



# Clarity

Project acronym: procuRE

Grant Agreement Number: 963648

Project full title: Pre-commercial Procurement of Breakthrough Solutions for  
100% Renewable Energy Supply in Buildings

## D1.4b PCP End of Phase I Report

Submission Date: August 9<sup>th</sup> 2022

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### Statement of originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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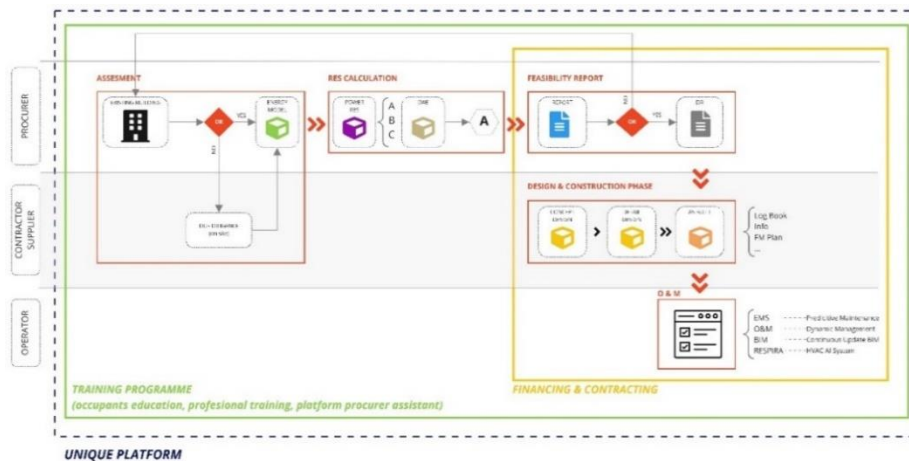
# 1 The innovative solution

## *The innovative solution (in its current form)*

Clarity solution provides the procurers with a **unique platform** for implementing the renovation approach to their buildings and infrastructures. The **solution** is focused in finding a **replicable** approach to reach **100% RES** on-site and become **energy self-sufficient**. And it innovates in the way of procurers face their building renovation projects, **digitally assisted** by Clarity, something that **accelerates the terms** to complete the renovation and the way they operate and maintain their buildings, again, digitally through the platform, Clarity.

The digital platform encompasses the entire energy renovation process of an existing building. It is an **open platform**, non-dependent from developers, that **includes all the stakeholders** in the process, from procurers and contractors to users and operators, including financial and commercial.

**Figure 1.** Diagram process scheme



The platform is designed to **enable procurer decisions** in the **early stages** of the process in order to ensure the maximum **guarantee of success**. This is possible thanks to the **simulations** allowed by the platform for any **renovation approach** in terms of efficiency, energy saving, carbon emissions and economic feasibility, and for the different scenarios of design and operation.

## *Where exactly lies the innovativeness in the solution*

Clarity achieves the **interoperation** of the proposed **toolkit** that enables the application of **renovation packages** during all the stages of the process. The platform is **easily manageable by non-expert users** under a **friendly interface**. Specifically, there is also real **innovation** in most of its tools: **DAE**, the energy asset optimizer; **EMS**, the energy management system during operation; **SIGMA**, the **dynamic O&M** tool interoperated with **BIM**; or **RESPIRA**, the algorithm that applies **learning machine** to **HVAC** systems in order to **decrease energy consumption**, at the time that improves **air quality**, specially important in this time of pandemic, and **users comfort**.

## *The degree of innovation*

Clarity, as a unique platform is a **new product** and/or service. But at the same time, it is also a studied **combination of new and existing products** already developed by SENER. In anycase, the existing products have been, and will be, **customized** and improved **for ProcuRE**.

## 2 Commercialisation success

### *How mature is the innovative solution in terms of its readiness to commercialise widely?*

As far as the **tools** that conform Clarity is concerned, some of them have been **registered** by SENER and a **patent** has been **requested** for some of them. With regards the unique platform, **Clarity**, it has been **included in the portfolio** as a potential **supratool** that the company can applied and **start producing**, at least in some of the blocks already fulfilled at this pahse, such as **RES calculation** or **O&M** packages.

### *What is the current commercialisation success of the solution?*

Regarding some of the **tools** that conform Clarity such as **EMS**, **RESPIRA** or **SIGMA**, they have been **already commercialized by SENER**, separately and previously to the work developed in ProcuRE PCP. These tools have been **installed in several public buildings** such as **officces** (EMS and RESPIRA), **cultural centers** (RESPIRA), **metro stations** (RESPIRA and SIGMA) or **airports** (RESPIRA). Or in **private buildings**, such as officces (EMS) or **hotels** (SIGMA).

Regarding the **commercialisation** of **Clarity platform as a new product** developed during ProcuRE PCP, it has been presented to different public companies related with **airports infrastructure**, private **industrial parks** or for the renovation approach of new **local energy communities** in certain cities, with a high level of acceptance.

### 3 Other benefits obtained

#### *Getting easier access to (a new segment of) the public procurement market*

The unique platform, **Clarity**, definitely **enlarges** the company **catalogue of products** and services to offer to **new clients**. Clearly, it makes easier the access to new clients. At this stage no new clients have been contracted yet for this specific product, but starting to mention our participation in ProcuRE, to existing and new clients, and starting to apply the development and improvement already achieved on the tools, at this phase, to get new contracts. Such as the case of Renewable Energy Communities for urban areas in Spain or transportation buildings worldwide.

As said before, in the airport terminals market, a market familiar for SENER where individual tools have been applied (RESPIRA) and others might be included (DAE, EMS, SIGMA), Clarity opens a new branch of services and future contracts, offered as a whole pack.

#### *Growing your business across borders and/or to other markets*

Not yet, but starting to mention our participation in ProcuRE and to apply our development for new bid processes. As said before, in the airport terminals market Clarity opens a **new branch of services** for **future contracts**, that at this moment were being offered separately as individual tools (RESPIRA and EMS). And with Clarity, the whole pack of renovation can be offered. In this case, it is in South America where there are more advance due to our business relationships in that area.

#### *Shortening the time-to-market for your innovation thanks to early customer/end-user feedback*

Definitely, the first comments from procurers during the co-design in ProcuRE has helped the consortium very much. It has pushed the proposal to keep on doing in the path that Clarity is following and has led the team to visualized specific procurers' concerns in this early stage. And looking forward to starting next phase for finding new comments from procurer, in order to advance in the platform, depurating and improving every step.

#### *Other benefits / lessons learnt*

The PCP process has made the team to have a wider and clearer knowlegde about regulations in different european countries for the public building renovation sector. And definitely this process means a push for the company digitalization efforts in the sustainability and high efficiency field of infrastructures, specifically in buildings.

## 4 Business growth

### ***How much has your business already grown during the procurement***

No business growth has been experimented yet. It is a winning investment for very next business opportunities and for the company sustainability growth in general. It is true that some of the improvements made in specific tools have been applied for on going projects and business getting better conditions and energy savings, with means a better margin for our clients. And, happy clients call for new contracts. And that will lead to personnel, turnover and market share growth.

### ***What are the prospects to grow your business via wider commercialisation of the solution:***

The market is large, public buildings in Europe needs a quick renovation to get european targets for 2030. It is a steady market because a lot of companies and products are in the same direction, but no easy access and manageable solutions have been launched yet. Under this last view, it is a growing market. Private market, in a different scale, it is also large but with easier access.

Commercialization of Clarity could start in less that one year. Anyway, the tools that compose it or any of its blocks, if finished, can be marketed separately by now. It depends the specif scope of every client or building.

The offer in this market does not cover the whole process, from assestment to operation and management of the buildings. It really exist, but by parts, too many parts. No major players involved, with the exception of design and construction stage. The offer in every segment or specific stage in fierce. But, as said, no offers covering the whole process have been detected.

### ***Which future steps do you plan to take to further grow your business?***

To use existing client list and distribution channel. While establishing new distribution channels and marketing activities to expand to other contries and outsource local companies (architectural studios, engineering and building facilities companies) to carry out studies on the ground (assessment and energy models), technical assistance at front office and construction management.