How to implement Public Procurement of Innovation

Lessons learned from the PAPIRUS project
This document has been published in the framework of:

**PAPIRUS – Public Administration Procurement Innovation to Reach Ultimate Sustainability**

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**PAPIRUS website** – [www.papirus-project.eu](http://www.papirus-project.eu)

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Glossary

**PAPIRUS** – Public Administration Procurement Innovation to Reach Ultimate Sustainability

**PPI** – Public Procurement of Innovation

**PCP** – Pre-Commercial Procurement

**EU** – European Union

**CIP** – Competitiveness and Innovation Framework Programme

**PIN** – Prior Information Notice

**JCBET** - Joint Cross-Border Evaluation Team
Introduction

PAPIRUS project (Public Administration Procurement Innovation to Reach Ultimate Sustainability) is one of the pilot projects in the area of Public Procurement of Innovation (PPI) which is co-financed by the European Commission within the Competitiveness and Innovation Framework Programme (CIP).

One of the tasks of the PAPIRUS project is training activities in the area of Public Procurement of Innovation. The main objective of these activities is:

- Awareness raising about the benefits of Public Procurements of Innovation;
- Training of procurement and contracting staff across Europe on proper implementation of the Public Procurements of Innovative Solutions.

This training material has been elaborated in the framework of PAPIRUS project and is dedicated for all Public Procurers across Europe who plan on implementing PPI and want to learn from the PAPIRUS experience about the principles on which public procurements of innovative solutions are based. This material is available in Spanish, Italian and German.

The guide includes the explanation of public procurement of innovation, the benefits it brings, implementation rules and steps as well as lessons learned from the PAPIRUS project. Therefore, this document is not only a theoretical description of guidelines but also practical set of tips which may be useful for future followers.

The PAPIRUS Consortium hopes that this guide will bring you one step closer to the implementation of Public Procurement of Innovation.
What is Public Procurement of Innovation

Public Procurement is the process by which government departments or agencies buy goods and services or commission work. It takes place at national, regional and local level. Total public spending is equivalent to 19% of EU gross domestic product.

Public procurement of Innovation (PPI) is used when challenges can be addressed by innovative solutions that are nearly or already in small quantity available on the market and do not require new Research & Development (R&D). PPI is a tool that stimulates new technological or service solutions. It enables bringing new technology earlier to the market and at the same time creates jobs and boosts the competitiveness of European industry and Small and Medium Enterprises (SMEs).

Procurement of innovation helps public authorities to achieve more efficient and effective public services and provides more environment friendly solutions.

As the total public spending is equivalent to 19% of EU gross domestic product, public procurements is an important market driver and can be a tool in market transformation towards more sustainable solutions.

Procurement of innovation is not only beneficial for public authorities but also for SME who gain business opportunity and resources for development of innovation which may boost their competitiveness on the market.

Supporting innovative activities is now one of the key policies of the European Union, included among other is Europe 2020 Strategy. A number of initiatives which promote new approach to public procurement in terms of innovation growth have already been launched.

Public procurement of innovative solutions (PPI) is particularly useful in certain areas e.g. mobility, health, e-government, waste management, recycling or like in case of PAPIRUS construction where the
public sector accounts for a big part of demand and can use procurement as a means to address key societal challenges such as resource-efficiency.

**Public Procurement of Innovation is not a new form of procedure**: Open or Negotiated Procedure, competitive dialogue, Innovation Partnership.

**Public Procurement of Innovation is not a new type of contract**: applies the existing contracts (works, services, supplies or public partnership).

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**Procurement of Innovation Platform**

If you would like to find more information about PCP and PPI or information on other case studies, the first place you should go to is The Procurement of Innovation Platform which main goal is to make public procurement of innovation a widespread reality in Europe. The Platform has been developed to help public authorities, procurers, policy makers, researchers and other stakeholders harness the power of PPI. Custom-made to meet the needs of these users, the PPI Platform comprises three elements.

- **The website**
  - [www.innovation-procurement.org](http://www.innovation-procurement.org)

- **The Procurement Forum**
  - [www.procurement-forum.eu](http://www.procurement-forum.eu)

- **The Resource Center**
  - [www.innovation-procurement.org/resources](http://www.innovation-procurement.org/resources)
The website contains the latest news and events, the European legal framework, policy support and updates on PPI and PCP related projects. The Procurement Forum is a space for procurers and related stakeholders to discuss share and connect, allowing them to post comments and upload documents, images or videos. A central database for PPI knowledge, useful documents and examples are stored in The Resource Center.
The overall objective of the international PAPIRUS project is to promote, implement and validate innovative solutions enabling the European community to achieve sustainable construction.

The project involves representatives of the public sector, which accounts for a significant proportion of the total number of existing buildings in Europe. The public sector has become an important factor in stimulating and serving as a model for the transformation of the market towards more efficient products, buildings and services.

One of the project goals is the introduction of a new public procurement process focused on providing materials characterized by nearly zero energy consumption for the repair and construction of buildings in four European countries: Germany, Italy, Norway and Spain.

The new public procurement process evolved by experts within the PAPIRUS was based on an approach where the awarding party determines the effects expected after the implementation of the solution, product rather than specific requirements for the product which is available on the market. This approach was to give bidders more flexibility in presenting their innovative solutions. A new approach to public procurement means the introduction of an innovative system, in which the essential elements for awarding public contracts are: innovation and social and environmental criteria instead of price only.

In order to encourage SMEs to bid within PAPIRUS, the tender have been divided into lots. This clearly facilitates the access in both terms: quantitative (the volume of individual lots can meet the SME's manufacturing capabilities) and qualitative (scope of individual lots can respond better to the industry in which operates particular SME).

Because of the impact on buildings energy performance, PAPIRUS focused on technologies and solutions that:
- Reduce the energy losses through buildings opaque envelope;
- Reduce energy losses in winter and solar gains through window in summer;
- For light weight prefabricated panels with low specific CO2 emissions.
- Provide good quality natural day-lighting;
- Store thermal energy increasing the thermal comfort and shifting heating and cooling peak loads;

However, as explained on following sections the feedback from the markets’ consultations has driven the PAPIRUS procurers to leave out of the tenders the last two technologies due lack of response from the market, lack of efficient implementation due to the high price for poor performance or lack of enough developed solutions that are not ready yet to be applied to construction sector.

**Coordinated Public Procurement for Innovative Solutions**

Another innovative aspect of PAPIRUS project is that the public procurements were implemented jointly in four participating partner countries since the project’s goal was also to encourage Small and Medium Enterprises to expand their businesses in other countries and at the same time raise competitiveness on European market.

The PAPIRUS consortium has examined closely different legal methods of implementing a joint procurement of all pilot sites.

**PAPIRUS Partners have considered the three following approaches:**

- Forming a new procuring body consisting of all four pilots;
- All four pilots acting as a buyers group;
- Adapting a common frame for the technical and organizational implementation of the different procurements in all pilots and coordinating parallel tenders.

The only legally safe and practicable way to conduct a joint procurement in the frame of the PAPIRUS project was the implementation of separate procurements for each pilot. Therefore, PAPIRUS procurement was a coordinated PPI.
The pilot sites in which the procured innovative building solutions will be implemented are presented below.
Italian demonstration case

Via Monte Ortigara Street in the Municipality of Rivalta

Demo building in Turin that is going to be refurbished under PAPIRUS Project frame is owned by ATC Torino. The building is a social housing block, and its use is residential.

The building is a social housing block, and its use is residential. Operation conditions are the typical of dwellings.

PAPIRUS public procurements in Turin focused on:

- Technologies and solutions that reduce the energy losses through buildings opaque envelope;
- Technologies and solutions that reduce energy losses in winter and solar gains through window in summer.

German demonstration case

Mühlacker Vocational School / Workshop Building

The owner of the German demonstration building is Landratsamt Enzkreis. It is an existing educational building that was partially reformed in last years.

PAPIRUS public procurements in Enzkreis focused on:

- Technologies and solutions that reduce the energy losses through buildings opaque envelope;
- Technologies and solutions that reduce energy losses in winter and solar gains through window in summer.
Case study in Sestao is considered as two demo buildings. Current existing buildings are going to be demolished in order to build in the site two new buildings in the frame of PAPIRUS project.

PAPIRUS public procurements in Sestao focus on:

- Technologies and solutions that reduce the energy losses through buildings opaque envelope;
- Technologies and solutions that reduce energy losses in winter and solar gains through window in summer;

Norwegian demonstration site

Lindeberg nursing home

Oslo Commune case study consists of a new construction demo. Existing building in the site will be demolished and replaced by a new building whose construction will be the object of one of the public procurements to develop in the frame of PAPIRUS project.

PAPIRUS public procurements in Oslo focused on:

- Technologies and solutions that reduce the energy losses through buildings opaque envelope;
- Technologies and solutions that reduce energy losses in winter and solar gains through window in summer;
- Technologies and solutions for light weight prefabricated panels with low specific CO2 emissions.

Due to limited number of offers which were not complete, the tender for the supplies for above building in Oslo had to be canceled. Omsorgsbygg is planning a new procurement to replace windows and insulate the facade of three kindergartens in Oslo. Find out more on [www.papirus-project.eu](http://www.papirus-project.eu).
Benefits of Public Procurement of Innovation

Why your public institution should get interested in procuring innovation?

First of all, PPI gives the opportunity to buy solutions that **fully meet your needs**. If you want to buy something e.g. more energy efficient, a solution that is still not available in large scale on the market, PPI is the perfect solution. You do not have to make do with a product that does not fulfil your expectations.

By introducing your needs to suppliers and service providers who do not usually do business with public sector you may **encourage them to develop new products or invest in new technologies, which are e.g. less environmentally harmful**. This solution benefits both parties, public authorities who receive exactly what they need (who at the same time contribute to stimulation of the market and economy) and for suppliers who gain opportunity to introduce new products on larger scale. Additionally, society will benefit from this collaboration by gaining new services and infrastructure, creation of skilled jobs and investments, transfer of ideas to other sectors, enhanced international competitiveness and also improvements in quality of life.

PPI gives suppliers many benefits such as access to valuable public sector clients, the opportunity to apply research and commercialize ideas or developing of expertise and practice etc. However, it is important for public procurers to encourage and motivate the suppliers to get engaged in PPI, to make a step towards them and focus and interactive collaboration. For suppliers PPI may still not be a well-known method of making business.

During PAPIRUS market events, suppliers expressed their great interest in the project and indicated that the idea of PPI and cooperation between public procurers and suppliers is from their experience very unusual and interesting since most often it is the contractor who buys the product from them and not directly public procurers.
Lack of price as the main criterion when assessing the offers received may only result in higher expenses, one may think. However, think about the life-cycle cost of the purchased product. In the end it might turn out that although you had to initially invest more for an innovative product it will bring higher savings in future. Not only will it bring financial savings but also contribution to environmental and social policy targets.

On top of that, you could even have an opportunity to receive support in the framework of Horizon 2020 which foresees three types of support to public procurement of innovative solutions carried out by procurers from Member States and Associated Countries.

To sum up, PPI contributes to achieving best value for public money as well as wider economic, environmental and societal benefits in terms of generating new ideas, translating them into innovative products and services and promoting sustainable economic growth, to the benefit of European enterprises and SMEs.

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1 Life-cycle costing (or whole-life costing) — an approach to calculating costs which includes all costs arising during the life-cycle of a good, service or work (the purchase price and all associated costs, including operating and end-of-life costs).

PPI – Step by step

There is no one common approach for PPI implementation. Depending on the authority, the needs identified as well as the sector that is being targeted there may be different steps applied. Below you will find a simplified graph presenting the basic steps and factors that it involves. Public Procurement of Innovation takes more time than ordinary procurement. It is important to assume that more engagement will be needed.

Each of the steps mentioned above is described in the following sections.
Evaluation of needs

Do not define the need in terms that are too narrow

The need is the driver of all public procurements. In case of PPI identification of need in terms of performance and function is essential. The need in this case should be open and should serve as a starting point not the solution. You will be able to use the description of the need in further dialogue with the market to identify appropriate ways to address it.

Involve end-users

Depending on the purchase, a good idea when assessing the procuring needs could be involvement of the end-users. They are the ones who will exploit the bought solution, therefore, they could give you with information on what they need. You can do this either by organizing meetings, conducting surveys or a joint workshop.

External support

Since public procurers usually are not experts when it comes to technical details of solutions sought, it might be a good idea to hire an external expert, technical assistance from the beginning.

Analyze the market

It is not easy to discover whether the solution you need is already available on the market (but not on wide commercial scale) or whether one does not exist yet. This information is crucial as it tells you whether to implement PCP or PPI.

In the framework of PAPRUS project, one of the first actions was the identification of public procurement needs in each demonstration site. Firstly particular needs and specifications were examined for each demo building. Then came identification of weak and strong points of demo buildings in order to select intervention priorities. Finally, Consortium focused on the evaluation of different innovative solutions applied to demo buildings in order to analyse improvement potentials and possible requirements that were to be included in the PAPRUS Public Procurement.

Read PAPRUS report “Common public procurement needs”
In the framework of PAPIRUS project market analysis have been conducted in order to identify materials, technologies or systems that present a considerable grade of innovativeness and whose presence among designers is limited or even nonexistent. The report “State of the art of Innovative solutions” initially presented a general analysis of the energy performance in the building sector in order to understand the construction reality that enclosed us.

Before you start dialogue with the market you can already start with analyzing the market yourself or hire an innovation advisor with up-to-date knowledge of the market. You can start with searching the Internet. There are many groups on social media (LinkedIn, Facebook) which focus on innovative solutions in different sectors. Recently, an online database of innovative solutions has been compiled by Luxinnovation (http://en.luxinnovation.lu/Innovating-in-Luxembourg/Innovative-solutions-made-in-Luxembourg), Luxemburg’s national innovation and research body. The database features solutions, products, and services of interest to public authorities looking to include innovation in their procurement procedures. The database is free to use, and aims to link innovative businesses with public procurers.

In the framework of PAPIRUS project, one of the first actions was the identification of public procurement needs in each demonstration site. Firstly particular needs and specifications were examined for each demo building. Then came identification of weak and strong points of demo buildings in order to select intervention priorities. Finally, Consortium focused on the evaluation of different innovative solutions applied to demo buildings in order to analyse improvement potentials and possible requirements that were to be included in the PAPIRUS Public Procurement.

Common requirements for all demo building were gathered divided by the five technologies included in the scope of PAPIRUS Project (opaque envelope, window, natural lighting, internal partitions and energy storage capacity) as well as other needs, such as:

- Maintenance cost
- Environmental performance
- Ease of Installation
- Although prizes are not main restrictions, it is desirable an acceptable compromise between product costs and inversion time returns.
Procurement needs were defined based on the national regulations as well as particular conditions of each demo building analysis. Improvement possibilities that could be included in the Public Procurement were identified regarding Energy efficiency and sustainability.

Read the report “Common public procurement needs”

Solution available on the market

If the solution you are looking for is not available on the market, and you need to procure research and development services up to the prototyping or first test production stages you should carry out Pre-Commercial Procurement. On the other hand, if procuring for an existing innovative solution you execute Public Procurement of Innovation. This guide refers to PPI as in the framework of PAIPRUS project PPI was implemented. More information about PCP is available in numerous literatures (See references).

PPI carried out only when challenge requires solution which is almost on the market or already on the market on small scale but not meeting public sector requirements for large scale deployment yet. No R&D involved (R&D already done, or no R&D needed to solve problem).
Organizing and planning in advance

You should treat innovation procurement process as a project, with objectives, work plan, assigned tasks, timeframes and responsibilities, and allocated resources. Have in mind that PPI requires more time and people involved than an ordinary procurement.

You should have in mind that during PPI certain challenges may occur, therefore you should be well prepared. Having a PPI strategy may minimize the associated risk.

It is important to remember that certain situations may occur that will delay or even change plans. E.g. the first phase including the dialogue activities may be time consuming. It may happen that once you organized an event with suppliers there might come up a need to e.g. organize further one-to-one meetings in order to gain all necessary information and feedback. Therefore, set aside some time and first of all start the project well in advance of the tender being implemented.

### PAPIRUS PPI schedule

<table>
<thead>
<tr>
<th>Steps</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>First market analysis</td>
<td>01.2014 – 05.2014</td>
</tr>
<tr>
<td>Dialogue with the market (Market events)</td>
<td>07-10.2014</td>
</tr>
<tr>
<td>Development of the tender documents (specification, award criteria, contract design)</td>
<td>09.2014 – 03.2015</td>
</tr>
<tr>
<td>Publication of the call for tender</td>
<td>17.03.2015</td>
</tr>
<tr>
<td>Evaluation of tenders</td>
<td>06.2015</td>
</tr>
<tr>
<td>Contract award</td>
<td>09.2015</td>
</tr>
</tbody>
</table>

Information about the upcoming PAPIRUS tenders had been disseminated since the beginning of the project (10.2013).
One of the most important elements of both PCP and PPI is dialogue with the market. PPI requires closer contact between public procurers and suppliers than ordinary procurement. It is worth to start the dialogue with the market right from the beginning of the project.

Phrase “dialogue with the market” refers to interaction with suppliers, experts, innovation advisors, end-users and anyone else who has knowledge on the industry within which you will be purchasing.

The idea of having this dialogue is to gain input on needs and possible solutions available on the market as well as development plans and R&D. This dialogue is also a tool for informing suppliers about planned procurement as well as establishment of interactions between procurers and suppliers. Suppliers receiving information long in advance gain the opportunity to prepare themselves for such cooperation.

Public procurers may inform the suppliers in advance about the upcoming procurement activities using different dissemination channels.

**Prior Information Notice**

Prior Information Notice (PIN) is a useful way of alerting the market of upcoming requirements and allows suppliers to respond, expressing an interest in bidding for the contract. This supplier feedback can be used to inform the development of the specification as well as the selection process prior to the invitation to tender stage.

While they should be broad enough to allow for flexibility later, PINs should also be precise enough to avoid sending mixed, contradictory or misleading messages to the market.
Spread information

Another way of informing the suppliers about your activities is publishing information in industry magazines, websites, forums. Publishing information in magazines that are directed to certain branch of suppliers is a great way of drawing interest to your PPI. Naturally, public procurer may place information on future tendering actions on their own websites which are available for public view. Posting questions raised by suppliers along with answer could be a good way to engage suppliers.

In the framework of PAPIRUS project the suppliers were informed about upcoming PPI right from the beginning of the project. A dedicated website explaining what PAPIRUS is about as well as what kind of solutions will be procured has been developed. All activities concerning the PPI progress had been published there. Additionally, Project Public Procuers have published the information also on their websites. PAPIRUS was also present on social media. A Facebook account and a group on LinkedIn have been created with the objective to reach the professionals and experts. All Partners have created databases with contacts to companies supplying all solutions sought within the procurement. Newsletter as well as invitations to project market events and ad hoc information and were sent to them whenever needed. Also articles about PAPIRUS PPI were published in magazines dedicated to construction and energy efficiency. Information about the upcoming PPI was also sent to European and national organizations, clusters, associations gathering construction solution manufacturers.

Workshops, conferences, seminars

Organizing workshops, conferences, seminars with and for suppliers are crucial when implementing PPI. Although, dialogue between public procurers and suppliers before the announcement of the tender is permitted you must make sure that the Treaty principles of transparency and non-discrimination are applied.
Dialogue conference

During dialogue conference (market event, workshops) you may present your needs and the idea of PPI.

A good idea is to show the infrastructure where the solution/product will be adopted. Make sure you leave a space for questions and suppliers comments. It is important to receive their feedback. During the market event you may distribute a short survey among the suppliers asking for information you need e.g. for the specification, or just to know who would be initially interested in answering the future tender.

One of the risks of this close dialogue with the market is to fall into lack of transparency and discrimination and selecting specific commercialized solutions, instead of requiring solutions that meet your needs. To overcome this risk the dialogue has to be totally transparent and open to all different possible solutions to achieve the same objectives. Procurers have to be very open minded to any possible solutions (solve your needs with any solution).

PAPIRUS Market Events

PAPIRUS Market Events were held in each country where pilot buildings are located. These events were aimed at the dissemination of the PAPIRUS future PPI plans among the manufacturers of construction solutions as well as gaining information about the market. It was essential to let the market know well in advance about the tenders. These events have been conducted long before the actual call, therefore it gave the suppliers sufficient time to prepare for the procurement. These meetings have been held in a transparent and non-discriminatory manner. The results of the dialogue had not conferred an unfair advantage on any of the suppliers who participated. The Market events were held from June until August 2014 and the PAPIRUS calls for tenders were published on 17th March 2015. Agendas of the market events are available on PAPIRUS website (www.papirus-project.eu) in tab “Market events”.

Market Event in Bilbao
Spanish Market Event was held in Bilbao on the 12th June 2014. It was attended by 120 participants representing 35 companies.

Few days prior to the event a survey was send by email to all registered participants in order to advance them what kind of feedback and information Consortium Partners were looking for. During the event PPI as well as EU's support to the PPI was explained to the participants Later a general explanation of the PAPIRUS project was presented by project Partners: Tecnalia and Sestoberri. After explaining the procurement process different sites presentations was carried out. After the first part, one to one meetings took place during two hours between suppliers and project partners. 5 places were located during lunch time so suppliers could have 15 minutes talk with PAPIRUS partners.

All companies were interested in the PAPIRUS procurement process since it was something new for suppliers having public bodies as clients as usually it is the contractor who buys their products.

Market Event in Turin

Italian market event was held in Torino on 18th June 2014. The event was attended by 38 participants.
During the event explained was the strategic value of PPI and consequently of PAPIRUS in the frame of ATC’s development mission. An extensive debate was held in order to let the companies interact each another one.

The companies attending the meeting were strongly interested in what they perceived as the most innovative idea of the project, that is the possibility for the producers to submit by themselves the call, avoiding the brokering of the building companies.

**Market event in Enzkreis**

The Market Event Germany was held in Mühlacker on 11th July. It has been attended by 30 participants who had the opportunity not only to gain information about the project but also to visit one of the PAPIRUS pilot sites - the Mühlacker Vocational School / Workshop Building. The event turned out to be a total success.
All somehow relevant companies were addressed by phone and/or e-mail in addition to searching their websites, and invited to the German Market Event. Moreover the open invitation by the Administrative Head of the Enzkreis and all details about the open event (agenda, background information) were published accordingly on the website of Enzkreis, trade associations and business development groups; all these interest groups also informed their members by newsletter, print and e-mail. All attending companies appreciated that the market event was located in the pilot site, making it much easier to understand the technological and structural challenges.

The event started with an introduction and welcome and followed by the presentation of the PAPIRUS project, the objectives and general description (technologies, procedure, timetable, and budget) as well as the presentation of the pilot sites. Special focus was laid on the presentation of the roof refurbishment project in the German pilot site. After a tour of the building and a networking lunch the attending companies took the chance to talk about the project with other companies and with the attending technicians.

Most manufacturers found the innovative approach to finding innovative solutions for construction challenges propagated by PAPIRUS project new and appealing. They found it surprising and very gratifying that the public body researched the market extensively before launching the tender and even
before finalizing the tender documents. Very often, if not mostly, public bodies decide what to purchase without prior market research or market notice and potential bids have to fit the requirements of the tender without being able to influence the procedure or to suggest other solutions; this way suitable new and innovative solutions can easily be missed.

All companies were in favor of the concept that in the frame of PAPIRUS not only the price matters but that there was a clear statement towards quality aspects, sustainability, energy efficiency and innovativeness.

Also we received many responses by architects, engineers and trade organisations claiming PAPIRUS to be one of the most interesting and ambitious projects in the area of building construction.

The idea of a joint procurement was considered mostly as very interesting, especially since some companies are not very or not at all active in other European countries. However, before the event, the companies did not have a clear idea about the way a joint procurement could work and which would be their role in it. Companies were interested in all four pilot projects, technical details of which have been presented at the event. One company even participated also in Bilbao’s previous Market Event.

As a result of the market research beforehand most of the participants of the market event presented some highly innovative product, especially in the fields of insulation and glazing.

International Market Event

During the national Market Events many of the participants expressed interest to participate in an international Market Event where all PAPIRUS Partners and Procurers would be present and would give detailed information concerning the demonstration sites. This international market event was held in on the 19th November 2014 in Brussels.

The event was structured in 3 sessions:

- **Session 1:** General presentation of the PAPIRUS project and the procuring process; Presentations of the technologies, introduction of criteria and presentations of building sites.
- **Session 2:** Interactive dialogue between public procurers and participating suppliers. Suppliers participate in a brainstorming session so they are encouraged to discuss the evaluation criteria, so they will have influence on the criteria weights. Few days prior to the event a survey was send
by email to all registered in order to advance them what kind of feedback and information we were looking for.

Figure 4 International Market Event - snapshots from the brainstorming session

- Session 3: Participating companies presented their products to the PAPIRUS Consortium.

**One to one meetings**

It may happen that sometimes companies will not be willing to present their products in front of competition. In such cases a joint general session for all companies could be held where public procurers would share information about plans with all participating companies and the next session could include separate private meetings.

**Market event and one to one meetings in Oslo case**

Norwegian Market Event was held in Oslo (Omsorgsbygg Oslo KF) on 19th August 2014. In total 32 participants took part in the market event.
After the market event there were 14 one-to-one meetings. PAPIRUS Partners had met with 5 window suppliers some of them also had solutions to provide good quality natural lighting, with 6 façade /insolation suppliers and 2 architects/consultant companies. The meetings gave the procurers valuable insight regarding market ready solutions and services and projects under development.

**Creation of alliances**

Due to coordinated nature of PAPIRUS procurement, the Procurers encouraged suppliers to create alliances and together as a Consortium submit the bids. During the market events, suppliers suggested development of a Directory of companies interested in creating alliances which would allow them establishing cooperation and networking. Public Procurers had answered this need and published the Database on the PAPIRUS project website. Almost 50 companies signed up for the Directory.

**Maintain contact with suppliers**

It is important to keep a database of all participants of the events as well as other interested suppliers.

This way you will be able to inform them (either in an e-mail or newsletter) about up to date information. Remember that it is important to maintain contact with the suppliers always under the principles of transparency and non-discrimination. As already mentioned PPI takes more time than ordinary procurement. Make sure you hold up the attention of suppliers.
Tender implementation

Make sure to use the information you have gained through the dialogue with the suppliers in the work on the tender documentation.

In the PAPIRUS project as a result of the dialogue established with the market some of the proposed technologies had to be adapted or either excluded from the procurement process.

Lack of feedback or response from the market gives a clear signal that the technology may not be ready yet to be applied to construction sector.

Within this dialogue other issues such as efficiency of the technology arise: too high price for poor performance or benefit. It may not be the appropriated technology to apply or implement due to the end use of the building.

The information gained in the dialogue with the market is then applied in the definition of the tender specifications and identifying relevant criteria to be awarded.

Specification

Following market dialogue comes the phase of preparing the specification. Remember that detailed technical specification requirements close the supplier’s area of proposing innovation. When preparing the specification try to describe the effects that are expected after the application of the product and the needs you want to answer. Specification should be used as a problem to be solved, without prescribing a specific solution approach to be followed.

Think how you could force innovation with the specification. Specification usually includes 'must requirements, 'should requirements'. Too much of “must requirements” will reduce chances for innovation.
There are various types of specifications that can be used in a competitive process. The two most current specifications are following:

- **Specifications for Performance Requirements**: A specification based on the performance to be covered and criteria for fulfillment of requirements. It gives suppliers both the chance to suggest the best way to meet requirements and the possibility to suggest innovative solutions. Suppliers show interest in the competition because it deals with different solutions.

- **Functional specifications**: A specification based on functional description of needs to be fulfilled by the supplier – not a technical description of the wanted solution. It will be up to the provider to propose solutions and methods. A contract, containing functional specifications, must be monitored based on target fulfillments, but not on the individual actions, followed by the agreement.

Specifications can also be defined as qualitative or quantitative specifications. Quantitative specifications required a reference value to be compared with the proposed solution. This reference value has to be included in the tender.

In the framework of PAPIRUS the tender documents were based on functional descriptions of the different technologies and solutions (performance-based specifications). Minimum requirements and the desired core functionality were described.

The PAPIRUS project regards both legal and technical requirements and specifications. Depending on their nature, these specifications take form in the tender document as Administrative specifications or Technical specifications.

Technical specifications were defined according to the particularities of each of the buildings and also according to the information gathered in the dialogue carried out with the market in previous phases of the PAPIRUS process. These specifications had to fulfil minimally national building regulations as well as other specific requirements, particular to each pilot case.
Qualification Requirements

You might want to make it clear in the tender documentation that you are looking for innovation and it is important. By including qualification requirements you will send the supplier clear message that winning the tender is deeply connected with being an innovative tenderer. Below are examples of qualification requirements that may prove companies’ innovativeness:

- Experience with innovation. Documentation: Experience Overview.
- References from previous innovation projects. Documentation: Reference Guide.
- Information about how the supplier in similar assignments has contributed to innovation.

Variants

Variants allow alternative solutions to be considered in the evaluation of tenders. These can be permitted in any procedure, but minimum requirements of the contracting authority must be defined and the contract award criteria can also be applied to variants.

The advantages from permitting alternative offers are:

- The opportunity to offer alternative solutions.
- Provides potentially better coverage of the client’s needs.
- Challenges the suppliers in thinking creatively.

Choose the procedure

The current Directive 2014/24/EU on public procurement (repealing Directive 2004/18/EC) defines the following procurement procedures may be used for the implementation of tenders.

- Open tender
- Restricted tender
- Planning and design tender
- Tender competition with negotiations
- Competitive dialogue
- Innovation Partnership

However, not all of them facilitate buying innovation. The procedures that demonstrate good interaction between the procurer and supplier and at the same time foster innovation are: the tender competition
with negotiations and competitive dialogue. The Directive 2014/24/EU will be transposed by April 2016 in all Member States into their National law, therefore Innovation Partnership has not been implemented yet.

Having considered all options only the implementation of Open Procedure was possible in the case of the PAPIRUS project. The execution of a negotiated procedure or a competitive dialogue is not permitted under EU law as the technical and organizational procurement needs and the pricing of this specific tender could be described accordingly before starting the tender process. Within PAPIRUS executed has been an extensive market research on the technological solutions relevant to PAPIRUS by conducting market events and one-to-one meetings with suppliers before compiling the tender documents and launching the tender. This market approach to the tender in hand is not usually done by public bodies while procuring works contracts or supplies. Therefore, we consider the extensive dialogue with the market, prior to launching the tender, as a very effective and innovative way of conducting the tender. As for administrative requirements some of them will need to be adapted according to national legislations and some will be common. These have been identified and specified in each tender.

Competitive dialogue

Competitive dialogue is a procurement procedure established in article 29 of the Public Sector Procurement Directive in 2004 and lately in article 30 of the Directive 2014/24/EU on public procurement (repealing Directive 2004/18/EC). This procedure was designed to facilitate complex contracts where the technical specifications cannot be adequately defined in advance.

The competitive procedure may be used in situations:

- where the needs of the public procurer cannot be met without adaptation of readily available solutions;
- public Procurer needs include design or innovative solutions;

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• the contract cannot be awarded without prior negotiations because of specific circumstances related to the nature, the complexity or the legal and financial make-up or because of the risks attached to them;
• the technical specifications cannot be established with sufficient precision by the contracting authority with reference to a standard, European Technical Assessment, Common Technical Specification or technical reference;
• in cases where an open or restricted procedure resulted only in irregular or unacceptable tenders.

The first stage of this procedure includes publication of a contract notice which identifies nature of intended procurement and criteria for selection of operators. The public authority must then choose operators that requested to participate and invite them to the second stage – dialogue.

The public procurers should then open the dialogue with the selected operators. The aim of the dialogue is to identify and define the means best suited to satisfying their needs. They may discuss all aspects of the procurement with the chosen participants during this dialogue. During the dialogue, contracting authorities shall ensure equality of treatment among all participants. The dialogue may take pace in stages in order to reduce the number of solutions to be discussed during the dialogue stage by applying the award criteria laid down in the contract notice or in the descriptive document.

However, if the public procurer chooses this option it should be indicated in the contract notice.

The dialogue should be continued until public authority finds the solution or solutions which are capable of meeting its needs. After the dialogue is finished, public procurers must inform the participants and asks each of them to submit their final tenders on the basis of the solution or solutions presented and specified during the dialogue. Those tenders shall contain all the elements required and necessary for the performance of the project. If the public procurer requests the tenders may be clarified, specified and optimized but it cannot concern the needs and requirements laid out in the contract notice in order not to distort competition.

Public Procurer than assesses the tenders basing on the award criteria included in the contract notice and awards the preferred bidder. To confirm financial or other terms negotiations with chosen operator may be requested by the public procurer.

Tender competition with negotiations
The aim of negotiations is to improve the tenders which will enable public authorities to buy works, supplies and services that will fully answer to their needs. Negotiations may concern all characteristics of the purchased works, supplies and services including, for instance, quality, quantities, commercial clauses as well as social, environmental and innovative aspects, in so far as they do not constitute minimum requirements.

What differs Tender competition with negotiations from Competitive Dialogue is that in the latter procedure, in the first phase, solutions are developed until the authority considers that it has identified one or more capable of meeting its needs and then formalizes positions in a tender. In the new Competitive Procedure with Negotiation tenders are submitted initially, are then subject to negotiation and then resubmitted to finalize positions.

This procedure may be used by public authorities when:

- needs cannot be met without adaptation of readily available solutions;
- contract includes design or innovative solutions;
- requirement is complex in nature, in its legal and financial make-up or because of its risks (extended version of the justification for competitive dialogue);
- technical specifications cannot be established with sufficient precision;
- In the case of unacceptable/irregular tenders.

First step is to publish a call for competition outlining the requirements. In this procedure, specifications criteria must be formulated based on performance and functionality, which stimulate new solutions. A minimum of three operators are then invited to the tender stage. After assessing requests to participate against selection criteria, you select at least three operators and invite them to tender stage.

During the negotiation stage operators submit their tenders and negotiations may take place. Minimum requirements and award criteria cannot be negotiated. Of course principles of equal treatment and transparency must be respected.

Inform all tenderers about closing negotiations as well as the date of sending in final offers. After receiving all the bids award the contract basing on specified criteria with no further negotiations.
However, when implementing Tender competition with negotiations there are some constraints:

- the minimum number of bidders to be invited to negotiation phase is three
- the authority must indicate (and cannot change) minimum requirements and award criteria
- the authority must negotiate with those suppliers submitting initial offers (unless it reserves the right to accept tenders without further negotiation)
- the authority must seek a final tender from suppliers following completion of the negotiations, but it is possible to hold the negotiation in stages and reduce the number of bidders at the end of a stage

In order to carry out this procedure successfully, the procurer should possess negotiation skills. Lack of negotiating competence may result in limited use of the room for negotiation.

Note that national legislation will have to be consulted to determine how these procedures will be adopted and implemented in each Member States.
Evaluation

Award criteria

The new Directive moves away from contract award based on ‘lowest price’ only, towards award to the most economically advantageous tender’ based on both quality and price criteria. It includes a definite shift towards quality in the award process - not only for services, but also for works and supplies. The most economically advantageous tender from the point of view of the public procurer should be identified on the basis of the price or cost using a cost-effectiveness approach such as life-cycle costing. It may include the best practice ratio, which shall be assessed on the basis of criteria, including qualitative, environmental and/or social aspects regarding the subject of the public contract.

Award criteria should ensure the possibility of effective competition.

In the PAPIRUS procurements the contract was awarded on the basis of the most economically advantageous tender, based on the price and the quality of the bid on the following criteria: energy efficiency, sustainability, installation and maintenance and economic criteria. You will find PAPIRUS Tenders specifications for each PAPIRUS procurement on the project website in tag “Call for tenders”.

It is important to evaluate the proposed solutions focusing on creativity and innovation.
In the PAPIRUS procurements, innovation was not considered an award criteria because innovation would be by itself the result of best awarded proposal. Innovativeness of the purchase products was set as an administrative requirement which should fulfil one of the following conditions:

- The product is not commercially available yet on a large scale
- It is a new product for the Contracting Entity

Naturally, since the public procurers have to consider the budget they have for the purchase, the price also matters. Therefore, the most difficult aspect of evaluation is to weigh the award criteria in relation to getting the best value across the lifespan of the contract.

Given the coordinated nature of the PAPIRUS tender, main evaluation criteria’s weights were common to all tenders while subcategories or subcriteria were specified and respond to each pilot case’s particularities.

When using qualitative award criteria to foster innovation, it is important to be clear on how to evaluate proposals against these criteria. A fair comparison of bids requires a skillful evaluation committee. It is especially difficult to evaluate and compare innovative solutions. This may require a mix of experts, including legal and technical specialists. The tender evaluators should be trained on how to assess complete compliance especially with the innovative tender requirements, and how to give marks or points in a fair, objective and pre-determined way.

In the framework of PAPIRUS evaluation of the technical aspects of the tenders was carried out by a joint cross-border evaluation board of experts, the Joint Cross-Border Evaluation Team (JCBET). The main duty of the JCBET was to assess the technical aspects of the offers submitted. The JCBET ranked the offers on the basis of the final motivated assessment and submitted a report with the evaluation resulting from
Evaluation of the criteria can be either by mathematical formula or a judgement value. Measurable subcriteria will be evaluated by mathematical formula and scored among all other offers. Depending if maximum values of the criteria are fit or not, different type of mathematical formula can be used.

No measurable subcriteria will be evaluated by judgment value according to the documentation requested in each tender. Specific documentation will be required to the bidders to be included in the description to fulfil some of the subcriteria and aspects to be evaluated.

Uniformity of the documentation provided for the evaluation of a quantitative specification is one of the difficulties find. It could result in discriminatory faults if the proposed values are not calculated under the same premises or by different methodologies.

Energy simulations can be an example of this matter: the use of different boundary conditions and the type of software used for the simulations may provide different results, leading to unfair judgement of the proposed solution. Implementing such award criteria in the tender implies to describe exactly all the premises to fulfil a homogeneous proposal that can be later evaluate under the same context.

The rules for evaluation procedure may change from one MS to another due to their particular legislative specifications on the appointment of the Tendering Committee, opening of the proposals procedure, deadlines, and communications...etc.

But, despite that, the Joint Cross-Border Evaluation Team (JCBET) is common to all procuring entities and supports the local award body of each procuring entity examining and evaluating the technical information provided by applicants.

A way to objectively compare innovative solutions is through the fulfillment of the criteria evaluated by mathematical formula defined in the tender specifications. The better fulfilment of the criteria, the higher score is obtained and therefore it is assumed that greater innovation will be achieved.

Award of the criteria which evaluation depends on a subjective decision is judge by the JCBET experts and their experience. Bidders ought to provide a good description of the solution and documentation to support and proof any decision so that experts can argue any award decision.
Tender publication and dissemination

Naturally, the tenders will be published through official channels: in national Journals, Official Journal of The European Union. However, you may want to think of wider dissemination of the tender announcement.

Although you have conducted dialogue with the market and informed suppliers in advance about the tender make sure you disseminate information about the final publication of the tender. Having earlier developed a database of suppliers (contacts from participants of market events), remember to provide them with the news.

In the PAPIRUS project, prior to publication of the tenders, all Partners identified possible dissemination channels for the tender announcement. These included: trade associations, innovation agencies, technology magazines, exhibitions.

After the publication of the tender, consider organizing an information event with the suppliers as probably they do not typically do business with public sector and may have limited knowledge and experience with understanding all the documentation.

After deadline for submitting tenders was over, PAPIRUS Consortium sent out a survey to suppliers to find out what kind of improvements could be done in future PPI, to encourage more suppliers to bid in such procurements. The survey was filled by suppliers who were present at PAPIRUS market event but in the end did not bid. Many suppliers indicated that public procurers could have organized a meeting after the announcement of tender in order to explain how to prepare the offer.
The choice of the kind of contract to be signed with the supplier must be made before launching the tender. In the case of PAPIRUS Project, the object of the contract, initially thought as ‘Public supply contract of innovative solutions’, has been diversified on the basis of the different regulatory schemes characterizing each country. So in the end there are different types of contracts among the project partners: supply contract, supply and installation contract, works contract.

The contract regulation is the result of the National Legislative framework integrated by the awarding authority needs.

For what concerns the contractual scheme, the most challenging aspect may consist in the requirement to defer, even considerably, the performance of the contract, due to the necessity to coordinate it with the construction/refurbishment of the buildings where innovative supplies should be installed.

It has therefore been requested to the contracting party a proper coordination between the performance of the works and the delivery of the supplies. However, in some cases the contract sets a time limit for the delivery of the supplies, because the performance cannot be postponed for far too long.

As a most economically advantageous tender, the technical offer subscribed by the bidder is a fundamental element of the contract. The contract will be considered completely fulfilled when the innovative supplies are positively tested, particularly with reference to the innovative aspects.

Thus, due to time needed to install the supplies, it will be probably performed an early test on the reliability of the quality requirements declared by the bidder during the tender procedure.

A difference between the actual qualitative performances and declared qualitative performances would represent a non-fulfillment of the contract. The supplies not corresponding to the technical prescriptions required and declared will be rejected. In such cases the bidder has the obligation to substitute the defective supplies with other corresponding to the technical prescriptions declared.

PAPIRUS project has been based on the purchase of solutions already available in the market, although not on a large scale, or never used before by the awarding authority. Thus a specific regulation concerning intellectual property has not been necessary. A regulation of privacy and commercial secrets has been considered according to European and National legislation of each country.
PPI challenges and tips from the PAPIRUS project

The PAIRUS market events have been successful and well visited by companies in all of the cities the public procurers where PAPIRUS operates. Taking into account the number of companies attending the market events and meetings, the response on the tenders has been limited. In order to acknowledge the reasons for such low number of offer, PAPIRUS Consortium had conducted a survey with suppliers (participants of PAPIRUS market events). The results of the survey are presented below.

The results have been included in this document as they may be useful for public procurers who may gain an insight of potential challenges which should be avoided or minimized in time.

<table>
<thead>
<tr>
<th>What suppliers faced?</th>
<th>What could PP do?</th>
</tr>
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<tbody>
<tr>
<td>Some data were too difficult to be collected (e.g. Gas emissions)</td>
<td>In future tenders of the same kind, a checklist or a simplified procedure where PP underline the procedure to acquire data is proposed. This shall include indication of Statutory Authorities that may certify Company Sustainability. It is important to underline that Small and Medium size business may have difficulties to acquire certification because the cost of it is not sustainable.</td>
</tr>
<tr>
<td>Description of the requested innovation was not so clear</td>
<td>Better relationships between potential bidders and public procurers (direct interaction in order to understand what exactly the Public Procurers need), always under the principles of transparency and non-discrimination.</td>
</tr>
<tr>
<td>There should be more cooperation before the call</td>
<td>Organizing more common events, workshops, creation of a list of innovative companies accessible free. Open communication between PP and suppliers should be strongly encouraged, in order to exchange knowledge between different entities on available technologies, PP needs and market needs. Always under the principles of transparency and non-discrimination.</td>
</tr>
<tr>
<td>Requirements too complex</td>
<td>Tender documents: minimum requirements and requirements during procurement process: The public procurer can lower the minimum standards (problem: less room for innovation) or choose less different award criteria • Clear description of the procurement process,</td>
</tr>
<tr>
<td>Issue</td>
<td>Solution</td>
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<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
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<tr>
<td>the minimum requirements, the award criteria and the means of proof</td>
<td>• Award criteria must be reasonable and manageable</td>
</tr>
<tr>
<td>• No excessive demands with regard to proof</td>
<td></td>
</tr>
<tr>
<td>Lost track of tender, lost excitement</td>
<td>Keep record of all interested suppliers from the 1st phase of PPI and regularly inform them about plans, phases etc.</td>
</tr>
<tr>
<td>Documentation too complicated</td>
<td>Meeting, workshop once call for tender has been published to explain more specifically e.g. How to submit the bids or read the documentation.</td>
</tr>
<tr>
<td>Suppliers are not used to bid on public procurements</td>
<td>The suppliers need to be offered at least a one day conference in advance to the launch of the call for tender. The conference should explain what documentation is needed in public procurement and how it should be submitted.</td>
</tr>
<tr>
<td>Uncertain currency value</td>
<td>The products should be bought form the suppliers soon after the completion of the tenders in order to avoid changes in the exchange rates of the currencies that may influence the costs of the purchase.</td>
</tr>
<tr>
<td>Too large scale of the order</td>
<td>Given the innovative sustainable solutions are not yet available on a large scale it is advisable to include only small and midsize scaled buildings in the public procurement in order to avoid placing orders that cannot be fulfilled.</td>
</tr>
<tr>
<td>Incomplete buildings</td>
<td>It is advisable to choose only existing and finished buildings in the procurement process in order to avoid complications for the suppliers who may lack sufficient information about the specifications of the building’s elements. It might be impossible to gather the relevant data in case some parts of the building are not yet completed.</td>
</tr>
</tbody>
</table>
Although it is very beneficial for both Public Procurer and supplier, PPI is still not being implemented across Europe on a large scale. European and national authorities should focus on raising awareness and encouraging public procurers towards this new procurement approach. The following activities which could result in procuring innovation on a larger scale have been indicated by PAPIRUS Consortium.

- Each branch of the Public Administration should have and promote a specific road map of innovation that provides the right tools to purchase the innovative products. Long term plans: early market engagement, demand plan or a road map of public authorities to engage in innovation.

- Innovative solutions’ adoption by Public Procurer should be clearly provided by law. The role of Public Procurer shall be promoting innovation and should be possibly supported and funded.

- The top management in Public Authorities should increase awareness about the role to be played by Public Procurer in targeting issues of general interest, although they are not directly related to the mission of the different branches, departments, offices.

- Implementation of specific training for technical staff and project managers, targeted to raise the knowledge of innovation evaluation, different methodologies, to be implemented in strict cooperation with departments in charge of procurement and purchasing.

- Raising awareness about PPI and business possibilities among suppliers (innovative SMEs, companies).
References


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