

### Welcome to the 5th edition of the BRICKER newsletter

We're continuing on our path to piecing together a forward-looking retrofitting package for bringing down energy consumption in public, non-residential buildings by more than 50%. Our project covers both the highly technological integration and the broader but no less important areas of commissioning, building characterisation and operational studies.

As our project matures, the challenge now is to push ahead with the interventions to ensure timely execution across all three demo sites. We are currently addressing different factors which go beyond the scope of our project but affect it all the same. Local elections and intricate procurement procedures to comply with are but two of these factors. These real-life challenges will provide us with compelling insight into how to move forward and deliver on our objectives. As always, replicability is our watch-word and the BRICKER consortium, which convened for its 4th periodic meeting in Seville in May, is resolutely focused on this purpose, using its experience in BRICKER as a benchmark.

Lastly, I wish you all a great summer. Throughout we'll continue to update [our website](#) to bring you news and pictures of the interventions at our demo sites.

Best wishes,  
Juan Ramón de las Cuevas  
Project co-ordinator

### News and interviews

#### [Mini test site unveiled to BRICKER Steering Committee in Seville, Spain.](#)

At the beginning of May, the BRICKER Steering Committee gathered for its annual meeting.

Over two days, the partners reviewed work progress in the project and agreed on further steps to be implemented. Working in small groups on specific topics once again proved to be an efficient meeting format for fine-tuning further activities.



## [BRICKER on show at HEPL engineering college open day in Liège](#)



BRICKER was showcased at demosite in Liège.

The “Haute Ecole de la Province de Liège” (HEPL) is a technical and engineering college. It is also one of three demo sites for the BRICKER project. The college’s annual open day took place on 23 April and was attended by some 140 people.

As the team at HEPL were keen to ensure a strong link between theory and practice, they made BRICKER a part of the backdrop to some of the courses on offer.

## [Getting to grips: students and lecturers learn about the renovation and retrofitting underway on their home turf.](#)

On 23 March, members of the BRICKER team in Liège, Belgium, reached out to students and lecturers, delivering a set of presentations about the retrofitting works that started a few months ago at their industrial engineering college.

It was the team’s first opportunity to showcase their work at this demonstration site, enabling the audience to get to grips with the BRICKER concept to enhancing energy efficiency in public buildings.



## [The challenges of integrating new energy-saving systems in occupied buildings](#)



It can be extremely challenging to integrate technologies using renewables sources, such Parabolic Trough Solar Collectors (PTC), a biomass boiler, a cogeneration unit based on Organic Rankine Cycle (ORC), an absorption chiller and a cooling tower.

But this challenge is even greater when these energy reduction systems need to be coupled to an existing and occupied building.

This is what the European project BRICKER is trying to achieve at its demo site in Cáceres (Spain), a complex accommodating

the administrative offices of the Ministry of Agriculture, Rural Development, Environment and Energy of the Government of Extremadura.

## Organic Rankine Cycle - Drawing the last drop of energy from heat

The challenges of exploiting lower temperatures and lower power are not only technological.

Organic Rankine Cycle uses heat in water or exhaust gasses to produce electricity. Often it uses waste heat. Most engineering companies implementing ORC-solutions do so for large systems at high temperatures and pressures.



## When public buildings get smart: new technologies and tailor-made solutions for users



From thermally activated technologies to personalised microclimates, researchers look for new ways to save energy and increase comfort in public buildings.

Cooling and heating public buildings remains an expensive and a mostly unresolved issue in Europe. According to the not-for-profit think-tank Buildings Performance Institute Europe, Spain has about 11.2 million square metres of public buildings that need to be retrofitted by 2020, if they are to comply with the EU criteria. And France, the UK and Italy have record areas of 22,

14 and 13.7 million square metres respectively.

### Retrofit Advisor Corner

## Biomass Boiler



Biomass CHP plants are commonly used in district heating systems as well as in industries with high heating and cooling demand.

The majority of biomass CHP systems commercially available are based on producing steam in combination with a steam turbine or producing thermal oil for an ORC (Organic Rankine Cycle) unit.

Biomass CHP systems are typically larger than the systems outlined in the BRICKER project from CARTIF.

## BRICKER partners in the spotlight

### [CARTIF](#)



CARTIF is a horizontal research centre located in Spain which covers a wide range of scientific disciplines such as Industry, Construction and infrastructures, Agrofood, Environment and Health.

### [Cemosa](#)



CEMOSA is a Spanish engineering consultancy and quality control company in the field of construction, born in 1972. Its headquarters are in Malaga (Spain).

### [Rank](#)



Rank® is a organization focused in power recovery from low grade heat sources ( $T > 85^{\circ}\text{C}$ ) with innovative equipments based on Organic Rankine Cycles (ORC) and other advanced technologies as transcritical cycles and variations of power cycles activated with low temperature (Goswami, Kalina).

## News from the BRICKER network

### [Project impact – the why and how of it at the Energy Efficient Buildings Impact Workshop in Brussels.](#)



Energy efficient buildings — it's all about mid- to long-term impact. On our environment, on our relationship with our environment, on the way we live, on the way we work.

This was the focus of the Energy Efficient Buildings workshop held in Brussels on 18-19 April. This annual gathering brought together EeB projects of various maturity levels to share insight and plot a course towards the best value and impact over the projects' lifetimes and beyond.

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## Meet us at events

### [E2Tech4Cities Brokerage Event 2016](#)



E<sup>2</sup> Tech4Cities – Energy & Efficiency Technologies for cities – is a highly visible brokerage event organized by Enterprise Europe Brussels.



Brussels, Belgium, 17 June 2016

### [BRICKER participates in EUSEW workshop](#)



BRICKER will feature alongside other projects and initiatives at an Energy Day workshop as part of the EU's Sustainable Energy Week 2016.



Brussels, Belgium, 21 June 2016

### [Meet us in Anglet, France at Sustainable Places 2016](#)



At the Sustainable Places conference this year, Pablo de Agustin from BRICKER partner Tecnalía will be co-delivering an engaging workshop about the challenges of public building retrofitting with innovative technologies.



Anglet, France, 29 June - 1 July 2016

## [SBE16 Istanbul – BRICKER at Smart Metropolises.](#)



Two of our Turkish partners – Onur Enerji and Özyegin University – will be presenting BRICKER at a major gathering for sustainable and smart buildings and cities: SBE16 Istanbul.



Istanbul, Turkey, 13-15 October 2016



\*LIST:DESCRIPTIONI\*

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