ENIGMA

ENLIGHTENMENT AND INNOVATION, ENSURED THROUGH PRE-COMMERCIAL PROCUREMENT IN CITIES

Report on PCP knowledge base

Deliverable 2.1

SEVENTH FRAMEWORK PROGRAMME

Public report
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About ENIGMA

The goal of the European-funded ENIGMA project is to bring radical improvements to the quality and efficiency of public services by supporting the development and validation of breakthrough solutions in the field of public lighting through a joint Pre-Commercial Procurement (PCP). The partners also aim to demonstrate how PCP can be used in a transnational context to tackle common city challenges across the EU and improve the quality of life of their citizens.

PCP

Pre-Commercial Procurement (hereafter PCP) essentially refers to the purchase of research and development (R&D) services by the public sector. It is triggered by procurers identifying the need to solve a socio-economic problem or challenge of public interest for which there is no solution available on the market yet. Accordingly, PCP is not concerned with the procurement of existing products or services on the market but with the R&D phase, which involves solution exploration and design, prototyping, up to the original development of a limited volume of first products or services.
The PCP instrument enables the commissioning of R&D services, under a staged competitive process, to allow the development of innovative solutions that meet the needs of a Contracting Authority. This approach is based on:

- Risk-benefit sharing according to market conditions;
- Competitive development in phases; and
- Separation of the R&D phase from deployment of commercial volumes of end products.

PCP has received much attention, particularly by policy makers as a tool to promote innovation. But from the perspective from practical implementation, there is still a lack of knowledge[1] and 'know-how'. Furthermore, the degree of understanding and experience on PCP still varies a lot across Europe[2].

This however, does not mean nothing is being done in regard to PCP. Over the past few years, PCP related initiatives have emerged in a number of countries around Europe. This has been made visible in the figure below which is shown on the Cordis website: PCP related initiatives.
In response to the positive reactions from the EU Council and Parliament on PCP, the Commission started in 2009 to support the establishment of networks of public procurers on PCP to promote awareness-raising and experience-sharing on PCP, as well as encourage cooperation among public procurers from different Member States in specific public sector domains that could lead to jointly implemented pre-commercial procurements. In 2011, the Commission opened also the first calls for proposals to co-finance consortia of public procurers that want to go one step further and really undertake a PCP together on a topic that is of interest to public procurers from a number of countries across Europe. Such projects, that receive EC co-financing for undertaking a joint cross-

[1] In part, this is indicated by a limited amount of documented cases, at least in scientific literature. Although the role of procurement in innovation has received much attention, PCP in particular are not extensively documented in scientific literature.
[2] European Commission (2011), Compilation of results of the EC survey on the status of implementation of pre-commercial procurement across Europe.

border PCP procurement, started beginning 2012. Examples of both type of projects can be found through this link.

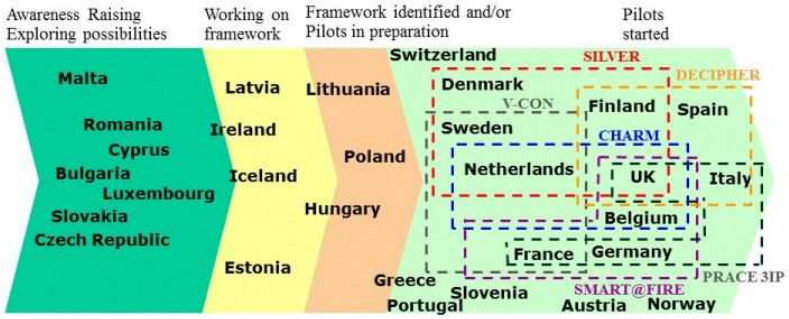


FIGURE 1: OVERVIEW OF INITIATIVES REGARDING PCP IN EUROPE

Many of the initiatives involve knowledge sharing and/or are aimed at disseminating the knowledge gained.

About this report

This report is the result of the task aimed at acquiring a PCP Knowledge base by bringing together information, experiences and other (practical) contributions from within the ENIGMA-consortium and outside.

Other projects and initiatives have resulted in PCP (or PCP related) processes have been designed for public procurement of innovations that ENIGMA can build on. Blending these projects' experience, outputs and developed procedures in this report will allow the ENIGMA consortium to coherently design and execute the required PCP.

The application of this generic PCP process task will gather all the existing experience and knowledge of PCP from both within the partners and from other sources and use this to synthesize a process suitable for use across European national boundaries. The results will be shared with all partners.

Approach and structure of report

The approach taken in this task followed three steps. The result are reported in a similar structure.

1. Inventory of knowledge base. This included searching for experiences and other (practical) contributions from within the ENIGMA-consortium and outside the consortium. These are summarized in chapter 1 of this report.
2. Labelling and selecting experiences and contributions. In an quick scan, the contributions were analyzed on the manner in which they can contribute to the design and execution of the ENIGMA PCP or other future (trans-national) PCP's. This is summarized in chapter 2.
3. Synthesizing the results. This included mapping the selected contributions. This is summarized in chapter 3.

Chapter 4 covers the conclusions and provides an outlook to other steps taken in the ENIGMA project.

1 INVENTORY OF THE KNOWLEDGE BASE

1.1 PCP RELATED PROJECTS AND INITIATIVES IN EUROPE

Projects undertaking cross-border joint PCPs	
CHARM	Common Highways Agency Rijkswaterstaat Model
SMART@FIRE	Integrated ICT solutions for smart personal protective equipment for fire fighters and first responders
V-CON	Virtual Construction for Roads
SILVER	Supporting Independent Living for the Elderly through Robotics
DECIPHER	Distributed European Community Individual Patient Healthcare Electronic Record
PRACE 3IP	Partnership for advanced computing in Europe 3rd implementation phase
C4E	Cloudforeurope
IMAILE	Focus: E-learning
THALEA	Focus: highly interoperable telemedicine-platform developed for detection of ICU-patients at increased risk
NYMPHA-MD	
UNWIRED-HEALTH	
PREFORMA	

Projects focusing on Networking / Awareness Raising related to PCP and PPI	
INSPIRE	
P4ITS	
RAPIDE	Bringing innovative products and services to the market more quickly
P3ITS	Intelligent transport domain
PROGR EAST	Government application domains for PCP

1.2 From the ENIGMA consortium partners

Consortium partners have– among others—been involved in the following PCP (related) projects.

Projects focusing on Networking / Awareness Raising related to PCP and PPI	
BLISS	BLISS stands for Better Lighting in Sustainable Streets. BLISS is a European project which was set up to achieve a reduction in street lighting energy consumption.
SPEA	
PROGR-EAST	Government application domains for PCP
LCB-HEALTHCARE	The Low Carbon Building Healthcare project is aimed at creating a European Lead Market Public Procurement Network to stimulate innovation for Low Carbon Building Solutions in the Health Service Sector.
CHARM	Common Highways Agency Rijkswaterstaat Model
SILVER	Supporting Independent Living for the Elderly through Robotics
V-CON	Virtual Construction for Roads
SBIR	SBIR stand for Small Business Innovation Research and is a Dutch programma that includes serveral PCP's.

1.3 Other

Below, several links are provided were more information on PCP and PCP related initiatives can be found. The Procurement Forum is managed by the European Secretariat of ICLEI- Local Governments for Sustainability, as part of the Procurement of Innovation Platform project financed by DG Enterprise and Industry – European Commission.

- PCP projects on cordis website (link)
- PCP initiatives (link)
- Procurement forum (link)

2 Labelling and selecting experiences and contributions

2.1 Guides

Several project have resulted in guides for executing a PCP.

Document	Comments
Pre-Commercial Procurement: Driving Innovation to ensure high quality public services in Europe.[3] (link)	This documents concerns a communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions. It provides a description of PCP, and discusses various rules and conditions that apply.
A practical guide to PCP[4] (link)	This guide is the result of the PROGR-EAST project and describes the various (preparatory) steps taken in a PCP.
Pre-Commercial Procurement for Intelligent Transport Systems A Guide for PCP Actors[5] (link)	This document is the result of the P3ITS project. Although the project focused on intelligent transport systems, the guide produced is generally applicable.
Forward Commitment Procurement (link)	Although not designed for PCP's, the FCP method has been applied in a number of (pilot) projects aiming at procuring innovation (e.g. PPI projects). The results of those projects are promising. There is special emphasis on the way the contracting authorities comes to an optimal procurement strategy which includes the identification of needs and market engagement.

2.2 Templates/documents

Various templates and tools have been made available through other projects.

Project	Comments
PROGR-EAST (link)	various templates including those for developing business cases for authorities.
SILVER (still to be officially published)	various templates used through the PCP process (notifications, specifications, etc.).
CHARM (link)	various templates or example documents used through the PCP process. (notifications, specifications, etc.).
LCB-HEALTHCARE / ECO-QUIP (link)	Examples of document that were used in the LCB-HEALTHCARE project, particularly for engaging with potential suppliers. (NOTE: not all are publically available)

2.3 Workshop materials

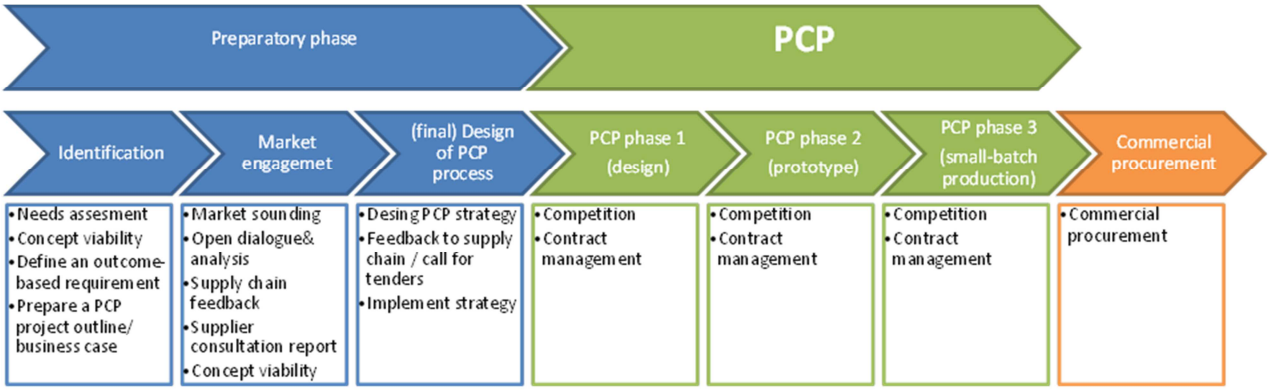
Several training sessions have been organized. Material and presentations have been made available through the ENIMA website (link).

[3] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0799:FIN:EN:PDF
[4] http://www.progreast.eu/files/PCP%20GUIDE.pdf
[5] http://ec.europa.eu/information_society/activities/esafety/doc/rtd_projects/fp7/p3its_handbook.pdf

3 Synthesizing results - integration of knowledge base

3.1 First steps in developing a generic PCP process

Below, an overview is presented in that incorporates the process overviews from the PROG-EAST PCP-guide and experiences from the LCB-HEALTHCARE project[6].



The picture emphasized the importance of preparation. A well prepared process is vital to success, and includes various steps. Furthermore, the preparatory phase is a phase in which the contracting authority/authorities are in close contact to potentials suppliers.

3.2 Integrating knowledge in the generic process

Below, an indication is provided on how the knowledge base is going to be used in developing and managing the PCP for ENIGMA. Subsequently, this knowledge base is used to develop a generic purchasing methodology, which is also one of the results of ENIGMA.

Identification

- Decision model on starting PCP (PROG-EAST , European Commission guide)
- Business case development (PROG-EAST, LCB-HEALTHCARE)

Market consultation

- PIN format (LCB-HEALTHCARE, SILVER)
- Consultation documents (LCB-HEALTHCARE, CHARM, SILVER)

Design of PCP process/implementation

- Proces format/examples (SILVER, SBIR)
- Contract format (SILVER, PROG-EAST)

[6] FCP was conceived and the methodology first developed by the Environmental Innovations Advisory Group (EIAG) established by Lord Sainsbury, then UK Minister for Science and Innovation, in 2003 (DTI, 2006) under the chairmanship of Dr J. C. Frost (OBE). The FCP methodology was further developed by the UK Department for Business Innovation & Skills (BIS), and in 2009 FCP was adopted in 2009 as the methodology for delivery of innovation procurement in pilot projects within the LCB-Healthcare Project.

4 Conclusions and future steps

- Although PCP has received much attention in the last couple of years, there is still a lack of knowledge and know-how on implementing PCP.
- Much knowledge is present within and outside the ENIGMA consortium.
- Integrating knowledge offers good opportunities in developing a suitable PCP process for ENIGMA and a generic process in designing/executing (transnational) PCP's.
- First steps have been taken and are documented in this report. Material has been made available through the (internal) ENIGMA website.
- Next steps of WP2 of ENIGMA aim at further developing an generic PCP process and PCP tools.