Innovative PROcurement techniques to support the GRowth of competitiveness for public services in EASTern Europe

ProgrEAST
Pre-commercial procurement

Draft PCP Manual
A practical guide to PCP Implementation for PROGR-EAST WP4 Pilots

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Table of Contents

This project has been funded with support from the European Commission under Seventh Framework Programme (FP7)

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Glossary

EEA: Economic European Area

EC: European Commission

ERAB: European Research Area Board

ERA: European Research Area

EU: European Union

CSA: Coordination and Support Action

CTT: Call to Tender

FP: Framework Programme

GPA: Government Procurement Agreement

ICT: Information and Communication Technologies

IP: Intellectual Property

IPR: Intellectual Property Rights

NHS English National Health Service

PCP: Pre-Commercial Procurement

PP: Public Procurement

R&D: Research and Development

RFEC: Regions for Economic Change

RTD: Research Technology and Development

SME: Small and Medium size Enterprise

TED: Tenders Electronic Daily

US: United States

WIBGI: Wouldn't It Be Great If

WTO: World Trade Organization

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Pre-Commercial Procurement - 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[1]:

(i) Risk-benefit sharing according to market conditions;

(ii) Competitive development in phases; and

(iii) Separation of the R&D phase from deployment of commercial volumes of end-products.

How does PCP work in practice? - In PCP a Contracting Authority issues an open Call for Tenders to compete to win a PCP Framework Contract. The Contracting Authority evaluates the received responses and awards contracts to several suppliers who will start addressing the given socio-economic problem posed by the Contracting Authority. Each winning supplier will start designing and exploring the feasibility of their innovative ideas in the first phase. On completion of this phase, a cohort of selected suppliers participates in a "mini-competition" to advance to the next phase. Each winning supplier develops their prototype in the second phase. Likewise, on completion of the prototype development, the cohort participates in another "mini-competition" to advance to the third and last phase where each winning supplier develops their small-batch production of products/services.

It is worth bearing in mind that PCP is focused *"on the development of new technologies and not on the development of incremental or transitional technologies. (...) In PCP the public sector is taking the initiative in order to get access to innovation to improve its operations and to solve major socio-economic problems for the benefit of society[2]"*.

Why a practical Manual on PCP?

Over the last couple of years PCP has received a great deal of attention and has been welcomed with enthusiasm by the majority of policy makers as a tool to further promote R&D and Innovation across Europe.

[1] EC communication COM (2007)799 and associated staff working document, SEC (2007)1668

[2] From: "Exploring public procurement as a strategic innovation policy mix instrument". OMC PTP EU Project (2009)

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Results from the surveys summarised in the PROGR-EAST country reports[3] reveal that the PCP concept is still new to most public procurers in PROGR-EAST target countries (Czech Republic, Slovakia, Poland, Hungary and Slovenia) and its practical implementation is often perceived as an unfamiliar procedure. In particular:

- the PCP process is still perceived as a risky practice by public procurers;
- there is a lack of experience on practical PCP implementation;
- there is a clear request from PCP stakeholders, especially from NMS, to be provided with more knowledge and practical examples on the PCP scheme and its application.

In recent years, the European Commission is concentrating more and more attention and interest on PCP issues and it has been investing considerable resources to encourage the use of PCP in Europe developing a policy framework and directly supporting several surveys, programmes, projects and awareness building and dissemination events.

In this context, the EU-supported Progr-EAST awareness-building initiative aims at introducing PCP to public authorities and stakeholders, specifically addressing targeted Eastern European countries: Czech Republic, Slovakia, Poland, Hungary and Slovenia.

The scope of this publication is to provide a supporting "hands-on" tool for policy makers and public procurers who want to start testing PCP in their respective countries and need a reference framework with practical guidance on how to establish and conduct a call for PCP. In particular, the publication aims at simplifying the efforts needed to set up a PCP process in these countries by:

- ✓ designing a structured PCP process flow organised in a step-wise manner, covering all the phases of the process from the identification of needs to the eventual commercial procurement;
- ✓ giving practical tips, examples and providing useful material and documentation for each phase of the PCP process;
- ✓ shedding light on some critical issues (e.g. IPR) that need to be well understood before starting any PCP process.

By decomposing the process into different steps and by detailing the specificities of each phase, the PCP procedure becomes less complex, less uncertain and easier to set up and implement and therefore more accessible to public procurers.

Who is this PCP Draft Manual for?

This PCP draft manual is mainly targeted at policy makers and public procurers in PROGR-EAST target countries that are looking for practical guidelines before setting up a PCP process in their respective countries, which is the purpose of the piloting in PROGR-EAST WP4. The purpose is to customise this

[3] "Country reports and cross analyses: assessment of literature review and interviews at national level" (Deliverable 1.1 Progr-EAST Project); "Compilation of results of the EC survey on the status of implementation of PCP across Europe (April 2011), EC DG INFSO"; "Feasibility study on future EU support to public procurement of innovative solutions" (Draft Interim Report produced by MBS, Technopolis Group, ICLEI, Covers Consulting. March 2011).

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manual to PROGR-EAST target country needs and specific constraints at the end of the PROGR-EAST project after the experience with the WP4 pilots and other feedback through PROGR-EAST country workshops has been collected. With this draft Manual, the procurer/contracting authority will be "accompanied" throughout the PCP process and provided with suggested solutions, practical examples, templates and useful documentation/material in order to render the process as simple as possible and to reduce (or eliminate) the perceived risks and uncertainty regarding the design and the practical implementation of a PCP process.

The Manual is intended as a practical guidance that brings knowledge to all stakeholders – including policy-makers, industrial representatives, technology suppliers - interested in PCP. Although it does not provide specific legal advice or a comprehensive treatment of legal issues when awarding a particular contract, the Manual introduces the PCP legal framework and presents key issues relevant to PCP.

How is the Manual organised?

To be a helpful tool, capable to throw light on the PCP procedure and render it functional and easy-to-use, the Manual has been structured into three major building blocks:

- Introductory section
- Practical approach
- Legal issues

In the Introductory section the reader is:

- introduced to the PCP concept, its role as a powerful demand-driven policy instrument to address societal challenges, its benefits and the differences with respect to traditional procurement. It is important to understand whether PCP is the right instrument to use, given the fact that it is an exceptional procedure and that most needs can be met through traditional procurement procedures;
- provided with knowledge on the basic Treaty principles and competition rules as explained in the EC Communication and Staff Working Document on PCP (although the procurement of R&D services are exempted from the EC public procurement directives[4], the European Commission has issued the above Communication and Staff Working Document to provide an example implementation in line with the EC legal framework);

The second section describes, in a very practical way, the step-by-step activities that a Contracting Authority can follow to enable the delivery of high-quality and cost-effective PCP activities to procure R&D services according to the EC recommendations. In the model proposed, the PCP process is organised in a step-wise manner, structured in 5 major steps, covering from needs assessment (prior to PCP) to commercial procurement (post PCP). In order to make procurers familiar with the PCP procedure and ease

[4] We refer here to the procurement of R&D services that meet conditions of the exemption under article 16f of Directive 2004/18/EC, article 24e of 2004/17/EC or article 13j of Directive 2009/81/EC.

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the path of testing PCP, the specific steps and activities within each phase are described in detail and practical tips, examples and useful material are provided.

The legal issues are presented in the last section; this section attempts to inform the reader about the legal aspects related to procurement and intellectual property that are critical in any PCP process (most of the uncertainty related to the PCP procedure is related to legal and IPR issues, so it is important to have these concerns clear and well settled before getting involved in a PCP initiative).

This draft PCP Manual is *work-in-progress*. The publication will be further enriched and updated with the feedback gathered in the Progr-EAST awareness-raising workshops and with the results of the PCP pilot projects simulations. The final version of the PCP Manual will be published by the end of the project.

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1 Background

Fostering Innovation via Public Procurement

Already in 2006 Viviane Reding, the EU Commissioner for Information Society and Media, declared *"Europe must create a commercial environment that encourages more rapid innovation and take up of research results. The public sector has massive buying power, but it needs the right incentives to share the risks as well as the benefits of investing in new technologies and services*[5]*."* In December 2007, beside the classic approach to public procurement, an EC Communication[6], introduced the concept and potential benefits of Pre-Commercial Procurement, which enables buyers to come together to share the risks and the benefits of pursuing novel services and products with the providers themselves. It is considered that such an approach could greatly contribute to stimulate innovation, increase investment levels and encourage the take-up of related R&D. The intention of the European Commission was to draw the attention of Member States to the underutilised opportunity of pre-commercial procurement and provide for possible implementation in line with the existing legal framework.

More recently, on 27 January 2011, the European Commission published a Green Paper on the modernisation of EU public procurement policy[7]. The publication represented the first formal step in a public consultation process which is intended to inform the Commission's drafting of legislative proposals for the revision of the current procurement Directives[8]. The Green Paper puts forward for consideration issues which the Commission has identified as the likely focus of a future reform of the legislation. These issues may be grouped around five broad themes namely: simplifying the rules; modernising procedures and redefining the scope of the rules; improving access to the procurement market; using public procurement as an instrument for other EU policy objectives; and tackling favouritism and corruption. A recent review[9] of the Green Paper has identified a number of significant opportunities and risks associated with the proposals. In particular, the Green Paper envisages the possibility of using public procurement as an instrument to achieve other EU policy objectives, and specifically the "Europe 2020" [10] goals, including the objective of fostering innovation. It should be noted that the use of public procurement to foster innovation is not a new concept. In fact, the current procurement legislation and related treaties are

[5] http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/373&format=HTML&aged=0&language=EN&guiLanguage=en

[6] Pre-Commercial Procurement: Driving innovation to ensure sustainable high-quality public service in Europe [COM (2007) 799 final]; SEC (2007) 1668

[7] Green Paper on the modernisation of EU public procurement policy: Towards a more efficient European Procurement Market COM(2011) 15/final.

[8] Directive 2004/17/EC coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors [2004] OJ L134/1. Directive 2004/18/EC on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts [2004] OJ L134/114.

[9] Review of the "Green Paper on the Modernisation of EU Public Procurement Policy: Towards a More Efficient European Procurement Market" by Kotsonis, T (July 2011) available at www.nortonrose.com/knowledge/publications

[10] Communication from the Commission of 3 March 2010 COM(1010) 2020.

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designed to promote such EU policy goals. And, it should be noted that under the current system, European Member States have made significant progress[11] in fostering innovation via public procurement.

A Focus on Pre-Commercial Procurement of Innovation

In many ways the Communications from the European Commission have served as an important catalyst in which PCP is positioned as "(…) *an approach for procuring R&D services which enables public procurers to:*

- *share the risks and benefits of designing, prototyping and testing new products and services with the suppliers, without involving state aid;*
- *create the optimum conditions for wide commercialisation and take-up of R&D results through standardisation and/or publication;*
- *pool the efforts of several procurers.*

By acting as technologically demanding first buyers of new R&D, public procurers can drive innovation from the demand side. This enables European public authorities to innovate the provision of public services faster and creates opportunities for companies in Europe to take international leadership in new markets. Reducing time to market by developing a strong European home market for innovative products and services is key for Europe to create growth and jobs in quickly evolving markets such as ICT[12]*".*

EU initiatives to boost Pre-Commercial Procurement

The European Commission is recently concentrating more and more attention, interest and resources on PCP issues. Since 2009 open calls for proposals have been launched (in RFEC and FP7 programmes) to support the establishment of networks of public authorities on pre-commercial procurement. These actions were intended 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. With Call 4/2009 of the ICT FP7 Work Programme the European Commission started supporting Coordination and Support Actions (CSAs) on Pre-Commercial Procurement (PCP) in areas of public interest related to ICT. Progr-EAST is one of these initiatives, mainly responding to the aim of creating public awareness on PCP approaches and stimulating the design and formulation of pilot actions following a PCP process in five New Member States (Czech Republic, Slovakia, Poland, Hungary and Slovenia).

In mid June 2010, the European Research Area Board (ERAB) held a conference in Seville where, among the recommendations led down to improve the European Research Area (ERA), it was clearly mentioned: (i) a fast track timeline for a full and widespread implementation of pre-commercial procurement of Research and Development (R&D), as a short term objective; (ii) the implementation of pre-commercial procurement of R&D around a few commonly agreed big projects, as a mid-term horizon (3-5 years); and finally, make results and risk-oriented funding of research and innovation projects the dominant criterion for R&I EC funding, on a long term perspective (5+ years), by reducing the fiscal burden on Research Technology and Development (RTD) labour

[11] This progress is illustrated in the document : Compilation of results of the EC survey on the status of implementation of pre-commercial procurement across Europe. April 2011. http://cordis.europa.eu/fp7/ict/pcp/pcp-survey.pdf

[12] Source: http://ec.europa.eu/information_society/tl/research/priv_invest/pcp/index_en.htm

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throughout Europe to a level comparable or even better than the main competitors (that is a full implementation of PCP principles[13]).

In 2010 & 2011 Calls for Proposals under FP7/ICT, FP7/capacities and FP7/security have been aimed to support public authorities in planning joint implementation of pre-commercial procurements. Call 7 with deadline on January 2011 allocated 6M euro for joint PCP projects in specific domains (services for mobile access to patient health info and robotics solutions for ageing well). A new call 8, with deadline in January 2012, reserves 3M euro for joint PCP projects in specific domains such as photonics based solutions to improve quality/efficiency of public services plus 5M euro for an open call for Networking and joint PCP in any domain of public interest (e.g. e-government, transport, energy, environment, security, health, etc.).

The 2012 FP7 Capacities - Research Infrastructures work programme (INFRA-2012-2.3.1) on the third implementation phase of the European High Performance Computing (HPC) service PRACE calls for a joint pre-commercial procurement with a view to develop, test and evaluate the required mechanisms for PRACE, increase the financial resources dedicated to HPC R&D in Europe, and ensure that European HPC procurement benefits the development of systems and software in Europe (call deadline: 23 November 2011).

The 2012 FP7 Security Research work programme (FP7-SEC-2012-1) calls for CP-CSA proposals to enhance the use of innovative technology for border surveillance. The call targets solutions for the pre-operational validation of "Common Application of Surveillance Tools at EU level" in order to provide the EU with an operational and technical framework that would increase situational awareness and improve the reaction capability of authorities surveying the external borders of the EU (call deadline: 23 November 2011).

Last but not least, the EC communication (COM(2011) 810 final) which presents a set of proposals laying down the rules for the participation and dissemination in Horizon 2020- the Framework Programme for Research and Innovation (2014-2020), dedicates several sections to pre-commercial procurement (article 35;article 39) as a new form of Union funding to address specific challenges in the area of research and innovation[14].

The experience arising from these initiatives have revealed significant early development in fostering PCP across the EU and Contracting Authorities across Europe have - over the past few years - accepted the challenge to innovate as procurers. Informed from this rich experience, this publication seeks to provide Contracting Authorities with a practical guide on how to design, deploy and evaluate their PCP initiatives.

[13] http://ec.europa.eu/research/erab/pdf/john-wood_en.pdf

[14] COM (2011) 810 final. Proposal for a regulation of the European Parliament and of the Council laying down the rules for the participation and dissemination in "Horizon 2020- the Framework Programme for Research and Innovation (2014-2020).

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2 What is Pre-Commercial Procurement?

Pre-Commercial Procurement (PCP) is an approach for contracting authorities to acquire research and development services (and related R&D results), with the purpose of steering the development of new innovations towards public sector needs, without committing to engage in a follow-up Public Procurement of the Innovative solutions (PPI) emerging from the PCP. This separation of a PCP from a follow-up PPI procurement is done on purpose, to de-risk costly large volume PPI procurements.

Public Procurement of Innovative solutions (PPI) has been recently defined as " the purchase of new or significantly improved goods and / or services, processes, etc. that are new to the public procurer and new in the Internal Market[15]". In a PPI procurement the contracting authority acts as "launching customer", that is the first customer to acquire newly developed commercially viable end-products for deployment.

Be aware that

PCP is essentially an "approach to procuring R&D services". It is triggered by procurers identifying the need to find a solution to a specification problem of public interest for which they cannot yet find "commercially ready or nearly-ready" solutions on the market and which requires significant amount of R&D investment (step-change innovations, not incremental adaptations) to get the solution developed. PCP projects are typically projects that relate to mid -to long-term public sector needs that would not be addressed by the private sector by itself without financial support from the public sector.

PPI is related to short- to mid-term needs, related to more incremental type innovations. In PPI typically significant public sector demand for deploying the products can trigger the supply side to invest itself in modernizing its production chain to deliver the required innovations.

The definitions in the World Trade Organization Government Procurement Agreement (WTO GPA) consider that as long as solutions are still in the phase of solution design, prototyping or first test series product development, they are not commercially ready as they are still under pre-commercial R&D. As a result, PCP *"(…) is a process by which public authorities can steer the development of new technologically innovative solutions from the early R&D stages to test series in order to best fit their needs[16]"*. In PCP, public procurers, as technologically demanding first buyers, share with suppliers the risks and benefits of valorising exploratory research up to the stage where it is ready for commercial take-up.

[15] DG ENTR 2011 CIP/EIP call for proposals on PPI
[16] Pre-Commercial Procurement COM (2007)799

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Legal framework for PCP

The main signatories of the WTO GPA have exempted public procurement of R&D services from both the WTO national treatment and non-discrimination obligations[17]. Pre-commercial procurement is an approach to procure R&D services that is, due to the application of risk-benefit sharing, also exempted from the public procurement Directives under the circumstances laid down by article 16 (f) of the public procurement Directive for public authorities (2004/18/EC) and article 24 (e) of the public procurement Directive for utilities (2004/17/EC): *"This Directive shall not apply to public service contracts for research and development services other than those where the benefits accrue exclusively to the contracting authority for its use in the conduct of its own affairs, on condition that the service provided is wholly remunerated by the contracting authority"*. It should be noted, however, that the single market rules and the fundamental principles of the EU Treaty are still applicable; in order not to distort competition, while sharing R&D benefits the contracting authority would have to respect the fundamental principles of the Treaty, treating suppliers equally in a non-discriminatory and transparent manner. According to the Community Framework for State Aid for Research, Development and Innovation, public procurement normally does not involve State Aid when conducted in a competitive and transparent way according to market conditions/at market price. In order to ensure that the risk-benefit sharing in PCP is done according to market conditions, any R&D benefit shared by the public purchaser with a participating company should be compensated by the company to the public purchaser at market price. This can be done through, for example, a price reduction that reflects the market value of the benefits received (e.g. IPR ownership) and the risks assumed (e.g. cost for filing and maintaining the IPRs) by the company.

As PCP concerns the procurement of R&D services and these services are excluded from the WTO Government Procurement Agreement, restriction of the tender to bidders from EEA countries or countries having signed a Stabilisation or Association agreement with the EU is in principle allowed. However, the fundamental Treaty principles do NOT allow restriction to bidders from a specific country or a specific region within the EEA or group of countries having signed a Stabilisation or Association agreement with the EU. Public purchasers can decide on a case by case basis on the degree of openness to worldwide offers and on the relevant conditions, taking into account the full potential of the European Research Area. Allowing companies from anywhere in the world to make offers regardless of the geographic location of company head offices or their governance structure would be an open and effective way for Member States to promote the creation of growth and jobs in Europe without excluding non-European firms. The procurement process could be organised so as to stimulate companies to locate a relevant portion of the R&D and operational activities related to the pre-commercial development contract in the European Economic Area or a country having concluded a Stabilisation and Association Agreement. However, the fundamental Treaty principles do NOT allow the contracting authority to require companies to locate activities related to the PCP contract in a specific country or a specific region within the EEA or group of countries having signed a Stabilisation or Association agreement with the EU.

[17] WTO GPA article XV

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Benefits of PCP

The major benefits of the PCP approach can be summarised in the following points[18]:

- **PCP is a mutual learning process for procurers**, **users and suppliers** to get firm confirmation both about the functional needs on the demand side and the capabilities and limitations of new technological developments on the supply side when it comes to tackling a concrete public sector problem. This co-evolution of demand and supply is crucial for innovation projects which are strongly R&D intensive in domains with very short life-time cycle, such as for example ICT.
- **PCP encourages the development of products that better meet procurers' needs**. By better steering the core feature set according to customer priorities, by assessing the performance of working prototypes and pre-product field tests in a real operational customer environment, procurers can prevent today's problems of buying off-the-shelf products which often include an array of costly features which are not really needed, while at the same time missing some critical capabilities. While the costs of adapting design at early stage R&D are limited, modifications at commercialisation stage that impact core product features can dramatically increase the overall risk of failure and cost of deployment of the final product as well as the time to market for suppliers.
- By offering procurers a deeper understanding of the technological capabilities and limitations of competing solution approaches from different suppliers, **PCP reduces the risk of miss-specified tender for the commercial roll-out** as well as the risk that big commercial roll-outs do not deliver on expectations.
- **PCP**, through a more open process of co-evolution, **shortens the time-to-market for the suppliers** that can better anticipate demand for new solutions and better align their product developments to fulfil concrete customer needs. Active involvement of interested public buyers from the early product development stages also enables public authorities to detect potential policy and regulatory barriers that need to be timely eliminated to ensure short time-to-market for innovating public services.
- Putting several suppliers in competition when developing solutions at the pre-commercial stage also contributes to ultimately **achieving the best product at the lowest price** by preventing some of the drawbacks of the costly projects with single suppliers that were sometimes supported by old state monopolies. By being better informed, procurers become less dependent on individual suppliers.
- Risk-benefit sharing between procurers and suppliers in PCP also means that **procurers obtain a lower cost (and less risk) deal compared to exclusive development contracts, due to lower**

[18] Source: Pre-Commercial Procurement: Public sector needs as a driver of innovation (2006) http://ec.europa.eu/information_society/activities/esafety/doc/esafety_2007/pre_comm_proc/june5/pre_com_proc_sept_2006.pdf

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development prices and licensing rights for the use of the developed solution in compensation of giving the IPR ownership rights of the R&D to the suppliers.

- The **risk-management techniques** applied in the PCP process **can** also **attract venture capitalists** looking for promising opportunities offered by SMEs involved in PCP projects. At the same time, support from the venture capital market makes it "safer" for the procurers that will buy from such SMEs. Finally, venture capital funding would give SMEs, which get a "first buyer" order, the financial stability to deliver on it.

Last but not least, PCP can contribute to support Europe 2020 objectives of growth and job creation since public procurers can organise the procurement process in a way that a relevant portion of the R&D activities related to the PCP contract is to be carried out in Europe (EEA or in a country with a Stabilisation and Association Agreement with the EU)[19].

PCP as a novel policy instrument to address societal challenges

The important aspect of PCP is that the purchase of R&D services through public demand aims not only at improving the performance and functionality of public services but also at solving important socio-economic challenges.

The public sector in Europe has traditionally supported innovation mainly through supply-side instruments such as research grants and other public support programmes rather than through procurement. It has been noted that in the European Union *"… the main area of neglect in recent years in R&D and innovation policy spheres has been demand-side policies[20] "*. Europe also suffers from a structural lower performance when it comes to transforming its publicly funded research outcomes into success stories of innovative products and services deployed in the public sector. R&D subsidy schemes are dedicated to academic and industrial research communities. In some cases, they may remain somehow disconnected from public needs and suffer from intrinsically lack of direct commitment of future public market buyers and lack of involvement of final users.

In this context, characterised by the real need for the European public sector to innovate the way public services are operated and to provide new added-value services, PCP is a novel demand-driven policy instrument that attempts to bring companies and government together to cooperate on innovative solutions for major societal challenges such as ageing, mobility, health care, transport, environment and the like.

Be aware

In order to address the above mentioned challenges, the EU public sector must "transform" a number of key sectors. In most cases, these transformations rely on the successful development and deployment of new technologically innovative solutions

[19] Commission Staff Working Document SEC (2007)1668 and "Info & Networking Day. PCP Actions in FP7-ICT-2011-8". October 24th, 2011. Presentation by L.Bos

[20] European Commission (2003) Raising the EU R & D Intensity – Improving the Effectiveness of the Mix of Public Support Mechanisms for Private Sector Research and Development

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that	that can enable improved public service delivery at reasonable costs[21].

EU Governments have therefore a fundamental role to play: on the one hand (at a "regulatory" level) they must ensure fair competition and transparency; on the other hand, they must stimulate innovation allowing public organizations in their purchasing role to exploit core competences of European firms, boost their innovation strengths and build up capacity to respond to the new socio-economic challenges resulting in efficient service provisions. In other words, the goal for public procurers in Europe is to become technology demanding first buyers and support EU innovative companies in developing new solutions and new market opportunities.

How does PCP differ from conventional off-the-shelf procurement?

In both cases, open, fair and transparent competition is used to obtain a best-value-for-money commodity and/or service that meets a Contracting Authority's clearly defined need. Conventional off-the-shelf procurement deals with obtaining a supply of a commodity or service from a supplier's catalogue which is already available on the market. Because the commodity or service is available, conventional procurement is mainly concerned with short-term tactical purchasing considerations such as low cost, short-term quality and value aspects. In contrast, PCP is a method to make available a service and/or commodity that does not exist in the market. PCP will most often be used strategically by forward-looking central or local government agencies as a mechanism to develop new, step-change innovations that meet important mid-to-long term service delivery (service quality and/or efficiency) requirements.

Is PCP subject to the procurement rules?

As a general rule, public authorities must comply with the procedural rules set out in the EC public procurement Directive 2004/18/EC[22] which apply to nearly all public purchases. However, there are exceptions to these rules and PCP is one of them according to article 16f of Directive 2004/18/EC, article 24e of 2004/17/EC or article 13j of Directive 2009/81/EC which states that the EC public procurement directives do not apply to *"research and development services other than those where the benefits accrue exclusively to the contracting authority/entity for its use in the conduct of its own affairs, on condition that the service provided is wholly remunerated by the contracting authority/entity[23]."*

PCP falls under the above exemption since it is an approach for procuring R&D services where the contracting authority does not acquire exclusive IPR rights to the development and as a consequence pays a market price for the R&D which is below exclusive development cost. Accordingly, the Contracting Authority is not obliged to comply with the strict requirements of the public procurement rules in commissioning innovation. This means in practice that the contracting authority can use a customised,

[21] Adapted from: Pre-Commercial Procurement: Public sector needs as a driver of innovation (2006) http://ec.europa.eu/information_society/activities/esafety/doc/esafety_2007/pre_comm_proc/june5/pre_com_proc_sept_2006.pdf

[22] Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts.

[23] Ibidem

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light, fast procurement procedure that can be tuned to the innovative needs of the project (e.g. in terms of defining award criteria etc.)

However, unless the value of a particular contract is very modest, contracts for the PCP should nonetheless be awarded by means of a competitive tender process, in line with the principles which emanate from the European Community (EC) Treaty, including those of transparency, non-discrimination and equal treatment.

Undertaking such a process should generally also ensure that the contract is awarded on market conditions and that in principle, therefore, it is unlikely to involve State aid, such as an over-payment or some other form of selective benefit not normally available under market conditions.

If the award of the contract involves State aid, it would be necessary to ensure that such aid is compatible with EU State aid rules before granting such aid. This would normally require prior notification to the European Commission for authorisation.

Be aware that

Pre-commercial procurement essentially refers to the procurement of research and development (R&D) services that seek to explore, test and develop new solutions to specific needs that may ultimately lead to the development of new products or services. By using PCP, Member States support innovation, improve public services and address socio-economic challenges. However, this approach is not the only one to promote the procurement of R&D and innovation. Other procurement procedures that Member States can use to support innovation are, for example, the forward commitment procurement or the competitive dialogue. Compared to PCP, the FCP procedure or competitive dialogue involve shorter term more incremental type innovation, as they do not include paid R&D work (R&D work is not procured/paid by the contracting authority as in PCP)[24].

What are the basic principles of a compliant PCP process?

There are no specific rules on how to achieve the commissioning of research and development services that meet the conditions of the exemption to article 16f of Directive 2004/18/EC, article 24e of 2004/17/EC or article 13j of Directive 2009/81/EC. However, the European Commission has issued a communication

24 Forward Commitment Procurement is a procurement model which looks at purchasing from the outcome based specification need instead of purchasing for the immediate perceived need. It addresses the common stalemate where organisations require products or services that are either not available or are at excessive cost. By using this model it alerts the market to the procurement need and offers to purchase the solution, if the needs are met, once they are available, at an agreed price and specification. This provides the market pull to create the conditions needed to deliver innovative, cost effective products and services and unlocks investment to deliver the requirement. Source: http://www.bis.gov.uk/policies/innovation/procurement/forward-commitment. Competitive dialogue is a procedure for "particularly complex" projects where the contracting authority is not capable of formulating the technical means or which of several possible solutions would best satisfy their needs. The use of Competitive Dialogue can also be justified when they are not able to specify the legal and/or financial make-up of a project. Source: Exploring Public Procurement as a Strategic Innovation Policy Mix Instrument. EU Project OMC-PTP (2009).
For an overview of the procurement instruments available to public procurers please see Appendix 5 where PCP is positioned in a comparative matrix vis-à-vis other procurement methods. An interesting overview of alternative procurement procedures can be found in: "Exploring Public Procurement as a Strategic Innovation Policy Mix Instrument." EU Project OMC-PTP (2009), Chapter 4 (pages 47-64).

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and staff working document[25] in which it provides an example implementation to help Contracting Authorities devise PCP procurement processes compliant with EC Treaty principles, competition rules and the international WTO government procurement agreement.

The following guidelines would generally assist Contracting authorities in ensuring that the PCP is in line with the EC Treaty principles.

a. Advertising the contract

It is in the interest of the Contracting Authorities and suppliers alike to ensure that Invitations to Tender (which in the case of PCP could be called "PCP Call for Tender", in short "PCP CT") are advertised in a manner that attracts significant interest from suppliers in the market, as this will help to ensure compelling submissions. Enhancing accessibility of contract advertisements would clearly enhance further the transparency of the advertising process; to this end, procurers should seek to post their PCP Call for Tender via TED (Tenders Electronic Daily), which is the official online version of the 'Supplement to the Official Journal of the European Union', dedicated to European public procurement.

Be aware that

As a general rule, advertisement of public contracts should be done as widely as potentially interested suppliers can be expected to be located across the EEA. For public contracts exempted from the public procurement directives, depending on the topic of the contract and on the country's specific rules, contracting authorities decide on a case-by-case basis the width of the publication. PCP, by definition, does not target local public sector needs specific to a limited local customer base, but public sector needs of common interest to other public procurers around the EEA (the wide commercialisation potential is exactly the reason why suppliers accept to give the contracting authority in PCP a financial compensation for keeping the IPR ownership rights and why PCP falls under the exemption of the Directives). Therefore, potentially interested suppliers for PCP can be expected to be located all across the EEA and publication of PCP tenders should target suppliers EEA-wide in order to attract as many good quality bidders as possible and to have a broad outreach to ensure that the largest number of interesting solutions to solve the problem is envisaged.

The advertisement of PCP contract opportunities through the Official Journal of the European Union using the TED website in at least English would be therefore an adequate means of publicising such opportunities for the purpose of complying with the EC Treaty principles.

With regard to the content of an advertisement, this should describe the contract and provide all relevant information that a party would (reasonably) require in order to be able to determine whether the

[25] The purpose of COM/2007/799 and SEC/2007/1668 is to inform contracting authorities about underutilised possibilities in the existing legal framework (not new legislation)

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advertised opportunity (e.g. in terms of its nature, scope or value) is likely to be of interest to them. The Contracting Authority should also inform interested parties how many, or up to how many, contracts it intends to award with regard to the requirement in question. The advertisement should also include information about the tender process which the Contracting Authority will follow in awarding the contract. Alternatively, this information may be made available subsequently to all parties which express an interest in the contract, in response to the advertisement.

b. Devising an evaluation mechanism for participating in the competition

The award of PCP contracts must be based on award criteria which are objective and relevant in view of the subject-matter of the contract. In other words, the award criteria must relate to the Procurer's contract requirements. In addition to price, the award criteria, may, for example, take into account three dimensions[26]: Quality, Implementation and Impact.

In particular:

- Quality refers to the ability to address the problem posed in the tender; the novelty/innovativeness (progress beyond the state-of-the-art) of the proposed solution approach; the technological soundness of the concept;
- Implementation refers to the quality and effectiveness / appropriateness of the proposed R&D work plan and allocation of resources;
- Impact refers for example to the added value for society/economy, the soundness of the commercialisation plan of the bidder.

The Procurer must also decide beforehand the maximum number of offers it wishes to award PCP contracts to (e.g. a minimum of five and a maximum of eight parties which achieve the highest "pass" mark). Generally, a minimum of four (if available) should be sufficient to start PCP phase 1 to ensure adequate competition along the three PCP phases.

Be aware that Whichever specific implementation route the Procurer decides to take, it must publicise the award criteria and details of the evaluation process to interested parties accordingly so that they know how many parties are expected to be awarded a PCP contract and on what basis parties will be evaluated.

c. The tender process

Issues that would need to be addressed in devising a tender process, and which should be disclosed to interested parties, include:

i. use of appropriate time-limits for responses

ii. the selection process (if the Procurer decides to have one)

[26] Adapted from: Info and Networking Day. PCP actions in FP7-ICT-2011-8. October 24th 2011. Presentation by L.Bos

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iii. tender evaluation

iv. contract award

Any selection (short-listing) process should be distinct from the tender evaluation process. The former aims at determining the ability of interested parties in undertaking the contract whereas the latter aims at examining the merits of an offer. Accordingly the two processes must remain distinct.

With regard to **time-limits**, a reasonable period of time should be permitted for the purpose of allowing parties to express an interest in the competition. Similarly, the time-limit for the preparation of tenders must be reasonable, in view, for example, of the complexity of the contract and type of information which short-listed bidders must provide.

Be aware that

In inviting (short-listed) bidders to submit tenders, the Procurer must make available to them relevant information, such as the issues which they would need to address in their tenders, the terms and conditions on the basis of which the Contracting Authority would wish to contract, and the award criteria on the basis of which tenders will be assessed.

As discussed above, essential terms and conditions - for example, such as which intellectual property rights and licenses to use results generated during the project will be allocated to the suppliers or the Procurer (or some other public entity) should have already been disclosed when advertising the contract, as these issues are likely to be relevant in allowing interested parties to determine whether they would wish to express an interest in the competition. Such information would also be relevant during tender preparation, as it would have an impact on the bidders' formulation and pricing of their tenders.

With regard to the **award criteria**, these must be linked to the subject matter of the contract. Also, disclosure must extend to all factors which would be taken into consideration by the Procurer in evaluating tenders and whose disclosure is likely to have an impact on bidders' preparation of tenders. This is likely to mean that weightings of criteria as well as sub-criteria, if any, must be disclosed, unless the evaluation methodology to be employed consists only of certain criteria which cannot be accorded weightings for objective reasons, in which case these may simply be disclosed in descending order of importance.
The Procurer may allow interested parties or bidders to seek clarifications regarding the tender process or its requirements. The Procurer may specify a period within which such clarification requests may be made. Any clarification sought by one party which is likely to be of interest to all other parties should be disclosed so as to ensure that a level-playing field is maintained.

The following section provides an overview of how to run PCP in practice. Public procurers might be concerned about potential mistakes they can make when procuring R&D services and this leads to reluctance in applying the new procurement method. A practical example of a PCP process compliant with the EC legal framework is illustrated hereafter in detail in order to "demystify" the procedure and make it accessible to all procurers.

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3 How to Implement PCP

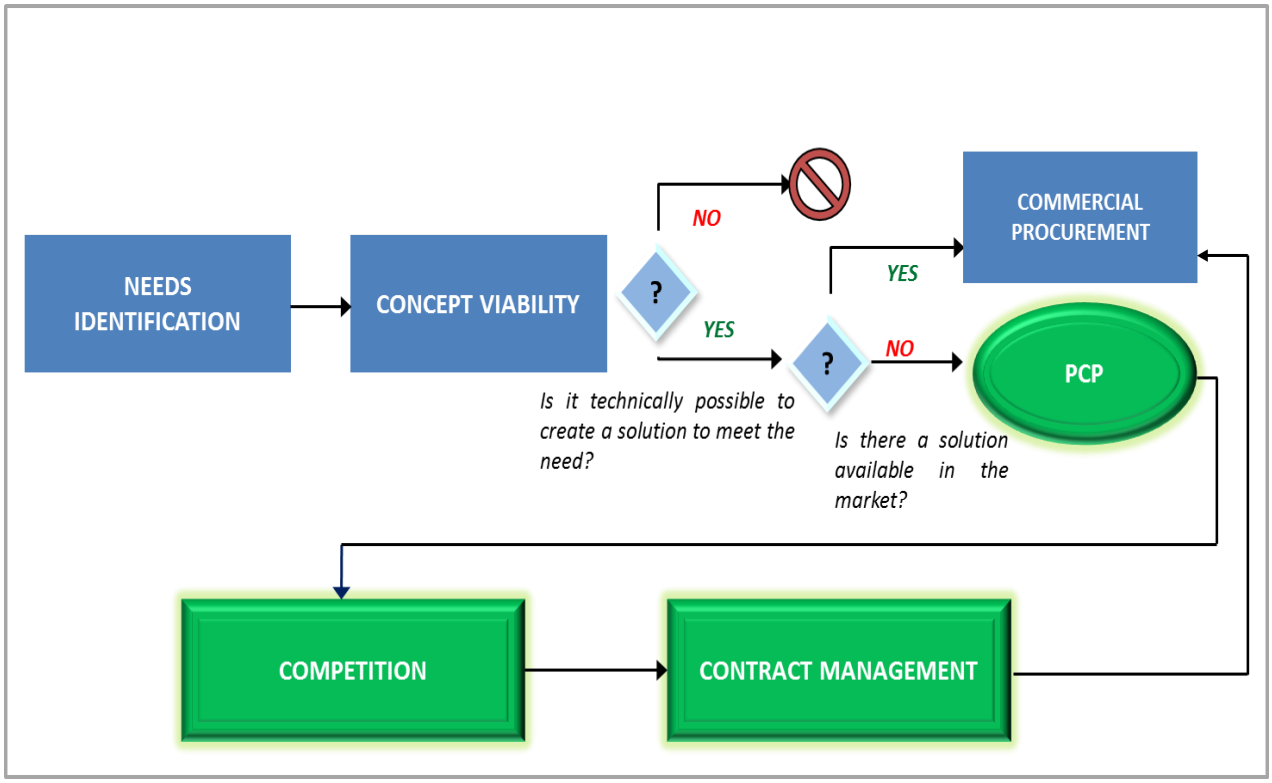
This section provides hands-on information and guidance on how to set up and run a PCP process in practice. An example of a PCP process compliant with the Commission's legal framework has been streamlined in a process flow and structured in several steps. The proposed PCP process is illustrated in a very practical way and describes step-by-step all the activities that a Contracting Authority can follow to enable the delivery of high-quality and cost-effective PCP activities to procure R&D services according to the EC legal framework.

The pathway of PCP: a step-by-step process

For the purposes of this Manual, we have outlined a process for PCP that is practical, achievable and compliant with the EC legal framework. The proposed PCP process has been structured in 5 major steps (Figure 1):

1. Needs Identification
2. Concept Viability
3. Competition
4. Contract Management
5. Commercial Procurement

Figure 1 Procurement pathway overview



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In deploying the above PCP process, a Contracting Authority may run its own competition or it may decide to aggregate demand with other Contracting Authorities to run a single, collaborative competition.

Within the flow-chart, the "core" steps of the PCP process are "Competition" and "Contract Management". "Needs Identification" and "Concept Viability" are essential "preparatory" steps to the PCP process. They deserve special attention since failure to: i) identify the need; or ii) assess whether it is technically possible to create a solution to meet that need; or iii) check whether the need can be met with products/services already available in the market or so close to the market that no R&D but only incremental/integration type development is required, might compromise the success of the PCP initiative. The subsequent commercial procurement is included in the flow to have an overall picture of the whole process.

Be aware that

Everything starts with a 'need'. If a need can be met with products and/or services on the open market, then the procurer should opt for traditional procurement; however, if a product and/or service is not available on the open market and R&D is required, then it might be possible to use PCP to develop a solution to meet the need. Successful outputs from PCP are then able to enter the open market and be bought via traditional procurement.

Figure 2 here below provides a more detailed picture of the PCP process, where main PCP phases of Design (phase 1), Prototype (phase 2) and Small-Batch Production (phase 3) are marked in green. Specific steps of activity are indicated for each phase, and throughout the entire pathway, evaluation and dissemination are represented as constant activities essential to the process. These steps are discussed in more detail below.

Needs Assessment (now comprising the two steps of Needs Identification and Concept Viability) and the subsequent commercial Procurement are illustrated as the starting and concluding steps of the procurement pathway, to have an overall picture of the whole process.

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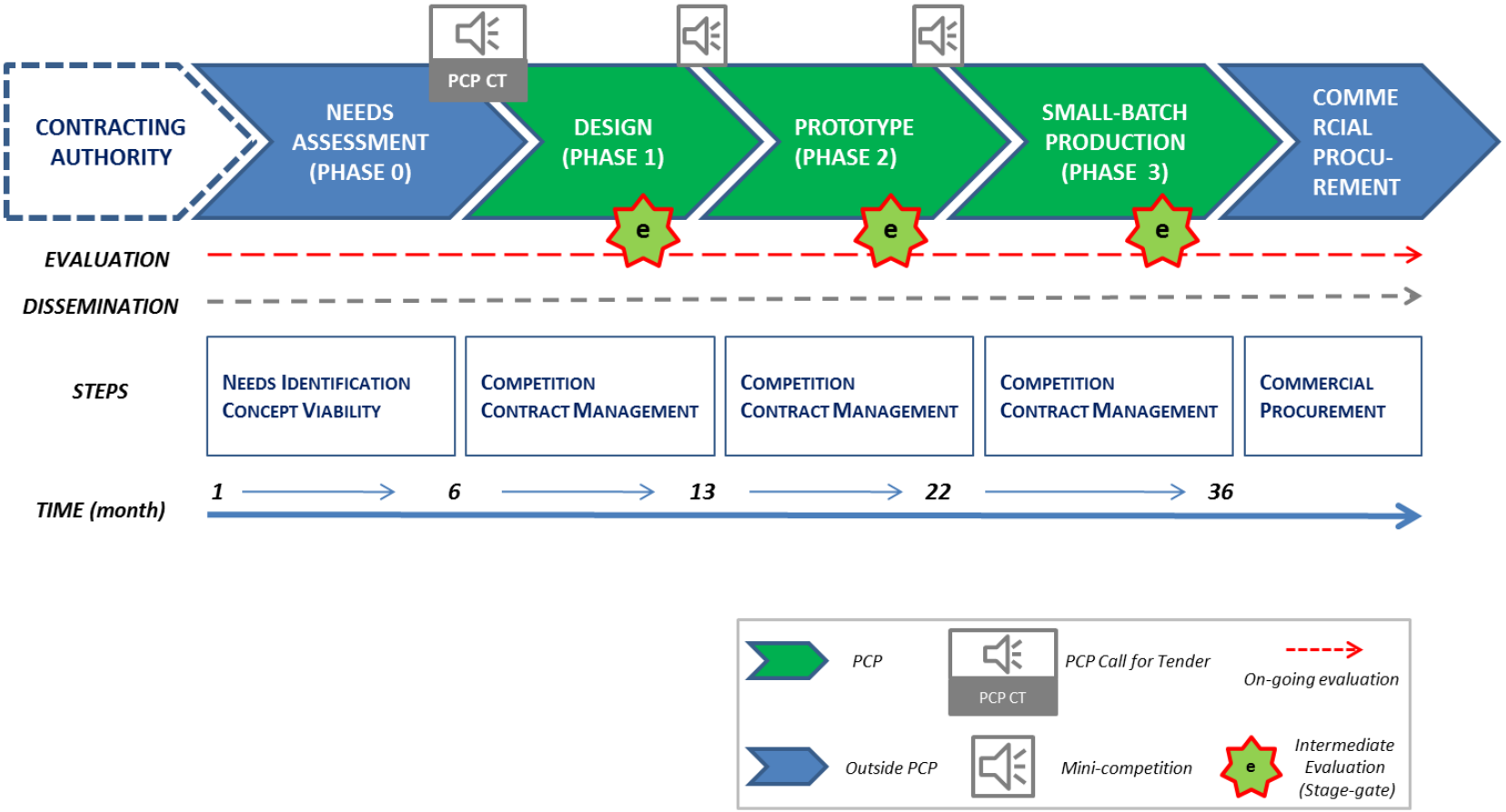
Figure 2 PCP in detail



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As the above diagram shows, at the beginning of the PCP, a PCP Call for Tender (PCP CT) should be issued by the Contracting Authority. The PCP CT will result in a framework contract that will enable a cohort of suppliers to advance through all the three phases. Note that "mini-competitions" are used to select which suppliers advance from phase 1 to phase 2, and then from phase 2 to phase 3.

The time allocated for each phase in Figure 2 is indicative. If it is possible to speed-up the process without putting at risk the development of solutions, then the procurer should plan for this.

Resource planning for the PCP

To ensure that a PCP is properly resourced, a Contracting Authority should know in advance of each PCP the likely: (i) duration; (ii) cost and iii) number of suppliers needed for each phase. The Concept Viability step should provide outputs to enable Contracting Authorities to calibrate a PCP appropriately.

The PCP process outlined herewith seeks to create a sense of competition between suppliers throughout each of the three PCP phases. This is achieved by establishing a single cohort of suppliers in phase 1, and this cohort competes to advance to phase 2, and then the phase 2 cohort competes to advance to phase 3. Only suppliers present in phase 1 can advance to phase 2, and only those present in phase 2 can advance to phase 3. Ultimately, the Contracting Authority should seek to have at least two successful solutions able to enter the market. The exact number of suppliers needed for the initial phase 1 cohort is context-specific. For example, if the technical challenge is very difficult, or the sector is very prone to low start-up innovation type success rates, then there is likely to be a number of suppliers not able to progress due to failure. If it is likely that the need can be met rather easily by suppliers, then the Contracting Authority may decide to reduce the allocated time for each phase; and, they may also choose to reduce the number of suppliers contracted to deliver in each phase. In contrast, if the need is very challenging and complex, then the challenge to suppliers may be significant. In such circumstances, and in order to reduce risk, the Contracting Authority may choose to lengthen the allocated time for each phase and also to increase the number of suppliers contracted to deliver in each phase.

Be aware that

The requirements and the functional specifications can get more detailed and complicated when advancing from one phase to the next; and, at the same time that the complexity increases, the resources requirements - in terms of time and money - also increase. Therefore, the information requested in the PCP Call for Tender and award criteria must be sufficient to enable the evaluators and the Contracting Authority to make informed decisions as to which suppliers should advance to the next phase.

In order to estimate the overall amount of resources that can reasonably be spent on the PCP, the Contracting Authority should create a **Business Case** before starting a PCP to answer the question: *"What percentage of the estimated economic value that the innovation can bring to the public authority – in terms of cost saving and/or public service quality improvement - can the public purchaser afford to spend on the development of solutions that are*

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needed to realize this innovation, given the R&D risk of that particular project and the time it takes for the R&D trajectory[27]*? "*

Be aware that

Risks represent the possibility that things will not go as expected. Such a possibility is inherent in any project – whether PCP or not. The level of risk is exacerbated by factors such as the size, the complexity, the novelty and the type of project, the cost and the length.

Thanks to the Business Case, a Contracting Authority can check in advance whether the PCP is an affordable, viable, value-for-money initiative. It will also have an overview of the potential risks the PCP project might incur on and how these will be managed.

Be aware that

The aim of a PCP exercise is to work fully within EU Competition Law to enable the rapid development of innovations likely to meet needs. Therefore, the time, budget and human resource requirement needed for each competition should be calibrated against the requirement.

Useful resources

Contracting Authority's Business Case Template for PCP (see Appendix 4)

The following is a numerical example to show the distribution of resources among the three different phases, according to the minimum number of competing suppliers required at each stage of the competition, taking into account that each phase becomes more complex and costly.

Example

Supposing that the Procurer has concluded from the above business case analysis that he has a total budget of 600K€ for financing the R&D work to be undertaken in the PCP, if the minimum number of suppliers at the end of phase 3 is 2 in order to ensure competition in follow-up commercial procurements after the PCP is finished, going backwards the minimum number of competing suppliers for phase 2 will be 3; and, following the same reasoning, for phase 1 the minimum number of suppliers will be 4. Similarly, as the assignment becomes more complicated and costly as the PCP progresses, the procurer might want to allocate 100K€ to phase 200K€ to phase 2 and 300K€ to phase 3. As a result, we obtain the maximum budget that each supplier might get in the different phases. The contracting authority should then check whether these maximum budgets per supplier, that result from the division of available budget over the number of phases/number of suppliers, are realistic in view of the complexity and duration of the R&D work that is required in each phase to get the desired innovative solutions developed. Such forward planning helps Contracting Authorities to ensure that

[27] Commission Staff Working Document SEC(2007)1668 p.5

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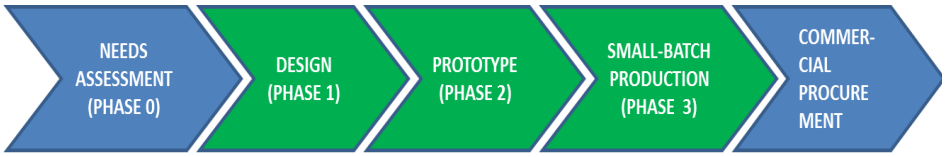
PCP activities are properly resourced from beginning to end.

Figure 1 Example



Minimum number of suppliers to ensure competition	*4*	*3*	*2*
Budget (total)	*100 K€*	*200 K€*	*300 K€*
Max. Budget/supplier	*25 K€*	*66.6 K€*	*150 K€*

Please note that the data shown in the figure are to be regarded as minimum budgets for financing a PCP. Typically, in the United States, phase 1 contracts amount to $200K per supplier, phase 2 contracts $500K per supplier, and phase 3 contracts $700K-1M per supplier.

In the following pages, single steps of the procurement pathway and especially the ones associated to each PCP phase are illustrated in more detail.

Step 1: Needs Identification

Everything starts with a clearly defined need. In order to define a need, a Contracting Authority may use a number of formal approaches, including:

- Literature review of scientific, technical and policy publications
- Expert Opinion
- Focus Group Research
- Key Informants interviews, including service end-users

Example

An interesting example on how to define needs comes from the English National Health Service. This process is informed by structured 'Wouldn't it be Great If...(WIBGI)' workshops involving clinical teams from NHS healthcare settings. During a WIBGI workshop, an expert facilitator works with the clinical team to identify, validate and rank-order their perceived clinical needs. The list of needs should be rank-ordered in terms of importance (e.g. in terms of the size, scale and cost of the problem).

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Practical Case

Practical case from the NHS (UK): "Managing the blood donating service efficiently"

The NHS Blood & Transplant - the body in the UK who manages the Blood Donating Service – had a problem in delivering this service efficiently: every day over 300 blood donors fainted during the process, turning them from a donor into a patient. The treatment of these patients was complex because the ideal position for blood donating is the exact opposite of that for treatment of fainted patients, and treating these patients impacts on the other waiting donors. The NHS Blood & Transplant organised a Wouldn't it be Great If...? seminar to capture the true need. The outcome of the seminar was that the un-met need was therefore for a blood donating chair which could rapidly be converted to a recovery position bed. After 7 years of failed procurement using conventional procurement methods, the NHS Blood & Transplant - follows a methodology to identify and define the need and inviting proposals for concept solutions - got the solution within only 16 months of project commencement.

Source: BaxiPartnership (UK). Contact person: Brian Winn brian.winn@baxipartnership.co.uk

Useful resources

More information on 'Wouldn't it be Great If...(WIBGI)' workshops. UK National Health Service (www.nhs.uk)

Step 2: Concept Viability

The purpose of this step is to assess whether it is technically possible to create a solution to meet the needs identified in the first step. A way to do this is to cross-check the contracting authority's needs identified with the state-of-the art of industrial development by (1) performing a market/patent search, and/or (2) sharing the identified needs with industry with the purpose of conducting a concept viability exercise.

For each identified need, the concept viability exercise might result in three possible alternatives:

i. There is technology already available in the market that can meet the need. In this case traditional off-the-shelf procurement is used.

ii. There is no technology available yet in the market that can meet the need, but the Contracting Authority's horizon scanning activities generates evidence that it is likely that there will be soon or that it could be soon if industry were aware of this requirement and aware that there is a substantial public sector customer base that is interested to start procuring those products. In this case, the Contracting Authority may choose not engage in a PCP competition, but rather publicise the need to enable the current market to respond with commercial offers. In addition, the Contracting Authority may wish to further strengthen market pull by deploying a Forward Commitment Procurement exercise. This type of procurement commits the Contracting Authority to purchase innovative solutions if the market can deliver a new innovative solution against clearly defined requirements in a specified time frame (typically 6 months to 1 year).

iii. There is no technology available yet in the market that can meet the need, and the Contracting Authority horizon scanning activities do not generate any evidence to indicate that there will be soon or that it could

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be soon if industry where aware of this requirement, but the horizon scanning activities indicate that there is still R&D needed to define/experiment with the technological and financial viability of various solution approaches that could potentially be used to address the need. In this case, where innovations can only be expected in the mid-to-long term and experimentation is still needed to check in how far the Contracting Authority's functional/performance requirements can realistically be met by solution providers, the Contracting Authority may choose to engage in a PCP competition to procure the R&D needed to get the desired innovative solutions developed and compare alternative solution approaches on their merits.

Useful resources

For more information about the Concept Viability Methodology visit: http://www.ogc.gov.uk/documents/sd006.pdf

Example

The following boxes illustrate two interesting examples - one from the Flanders region in Belgium and the second from the Eszak-Alfold region in Hungary – which describe the approaches followed by these two regions in the preparatory phases, prior to PCP, in order to identify, assess and select the needs and challenges that can be addressed by PCP.

Box 1 Flanders' Action Plan on Public Procurement of Innovation

Flanders' Action Plan on Public Procurement of Innovation

In July 2008, the Flemish government approved an Action Plan on Procurement of Innovation (PoI). In this plan the government focused on procurement of innovation that needs a pre-commercial R&D phase. The innovation agency - IWT - has been given the mandate to set up a pilot scheme with projects running from 2009 to 2014.

In order to structure the process of concept viability check, innovation platforms are established (for an indicative period of 6 months) for market consultation and technical dialogue between the procuring government services, knowledge centres and companies. These Innovation Platforms must allow a maximal exchange of information between demand and supply side so that companies are getting acquainted with know-how from the ministries and the most optimal instruments can be used. They are important interfaces for alignment of strategies between the public and the private sector.

In brief, the methodology developed by IWT is as follows: the input to the innovation platforms is a master plan that identifies challenges in the policy domains and describes the future desired outcome and existing state-of-the-art knowledge. The master plan serves as basic input for the innovation platform discussion bringing both public and private stakeholder organisations together for dialogue as well as for defining the limitations of the actual solutions.

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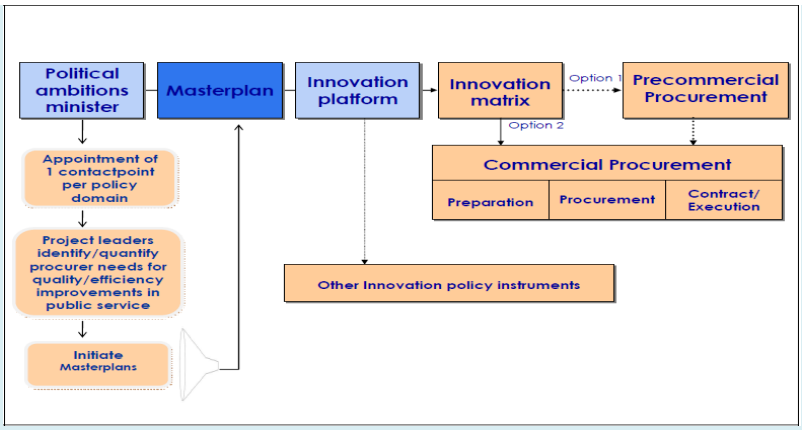

In a first stage, the innovation platforms assess the available policy instruments (either subsidies or procurement) on their effectiveness in view of reaching the desired outcome as expressed in the master plan. Opportunities of using innovative procurement are benchmarked against the possible use of other instruments. The platform confirms whether the procurement is best suitable instrument to provide the innovative solution. In this process, IWT supervises and facilitates the innovation interest of the project. Afterwards, the innovation platform positions the innovative proposal in its innovation trajectory and decides on whether the procurement form should be either pre-commercial (when the project requires further R&D) or commercial and as well whether other policy instruments might be complemented (e.g. need of strategic basic research, R&D, additional tax measures) in order to optimise the payoff of the investment. The innovation trajectory consists of the subsequent phases: concept, feasibility, prototype, pilot, integration/adaptation and diffusion. From the integration phase on, the commercial procurement procedure is applied.

In case of PCP, risk benefit sharing is used between government and companies. Fair competition treatment and good governance are key principles taking into account the necessary confidentiality among the partners participating to the platform and the focus on innovative character of offers as award criteria.

Some of the current pilot projects running (at different stages of development) are: Digital book platform; Eye screener for young children; Leisure infrastructure and culture information system; ICT in health care; Personal development plans for citizens; Monitoring of building excavations.

Sources: Flanders Action Plan on Public Procurement of Innovation- OECD Expert Meeting April 2010;
OMC-PTP Publication: "Exploring Public Procurement as a strategic innovation policy mix instrument"
www.iwt.be ; http://www.innovatiefaanbesteden.be/lopende_projecten; www.procurementofinnovation.eu

Box 2 The Eszak.Alfold PCP Pilot Programme

The Hungarian Észak-Alföld Region Pilot Programme on PCP

The Hungarian region Észak-Alföld is running a PCP pilot with the support of its Regional Development Agency (INNOVA). Thanks to its participation in the RAPIDE project, INNOVA investigated the feasibility of launching PCP practises in their Regional Operational Programme and the Agency will be in charge of calls for PCP proposals (the intention is that two Contracting Authorities over a two-year period receive financial support of €300.000 for launching a PCP pilot).

INNOVA will oversee the PCP process and will be responsible to inform about the challenges that the project might run into. The public procurer will be in charge of running any follow-up commercial procurements after the pre-commercial phase (this is done in order to secure that procurement will take place). Before launching the pilot programme the public procurers will be identified. In order to be awarded the contract, contracting authorities will have to define problems, which can be solved by technical development, and be willing to procure this development through PCP.

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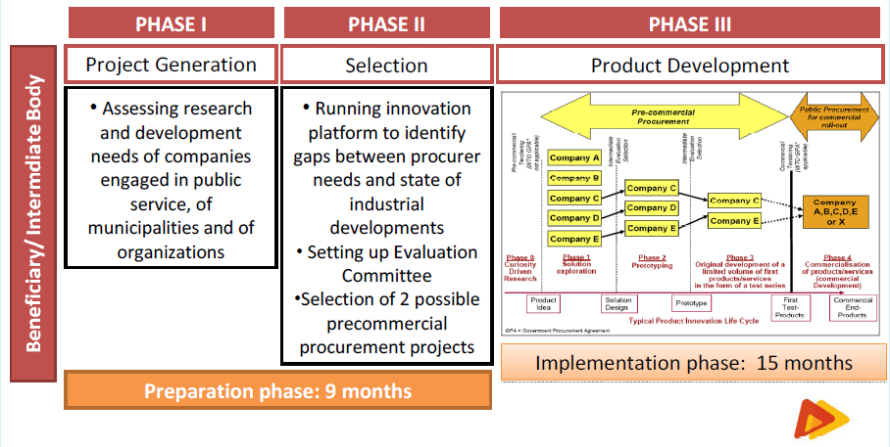
INNOVA, together with an evaluation committee, the public procurers, and external experts will be in charge of selecting the participating companies for the ***Preparatory Phase****. This phase is further divided into two phases namely Project Generation and Selection.*



The first nine months (which include phases 1&2) will be concentrated on preparing the pre-commercial procurement phase. During ***Phase I, Project Generation****, potential R&D needs will be investigated in order to identify potential procurers. The procurers could be companies engaged in public services, municipalities or organisations.* ***Phase II*** *deals with* ***Selection****. During this phase an innovation platform (based on the Flanders model) is set up intended as a forum which will evaluate the innovative procurement processes for each of the participating projects. An Evaluation Committee will be established consisting of a panel of external evaluators, who together with INNOVA, will select the two most fitting projects. The* ***Implementation Phase*** *(Phase 3) will last fifteen months. Within this phase, each of the three stages: 1. Solution design; 2. Prototype building and 3.Development of test products will end with an evaluation of the participants' work, and those proceeding to the following stage will receive a fixed compensation. Although the different stages are constructed individually, so it might not be the same amount of participants in each phase, there is a minimum requirement of participating suppliers in the PCP process: 4 for Solution design; 3 for Prototype building and 2 for Development of test products.*

For further information: www.eszakalfold.hu & http://cordis.europa.eu/fp7/ict/pcp/hungary-case.pdf

Practical Case

Practical case from Norway: "Heating systems in schools"

The following is an example of a concrete public sector need in Norway where the Contracting Authority organized an open session with industry in order to test the market and enable the supply side freely to share their insights regarding the range of possible solutions to meet the need.

In January 2008 the Oslo City Council decided to phase out the use of fossil fuels in schools by the end of 2011. The challenge of the public procurer (*"Undervisningsbygg"* - a municipal organization in charge of schools management in Oslo) was to gain information about what the market could deliver in terms of innovative solutions, as experiences with existing products/solutions were poor. The industry was invited to a open dialogue conference where the objective was to present the challenge (i.e. finding renewable, optimal and innovative solutions for substituting fossil fuels in heat distribution) and to ask them how to find the best alternatives. The conference

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resulted in a tender competition where the market was asked to submit their suggested solutions to the challenge presented. A great deal of information was obtained from these dialogue-activities which was later on applied in the tender documents.

Twelve (12) proposals were submitted and four (4) selected bidders (evaluation criteria were among others life cycle cost, management reliability, degree of innovation and the possibility to copy the suggested solution to different schools) proposed solutions of very different nature to the challenge (e.g. one suggestion was based on using biogas as the energy source, establishing a receiving station behind the school for the biogas and leading it to the boiler room through pipes in the ground. Another solution was based on bio-fuels, using a patent pending vertical feeding system for the pellet. Another bidder introduced a combination of heat pump/energy wells and solar collector which will be used to recharge the wells with solar heat during the summer and yet another one identified different potential customers for establishing common energy plants.

Undervisningsbygg was very satisfied with the results of the competition. A lot of solutions appeared which were not available before the process started. In general, the whole process, including the different suppliers, has attracted a lot of attention, and several articles have been published in local newspapers and magazines. It has been recognised that the early presentation of the project to potential suppliers, the openness of the procurer and the involvement of industry associations in these dialogue activities has been crucial for the success of the endeavour.

Source: DIFI- Agency for Public Management and egovernment. Contact person: Marit Holter Sorensen (marit.holter-sorensen@difi.no)

The Needs Assessment Phase, that groups together "Needs Identification" and "Concept Viability", should result in a final decision regarding the need, how to address it (through a PCP approach or via traditional procurement) and how to formulate the need for such a procurement (via so-called functional/performance based specifications).

Step 3: Competition

Each competition must be run via open, fair and transparent processes. When running the PCP competition, 4 main activities need to be carefully designed and monitored:

- preparing the PCP Call for Tender (PCP CT)
- advertising the PCP
- selecting suppliers
- drafting the contract

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Preparing the PCP Call for Tender

In a PCP Call for Tender, the Contracting Authority should make clear the following points that are discussed in detail below:

- Functional specifications
- Award
- Framework contract covering all the PCP phases
- Share of risks and benefits
- Excluding the presence of state aid

- *Functional specifications*

Functional specifications shall be used in order to formulate the object of the PCP tender as a problem to be solved without prescribing a specific solution approach to be followed.

Be aware that

The way in which the specifications are drawn up is of crucial importance as this influences the variety and the quality of the offers. The Contracting Authority has to give suppliers the necessary freedom to come up with innovative, original solutions so that they can serve the procurer's needs in the best possible manner. Therefore, using a high degree of technical details in the requirements will likely prevent innovative companies from submitting original proposals, since there is no room for them. At the same time, however, the specifications must be precise enough to permit the award of the contract in accordance with the rules governing the procedures. Hence, the best solution to reconcile both aspects is not to prescribe the solution, but instead to specify the procurer's needs by reference to performance or functional requirements.

Practical Case

Practical case from SBRI (UK): "Developing sensitive biosensors"

This example comes from the UK where the Small Business Research Initiative (SBRI), administered by the Department of Health, funded the development of a portable, sensitive and inexpensive device to test for the presence of bacteria on hospital surfaces. The specifications were very clear and comprehensive. An extract of the full specifications is shown below:

(…) Given that hospital cleaning costs a significant amount of money, the NHS needs to know how effective the cleaning regimes are and the impact that this has on infection control. Monitoring of cleaning efficacy is thus important. (…) The ideal test would be a test for product residue itself that gives rapid results to facilitate immediate corrective action, and is simple enough to be performed on the ward without the need for a laboratory. A number of methods have been developed over the past 20-30 years that approach these requirements. (…) There remains, however, a need for more rapid and specific identification of bacteria/viruses on patients and in the environment so that action can be taken immediately to reduce the infection risk to the patient concerned and the risk to others within the healthcare setting. The ideal kit would be: Inexpensive; Cover a wide area (up to 50 cm 2 at a single test); Give immediate results, providing feedback to the cleaners as they work or providing information to inform decisions to clear a room prior to occupation by a new patient; Avoid the need to apply a

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> *liquid or a gel to the surface being tested, as this will not be cleaned off a permanent coating may be acceptable but would need to be tested for bacterial adherence properties; Must be very simple so domestic supervisors are comfortable using it Infection Control Nurses would only have time to use the test infrequently; Able to distinguish between live and dead organisms.*
>
> These detailed specifications also include information about the "use case" or how such a product would be used. This information is highly valuable to suppliers and communicates to the developer of the future product who the user is, how it is likely to be used and the performance required.
>
> *Source: Aseptika Ltd. Contact person: Kevin Auton (kevin.auton@aseptika.co.uk)*

- *Award*

The award of offers shall not be based on lowest price only. The PCP contracts shall be awarded to the tenders offering the most economically advantageous tender, taking into account other factors than price (e.g. quality), while taking care to avoid any conflict of interests.

- *Framework contract covering all the PCP phases*

One single framework contract covering all the PCP phases in which the distribution of rights and obligations of the parties is published upfront in the tender documents and which does not involve contract renegotiations on rights and obligations taking place after the choice of participating organisations. This framework contract shall contain an agreement on the future procedure for implementing the different phases (through specific contracts), including the format of the intermediate evaluations after the solution design and prototype development stages that progressively select organisations with the best competing solutions.

- *Share of risks and benefits*

R&D risks and benefits are shared between the procurer and the supplier in such a way that both parties have an incentive to pursue wide commercialisation and take up of the new solutions. In PCP, the public purchaser does not reserve the R&D results exclusively for its own use. Therefore, for PCP, ownership rights of IPRs generated by a company during the PCP contract are assigned to that company. The public purchaser is assigned a free licence to use the R&D results for internal use as well as the right to license or require participating companies to license IPRs to third parties under fair and reasonable market conditions. In addition, a call-back provision in the PCP contract can ensure that IPRs allocated to companies that do not succeed to exploit the IPRs themselves within a specified period after the PCP project is completed will return back to the Contracting Authority.

- *Excluding the presence of State Aid*

Under competition rules, Contracting Authorities must pay no more than the market price for the R&D services procured. A financial compensation for leaving IPR ownership rights compared to exclusive development price that is either non-existent or too low would contravene State Aid law. There are at least three options available and these include:

i. a discount on the R&D price (compared to exclusive development price) for doing the PCP work, and/or
ii. a share of equity stake with the Contracting Authority and/or
iii. a royalty payment to the Contracting Authority.

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The setting of the exact value for the above three options is best achieved through the competitive process; to explain, as part of the tendering process, bidders compete to win a contract to deliver R&D services. It is in the tender publication that the Contracting Authority indicates which of the above options it accepts, and it is in their submission that the bidder states (in case of option 1) the amount of money they require to deliver the R&D (indicating the size of the offered reduction in the R&D price) and/or the price for doing the R&D work in the case of a specific percentage of sales/profits as royalty payment and/or the equity stake back to the Contracting Authority. On receipt and evaluation of the bids, the Contracting Authority either accepts or rejects each offer against criteria stated in the PCP Call for Tender.

In addition, in order to make sure that the presence of State Aid is excluded, procurers should observe the requirements of the EC as laid out in the Commission's working paper SEC (2007) 1668:

"Therefore, if the distribution of rights and obligations is published upfront in the tender documents and the tender has been carried out in a competitive and transparent way in line with the Treaty principles which leads to a price according to market conditions, and does not involve any indication of manipulation, then this should normally enable the state to establish the correct (best value for money) price for the R&D service, in which case the presence of State aid can in principle be excluded according to the definition contained in Art.87 of the Treaty. The pre-commercial procurement approach described is based on one single framework contract for the three phases, in which the distribution of rights and obligations of the parties is published upfront in the tender documents and which does not involve contract renegotiations on rights and obligations, including the allocation of IPRs, taking place after the choice of participating companies."

Source: Commission Staff working document, SEC (2007) 1668 (p. 9)

Advertising the PCP

This topic has already been dealt with in detail in the previous chapter (please refer to Section 2 under the heading: *"What are the basic principles of a compliant PCP process"*?). In addition to what it has already been said, the procurer may want to include in the advertisement of the tender a section that explains to bidding suppliers the advantages of participating to the PCP process in view of getting financially compelling offers (compelling price discount, royalty payment of equity stake). The advertisement can also contain a reference of the estimated potential size of the total market for the products to be developed through the PCP process so that the market opportunities for suppliers are clear and the participation to the PCP process is attractive for suppliers.

Selecting Suppliers

As already discussed in the previous chapter (Section 2, *"What are the basic principles of a compliant PCP process"?*), the award criteria must be pre-determined prior to evaluating submissions, and these criteria should be made explicit in the PCP Call for Tender. All offers have to be evaluated according to the same objective criteria regardless of the nationality of the bidder and these criteria must be understandable, quantifiable and verifiable.

Example

The SBIR Programme in The Netherlands evaluates the proposals received according to four criteria:

1. contribution to the solution to public demand and entrepreneurship
2. (technological) quality and degree of innovation
3. economic perspective

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4. added value for society

Be aware that

The decision-making structure may want to consider the creation/set up of an Evaluation Panel, which can be responsible for the assessment of all tenders received. Membership of the Evaluation Panel can comprise members of the team responsible for delivering the objectives of the project as well as external experts in the field. For example, proposals can be evaluated and ranked by a panel made up of the procurer and representatives of the financial and/or innovation communities (to assess whether the financial offer is at market price).

Issuing a Contract

Successful bidders are awarded a framework contract from the Contracting Authority to deliver R&D services to develop a new innovation, as outlined in their tender submission. Within the framework contract, specific contracts will be issued for each phase of the PCP process.

The contract should state Service Terms and Conditions, including:

- PCP Call for Tender
- Supplier's submission, including the deliverables, milestones, cost and delivery dates
- Agreed return of benefit (e.g. royalties) to the Contracting Authority
- Metrics the supplier will provide as part of their evaluation.

Useful resources

Example of a PCP Call for Tender from Norway on CO_2 capture technologies (see Appendix 1)

Step 4: Contract Management

Successful innovation development is largely about managing risk. The biggest risks for Contracting Authorities relate to projects going over-budget, over-time, and not being able to meet technical challenges. Good project and programme management enables Contracting Authorities to manage risk and increase likelihood of successful delivery of solutions that meet needs.

With reference to contract management, some hints and advice are provided here below on how the Contracting Authority can successfully manage risk and ensure good project management, once the PCP competition is running.

Project Management

Innovation development is largely about managing risk. To help manage risk there needs to be good communication between the supplier and the project manager representing the Contracting Authority. Regular updates from the supplier can help identify any risks and issues that need to be addressed, and to identify ways of mitigating such risks. What this means is that there needs to be flexibility on both the supplier and procurer side, as innovation development is often very iterative and explorative.

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Example

An interesting example comes from ICONIC Innovation, which has developed a web-based innovation management tool that enables the ICONIC team to work with contracted suppliers to ensure that their innovations are developing on time and on budget. Any risks and issues are highlighted, and mitigation plans put in place to deal with such risks and issues.

In addition, Agile techniques, which promote teamwork, collaboration and adaptability throughout the life-cycle of a project can also turned to be very useful in helping the management of PCP initiatives (see box below)

Box 3 Agile Techniques to assist the management of PCP

In response to the unique challenges of innovation management, Agile Design and Development techniques have been developed which enable key stakeholders (e.g. end-users, Contracting Authorities) to engage with the contracted supplier as they develop and refine an innovation against functional requirements defined in the Invitation to Tender. Agile development methods are ideally positioned to support the design and development phases of innovations. Agile techniques promote development, teamwork, collaboration, and process adaptability throughout the life-cycle of the project. Tasks are broken down into small increments with minimal planning. Each iterative cycle involves a team working through a full design and development cycle including engaging with end-users and procurers in planning, requirements analysis, design, coding, unit testing, and acceptance testing. Multiple iterations may be required to achieve the final deliverable for the contracted work within the given phase.

The Project Manager should ensure strategic and operational effectiveness, including the fact that:

- Legislative constraints are being observed
- Quality assurance are being adhered to
- Focus on the need being addressed
- The project remains viable
- An acceptable solution is being developed
- The scope of the project is not creeping and losing its focus.

Useful resources

Project Management Dashboard (see Appendix 2)
For more information about the ICONIC Innovation web-based innovation management tool visit: www.iconic-innovation.com
For more information about Agile Techniques, see http://www.agilemodeling.com

Step 5: Commercial Procurement

A distinguishing feature of PCP is the separation of the R&D phase from the deployment of commercial volumes of end-products. According to the EC Communication, the PCP process stops after the developed solution has been tested and before commercialisation. This means that after the PCP is finished, if the purpose of the Contracting

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Authority is to procure the developed products/services, a separate new tender will need to be published for the subsequent procurement on a commercial basis.

Whilst this separation enables public purchasers to filter out technological R&D risks of competing solutions before committing to procuring a large scale commercial roll-out[28], it might also be a concern for them since there is no guarantee for the public procurer that the winner of the commercial tender will be the partner from the PCP process which might have developed the solution that fulfils the needs of the contracting Authority. In addition, issuing a new tender is both costly and time consuming.

Be aware that

The PCP tender and the subsequent commercial tender have to be fully separated.

To make sure that public procurement rules are not infringed and the Treaty principles are respected, fair competition and equal treatment of all potential bidders must be ensured. Therefore, the Contracting Authority must ensure that all suppliers (both those who participated to the PCP as well as any other supplier) compete in an open, fair and transparent way.

Evaluation and Dissemination as constant activities along the PCP process

By following the steps of the PCP process, an important question is to know whether the PCP is on course to meet the objectives set by the Contracting Authorities, or whether a change is required to meet them. Therefore, a critical element of the whole PCP initiative is **evaluation**. Like evaluation, **dissemination** is another key activity that needs to be carried out throughout the process in order to deliver efficient and effective PCP initiatives.

Evaluation

Contracting Authorities should position PCP as a strategic instrument to enable them to meet pressing unmet needs. We have outlined above how needs may be identified and rank-ordered by Contracting Authorities. We have also outlined how a flexible, context-specific approach to PCP may be used to enable Contracting Authorities to optimally deploy human, financial and technical resources to meet such needs. But *how will the Contracting Authority know if their PCP is on course to meet their strategic objectives, or if change is required to meet their objectives?* To help answer this question, the Contracting Authority needs to consider carefully what information is required to enable decision-makers to make informed decisions. Where evidence indicates that change is required, then such change should be managed though a controlled management process, as noted above.

The purpose of evaluation is to assign a value judgement. Valid and reliable information related to the following types of questions can help stakeholders make informed decisions to enable continuous improvement of PCP processes:

- Was the need clearly defined and prioritised by the Contracting Authority?
- Did a Concept Viability exercise identify if a solution to the need already exists in the marketplace, or if it is technically and pragmatically possible to create a step-change solution?

28 Due to the inherent risk of failure, technological success may not always be the case in R&D procurements. It is only at the end of the R&D phase that the public purchaser has comparative test evidence that proves whether any of the solutions developed in the PCP truly outperform other solutions available at the same time on the market. *Source: Opportunities for Public Technology Procurement in the ICT related sectors in Europe. Final report June 2008. Ramboll management for DG Information society and Media*

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- Was the PCP Call for Tender outcome focused?
- Was the competition conducted in an open, fair and transparent manner?
- Were contracts designed to ensure that the supplier remained focussed on delivering the outcome identified in the PCP CT?
- Were contracts performance managed, to ensure milestone deliverables, and that risks and issues were managed optimally?
- Did the PCP ensure that Intellectual Property was managed well?
- Were innovations developed that met the need identified in the PCP CT?
- Were innovations diffused efficiently into the market?

Dissemination

Dissemination – the sharing of information – is critical to the delivery of efficient and effective PCP initiatives. A Dissemination Plan should be agreed by the Programme Board at the start of a PCP Initiative. This plan should give careful and detailed consideration to the following:

- ***Goal***: The initiative will identify if the goal is to increase awareness, understanding, support, involvement, or commitment to action.
- ***Audience***: The initiative will identify key audiences, including PCP expert community, other procurers, industry, and high-level decision makers.
- ***Medium***: The initiative will seek to deploy the most effective ways to reach the audience, often by linking to resources which each group typically use.
- ***Execution***: Dissemination will be provided on a rolling basis and at critical times during the life of the Programme, such as prior to an Invitation to Tender Call.

Be aware that

As innovations develop through the PCP phases, it will be possible for the Contracting Authority to share information with key stakeholders. In sharing information, however, the Contracting Authority needs to be cognisant that IP needs to be protected and exploited optimally: the amount of information released at the end of phase 1 and 2 should be very limited (non-disclosure agreement between Contracting Authority and each supplier); in contrast, during the PCP process, IP assets such as patents, design rights etc. should be protected by suppliers at the earliest possible whenever they arise, which would enable the full deployment of a bespoke marketing and communications plan to speed the innovation's take-up and diffusion.

Critically, evidence generated from evaluation activities during each phase should inform the dissemination of information.

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Example

The key characteristics of the Dissemination Plan should include:

- Oriented toward the needs of the user/stakeholder, e.g. relying on appropriate language and information level;
- Include various dissemination methods such as written, graphical, electronic, and/or verbal mediums;
- Draw upon existing resources, relationships, and networks as much as possible.

PCP check-list

The step-by-step process described above, has been summarized in a "Check-list for PCP" presented in Table 1 hereunder. The main aspects to be taken into consideration at each step when implementing PCP processes have been therein presented in form of a list of simple questions that need to be addressed. The check- list is intended to further accompany public procurers throughout the different steps when running their PCP competitions.

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Table 1: Check-list for PCP

STEPS OF THE PCP PROCESS		CHECK-LIST FOR PUBLIC PROCURERS RUNNING PCP COMPETITIONS
1. Needs Identification		- Is your need clearly identified? - Does it respond to a societal challenge?
2. Concept Viability		- Is it technically possible to create a solution to meet the need? - Does it require R&D as opposed to incremental adaptations/integration work? - Is there a solution in the market? If not, how much time is there until market entry? *After steps 1&2 and before moving ahead:* - Has the Contracting Authority created its own Business Case?
3.Competition	*Preparing the PCP Call for Tender*	- Have you formulated the object of the tender as a problem to be solved in terms of functional/performance based requirements without prescribing a specific solution approach to be followed? - Has the commercialisation potential for the potential solution coming out of the PCP process been estimated? - Have you allocated the right resources (in terms of time, budget and number suppliers) for each phase of the competition? - Have you made clear in the tender documents the intention to select multiple companies to start the PCP in parallel, and the number of phases of the PCP? Do they also include the format of the intermediate evaluations to select companies that progress from one phase to another? - Do the tender documents include the distribution of rights and obligations of the parties? Is it stated that the ownership rights of IPRs generated by a company during the PCP contract will be assigned to that company and which usage/licensing rights will be assigned to the procurer?
	Advertising the PCP	- Have you ensured EU wide publication of the PCP call for tender? - Does the advertisement provide all relevant information on the tender process and the contract?
	Selecting suppliers	- Have you determined clear award criteria and are they explicit in the PCP Call for Tender? - Have you created an evaluation panel to assess the tenders received? - Have you ensured that the selection of offers will not be based on lowest price only but will take into account value for money criteria based on other factors such as innovativeness, quality, impact etc.?
	Issuing the contract	- Have you provided for a single framework contract for R&D services managed in phases, each implemented as specific contracts, matching the different stages of development? - Have you made sure that the contract includes the following: PCP Call for Tender; supplier's submission including deliverables, milestones, cost & delivery dates; agreed return of benefit to the Commission Authority; metrics the supplier will provide as part of their evaluation?

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4. Contract Management	- Have you the appropriate management tools to assist you in running the PCP project effectively?
5. Commercial Procurement	- Have you separated the PCP tender from the commercial procurement tender? - Have you ensured fair competition and equal treatment of all potential bidders in both tenders?
A. Evaluation	- Have you designed an evaluation procedure to allow you to know whether your PCP initiative is on track and how the process can be improved?
B. Dissemination	- Have you decided how to share the information that will come out of the PCP process with stakeholders? - Have you designed a Dissemination Plan for your PCP initiative?

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4 Dealing with Intellectual Property

Intellectual Property is a key issue when dealing with PCP processes. IPR should be well understood and all the issues related to it well settled at the outset. This section analyses in detail the points that need to be addressed.

There are two important points that should be noted with regards to Intellectual Property and PCP:

(i) IP should sit with organisations that are likely to exploit it optimally; and, as a corollary, Contracting Authorities should not seek to compete with the private sector;

(ii) In order to avoid State Aid, Contracting Authorities are obliged not to pay more than market price for the R&D work performed and ensure access to a future competitive supply chain. The most efficient way to achieve the best calibration is to position the establishment of the market price to the Contracting Authority as part of the ITT.

We consider the following questions:

- how can a Contracting Authority ensure that any intellectual property rights arising under the PCP competition route are freely available for the benefit of the Contracting Authority; and,
- if a Contracting Authority wished to receive a return on its investment, how it might do so?

These questions are treated in detail below. A brief overview of intellectual property rights relevant to innovation is shown in Appendix 3.

Dealing with intellectual property rights under the competition route

The written submission in response to an Invitation to Tender is likely to be a copyright work and it will be important that the terms of the competition make it clear that the Contracting Authority has all necessary rights to copy and use that written work for all the Contracting Authority's relevant purposes. However, of key interest also will be any other intellectual property rights which are necessary to implement the proposed solution. These might comprise two categories:

- so-called *foreground intellectual property rights*, being intellectual property rights which arise as a result of the competition; and,
- so-called *background intellectual property rights*, being intellectual property rights which already exist, or which might come into existence independently of the competition, and which may be owned by the entrant, or by one or more third parties.

Each of these categories is considered separately below.

Be aware that If the proposed solution is simply that the entrant will supply or procure the supply of a particular existing product to the Contracting Authority or to beneficiaries, then intellectual property rights issues may not be particularly relevant. The deal in such circumstances is unlikely to be that the entrant will license the Contracting Authority under the relevant intellectual property rights to make the product, or to have it made. Instead the relevant issue is likely to be the commercial terms on which the product will be sold to the Contracting Authority and / or the beneficiaries (and as part of those terms Contracting Authority / the beneficiaries would want appropriate comfort from the supplier that the use of the product will not infringe third party intellectual

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property rights).

Foreground intellectual property rights

The Contracting Authority's strategy regarding ownership of, and rights to use the intellectual property rights in innovations developed by funding provided by a Contracting Authority under the competition route (Funded IPRs), should be informed by the Contracting Authority's overall objectives, namely whether the Contracting Authority wishes:

- simply to ensure that the Funded IPRs are available for use by itself and by specified beneficiaries such as the wider Contracting Authority (Beneficiaries); or
- to ensure that the Contracting Authority controls the protection and exploitation of the Funded IPR.

There are four broad ownership and licensing models which could be adopted in order to give the Contracting Authority the right to use the Funded IPR for itself and for Beneficiaries. These are set out below in approximate order of the control, which they give the Contracting Authority (most control listed first):

(a) Contracting Authority owns the Funded IPRs and does not grant the developer a licence back to use;

(b) Contracting Authority owns the Funded IPRs and grants the developer a non-exclusive licence back to use;

(c) Developer owns the Funded IPRs and agrees to license the Contracting Authority / Beneficiaries to use the Funded IPRs on an exclusive basis;

or

(d) Developer owns the Funded IPRs and agrees to license the Contracting Authority/ Beneficiaries to use the Funded IPRs on a non-exclusive basis. As discussed in more detail later, this option is the most appropriate for PCP.

The fewer rights which the developer retains to fully exploit the Funded IPRs for its own benefit, the less commercially attractive it may be for the developer to participate in the competition. The terms of the relevant agreement with the developer could be structured such that any exploitation of the Funded IPRs by the developer under (b) or (d) above would be subject to payment to the Contracting Authority of a royalty fee. Other options include a share of equity stake with the Contracting Authority, or a discount on the R&D price for doing the PCP work.

The table below lists the main potential objectives in relation to the Funded IPRs which the Contracting Authority may wish to consider.

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Table 2 Potential objectives in relation to the Funded IPRs

Objective	Contracting Authority Ownership	Exclusive licence to Contracting Authority	Non-exclusive licence to Contracting Authority
Right for Contracting Authority to use the innovation	✓	✓	✓
Right for Contracting Authority to allow Beneficiaries to use the innovation	✓	✓	✓
Right for Contracting Authority to secure a royalty payment from Beneficiaries for their use of the innovation	✓	✓	✓
Right for Contracting Authority to restrict the use of the innovation by third parties	✓	✓	
Right to enforce Contracting Authority's rights in respect of any unauthorised use	✓	✓	
Right for Contracting Authority to apply for or maintain registered rights (e.g. to file a patent application)	✓		

Background intellectual property rights

In respect of any background intellectual property rights which are owned by the entrant and which are necessary for the implementation of the entrant's proposed solution (i.e. intellectual property rights of the entrant which were not developed as a result of Contracting Authority funding), then these should be licensed to the Contracting Authority on terms which enable them to be used in the same way as the Funded IPRs.

As part of the Invitation to Tender requirements, the Contracting Authority should consider imposing an obligation on the entrant to disclose all background intellectual property rights of which it is aware which are required to implement the proposed solution. If the applicant knows that third party intellectual property is involved and that a licence from the third party will be needed before the solution can be implemented, then this should be disclosed so that its impact can be determined before awarding a PCP contact.

Be aware that

An entrant might not have actual knowledge of all the third party background intellectual property rights that relate to its proposed solution. For example, it may be that the entrant proposes a technological solution which the entrant believes to be novel, but which is in fact already the subject of a third party patent. Patent searches could be carried out to determine whether such potentially problematic third party patents exist, and the Contracting Authority should consider whether these should be carried out and if so when, by whom and at whose cost.

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5 Conclusions

PCP as a policy instrument to boost innovation

The analysis carried out within the Progr-EAST initiative - as background study to elaborate the present work that looked at applied schemes and practices in Europe and in the US through literature review, desk research, interviews to procurers and procurement experts - has confirmed the strategic role that innovative public procurement forms can play to boost innovation at European level.

A firm conviction, in fact, is spreading among policy makers, public institutions and other stakeholders that innovative procurement can be used as an effective instrument to influence technological development and innovation and as an additional tool, next to subsidies and fiscal schemes, to increase the R&D public expenditures.

In the next years, procurement of innovation and PCP are likely to become key elements of a balanced innovation policy mix strategy in European countries, as demand-driven policy instruments bringing companies and government together to cooperate on developing innovative solutions for major societal challenges, such as ageing, mobility, health care, transport and environment.

Existing barriers to innovative public procurement forms

From the Progr-EAST analysis, that investigated the state-of-the-art of innovative public procurement in Europe and particularly in five target countries in NMS (Slovenia, Slovakia, Poland, Hungary and Czech Republic), it clearly emerged that there are still a number of barriers to public procurement as a driver of innovation. The public sector in Europe, in fact, has traditionally supported innovation mainly through supply-side instruments such as research grants and other public support programmes rather than through procurement. Europe also suffers from a structural lower performance when it comes to transforming its publicly funded research outcomes into success stories of innovative products and services deployed in the public sector. R&D subsidy schemes are dedicated to academic and industrial research communities. In some cases, they may remain somehow disconnected from public needs and suffer from intrinsically lack of direct commitment of future public market buyers and lack of involvement of final users. The dual role of the public sector, both as a "beneficiary" and as a "driver" of innovation, needs therefore to be further encouraged and strengthened in Europe and especially among New Member States.

The emerging need for background knowledge and a capacity building process on PCP

From the analysis performed, a request emerged from public procurers and stakeholders for more support schemes and networking initiatives in order to increase the understanding of PCP among public bodies and share the best practices. This calls for a knowledge and capacity-building process, especially in countries with a still less matured level of skills to identify R&D needs to be addressed through the public sector. Such process should provide information and guidance on good practices and hints and advice on practical implementation of PCP projects, as a means to help foster wider implementation of PCP.

Public procurers should be well "equipped" with knowledge and tools enabling them to launch PCP processes in their own countries counting on clear rules, procedures and comparable experiences, as a consistent background knowledge.

The Progr-EAST Manual as a contribution to the capacity building process

Considering the above mentioned need, the Progr-EAST initiative has been conceived to contribute to this capacity-building process through awareness-raising initiatives in the target countries (information and dissemination workshops, training sessions on PCP); the elaboration of the present Manual to provide a background knowledge;

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and the provision of experts' advice through training and coaching services to procurers to start launching PCP pilot projects.

This work should be considered as an initial step supporting the further understanding of the PCP approach. As explained in the previous sections, PCP implementation requires a strong commitment from the public authorities concerned. The exchange of information and the sharing of practical experiences could be fundamental for procurers in order to accomplish an effective launch and implementation of the PCP process.

The Manual has been designed, having in mind the uncertainty brought about by a new and unfamiliar method such as PCP and it is an attempt to "demystify" the PCP procedure and make it accessible to all procurers and interested stakeholders. This has been done by informing procurers about the main aspects that need to be addressed before "embarking" on PCP activities and by guiding them along the different steps of the PCP implementation process, designed to be fully compliant with the European Commission's recommendations.

The PCP model as a step-by-step process

The elaboration of the Manual has been supported by a preparatory background analysis of frameworks, schemes and practices in Europe and in the US, conducted by the Progr-EAST promoters to better understand the innovative public procurement context, the state-of-the-art and the on-going practices.

Taking into consideration the EC recommendations on PCP, the recent developments in this area, the outcomes of the background analysis and counting on the advice of experts in the field, Progr-EAST has developed a "PCP process flow", structured in phases and steps, with the intention of simplifying the PCP concept and providing a practical and achievable understanding of the PCP process. The model is intended to allow Manual users to deepen what are the main elements of PCP, when there is a need to "embark" in PCP procedures, how to proceed along the PCP process and what are the critical steps along the path.

Having set the model, it has been acknowledged that among the several experiences and cases analysed, no consolidated cases illustrating the entire process and being fully compliant with the EC recommendations, could be identified in Europe. However, interesting tools, approaches, practices and explanatory material have been extracted from diverse sources and associated to the different steps of the PCP process to provide examples and transferable practices. The PCP model proposed in this Manual can be "customised" according to specific characteristics and needs in each country by associating to each steps the examples and the experiences proposed that could better address such needs and be adapted to the different steps.

The Toolbox for PCP implementation

All the useful material cited above has been gathered in a "tool-box of instruments" (see table below) with the purpose of helping public procurers in the implementation of their PCP process

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Table 3 The PCP Tool-Box

PCP PROCESS	TOOL-BOX OF INSTRUMENTS (INFORMATION, EXAMPLES, PRACTICAL CASES, TEMPLATES)
NEEDS ASSESSMENT Needs Identification & Concept Viability	❖ WIBGI..? Wouldn't it be great if…? ❖ Concept Viability Methodology ❖ Flanders Region Experience (BE): *Action Plan on Public Procurement of Innovation* ❖ Eszak-Alfold Region Experience (HU): *Pilot Program on PCP* ❖ Practical case from the NHS (UK): *Managing the blood donating service efficiently* ❖ Practical case from Norway: *Heating systems in schools*
PCP COMPETITION	❖ Example of a PCP Call for Tender from Norway on *CO_2 capture technologies* ❖ Business Case Template for PCP ❖ Practical case of writing functional/performance based specifications from SBRI (UK): *Developing sensitive bio-sensors* ❖ Example from SBIR (NL): *Evaluation criteria*
PCP CONTRACT MANAGEMENT	❖ Project Management Dashboard ❖ ICONIC Innovation web-based Innovation Management Tool ❖ Agile Techniques

Critical issues

There are some critical issues to be addressed that emerged from the Progr-EAST analysis conducted and from the exercise performed when structuring the PCP process. Such issues have been highlighted through the Manual and are here synthetically summarised.

The nature of PCP

- PCP is a method to stimulate the development, or to render available, a service and/or commodity that does not exist in the market.
- PCP should be devoted to develop radical, step-change innovations likely to meet needs.

Preliminary considerations before launching a PCP process

- In order to design and deploy successful PCP initiatives public procurers should make sure that:
  - PCP is the "right" instrument to use and what has to be achieved is not obtainable through a traditional procurement process
  - the process to be implemented is compliant with the EC legal framework

The PCP framework

- A public procurement process involves a two-way agreement with contractually bound project deliverables.

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- Contracts for PCP should be awarded by means of a competitive tender process in line with the principles which emanate from the European Community (EC) Treaty, including those of transparency, non-discrimination and equal treatment.
- It is necessary to ensure that the contract is awarded on market terms.
- In deploying a PCP process, a Contracting Authority may run its own competition or it may decide to aggregate demand with other Contracting Authorities to run a single, collaborative competition.
- The call for tender of the PCP has to be EU-widely published.
- The award of the contract is open not only to EEA countries but also to those that have signed a Stabilisation or Association agreement with the EU.
- When launching a tender process some issues should necessarily be addressed: use of appropriate time-limits for responses, the selection process, the tender evaluation, the contract award.

IPR issues

In PCP, the public purchaser does not reserve the R&D results exclusively for its own use. Therefore, for PCP, ownership rights of IPRs generated by a company during the PCP contract should be assigned to that company. The public purchasers should be assigned a free licence to use the R&D results for internal use as well as the right to require participating companies to license IPRs to third parties under fair and reasonable market conditions. In addition, a call-back provision in the PCP contract can ensure that IPRs allocated to companies that do not succeed to exploit the IPRs themselves within a specific period after the PCP project is completed will return back to the Contracting Authority.

Preparatory steps in a PCP process

- Although the "core" of a PCP process is the "Competition" step (see Figure 1), in practice special attention needs to be devoted to the steps of "Needs Identification" and "Concept Viability", which are essential "preparatory" steps to the PCP process. They deserve special attention since failure to: i) identify the need; or ii) assess whether it is technically possible to create a solution to meet that need; or iii) check whether the need can be met with products/services already available in the market or so close to the market that no R&D but only incremental/integration type development is required, might compromise the success of the PCP initiative.

How to properly resource PCP

- To ensure that a PCP is properly resourced, a Contracting Authority should know in advance the likely: (i) duration; (ii) cost and iii) number of suppliers needed for each phase.
- There is flexibility in arranging the above three elements in each phase. Since the aim of a PCP exercise is to work fully within EU Competition Law to enable the rapid development of innovations likely to meet needs, the time, budget and human resource requirement needed for each competition should be calibrated against the requirement.
- The time allocated to each phase of the process may vary project per project (the one indicated in this Manual in Figure 2 is just indicative); if it is possible to speed-up the process without putting at risk the development of solutions, then the procurer may adapt the timeline when advertised clearly up front in the tender specifications.

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Main activities in running a PCP competition

- When running a PCP competition, 4 main activities need to be carefully designed and monitored:
  - ☞ preparing the invitation to tender, where some points should be clearly specified:
    - Functional specifications
    - Award
    - Framework contract covering all the PCP phases
    - Share of risks and benefits
    - Excluding the presence of State Aid
  - ☞ advertising the PCP in a manner that attracts significant interest from suppliers in the market, as this will help to ensure compelling submission; enhancing accessibility of contract advertisements can clearly enhance further the transparency of the advertising process;
  - ☞ selecting suppliers;
  - ☞ drafting the contract.

Evaluation and dissemination as essential and continuous activities along the PCP path

- By following the steps of a PCP process, an important question is to know whether the PCP is on course to meet the objectives set by the Contracting Authorities, or whether a change is required to meet them. A critical element of the whole PCP initiative is therefore continuous evaluation. Like evaluation, dissemination is another key activity that needs to be carried out throughout the process in order to deliver efficient and effective PCP initiatives.

Dissemination of the Manual as a coaching tool

Since there are still few experiences on PCP in NMS and only a couple of pilot projects have been running in the target countries, Progr-EAST intends to use this work to:

- provide local public procurers with relevant knowledge and tools supporting them in the conception and launch of PCP processes in their own countries;
- stimulate a favourable attitude towards the PCP practice;
- boost PCP initiation actions for public innovative services supply.

At the moment, PROGR-EAST is promoting the formulation of innovative project ideas to address public needs in five Eastern European countries (Slovenia, Slovakia, Poland, Hungary and Czech Republic) in order to design PCP pilot actions to be implemented at local level. This publication will be used as a coaching and learning support tool in these countries that are not mature contexts yet for integrating the PCP approach in their procuring processes without proper awareness and capacity-building support. It will be disseminated in workshops and awareness building events and further introduced during training sessions specifically addressed to public procurers.

Given the knowledge-building need emerged at different levels, the authors believe that the wide dissemination of this publication to public procurers and key stakeholders can contribute to stimulate and accelerate the take-up of PCP practices not only in Eastern European countries but in all EU Member States. As the network of PCP practitioners continues to grow and develop, fostering experience and knowledge sharing within this network may enable PCP, itself, to develop and improve.

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Appendices

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APPENDIX 1– Example PCP Call for Tender

PCP Call for Tender from Norway on CO2 capture technologies

Over the last decade, substantial resources have been directed towards developing cost-efficient solutions that involve CO_2 capture, transport and storage. The carbon capture technologies that are available today require large efforts to integrate, optimise, and to scale up the process components to an industrially mature process. Currently there are several different new technologies under development and testing for CO_2 capture.

Carbon capture and storage is a central part of the Norwegian government's policy on energy and climate change. A cornerstone of this target area has been the construction of a full-scale CO_2 capture plant at the Mongstad refinery on the western coast of Norway.

Gassnova has launched a Call for Tenders to invite suppliers to participate in the technology qualification programme for full-scale CO_2 capture plant at Mongstad. The invitation is open to potential suppliers of capture technologies and the contracting authorities will enter into framework contracts with one or more suppliers. The purpose of the technology qualification programme is to document that the selected technology can be used at Mongstad and that it meets all requirements in relation to health, environment and safety.

The upcoming technology qualification process has been divided into three stages:

- *A feasibility study to demonstrate that the technology can be applied at Mongstad*
- *A technology qualification programme to demonstrate that the process will work and that the emissions will be within set criteria, where the suppliers will test their chemical and process technology*
- *A concept stage for design of a full-scale CO2 capture facility adapted to Mongstad*

The purpose of the work to be performed is to reduce technical, environmental and health risk to an acceptable level for the qualified CO_2 capture technology.

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OJ/S S129
08/07/2011
214787-2011-EN
European Economic Area - Service contract - Contract notice - Negotiated procedure
1/5

This notice in TED website: http://ted.europa.eu/udl?uri=TED:NOTICE:214787-2011:TEXT:EN:HTML

NO-Porsgrunn: services related to the oil and gas industry
2011/S 129-214787

CONTRACT NOTICE

Services

SECTION I: CONTRACTING AUTHORITY

I.1) **NAME, ADDRESSES AND CONTACT POINT(S)**

Gassnova SF
Dokkvegen 10
Attn: Ingvild Bråthen
3920 Porsgrunn
NORWAY
Tel. +47 91654978
E-mail: ccpccm@gassnova.no

Internet address(es)

General address of the contracting authority www.gassnova.no
Address of the buyer profile http://www.english.doffin.no/search/Search_AuthProfile.aspx?ID=AA6786

Further information can be obtained at:

Gassnova SF
Dokkvegen 10
Attn: Ingvild Bråthen
3920 Porsgrunn
NORWAY
Tel. +47 91654978
Internet: www.gassnova.no

Specifications and additional documents (including documents for competitive dialogue and a dynamic purchasing system) can be obtained at:

Gassnova SF
Dokkvegen 10
Attn: Ingvild Bråthen
3920 Porsgrunn
NORWAY
Tel. +47 91654978
Internet: www.gassnova.no

Tenders or requests to participate must be sent to:

Gassnova SF
Dokkvegen 10
Attn: Ingvild Bråthen
3920 Porsgrunn
NORWAY
Tel. +47 91654978

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Internet: www.gassnova.no

I.2) **TYPE OF THE CONTRACTING AUTHORITY AND MAIN ACTIVITY OR ACTIVITIES**

Body governed by public law

Other CO2 Capture

SECTION II: OBJECT OF THE CONTRACT

II.1) **DESCRIPTION**

II.1.1) **Title attributed to the contract by the contracting authority**

CO2 capture plant technology qualification and engineering services.

II.1.2) **Type of contract and location of works, place of delivery or of performance**

Services

Service category: No 8

Main place of performance Work to be performed at contractor´s premises.

II.1.3) **The notice involves**

The establishment of a framework agreement

II.1.4) **Information on framework agreement**

Framework agreement with several operators

maximum number of participants to the framework agreement envisaged 8

Duration of the framework agreement: Duration in year(s): 3

II.1.5) **Short description of the contract or purchase(s)**

Tenderer shall on commission from Gassnova SF carry out technology qualification and engineering activities to assist the CO2 Capture Mongstad (CCM) Project with design and technology qualification for a full scale CO2 capture plant. The capture plant shall be designed for post combustion CO2 capture from the existing combined heat and power plant (CHP) at the Mongstad Refinery site, north of Bergen in Norway. A technology qualification program that demonstrates the performance (including health and environmental effects, degree of capture and energy consumption) of the CO2 capture plant shall be prepared and executed with the aim of qualifying at least one technology. The frame agreement eventually to be entered into will include the items below, which will be awarded separately by making use of call-offs if and when Gassnova SF decides:

— Feasibility study for full scale CO2 capture plant,

— Technology qualification of the proposed full scale CO2 capture plant design,

— Concept study for full scale CO2 capture plant.

The purpose of the work to be performed is to reduce technical, environmental and health risk to an acceptable level for the qualified CO2 capture technology. The purpose is further to establish necessary documentation for a concept decision with respect to how the further development and execution of the CCM Project shall be conducted.

Based on the result of the technology qualification program, the CCM project will determine the requirements to be set for the next phase. This phase will be subject to a new procurement process where vendors capable of supplying a qualified technology that meets the project's requirements may seek to participate.

Note: to register your interest in this notice and obtain any additional information please visit the Doffin web site at http://www.doffin.no/Search/Search_Switch.aspx?ID=234927.

II.1.6) **Common procurement vocabulary (CPV)**

76000000, 71310000, 73110000, 73300000, 71300000, 73420000

II.1.7) **Contract covered by the Government Procurement Agreement (GPA)**

Yes

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II.1.8) **Division into lots**

Yes

tenders should be submitted for all lots

II.1.9) **Variants will be accepted**

No

II.2) **QUANTITY OR SCOPE OF THE CONTRACT**

II.2.1) **Total quantity or scope**

II.2.2) **Options**

No

II.3) **DURATION OF THE CONTRACT OR TIME-LIMIT FOR COMPLETION**

Duration in months: 36 (from the award of the contract)

INFORMATION ABOUT LOTS

LOT NO: 1

TITLE Call off 1

1) **SHORT DESCRIPTION**

Feasibility studies and development of vendor specific technology qualification program.

2) **COMMON PROCUREMENT VOCABULARY (CPV)**

73420000, 71300000, 73300000

3) **QUANTITY OR SCOPE**

3-4 months

4) **INDICATION ABOUT DIFFERENT DATE FOR DURATION OF CONTRACT OR STARTING/COMPLETION**

5) **ADDITIONAL INFORMATION ABOUT LOTS**

SECTION III: LEGAL, ECONOMIC, FINANCIAL AND TECHNICAL INFORMATION

III.1) **CONDITIONS RELATING TO THE CONTRACT**

III.1.1) **Deposits and guarantees required**

III.1.2) **Main financing conditions and payment arrangements and/or reference to the relevant provisions regulating them**

III.1.3) **Legal form to be taken by the group of economic operators to whom the contract is to be awarded**

III.1.4) **Other particular conditions to which the performance of the contract is subject**

Yes

Ref the Qualification document. Will be elaborated in the ITT documents.

III.2) **CONDITIONS FOR PARTICIPATION**

III.2.1) **Personal situation of economic operators, including requirements relating to enrolment on professional or trade registers**

Information and formalities necessary for evaluating if requirements are met: Ref the qualification document.

III.2.2) **Economic and financial capacity**

Information and formalities necessary for evaluating if requirements are met: Ref the qualification document.

Minimum level(s) of standards possibly required Ref the qualification document.

III.2.3) **Technical capacity**

Information and formalities necessary for evaluating if requirements are met:

Ref the qualification document.

Minimum level(s) of standards possibly required

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Ref the qualification document.

III.2.4) **Reserved contracts**

III.3) **CONDITIONS SPECIFIC TO SERVICES CONTRACTS**

III.3.1) **Execution of the service is reserved to a particular profession**

III.3.2) **Legal entities should indicate the names and professional qualifications of the staff responsible for the execution of the service**

SECTION IV: PROCEDURE

IV.1) **TYPE OF PROCEDURE**

IV.1.1) **Type of procedure**

Negotiated

Candidates have already been selected No

IV.1.2) **Limitations on the number of operators who will be invited to tender or to participate**

Envisaged minimum number 0 maximum number 8

Objective criteria for choosing the limited number of candidates: Ref the qualification document.

IV.1.3) **Reduction of the number of operators during the negotiation or dialogue**

IV.2) **AWARD CRITERIA**

IV.2.1) **Award criteria**

The most economically advantageous tender in terms of the criteria stated in the specifications, in the invitation to tender or to negotiate or in the descriptive document

IV.2.2) **An electronic auction will be used**

No

IV.3) **ADMINISTRATIVE INFORMATION**

IV.3.1) **File reference number attributed by the contracting authority**

IV.3.2) **Previous publication(s) concerning the same contract**

IV.3.3) **Conditions for obtaining specifications and additional documents**

IV.3.4) **Time-limit for receipt of tenders or requests to participate**

12.7.2011 - 16:00

IV.3.5) **Date of dispatch of invitations to tender or to participate to selected candidates**

1.9.2011

IV.3.6) **Language(s) in which tenders or requests to participate may be drawn up**

English.

Other: Norwegian.

IV.3.7) **Minimum time frame during which the tenderer must maintain the tender**

IV.3.8) **Conditions for opening tenders**

SECTION VI: COMPLEMENTARY INFORMATION

VI.1) **THIS IS A RECURRENT PROCUREMENT**

VI.2) **CONTRACT RELATED TO A PROJECT AND/OR PROGRAMME FINANCED BY EU FUNDS**

VI.3) **ADDITIONAL INFORMATION**

This publication is made on a voluntarily basis, ref the application of the pre-commercial procurement procedure as outlined in the qualification document. Hence, company will not apply the negotiated procedure, which is seemingly chosen here for formal reasons only; it is not possible to publish this call for competition without

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selecting one of the listed procedure, and pre-commercial procedure is not listed. The procedure described in the Qualification document and further outlined in the invitation to tender documents, which will be sent to tenderers who offer post-combustion CO2 capture technology for sale and/or licensing, ref attachment 1 to the qualification document.
(NT ref:234961).

VI.4) **PROCEDURES FOR APPEAL**

VI.4.1) **Body responsible for appeal procedures**

VI.4.2) **Lodging of appeals**

VI.4.3) **Service from which information about the lodging of appeals may be obtained**

VI.5) **DATE OF DISPATCH OF THIS NOTICE:**
5.7.2011

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APPENDIX 2– Project Management Dashboard

PROJECT MANAGEMENT DASHBOARD FOR PCP CONTRACTS

The Contracting authority can assign a Contract Manager, who will be responsible for managing each contract/project.

The Supplier could be asked to provide weekly written updates on the progress of their project, noting if any risks or issues have developed. In consultation with the Contract Manager, the Supplier should seek to mitigate such risks and issues to ensure that the project stays on time and on budget. Changes should be expected, as innovation development is iterative. In addition to weekly written updates, the Contract Manager and the Supplier should meet on a regular basis, ideally with the Contract Manager conducting site visits in order to see progress of projects *in situ*.

The type of information that should be collected depends largely on the project itself. The focus of attention should be on delivering the contract, including stated project milestones. This is important as payments should be made for evidence of delivery of milestones (PCP is not a grant, it is a contract).

The most common risks are time, costs, benefits and technical. Projects are likely to run over-time and over-budget if they are not managed well. In particular, it is important to avoid 'mission-creep', which occurs when a project starts to become something quite different from what was expected in the original submission. To maintain focus, it is important that Contract Managers attend to the key outcomes and benefits expected from the project, and to manage technical developments in a controlled way to ensure that the technology is likely to deliver the expected benefits.

RAG stands for 'Red, Amber, and Green' – it's a 'traffic light' system that helps both Contracts Managers and Suppliers focus on what is essential. Events that are identified as Red require urgent attention, while events that are identified as Amber require less urgent attention, but still need to be addressed. Events that are identified as Green indicate that the innovation's development is progressing well.

The above information supports on-going evaluation of a contract/project. At the end of each phase, the on-going Evaluations should be summarised to form an Interim Evaluation for that particular phase. The Interim Evaluation should be included as part of a Supplier's submission to the Phase 2 and Phase 3 Mini-competitions. This evidence should be used by the reviewers to inform their decision as to which suppliers from the cohort should advance to the next phase and which should not. Obviously, if a project has not performed well in Phase 1 should not advance to Phase 2; and a project that has not performed well in Phase 2 should not advance to Phase 3.

EXAMPLE PCP PROJECT MANAGEMENT DASHBOARD - July 2011

PROJECT PORTFOLIO STATUS

PROJECT NAME	Previous	Current
Project 1 - Title		
Project 2 - Title		
Project 3 - Title		
Project 4 - Title		
Project 5 - Title		
Project 6 - Title		
Project 7 - Title		
Project 8 - Title		
Project 9 - Title		
Project 10 - Title		
Project 11 - Title		
Project 12 - Title		

Points to Note

PID's for all projects are now in place along with project plans. Slight resource deficiency on project 1, however budget is available to recruit. Programme reporting system is in place and operational. ***As can be seen above the risk has increased this month as more projects have moved to Red.***

TOP 10 PROGRAMME RISKS

RAG	Description / Category	Owners	Mitigation Plan	Date Raised	Ref
	ver budget (Cost)	B Winn - NIC	Review funding	5/9/2011	R001
	verrun (Time)	B Winn - NIC	Meet to discuss	5/9/2011	R002
	on compliance (Technical)	B Winn - NIC	Meet to discuss	5/9/2011	R003
					R004
					R005
					R006
					R007
					R008
					R009
					R010

RISK CATEGORISATION RAG

	Risk Category	High	Medium	Low	Total
Time:	Overrun against agreed project plans	1	3	4	8
Cost:	Exceeding 5% of projected budget	2	2	2	6
Benefits:	Not achieving projected benefits	2	3	3	8
Technical:	Design issues	2	0	0	2

Financials

Budget	Monthly Expenditure	Spend to date	Estimated Forecast	Comments	RAG
€3m	€ 0	€ 0	€ 0	None	

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APPENDIX 3 – Overview of intellectual property rights relevant to innovation

Intellectual property (IP) is any form of original creation that can be bought or sold. The four main types of IP rights are: patents, trademarks, designs and copyright but there are many other ways to protect your IP. We focus on patents, below.

Patents

Although an idea cannot be owned, an Idea may be protected if it constitutes confidential information, or if it amounts to a patentable invention.

For an Idea to be protected as confidential, it must not be obvious, trivial or in the public domain. For this reason, it is important for innovators to be careful not to disseminate freely information about their innovation. When information is made publicly available, such as the publication of a research article, it will no longer be confidential. For an Idea to be protected as a patentable invention, it must:

- be new-to-the world;
- involve an inventive step;
- have a practical use; and
- not be obvious to a person skilled in the domain area.

Patents are potentially available for most industrially applicable processes and devices. So it is possible to acquire a patent for a wide range of innovations, including new drugs, medical devices and new methods.

Patents are granted nationally. If granted, a patent confers on the owner a monopoly right to use the invention which is the subject of the patent to last for 20 years. During that period, the patent owner may stop others from using the invention in the protected region. Consent may be given in the form of a licence to use the invention for particular purposes. Such licence usually results in a payment of a licence fee or royalty to the patent holder. The ability to earn a licence fee or royalty is an important potential source of income for patent holders; and the ability to secure a licence to use a patent is important for other makers of innovations. For example, a mobile phone could use several components under license to make their phone work.

Be aware that

If a patent relates to a physical invention, such as a particular medical device, then once that device is put onto the market with the patent owner's consent, the patent rights in it will be exhausted. In other words, provided that the device has been manufactured and put on the market by the patent owner or with the owner's consent, it will not be an infringement of the patent rights (and no licence will be required) to buy, sell or use the device.

Be aware that

There may be no relevant intellectual property rights

It is not necessarily the case that every innovation will be protected by intellectual property rights. For example, an idea for a new process or device which might have been protected under the law of confidence and also have been a patentable invention but which has been disclosed into the public domain will probably not be capable of such protection.

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APPENDIX 4 – Contracting Authority's Business Case Template for PCP

Purpose of the Business Case for PCP projects

The main objective of the Contracting Authority's Business Case Template for PCP is to assist contracting authorities/public procurers in making informed decisions regarding the viability of a proposed PCP project.

Risks represent the possibility that things will not go as expected. Such a possibility is inherent in any project – whether PCP or not. The level of risk is exacerbated by factors such as the size, the complexity, the novelty and the type of project, the cost and the length. Therefore, before deciding to embark on a PCP initiative, the contracting authority should undertake an extensive analysis of the risks and factors that may hamper/jeopardize the initiative in order to ensure that it makes the right decisions at the appropriate stages.

By completing the Contracting Authority's Business Case Template for PCP the procurer will be able to check in advance whether the PCP is an affordable, viable, value-for-money initiative. Thanks to the Business Case, the procurer will also have an overview of the potential risks the PCP project might incur on and how these will be managed.

The Business Case for PCP projects Template

1.Executive Summary

The Executive Summary should provide a short, informative summary of the Business Case for PCP document to follow. It should be completed after the rest of the document is finished and should be a succinct summary of all the major points. No longer than 1 page.

2.Introduction and Overview

This section should describe the setting, background and context of the Business Case. It should clearly state the purpose of the Business Case, e.g.

- *To make a decision regarding the start of a PCP initiative*
- *To obtain approval to either commence a PCP project or proceed to the next stage*

This section should describe the PCP Project:

- ✓ *Brief history of how the project came into being*
- ✓ *Detailed explanation of the (societal) NEED (what is the need or the problem the PCP project is trying to address, how the need emerged, how it was identified, the importance of addressing that need) (step 1 of the proposed PCP model)*
- ✓ *Detailed explanation of the concept viability exercise that followed the identification of the need (step 2 of the proposed PCP model)*
- ✓ *Outcome of Steps 1 (Needs identification) and 2 (Concept viability): Is PCP the only solution to address the need, are there other solutions? Why PCP has been chosen / preferred?*

This section should also include the high-level, strategic objectives of the contracting authority within which this PCP project sits, or the overall objective of the division or department

3.Cost/Benefit Analysis

3. a Assessment of benefits

The benefits of the PCP project should be identified and quantified (What are the benefits from carrying out the PCP? What are the benefits of this "investment"?)

Include:
Recall the section in the Manual: "Benefits of PCP" and try to address/estimate them, see below:

Direct benefits for the procurer (operator of the public service being modernised through the innovation):

- ✓ *improvements in xxx by time … xxx (quantify)*
- ✓ *reduction in xxx by time xxx (quantify) ,_ other tangible, non-tangible and consequential benefits*

Examples

- ✓ *Expected improvements in quality, reliability, accuracy, efficiency of service provision*
- ✓ *Expected reduction in running costs, maintenance/delivery problems experienced in running the public service*
- ✓ *Higher quality products for lower price -> cost savings on commercial tender following up a PCP (average cost*

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savings amount to 20% in US)

- ✓ *Shorter time to market -> cost savings for procurer by introducing the innovation sooner*
- ✓ *De-risking commercial tender following a PCP -> reduction of risk/cost of miss specified tender specs*
- ✓ *Benefits of IPR sharing with suppliers -> no costs for licensing IPRs for the procurer, no costs to purchase licenses to use the newly developed solutions (free license to use), lower development cost of solutions and/or revenues generated for procurer by royalty payment / equity stake from companies participating in PCP*
- ✓ *Avoiding supplier lock-in -> quantify the value of having access to a competitive iso monopoly/oligopoly market by e.g. having the right to license or require PCP companies to license to third parties*
- ✓

Benefits for society at large (users & policy makers of the public service being modernised through the innovation):

- ✓ *improvements in xxx (e.g. effectiveness of public service to deliver as expected, time savings for people using public service) bv xxx (quantify)*
- ✓ *reduction in xxx (e.g. environmental impact - emissions) by time xxx (quantify)*
- ✓ *improvements in innovation climate (job creation, attracting foreign investment e.g. VCs)*

Also the benefits to be gained from carrying out the PCP compared to the alternative of 'doing nothing' should be considered

3. b Assessment of costs

The costs of the PCP project should be identified and quantified.
Consider:

- ✓ *Development costs (R&D costs) of the PCP project (important to establish the number of phases of the PCP process (e.g. usually three (design, prototype & first-batch production), the approximate duration of each phase, and the minimum number of suppliers per phase in order to ensure competition)*
- ✓ *Running costs (set-up costs) (e.g. costs of launching/publishing the tender, costs of managing/monitoring/supervising the project, administrative, contract costs, etc.)*
- ✓ *Other costs/ resource requirements (e.g. lost opportunity cost, costs related with the acquisition of software tool to manage the PCP project, cost of external consultancy services, etc.)*

4.Key assumptions and dependencies

Key assumptions, which, if they turn out to be wrong, may affect the eventual success of the PCP project, should be identified.

Key dependencies, which if not in place may affect the outcome, should also be clearly identified.

5.Risk and Sensitivity analysis

The key risks associated with the PCP project should be identified, particularly those which may have an impact on the costs and/or benefits. This section should include all possible risks:

- ✓ ***P**olitical, **O**perational **E**conomic / Financial and **T**echnical/technological (POET) risks should be taken into account as they could all contribute to the overall risk of the PCP project.*
- ✓ *With an indication of the probability and likely impact of the risks and the measures being proposed to manage the risk(s) and / or to reduce their impact*

The contracting authority/public procurer should identify the major sensitivities to which the PCP project could be exposed (e.g. technological risk, cost overruns, time slippage which may result in higher costs and missed opportunities)

6.Timescales

The proposed start and end dates should be given together with a list of significant milestones (events with dates). For example define the start and end dates of the whole PCP project as well as the start and end dates for each of the different phases of the PCP

Where relevant, the milestones to include dates on which the PCP should be reviewed (e.g. PCP to be reviewed at the end of each of the phases)

Main milestones and dates:	***Proposed start:***	***Proposed end:***	***Proposed budget***

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Phase 1. Design	*date*	*date*	*euro*
Phase 2. Prototype	*date*	*date*	*euro*
Phase 3. First-batch production	*date*	*date*	*euro*

7.Comments / Issues

This section to be used if needed to draw attention to additional points or issues, which should be taken into account when considering the PCP project.

8.Conclusions and Recommendations

Summary of the findings and recommendations

9.Appendices

Detailed calculations, figures, reference material and other back up data

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APPENDIX 5 – Other procuring instruments- a comparison matrix

Procurement Instruments: A Comparison Matrix							
	Pre-Commercial Procurement (PCP)	**Open Procedure**	**Restricted Procedure**	**Competitive Dialogue**	**Negotiated Procedure with a Contract Notice**	**Negotiated Procedure w/o a Contract Notice**	**Forward Commitment Procurement**
INSTRUMENT (Definition & Use)	The PCP instrument enables the commissioning of R&D services, under a staged competitive process, to enable the development of innovative solutions to meet the needs of the Contracting Authority (CA). With this instrument the CA does not reserve the R&D results exclusively for its own use. 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 The CA issues an Open Call to compete to win a PCP Framework Contract. From received responses, a cohort of winning suppliers is put on one Framework Contract. Each winning supplier designs their innovation in Phase 1.On completion	Use of the 'Open Procedure' Instrument enables any interested economic operator to submit a tender.	Use the 'Closed Procedure' instrument enables any economic operator to request to participate and only those economic operators invited by the CA may submit a tender.	Use of the 'Competitive dialogue' instrument enables any economic operator to request to participate and the CA conducts a dialogue with the candidates admitted to that procedure, with the aim of developing one or more suitable alternatives capable of meeting the CA's requirements and on the basis of which the candidates chosen are invited to tender.	Under this procedure the CA may consult with the economic operators of their choice and negotiate the terms of contract with one or more of these. Whilst the negotiated procedure with a notice is subject to a number of requirements to ensure a degree of competition and transparency, it does not provide the same guarantees as other procedures for monitoring and objectivity, and is confined therefore to exceptional cases.	Under this procedure the CA may consult with the economic operators of their choice and negotiate the terms of contract with one or more of these. In doing so, the CA may simply negotiate a contract with one or more providers, without any advertisement and usually without any kind of competition. This procedure is allowed only in exceptional cases	This instrument enables the CA to alert the market to the procurement need and offers to purchase the solution, if the need is met, once they are available, at an agreed price and specification. This provides the market pull to create the conditions needed to deliver innovative, cost effective products and services and unlocks investment to deliver the requirement.

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	of Design Phase, the cohort participates in a mini-competition to advance. Each winning supplier develops their prototype in Phase 2. On completion of the prototype development, the cohort participates in a mini-competition to advance. Each winning suppliers develops their small-batch production in Phase 3						
NEED IDENTIFICATION	√ Solution to need not available in the market but can be in the mid-to-long term	√ Solution to need available in the market	√ Solution to need available in the market	√ Solution to need available in the market	√ Solution to need available in the market	√ Solution to need available in the market	√ Solution to need not available in the market but can be in the short term
ADVERTISING	PCP Framework Contract Notice in O.J.	Contract Notice in O.J.	Contract Notice in O.J.	Contract Notice in O.J.	Contract Notice in O.J.	Contract Notice in O.J.	Contract Notice in O.J
SELECTION (short-list of suppliers)	N/A	N/A	Suitability (Qualification) _____ Selection of candidates to tender from suitable ones	Suitability (Qualification) _____ Selection of candidates to tender from suitable ones	Suitability (Qualification) _____ Selection of candidates to tender from suitable ones	Suitability (Qualification) _____ Selection of candidates to tender from suitable ones	NA
AWARD & COMPETITION	Dialogue Phase may take place (innovation platform type open dialogue with industry as concept viability check)	Dialogue Phase N/A _____ Submission of tenders _____ Clarification and	Dialogue Phase N/A _____ Submission of tenders _____ Clarification and	Dialogue Phase may include: a) Outline/initial proposals; b) Discussions; c) Elimination of some participants. _____ Submission of tenders _____ Clarification and	Dialogue Phase may include: a) Outline/initial proposals; b) Discussions; c) Elimination of some participants. _____ Final Offers?		Dialogue Phase N/A _____ Submission of tenders _____ Clarification and

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	_____ Submission of Competition Responses _____ Clarification and supplementation of tenders _____ MEAT to put on Framework Contract	supplementation of tenders _____ Choice of lowest price or MEAT	supplementation of tenders _____ Choice of lowest price or MEAT	supplementation of tenders _____ Choice of lowest price or MEAT	_____ Choice of lowest price or MEAT	Negotiation of the contract with one or more providers	supplementation of tenders _____ Choice of lowest price or MEAT
POST-TENDER				(Clarification and confirmation of commitments)	(Further negotiation?)		
STANDSTILL period	Customizable	√	√	√	√		√
CONCLUSION of CONTRACT	√	√	√	√	√		√
POST-CONTRACT	Contract award notice	Contract award notice	Contract award notice	Contract award notice	Contract award notice		Contract award notice

Note: Adapted from: Ashworth, S, *et al* (2011): *EU Public Procurement Law: An introduction*. Nottingham: University of Nottingham. http://www.nottingham.ac.uk/pprg/documentsarchive/asialinkmaterials/eupublicprocurementlawintroduction.pdf

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