

Deliverable 3.4.1 INNOVATION PROCUREMENT PROCEDURE SELECTION REPORT

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selection

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CHARACTERISTICS OF THE DELIVERABLE

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1. INTRODUCTION

The aim of this document is to illustrate with four case studies the key steps to design and implement an innovation procurement process. These demonstration sites will exemplify the process to follow and the pitfalls to avoid.

Four municipalities involved in PROMINENT-MED launched PPI for the renovation of their public building:

- The municipality of **Alzira** in Spain: the pilot project focuses on the refurbishment of an old (1891) orange storage building (“magatzem de cucó”);
- The municipality of **Koprivnica** in Croatia: the pilot project involves the energy efficient renovation of a prefabricated kindergarten building.
- The municipality of **Mértola**: the pilot project concerns the renovation of the city hall that also hosts the Roman part of Mértola’s museum.
- The municipality of **Narni** in Italy: the pilot case is applied for the refurbishment of a kindergarten hosting children from 6 to 36 months.

The organisation of each municipality and the continuity of each pilot project, from needs identification to the assessment of the project performance, will be presented to show how small municipalities prepared and implemented PPI.

This guidance will present the following steps in the public procurement of innovation process:

1. Needs identification and assessment;
2. Market engagement;
3. The business case
4. PPI broker / external facilitator
5. Open market consultation

Because the projects did not start the tendering procedure at this stage, the document will stop giving input after the market consultation phase. However it aims at being updated during the project and further versions will include the following steps:

6. The tender procedure: a step by step approach
7. Assessment of the contract performance / results / After contract issues

For each steps, some key lessons will be drawn.

2. The municipalities

2.1. Identity card of the municipalities

In order for small municipalities to be able to relate while reading this report, extensive questions have been asked to the municipalities involved in Prominent MED.

Table 1: Overview of municipalities

	Croatia	Italy	Portugal	Spain
Municipality	Koprivnica	Narni	Mértola	Alzira
Inhabitants	30 854 (2011)	19 148 (2018)	7 274 (2011)	44 488 (2016)
Size	90 km ²	197 km ²	nc	110 km ²
Staff	66	117	269	341
Public buildings	46	59	94	55
Public buildings (m ²)	53 000	98 000	18 819 ¹	nc
Offices	YES	YES	YES	YES
Kindergarten and schools	YES	YES	YES	YES
Cultural buildings	YES	YES	YES	YES
Sport buildings	YES	YES	YES	YES
Swimming pool	YES	YES	YES	YES
Community center	YES	YES	YES	YES
Warehouse	nc	NO	nc	YES
Energy consumption (kWh/year)	2 300 000	1 303 745	16 365 000 ²	4 676 988
Total budget (M€)	37	49,7	18.7	29.8
Energy budget (€)	612 723	641 163	nc	270 000

nc=not communicated

It is worth mentioning that due to their size none of these cities have procurement departments. However they all have an administrative departments with experts in charge of public procurement.

2.2. Strategies of the municipalities towards energy performance

The case of Koprivnica

The City of Koprivnica is committed to sustainable development. The most significant changes in the City of Koprivnica related to building construction and building maintenance started to unfold after the year 2010.

The major changes were launching and maintaining the City's programme called Bold New Face of Koprivnica. This programme aims to hardwire sustainable development into all aspects of the city's urban planning and land use. It foresaw building and renovation of public buildings to achieve EU 2020 targets for energy efficiency. There are a number of policy and regulatory drivers behind this programme, for example the Energy Performance of Buildings Directive, National Energy Efficiency Action Plan and Sustainable Energy Action Plan (SEAP).

The City of Koprivnica is a Covenant of Mayors signatory since 2010. City council has adopted SEAP in July 2011 and revised it in 2015 with a goal to reduce CO2 emissions by more than 20 % until 2020. To achieve this ambitious goal, City is trying to significantly reduce energy consumption in

¹ Based on the municipality records. It must be considered that around 10 % of area data is missing.

² Based on Sustainable Energy Action Plan

public buildings. Because most of the public building stock is going to be used in the future, deep energy renovation is deemed as the only way to meet the goals.

Besides energy renovation of buildings there are more visible changes in the field of construction and building works. The PA has started to build a completely new part of the City called Lenisce East Green Residential Neighbourhood, comprising of apartment buildings and residential houses, built or planned in energy class A+.

Koprivnica is setting new standards for the energy efficiency of its building stock. A new development policy adopted by the city in 2011 requires that all new public buildings be constructed to low-energy or passive building standards.

The City's new policy is being implemented in two large development projects: a low-emission University Campus, for which a lecture hall is constructed, and the Lenisce East Green Residential Neighbourhood, which is under construction and will contain blocks of flats and family houses. Buyers of Lenisce flats were offered access to a national programme for subsidised housing that guaranteed a low-interest rate on their mortgage over a 30 year payment period. The City provided the land for the buildings, connections to public utilities and reduced the overall cost of the apartments by deducting an amount equivalent to the municipal building tax.

Meanwhile, the City's newly-acquired construction expertise has been used to convert a former army barracks into a low-energy kindergarten and to construct a new Palace of Justice – the first national ministry-owned building in Croatia built to low energy standards, in 2013.

One of the most important pilot projects implemented in a field of building construction is the first innovative ECO-SANDWICH® house which was opened in the City of Koprivnica as one of the twelve planned typical multi-family house as a socially-supported housing construction in the A+ energy standard. The application of ECO-SANDWICH® panels was created in the close cooperation with the Agency for Socially-supported housing construction of Koprivnica, as non-profit organisation that plans and builds dwellings as socially-supported housing constructions. The ECO-SANDWICH® project was created as a result of cooperation between Croatian scientific institutes (the Faculty of Civil Engineering and Faculty of Architecture of the University of Zagreb) and industry (Beton Lucko Ltd., Knauf Insulation Ltd., Eurco) and approved for financing under the CIP-EIP-Eco-Innovation 2011 programme. The innovative product has been also recognized by the Environmental Protection and Energy Efficiency Fund, which co-financed the project part. First ECO-SANDWICH® house is constructed in 2016.

The case of Mértola

Mértola is committed to sustainable development and due to that already signed the Covenant of Mayors and Mayors Adapt and is therefore developing its plans strategies. Additionally, Mértola prepared an application to UNESCO, regarding the Islamic route and to the European Geoparks. In parallel there is no experience in sustainable renovation at this stage.

The case of Narni

The city of Narni is committed to sustainable development. Narni has been a Covenant of Mayors signatory since 2015. City council has adopted a Sustainable Energy Action Plan in September 2015. To achieve this ambitious goal, Narni is trying to reduce significantly energy consumption in public buildings.

The City is also working on traffic sustainability in collaboration with the municipality of Terni, working with a common Sustainable Urban Mobility Plan.

2.3. Roles and responsibilities regarding buildings

The organisation of municipalities is different and several entities can be concerned by a project of building renovation. Inside one municipality such a project can affect multiple teams.

In Alzira,

Departments involved in management, operation and maintenance of buildings are:

- Urban area department
- Engineering area department
- Contracting department
- European projects area

The maintenance of the buildings is totally subcontracted in public buildings.

The refurbishment 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.

In Koprivnica,

Departments involved in management, operation and maintenance of buildings are:

- Administrative Department for Building, Real Estate and Utility Management

Administrative Department for Social Activities is also involved in this process and covers the refurbishment of educational, cultural heritage and social purpose buildings.

Administrative Department for Finance, Economy and European Affairs is responsible for planning, approving and spending the budget.

Administrative Department for Building, Real Estate and Utility Management leads buildings refurbishment in most cases, but also shares this task with Administrative Department for Social Activities. Both departments are responsible for defining buildings' refurbishment needs and budget planning for those buildings.

In Mértola,

The environment and municipal urban services department (DASUOM) is the mainly responsible department for the management, operation and maintenance of the public buildings.

Also, and due to their specific competences, there are other departments that are related to management /operation /maintenance of the buildings, namely the Administrative and finance department, the Public construction and utility management department and the Culture and tourism department

The environment and municipal urban services department (DASUOM) is the mainly responsible department for building refurbishment.

In Narni,

The main responsible for management, operation and maintenance of public buildings is the Administrative Department for Public Works whereas the Administrative Department for Finance and Social Activities. When Administrative Department for Public Works leads buildings refurbishment in most cases, both are responsible for defining buildings' refurbishment needs and budget planning.

3. Doing PPI in the MED area : case studies in figures

3.1. Timeline

Table 1: Planning of activities for Alzira (Spain)

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

Table 2: Planning of activities for Koprivnica (Croatia)

PROJECT PHASE	TIME
Needs identification	January – August 2017
Needs verification	September – October 2017
Feasibility analysis and concept viability	October 2017 – December 2018
Market engagement start	October 2017
Prior information notice	March 2018
Market sounding	March – April 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
Tender launch date	August 2018

Invitation to participate in procedure	September 2018
Competitors' participation in procedure	September – December 2018
Contracts placed	January 2019
Design and preparation of transformation works (contractor)	February – June 2019
Proposed period for construction works (delivery of the building)	1 July to 31 August 2019

Table 3: Planning of activities for Mértola (Portugal)

Needs identification - September 2017 Needs verification - September 2017 Market engagement - April 2018 Prior information notice – March 2018 Market sounding – April 2018 On-site Visits – April 2018 Expressions of Interest – March and April 2018 Market Consultation Workshop - April 2018 Open Public Consultation– September 2018 Contracts – January 2019 Proposed period for construction works (delivery)- June 2019

Table 4: Planning of activities for Narni (Italy)

PROJECT PHASE	TIME
Needs identification	January – June 2017
Needs verification	June – July 2017
Feasibility analysis and concept viability	July 2017 – December 2017
Market engagement start	October 2017
Prior information notice	November 2017
On-site Visits	November – March 2017
Expressions of Interest (response form)	November – March 2017
Market Consultation Workshop	20 April 2018
Tender launch date	October 2018
Invitation to participate in procedure	October 2018
Competitors' participation in procedure	October – December 2018
Contracts placed	February 2019
Works	February – June 2019
Proposed period for construction works (delivery of the building)	1 July to 31 August 2019

3.2. Budget planned

	Croatia	Italy	Portugal	Spain
Municipality	Koprivnica	Narni	Mértola	Alzira
Project	Kindergarten	Kindergarten	City hall/museum	Warehouse, future youth center

Building size (m ²)	820	1 248	685	992
Estimated budget (€)	300 000	300 000	200 000	200 000

nc=not communicated

The city of Koprivnica is planning to spend 300 000€ on the renovation of the kindergarten.

- 200.000,00 EUR excluding VAT from Interreg MED programme (project Prominent MED),
- 100.000 EUR excluding VAT from own contribution (City's budget, dedicated for interior spaces improvement works, which are not part of energy efficiency measures and therefore cannot be financed by the Prominent MED project).

The city of Narni has a budget of 300 000€ for the renovation of the building.

200 000,00 EUR including VAT from the Interreg MED programme

This amount would allow to work only on the internal spaces of the building.

In parallel the Narni Municipality has also applied for further 1.020.000 € to a specific call for public buildings energy efficiency and seismic reinforcement published by the Umbria Region in the frame of ERDF Regional Operative programme.

The idea is to combine the two interventions in order to guarantee a complete refurbishment of the building and an upgrade of the quality and safety standard of the building to the maximum level.

3.3. Organisation of the pilot projects

In Alzira

The works of building renovation is coordinated by the city of Alzira with the assistance of Consorci de la Ribera, Politechnical 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.

Building renovation works will be coordinated by city of Alzira Urban department as project manager.

In Koprivnica

The refurbishment project is mainly coordinated by the municipality partner Regional Energy Agency North. Regional Energy Agency North has experienced energy experts from various fields and economists. REA North is also experienced in EU financed projects.

There is one project manager from REA North who is responsible to the City of Koprivnica. The project manager must coordinate all activities with the City team.

In Mértola

The refurbishment project is mainly coordinated by the municipality together with Prominent MED partners, namely, CIMBAL (intermunicipal community) and IrRADIARE (consulting company) that presents a significant experience in what regards energy projects. Also, the Prominent MED partners will provide all the support through specific experts work and feedback.

There is one project manager from CIMBAL. The project manager coordinates all activities with the Mértola municipality team.

In Narni, the refurbishment project is coordinated and managed by the head of Public Work Department, engineer Pietro Flori with the support of two technicians of the same department.

4. Needs identification and assessment

Needs identification is a key step to make sure the project is realistic and will include cover all aspects of renovation in a specific context.

Needs identification requires:

- To discuss with end-users who are best-placed to pinpoint the inefficiencies of the service/process that is delivered. Involving the end-user is important for the future implementation and acceptance of the innovation;
- To define needs without specifying a solution;
- To identify end-users who are representative of a large market. Thus, it is relevant to involve end-users from similar organisations that face the same problems.

4.1. *Needs identification: a prerequisite*

Needs identification: general survey in Alzira

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.

Then, 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.

The municipality 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.

Needs identification: focus groups in Mértola

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.

The municipality sought for innovative solutions in energy efficiency, namely through innovative and functional materials and systems taking into consideration the restriction due to the fact that is a historical building subject to specific rules, and an innovative and replicable implementation approach and procedure.

Needs identification in Koprivnica

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. Additional stimulus for this decision was a fact that across Croatia and neighbouring countries there are prefabricated buildings older than 25 years that are highly energy inefficient, with the associated cost and comfort implications. Moreover, the vast majority of which have had no renovation since they were built.

The City of Koprivnica has the following needs:

- to deliver external, internal and functional building energy refurbishment and total transformation solution for the prefabricated kindergarten
- to maximise energy efficiency in cost-effective way based on TCO³
- to significantly improve childcare, learning and play environment quality
- to significantly improve indoor space functionality
- Plan the refurbishment works during the summer break (2 months) since the building is occupied the rest of the year;
- Anticipate future development of the kindergarten as an institution;
- Propose scalable and replicable solutions in order to attract nationwide interest;
- Achieve the minimum requirements set by the National energy efficiency improvement programmes for public buildings financed by the structural funds

Satisfying these needs should improve conditions for modern childcare, extend the lifetime of assets and minimise their life-cycle costs.

The City is seeking for innovative solutions in design, materials, constructions, functionality, didactics, implementation approach and, for follow on projects, financing.

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. All answers were documented and used during needs identification.

Needs identification in Narni

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.

Some of the schools, damaged from the seismic event, were object of specific refurbishment/reinforcement interventions through national and regional resources. Other schools, not directly

³ Total Cost of Ownership

damaged by the earthquake, remained excluded by the primary interventions but they still remain in critical condition according with their resilience to seismic events.

According with the structural check made after the earthquake the Kindergarten Gianni Rodari was not damaged by the earthquake but its structure needs urgent reinforcement interventions. Furthermore, the kindergarten, according with the energy audit carried out, is in the energy class F with great problems in terms of thermal insulation which deeply jeopardize the internal comfort of the kids and deeply impact on management costs.

Starting from 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. The emerged needs were:

1. Improvement of building safety against seismic events
2. Improvement of internal comfort improving thermal insulation
3. Improvement of didactic environment with solution supporting the learning process of child (6 month – 3 years) based on sensitive learning
4. Improvement of acoustic insulation
5. Amelioration of internal lighting and ventilation

The innovative solutions requested is something that can guarantee the improvement of the structure at least answering jointly to the first 3 identified needs, and that at the same time could be realized with limited budget effort and implementation period considering that the kindergarten is open 11 month out of 12.

4.2. Resources used at this stage

Table 5: resources used for needs identification

	Croatia	Italy	Portugal	Spain
Municipality	Koprivnica	Narni	Mértola	Alzira
Project	Kindergarten	Kindergarten	City hall/museum	Warehouse, future youth center
Building size (m ²)	820	1 248	685	992
Estimated budget (€)	300 000	300 000	200 000	200 000
Resources used				
Human resources	10	8	6	11
Internal	6	3	2	3
External	4	5	4	8
Expenses (€)	7500 (external only)	20 000	15 000	14 000
Time spent	8 months	6 months	8 months	12 months

nc=not communicated

In Koprivnica

Human resources dedicated for the purpose of needs identification were as follows:

- 1 project management expert from project partner City of Koprivnica (internal)
- 2 energy experts and 1 economist from project partner REA North (internal)
- 1 kindergarten manager and 1 kindergarten technician (internal)
- 2 engineers from Faculty of Civil Engineering, University in Zagreb (external)
- 1 architect from Arhitektura Jure Kotnik (external)
- 1 international PPI expert from Jera Consulting Ltd. (external)

Total costs of external support such as consultants/facilitators were estimated at total 7.500,00 EUR.

Around 75 % of planned project hours in the period of January 2017 – August 2017 were spent for needs identification.

In Mértola

Human resources dedicated for the purpose of needs identification were as follows:

- 1 project management expert and 1 financial expert from project partner CIMBAL (internal)
- 1 energy expert and 1 juridic expert (external)
- 1 historical issues expert (external)
- 1 international PPI expert (external)

Total costs of external support such as consultants/facilitators were estimated at total 15.000,00 EUR (without VAT).

Total costs of internal resources will be compiled at the end of the project.

Around 50 % of planned project hours in the project period were spent for needs identification.

In Alzira

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 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.

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.

In Narni

Human resources dedicated for the purpose of needs identification were as follows:

- 1 project manager Pietro Flori (internal)
- 2 technical expert of the public work sector (internal)
- 3 technical expert in architecture, engineering and advanced material (external)
- 1 legal expert (external)
- 1 Expert in Needs analysis and market consultation (external)

Total costs of external support such as consultants/facilitators were estimated at total 11.000,00 EUR.

Total cost of internal staff could be estimated in 9.000 euro

Around 90 % of planned project hours in the period of January 2017 – June 2017 were spent for needs identification.

4.3. Difficulties encountered and lessons learned

At the needs identification stage, difficulties arouse and all mention the same one: it has turned difficult to find a proper balance between defining needs which implicate specific solutions – which excludes the possibility of PPI – and needs which are open to different kind of solutions.

In the three countries problems arouse regarding identification of the ideal pilot while keeping in mind matters of budget, replicability and energy performance potential.

In general this stage is considered a success.

Difficulties for Koprivnica:

A poor response came from the focus groups; the majority of needs had to be determined by the project team instead of end-users.

The city found itself with a limited choice when selecting appropriate building pilot case as most buildings were either in too good shape or could not pay off investment.

Lessons learned in Koprivnica:

In the future no major changes in approach would be needed, except that the focus groups would not be used as proven ineffective. To take full advantage of focus groups in the future the methodology should be revised.

Difficulties for Mértola

Being aware of the ideal “pilot” dimension and how attractive it can be to the market was found more difficult than expected. In addition there was a limitation due to the historical issues and rules requiring specific interventions.

Lessons learned in Mértola:

The needs identification phase is considered successful in general, no major changes would be done in the future.

Difficulties for Alzira

The wide segmentation of the market and the low information publicly available was a main problem.

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 forecast baseline solution.

Lessons learned in Alzira

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. In the future Alzira would use the same approach but on a shorter time line as the resources would be more available and procedures more familiar.

Difficulties for Narni

The major difficulties faced by the city of Narni at the needs identification phase include the lack of experience regarding PPI procedures and the doubt in potential interest of local SME’s. In addition, concretely assessing if the identified needs can correspond to solutions eligible for PPI has been an issue.

5. Market engagement

Market engagement is a cornerstone of innovation procurement. It is essential for procurers to have a good understanding of the supply chain linked to the innovative product they want to buy. This phase is also key to involve suppliers and exchange information about PPI.

Market engagement can be done via meetings, different communications, surveys and onsite visits.

5.1. Market engagement initiatives and tools

Market engagement in Mértola

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.

To approach the market the municipality used all available methods.

- Pilot project information on project partner web page and social networks
- Meeting with the region stakeholders (agencies, research institutions and others)
- Technical documentation of the building – This include the energy audit/consumptions analysis of buildings and the verification of limitations due to the historical specificity of buildings
- Prior information notice - The PIN was published on the 07.03.2018 <http://ted.europa.eu/udl?uri=TED:NOTICE:104835-2018:TEXT:EN:HTML&src=0>
- Market Consultation Workshop – The workshop took place on the 9th of April of 2018 with a significant number of companies - it was broadcasted, in order to have as much participation as possible. The workshop was held in CIMBAL headquarters to all potential suppliers who have expressed their interest.
- Site visits - The last site visit occurred on April and some questionnaires and feedback was received.
- Questions and Answers - The potential suppliers are also invited to ask questions

In Koprivnica

The project team launched a bilingual pilot project web page (in Croatian and English language), containing all necessary information, all above mentioned documents, all technical documentation of the building and functionalities like Expressions of Interest or communication functionality (Q&A). The web page address is:

<https://ppi.koprivnica.hr/en/> (English version)

<https://ppi.koprivnica.hr/> (Croatian version)

Prior information notice

Prior information notice without call for competition has been published on March 16, 2018, notice publication in Croatian National Official Journal No.: 2018/S 0F1-0006875, link to published notice in official journal (Croatian language only): <http://tiny.cc/pin-cro>.

Prior information notice in English language has been published on March 26, 2018, notice publication generated by Tenders Electronic Daily, the temporary reference number 18-138490-001, the notice can be found on TED homepage <http://ted.europa.eu/TED/main/HomePage.do> --> Business opportunities --> HR - Croatia (155) --> Prior information notice without call for competition.

Prior information notice direct download:
<http://ppi.koprivnica.hr/Dokumentacija/2PINProminentMEDengcro.pdf>

Market Sounding Prospectus

Simultaneously with PIN the Market Sounding Prospectus has been also published. With it the City started a pre-procurement market sounding pursuant to national Public Procurement Act (National gazette No. 120/2016) and Directive 2014/24/EU on public procurement.

Market Sounding Prospectus direct download:
<http://ppi.koprivnica.hr/Dokumentacija/Prominent MED Market Sounding Prospectus eng.pdf>

Technical documentation of the building

Technical documentation of the building for interested suppliers has been published under the link http://ppi.koprivnica.hr/Dokumentacija/Kindergarten_Documentation.zip.

Questions and Answers

The potential suppliers are also invited to ask questions by sending an e-mail to ppi@rea-sjever.hr. Answered questions are regularly collated and published (without the suppliers' details) under the link <https://ppi.koprivnica.hr/> under QUESTIONS & ANSWERS.

Expressions of Interest

Expressions of Interest is part of market sounding exercise aimed to provide advance information of requirements and open a dialogue with the supply chain. We invited suppliers to fill out Expression of Interest Form (Market Response Form), under the link <http://tiny.cc/eoi-eng>, which starts the market research and dialog with potential suppliers. By filling out the form they can also register for project site visit in Koprivnica, Croatia and they had an opportunity to register for Market Consultation Workshop.

The City welcomes Expressions of Interest from all parts of the supply chain, especially manufacturers and their representatives, innovators, renovators, various SMEs, designers, architects, educators, NGOs.

Connect & Cooperate Opportunities

The contact information and area of expertise information that suppliers provide in Expressions of Interest are regularly published in the Suppliers' Directory located on project web site <https://ppi.koprivnica.hr> under CONNECT & COOPERATE OPPORTUNITIES. In this way, all the suppliers that have requested it have the possibility to become visible to other suppliers who are interested for this project and to make contact with them.

Site Visits

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

Market Consultation Workshop

The market consultation is an opportunity for potential suppliers to inform the City of Koprivnica of the options and solutions available to address introduced challenge. Therefore the City carefully analysed all suppliers' responses up to April 24, 2018.

On April 25, 2018 the Market Consultation Workshop was held and all potential suppliers who have expressed their interest or have participated in the workshop received a report on the results of the workshop.

The workshop was organised 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). The content was about requirements for energy-efficient extensive transformation of the kindergarten, innovation example of development and implementation of ECO-SANDWICH® house, public procurement of innovation, project benefits and market opportunities. The last part of the workshop was organised as a work in groups to analyse project requirements and propose questions.

Initiatives done in Alzira

To assess the appetite of the market and to promote their project, different actions were performed. A credible pilot case has been built, adjusting the demand to the available budget and setting up the appropriate information for the future bidders.

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. They set up an open market consultation event to increase the visibility and credibility of the project. To increase awareness, they also spread the message through different forums and social networks.

The tools 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

The municipality, 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-Infomaci%C3%B3n-preliminar.pdf>

Initiatives done in Narni

The market engagement process was carried out in collaboration with Sviluppumbria Umbria which is the regional development agency of Umbria Region (and project lead applicant) which has in its mission the support of the regional entrepreneurial system.

The municipality have organized in collaboration with Sviluppumbria an **Information Workshop** open to all the interested business actors at national level on October 25th 2017 in Terni.

In order to promote the participation to the event the programme was circulated among all the professional network at regional, national and European level contacting national business and trade association, chamber of commerce, relevant European network such as Green Building Network.

In the frame of the event was introduced the results of the needs analysis and the structural, seismic and energy characterization of the building furthermore, thanks to the participation of the legal expert (hired by the municipality) was presented the next steps foreseen in the frame of the innovation procurement process, namely: the Open Market Consultation, according to whose results the procurement procedure shall be selected.

The attendants represented mainly the following economic sector: building, material for building refurbishment (internal and external) seismic solution, technical studies (engineering, architecture etc).

After the event a **specific mailing** was activate both to the workshop attendants and to all the other network and organization contacted before the event sending them the material and updating constantly them on the development of the procedure (PIN publication, launching of the OMC, 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.

5.2. *Building credibility towards suppliers*

Usually public authorities, due to all the rules that they must comply with, are credible buyers. In addition the fact that Prior Information Notice was officially published on national and European website is a true argument for credibility.

In Portugal

The different market engagement initiatives undertaken proved that the region stakeholders recognised the importance of the pilot project, expressed the support to this intervention and mentioned the importance of replication to other historical buildings in the region. Since this pilot intervention will serve as a proof of concept with an innovation approach, future projects could later be supported by EU and national funds.

In Koprivnica

REA North the municipality partner knew that across Croatia and neighbouring countries there are prefabricated buildings older than 25 years that are highly energy inefficient and that there are considerable number of similar prefabricated kindergartens. In order to prove that, the City has performed activities to determine possible market size. The focus of the market research has been put to prefabricated buildings used as kindergartens. For this specific purpose, representatives of 127 cities in Croatia have been interviewed. Research revealed that at least 25 similar buildings exist in Croatia and none of these buildings have gone through deep renovation process.

Almost 60 cities and municipalities, owning prefabricated or similar buildings, together with other public business entities and faculties have expressed the interest to be closely involved in the market engagement procedure and get a first-hand knowledge and information about possible solutions to their challenges with a view to adopting the transformation model created.

Furthermore, the Ministry of Construction and Physical Planning recognised the importance of the pilot project, expressed the support and appointed its project team member. The Ministry will closely monitor this pilot to assess the possibility of replication of the transformation model. Since this pilot transformation will serve as a proof of concept and can become a special type of building renovation approach, future projects could later be supported by EU and national funds.

By these actions the municipality showed suppliers that there was an opportunity for them to develop and/or test new product or process within this project and later capitalise the effort on the market.

Also, it is reasonably to believe that all or part of the designed solution will be applicable not only to kindergarten buildings but also to similar ground level buildings or even smaller buildings (prefabricated or masonry one). There are substantial number of such buildings in Croatia and neighbouring countries.

The Spanish case

Actions performed to build credibility included:

- Publication of PIN, 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, where 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 “tell me how your solution can help solve my needs better than the traditional solutions”.

In Narni,

To convince the market on the credibility of the project, the overall planning of the activity detailing available budget for the call and forecast scheduling of the public tender was presented during the workshop.

Furthermore, some specific figures referred to the possible applicability of the solutions in other kindergarten were presented, both at regional and national level, in order to demonstrate the scalability of the business solution in the market.

Finally a presentation was made on the possible supporting public schemes and incentives which can support investment of the public and private school manager in investing in the solution.

In particular, the funding line available for the local authority was presented for:

1. Seismic reinforcement of school buildings (National Ministry funding dedicated funding line)
2. Structural refurbishment of school buildings (ERDF Measure of the Regional Operational Programme)
3. Energy refurbishment of school buildings

5.3. Difficulties encountered and lessons learned

Difficulties in Koprivnica

The municipality had to face several challenges:

On the supply side

- No successful refurbishment for prefabricated buildings were undertaken in Croatia and neighbouring countries;
- Prefabricated building industry was rather limited in Croatia: only two producers of family houses were identified ;
- The usual process hierarchy between the project designer, the contractor and the suppliers had to be broken.

On the demand side

- Small municipalities suffers from insufficient market demand

- MED countries known for extremely fragmented public administration hierarchy
- Innovation procurement was a huge cultural and political challenge since there was no success story in Croatia;
- Partners did not have any experience with PPI.

On the administrative side there appeared to be a poor connection between national and EU official journals. National publishing is not able to accept publishing of bilingual texts and the Croatian team had to publish only in Croatian language. Because the national official journal automatically publishes PIN in TED (OJEU), only the Croatian version of has been published. They had to separately publish an English version of PIN in TED (OJEU). This double posting is clearly a waste of time but was necessary to promote the PIN European-wide.

During the workshop organised to explain the project and hear the suppliers it turned out many suppliers had a lot of basic questions about the PPI, innovation and procurement procedures. The Croatian team did not quite achieve to talk to them at an equal level of understanding. The supply side should be previously educated about these novelties – there should be a kind of capacity building of suppliers before launching these kind of projects. This is the only way for them to understand what the procurer want. One possibility is the project has to be launched first, and then perform some capacity building webinars targeting suppliers. The other possibility is to include special project activities (or even special work package) aiming to educate the supply side about the subject matter. This is where international and national PPI and "innovativeness" consultants could have important role.

Response from the suppliers was not as expected due to lack of maturity and experience on PPI. This is why the procurer has to invest more effort before and after the publication of the tender.

Difficulties in Mértola

The major difficulty encountered was related to the lack of knowledge in PPI procedures by the suppliers and by the municipality and how that can influence the procurement procedures. Another issue to take into consideration was related to the information that suppliers give in this phase because of competitiveness issues. In addition, the public authorities calendars including elections periods can represent some changes in what regards the responsible bodies.

Difficulties in Alzira

The main difficulties were to obtain feedback form 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, a same campaign from the institutional e-mail account of the municipality in charge of the procurement (Consorti de la Ribera), which seems to have worked better.

Difficulties in Narni

Narni has several difficulties linked to its size. It was proven complicated for a small municipality to attract the interest of the more advanced and innovative enterprises at national and international level. In addition Narni faced a complete lack of knowledge of the market regarding the innovation procurement procedure. Last but not least the limited available budget for the structural interventions object of the tender resulted in a low interest for the market.

Shared lessons learned include the need for a capacity building of suppliers before launching this type of projects. The fact that suppliers are not aware of PPI was a major issue. Also, more time is needed in order to have more information from suppliers. The municipality of Narni raised another point: trying to merge the investment on different buildings into the same tender (or of different municipalities) could be relevant to increase the overall value of the works and raise market interest.

The municipality of Alzira shared additional lessons learned in terms of communication:

- 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 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 (as expected) their cards (ie approximative cost of their solutions).

5.4. Resources used at this stage

Table 6: Resources used for market engagement

	Croatia	Italy	Portugal	Spain
Municipality	Koprivnica	Narni	Mértola	Alzira
Project	Kindergarten	Kindergarten	City hall/museum	Warehouse, future youth center
Building size (m ²)	820	1 248	685	992
Estimated budget (€)	300 000	300 000	200 000	2 000 000
Resources used				
Market engagement				
Human resources	13	11	5	11
Internal	8	3	2	3
External	5	8	3	8
Expenses (€)	6 100 (external only)	30 000	15 000 (external only)	8 000

Time spent	7 months	7 months	7 months	3 months
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nc=not communicated

Resources used: the example of Koprivnica

Human resources dedicated for the purpose of market engagement were a total of 13 people spread as follows:

- 1 project management expert and 1 expert associate from project partner City of Koprivnica (internal)
- 2 energy experts and 2 economists from project partner REA North (internal)
- 1 kindergarten manager and 1 kindergarten technician (internal)
- 1 international PPI expert from Jera Consulting Ltd. (external)
- 1 national procurement expert from LumeNNice Ltd. (external)
- 1 expert associate from Croatia Green Building Council (CGBC) (external)
- 2 expert associates from Croatian Chamber of Economy (external)

Total costs of external support such as consultants/facilitators were estimated at total 6.100,00 EUR. Around 70 % of planned project hours in the period of October 2017 – April 2017 were spent for market engagement process.

In Mértola

Human resources dedicated to market engagement were as follows:

- 1 project management expert and 1 financial expert from project partner CIMBAL (internal)
- 1 energy expert and 1 juridic expert (external)
- 1 international PPI expert (external)

Total costs of external support such as consultants/facilitators were estimated at total 15.000,00 EUR (without VAT).

Total costs of internal resources will be compiled at the end of the project.

Around 50 % of planned project hours in the project period were spent for market engagement process.

In Alzira

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 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 by Ribera Consortium to this task is estimated in 8,000 € of which 60% are own staff costs and 40% external experts hired.
The core of this task took about 3 months, from DEC17 to beginning of MAR18.

In Narni

Human resources dedicated to the purpose of market engagement were as follows:

- 1 project manager Pietro Flori (internal)
- 2 technical expert of the public work sector (internal)
- 3 internal experts of Sviluppumbria in charge of managing contacts with enterprises
- 3 technical experts in architecture, engineering and advanced material (external)
- 1 legal expert (external)
- 1 Expert in market consultation (external)

Total costs of external support such as consultants/facilitators were estimated at total 18.000,00 EUR. Total cost of internal staff could be estimated in 12.000 EUR.

Around 80 % of planned project hours in the period of October 2017 – April 2018 were spent for the market engagement process.

6. The business case

The Business Case presents the key strategic issues. It is a tool to support investment decisions during the life of the project. The aim is to focus on a broad range of issues relevant to the innovation procurement.

Establishing a business case is a key step to guarantee project approval. As described in the international working session held in Portugal in 2017, the business case is defined in five steps:

- 1) define the problem to be addressed
- 2) gather information to understand potential solutions
- 3) compare costs, benefits and risks
- 4) decide on the purchasing strategy
- 5) create the right conditions for competition

None of the four pilot buildings did a proper business case due to lack of specific information at this early stage, not knowing the technical solution that would be chosen etc. However the four municipalities did the steps 1 and 2 through the need identification and market engagement phases.

7. PPI broker /external facilitator

Innovation procurement in addition to its benefits entails risks and costs. Being non prescriptive while asking « what to buy ?» requires a cultural shift from all the professionals involved. It is often more complex for small municipalities which often lack knowledge of the procedures of PPI as they sometimes do not have a procurement department. To promote PPI and to bridge the skills gap small municipalities can ask for local technical assistance acting as a PPI broker.

The promotion of innovation brokers as facilitators of public procurement of innovations is a priority for the European Commission to spread PPI in Europe. Indeed, innovation is a driver for territories development across Europe. The brokers can act as a facilitator and an intermediary between public bodies and innovative SMEs which often do not work together.

Connecting with a facilitator to implement PPI seems necessary for small municipalities in the context of the energy performance of their building portfolio. In the following case studies the combination between external assistance for legal aspects of PPI and technical aspects of building renovation can be observed.

Reaching out to an external facilitator: the case of La Ribera

The Spanish municipality launched a tender for technical assistance. The companies Enerlis and Tecnalía will jointly provide this support. Tecnalía has the double knowledge, in the field of Energy Efficiency in Buildings, with experience in Public Procurement of Innovation.

The possibility of several external facilitators: the case of Koprivnica

The Croatian municipality was assisted by five different people during the life of the project.

1. Croatia Green Building Council (CGBC) for the coordination and logistic in communication process with supply side, promotion of the project in electronic media with the goal to make the project visible and recognizable, help with mailings communication using their databases,

help with preliminary market consultation phase, connecting the project to other national Green Building Councils.

2. Jera Consulting Ltd. International PPI expert was consulted for guidance through preliminary market consultation aimed at gathering information from the market, and at informing the potential suppliers of the authority's needs. Jera Consulting Ltd provided direct project support typically includes reviewing draft documents, helping to formulate forward plans, suggesting ways to overcome barriers and issues as they arise, advising on the formulation of pro-innovation procurement strategies and tender documents, drafting documents or providing examples and templates.
3. LumeNNice Ltd is a national procurement expert very well experienced in national regulatory procurement framework and therefore this represents the continuation of similar tasks, but on national level.
4. Faculty of Civil Engineering, University in Zagreb. The Faculty was hired as national technology expert to support preliminary analysis of the market of innovative technologies for energy reconstruction of prefabricated buildings and to analyse existing and/or possible innovative technologies, systems and solutions for the energy refurbishment of existing prefabricated buildings in the Republic of Croatia. Other task was to make a repository of designers, manufacturers and contractors operating in the field of innovative technologies, systems and solutions for energy refurbishment in Croatia.
5. Arhitektura Jure Kotnik is an international expert – architect hired for identifying innovative solution contents, specialized in the field of child-care and kindergarten architecture. One of "Europe 40 under 40 laureate 2016".

The external facilitator for Mértola

Alentejo Coordination and Regional Development Commission (CCDR Alentejo) – CCDR Alentejo is an entity supervised by the Minister of Planning and Infrastructures and the Minister of the Environment. Its mission is to ensure the coordination of sectorial policies at a regional level, as well as to implement environmental, spatial planning and city policies, provide technical support to local authorities and their associations, implement, evaluate and monitor policies, ensure the preparation, monitoring and evaluation of the territorial management instruments, ensuring their articulation with national territorial management instruments, ensure compliance with the management responsibilities in the context of the European Union's cohesion policy in Portugal.

Facilitators for technical and administrative aspects in Narni

The municipality technicians are working with ESCOs and the Engineering Dept. University of Perugia for the energy aspects. They are supported by a legal expert hired specially for the project and by three technical experts with high level skills in structural engineering, architectures, advanced materials.

For the PPI more administrative aspects contacts have been established through synergy activities with MED horizontal projects i.e technicians from Apulia Region already working on PPI; partners and networks within Co-CREATE MED project, in particular the Chamber of Commerce of Venezia and the Region of Veneto and ATC Torino, already working on the Papyrus project.

Noesis s.n.c, a specialized company on EU project development supported the process of the open market consultation. Furthermore technical staff of SVILUPPUMBRIA followed and supported the entire process both for legal aspects and for contacting the business sector.

8. Open market consultation

8.1. *Benefits of the open market consultation*

Open market consultation is a key step in the PPI process taking place after having launched a Prior Information Notice (PIN) on a dedicated platform. It consists in consulting potential suppliers during a specified period of time, giving them the opportunity to ask questions about the project, in this case, the building to be renovated. They can also present their innovation and see if it matches the express needs. It helps identifying the feasibility of the renovation project: if no supplier is interested in answering there is probably a problem of clarity in the definition of the PIN.

Having an open market consultation helps prepare for the tender phase using proactive communication towards the market to raise the interest of innovative companies in responding. Meeting them and exchanging with them ahead of the tender enable to get familiar with their language and use it the same language as the potential suppliers.

Open market consultation enables the procurer to check expectations regarding: (adapted from EAFIP, 2016 : 65):

- The prior analysis and regulatory environment ie confirming innovation potential and the use of PPI versus usual procurement methodology ;
- The desired minimum requirements for the innovative solutions – in line with the energy performance and retrofitting strategy of the municipalities ;
- The assumptions from the business case – it is the opportunity to check if the market is mature enough to deliver what is expected. Maybe the solution does not exist yet. On another topic, open market consultation is also a good opportunity to discuss about budget issues ;
- The contractual conditions : interest of having the tender split into lots, confirmation of existing companies able to deliver solutions for the different lots.

On the benefits of open market consultation: the case of Alzira

The Open Market Consultation (OMC) which took place in Alzira, Spain, was a successful networking event where demand and offer met to share their impressions around a common goal: to set a specific and holistic solution for the energy efficient refurbishment of an old building to become a youth building. The OMC started by the global exposition of the schemes of Public Procurement of Innovation and a visit to the building. Afterwards, the multidisciplinary assessment team was divided into three groups in order to attend to the different individual interviews, where manufacturers of windows and exterior carpentry showed their latest innovations and could ask and solve their doubts. Right now, the multidisciplinary team is hardly working on the translation of the outcome-oriented requirements into particular specifications and relative weights or the definition of the procurement, which will be launched in May. Just as a reminder, find a list of the outcome-oriented requirements and the link to the project: https://energia.consorcidelaribera.com/?page_id=345&lang=en

8.2. *Organising an open market consultation*

The open market consultation is necessary and it should be organised with care. It is important to give enough time for suppliers to get familiar with the requests in order for them to be able to ask questions and have a dialogue with the procurer. The city of Koprivnica and Narni in this project gave a 2 months period for this phase.

To avoid problems at the tender phase, it is necessary to specify that all companies will be treated equally whether they participated in the open market consultation or not. As mentioned by EAFIP, 2016 : « the participation of a potential bidder in the open market consultation must not affect competition in any future tender procedure », EU rules of public procurement are very strict about it.

Open market consultation : the case of Narni

The Narni municipality launched an Open Market Consultation during two months in order to discuss with the market possible technical solutions, their feasibility, as well as, possible award criteria for the tender i.e. life cycle assessment (LCA).

The steps followed were:

1. [PIN Publication on TED](#),
2. Web page in municipality institutional website informing procurers
3. Designing of a questionnaire gathering market inputs
4. Information action through institutional channels

After the open market consultation period, a specific business case is designed aimed at supporting investment decisions before, during and after the project, which will deal with the following 5 topics:

1. Outline alternatives
2. Define potential cost savings, benefits
3. Better market knowledge
4. Define technical specifications
5. Identify KPI

Open market consultation : the case of Koprivnica

Koprivnica together with REA North organised an open market consultation to hear ideas, information, new concepts and innovation that could contribute to achieving improvements in one or more aspects of the requirement:

- Minimum nZEB standard energy performance
- Increase the daylight illumination within interior spaces
- Enable visual connection to childcare rooms
- Use natural, recycled and sustainable materials where possible
- Enhance the learning and play environment, including safety
- Didactic and learning elements included as integral part of the solution
- Respect the principles of the circular economy in all aspects
- Preferred implementation within 2 months' time

Open market consultation: the case of Mértola

An open market consultation was launched to facilitate an open dialogue with potential suppliers, to present the building's characteristics and to organise the visits to the building. The major constraints for supplier is the fact that is a historical building and subject to specific rules, namely because typical renewable energy interventions are not applicable. Alteration in the aesthetics of the building is not allowed. Another important issue presented was the possibility of replication of the project results into processes regarding other buildings, namely museums in the region.

9. The tender procedure

The four case studies illustrated here are currently at the beginning of tender procedure.

The case of Alzira

The city of Alzira chose to go with an **open** procedure in order to attract as many market actors as possible. The municipality is highly interested in negotiating with most of them.

To raise their interest, the requirements 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.

The case of Mértola

The city of Mértola chose to go with competitive dialogue.

The case of Koprivnica

The city of Koprivnica chose to go with competitive procedure with negotiation.

The case of Narni

At the end of the open market consultation the City received 6 questionnaires filled in by different market operators mainly representing building sector.

Three of them presented traditional solutions neither in line with the needs of the administration nor with the characteristics of the innovation procurements.

The other 3 questionnaires received propose:

- two high innovative models answering to the requirements in terms of seismic resilience and thermal insulation but without anything in terms of improving the learning environment
- one solution integrating the three required elements but with limited improvement in terms both of insulation and seismic resilience

Nevertheless, the information gathered from the market have enabled the technicians of the municipality to identify the basic criteria for the procurement documents and, accordingly to select the procedure of **competitive procedure with negotiation** which allow easier and quicker process than the competitive dialogue, giving the market the possibility to propose different solutions during the negotiation phase.

10. CONCLUSION

This report aimed at collecting concrete evidence on the process of PPI for small municipalities investing in energy renovation. At this stage they all went through the processes of needs identification, market engagement and open market consultation. During those stages they confirmed the lack of maturity of suppliers in the MED area regarding PPI. They all advocate for the establishment of a capacity building facility.

Legal procedure and SME's interest are two big concerns raised by the cities of Narni, Koprivnica, Mértola and Alzira.

The additional stages of PPI: tendering, awarding the contract and monitoring performance will be addressed in a next report.