Deliverable 4.4.1
REPORT ON CASE STUDIES

WP4 – Testing

Activity 4.4: Development of case studies

Partner in charge: Regional Energy Ageny North

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Interreg Mediterranean

Prominent MED

Project co-financed by the European Regional Development Fund

Content

1. Introduction 4
1.1. Recommendation 4
2. Common experiences with PPI phases 5
2.1. Needs identification 5
2.2. Market sounding 5
2.3. Open market consultation 6
2.4. Public procurement procedure 7
2.5. Implementation of innovative solution 7
3. PPI case in Croatia 7
4. PPI case in Spain 9
5. PPI case in Italy 10
6. PPI case in Portugal 12
7. Annex I – Detailed Data Sheet of Spanish Case 14

List of tables

Table 1: Croatian case timeline 8
Table 2: Spanish case timeline 10
Table 3: Italian case timeline 11
Table 4: Portuguese case timeline 12

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1. Introduction

This document provides brief information on implemented Public Procurement of Innovation (PPI) process starting from needs analysis to results of implemented innovation in four partner countries: Croatia, Spain, Italy and Portugal.

Most of the PPI process is already documented in "Deliverable 3.4.1 Innovation Procurement Procedure Selection Report". That deliverable was completed in May 2018, before the beginning of any of four national tenders which in 2019 and 2020 resulted with innovative investments. While it covers majority of PPI process carried out in all four countries such as needs identification, market sounding and open market consultation, it lacks the description of final phases of PPI process such as the selection of the procedure, the tendering (public procurement procedures) and finally the implementation of innovative solution.

All the important conclusions, which arise from national PPI processes, and all comparative analyses have been conceptualised and presented in documents "Deliverable 4.1.1 Report on implemented procurement procedure" and "Deliverable 4.3.1 Public Procurement Innovation implementation strategy in MED countries". These comparative analyses do cover the whole PPI process.

Given all these facts, the task of this particular document is to briefly summarize the unfinished content of "Deliverable 3.4.1 Innovation Procurement Procedure Selection Report" in a factual manner and complete the story in the same way, without repeating the conclusions and analyses.

All four cases are represented chronologically through 5 PPI phases. These are:

1. **Needs identification**
2. **Market sounding**
3. **Open market consultation**
4. **Public procurement procedure**
5. **Implementation of innovative solution**

Phase 2 and 3 are often represented as one (longer) phase, called Market engagement. For the purpose of this and next chapter we present them separately in order to clearly show where the market sounding ends and market consultation starts.

1.1. Recommendation

It is possible that the reader of Prominent MED deliverables opens this document as the first one, since its name contains "case study" and probably sounds interesting due to expected practical nature of such documents. The reader will find here, as said, only factual representation of cases; to understand their background and get more detailed picture, the reader should open other documents made during the course of this project. We recommend next documents /deliverables (some are already mentioned in this chapter):

Deliverable 3.2.1 Benchmark of demand-driven innovation report

Deliverable 3.3.1 Guidance for innovation procurement selection

Deliverable 3.4.1 Innovation procurement procedure selection report

Deliverable 4.1.1 Report on implemented procurement procedure

Deliverable 4.2.1 Report on implementation of innovative investments

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It is hard to recommend the order of reading – we leave this to the reader. Every document has table of contents created, so the decision shouldn't be hard.

2. Common experiences with PPI phases

2.1. Needs identification

Needs identification is a process during which end-users, stakeholders and their realistic needs are identified and put in a specific context without specifying a particular solution. In our case needs identification consisted of many different actions and tasks, depending on the general problem that had to be addressed or discovered. These were:

- Appointing **the manager** of PPI process who can **bypass hierarchies** of public institutions involved in a process.
- Detecting, discussing and involving **local end-users** in discovering current **inefficiencies** and their **ideas**.
- Identifying end-users who are representatives of a **larger market** in the region (see capitalization, down under *Market sounding*).
- Identifying **stakeholders** and **involving them** in decision making process.
- Defining needs **without specifying a solution**, which means either defining the functions which are missing in current solutions, or making a descriptive requirements.
- **Transcribing** defined needs into Output Based Requirements.
- **Transcribing** defined needs into wider technical specifications.

2.2. Market sounding

The public institutions involved in Prominent MED project (public buyers) had to gain a good knowledge of the market potential in order to get the solution for identified needs. Market sounding tasks included:

- **Detailed market analysis** of the most possible solutions or parts of solutions, newly launched ones or solutions to be soon developed, reliable information on the current technologies, the market trends and the pricing practices.
- Building a **credibility** toward potential suppliers by discovering and documenting **how they could capitalize** their developed solutions(s) on a sufficient number of similar projects in the region.
- Developing a well written and structured **Market Sounding Prospectus** (MSP). This is and was by far the most important document in the whole PPI process and you need to **invest the maximum effort to produce it**. If you do that for the first time, you will definitely need an experienced external PPI or market consultant. In Prominent MED we used PPI consultants who have years of experience in PPI, such as Jera Consulting Ltd., Oxford, UK.

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- Writing **Prior Information Notice** (PIN), which is a document defined in every national public procurement act in EU for formal launching of market consultation. Using the same external consultant for this task.
- Conceptualizing a **market response form** for collecting expressions of interest, which the suppliers use after we started the open market consultation phase.
- Creation of a **webpage** which was used for the next phase, an **open market consultation**. Market response form can be a functionality of webpage, and you can include on webpage whatever functionalities and tools you think will help your case. See https://ppi.koprivnica.hr/en/ and https://ppi.koprivnica.hr/ as an example.

2.3. Open market consultation

Open market consultation was a key step of the PPI process. It consisted of consulting potential suppliers during a specified period of time, giving them the opportunity to ask questions about the project and the subject matter (in our case the four buildings). They also had a chance to present their solutions and innovations and see if they matched the expressed needs.

There is no fear that the procurement process will be contaminated by these actions – a market consultation as a process is recognized and encouraged in every national public procurement act in EU. We just had to secure a transparency for that process, and we did it by archiving every contact and information offered to and received from supply side and publishing it. It was necessary to show that all companies will be treated equally. This way no single market subject was in a privileged position.

The steps of open market consultation included:

- **Publishing both PIN and MSP** in the Official Journal of each country and, where needed, on Official Journal of the European Union (TED). This was a signal to the market that this was a serious and official process. When publishing, it was necessary to explain to the market that this was not the start of the tendering process and that the results would be used to inform and develop our procurement specification and strategy to later carry out the tendering process for the requested solution and works (this can be written in MSP under disclaimers).
- **Launching** an open market consultation **webpage**.
- **Further communication** via social networks, published articles, other different communication means.
- Launched **e-mailing campaigns** to the market.
- Conducting **on-site visits** for interested suppliers.
- **Answering** the questions and organizing **meetings** with suppliers and getting familiar with their language.
- **Open market consultation workshop** – the final and the most important event in this phase. By announcing it on time we attracted dozens of suppliers to the workshop where they had an opportunity to finally meet them and to meet us. Suppliers were able to expose the options and solutions available to address the challenge, and they had an opportunity to talk to other suppliers.
- **Later communication** with suppliers based on previous steps in order to finalize the innovative specifications and awarding criteria, needed for tendering documentation.

2.4. *Public procurement procedure*

After the successful open market consultation project partners were able to define the content of tender documentation. This includes next steps:

- Defining **final innovative specifications** and especially the **award criteria** for innovation selection.
- Choosing the most appropriate **type of tender procedure**, defined by each national public procurement act. Partners chose either the Open Procedure, the Competitive Procedure with Negotiation or the Competitive Dialogue. In this deliverable we don't go into details of how to and why select the right procedure, since this has already been analysed in other documents.
- Drafting the **contract** to be later signed between selected bidder and client.

After publication of the public procurement procedure it is recommended to publish the news about that in as many media as possible.

2.5. *Implementation of innovative solution*

Based on concluded tender procedure the contracts for pilot projects were signed and the works begun. Depending on the partner, the approach to the solution was either classic (project designing as a process separated from works) or turnkey (Desing & Build).

Partners had different problems during the management of works, but in this document we don't analyse them.

3. PPI case in Croatia

The selected case was pilot project for extensive energy efficient transformation of a prefabricated kindergarten building "Loptica" (820 m²); carried out for the city of **Koprivnica in Croatia** under the management of project partners **City of Koprivnica** (KOP) and **Regional Energy Agency North** (REAN).

Here are some specifics regarding some of PPI phases.

Phase: Needs identification

The City and partners have thoroughly analysed the stakeholders' and user needs to determine demands and decided to choose a kindergarten building for the innovative pilot project.

Two separated focus groups of end users were involved in needs identification. One group consisted of kindergarten personnel and one group consisted of interested parents. Each group had to give answers based on previously prepared questions, and in second part end-users were free to propose their ideas.

Phase: Market sounding

The project team launched a bilingual pilot project web page, https://ppi.koprivnica.hr/en/ (English version), https://ppi.koprivnica.hr/ (Croatian version).

Prior information notice (without call for competition) has been published on March 16, 2018. Simultaneously with PIN the Market Sounding Prospectus has been also published. Technical documentation of the building for interested suppliers has also been published under the link http://ppi.koprivnica.hr/Dokumentacija/Kindergarten_Documentation.zip.

Phase: Open market consultation

Expressions of Interest, a part of open market consultation phase, aimed to provide advance information of requirements and open a dialogue with the supply chain. Croatia invited suppliers to fill out Expression of Interest Form (Market Response Form), available as a Google Form on web page, http://tiny.cc/eoi-eng.

Suppliers were able to provide their contact information and area of expertise that was published in the Suppliers' Directory located on project web site https://ppi.koprivnica.hr under CONNECT & COOPERATE OPPORTUNITIES (direct link http://ppi.koprivnica.hr/Dokumentacija/Pilot-Imenik_subjekata.pdf). In this way, all the suppliers had the possibility to become visible to other suppliers who were interested for this project and to made contact with each other.

The City of Koprivnica organised three site visits to enable suppliers to examine the pilot project location and building.

On April 25, 2018 the Market Consultation Workshop was held under the name "Innovative pilot project for extensive transformation of a prefabricated building", hosted by Croatian Chamber of Economy in Zagreb, Croatia and attended by 60 participants (project designers, suppliers, contractors, local authorities, educators/faculties, etc.).

Table 1: Croatian case timeline

TASK	TIME / DEADLINE
Needs identification	
Needs identification	January – August 2017
Needs verification	September – October 2017
Feasibility analysis and concept viability	October 2017 – December 2018
Market engagement	
Market sounding	October 2017 – April 2018
Prior information notice	March 2018
On-site Visits (Koprivnica, Croatia)	March – June 2018
Expressions of Interest (response form)	March – June 2018
Market Consultation Workshop (Zagreb, Croatia)	25 April 2018
Public procurement procedure	
Tender launch date	31 January 2019
Invitation to participate in procedure	February 2019
Competitors' participation in procedure	March 2019
Selection of the preferred bidder	10 April 2019
Contracts placed for D&B approach	24 April 2019
Implementation of innovative solution	
General technical project designing	24 April 2019 – 10 Jun 2019
Innovative and transformation works (implementation of solution)	10 Jun 2019 – 31 August 2019

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4. PPI case in Spain

The selected case was pilot project for the refurbishment of an old (1891) orange storage building ("Magatzem de Cucó" – 992 m²); carried out for the municipality of **Alzira in Spain** under the management of project partners **Consorci de la Ribera** (RIBERA) and **Polytechnic University of Valencia** (UPV)**.**

Here are some specifics regarding some of PPI phases.

Phase: Needs identification

Before launching the refurbishment process, the municipality of Alzira carried out a general survey and questioned its citizens about the desired uses of the building to be refurbished. The citizens chose that the future use should be a youth social building. This turned into the necessity of having a bright diaphanous open area for multiple uses, with an energy efficient mind-set and a high acoustical insulation in both senses.

Phase: Market sounding

A credible pilot case has been built, adjusting the demand to the available budget and setting up the appropriate information for the future bidders.

The project team in the municipality of Alzira carried out a very precise market analysis which can be considered as a model.

In terms of communication the city prepared a public website as a repository of the different documentation: https://energia.consorcidelaribera.com/?page_id=337&lang=en. Alzira set up a direct mailing campaigns to the SMEs, with an attractive message and links to the public information.

They performed a mailing and personal contact strategy to reference and multiplier agents for the SMEs, that is, the establishment of contact and information to associations, federations, professional colleges, chambers of commerce, etc., which expanded the visibility and soundness of the message.

Phase: Open market consultation

They set up an open market consultation event to increase the visibility and credibility of the project. They produced next tools to attract the market:

- Architectural project of the refurbishment of the building.
- Market sounding prospectus
- Web-page
- Market response form
- Mailing campaigns
- Supplier meetings during the Open Market Consultation event
- Site visits during the Open Market Consultation event

The Open Market Consultation (OMC) which took place in Alzira, Spain, was a successful networking event.

Table 2: Spanish case timeline

TASK	TIME / DEADLINE
Needs identification	
Needs identification beginning	May 2017
Definition of outcome-oriented requirements	November 2017
Preparation of business case	December 2017
Identification of wider market demand	December 2017
Preparation of prior information note (PIN)	19/12/2017
Development of project web site	19/12/2017
Preparation of supply-chain contact list	January 2018
Market engagement	
Publishing PIN with market sounding prospectus (EU official journal)	January 2018
Supply chain feedback and communication	January 2018
Creation of Market consultation questionnaire	February 2018
Site visits	March 2018
Definition of market consultation workshop	Jan-Feb 2018
Market sounding review and analysis	March 2018
Market consultation workshop	March 2018
Organization of tendering issues workshop	April-May 2018
Public procurement procedure	
Tendering issues workshop	May 2018
Call for tenders	June 13, 2018
Competitors' participation in procedure	Jul-Oct 2018
Selection of the preferred bidder	January 2019
Contract signed	04 February 2019
Implementation of innovative solution	
Implementation of innovative works	April 2019 – July 2019

5. PPI case in Italy

The selected case was pilot project for the refurbishment of a kindergarten "Gianni Rodari" hosting children from 6 to 36 months, parallel with earthquake-proof reinforcement of the building (1248 m²); carried out for the municipality of **Narni** in Italy under the management of project partners **Municipality of Narni** (NARNI) and **Sviluppumbria** (SVIL).

Here are some specifics regarding some of PPI phases.

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Phase: Needs identification

The Municipality of Narni was deeply affected by the earthquake of October 2016, in particular some school buildings needed to be reinforced also according with the seismic resilience parameter updated after the earthquake.

Starting form the key needs identified by the municipality, it was organized a specific needs analysis involving the kindergarten users: child's parents, teachers, and other supportive and operative staff. The needs analysis was carried out through interviews and a focus group.

According with the structural check made after the earthquake the Kindergarten Gianni Rodari luckily was not damaged by the earthquake but its structure needed urgent reinforcement interventions.

Phase: Market sounding

The municipality have organized in collaboration with Sviluppumbria an Information Workshop opened to all the interested business actors at national level on October 25th 2017 in Terni. Besides that there was a lot of contacting national business and trade association, chambers of commerce and relevant European network such as Green Building Network.

Phase: Open market consultation

After the event a specific mailing was activated both to the workshop attendees and to all the other network and organizations contacted before the event. They were sending them the material and updating them constantly on the development of the procedure (PIN publication, launching of the Open Market Consulting, etc.).

The municipality of Narni published the PIN in November 2017 (http://ted.europa.eu/udl?uri=TED:NOTICE:471758-2017:TEXT:FR:HTML&src=0&tabId=1) and did a preliminary Open Market Consultation in February 2018.

Table 3: Italian case timeline

TASK	TIME / DEADLINE
Needs identification	
Needs identification	January – June 2017
Needs verification	June – July 2017
Feasibility analysis and concept viability	July 2017 – December 2017
Market engagement	
Market engagement start (information workshop on 25 October 2017)	October 2017
Prior information notice	3 November 2017
On-site Visits	November – March 2017
Expressions of Interest (response form)	November – March 2017
Market Consultation Workshop	20 April 2018
Public procurement procedure	
Tender launch date (publication of notice for expression of interest)	05/02/2019
Invitation to participate in procedure 1st letter	18/04/2019
Invitation to participate in procedure 2nd letter	19/06/2019

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TASK	TIME / DEADLINE
Selection of the preferred bidder	July 2019
Contract signed	18 November 2019
Implementation of innovative solution	
Implementation of innovative works finalization	July 2020

6. PPI case in Portugal

The selected case was pilot project of the renovation of the city hall that also hosts the Roman part of Mértola's museum (685 m²); carried out for the municipality of **Mértola in Portugal** under the management of project partners **Baixo Alentejo Intermunicipal Community** (CIMBAL) and **IrRADIARE** (IRR).

Here are some specifics regarding some of PPI phases.

Phase: Needs identification

Two separated focus groups of end users were involved in needs identification. One group consisted on the municipality staff and a second group consisted of building users. Each group had to give answers based on previously prepared questions. All answers were documented and used during needs identification.

Phase: Market sounding

The market engagement started with the presentation to all the 13 municipalities that integrate CIMBAL, the verification of limitations due to the historical specificity of building and the collection of information regarding all possible innovative energy efficiency solutions. The open market consultation documentation was prepared, namely the questionnaire and all the information were sent to a database of companies working on energy efficiency and urban refurbishment.

Technical documentation of the building was prepared. Prior information notice was also prepared. Pilot project information was published on project partner's web page and social networks.

Phase: Open market consultation

The Market Consultation Workshop took place on the 9th of April of 2018 with a significant number of companies. The workshop was held in CIMBAL headquarters to all potential suppliers who have expressed their interest. It was broadcasted in order to have as much participation and reach as possible.
There were site visits - the last site visit occurred on April 2018 and some questionnaires and feedback were received.

Table 4: Portuguese case timeline

TASK	TIME / DEADLINE
Needs identification	
Needs identification	September 2017
Needs verification	September 2017
Market engagement	
Prior information notice	March 2018

TASK	TIME / DEADLINE
Expressions of Interest	March and April 2018
On-site Visits	April 2018
Market Consultation Workshop	April 2018
Public procurement procedure	
Open Public Consultation	September 2018
Call for tenders	September 2018
Selection of the preferred bidder	August 2019
Contract signed	December 2019
Implementation of innovative solution	
Implementation of innovative works finalization	July 2020

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7. Annex I – Detailed Data Sheet of Spanish Case

Spanish partners took initiative and prepared very detailed data sheet of their case. They collected all the information which can be found in all documents made so far and presented it in the manner of questions and answers.

DETAILED SPANISH CASE DATA SHEET

Identity card of the Public Authority

The public authority is the City Council of Alzira

- **Number of inhabitants (necessity to precise the date):**
  According to the national institute of statistics the municipality of Alzira has 44.488 (2016) inhabitants.
  Consorci de la Ribera (CRIB) formed by la Ribera Alta and la Ribera Alta associations of municipalities provides services for more than 300,000 inhabitants.
- **Number of people working for the PA:**
  The number of civil servants of Alzira is 341 people.
- **Annual budget of the Public authority**
  The annual budget was 37.000.000 €
- **Number of buildings owned by the municipalities**
  The municipality of Alzira has 55 buildings of its property approximately.
- **Size of the building asset in m^2**
  Sizes of Alzira buildings are very variable, from complete buildings of 3.000 m2, floors destined to different uses of 100 m2.
- **Type of public buildings (e.g. Schools, offices, gymnasium, swimming-pool, museum, housing…)**
  There are different types of buildings such as:
  - Municipal buildings for offices
  - Municipal warehouses
  - Primary Schools
  - Winter/summer pools
  - Sports centers
  - House of Culture
  - Club of Retirees
  - Others
- **Energy consumptions due to municipal buildings (kWh):**
  Energy consumptions annually is 4.676.988 kWh (2016)
- **Budget dedicated to energy consumption per year (in Euros)**
  Budget dedicated to energy consumption is 612.723,00 € (2016)
- **What have been the main evolutions/changes affecting the PA for the last 5 years?**
  The public authority has been carrying out actions aimed at improving the energy sustainability of the municipality. There has been a significant increase in the bicycle lanes, improvement in lighting and energy refurbishment of singular building in the municipality.

The organisation of the municipality/public authority

- **Organisation chart of the public authority**
  The public authority has an organization chart headed by the mayor. The councillors of the different areas direct the heads of each department.
- **Which functional departments are involved in the management /operation /maintenance of the buildings?**
  Departments involved are:
  - Urban area
  - Engineering area
  - Contracting department
  - European projects area
- **Which department leads buildings refurbishment?**
  The remodelling of buildings is led by the Urban department, although it is necessary the collaboration of both the engineering department, as well as the contracting department, to be able to carry out all the necessary works.
- **Financial resources dedicated to building maintenance per year (in Euros)**
  Financial resources are those derives from the comprehensive maintenance of the building, these are estimated at € 210.000,00.
- **Is building maintenance outsourced / partly outsourced?**
  The maintenance of the buildings is totally subcontracted in public buildings.
- **What is the organisational process of a strategic decision? (such as deciding to renovate a building)**
  The building is currently in disuse, there was demand by citizens to provide the area with a space for youth. For this reason, it was decided to carry out actions in the building as the municipal budget allowed.
- The public authority has carried out an integral rehabilitation of this with criteria of energy efficiency with the aim of achieving an almost zero-Energy building. A project has been carried out that includes the demolition of a part that is in poor condition and the cleaning of the main façade, the covering of a pit in the hearth, as well as the completion of the rooms bathroom that are currently non-existent in the building. At a later stage, a completed energy rehabilitation of the building is envisaged, consisting of the action on the lateral facades by means of an internal lining and the replacement of the exterior carpentry, as well as the performance in the existing hearth. Final use for this building is as a "Youth Center". It will be a multipurpose open space for the development of cultural activities focused on youth through the holding of exhibitions, meetings, events, etc. **Description of the public procurement department of the PA (number of people involved, experience with complex procedures such as competitive dialog, competences of the employees - e.g. engineering versus administrative/managerial tasks)**
  The public authority procurement department is formed by:
  - 1 Financial Technician who contribute the procurement procedure.
  - Technical department. Engineering and Architect area were being involved in the referred task.

  Consorci de la Ribera procurement department is formed by:
  - 1 Secretary-financial controller who leads the procurement procedure and takes the responsibilities. Administrative part of procedures is also designed by this person.
  - Technical department. Concerning PROMINENT MED project, 3 technicians were being involved in the referred task.
- Consorci de la Ribera is used to deal with joint procurement purchases such as electricity or natural gas for several municipalities and also have developed ESCOs contracts and Public-

Private partnerships. **What is the network of the public authority? Does the PA frequently collaborate with consultants, public/private research institute, universities, suppliers, other local authorities...?**
47 municipalities are embraced in Consorci de la Ribera, being the City of Alzira one of them. It's not usual to collaborate with other bodies such as the ones aforementioned.

- **Does the PA have experiences with European / national pilot project dedicated to building (new construction and /or renovation)?**
  Neither city of Alzira nor Consorci de la Ribera have previously participated in a European project focused on building renovation.
- **Does the PA have any experiences with sustainability and sustainable renovation?**
  City of Alzira and Consorci de la Ribera have a wide experience in environmental issues.

Selection of the pilot project

- **Short history of the building: date of construction, use of the building, materials (stone, concrete, wood...)**
  'Magatzem de Cucó' building is located on a municipal property plot located in the neighbourhood of "Caputxins" of Alzira, at 'la Pau' Street number 28 of Alzira (Valencia, Spain). The existing construction dates from 1891 and has a constructed area of 992 m2 in a single diaphanous plant.
  In the building there is a main body formed by a single floor, with a perimeter wall, which receives the support of the trusses or knifes on which the web of straps of the roof skirt rests. The structure and main layout of the building responds to the original solution
  The main volume has a height of 10.05 m, with a gabled roof of recent rehabilitation, being currently of sandwich panels. The roof was rehabilitated by removing the fibre cement plates from the roof by a specialized company and replacing them with insulating and fire resistant panels.
- **Reasons for selecting this building**
  In October 2016, Consorci de la Ribera informed their 47 municipalities about Prominent Med project approval and explained project objectives and the included pilot. The adhesion to Covenant of Mayors initiatives was the only requirement for municipalities. As a result, 7 municipalities showed their interest. Then, a face-to-face meeting was organized where a more detailed explanation about project activities and economic and financial issues were described. Afterwards those municipalities had to accept the economic & financial conditions and fulfilled a technical document with the following information:
    1) Public building proposal. Building description and municipal economic resources allocated or expected to be allocated for energy renovation.
    2) Description of municipality procurement departments
    3) Description of other activities/projects dealing with creation of clusters and public procurement of innovation.

  This 2nd selection round resulted in 2 municipalities candidacy. After the evaluation of technical reports provided by both municipalities, Consorci de la Ribera decided to accept city of Alzira candidacy due to their integration in Red Innpulso network, a network of municipalities that are willing to promote local innovation policies through, among other commitments, public procurement of innovation.

  Building selection decision was taken by city of Alzira based on their idea to complete the refurbishment of this emblematic building by 2020.

- **Budget dedicated to the project (source of funds: e.g. subsidies, loans, internal funds...)**

Up to now, approximately 500,000€ have been invested in 'Magatzem de Cucó' renovation. The estimated total cost of this building refurbishment is around 2 M€.

Organization of the pilot project

- **Who co-ordinates the refurbishment project? (municipality, consultants…)**
  The works of building renovation is coordinated by the city of Alzira with the assistance of Consorci de la Ribera, Politechnic University of València (UPV) and the consultants hired.
  PPI procedure will be conducted by Consorci de la Ribera with the assistance of UPV, city of Alzira and the consultants hired.
- **Is there one project manager (versus several or none)?**
  Building renovation works will be coordinated by city of Alzira Urban department.
- **Are they external facilitators? Who are they? (please indicate their names and describe their tasks)**
  Several external facilitators have been identified
  Our understanding about external facilitators or influencers are entities identified during project market sounding activities that let us to reach much more companies and so to have a better dialogue with the market. Facilitator such as technological institutes, clusters of RES & RUE companies, etc.
- **Initial planning of the project (from needs identification to the delivery of the building)**

Activity	Deadline
NEEDS IDENTIFICATION / MARKET ENGAGEMENT / SOUNDING PREPARATION	
Preparation of business case	December 2017
Definition of outcome-oriented requirements	November 2017
Identification of wider market demand	December 2017
Preparation of supply-chain contact list	January 2018
Creation of Market consultation questionnaire	February 2018
Preparation of prior information note (PIN)	19/12/2017
Development of project web site	19/12/2017
MARKET SOUNDING STAGE	
Publishing PIN with market sounding prospectus (EU official journal)	January 2018
Supply chain feedback and communication	January 2018
Site visits	March 2018
Market sounding review and analysis	March 2018
MARKET CONSULTATION STAGE	
Definition of market consultation workshop	Jan-Feb 2018
Market consultation workshop	March 2018
Organization of tendering issues workshop	April-May 2018
Tendering issues workshop	May 2018
TENDER/PROCEDURES/CONSTRUCTION	
Tender launch date	Jun 2018
Competitors' participation in procedure	Jul-Oct 2018
Contracts	Feb-2019
Proposed period for construction works	April-June 2019
Delivery of the building	July 2019

Needs identification

- **Describe the needs of the public authority (PA)**
  - In order to focus on a suitable refurbishment of the building for the foreseen budget, the pilot was centred on the acquisition and installation of innovative windows that could respond to the following outcome-oriented requirements:
    - Maximize the **use of natural light**
    - Minimize **heat gains** in summer, to avoid overheating in summer and take advantage of solar gains in winter
    - Minimize **heat losses**
    - Provide **ventilation** (either by opening windows, or by integrated ventilation system)
    - Soundproofing (**Acoustic insulation**)
    - Ensure the quality of the **assembly** with the opaque envelope.
    - Easy maintenance and **cleaning**
    - **Sustainable** product, guarantee to minimize waste, use of sustainable materials, consider the life cycle of the installation.
    - Provide **security** against vandalism.
- **Where did the PA expect innovations?**
  - The PA expected innovations on any of the three elements of the windows, namely, glasses, frames or shadowing elements, individually or in combination, considering the use of innovative materials or innovative structural elements in the windows.
- **Were the end-users involved in this process?**
  - The end-users of the municipality of Alzira were considered before the declaration of the outcome-oriented requirements. A general survey was delivered to the citizens of the municipality to ask for the desired uses of the building to be refurbished. The citizens chose that the future use should be a youth social building. This turned into the necessity of having a bright diaphanous open area for multiple uses, with an energy efficient mind-set and a high acoustical insulation in both senses.
- **Did the PA develop a business case?**
  - The PA, in collaboration with the partners of the project, developed a project prospectus in which the main information of the building, the outcome-oriented requirements and the baseline of energy efficient solutions were considered. It is available on-line at: https://energia.consorcidelaribera.com/wp-content/uploads/2018/01/PROMINENT-MED-Informaci%C3%B3n-preliminar.pdf
- **Did the PA develop a cost benefit analysis between several solutions?**
  - The Spanish Consortium performed a two-level analysis. On the one hand, a preliminary market analysis which snooped the current technological state-of—the-art of the field in order to focus the requirements and future procurement. Different solutions and companies, most of the SMEs, were identified. The solutions were ranked according to the degree of innovation and liable time-to-market. The SMEs were registered in order to set a list of contacts for the following steps of the market consultation and procurement. On the other hand, a technical analysis of the energy efficiency requirements was performed according to a computer-aided simulation methodology. Shortly, since the building has no energy label, the energy baseline was simulated according to an eventual building with traditional solutions (i.e. windows), considering the dimensions, geographical dispositions and weather forecasts in the area.
- **Difficulties encountered at this level**
  - The main difficulties were:

        - Market analysis: The wide segmentation of the market and the low information publicly available.
        - Energy model: There was a certain lack of confidence of the results of the energy model at the beginning, since the simulation would hardly depend on the design decisions and thermal solutions available at the library of the software. However, it was found extremely interesting to be used as a tool to let the future bidding SMEs to compare and demonstrate their solutions with the forecasted baseline solution.
- **Human resources (internal and/or external – please describe) dedicated to this task**
    - The work team was composed by different members in this task:
        - The Municipality of Alzira was represented by the Architect, the Technical Engineer, and the coordinator of EU Projects, civil servants of the PA.
        - The Consortium of la Ribera was represented by two Engineers taking the role of Technicians in the field of Territory management and energy efficiency.
        - The Universitat Politècnica de València was represented by a Professor, two Associate Professors and a Technician taking the role of innovation experts and technical assistance in the field of energy.
        - The Spanish Consortium was aided by an International Expert in the field of Energy Efficiency in Buildings, with experience in Public Procurement of Innovation. This expert is Tecnalia, set in Spain, and the work-team was mainly represented by an Architect and an Engineer.
    - All of them were relevant to carry out the survey to end-users, the technical description of the building, the analysis of needs, the transformation of needs into outcome-oriented requirements and the simulation of the energy baseline.
- **Financial resources dedicated to this task (please distinguish between costs of internal resources and costs of external support such as consultants/facilitators…)**
  Financial resources dedicated by Ribera Consortium to this task is estimated in 14,000 € of which 60% are own staff costs and 40% external experts hired.
  UPV economical resources might be estimated in 15,000 € of which 10,000 are due to staff costs and 5,000€ to external consultants (needs identification + market engagement).
  It's not possible to estimate the costs incurred by city of Alzira.
- **Time dedicated to this task**
    - The survey took about 2 months, from MAY17 to JUN17. The core of this task took about 4 months, from SEP17 to DEC17.
    - Time spent for the set of activities needs identification – PPI selection is around 1 year. From selection of building to Needs identification activities required 8 months as a consequence of 'Magatzem de Cucó' case features.
- **With the experience of the pilot project, would the PA develop a different approach?**
    - We consider that the approach followed during the implementation of the Needs identification task was adequate. Although at the beginning it took so much time to set up a common understandable and agreed methodology, precisely the time of collaborative discussion brought a strong root to grow the pilot.
- **With more experience, would the PA have developed a different approach? (the aim with this question is to appreciate how the PA has learned from the project)**
    - We consider that the needs identification task has been well-approached, so a future action in this field would probably follow this approach. That's to say, not different, but faster, since the resources would be more available and procedures more familiar.

Market engagement

- **The aim of market engagement is not to evaluate potential suppliers but to "assess the appetite, capacity, capability of the market to respond to the customer's requirements". How did the PA assess this appetite?**
    - In order to potentiate the market engagement, different actions were performed:
        - Build up a credible pilot case, adjusting the demand to the available budget and setting up the appropriate information for the future bidders.
        - Prepare a public site as a repository of the different documentation: https://energia.consorcidelaribera.com/?page_id=337&lang=en
        - Set up a direct mailing campaigns to the SMEs, with an attractive message and links to the public information.
        - Perform a mailing and personal contact strategy to reference and multiplier agents for the SMEs, that is, the establishment of contact and information to associations, federations, professional colleges, chambers of commerce, etc. , which expanded the visibility and soundness of the message.
        - Set up an open market consultation event to increase the visibility and credibility of the project.
        - Spread the message through different forums and social networks.
- **How did the PA convince suppliers that it was a credible buyer?**
    - In order to build up the credibility of the PA as buyer, different actions were taken:
        - Publication of PIN. This is, to our point of view, the most effective sign of credibility. Afterwards the PIN was published in Province of Valencia public procurement bulletin.
        - Build up a credible information prospectus
        - Prepare a complete website, specific for the future bid, were all the relevant information of the needs analysis, state of the building, foreseen solutions, outcome-oriented requirements, open market consultation registration, etc. are included.
        - Showing the money, and showing that the budget was appropriate not only for traditional solutions, but also to boost innovative solutions.
        - Preparing a well-detailed questionnaire as a signing-up requirement for the open market consultation event. It was not just "tell me what can you offer" but a deeper, i.e. "tell me how your solution can help solve my needs better than the traditional solutions"
- **What method / tools did the PA use to approach the market? Market Sounding Prospectus (MSP), Market Response Form, Web-page, supplier meetings?**
    - The tools that were used were
        - Architectural project of the refurbishment of the building.
        - Market sounding prospectus
        - Web-page
        - Market response form
        - Mailing campaigns
        - Supplier meetings during the Open Market Consultation event
        - Site visits during the Open Market Consultation event
- **When the Prior Information Notice (PIN) was published in the OJEU (please provide the PIN in English – or a summary)**
    - 06/01/2018
    - https://energia.consorcidelaribera.com/wp-content/uploads/2018/01/2018-OJS004-004551-es-Publicaci%C3%B3-UE.pdf

- On 28/02/2018 PIN was published in Province of Valencia Official Bulletin. https://bop.dival.es/bop/drvisapi.dll?MIval=DI_VerEdictoVis&idEdicto=3080960&milidioma=C

- **Difficulties encountered at this level**
  - The main difficulties were to obtain feedback from potential suppliers. Two approaches were followed: firstly, a mailing campaign from a generic Gmail account (prominentmedspain@gmail.com), through the Mailchimp online tools, which seemed not to have a great impact, possibly due to the impersonal impression that a Gmail account can have; and secondly, the same campaign from the institutional e-mail account of the PA in charge of the procurement (Consorci de la Ribera), which worked better.
- **Human resources (internal and/or external – please describe) dedicated to this task**
  - The work team was composed by different members in this task:
    - The Municipality of Alzira was represented by the Architect, the Technical Engineer, and the coordinator of EU Projects, civil servants of the PA.
    - The Consortium of la Ribera was represented by two Engineers taking the role of Technicians in the field of Territory management and energy efficiency.
    - The Universitat Politècnica de València was represented by a Professor, two Associate Professors and a Technician taking the role of innovation experts and technical assistance in the field of energy.
    - The Spanish Consortium was aided by two International Experts:
      - TECNALIA, in the field of Energy Efficiency in Buildings, with experience in Public Procurement of Innovation. The work-team was mainly represented by an Architect and an Engineer.
      - ENERLIS, in the field of Public Procurement of Innovation.
  - All of them were relevant to carry out the preparation of the documents for the credibility, the web-page, the questionnaire, the mailing campaign, the registration of the open market consultation event and the resolution of doubts of potential suppliers.
- **Financial resources dedicated to this task (please distinguish between costs of internal resources and costs of external support such as consultants/facilitators…)**
  Financial resources dedicated by Ribera Consortium to this task are estimated in 8,000 € of which 60% are own staff costs and 40% external experts hired.
- **Time dedicated to this task**
  - The core of this task took about 3 months, from DEC17 to beginning of MAR18.
- **With more experience, would the PA have developed a different approach? (the aim with this question is to appreciate how the PA has learned from the project)**
  - Further approaches would follow the same procedure, but fine-tuning a couple of issues:
    - The e-mailing campaign would be performed directly from the institutional e-mail address of the procurer. Actually, the fact of using a Gmail account was due more to a question of the EU project (all partners wanted to collaborate in the management of the questions and registration of the open market consultation event) than to a matter of necessity of the procurer.
    - The questionnaire would be slightly modified. The potential suppliers were asked to rank their solutions between 1 (bad) and 5 (good) according to the different requirements. Obviously, all solutions were ranked from 4 to 5, and therefore, the information was useless. In addition, a way to find an

indicative prize for the solutions would be necessary, since no one showed (again, as expected) their cards (approx. cost of their solutions)

Market consultation (from the publication to the selection of the best offer)

- **Which market procedure did the PA use**? Open procedure. **Why?** Because we are willing to attract as many market actors as possible and are not interested in negotiating with only some of them. Our cluster decided to use an open procedure (a traditional approach, in contrast to the rest of partners that used a competitive dialogue and/or a competitive procedure with negotiation) because we obtained so much information (from the market with the sounding phase, technological surveillance, and the Open Market Consultation event) that let us to define our terms of reference and tools for assessment in detail.
- **What were the main functional requirements/technical specifications?**
  The requirements chased during the preliminary market sounding procedures were as follow:
    - Maximize the **use of natural light**
    - Minimize **heat gains** in summer, to avoid overheating in summer and take advantage of solar gains in winter
    - Minimize **heat losses**
    - Provide **ventilation** (either by opening windows, or by integrated ventilation system)
    - Soundproofing (**Acoustic insulation**)
    - Ensure the quality of the **assembly** with the opaque envelope.
    - Easy maintenance and **cleaning**
    - **Sustainable** product, guarantee to minimize waste, use of sustainable materials, consider the life cycle of the installation.

  Provide **security** against vandalism.
- **Which project delivery system was selected?**
  A works contract: Design + build
  Why? Building is expected to be totally renovated by 2020 and will be operated by the same Alzira council. Thus, the most appropriate scheme of ownership is the one considered.
- **How did the PA encourage SMEs to bid?**
  The city of Alzira chose to go with an open procedure in order to attract as many market actors as possible.
- **What are/were the criteria for the selection of the candidates?**
  In Alzira, regarding the selection criterion, bidders had to prove recent experience in energy rehabilitation of buildings, professional competency (relevant qualification and experience of project team), full civil liability insurance coverage, and solvency (economic viability, good standing with public administration).
  Consorci de la Ribera provided energy efficiency and LCC calculation tools (calculation spreadsheet) as well as the building model for energy simulations (CE3X software). By using these tools, each bidder was required to demonstrate the improved energy performance of their proposed solution over a common baseline.
- **What are/were the criteria for the selection of the tender?**
  To raise their interest of bidders, the requirements of the awarding criteria a, b and c were calculated using a mathematical formula and we designed an excel file to be used by bidders to obtain the data for the tender. 5 criterions were used as you'll observe below:

  a. Reduction of heating/cooling needs related to the thermal behaviour of the innovation (i.e. windows). Height: 25/100. (Quantitative). Based on the energy consumption baseline

obtained initially from a virtualisation of the building retrofitting with traditional solutions. The software CE3X is free and recognised by Ministry of Industry, competent in the field. A minimum reduction of 5% energy demand was expected.

b. Increase of the guarantee period of the installed materials. Height: 10/100 (Quantitative).
c. Life Cycle Cost (LCC) analysis. Height: 20/100 (Quantitative). LCC was calculated using the excel file produced by our consortium. LCC normalised to a year, considering the following aspects:
    - Cost of acquisition: supply and installation
    - Cost of use related to the energy consumption of the building
    - Cost of maintenance: preventive and corrective
    - Cost of end-of-life, including recovery and recycling
d. Technical quality of the solution provided. Height: 35/100 (Qualitative). The bidders had to demonstrate how their solution provided an added value to the following aspects:
    - Free cooling strategies (10/100)
    - Natural lighting (10/100)
    - Acoustic insulation (10/100)
    - Environmental-friendly solution (5/100).
e. Innovative character of the solution. Height: 10/100 (Qualitative). Here the bidders should explain how the solution used for the solution would synergically contribute to NZEB building objective, as well as permitted to include extra added-value functionalities.

- **Did the PA expect answers from foreign candidates?**
  Due to the economic volume of the contract we did not expect foreign candidates, but national candidates.
- **How many candidates answered? (large companies, SMEs...)**
  In the procurement procedure were presented 3 SMEs companies.
- **How many were selected for dialogue (if any)?**
  There was no dialogue
- **Difficulties encountered during the market consultation phase**
  It seems absolutely necessary and essential to hire a technical assistance in order to face the technical and administrative issues linked to the TOR. The assistance of experts in energy rehabilitation of buildings also brings an added-value. The public authorities have to train their technical staff and to communicate about PPI in order to improve the public services offered. This issue is crucial since many barriers occurring during the procurement were caused by the lack of knowledge and skills of civil servants.
- **Human resources (internal and/or external – please describe) dedicated to this task**
    - The work team was composed by different members in this task:
        - The Municipality of Alzira was represented by the Architect, the Technical Engineer of the PA.
        - The Consortium of la Ribera was represented by two Engineers taking the role of Technicians in the field of Territory management and energy efficiency.
        - The Universitat Politècnica de València was represented by a Professor, two Associate Professors and a Technician taking the role of innovation experts and technical assistance in the field of energy.
        - The Spanish Consortium was aided by two International Experts:
            - TECNALIA, in the field of Energy Efficiency in Buildings, with experience in Public Procurement of Innovation. The work-team was mainly represented by an Architect and an Engineer.

- ENERLIS, in the field of Public Procurement of Innovation.

  - All of them were relevant to carry out the preparation of the documents for the credibility and evaluation of the offers.

- **Financial resources dedicated to this task (please distinguish between costs of internal resources and costs of external support such as consultants/facilitators…)**
  Financial resources dedicated by Ribera Consortium to this task is estimated in 28,800 € of which 70% are own staff costs and 30% external experts hired.

- **Time dedicated to this task**
  The core of this task took about 9 months, from JUN18 to beginning of FEB19.

- **With more experience, would the PA have developed a different approach? (the aim with this question is to appreciate how the PA has learned from the project)**
  - To gain wider market credibility, it is necessary to channel the information through only one 'voice' and with common terminologies and procedures
  - The open procedure was able to promote innovative solutions. This was the result of an approach promoting functional specifications and not considering price as the main selection criterion. Conversely, the innovative and sustainable characters of the solutions were highlighted.

SUMMARY TABLE

	Needs identification	**Market engagement**	**Market consultation (from the publication to the selection of the best offer)**	**Works**
Duration of the task (starting date to the end)	May17-Mar18	Nov17-Mar18	Mar 18/ Febr19	April19-Jul19
Cost (human resources)	CRIB: 14,000€ + 3,120 € experts	CRIB: 8,000€ + 7,280 € experts	CRIB: 21,300€ + 7,500 € experts	CRIB: 9,200€ + 5,000 € experts
	UPV: 4,980 € + 2,400 € experts	UPV: 11,620€ + 5,600 € experts	UPV: 38.280 €	UPV: 25.520 €
	City of Alzira: 3,000 €		City of Alzira: 2,000 €	City of Alzira: 3,000€
Cost (events such as seminars…)	CRIB: 3,500		CRIB: 3,500	
Internal people involved (full time)	CRIB: 2		CRIB: 2	CRIB: 2
	UPV: 2		UPV: 4	UPV: 4
	City of Alzira: 0.5		City of Alzira: 0.2	City of Alzira: 0.5
External people involved (partially involved)	2	2	2	2

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