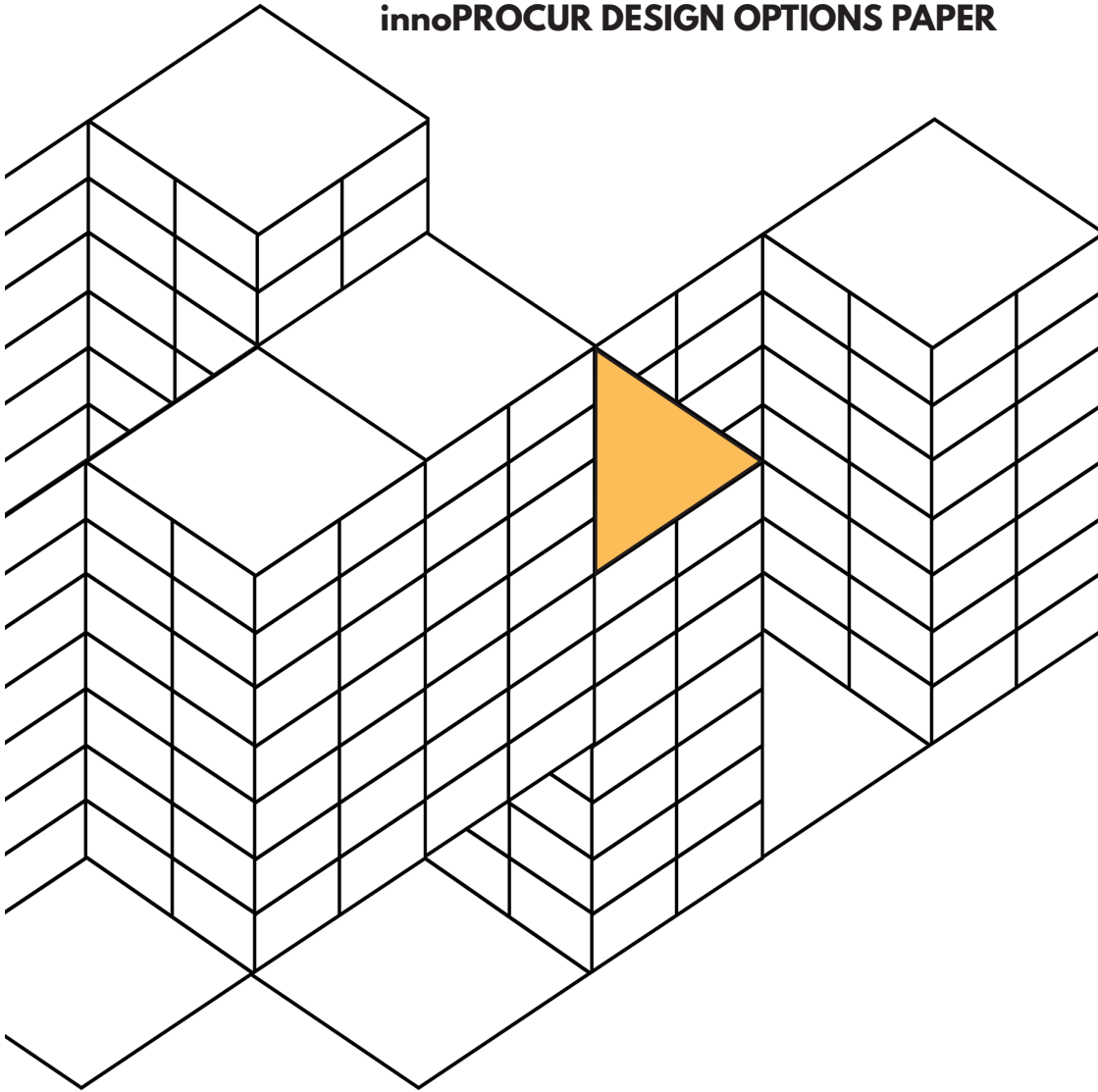


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innoPROCUR DESIGN OPTIONS PAPER



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innoPROCUR - Improving support services

to foster SMEs' participation to PCP and PPI

H2020-INNOSUP-05-2016-2017

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CHAPTER 1. Introduction

1.1 Project goals

The project innoPROCUR - Improving support services to foster SMEs' participation to PCP and PPI (funded by the Horizon 2020 European program under grant agreement No 759596) aimed at collaboratively address a common innovation support challenge, namely to facilitate and foster the participation of innovative SMEs in:

- PCP - Pre Commercial Procurement, steering the development of solutions towards concrete public sector needs, whilst comparing/validating alternative solution approaches from various vendors;
- PPI - Public Procurement of Innovation, aimed at acting as launching customer / early adopter / first buyer of innovative commercial end-solutions newly arriving on the market.

The target group was represented by innovative SMEs, which can be the suppliers of innovative goods and services, and benefit by participating to PCP and PPI gaining new business opportunities and resources for the development of innovation and boosting their competitiveness on the market. However, they have no specific and effective support services increasing their awareness about these opportunities, informing and supporting them in the PCP/PPI procedures.

Support services facilitating SMEs in participating to PCP/PPI can help firms with easier access to private third-party funding and to bridge the pre-commercialization gap for their innovative products and services (i.e. first sales of technology).

The three project partners:

- Friuli Innovazione Research and Technology Transfer Centre, Italy (lead partner);
- PIANOo - Dutch Public Procurement Expertise Centre, The Netherlands;
- LARR - Lodz Regional Development Agency, Poland;

developed peer learning activity (through the Twinning + methodology) to learn from the best and to share good and bad practices in support services to SMEs about PCP/PPI.

The specific objectives of innoPROCUR project were the following:

- **identification and evaluation of good practices on how facilitating SMEs participation in PCP and PPI, to be transferred in SMEs innovation support local/national programmes;**
- establishment of a sustainable partnership among the involved organizations to engage in more frequent peer-learning activities, aiming to foster, enforce and further develop PCP/PPI support services to SMEs.

This Design Options Paper, the project final output, serves as a “guide” or a “handbook” to other agencies and business support centres to provide similar and/or more focused services.

1.2 Partner's description

ITALY



Friuli Innovazione is a Research and Technology Transfer Centre set-up in 1999 and located in Udine, in the Friuli Venezia Giulia Region (northeast of Italy).

Founders and shareholders of Friuli Innovazione are the University of Udine and other local partners, both public and private, representing industry associations, public administrations and research institutions.

In 2004 Friuli Innovazione was appointed by the Autonomous Region Friuli Venezia Giulia to manage the Luigi Danieli Science and Technology Park of Udine, which hosted more than 60 tenants so far.

Friuli Innovazione main areas of intervention are:

- technology transfer: to promote and facilitate the collaboration between enterprises and the scientific and technological research network;
- business financing: to inform, educate and support enterprises and researchers to identify the most appropriate finance instruments for their research projects and assist them in all the application procedures;
- business start-up: to support and assist the creation of high technology enterprises;
- hosting service for enterprises willing to establish their headquarter or the R&D department at the Science and Technology Park “Luigi Danieli”.

Friuli Innovazione is an innovation agency that acts to develop and implement at regional level a shared strategy and objectives in innovation and technology transfer and it is a major player of the cross border macroregion between Italy, Slovenia, and Austria.

Its mission is to support the creation of innovative businesses through its own incubator and to deliver support programmes to companies, in particular SMEs to gain competitiveness thanks to the introduction of product and/or process innovation.

In order to support companies in all the phases of a research project, Friuli Innovazione is also member of the APRE network (APRE is the National Agency for the Promotion of European Research – www.apre.it) and it hosts the APRE regional help-desk in Udine. The APRE Udine help desk is

entitled to give information and support to companies and researchers about the funding opportunities for R&D mainly within Horizon2020. Currently, it is helping the Regional Government in defining the correct synergies to be applied with other available funds.

Considering all the above information it can be said that Friuli Innovazione is an innovation agency with a strong interest in developing its own service quality, entrusted by the regional and local administrations to support SMEs development.

In the last 10 years, it improved its project management expertise thanks to the participation in numerous national, regional and EU R&I projects, acting as project partner as well as project coordinator.

Friuli Innovazione evaluates as fundamental the experience in international consortia with other innovation support organizations because it allows the exchange of good practices and new approaches, necessary to improve continuously the service offered.

NETHERLANDS



PIANOo is part of the Netherlands Enterprise Agency (RVO) from the Ministry of Economic Affairs and Climate Policy and set up in 2005. It

started out as a knowledge network for government procurement officers and contracting authorities. The name PIANOo stands for: **Professioneel en Innovatief Aanbesteden, Netwerk voor Overheidsopdrachtgevers (Professional and Innovative Tendering, Network for Government Contracting Authorities)**.

Since its start PIANOo has become the tendering expertise centre for the government. Their expertise is built up through a large network of around 3,500 public procurement professionals and contracting authorities. PIANOo brings experts in specific areas together, pools knowledge and experience and provides advice. It also fosters dialogue between government contracting authorities and private sector companies.

PIANOo addresses a wide range of subjects in procurement practice: organises meetings, produces publications and works with expert groups chaired by university professors specialising in the field. The PIANOo website is rapidly becoming the public sector's encyclopaedia for procurement and tendering in the Netherlands (see the overview of products and services). Key themes on PIANOo at the moment are market knowledge, the position of procurement in the organisation, innovation-focused procurement, innovative procurement and sustainable procurement.

Products and services

- www.pianoo.nl

The main website for procurement and tendering in the public sector, with around 3,700 unique guests per week with information, advice, useful tools and model documents. The website is intended for both public and private sector organisations. PIANOo also publishes a free fortnightly e-newsletter, PIANOo-Alert, in which it highlights the most important and most read news items.

- PIANOo Forum (formerly PIANOo desk) is a private group in the European discussion platform Procurement Forum. In this closed group public procurement professionals can exchange information with colleagues in Dutch. It is also possible to make contact with European procurement professionals outside the PIANOo group.

More information: [PIANOo Forum](#)

- TenderNed: Dutch government's online tendering system.

All Dutch authorities are obliged to publish their national and European tenders on TenderNed's announcement platform, so businesses can access all public publications from a single webpage. Through TenderNed, all parties can digitally manage all steps throughout the entire tender process. This is determined by the contracting authority. [TenderNed](#) ➔

- Meetings

PIANOo meetings are an opportunity to meet other procurement and tendering professionals and exchange information and practical experiences. There are various meetings to choose from:

- ✓ regional meetings: on specific themes, held in different places across the Netherlands;
- ✓ PIANOo conference: the top annual event for public procurement professionals, with a choice of sessions to attend;
- ✓ PIANOo market meetings: joint meetings with the industry at which economic operators and public sector contracting authorities meet to discuss tendering and ways to improve tendering strategies.

- Publications

The PIANOo expert group on Public Sector Procurement deals with topical procurement issues with a mixture of practical knowledge and scientific insights. The results are published in a series of accessible brochures.

- Vision documents

The PIANOo Tendering Law expert group tackles complex legal issues in procurement practice and provides advice and recommendations. These are published in vision documents which are available on pianoo.nl and in a handy folder.

- Q&A section

PIANOO has a Question and Answer section where public procurement and tendering professionals can find answers to more complex questions.

- Tendering Law course

Procurement professionals and lawyers in the public sector are expected to have an in-depth knowledge of tendering legislation. The PIANOO Tendering Law course takes them through the key aspects of Dutch and European tendering law.

Netherlands Enterprise Agency (RVO.nl)

Netherlands Enterprise Agency (RVO.nl) encourages entrepreneurs in sustainable, agrarian, innovative and international business. It helps with grants, finding business partners, know-how and compliance with laws and regulations.

The aim is to improve opportunities for entrepreneurs and strengthen their position.

Netherlands Enterprise Agency is part of the Ministry of Economic Affairs and Climate Policy and works at the instigation of ministries and the European Union. Some activities of the Commodities Boards are also included.

The Agency works in The Netherlands and abroad with governments, knowledge centres, international organisations and countless other partners.

POLAND



The Lodz Agency of Regional Development Ltd. is a business support institution, a provider of services including financial consultancy, legal advice, business advice, support in exports and/or imports, preparation of strategic documents

for business and public sector. Main shareholder of company is Marshal's Office of Lodz Voivodeship.

Role of Lodz Agency of Regional Development is initiating and leading the wide spectrum of stimulation for economic development of Lodz region actions and acting for micro, small and medium companies, particularly support UE programs directed to this sector. Lodz Agency of Regional Development co-creates complex system for entrepreneurship development support and innovation in Lodz Region as:

- 1) Institution providing consulting services for SME as part of national net NSS.

Lodz Agency of Regional Development being a part of national NSS net, provides consulting, informational and financing services fulfilling criteria defined and described in decree of Economy Minister from 24 may 2011. (Dz.U.2011.112.656 ze zm.) in case of National System of Services for Small and Medium entrepreneurship.

Standards for providing services results from introduced and certified System of Quality Management, lawful by the norm ISO 9001: 2009, which is in effect in Lodz Agency of Regional Development since November 2004r.

As a part of consulting services, experts from Lodz Agency of Regional Development support SMEs about the funding opportunities for R&D or introduction of product and/or process innovation, mainly within national and regional operational programmes.

2) Regional Financing Entity

The Agency has played the role of Regional Financing Entity since 2001, carrying out programmes supporting the financing of new technologies, specialist consulting services, training employees and developments of exports. Acting as the Regional Financing Entity, Larr have implemented business projects of 1 billion PLN in the Lodz province in 2007-2013.

3) Guarantee and Loan Fund

Since 2011, the Lodz Agency of Regional Development has co-operated with Bank Gospodarstwa Krajowego, acting as a financial intermediary within JEREMIE initiative. Having joint funds of 80 million PLN in hand, the Agency grants low interest loans and guarantees to micro, small and medium enterprises.

4) Founding member of many cluster initiatives

Lodz Agency of Regional Development is founding member of many cluster initiatives which crucial goals are innovation growth and cooperation between company's. Example of cluster initiatives:

- Lodz Cluster GAMEDEV – associating business support organizations, colleges and entrepreneurs interested in newest technologies of informatics solutions;
- ICT Central Poland Cluster – Cluster is platform for cooperation for companies interested in development of technology and techniques of information and communication.
- Lodz Cluster of Construction Innovation BOAT – It's goal is cooperation integration between institutions of business environment, colleges, science centers and economy subjects interested in topics of new technology in Lodz voivodeship.
- Cluster "LODZistics" – Professional center of coordinating development of logistic potential of Lodz Region and its international competitiveness growth. Initiative consociate companies, self-

governments, research-development units, institutions of economy environment, and natural persons, or legal person, acting in logistic and transport sector. Actions are focused on stimulating logistic branch innovation, technology transfer, development of good practices, common projects, and also application modern transportation solutions like intermodal transport, RFS system in air transport or eco-driving;

- Cluster Airline Up-land – interdisciplinary industrial-research center, which should state as basis to creation of new specialization in region, which will be Industry of advanced technologies from airline branch.

5) Institution supporting creating and development of start-up's

Since 2008, Lodz Agency of Regional Development realize projects financed from UE resources, by which it's provides consultation support, training courses and financing new companies.

Furthermore since 2015 Lodz Agency of Regional Development leads two entrepreneurship incubators in Lodz and Zdunska Wola, in which it's provides innovational start-up's with office area, and provides additional services supporting young enterprises.

6) Support and assist in the creation of high technology enterprises

Since 2009, LARR under Guild of Business Angels project, finds innovative business ideas or companies in early stages of development and match them with business angels. Our mission is to support innovative market initiatives by acquiring investors that are experienced and responsible business-wise, and who also have exquisite reputation on the market.

The agency aids private investors in undertaking investments in innovative enterprises by finding them on the market and LARR also supports entrepreneurs in preparing business plans and acquiring capital from business angels.

1.3 European framework of PCP/PPI: background, problems, needs and current situation

Public procurement

Public procurement is the process whereby public authorities - including all levels of government and public agencies - buy goods and services or commission work. These contracts accounts for about 19% of GDP in the European Union and offer an enormous potential market for innovative products and services. Public procurement practices can help foster market uptake of innovative products and services, whilst improving the quality of public services in markets where the public sector is a significant purchaser.

Innovation procurement is an important tool at the disposal of policy-makers. It holds the key to solving important societal challenges that Europe is facing such as health and well-being; food security, sustainable agriculture, clean and efficient energy; sustainable and integrated transport; or climate change and resource efficiency. To address these issues, the public sector needs solutions for which, often no commercially proven products exist yet.

Benefits for public authorities and private sector

By developing a forward-looking innovations procurement strategy that uses **Public procurement of innovation** and **Pre-commercial procurement** in a complementary way, public procurers can drive innovation from the demand side by acting as technologically demanding customers that buy the development and testing of new solutions. This enables the public sector to face societal challenges and modernize public services faster while creating opportunities for companies in Europe to gain international leadership in new markets. Creating optimum conditions for wide commercialization of innovative solutions is also an important step towards job and growth creation, especially in quickly evolving markets such as ICT.

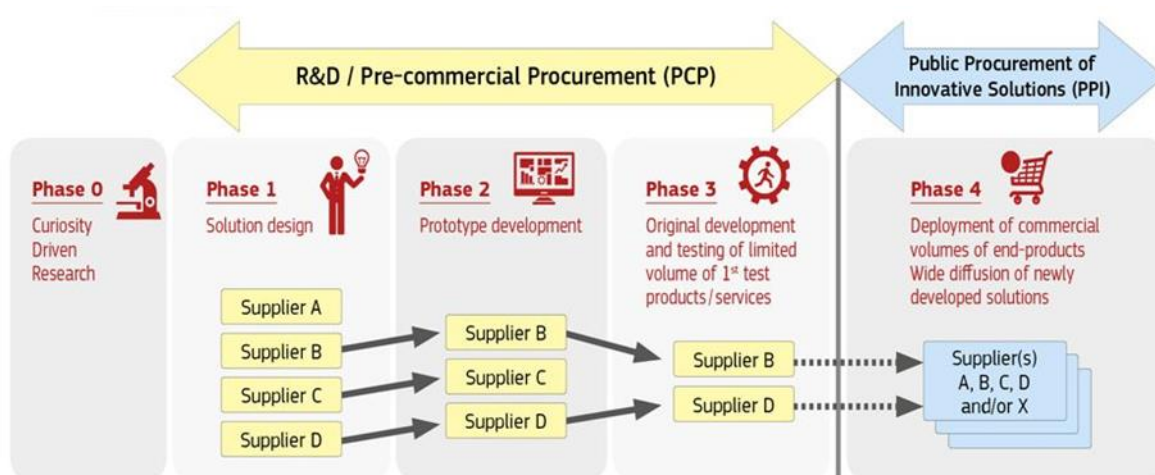
Procuring innovation by public authorities

Often, challenges can be addressed by innovative solutions that are nearly or already in small quantity in the market and don't need new Research and Development (R&D). This is when Public Procurement of Innovative solutions (PPI) can be used effectively. Public authorities will act as a first client (or launch customer) for innovative goods or services. These are typically not yet available on a large-scale commercial basis and may include conformance testing.

PPI can be implemented in different ways by public authorities. Scope, ambition or budget all vary from case to case. The **right approach for your authority** will likely depend on a variety of factors:

- Political/high-level support
- Size of authority
- Knowledge and experience in PPI
- Availability of innovative products and services in regional markets

Make no mistake, however, PPI implementation is possible for any authority in any country.



In other cases, when there are no near-to-the-market solutions yet and new R&D is needed. Pre-Commercial Procurement (PCP) can be used to compare the pros and cons of alternative competing solutions approaches. This will in turn enable to de-risk the most promising innovations step-by-step via solution design, prototyping, development and first product testing.

PCP challenges industry from the demand side to develop innovative solutions for public sector needs and it provides a first customer reference that enables companies to create competitive advantage on the market. PCP enables public procurers to compare alternative potential solution approaches and filter out the best possible solutions that the market can deliver to address the public need.

Its key elements are:

- **Competitive development in phases**

In PCP, public procurers buy R&D from several competing suppliers in parallel to compare alternative solution approaches and identify the best value for money solutions that the market can deliver to address their needs. R&D is split into phases (solution design, prototyping, original development and validation/testing of a limited set of first products) with the number of competing R&D providers being reduced after each R&D phase.

- **Risk-benefit sharing under market conditions:**

In PCP, public procurers share the benefits and risks related to the IPRs resulting from the research and development (R&D) with suppliers at market price. Suppliers retain IPR ownership rights, while procurers keep some usage and licensing rights.

- **Separation from the deployment of commercial volumes of end-products:**

PCP can go up to the development, and possibly also the purchase, of the limited volume of first

products developed in the PCP. However, PCP does not cover large scale commercialisation, which is the remit of PPI. PCP is thus complementary to Public Procurement of Innovative Solutions (PPI).

1.4 DOP Methods and concepts

Design Options Paper (DOP) is based on a mutual design work which outlines and details how better practices could be developed. It's the project final output which serves as a "guide" or a "handbook" to other agencies and business support centres to provide similar and/or more focused services.

The overall approach and methodology concerning "innoPROCUR" DOP was based on 4 steps:

1. State of the art on regional and national innovation system dedicated to PCP/PPI.
2. Identification of problems and needs using the *Logical Framework Approach* and SWOT methodology to make key assessments/analyses including stakeholders, problems, objectives and strategies in order to develop DOP
3. Feedback - from regional workshops with SMEs offering innovative solutions in specific sectors.
4. Develop recommendations

Ad.1 State of the art on regional and national innovation system dedicated to PCP/PPI.

Each of the partners in the project carried out an analysis of existing national and local PCP/ PPI support systems. This analysis included the assessment of the existing state in the area of legal regulations, the organizational and administrative systems and the identification of examples of functioning systems or solutions dedicated to PCP and PPI.

These activities were designed to prepare a background for comparative analysis, best practice identification as well as for the implementation of peer learning workshops (point 2).

Ad.2 Peer learning workshop to develop DOP.

Identification of problems and needs using SWOT methodology and LogFrame Approach

To identify problems and needs related to PCP and PPI, the partners planned two specialist workshops within a consortium aimed at designing DOP elements. Workshops were conducted using methods like **Logical Framework Approach (LFA)** to make a number of key assessments/analyses including stakeholders, problems, objectives and strategies and **SWOT methodology** to make detailed stakeholders analyses.

Main goals of the workshops:

- To present end users' involvement implemented in each country
- To learn more about PCP\PPI at EU and FVG level (external guests)
- To define recommendations for stakeholders to be reproduced in the DOP
- To analyse with a structured methodology, results collected from end users' involvement and regional\national best practices
- Define tasks and roles for the DOP drafting
- To improve the mutual knowledge among participating organizations, also for other future collaborations;
- To improve skills about PCP/PPI and supporting services;
- To analyse general DOP's contents and objectives;
- To start defining the DOP structure and roles for its preparation;
- To define the approach for end users' involvement.

The LFA is a methodology for planning, managing and evaluating programmes and projects, using tools which promote systematic analysis, stakeholder participation and structured documentation.

The LFA has two main stages, **Analysis and Planning**:

- I. **During the Analysis Stage** the existing situation is analysed so as to develop a vision for the "desired future situation", and to choose the strategies to apply so as to reach it.

There are four elements to the Analysis Stage:

1. Stakeholder Analysis;
 2. Problem Analysis (a view of reality);
 3. Analysis of Objectives (image of an improved situation in the future); and
 4. Analysis of Strategies (comparison of different options to address a given situation).
- II. **In the Planning Stage** the results of the analysis are transcribe into a practical, operational plan ready to be implemented. In this stage the **Logframe Matrix** is prepared, requiring further analysis and refinement of ideas; activities and resource requirements are defined and scheduled; and a budget is prepared.

LFA

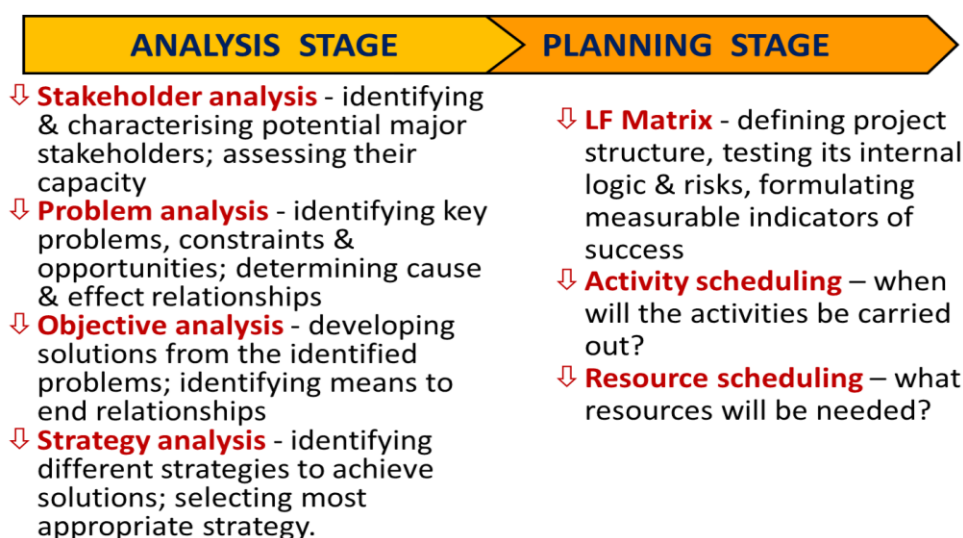


Figura 1: Aid Delivery Methods. Volume 1, Project Cycle Management Guidelines, March 2004

During the workshop the participants worked on the **Analysis Stage and partly the Planning Stage of the LFA.**

▼ The Stakeholder Analyses:

Any individuals, groups of people, institutions or companies that may have a significant interest in the success or failure of a project (either as implementers, facilitators, beneficiaries or adversaries) are defined as 'stakeholders'. Different groups have different concerns, capacities and interests, and these need to be explicitly understood and recognized in the process of problem identification, objective setting and strategy selection.

On the Analysis Stage **the Stakeholder Analyses** was conducted with **SWOT matrix** which is often used for such diagnosis. SWOT analysis is an analytical technique **to support strategic decisions**. It's a planning method used to evaluate the strengths, weaknesses, opportunities, and threats to assess the performance and capacity of the participating units, divisions of organization. Each organisation or business must deal with both internal and external factors that affect them.

The SWOT method was originally developed for business and industry, but it is equally useful in the work of community health and development, education, and even for personal growth. Strategy is devised around strengths and opportunities

SWOT ANALYSIS



The main stakeholders identified by “innoPROCUR” partners that have a key role in the project are: **SMEs, Public Authorities and Intermediary organizations**

Figura 2: <https://www.professionalacademy.com/media/images/swot%20matrix.png>

▼ The Problem Analyses:

Problem analysis identifies the negative aspects of an existing situation and establishes the **cause and effect** relationships between the identified problems. It involves three main steps:

- Identifications of the framework and subject analyses. State problems in negative manner
- Identification of the major problems faced by target groups and beneficiaries; and
- Visualisation of the problems in form of a diagram, called a “problem tree” or “hierarchy of problems” to help analyse and clarify cause-effect relationships

A clear problem analysis thus provides a sound foundation on which to develop a set of relevant and focused project objectives. Stakeholder analysis and Problem analysis **are closely connected**; without the opinion of interested parties on the problem, there will be no clarity on the nature of the problem, nor on the needs of the individuals concerned, nor on the possible solutions.

During the workshops, the analysis of problems was carried out in relation to the identified groups and stakeholders focused about PCP and PPI. The eight main problems have been identified:

- Low level of knowledge about the sources of information on PCP/PPI
- Needs to level up of competences in PCP/PPI in Public Authorities (PA)
- Needs to define the complexity of PCP/PPI tender procedures
- Not enough best practices information on EU level on PCP&PPI
- The PCP/PPI procedures are unknown by SMEs group
- The Intermediate Organisations to foster on PCP/PPI no exist
- There are no cultural approach to PCP/PPI offer in SMEs and PA groups
- Insufficient PCP/PPI requirement’s and SME characteristics

✓ **The Analysis of Objectives** - is a methodological approach employed to:

- Describe the situation in the future once identified problems have been remedied, with the participation of representatives;
- Verify the hierarchy of objectives; and
- Illustrate the means-ends relationships in a diagram

The negative situations of the problem tree are converted into solutions, expressed as positive achievements. These positive achievements are in fact objectives and are presented in a diagram of objectives showing a **means/ends hierarchy**. This diagram aims to provide a clear overview of the desired future situation.

The participants of Innoprocur project defined desired future situations:

- The Public Authorities are highly competent in procedures of PCP/PPI and closely cooperate with other groups of stakeholders
- There are real, complete system of information dedicated to PCP/PPI offer on EU and national levels
- The Innovation SMEs groups are familiar with and interested in PCP/PPI offer

✓ **The Analysis of Strategies**

The last step in the **Analysis Stage** implies the identification of the possible strategies (clustering) and the selection of the strategy/strategies that will be used to reach **the desired objectives**. Two phases are conducted to define possible strategy:

- to analyse the identified (potential) objectives in relation to a set of ‘feasibility’ criteria;
- to select an appropriate strategy for project implementation;

The choice of strategy to follow is made based on an agreed set of criteria which may include: priorities of the stakeholders, probability of success, budget, relevance of the strategies, timeframe for realizing the desired objectives (project purpose).

During the workshop, LARR, Finn and Piano determined the following criteria to select a strategy:

- Feasibility of the recommendation within few years,
- Resources available,
- DOP target groups.

The 4 key strategies have been identified during the work carried out on ANALYSIS STAGE:

1. Awareness Strategy;
2. Communication Strategy
3. SME (Small &Medium Enterprises) Strategy
4. IOs (Intermediate Organisations) Strategy

Ad.3 Feedback - from regional workshops with SMEs offering innovative solutions in specific sectors.

To complement and accomplish the results gained from 2 previous steps (State of Art and Identification of problems), the meetings with stakeholders were proposed about of PCP / PPI in each of the regions participating in the project in the form of workshop.

The Workshop were conducted in each region in the same frame (manner):

- Each partner organized one workshop in their region involving, in total, around 15/20 SMEs to increase their awareness on PCP/PPI and inform them about how to exploit PCP/PPI opportunities.
- The workshops were open to SMEs offering innovative solutions in specific sectors (e.g. ICT, health, environment ...).
- All partners have monitored the SMEs approach to PCP/PPI, gathering their feedbacks about needs, problems, etc.
- The positive and negative aspects were analysed by the partners and used to draw up the final version of DOP.

During the Workshops discussion were focused around several issues such as:

- Did you already know the areas concerning PCP/PPI?
- Do you think PCP/PPI are interesting for your company?
- What are the obstacles for your company to participate to PCP/PPI?
- Which support services would facilitate your participation to PCP/PPI?

Feedback from workshops were deeply analysed and used into DOP final recommendations. Moreover, as added value, organizers expected that workshops have direct impact on companies through information and training on SMEs about how to participate to PCP and PPI.

Ad. 4 Develop recommendations.

The work on recommendations were formulated on the basis of results of each step “state of art”, “consortium peer workshops” and “regional workshops”.

The selected strategies were analysed by the workshop's participants to propose 4 main recommendations to introduce PCP and PPI practices in different scenarios. This exercise was possible thanks to the theoretical support of the Logical Framework matrix that is part of the planning stage of the LFA.

Each strategy proposes a final aim (recommendation) and already shows the potential results that other innovation agency could achieve try to implement PCP and PPI in their areas.

From LG Matrix structure (see example below), innoPROCUR project focused on the actions needed to carry out the results, the identification of the main actors involved and the need assumptions to be able to implement the proposed recommendation.

	Intervention logic	Objectively verifiable Indicators	Sources of verification	Assumptions/risks
Overall Objective	What is the general objective, to which the project will contribute?	What are the key indicators related to the general objective?	What are the sources of information for these indicators?	
Project purpose (= specific objective)	What is the specific objective, to which the project will contribute?	What are the key indicators related to the specific objective?	What are the sources of information for these indicators?	What are general factors and conditions necessary to achieve these objectives? Which are the risks?
Expected results	What are the outputs envisaged to achieve the specific objectives?	What are the indicators to measure results achieved?	What are the sources of information for these indicators?	What are general factors and conditions necessary to achieve these objectives? Which are the risks?
Activities	What are the activities to be carried out and in what sequence in order to produce the expected results?	MEANS: What are the means required to implement these activities?	Costs: What are the costs to implement such activities?	What factors and conditions necessary to obtain results? Which are the risks?

Therefore, the table here below was completed by the participants for each proposed recommendation.

Purpose	Results	How? Actions	By who?	Assumptions

In the end final recommendations are based of conclusions derive from:

- ✓ Chapter 2. Diagnosis -The Regional and national innovation system dedicated to PCP/PPI
- ✓ Chapter 3. Feedback - from regional workshops with SMEs offering innovative solutions in specific sectors
- ✓ Chapter 4. Recommendation (divided into 4 areas):



CHAPTER 2. Diagnosis - The Regional and national innovation system dedicated to PCP/PPI

Each of the partners in the project carried out an analysis of its own existing national and local PCP/PPI support systems. This analysis included the assessment of the existing state in the area of legal regulations, the organizational and administrative systems and the identification of examples of functioning systems or solutions dedicated to PCP and PPI.

2.1 Italy

At the national level, the institution dealing with PCP and PPI is the Agency for Digital Italy (AgID - Agenzia per l'Italia Digitale - <http://www.agid.gov.it/>).

AgID's main task is to guarantee the achievement of the objectives of the Italian Digital Agenda in line with the European Digital Agenda. The Italian Digital Agenda represents the set of actions and standards for the development of technologies, innovation and the digital economy. The "Digital Agenda" is one of the seven flagship initiatives of the Europe 2020 strategy, which sets the goals for growth in the European Union to be achieved by 2020.

AgID deals also with "Innovation Union", another flagship of the Europe 2020 strategy, complementary to the European Digital Agenda. To reach the Innovation Union, Member States have committed themselves in investing 3% of GDP in R&D by 2020.

In particular, one of the commitments related to the Innovation Union is that, starting in 2011, the Member States and the Regions must set aside funds dedicated to PCP and PPI.

During 2011-2012 also Italy introduced PCP into its research and innovation policy framework and developed national guidelines on PCP for Italian public procurers (http://www.procurement-forum.eu/resource/download/449/Italy_Guide+on+PCP.pdf).

A first PCP based on the above Italian framework for PCP was finalised at the end of 2015 by Lombardy region, the Niguarda hospital and ARCA. This award winning Lombardy PCP successfully developed new, more environmental friendly, cheaper, and easier-to-use automated universal systems for moving hospital beds, with anti-collision and safety systems, not needing guide lines or tracks even on non rectilinear routes.

Among different European projects implemented on these topics, two projects involved institutions from the Friuli Venezia Giulia Region:

- BRODISE networking project on soil decontamination (<http://www.brodise.eu/>);

- PRO4VIP networking project which dealt with PCP and/or PPI ICTs for visually impaired people (https://cordis.europa.eu/project/rcn/194331_it.html).

At the national level, Italy has also set aside €100 M for PCPs in the context of large research and innovation projects supported by the Italian ministry for research (MIUR) and the EU Structural Funds.

The main aspects of the PCP/PI Italian strategic framework are:

- ✓ the Partnership Agreement foresees the actions 1.3.1 (OT-01) «Reinforcement and qualification of the demand for innovation of the Public Administration through the support of actions of Pre-commercial Public Procurement and of Innovation Procurement» and the action 11.3 .4 (OT-11) «Actions to strengthen and qualify the PA's demand for innovation, through the development of skills aimed at the use of "Pre-commercial procurement"»;
- ✓ the document "Strategy for digital growth 2014-2020" envisages the use of Pre-Commercial Procurement, as a tool to stimulate the demand for innovative goods and services;
- ✓ the three-year plan for IT in the Public Administration 2017-2019 provides recommendations for the public procurement of services and innovative products, as well as pre-commercial procurement. In particular, AgID provides support to public administrations that are planning or intend to carry out pre-commercial contracts. AgID, on the basis of specific agreements with administrations, can award the individual contracts as central purchasing body of the region or other public administration responsible for the management.

In such framework, AgID, in compliance with the European Horizon2020 program, the European innovation procurement policies and pursuant to art.19, D.L. 179/2012, is responsible, together with MIUR - Ministry of Education, University and Research and MISE - Ministry of Economic Development, for the definition and development of major strategic research and innovation projects related to the implementation of the Italian Digital Agenda.

The Agency carries out pre-commercial contracts financed by the European Commission (Cloud for Europe project) and by the MIUR's national program.

As national purchasing body, in November 2017, AgID published six PCP tenders on the following topics:

- Information System for Oncological Diseases and Environmental Causes;
- Innovative Infrastructure for Bio-resources and Biobanks management through an integrated platform;

- Home caring Platform for the management and control of terminally ill patients;
- Development of an innovative system for cardiovascular screening and monitoring on at-risk individuals;
- Development of innovative solutions for the provision of integrated home care services;
- Development of an innovative platform for collective social-welfare services.

In order to implement its activities, AgID has different communication channels:

- ✓ the AgID's web site presenting the list of national PCP tenders - <http://www.agid.gov.it/agenda-digitale/innovazione-del-mercato/gare-pcp-nazionali>
- ✓ AgID's official YouTube channel dedicated to Pre-commercial Procurement - https://www.youtube.com/channel/UC2CVTxtS7iB-vR_Ae37ptRw
- ✓ EAFIP: European Assistance For Innovation Procurement - <http://eafip.eu/>
- ✓ EAFIP YouTube channel, with experiences and testimonies about Pre-commercial Procurement - <https://www.youtube.com/channel/UCK1NiDfrGGNNWu81J1JWw/videos>

2.2 The Netherlands

Roles of national, regional and local government

In the Netherlands, agencies at three levels (national, regional, municipal) are responsible for their own procurement. Dutch regions and municipalities are independent from the national level; however, the national strategy serves as an example inspiring new initiatives in procurement in local and regional administrations.

The Ministry of Economic Affairs and Climate Policy (EZK), responsible for the procurement law, influences relations between the public sector and the market in various ways and these in turn affect cooperation between these parties and the part played by the tendering process. A key element in all this is the new Public Procurement Act prepared by the Ministry of Economic Affairs. The Dutch Public Procurement Expertise Centre PIANOo supports the professionalisation of procurement and tendering in public contracting authorities. The Ministry of Economic Affairs has a mainly policymaking role regarding the relationship between procurement and innovation, but has prime responsibility for innovation. This combination of responsibilities means that the Ministry of Economic Affairs is in a position to play a key role in stimulating and supporting public procurement of innovation.

National Public Procurement of Innovation strategy

In January 2009 the approach towards public procurement of innovation was adopted. Before then the focus was on finding the first buyer for an innovation (the government as a "launching customer"), from 2009 the focus was broadened to the entire purchasing process, from strategy development to scaling up. It also emphasises that public procurement of innovation is a demand-side instrument driven by the wishes of the contracting public sector organisations, the public sector as a "lead customer".

In its Industry and Commerce letter of September 2011, the Government declared that it aims to spend 2.5% of the total procurement budget on the procurement of innovation. This would be given a practical boost by developing a programme of concrete projects.

In public procurement of innovation, the public sector is stimulated to be the lead customer for the procurement of innovations. The goal is twofold:

- ✓ Improve the quality and efficiency of public services through the procurement of innovative products and services
- ✓ Expansion of the home market and thus also the export potential for businesses

In mid-2012 the Programme for Public Procurement of Innovation was launched, marking a step towards closer ties between business and industry and the procurement power of the public sector. The PPI programme has the following objectives for facilitating innovation procurement:

- Stimulating, supporting and implementing projects as examples to raise awareness among other public authorities about the opportunities and possibilities for innovation in projects and tendering
- Disseminating and further developing the philosophy and tools for public procurement of innovation.

SBIR (national PCP approach)

In 2004 the first SBIR challenge (PCP in the Netherlands) was issued by the Ministry of Economic Affairs, soon other ministries followed. The Netherlands Enterprise Agency (RVO.nl) developed this innovation procurement instrument and adapted it in the years that followed in order to be in line with the EC PCP Communication (COM(2007) 799 final). RVO.nl is responsible for the practical manual for suppliers, example tender documents and it helps public authorities hands-on with the SBIR tenders, project management and financial management.

After 10 years and more than 40 challenges PCP was still only used by the different ministries from the national government. At the request of parliament, the Minister of Economic Affairs made

budget available in 2015 for co-financing SBIR challenges by local and regional public authorities. RVO.nl is implementing this request.

In 2016 SBIR as an innovation instrument was valued very positive in a report on promising innovation policy (<https://www.cpb.nl/publicatie/kansrijk-innovatiebeleid>, only in Dutch) by CPB, the Netherlands Bureau for Economic Policy Analysis. In 2017 the new national government expressed in the coalition agreement its intention to boost innovation by acting as a demanding first customer especially in the fields of defence, infrastructure and water management. This must be achieved with Precommercial Procurement (SBIR in the Netherlands) and Innovation Partnerships.

Improving procurement skills

A very important aspect of innovation procurement is the need for skilled (procurement) professionals that understand how and when to use innovation procurement, that can deal with complex innovation procurement procedures and that are able to design functional specification in tender documents that allow for innovation. One of the instruments to help public procurers, decision makers and policy makers is the innovation toolbox that PIANOo and the Netherlands Enterprise Agency (RVO.nl) developed, commissioned by the Ministry of EZK.

This toolbox is available under “www.innovatiekoffer.nl in Dutch. An English version of the toolbox dedicated to procurement of bio-based products and services is available under “Roadmap of procurement instruments” via “toolbox” on the www.innprobio.eu or directly via

<https://www.biobasedconsultancy.com/en/procurement-tools111/roadmap-of-procurement-instruments>.

The toolbox enables public sector to design its procurement processes in ways that facilitate the development and application of innovative solutions. It offers policy makers and procurement professionals examples, best practices and insight in what instruments can or should be combined.

Recently a self-scan was added to the toolbox. With this instrument project leaders and procurers can test their knowledge on how to do an innovation procurement.

(<https://www.pianoo.nl/actueel/nieuws/nieuwe-zelfscan-innovatiegericht-inkopen>, only in Dutch)

Manifesto for Socially Responsible Procurement

With the Manifesto for Socially Responsible Procurement (2016) a new boost was given to innovation procurement, on a national, regional and local level. The manifesto is targeting the sustainable use of raw materials, greenhouse gas emissions and social conditions and these are incorporated into

procurement policy and can be applied to a wide range of purchases, from office supplies to construction materials for new buildings and renovations. More than 100 public authorities signed this manifesto and have since then developed action plans with focus on themes like green, circular, bio-based and innovation procurement. These action plans are now being executed.

Monitoring of innovation procurement

From 2010 the Ministry of EZK is looking at ways to monitor innovation procurement. Indications were given based on samples from the national tender databased and questionnaires to public procurers. Based on these data, no indication could be given if the percentage of 2.5% of the total procurement budget was met.

Together with the manifesto a tool for evaluating all procurements is developed so public authorities can monitor their efforts on procuring green, circular, bio based, etc. and ... innovation. This will give a better insight in how often and in what categories innovation procurement is used.

2.3. Poland

In Poland, awarding public procurement is regulated by the Act of January 29, 2004, Public Procurement Law (PPL) and its implementing acts. The PPL has been amended several times, notably by the 2009 Act on Concession for work and services and in 2014 to promote award criteria beyond price, and to tighten restrictions on suppliers.

The Act of 22 June 2016 again amending the Public Procurement Law Act and some other laws introduced the new criteria list and **limited the importance of the price criterion** in the certain situations. Instead of price, the cost can also be a criterion for tender evaluation. The cost criterion can be determined **using life cycle costing**. This amendment introduces (following art. 31 of Directive 2014/24 / EU) new procedure - **innovative partnership**. The aim of this new institution (based on the principles of competitive procedure with negotiation) is to enable contracting authorities to establish lasting cooperation (partnership) in order to develop and then purchase a new, innovative product, service or construction works without having to conduct separate proceedings for their purchase.

Polish Public Procurement Law is consistently adapted to EU regulations. According to the communication published by the Ministry of Development and Public Procurement Office in the first half of 2018, a new Public Procurement Law should enter into force. The prepared changes will not, however, constitute an amendment to the currently binding provisions but will constitute new systemic and legislative solutions developed in the field of expenditures for public procurement. The planned amendments to the regulations are to constitute an important element of the Polish Public Investments Program. The program is to make the state invest sensibly in innovative solutions. The

assumptions of the new Public Procurement Law also envisage increasing the role of public-private partnership and electrification of public procurement procedures, increasing the chances of small and medium-sized enterprises in applying for a public procurement.

Institutional system

The public procurement system in Poland is decentralised, with thousands contracting authorities spread out among the country's ministries, central offices, province offices, state control organs, courts and tribunals, and territorial self-government offices.

The executive and oversight agency for procurement in Poland is The **Public Procurement Office (PPO)** which does not have a purchasing role. Individual contracting authorities are responsible for conducting their own procedures. The PPO is made up of the President, a permanent staff, and the Public Procurement Council, an advisory body to the PPO. The PPO is responsible for drafting procurement legislation, gathering data and conducting analysis on the procurement system, including via the publication of annual reports, disseminating procurement guidance, and maintaining the digital Public Procurement Bulletin. The PPO is supported by the Public Procurement Council an advisory and consultative body appointed by the Prime Minister.

The PPO publishes a number of support and guidance materials for contracting authorities and suppliers that are available free to the public. These include a detailed methodology, several step-by-step guides for practitioners on topics such as green procurement and social aspects of procurement, legal explainers and updates, and publications of opinions. www.uzp.gov.pl/en

The other agencies which have crucial role in implementation innovation procurement in Poland:

Ministry of Investment and Development is an agency of the government of Poland formed from the Ministry of Development in 2018. It's main responsibility are: management of structural funds, improvement of the country's development policy, support for entrepreneurships, international cooperation, public-private partnerships, professional and social activity for the disabled and seniors, investment plans, etc. www.miir.gov.pl

Ministry of Entrepreneurship and Technology is a governmental agency established in January 2018 to directing work and providing assistance in such areas as: business support, analysis and evaluation of the Polish economy, economic safety, innovation support, law for entrepreneurs, improvement of the activities of public institutions, sustainable development and also space policy, cleaner air, international cooperation. www.mpit.gov.pl

National Centre for Research and Development is the implementing agency of the Minister of Science and Higher Education. The institution was Established in 2007 to perform tasks within the area of national science, research, technology and innovation policies, creating dialogue between science and business, managing structural funds in three operational programmes: Human Capital, Innovative Economy and Infrastructure and Environment as well as several international and national research programmes. www.ncbr.gov.pl/en

Polish Agency for Enterprise Development, (PARP) is a government agency that has been providing support to Polish entrepreneurs in the implementation of competitive and innovative projects for over 10 years. The Agency conduct the Information Point for International Public Procurement under international project initiated in 2017, SESAM intends to improve SME's access to Cross-Border Public procurement. This project provides knowledge and support for a successful participation in public procurement within European Union, in Germany, Italy, France and Poland;
<http://mzp.parp.gov.pl/en/>; www.sesamproject.eu

PCP, SME

The Strategy for the Innovation and Effectiveness of the Economy for the years 2012-2020 "Dynamic Poland" (SIEG) intends to promote innovation through the procurement process. Among other things, SIEG pushes public authorities to draft tender documents in consultation with market participants such that the terms allow, and even encourages the use of new technologies and innovative goods and services. It also includes the promotion of most economically advantageous tender award criteria. Increasing SME participation in the procurement process is one of the most important goals of sustainable development of Poland.

Two principal procedures for SME contract awarding, are used within the described legal framework: open tendering; restricted tendering.

Open tendering are contracts award procedures in which, following a public contract notice, all units that meets criteria may submit their tenders.

Restricted tendering are contracts award procedures in which, following a public contract notice, beneficiaries submit requests to participate in a contract award procedure, and tenders may be submitted by economic operators invited to submit their tenders.

There are several other procedures in which contracts can be awarded by awarding entity: single-source procurement procedure, request-for-quotations procedure or by electronic bidding procedure, negotiated procedure with publication, negotiated procedure without publication, competitive dialogue.

The pre-commercial procurement process is a special approach to public procurement, creating more favourable conditions for both contracting parties and contractors. Pre-commercial procurement focuses on those areas where there are no commercially available solutions, which naturally stimulate innovation. At every stage of the pre-commercial procurement procedure, the orderer partially finances the development of the product, while at the same time shaping new technologies together with potential contractors. An important element of pre-commercial procurement is the ability to preserve ownership rights to the knowledge / technology produced by all potential contractors participating in the pre-commercial procurement process.

In Poland, so far PCP does not work. Nevertheless, this may change soon.

The National Center for Research and Development is currently running a pilot PCP program:

The program of zero-emission public transport (together with the accompanying infrastructure).

Is the first program implemented in the new approach, a new model for financing research programs, based on innovative partnership. It consists in financing a portfolio of research projects that strive to respond to the given challenge through the implementation of a clearly defined goal. The state plays the role of an intelligent contracting party, creating a new market for innovative products. The innovative partnership is a new mode in the Public Procurement Law, which the NCRD uses in practice as the first public institution in Poland. This model assumes that in response to the public procurement announcement, contracts are concluded with several contractors who then carry out research projects in parallel, however, after each stage of the work, the contractor limits their number, leading to the end of the research process (prototype stage) only one. This stage is financed from the EU budget, which the NCRD has acquired for the purpose of implementing the program. The next stage is the implementation, in purchase by the cities - signatories of the Cooperation Agreements - a certain number of products.

http://www.ncbr.gov.pl/gfx/ncbir/pl/defaultopisy/1255/116/1/ogloszenie_44_17_pi_bezemisjnyjny_transport_publiczny.pdf; <http://ted.europa.eu/udl?uri=TED:NOTICE:183-2018:TEXT:PL:HTML>

2.4 Summary, presentation the main common characteristics of described systems

1. The Netherlands system of public procurement is **decentralised** with three levels of agencies (national, regional, municipal) which are responsible for their own procurements. Dutch regions and municipalities are independent from the national level. The national strategy serves as a good practice and an example for local and regional administrations.

Procurement law is established by Ministry of Economic Affairs a Climate Policy which is also responsible for relations between public sector and market. **The main act is Public Procurement Act**

prepared by Ministry of Economic Affairs, which has prime responsibility for innovation, including matters of public procurement of innovation.

The Dutch innovation policy is implemented through different acts like Programme for Public Procurement of Innovation (2012), the innovation procurement instrument for PCP (SBIR) launched in 2004, Manifesto for Socially Responsible Procurement (2016) which was signed by many Authorities which have declared to develop action plans with focus on green, circular, bio-based and innovation procurement.

The Netherland **has quite long and big experience**, in comparison to the others countries, in the **real implementation of the innovation procurements**. In almost 10 years more than 40 challenges of PCP was provided.

2. The Polish public procurement system is functioning in a similar way to the Dutch one, it is decentralized. Law of procurement is developed by special body The Public Procurement Office (PPO) responsible for design the legislation, implementation and monitoring, as well as supporting the individuals and institutions in the implementation of the rules.

The main act dedicated to public procurement is **Act of Public Procurement Law (PPL)** established in 2004, which has been updated since then several times according to the EU legislation (recently in 2016). Nowadays there are planned some new amendments to the regulations according to the Polish Investment Program concentrating on innovation solutions. Also, The Strategy for the Innovation and Effectiveness of the Economy for the years 2012-2020 “Dynamic Poland” (*SIEG*) put efforts to promote innovation through the procurement process. Many national institutions are involved in realisation this policy eg. **Ministry of Investment and Development, Ministry of Entrepreneurship and Technology, National Centre for Research and Development**, Polish Agency for Enterprise Development, (PARP).

Poland is the beginner in practices in innovative partnership, this is a new mode in the Public Procurement Law. In 2017 the first, **pilot PCP program** was announced by National Center for Research and Development.

3. The system in Italy seems to concentrate on realisation strictly defined priorities on sustainability of development described in **the Italian Digital Agenda**, which is in line with the European one. The institution responsible for dealing with PCP and PPI is **The Agency for Digital Italy (AgID)**. In the period of 2011-2012 the rules of PCP were introduced to the research and innovation policy framework and present the national guidelines on PCP for Italian public procurers. The first PCP based on those frameworks was realised in 2015.

Italy developed many different programmes and actions dedicated to PCP/PPI like Strategy for digital growth 2014-2020”; the three-year plan for IT in the Public Administration 2017-2019 containing recommendations for the public procurement and innovative products as well as pre-commercial procurement.

The Agency for Digital Italy (AgID) strictly cooperate with other national institutions like **Ministry of Education, University and Research (MIUR) and Ministry of Economic Development (MISE)**. The Agency is responsible for dissemination and promotion information on national PCP tenders, it’s also carries out their own PCP offers as a procurer. In 2017 AgId announced six PCP tenders.

CHAPTER 3. Feedback – from regional workshops with SMEs offering innovative solutions in specific sectors.

One of the Task of the InnoProcur was to organize workshop in each project region for at least 50 SMEs to increase their awareness on PCP/PPI and inform them about how to exploit PCP/PPI opportunities. The workshops were open to SMEs offering innovative solutions in specific sectors (e.g. ICT, health, environment etc.). After each event partners have monitored the SMEs approach to PCP/PPI, gathered their feedbacks about needs, problems, etc. The aim of survey was to understand how much public procurement is known and used by SMEs, with a specific focus on PCP and PPI.

Because of the specificity of each country and the level of development of public procurement in regional area considered by Innoprocur project, the questions asked by the organizers in the survey at regional workshops were different in each project partners.

Below partners present the outcomes from the questionnaires.

3.1 Italy

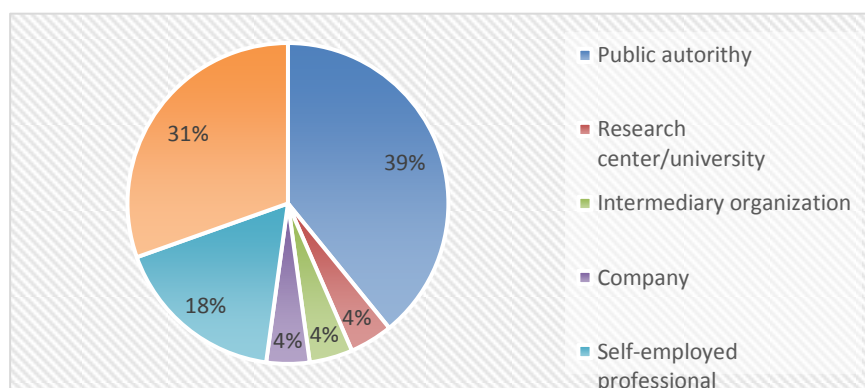
In the framework of the end users' involvement task, Friuli Innovazione collected **43** questionnaires during three different workshops in Friuli Venezia Giulia, organized by regional stakeholders:

- Udine, 11th October 2017;
- Trieste, 16th October 2017;
- Udine, 28th November 2017.

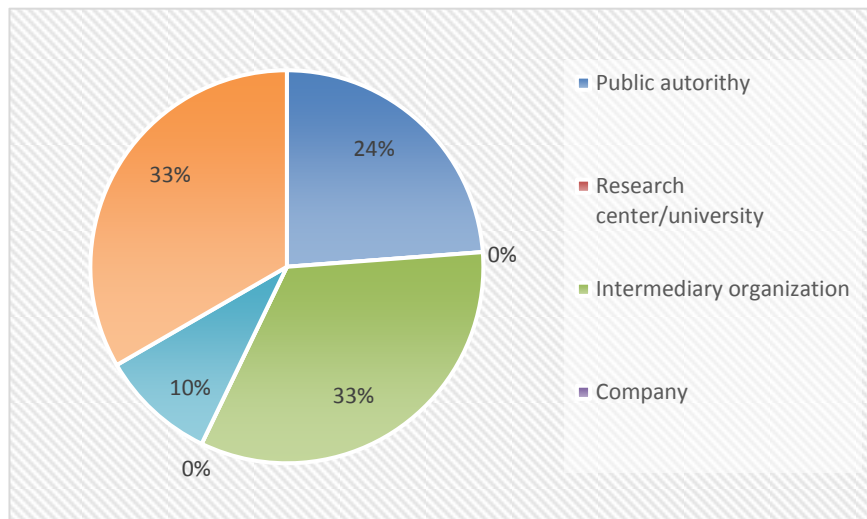
During such events, Friuli Innovazione was invited to deal with some specific topics, among which the innoPROCUR project and the opportunities offered by PCP and PPI to SMEs.

The main results from the end users' involvement in the Friuli Venezia Giulia Region are shown in the following figures.

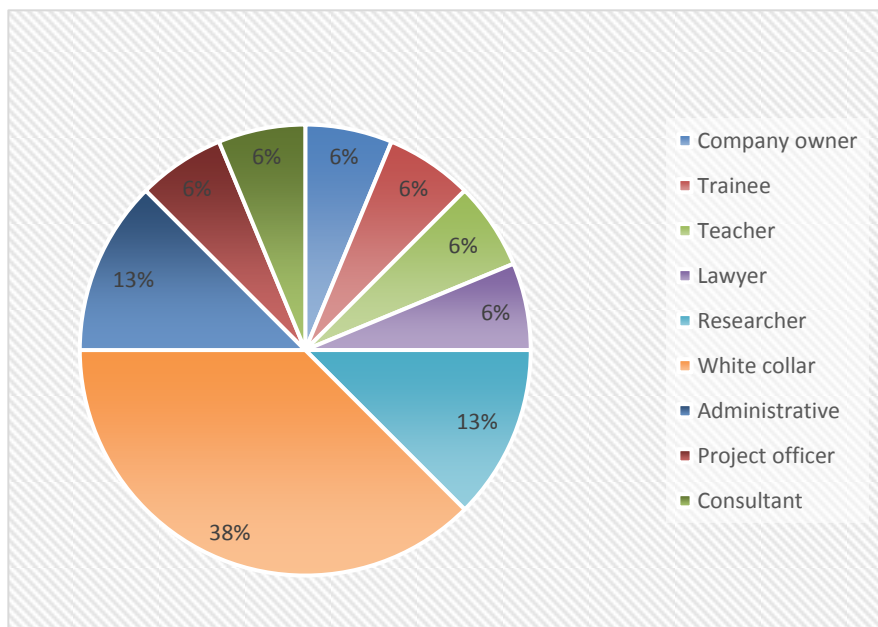
Interviewee - Typology of Organization



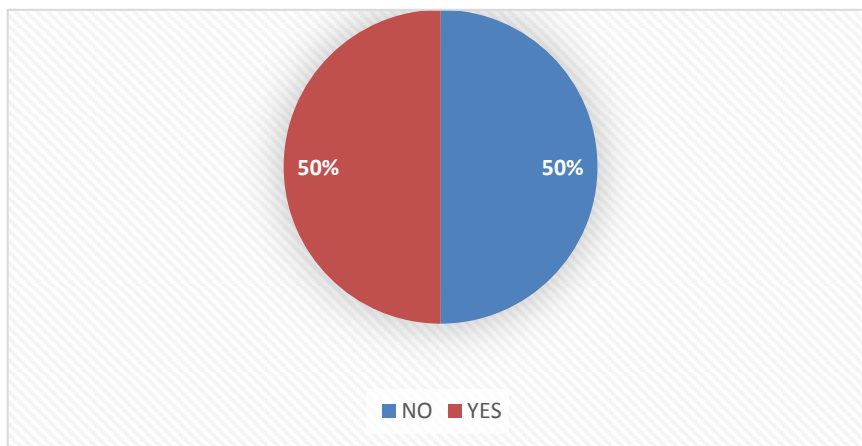
Interviewee - Sector Of The Organization



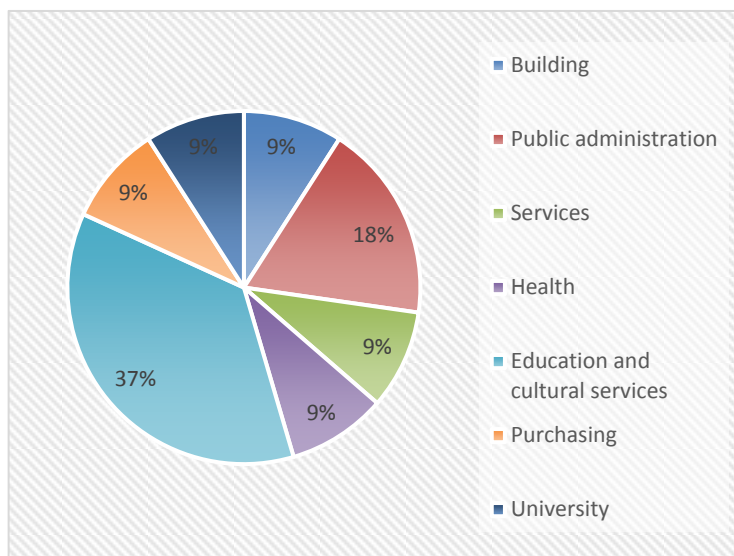
Interviewee - Role In the Organization



Do you know/work in the sector of public procurement

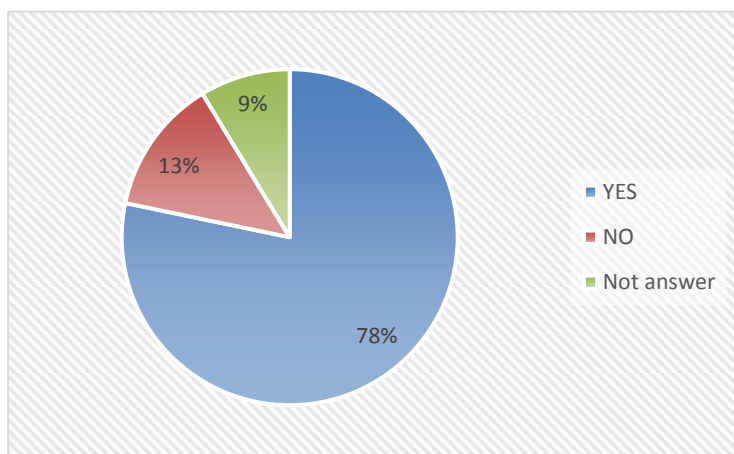


In which area/topic of public procurement do you work?

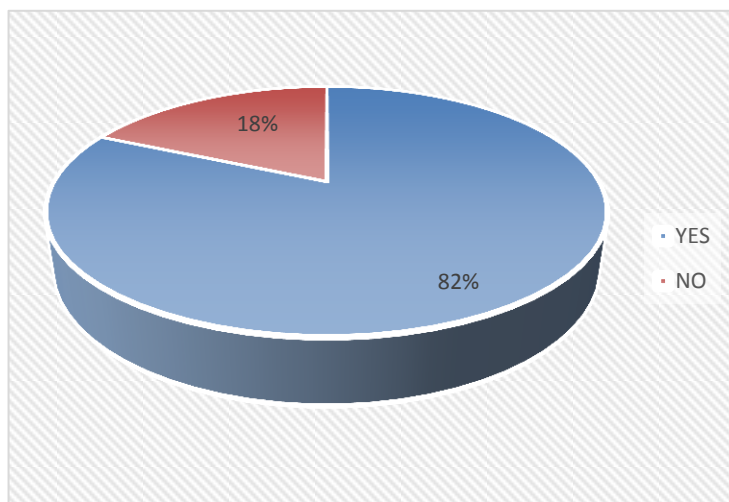


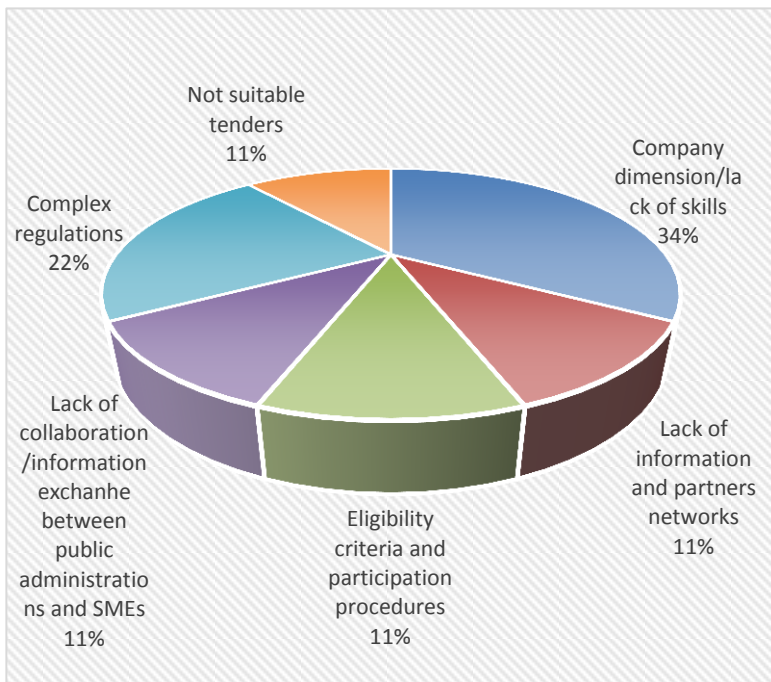
In Italy, public tenders are often considered as complex procedures, difficult to participate and addressed to large companies.

Do you agree?

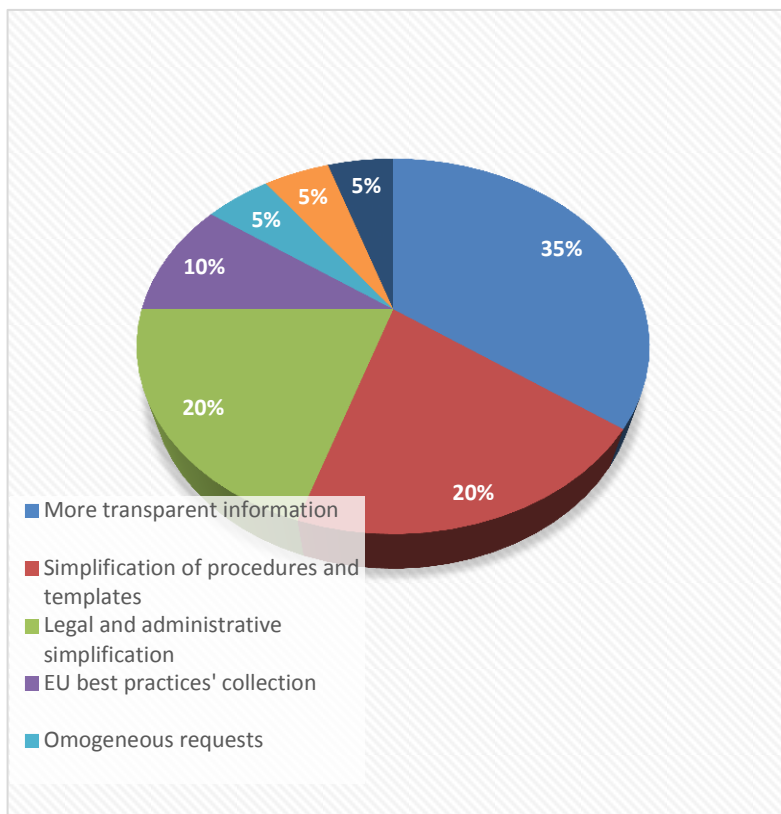


Do you think SMEs have difficulties in participating to public procurement?



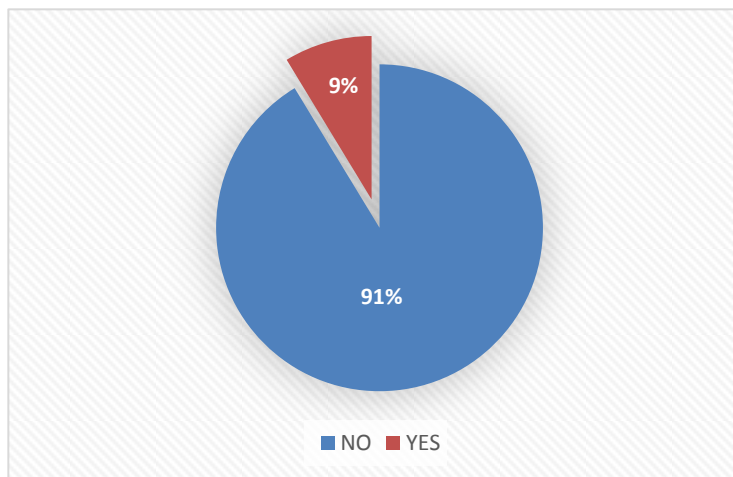


Which are the main SME difficulties in participating to public tenders?

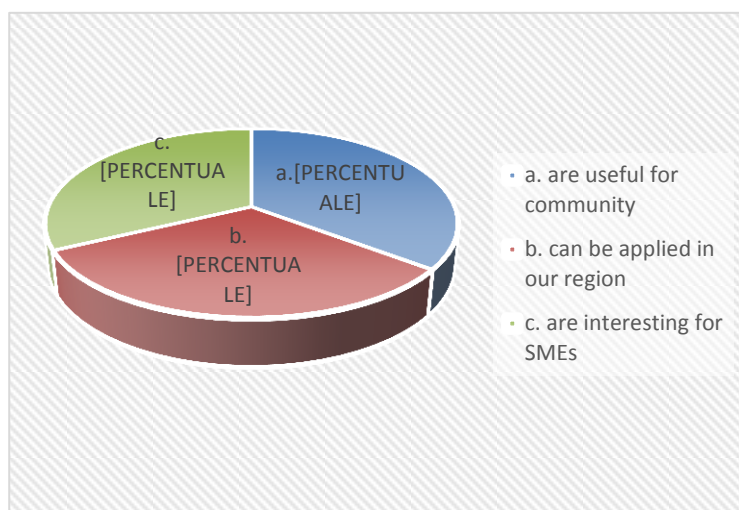


Which measures should be taken to foster the SMEs participation to public procurement?

Do you know what PCP and PPI are?



What do you think about PCP and PPI (supporting the development of innovative products and services in the public sector)?



3.2. Netherlands

On 6 December 2017, the municipality of Amsterdam organised in collaboration with PIANOo/RVO a kick-off workshop with 12 brainstorm sessions for the project ‘Innovation partnership quay walls’. With the collaboration within the procedure of innovation partnership, the municipality of Amsterdam wants to find innovations with the market for smarter and better replacement of quay walls in the city centre of Amsterdam. Various stakeholders and companies were invited, including SMEs and start-ups. PIANOo/RVO was involved in the approach and organization of the project.

More than **120** people participated in the workshop of which 60 representatives from contractors, 30 consultancy/engineering firms and 30 innovative companies, educational institutions, start-ups and freelancers. About 70% of the participants are SMEs (+/-80).

A survey with 10 questions was distributed to the attendees of the workshop afterwards with a response of about 10%. The survey was also distributed via PIANOo.nl, twitter and LinkedIn for extra additional input.

From the perspective of the innoPROCUR, Piano was looking for data on three levels.

1. Attitude towards and experience with public procurement in general,
2. Information on public procurement of innovation in general,
3. Information on specific procurement of innovation challenges.

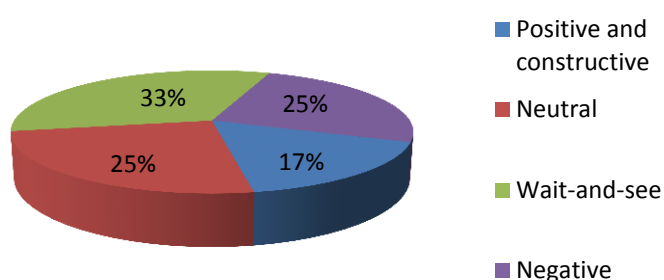
Attitude towards and experience with public procurement in general

In the workshop several generic success factors, risk factors and opportunities when involving SMEs in public procurement were addressed. Of key importance are

- Risk sharing: Sharing (financial) risks between the contracting parties is a must for SME's since this cannot be carried by the contracted party alone.
- Intellectual property rights: For the protection of potential sales and for preventing a monopoly position, there are several options:
 - 1) The intellectual property of (a part of) the innovation remains with the developer in combination with the right to use (license payment) by the Contracting Authority;
 - 2) Innovation is shared, but only if there is certainty on getting (a part of) the works afterwards;
 - 3) Full financing of the innovation trajectory. Sharing the innovation after the pilot project.

The interviewees have quite a lot of experience in working with different contracting authorities. SMEs mostly have experience with local authorities and less experience with regional (Provinces and water authorities) and national authorities. In general SMEs experience the attitude of public authorities towards innovative start-ups and SMEs as wait-and-see or even negative.

How do you experience the attitude of governments to SMEs and start-ups?

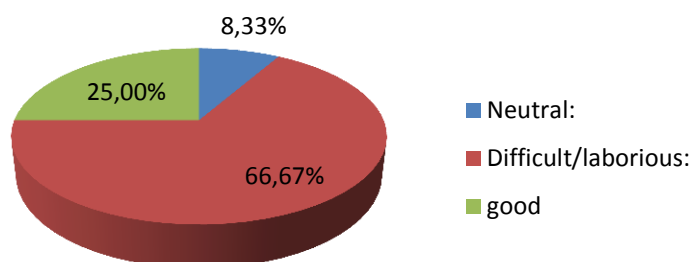


Public authorities in general prefer to avoid risks and thus innovation. Very few times there is a real drive to innovate, often SMEs experience it as a burden because of the difficulties with legislation and risks attached to the innovation.

Besides these notes the lack of trust and hiding behind the rules is quite a generic issue between partners in contracting situations and mentioned here by the interviewees:

- “Public authorities have so many framework agreements and internal policy rules that it is almost impossible to make a chance as a small, innovative company when it comes to tenders or inquiries.”
- “Our experience is that public procurement often involves a relationship of distrust, hiding behind rules, not working and implementing a work together, but especially "they and us". This is caused by the many rules and the award at the (too) lowest price. In addition, work is still being clustered and small businesses don't stand a chance.

How do you value doing business with public authorities?



2/3 of SMEs value doing business with public authorities as difficult and laborious and only ¼ qualifies doing business with public authorities as good (Q4). 'Difficult/laborious' because of the bureaucratic culture, lack of clear objectives and vision, weak leadership and risk-avoiding nature of public authorities. In addition, classic “old fashioned” procurement gives too little room for optimisations and innovation. Illustrative are the following quotes:

- “A lot of civil servants have an attitude of “As long as I follow the rules my boss cannot blame me”. Often there is a lack of knowledge how to procure. And also, is lacking the will to cooperate. Often, under pressure of far too many rules / laws, this is imposed "from the top".

Information on public procurement of innovation in general

Some success factors, risk factors and opportunities in involving SMEs in public procurement of innovation in general were addressed with the workshop.

- *“Procuring party has to innovate together with the contractor as a partner for effective implementable innovations”.*

Innovation; procurement also requires innovation in and by the procuring party itself. From the municipality, for example in the case of the workshop, there can also be a 'municipality innovation team' at the same time being concerned with reducing the regulatory burden (and other internal factors). Because most of the time, a large part of the lead time and costs are caused by the public procurer itself. The procurer self must really become a partner in this project to make it succeed, this requires political courage and support.

- *“Rather no selection based on past performance”.*

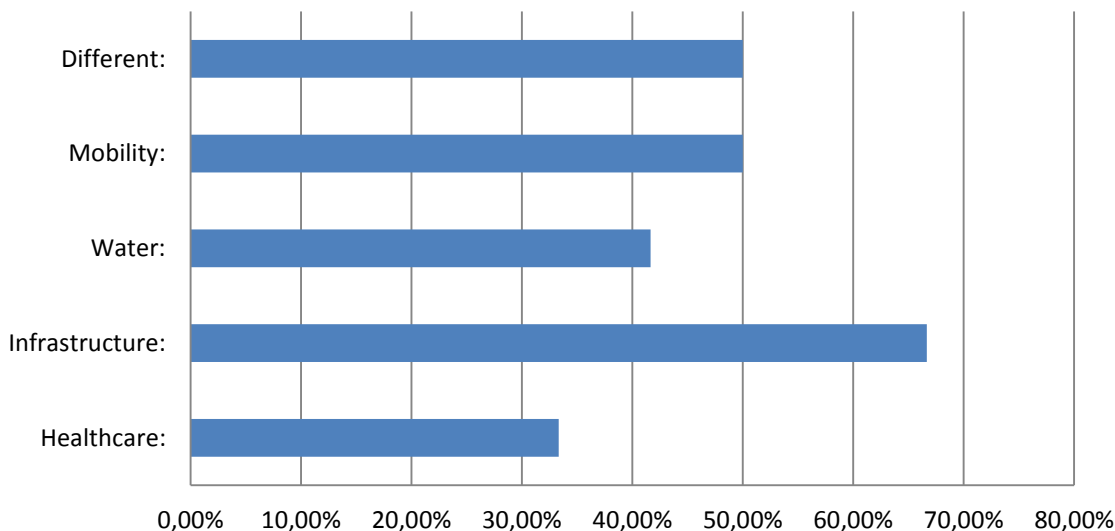
This excludes certain, potentially good, parties in advance.

- *“Provide space & set clear frameworks together”*

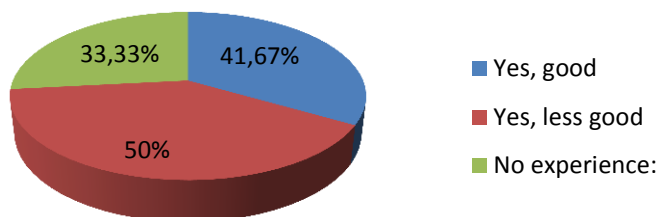
Clear prioritization of goals and frameworks are important, but also give as much space as possible within these. Clarify the framework and prioritize goals and ambitions. For instance not four goals without information about what is the most important for the client. More focus leads to 'deeper' innovation and knowledge.

Furthermore, scope widening gives added value outside the core problem (quay wall problem) and more freedom and support for the project. Restrictive frameworks from stakeholders should be minimized. Give the market (specialists) room so they can offer their specific valuable input.

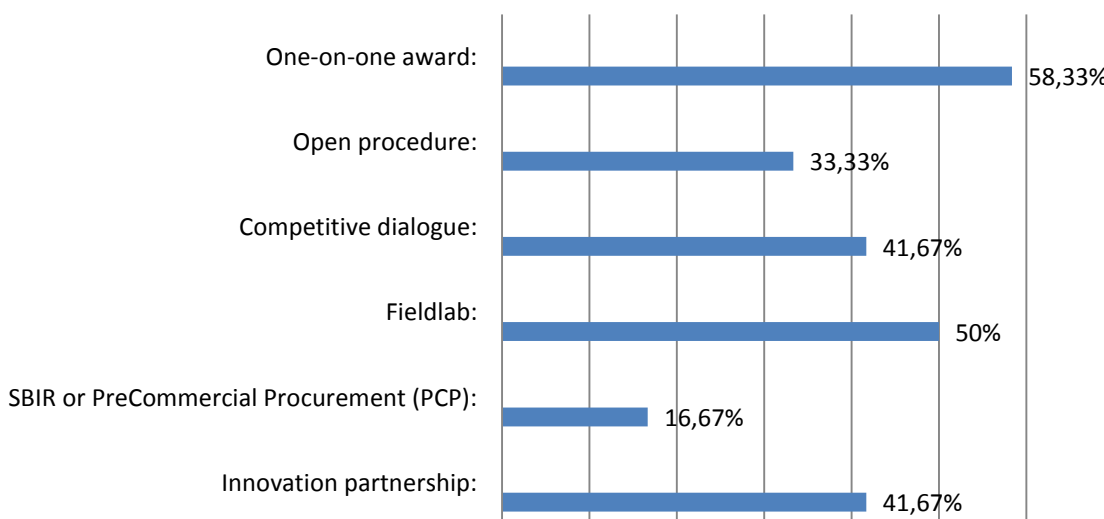
Where do you see opportunities for innovation on the following societal questions to involve SMEs and start-ups?



Do you have experience with innovation procurement by public authorities?



Which procurement procedures for purchasing innovations do you know?



Other procurement procedures mentioned:

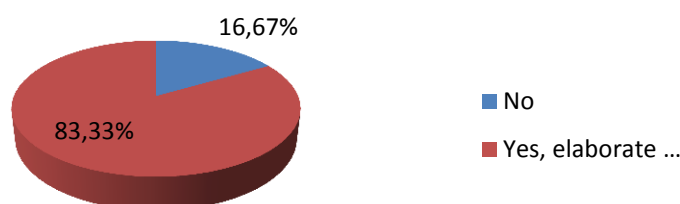
- Open procedure with innovative elements (framework agreement engineering services)
- Raw, D & C and Hybrid contracts
- Best value procurement (BVP), alliance contract.

Information on specific procurement of innovation challenges

The success and risk factors in involving SMEs within specific procurement of innovation challenges addressed by the workshop are:

- Preference is not to select too quickly to a limited number of parties in the procurement process.
- 'Enough work for everyone!': attention for sufficient opportunities for multiple suppliers market parties to continue working on innovation. No winner takes it all.
- Transparency: Make trust and share as much information as possible: cooperation, transparency and. For example, an online data room, but also face to face meetings offers ample opportunities.
- Collaboration: Working towards a shared / supported ambition: the will to really go for it. Really cooperate! Not only between suppliers, but also between public procurers and the market. Attention for the 'soft' side: trust, cooperation, chemistry, relationship, etc. Therefore, no blame & claim culture.
- Insight into and involvement of all stakeholders from the start of this project. These stakeholders have other interests and have a major influence on, for example, lead time.
- Awareness of market risks, such as
 1. Loss of intellectual property: Loss of intellectual property (cherry picking). Market parties come with an innovation that is passed on without compensation to the winning party.
 2. Monopoly of one market party. When awarding a follow-up assignment through regular tendering, the party is (much) more likely with the innovation.

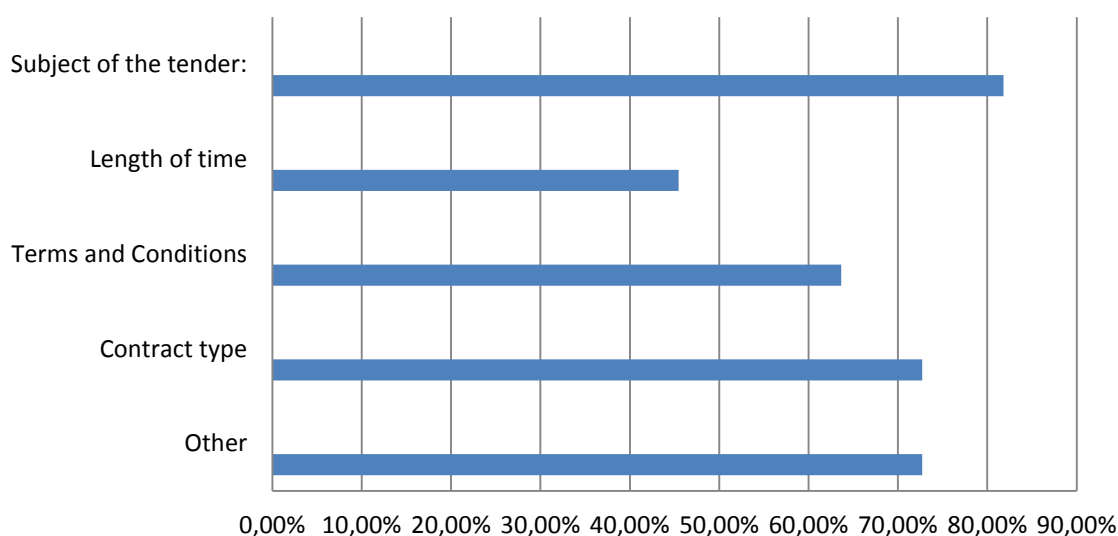
Q8. Do you see opportunities to improve existing innovation purchasing procedures to better involve innovative small businesses and start-ups?



Responses given when answered 'yes':

- Many procedures are project-oriented, while the challenges are often process-oriented. By releasing more at the policy level, more room is created for innovation with real added value. The procedures themselves are not complicated, but it requires courage and wisdom to successfully implement them in innovation
- Guide companies with formats. Linking within a network to permanent contact partners, where these can be deployed on demand or project basis. To make knowledge / expertise visible.
- Costs in the preliminary process are not always rewarded, which is important for SMEs.
- Make it simpler and give small companies a chance without partnerships as an intermediate layer. Do small tenders up to 50k. for example for the small suppliers only.
- Soften selection criteria to give smaller suppliers a chance to participate.
- Value CO₂ savings in tenders.

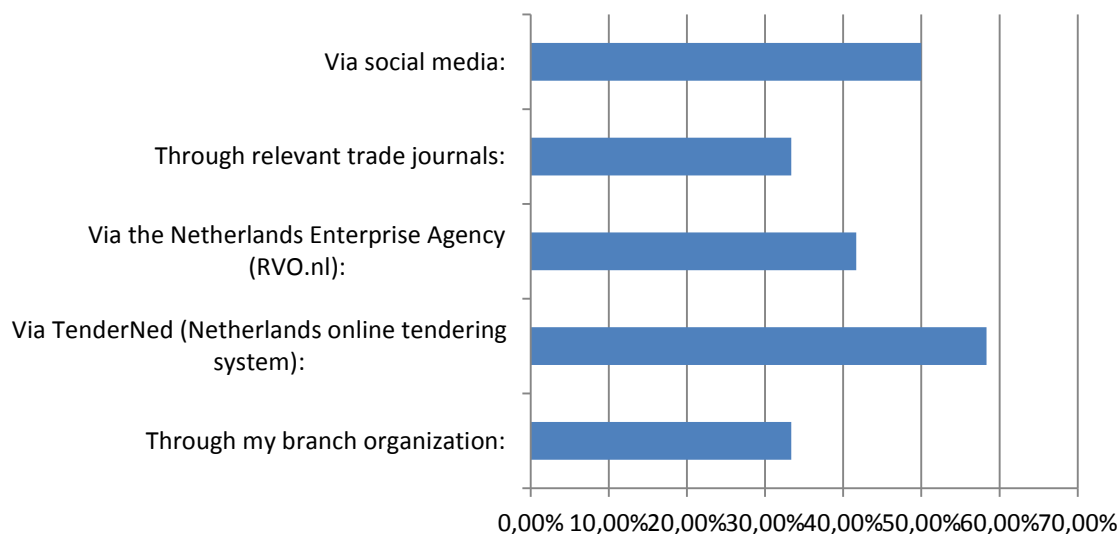
Q9. What is important for you to register for a tender in which innovation is requested and why?



Other important aspects mentioned:

- Motivation why innovation is needed; open and transparent process (making a chance);
- It is wise to cut the tender process in parts. In this way the client can take control over the process and leave the content to the contractor;
- Mutual trust must be there.

Q10. How do you want to be informed about innovation procurement opportunities? (multiple answers possible)



Other means mentioned:

- LinkedIn;
- Through the success stories of my colleagues;
- Via network platforms;
- Selected from database (expertise). Innovators must be 'searched' and recognized;

3.3 Poland

Poland's regional workshop was organized in Lodz on 28.11.2017 as a single event dedicated only to this topic.

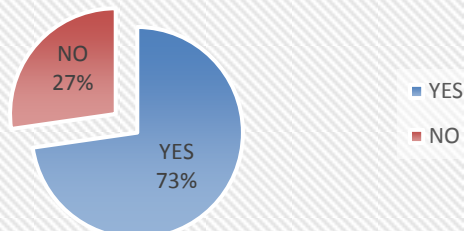
The workshops were dedicated to SMEs from different sectors that were interest in PCP and PPI, the project and its outcomes.

20 people, representatives of SMEs were present on this event.

Because in Poland PCP/PPI are at very early phase of awareness the workshop as well as questionnaires' was adjusted to this specificity.

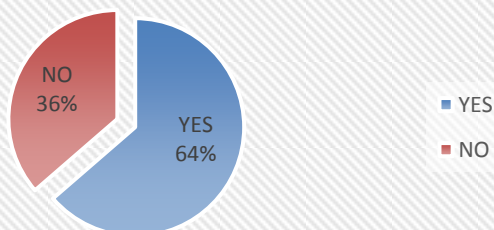
The main results from the end users' involvement in the Lodz Region are shown below.

Is your company interested in public procurements ?



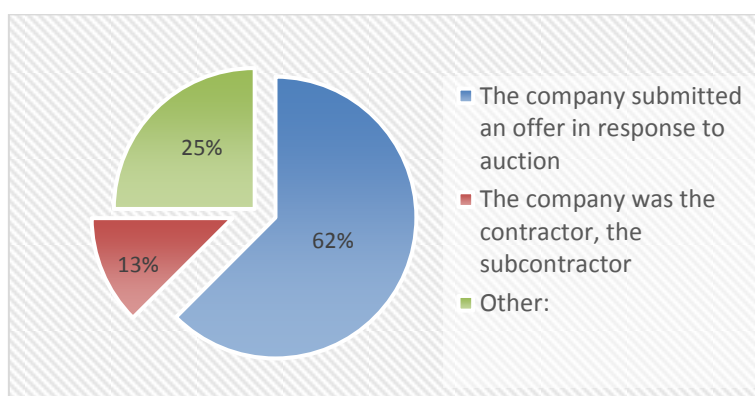
In case of YES answer LARR has asked additional question about the reason. Majority of replies were: additional funding source for undertakings and access to public funds. Some people declared also company development possibilities.

Do you have any experience in public procurements offers?



Almost 40% of invited entrepreneurs declared that they have no experience in public procurement offers.

If the previous answer was YES, ask additional question “what kind of experience”:



In case of 25% “Other” answer the entrepreneurs stated that their experience with public procurement is connected to work in EU projects or as a purchaser.

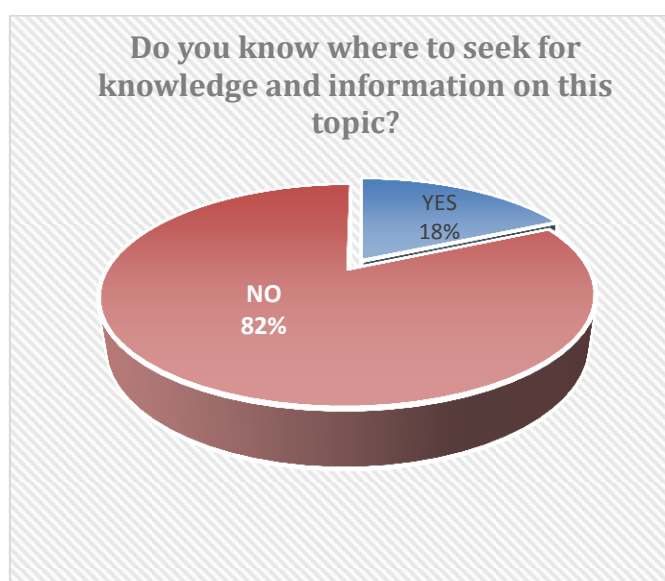
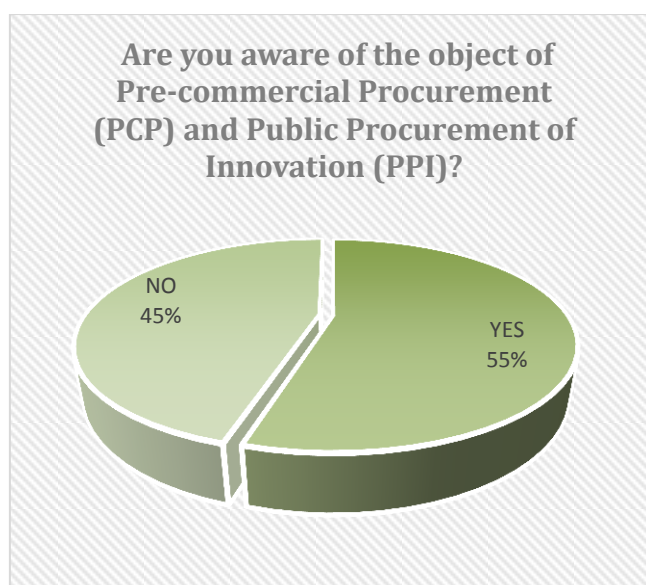
Question: *What is your opinion on the access to public procurements for companies?*

Replays circle about obstacles in this matter like:

- high evaluation criteria;
- low quality of specifications and requirements;
- procedures are tedious with the most important and often only criterion, that is the price

Some of the answers pointed the fact that the public procurement does not match with all the companies profiles.

Separate chapter in this survey was dedicated only to the PCP and PPI



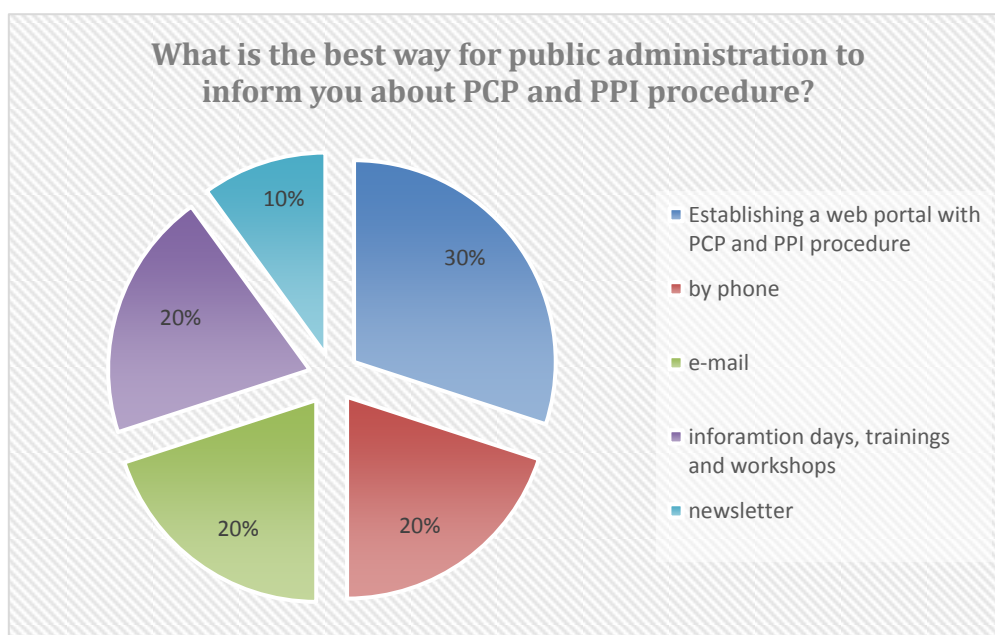
More than 80 % of entrepreneurs stated that they don't know where to find information and knowledge about PCP/PPI. Additionally, from the group who declared YES answer only 50% replays indicated specific, proper web-site or contact points.



Additionally, organizers ask question about opinion on public procurements procedures such as PCP and PPI. Most of entrepreneurs stated that it is a new topic for them and they have no opinion.

Some answer indicated that:

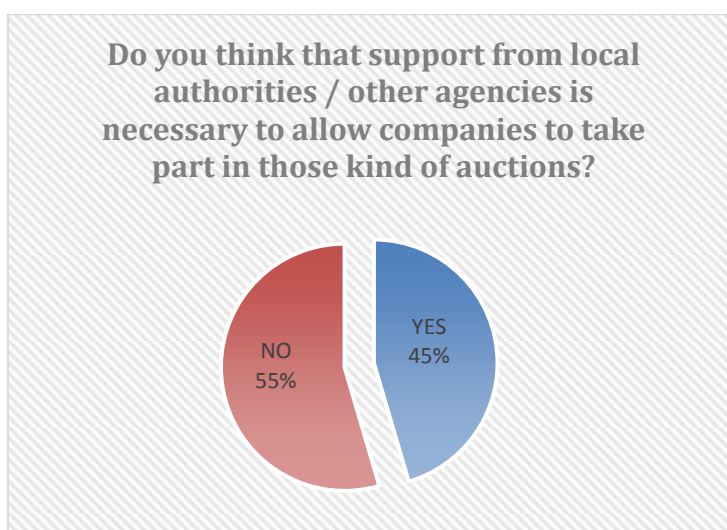
- a good chance to implement valuable products and services for the benefit of the ordering party and contractors (9% of answers)
- PCP innovation path is interesting (9% of answers)



To the open question: "What would you need in order to take part in PCP / PPI auction considering

conditions, time, agreement, knowledge etc. (please point out)?” Entrepreneurs pointed out interesting answers corresponding the level of knowledge about PCP/PPI in Poland:

- legal advice
- time
- selection of information about public procurement to the business branch I represent
- substantive support
- clear and concrete source of information
- workshops / trainings with practical examples of PCP/PPI offers
- information and knowledge about PCP/PPI



Several entrepreneurs share examples what kind of support from local authorities / other agencies is necessary to allow companies to take part in those kind of auctions:

- tools: document patterns; patterns of processes, good practices - description, consulting for consortium parties;
- establishing a local portal for information sharing and for PCP calls
- organizing information days

3.4 Summary, outcomes, conclusions

As mentioned above three partners prepared three different questionnaires depending on the level of PCP/PPI and public procurement level of development in their countries. This should be considered very useful taking into consideration the overall results and outcomes.

In Italy and Poland, the answer to the question about having knowledge/experience on public procurement was very similar: 50% Italy, 64% Poland.

Moreover, both these countries, according to the survey, presented similar opinions about access to public procurement for example: high evaluation criteria; eligibility criteria; lack of clear objectives and vision; lack of information; low quality of specifications and requirements. Some of the answers in Poland pointed the fact that the public procurement does not match with all the companies' profiles which is similar to the 11% of Italian answers that there are no suitable tenders.

On contrary in Netherland the level of knowledge / experience on PP is very high. The interviewees have quite a lot of experience in working with different contracting authorities (SMEs mostly with local authorities and less experience with regional (and national authorities). Despite this fact, answers to the question "How do you value doing business with governments?" (answers: difficult/laborious because of the bureaucratic culture, lack of clear objectives and vision, weak leadership and risk-avoiding nature of public authorities) can be consider very similar to Italian and Polish opinions / problems.

What is very interesting is the fact that in Netherlands more than 33 % of responses declared that they have no experience with innovation procurement. In Poland 45% and in Italy 91% replies declared similar answer. In Poland 100% of answer to the question "Are you aware of the offers being submitted in this procedure?" was No.

Every country also shown some similar opinions about outcomes of PCP/PPI as a good chance to develop valuable products and services; usefulness to community and interesting to SME etc.

The conclusions to those fact should be considered threefold;

1. Despite difference between level of PP development in project countries as well of entrepreneurs' experience in this subject one thing is very similar. Noticed obstacles like bureaucracy, lack of clear objectives and vision, etc.
2. Answer very similarly indicate measures to foster SME participation in Public Procurement like: transparent information, simplification of procedures, legal advice, one concrete web page with information and tenders etc.

3. Mostly the entrepreneurs will welcome the opportunity of support in taking part in PCP/PPI by: establishing portal with clear and concrete information, workshops and information days, administrative and legal advice in this matter, etc.

CHAPTER 4. RECOMMENDATION

Based on the input from the peer learnings and the workshops with stakeholders the project partners identified four strategies that can help to get innovation procurement (PCP/PPI) implemented and SMEs (better) involved. The four strategies were selected based on the following Feasibility of the recommendation within few years; available resources and DOP target groups.

Strategies

1. Awareness strategy on benefits PCP and PPI and role for SMEs
2. Communication strategy
3. SME strategy
4. Intermediate organisations strategy Intermediate organisations strategy

Each strategies can be implemented on its own, but implementation of several strategies will have a higher impact.

4.1 Awareness strategy on benefits PCP and PPI and role for SMEs

The awareness strategy focusses on creating awareness and capacity building for public procurement professionals, policy makers and politicians on the possibilities of PCP and PPI and the role SMEs can play. The result of this awareness strategy is that public procurement professionals, policy makers and politicians may get inspired and interested in using PCP and PPI themselves and are willing to contract SMEs.

Already a lot of information on PCP and PPI is available. This can be found on websites like <https://ec.europa.eu/digital-single-market/en/eu-funded-projects> and <http://eafip.eu/> and those dedicated to specific PCP and PPI projects. Although a lot of information is available, it can be questioned if this information will ever get to local and regional public (procurement) professionals and even to those working on a national level. And will this information match with the target group's needs? Different stakeholders have different information needs and trust different messengers.

A tailor-made approach for each of the stakeholders is needed. When collecting and sharing good examples, it is should be noted that these need to match with the target group. So, an example from a close-by region or country preferably in their own language has probably more value than from a far-away country in a not-native language.

4.1.1 Relevant stakeholders

When designing a tailor-made approach for different stakeholders, it is good to realise that procurement of innovation is the responsibility of the entire organisation and not only of the

procurement department. Procurement of innovation can start at every level. It can start with a public manager that sets the ambition and goals. A procurement officer that incorporates procurement of innovation in tenders. An internal client that is looking for the best (innovative) solutions for his need. Or policy advisors and experts that want to achieve certain goals that can only be achieved with procurement of innovation. Anyway, how it starts is important, if in the end, the whole organisation is committed, all with their own expertise and responsibilities.

In the table below the relevant internal stakeholders that are needed for successful procurement of innovation are summarized and their activities and responsibilities are given.

Position	Activities and responsibilities
Public Management	<ul style="list-style-type: none"> ✓ Sponsor and managerial responsible for procurement of innovation in a public organisation ✓ Encourages budget holders / internal clients to choose for innovative solutions ✓ Provides support to procurement officers with policy frameworks, knowledge and capacity ✓ Creates awareness by sharing best practises
Budget holder or internal client	<ul style="list-style-type: none"> ✓ Owner of the innovation procurement targets ✓ Challenges the procurement officer to procure innovation ✓ Informs public management on the risks associated with procurement of innovation ✓ Complies with internal procurement of innovation policies (or explains why these are not followed)
Procurement officer	<ul style="list-style-type: none"> ✓ Facilitates budget holder / internal client with their procurement of innovation needs ✓ Advises budget holders / internal clients how to create (more) impact ✓ Stimulates real action on procurement of innovation among budget holders / internal clients ✓ Provides management with monitoring information on procurement of innovation
Facility manager, end-users, contract manager	<ul style="list-style-type: none"> ✓ Emphasizes the importance of innovation among shared services centres ✓ Ensures / stimulates the availability of more innovative solutions for their internal clients
Policy advisors, experts	<ul style="list-style-type: none"> ✓ Ensure the procurement officers have up to date knowledge on innovation procurement ✓ Provide a toolbox for budget holders or internal clients and procurement officers

4.1.2 Awareness activities

Innoprocur partners have come up with the following activities that can help raising awareness with different stakeholders. Since stakeholders' needs are different, not all activities will be equally important for all. In the table below, we have tried to summarise how relevant the different activities will be for the identified stakeholders per organisation. The activities will be elaborated in the following sections.

Position	Actions	Champions and ambassadors	Data on results of PCP and PPI projects EU	Good practices in own language	Content in own language	Training or workshop	Join EU PCP and PPI projects	Share own experiences
Public Management		+++	+++	+	+	+	+	+
Budget holder or internal client		+++	+++	++	++	++	++	++
Procurement officer		+++	+	+++	+++	+++	+++	++
Facility manager, end-users, contract manager		+++	+	+	+	+	+	+
Policy advisors, experts		+++	+++	+++	+++	+++	+	+

4.1.3 Champions and ambassadors

There is no better way to inspire people to do something new than with an inspiring person. Someone that is passionate about the subject why PCP, PPI and SMEs can help public authorities and how. Someone that understands your reluctance, struggles and questions. Someone you can relate to and trust. These “champions” or “ambassadors” should be different based on the stakeholders selected.

A procurement officers prefers to hear the experiences from a fellow procurement officer, whereas a public manager prefer to hear it from another manager or politician. When starting with an awareness programme it is good to find the right ambassadors for the different stakeholders and to involve them in your programme.

4.1.4 Data on results of PCP and PPI project in the European Union

What are the advantages of PCP and PPI? What are the savings? What are the extra costs? It is always good to have objective data that support your message to inspire decision makers and financial people. Probably there is already a lot of data available, the trick is to find and unlock these data for your stakeholders.

4.1.5 Good practices in your language

The preferred way for most people is to learn from their peers. Good practices from other contracting authorities are very valuable. A lot of PCP and PPI projects financed by de EC and at national, regional and local level are still running or have already finished. It is a very important way to inspire your stakeholders. Remember that different stakeholders are looking for different information to support or change their opinion or behaviour.

4.1.6 Content on procurement of innovation in your language

PCP and PPI are not new. Innovative solutions have been developed for public authorities for ages. What may be different is how to procure (the development of) these innovative solutions. Sharing examples and explaining how to do it helps a lot. Especially procurers may want to know what tools exist to procure innovations. Legal experts may be interested in the legal background. All this information is available on the *efip* website in English. You may want to unlock this for a broader audience in your country and translate it in your own language. Besides *efip* several authorities in Europe offer easily accessible websites for national purposes. E.g. innovatiekoffer.nl (Netherlands); www.ioeb.at (Austria); www.konkurrensverket.se (Sweden).

4.1.7 Training or workshop for policy makers, experts and procurement officers

A workshop has about 20-40 participants. A workshop is a good way to create awareness about PCP and PPI. To promote the possibilities and advantages of PCP and PPI invite experienced professionals, policy makers, procurers. Let them share their experiences and demonstrate inspiring examples.

A workshop can be part of a larger event.

A dedicated half or one-day training session probably will attract people that already have some knowledge about PCP and PPI and want to learn more about PCP and PPI in general and more particularly on practical tools how to buy innovative solutions. In a training session it is possible to engage with the participants and go more into detail on different procurement strategies and tools.

A training helps to provide participants with knowledge to look at possibilities in their own organisation and eventually start a PCP or PPI.

To be able to procure innovative solutions, contracting authorities need to know how to set up a procurement strategy where innovative solutions are wanted. They need to know how to find information, what the legal possibilities are, what the different procurement procedures are and how to write functional specifications and develop criteria. This activity could be implemented by e.g. expertise centres, universities, higher education, schools, private education, etc.

4.1.8 High level meetings for politicians, decision and policy makers

Organise short inspiring meeting for politicians, decision and policy makers with opinion leader or ambassadors about what procurement of innovation can do for their organisation and how to implement it.

4.1.9 Join EU PCP and PPI projects

The best way to experience PCP and PPI and to understand the possibilities and advantages is by doing it together with more experienced contracting authorities. In Horizon 2020 interesting funding opportunities for PCP and PPI are available.

4.2 Communication strategy

To improve and maximize the impact a communication strategy to different stakeholders should be implemented.

First and foremost, different national and regional authorities should provide easy accessible, transparent, concrete and consistent **information about Public Procurement** in general and PCP/PPI in specific.

Most of the entrepreneurs indicted a **dedicated PCP/PPI web-site** as a good example of source of information. Such portal should also be design as a **communication platform** to allow the exchange of information, knowledge and experience between relevant stakeholders.

In each country a PCP/PPI **dedicated Contact Point Office** should be establish in order to provide information and support to entrepreneurs.

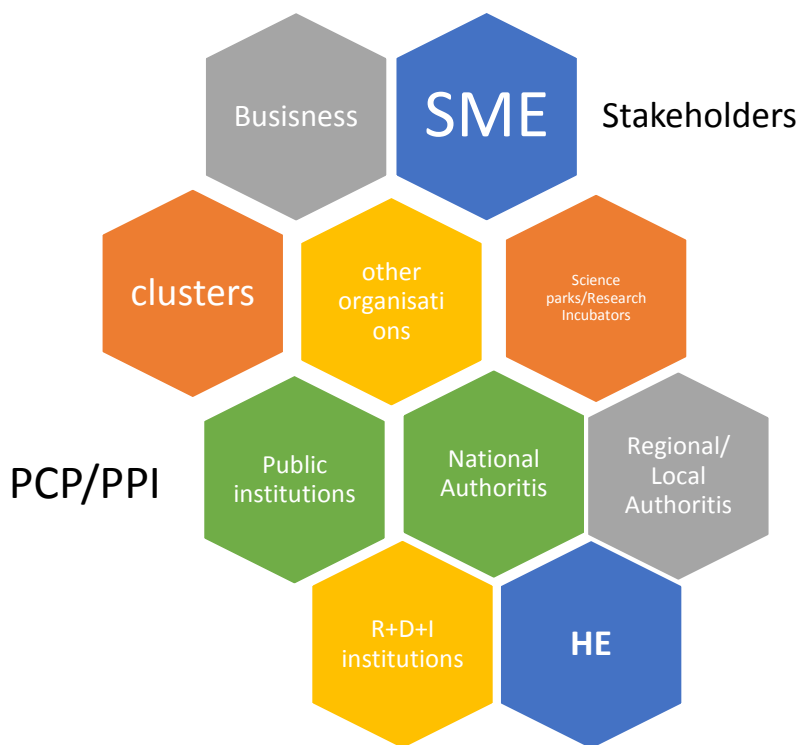
A communication campaign should be organized especially in the countries with PCP/PPI low participation / experience. Information Days, Trainings and Workshops are the key events which will not only provide information and knowledge but also promote PP and support networking between stakeholders.

Creation of iconographic and folders about PCP/PPI. Those publications should focus of innovative aspect, advantages of those kind of tenders etc.

Development in each country **communication matrix** with institutions names, responsibilities and reports for PCP/PPI stakeholders support example:

Institution name	PCP/PPI Portal	e-mailing list update	Social Media (Facebook/Twitter)	Newsletter
Responsible				
Responsible				
Responsible				

Stakeholders communication organisation



Communications Strategy Actions



The most important action is communication campaign. To maximize its effectiveness and sustainability it should be supported from institutions, regulatory frameworks, policy makers and political leaders. The Campaign Strategy is the process of identifying one or a few key issues; collecting information on target audience; using survey mechanisms; and learning what the target audience knows and does not know about the issues, how they feel about it and how does it effect on their opportunities and advantages for developments and business.

4.3 SMEs strategy

Purpose: innovative SMEs should know PCP and PPI.

Innovative SMEs' main needs are very often related to how to sell their new products/services on the market, finding customers and highlighting the benefits the new products/services can bring to end users. Such activities are usually very expensive, and companies have problems in obtaining funds from banks to enter in high risk, innovative markets.

The main positive effects on SMEs are: improving the exploitation of IPRs and R&D results; bridging the pre-commercialization gap for their innovative products and services; increasing economic growth and employment; speeding up time-to-market of innovative solutions.

Results:

- 1- SMEs are interested in such instruments: considering the difficulties for companies in entering new market segments with innovative products/services, also due to low economic possibilities, SMEs should be informed and made aware about how to exploit the opportunities offered by PCP/PPI measures;
- 2- SMEs become aware of opportunities and benefits offered by PCP/PPI: to convince companies in exploring the PCP/PPI opportunities and invest money/time in these measures, positive experiences and economic figures should be shown to SMEs;
- 3- Network time with contracting authorities: facilitating and improving the collaboration and dialogue between SMEs and contracting authorities (e.g. municipalities, hospitals, other public administrations) to reduce the cultural barriers and approaches that SMEs and the public sector usually have, which represent obstacles for the fully exploitation of such measures by SMEs;
- 4- SMEs learn from success stories applying PCP/PPI by other companies: direct and concrete best practices from SMES experiences are the most effective way to convince other companies in participating to PCP/PPI tenders.

How - actions:

1- Organization of meetings and events to inform SMEs about PCP/PPI: meetings and events should be organized to inform SMEs on how to exploit the opportunities offered by PCP/PPI, about the role of intermediary institutions, how they support SMEs in these procedures (how to prepare a good proposal and use properly the available funding), to show them best practices and cases from different countries/regions;

2- Set-up of PCP/PPI regional consulting points: PCP/PPI regional consulting points should be set up. Consultants and experts provide information about PCP/PPI generally, intermediary organisations and innovation agencies which could offer more specific support, initiatives and programmes at EU and national level;

3- Implementation of pilot actions with target SMEs in specific sectors: pilot actions should be planned to be implemented with target SMEs in specific sector to test PCP/PPI and evaluate the results; tested SMEs become a sort of training cases from which to learn;

4- Creation of a “manifesto” on PCP/PPI to be disseminated through communication channels and media: it’s recommended to create a “manifesto” on PCP/PPI to be disseminated through communication channels and media. It’s a theoretical document for companies as well as intermediary institutions, national and regional authorities, other interested stakeholders, that sums up the main aspects and characteristics of PCP/PPI, focusing on the objectives, benefits, long term perspective, etc.;

5- Definition of simple guidelines for tender procedures: the operational guidelines with instructions on how a call/tender must be prepared should be created. The purpose of this document is to guide and support contracting authorities in designing streamlined and SMEs friendly PCP/PPI procedures;

6- Organization of market dialogues/market days/networking moments to foster the collaboration and dialogue between SMEs and contracting authorities: to facilitate the collaboration between SMEs and contracting authorities there should be market dialogues, market days, networking moments where to exchange ideas and opinions, with the aim to bring SMEs’ needs closer to the contracting authorities, increasing awareness about the importance of achieving more efficient and effective public support for innovation and public services.

7- Realization and dissemination of articles and stories about PCP/PPI success stories and projects in SMEs media (e.g. industrial associations’ magazines): to maximise project’s impact and reach a large target audience of SMEs, dissemination of articles about PCP/PPI success stories and projects in SMEs media should be done. Industrial association magazines as well as other relevant journals of the

sector should publish news and share information about opportunities and best experiences on PCP/PPI.

8- Involvement of SMEs influencers/champions: the involvement of SMEs influencers and successful entrepreneurs in public events, meetings, roundtables, networking moments on PCP/PPI should increase the awareness on business opportunities created by PCP/PPI.

By who:

- Industrial associations;
- Intermediary organizations;
- Public administrations;
- Entrepreneurs and SMEs.

The above-mentioned actions should be undertaken by industrial associations, intermediary organisations, public administrations, entrepreneurs and SMEs as they are the main actors of the SMEs strategy. The recommended actions encourage dialogue, exchange of ideas and experiences, sharing of information with the purpose to inform and influence SMEs to participate in PCP/PPI.

Assumptions:

- Openness of public administrations;
- Transparency of public administrations;
- Strong links of intermediary organizations with SMEs.

To achieve the expected results the above-mentioned conditions (assumptions) must be guaranteed.

Public administrations should be opened to apply innovative tender's procedures that furthermore must be transparent in the publication, in defining regulatory provisions, evaluation criteria and selection procedure. Market dialogues between SMEs and contracting authority favour the awareness about the importance of efficient and effective public services for SMEs. There is also important to set up strong links between industrial associations and intermediary organizations on one hand and SMEs on the other to ensure the circulation of information and experiences about the opportunities these procedures are given to SMEs.

4.4 Intermediate organisations strategy

Purpose: Innovative SMEs know what PCP/PPI are

Intermediary organizations and innovation agencies, offering support services to innovative SMEs, are relevant actors supporting SMEs in participating in European PCP and PPI, with numerous positive effects for them: improving the exploitation of IPRs and R&D results, increasing economic growth and employment, speeding up time-to-market of innovative solutions and gaining leadership in new global markets.

Results:

1- Intermediary organizations have skills and competences about PCP/PPI to inform SMEs: considering PCP/PPI are topics still not well known, in order to inform and support SMEs about these measures, intermediary organizations should, firstly, train their staff with specific competences;

2- Budget/incentives for intermediary organizations' training on PCP/PPI: intermediary organizations, mainly if private institutions, can develop new activities and services if they get specific funds for them.

How - actions:

1- Management of SMEs expectations and talking of different companies: it is important to inform SMEs about PCP/PPI's features, what exactly means participating in the above-mentioned procedures, which benefits can companies get from participating according to their specific skills, technological offer and needs;

2- Participation to European projects, in order to get specific funds to develop activities (e.g. training courses, exchange of best practices) about PCP/PPI: it's recommended and necessary that intermediary organizations and innovative agencies follow and participate to initiatives and programmes implementing PCP/PPI at EU and national level, like Horizon 2020, Interreg Europe and national programmes, to get funds to take on concrete activities (e.g. training courses, workshops, exchange of best practices, peer learning activities) on PCP/PPI;

3- Lectures to train intermediary organizations' staff: specialized competences of the intermediary organizations' staff must be increased and updated at the same time through training courses and/or practical workshops on regulatory updates, European best practices and successful cases implemented by policy makers, public administrations, intermediary organisations and innovative

agencies. The aim is sharing knowledge, experiences, good practices to enhance institutional professional staff's skills;

4- Participation to training hold by external consultants who are involved in PCP/PPI services: adequate training courses and/or workshops addressed primary public administrations should be organized and hold by external consultants who are involved in PCP/PPI services; procedures for publications of calls and tenders need particular public administrations staff's skills that should be acquired and transfer through staff training (e.g. how to publish a call, information to be aware, common errors).

5- Preparation of a plan for CEO/managing director, highlighting economic and other benefits for their institutions in getting experienced on these measures: as talk about specific and new topics, it is recommended to draw a plan for institutions' CEO/managing director highlighting strengths and benefits for the institution in getting experience on PCP/PPI services. The respective CEO/director furthermore gets aware on how these benefits improve quality and efficiency of institutions' services. The plan in an illustrative way includes the examinations of the possibilities PCP/PPI offers, how to be integrated in the institutional existing offering, concrete benefits for the institution, measures necessary for the implementation.

By who:

- PCP/PPI experts and consultants;
- Universities;
- Intermediary organizations.

The main actors of the IOs strategy are PCP/PPI experts and consultants, universities, intermediary organisations and innovation agencies, which possess knowledge, competences and experiences to enable SMEs to concretely exploit the opportunities of PCP/PPI. These actors furthermore contribute to the improvement of innovative services on PCP/PPI. They can support SMEs directly in participating in European PPC/PPI enhancing their capacity to bring on the market innovative services and products and providing authoritative and essential reference contacts for companies to compete on international markets.

Assumptions:

- New/different role for intermediary organizations: the intermediary organizations will take on a new role dealing with innovative and specific themes like PCP/PPI which are not consolidated

throughout EU, offering support services to innovative SMEs in participating to PCP/PPI tenders. The intermediary organizations in this way increase their offer and competences;

- Request/willingness of SMEs to implement changes: the planned actions are based on the fact there is a specific request and necessity of participating in PCP/PPI from SMEs which are looking to enhance their competitiveness and growth. Although some difficulties innovative SMEs are facing in getting access to public procurement, it's important to involve, inform and train SMEs about PCP/PPI opportunities through pilot actions as well as dissemination and exploitation activities of project's results to reach many SMEs and increase their awareness and consequently their interest on PCP/PPI.

CONCLUSION

Private Companies and especially the Small and Medium Sized Enterprises are the driving force of every modern economies.

In many countries, public procurements are perceived as an obstacle rather than an chance and opportunity to develop a company and obtain additional or even main source of finance. Many companies do not even consider this topic due to the large bureaucratic issues and lack of information, trainings and official support.

Additionally PCP and PPI are neither widely distributed nor known, thus they are considered difficult and complicated. There is a lack of clear and consistent information on this topic, as well as special offices and dedicated websites that will provide information, understandably to a wide range of people.

The success of European Innovative SMEs will depend mainly on using many opportunities offered by the EU and national government institutions. One of these sources of financing are Pre Commercial Procurement and Public Procurement of Innovation. This is a challenge for every European Country and EU in general.

Analysis and recommendations that are the result of this project should be an indication of what steps should be taken to use those funds for benefit of all parties.

Adds:

Some practical hints, instructions and recommendations

Procurement of innovation: preparation

1. **Treat the process as a specific project:** The procurement process aimed at achieving innovative solutions may best be treated as a project, with clear objectives, a clear work plan, indicating tasks, timeframes and responsibilities, and allocated resources.
2. **Ensure you have high-level support for your project:** The more high-level support you have, the more you will be able to achieve and the greater the cross-organisational support you can expect.
3. **Ensure you have appropriate technical, legal and management skills within the project team:** A complex project requires specific skills to carry through effectively, for example, budget management, technical knowledge, etc.
4. **Involve the user:** To identify your real needs and to ensure that any new solution is successfully adopted, end-users must be consulted and involved at different stages of the process.
5. **Seek outside help if required:** Think about whether outside expertise could help to improve your outcome. Procurers cannot be expected to have detailed technical expertise on all products and services. For larger contracts it may be worth paying for external technical assistance right from the beginning. Government agencies may also be able to provide certain help and support.
6. **Consider how "attractive" a customer you are:** The bigger the potential contract, and also how important a customer the public sector is for the specific industry sector, the more interested suppliers will be in engaging with you and the better the offer you receive. If the contract amount is likely to be small, consider whether you can encourage other public authorities to join your action.

Early Market Engagement

4. **Identify and communicate your needs in terms of performance and function:** Working out what performance or result you are actually trying to achieve is a critical first step. Then communicating this to the market in a way which allows them to suggest the best, most efficient way to reach that result.
5. **Engage with the market to identify what is possible:** Companies themselves are best placed to know what potential alternative solutions exist, or are close to market readiness, because they are at the heart of developing new technical solutions. Finding appropriate ways to engage with the market, whilst respecting company confidentiality and ensuring transparency can greatly assist a procurer in knowing what is possible. Make sure to also look beyond your regular

suppliers and engage with small- and medium-sized enterprises (SMEs). Many of the most innovative solutions come from small sized companies.

6. **Give the market sufficient warning:** Companies need time to develop new solutions. If you indicate your needs far enough in advance of actual tendering (at least six months to one year), the likely response of the market will be considerably better.

Tendering and contracting

1. **Consider the full life-cycle costs of the product:** It is simple economics that you should not only consider the purchase price of the product but also the costs of operation (particularly energy and water consumption), maintenance and final disposal. Yet, this is still relatively uncommon amongst European public authorities.
2. **Use non-financial award criteria intelligently:** Giving sufficient weighting to factors such as energy efficiency (or ideally, actual CO2 emissions) when evaluating different offers is a good way to encourage the market to go as far as possible, whilst not risking significantly increased costs.
3. **Make your tender SME-friendly:** Many innovative solutions come from smaller, more creative companies. Make sure you are not excluding this potential market. Consider splitting tenders into lots or encouraging consortia to bid, in order to make the volumes manageable. Also try to make the administrative needs and selection criteria for bidding manageable for smaller, newer companies.
4. **Identify and manage the risks:** Buying innovative solutions will inevitably entail a certain amount of risk, whether technical or financial. It is important to carefully consider what those risks might be and to make sure that it is clearly defined who (the public authority or the supplier) is responsible for carrying that risk, and that this be clearly included within tendering and contract documents. A piloting phase can help to substantially reduce risk.
5. **Communicate your achievements:** If you find an effective new solution to your requirements, share this knowledge with other public authorities and the general public. This will not only help others, but also publicly demonstrate your commitment to innovation, and likely help drive down costs further for the future.
6. **Monitor the impacts:** Introducing an innovative solution will not end with the signing of the contract. You should monitor how users adopt the innovation and identify if further actions are required. This can also be a helpful lesson-learning experience for future procurement actions. Monitor performance: Monitor the performance of the solution both in economic terms and in resource consumption to identify deviations and apply, if necessary, the damages or penalties foreseen in the contract.

Support for innovation procurement: EAFIP

Through EAFIP (European Assistance for Innovation Procurement) the European Commission is supporting public authorities to sign more and better innovation procurements of ICT based solutions across the EU.

The EAFIP initiative focuses on promotion of the benefits of innovation procurement, as well as training and assistance to public procurers with a concrete interest in implementing innovation procurements of ICT based solutions across the EU during three years (2015-2017). It aims to promote the benefits of and best practices in innovation procurement across Europe to encourage public procurement innovative ICT solutions. More information: <http://eafip.eu/>

EU funding opportunities for PCP and PPI

Under Horizon 2020, the EU increases support for groups of public procurers who work together on innovation procurement through two different approaches: PCP and PPI.

More information on funding opportunities:

<https://ec.europa.eu/digital-single-market/en/news/calls-eu-funding-opportunities-pre-commercial-procurement-and-public-procurement-innovative>

This Design Option Paper was prepared
by the team of innPROCUR project