu

Partners Meeting in Brussels, Belgium

The latest partners' meeting took place in Brussels, Belgium on the 17th -19th of March 2015 and was a great success.

After one and a half years the project has reached some major milestones…….. **READ ON**

Events Guide

An events guide is now available on the website to help promote energy efficiency and sustainability in Europe. Look at: **EVENTS**

These are just a flavour of A2pbeers involvement in Europe:

EU Sustainable Energy week 2015

When: 16th June 2015:
Where: Maison des Associations Internationales, Brussels.
As part of Sustainable Energy Week, three EU funded projects A2PBEER, LEEMA and iNSPiRe presented their projects and open discussions were held afterwards.

The day was a great success with attendees from Easme, EU commission, Architects and Engineers from around Europe.

A very interesting day with great insight into the developments of insulated materials for the external envelopes from A2PBEER, iNPSiRe and LEEMA and lighting innovations from A2PBEER and iNPSiRe projects.....**READ MORE**

For the agenda or further information click on: **Sustainable Energy Week**

When: 02 July 2015

OPAC38 held a presentation about the A2PBEER project in front of master students (politiques et aménagement des collectivés territoriales) in Lyon, France.

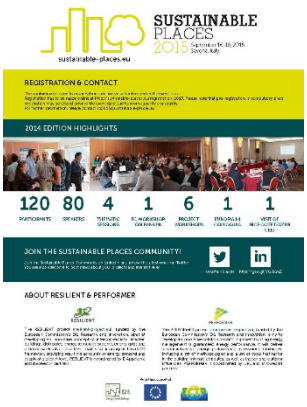
Sustainable Places 2015

When: 16th -18th September 2015
Where: Savona, Italy
On 17 September 2015 A2PBEER will be attending and presenting at the annual Sustainable Places Event in Savona, Italy alongside BRICKER and RESSEEPE. This conference carries the theme “ensuring long-term environmental sustainability” and includes contributions from many EU projects with a number of workshops being held.

The title of this workshop (WS04) is: Innovative Retrofitting Activities

In brief, A2PBEER will be presenting the project video and the A2PBEER online blended training programme by using training materials and an online support guide toolkit. Discussions will be held on the technologies and best practice methodologies and how these can be replicated and exploited to the private building owners and public buildings around the EU.

View the agenda by clicking on the following link: SP 2015



Technologies

This section will look at the technologies used within the project.
Each technology plays its part in reducing energy use and improving the efficiency of the demonstration buildings.

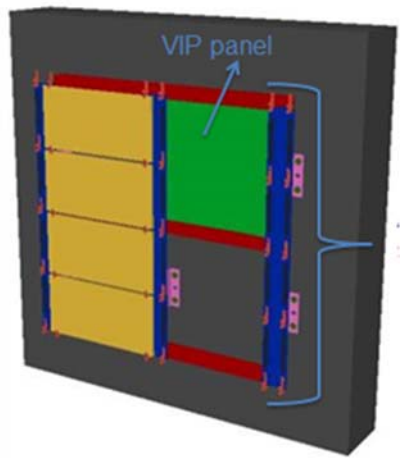
Building Envelope

With the introduction of the Recast of the EPBD Directive 2010/31/EU and the search for the

Net Zero Energy Building, the use of VIP for retrofitting purposes has great potential to improve energy efficiency and building energy performance for new and existing buildings.

Vacuum Insulated Panels

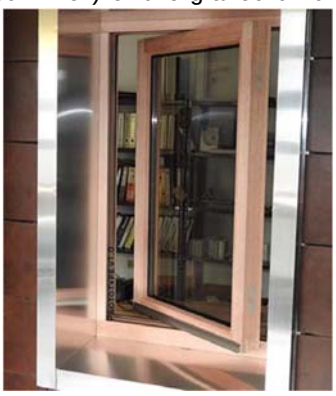
The use of Vacuum Insulation Panels, VIP is proposed for the A2PBEER project and installations of the external and internal facades are being investigated.



VIPs are commercially available on the market and the insulation materials have excellent thermal conductivity properties, and when considering a high thermal resistance façade system, represent one of the most cost-effective solutions..... READ MORE

Smart Windows

The main issue of existing low emissivity windows is that the E coating is either placed on the outer (max. solar gain, desirable in winter) or the inner side (min. solar gain, desirable in summer) of the glazed unit.



But if a **smart reversible window** is installed, then users can rotate the sash from a winter to summer position and vice versa to change the position of low E coating to select the right configuration.

Read more on the website - Technical Solutions or click on the link: **SMART WINDOWS**

Smart Lighting

Let the sun shine where it never did before, through the flexibility of fibre optic cables

A solution that makes you less dependent on windows and their position
Not affected by the location of the sun, the smart receiver follows the sunlight

The **smart lighting** component of the project is a combination of the solar lighting technologies provided by Parans® and Toshiba's Light-emitting diodes (LED's) and intelligent systems.
Smart lighting systems: aim to reduce the use of electric lighting in the buildings by introducing **natural lighting** and adjusting artificial lighting depending on available natural lighting.
This is to be carried out in three ways:

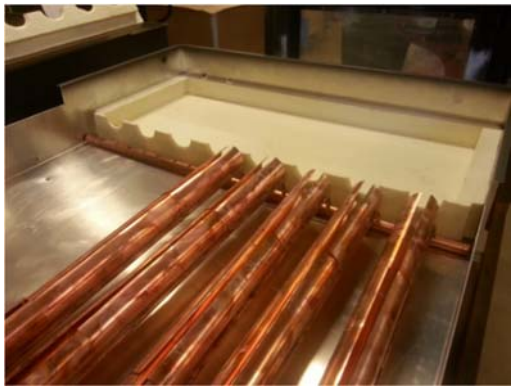
1. **Sunlight collector** and a **fibre optic system**
2. **Hybrid luminaires** with LED and diffusers
3. **Controllers**: presence detector and light intensity

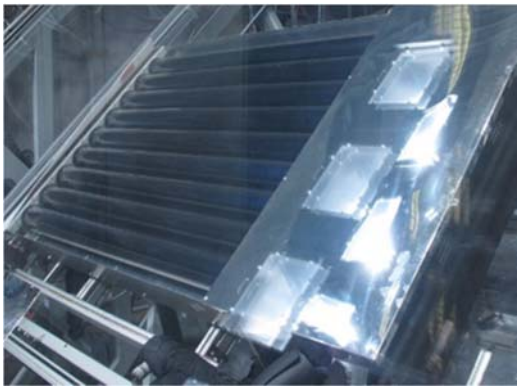
Read more on the website - Technical Solutions or click on the link: SMART LIGHTING

Thermal Network

Smart Dual Thermal Sub-Station

In existing buildings, CHP or other systems may already be in installed, however these systems fall short in efficiency, maximisation and flexibility for a dual heating and cooling facility. In order to employ the dual thermal approach it will be necessary to install absorption/adsorption machines at building level and solar thermal systems with short term storage. This will maximize the use of available free solar energy.





Solar Collector System

This system is the first solar collector in the world with combined heating, cooling and energy storage, delivering twice as much energy compared to today's state-of-the-art solar

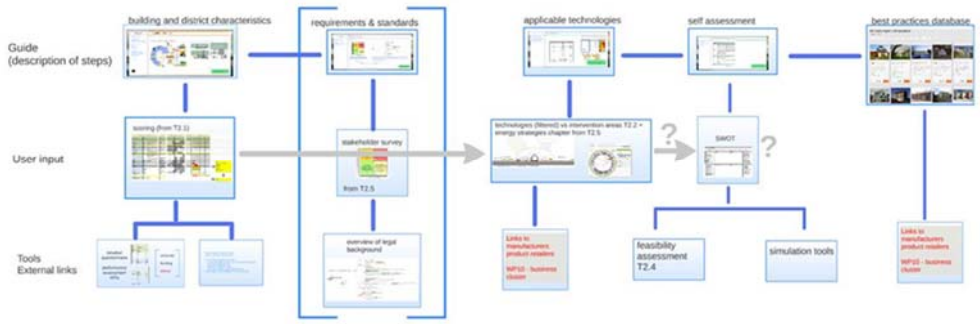
collectors. This technology translates into a significant reduction of power consumption and carbon emissions.
Read more on the website or click on the link: THERMAL NETWORK

Training and Exploitation

This comprehensive “Train the Trainer” programme is being prepared by the Limerick Institute of Technology (LIT). It is planned to train eight/nine trainers in total, from the partner countries with a two day workshop delivered in a central location in Brussels. The Train the Trainer Programme will be delivered in February 2016 with additional workshops carried out in each partner’s country.
The objective of the workshops is to:

1. Provide an overview of all relevant materials, technologies and Best Practice retrofitting methods developed to date (without covering all content in detail)
2. Giving instructions on the use of Moodle for teaching, assessment and student interaction
3. Agreeing different assessment strategies and pedagogical approaches

The project seeks to train 150 to 300 people during its lifetime – therefore a minimum of 2 training courses in each country with approx. 24 people per course is anticipated As part of the training programme a support guide toolkit is currently being designed and programmed to support and assist building owners and users….. READ MORE Graphics of the Support Guide and be viewed in more detail on the website A2PBEER.eu:



Exploitation

As part of the exploitation schedule, an innovative market approach will enable the results to be transferred to all key players of the value chain, with special focus on SMEs, and the transferability to social housing will be also addressed.

Further Newsletters

The next newsletter will discuss how these technologies can be retrofitted into the demonstration sites as proposed by the project.

All information and events will be updated regularly on the A2PBEER website with project newsletters distributed every six months. ... A2PBEER. So send us your ideas and attendance at any innovative and energy based events around the world and get your story told.

If you haven't subscribed yet, please do so. Click on the button below, which will lead you to our contact page.

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