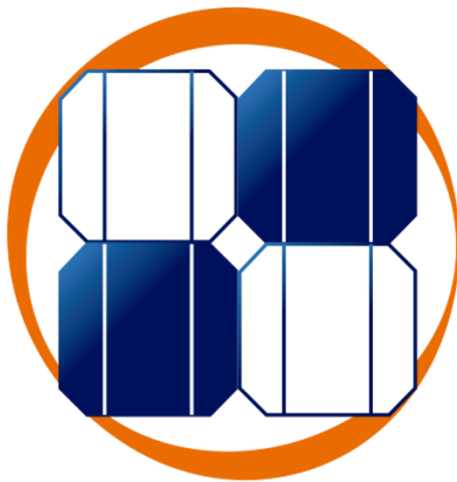


# Horizon 2020

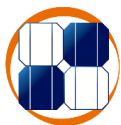
## Research and Innovation Framework Program



**CHESS**  
SET UP

## Deliverable 7.4 6-monthly short newsletters

Deliverable Type:	Public
Date:	13/12/2017
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Funded by the  
European Union

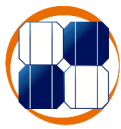
***Deliverable 7.4***

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## ***Document history***

Date	Version	Editor	Change	Status
29/11/2016	1	EDENWAY		Creation
26/06/2017	2	EDENWAY	2 <sup>ND</sup> Newsletter	Update
13/12/2017	3	EDENWAY	3 <sup>rd</sup> Newsletter	Update



The following document introduces the short newsletters that have been prepared to be sent by email to the Chess Setup stakeholders at the project's months 6, 12 and 18.

The different sections of the Newsletters are shown below.





# I- First newsletter

The first newsletter has been disseminated on the 7<sup>th</sup> of February 2017.

## 1. First section: header



## 2. Second section: about the project

### 2.1. Partners map



This project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 680556



## 2.2. Introduction sentence



The European project investigating **buildings'**  
**energy self-sufficiency**

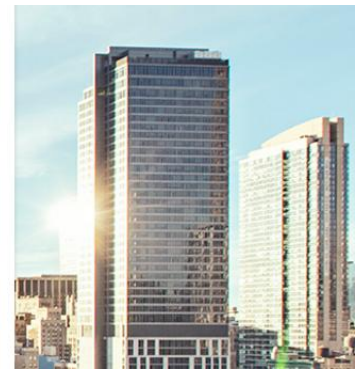


## 2.3. Contextualisation

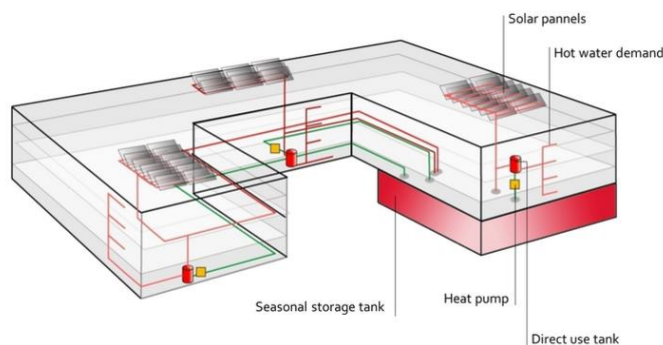


### Funded by the European Commission

CHESS SETUP (680556) contributes to the triple facet of the 2020 Program aiming to **cut Greenhouse Gas emissions** by 20%, improve **energy efficiency** by 20% and increase the share of **renewable sources** by 20%.



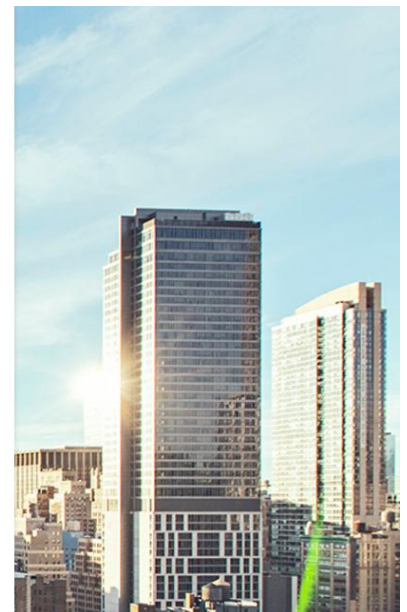
## 2.4. Technical introduction



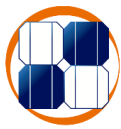
### The Project

Chess Setup is an implementation project combining various technologies: **energy storage**, **heat pumps**, **hybrid solar panels**, **monitorization systems**, and **smart grids**.

Main objective: supplying the most part of buildings' **heating and hot water consumption** needs from this system working on a **seasonal mode**. The implementation will be carried out in **Catalonia** and in **England**.





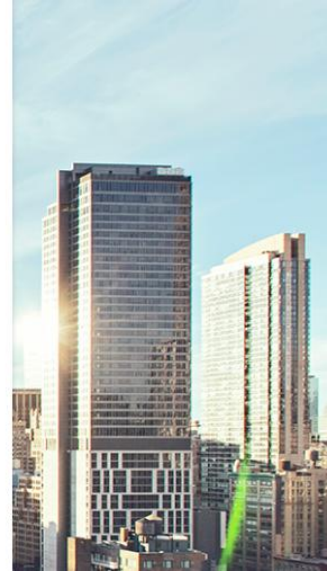


## 2.5. Project's life



### Smart City Expo World Congress

Chess Setup was introduced on big screen during this major event gathering more than **16,000 professionals**. Some of the project members attended the presentation and were able to share opinions and experiences among themselves.



### Project's progress

Chess Setup was launched 6 months ago, and all Work Packages have already begun their activities. All deliverables were sent on time, and some objectives were already achieved.



## 3. Third section: about the energy ecosystem



*"So the challenge for Government and regulators is to design a system that can both better **manage intermittency** and **take advantages of the innovations in storage, demand-side response, interconnection and IT** to create a truly **smart energy system**."*

UK Secretary of State for Business, Energy and Industrial Strategy: Energy UK Conference; November 11th, 2016

### COP 22: an optimistic step towards Paris Agreement's implementation

The time has come to find solution to keep global warming **below a 1.5°C** increase. In Marrakech, the initiative also came from the 47 poorest countries: they decided to reach a **100% renewable energies** goal "as rapidly as possible".





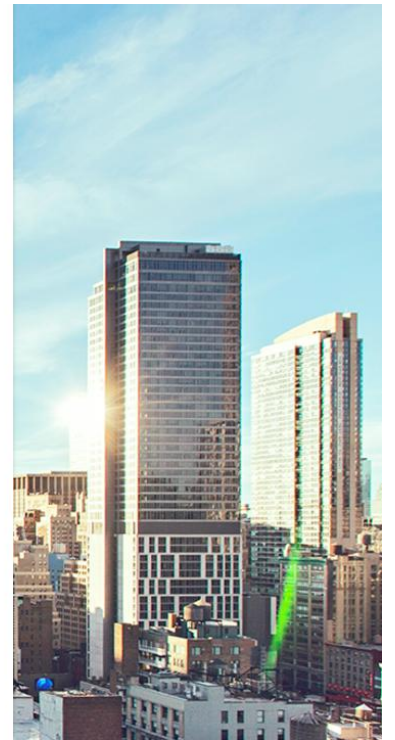
## II- Second newsletter

The second newsletter has been disseminated on the 23<sup>rd</sup> of June 2017.

### 1. First section: header



### 2. Second section: central information



#### 3rd meeting in Belfast

The partners held a meeting in Belfast last May, to review the work carried out during the past six months.

Hosted by the **Ulster University**, they also could visit its on-site heat pump and thermal storage installations, that could even constitute a 4th small-scale pilot!



This project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 680556





### 3. Pilots' status

#### The Pilots

#### 3.1. Corby



##### Corby

In Corby, the 47 ecohomes' design has been defined to the smallest details. They will be characterized by their higher build quality, their ultra-low energy consumption, the use of solar hybrid photovoltaic and thermal panels and the Earth Energy Bank to store energy that will be used when required



#### 3.2. Sant Cugat



##### Sant Cugat

In Sant Cugat, the pilot will finally supply the swimming pool's energy needs. A technical feasibility check has been carried out to evaluate the roof's reinforcement needs. On the other hand, the public tendering procedure is being launched to install the solar hybrid panels, the thermal storage tank and the monitoring system.



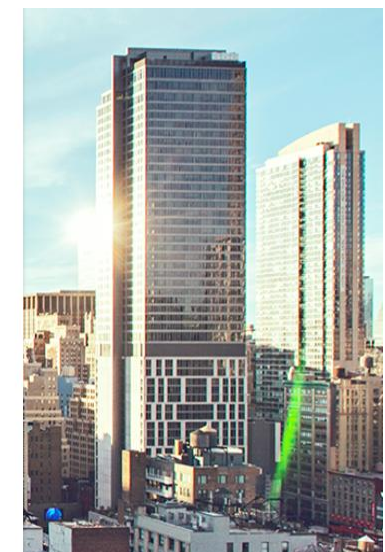
#### 3.3. Lavola's Manlleu headquarters



Impacts	CHESSETUP <sup>1</sup> Solar Hybrid Panels	CHESSETUP 2.0 Photovoltaic Panels + Heat Pump
Space needs	--	+
Investment cost	+	-
Savings	+	++
Wasted energy	---	+++

##### Lavola's headquarters

In Manlleu, Chess Setup 2.0 came out: the solar hybrid panels will be replaced by photovoltaic ones (PV), and an air source heat pump (ASHP). The system has been optimized as the thermal energy produced by the hybrid panels would have mainly been lost due to the physical space limitations for the thermal storage tank and the lack of heating demand in summer in the existing office building. Thus, the thermal energy will be produced on demand by the ASHP when required to heat up the thermal storage. The electricity produced by the PV will be used to feed the ASHP and any excess during the year and especially in summer may be used to feed any other electric demands of the building.







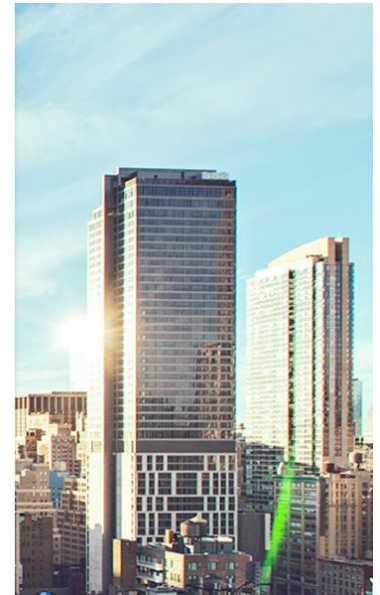
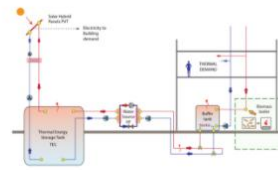
## 4. Technical work's status



### Technical achievements

Those steps forward on site were made achievable thanks to the previous work carried on by all the partners.

- Wattia Innova designed **Chess Setup monitoring system**. It will include an external variable interface, to provide data about the weather forecasts and electricity prices, at the basis of the system's optimization.
- Barcelona Ecologia studied the **integration of other energy sources and technologies**, and the energy and CO2 savings it would induce.
- Veolia evaluated the different **heat storage tank's construction techniques**, and the regulatory framework that would have to be applied in the United-Kingdom and in Spain.
- The University of Ulster is directly working on the **heat pumps' design** in each of the pilots.



## 5. About the project's life



### CSU in Copenhagen

Chess Setup will be introduced at the "3rd International Conference on Smart Energy Systems and 4th Generation District Heating" in Copenhagen on September 12th and 13th. Barcelona Ecologia will represent the consortium, and speak about the project's concept and execution. You know where to find us!





## 6. About the energy ecosystem



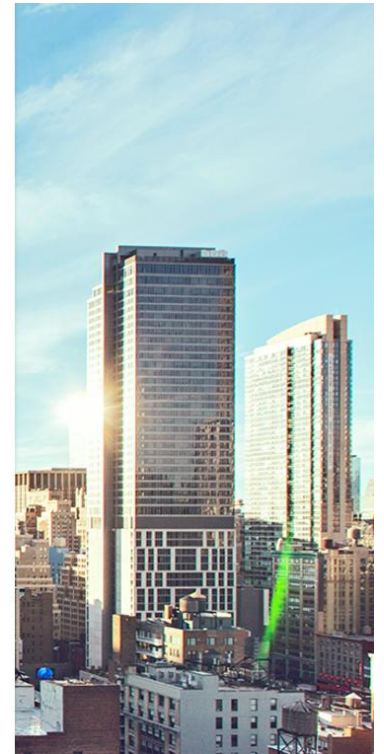
*"I call on you to remain confident, we will succeed, because we are fully committed. Because wherever we live, whoever we are, we all share the same responsibility to [make our planet great again](#)."*

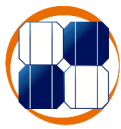
**Emmanuel Macron**, President of the French Republic

### Self-consumption in Spain

The 2015-royal ban prohibiting collective self-consumption in Spain has been lifted on May 25th! The regional governments will be free to regulate this market on their own. This opens up the possibility to develop common self-consumption installations for housings, districts, or any buildings willing to mutualize the energy produced on site, to consume it, to store the eventual surplus, or to revert it into the energy supplier's grid. The decision generated enthusiasm among citizens, local authorities and the energy sector.

Beyond the crucial lever it constitutes to the H2020 objectives' achievement, the National Federation of Electrical and Telecommunication installations' entrepreneurs (FENIE) had already [estimated the economic impact](#) it could have in Spain: more than 570 million euros between 2017 and 2020.





## III- Third newsletter

The third newsletter has been disseminated on the 13<sup>th</sup> of December 2017.

### 1. First section: header







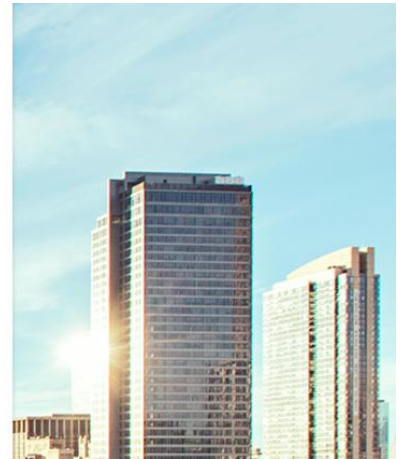
## 2. Second section: central information



### Visit of "Ecoedifici"

The consortium gathered and worked during one day at Lavola's pilot located in Manlleu where was hold the 4th CHESS SETUP meeting. The company introduced its plans to accommodate their new PV panels on their headquarters' (named Ecoedifici) rooftop.

Another element of the installation, the compressor from the heat pump, was just arriving from Ulster University, and will be added to the whole system soon.



## 3. Pilots' status



### CSU General conference: thanks to all of you!

On November 15th was held CHESS SETUP's General Conference at the Smart City Expo World Congress in Barcelona.

It was a great opportunity to disseminate the first project achievements in front of an a more than 50-people audience. The pilots had also the chance to introduce themselves and contrast their first outcomes.

We would like to warmly thank the Provincial Government of Barcelona and Sant Cugat City Council for hosting us.







## 4. About the project's dissemination activities

### Other pilots translated into concrete actions

Sant Cugat City Council succeeded in finalising an installation suitable to its sport center. Bound by public tendering processes, works must end by November 2018.

In Corby, work is about to start, and the first ecohomes must be built by Spring 2018.



### CSU at NZEB Congress

On December 13th and 14th will be held the Spanish Near Zero Emission Building Congress (EECN in Spanish) in Madrid. The fair highlights initiatives reducing energy needs, and upgrading health and confort levels in the building sector. Since public buldings must meet NZEB requirements by 2018, and by 2020 for all new buildings, the theme is quite a key theme !  
CHESS SETUP project has been selected through the call for abstract, and you will find its concept and first achievements in the Book of abstract.





## 5. About the energy ecosystem



The 12<sup>th</sup> of December, isn't a simple anniversary date. It's a day for action.

#ONEPLANET

### One planet Summit

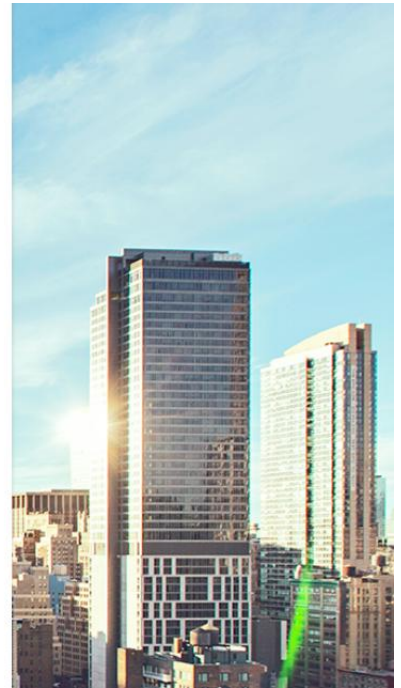
Two years after COP21, Paris hosts another world event dedicated to finding concrete solutions to “make our planet great again”. The credo? There is no plan(et) B! The event focuses on tangible actions: how to finance climate action, how to green finance, how to accelerate local action, etc. Heads of State, officials, but also citizens and companies are invited at this meeting organized by France, the UN and the World Bank Group.



### Towards energy emission targets more ambitious?

The European Parliament proposed in a resolution to rise energy consumption reduction objectives from 30% to 40% by 2030. MEPs also agreed a minimum of 35% of all energy consumed in the EU would need to come from renewable sources.

Click [here](#) for more info.



*“54 million Europeans cannot afford to heat their homes in winter and about the same number are either facing energy debts or living in deteriorated dwellings.”*

[BUILD UP](#), The European portal for Energy Efficiency in Buildings

