Procuring Innovation

Preliminary Report on

- Use of Early Market Engagement and Supplier Relationship Management to promote innovation
- Supplier perspectives on innovation through public procurement

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What is the SCI-Network?

The SCI-Network is a network of European cities and other public authorities working together to find new, innovative and sustainable solutions for their public construction projects.

Together with other expert organisations, the participating public authorities aim to:

- Identify the most sustainable construction solutions for their needs which are available on the market in Europe
- Make sure their construction procurement practices and procedures are set up to best encourage new, innovative solutions

This report forms part of the first round of outputs from the Working Groups which have been established within the network. Further information on the Working Groups and their outputs is available at:

www.sci-network.eu

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Further discussion of this report and related topics will take place on the online Forum:

http://procurementforum.viadesk.com
Introduction

The processes used in both awarding and managing the delivery of a construction project can play a critical role in determining whether innovative sustainable products or techniques are included. Across Europe there are examples of public authorities who have taken a proactive approach to encouraging innovation through market engagement, specification, evaluation and relationship management, and who have successfully identified and implemented innovative solutions within construction contracts. This activity is not however widespread.

Innovative thinking has become essential for construction companies because of increasing pressures from clients to improve quality and environmental performance, reduce costs, and speed up construction processes.¹

The procurement of construction projects by public authorities within the EU is subject to European Procurement Directives. These Directives set out a limited number of procurement procedures which can be followed by public authorities and provide the framework within which innovation can be sought, encouraged, and evaluated in tenders. Construction activity can range from major new build developments to smaller refurbishment projects. This range of activity means that there are very different procurement processes and supply chains which need to be tackled. To put this into context, the following diagrams outline firstly a generic procurement process, and secondly the complex process involved in the procurement of a typical construction project.

Summary of Procurement Process

For a typical construction project the process starts with a requirement from the public authority for a constructed asset. Design work may be undertaken either in-house or by external consultants appointed following a competitive process. In some cases these external consultants undertake a tendering process to select a main contractor, whereas in other cases this is done by the client authority directly. In most cases the main contractor will take care of employment of subcontractors and the

procurement of materials. After successful completion of the project there will be a hand over of the completed asset to the end user.

Diagram 2 - Overview of Construction Procurement

Diagram 2 is intended to highlight the complexity of construction procurement and consequently the challenges a public authority can face in managing the procurement process. Here a main contractor has overall responsibility for a variety of different sub-contracts covering materials, labour and equipment. It is often within these sub-contracts that innovative products and methods are generated.

SCI-Network Context

Working Group 3: Procuring Innovation

The Procuring Innovation working group is initially investigating the ways in which three elements of the procurement process - Early Market Engagement, Supplier Relationship Management and the Competitive Dialogue procedure - can be used to drive the development and application of innovation and sustainability within the construction sector. The aim is to ascertain to what extent activity is taking place, and to identify and promulgate best practice case studies and guidance. Initial findings on Early Market Engagement and Supplier Relationship Management are presented in this report. A separate briefing covering the Competitive Dialogue procedure will be prepared.

In exploring innovation through procurement processes the working group is also engaging construction suppliers to gain their perspective on how effectively the public sector is driving innovation, and whether it is making the most of what the market has to offer. Initial findings from the supplier perspective are presented in this report.
Early Market Engagement

Introduction
A public authority’s needs may be driven by policy, legislative or budgetary changes, or operational requirements. Once a need has been identified, and before commencing a procurement exercise, a public authority will often consult stakeholders, including potential suppliers, to help them to understand what is needed and the different ways in which it could be delivered.

By adopting a systematic and consistent approach to engaging the markets on which they depend, public authorities can identify a range of different options for satisfying their requirements. This includes in particular understanding what innovations already exist and can be used in the project, or where current gaps exist. A key part of this is engaging the market at an early stage before a formal procurement process commences.

Early Market Engagement (EME) comprises all of the activities undertaken by public authorities to engage the market before commencing a procurement process. It is a method of capturing intelligence on innovations, new processes, project feasibility and market capacity/capability which can then be factored into options appraisal, specification and procurement of a construction project. The engagement can cover a wide range of issues including:

- Feasibility: whether what is sought is feasible, or has ever been done;
- Capability: the ability of the market to achieve what is required;
- Maturity: whether there is an established market for the requirement and whether there are enough suppliers in existence for competitive procurement;
- Capacity: whether the market can achieve what is required quickly enough, or on a large enough scale.

EME is different to Early Contractor Involvement, which is based on the conditional appointment of a main contractor - on an individual project, under a framework agreement, or under a long-term contract - in order to obtain additional input to the design process.³

Benefits of Early Market Engagement
For a public authority the key benefits of EME include:

- Confirming, through market reaction, that the scope and objectives of the procurement provisions are sound and achievable
- Confirming that the proposed approach is, in general terms, acceptable to the market
- Finding out about new, innovative or alternative ways of meeting the requirements
- Flagging potential issues or problems with the project, or identifying gaps in current provision where innovation could be stimulated through public procurement.

For suppliers, the key benefits of EME are:

- Market-focused requirements (perhaps shaped or influenced by suppliers) are conducive to greater participation in tender procedures
- The chance to raise issues and queries about the public authority’s requirements at an early stage, reducing time and overhead later on
- The chance to gain a valuable insight into the public authority’s wider programme, requirements and priorities.

Approaches to Early Market Engagement

Depending on the scale, complexity and value of the construction project a public authority may choose to use one or more different forms of early market engagement. The working group has identified a range of different approaches, each with different levels of engagement. These are highlighted in the diagram below.

**Market Survey**

The most simple and frequently used form of EME is a market survey. A public authority will issue a request for information to a broad range of potential suppliers identified through a combination of research, previous contracts, industry groups and correspondence. Using this list of suppliers a discreet survey can be issued to solicit response data on current activities, capacity, and any new products or processes relevant to the requirement.

The advantages of this approach are that it can reach a large number of suppliers and carries a relatively low resource overhead for the public authority. However, it can be difficult to co-ordinate and is unlikely to stimulate interest from non-conventional suppliers who could potentially offer the most innovation.
Prior Information Notice

Prior Information Notices (PINs) are a method by which a public authority can alert the market to a forthcoming procurement, provide an outline of its requirements and, where appropriate, initiate a technical dialogue.

As the PIN is published in the OJEU it gets wide exposure to suppliers from across Europe. This can help to solicit interest from non-traditional suppliers and new sectors. This is also a way of accessing different parts of the potential supply chain i.e. gaining an understanding of component or product manufacturers that might normally be hidden beneath a main contractor.

Procurement Prospectus

Building upon the use of PINs and OJEU notices to raise awareness of projects amongst potential suppliers, a number of public authorities are now using prospectuses to encourage suppliers to come forward with innovative solutions before a procurement process is initiated.

A procurement prospectus provides potential suppliers with more detailed information on the proposed procurement, highlights the particular challenge the authority is looking to address, and invites innovative solutions.

When combined with other EME activities such as industry days and technical dialogue, a procurement prospectus can be a powerful tool in framing discussion with prospective suppliers.

Industry Days

Importantly these sessions also provide a networking opportunity for suppliers to meet and explore potential partnership options. Hosted by the public authority, these sessions bring together prospective bidders from across the supply chain to receive detailed information on the proposed project and any specific challenges the public authority is seeking to address. The sessions provide the opportunity to encourage innovation first hand. By bringing a wide range of potential suppliers together the sessions also provide a means of encouraging partnerships between suppliers which can help an innovative SME find a way of partnering with a larger contractor to commercialise their idea for inclusion in the delivery of the contract.

Wakefield (UK) - Procurement Prospectus

In May 2010 Wakefield Council (UK) started to develop a strategy to procure a highly energy efficient lighting system for a new swimming pool and leisure complex.

Recognising that there were significant innovations in the field of lighting, Wakefield made a procurement prospectus available to the market providing details on their proposed project and inviting suggestions from all tiers of the supply chain to come forward with innovative proposals.

The most promising responses to the prospectus were followed up with workshops. Furthermore a directory of businesses that responded was published online to encourage partnering between suppliers in preparation for the call for tender.


In January 2011 Transport for London (TfL) issued a PIN for the provision of low-carbon energy to meet a proportion of its current and future forecast bulk energy demand.

Although TfL is technology neutral, it requires reliable provision to support the delivery of rail services. Furthermore it was seeking solutions which did not require capital outlay.

Suppliers were invited to provide innovative outline proposals for how this could be achieved with the purpose of informing a future procurement exercise for these services.
Procurement of Research and Development
At a European level the procurement of R&D services is excluded from the procedural requirements of the Directives. The European Commission has developed an approach called Pre-Commercial Procurement to provide a structured way for public authorities to engage innovative suppliers to develop multiple options to meet an operational or commercial challenge. This involves the public authority funding successive rounds of development activity to move the most promising ideas from concept through to prototyping and pre-commercialisation. Examples of this approach are already operating in the Netherlands (Small Business Innovation Research) and the UK (Small Business Research Initiative).

There are separate projects supported by the European Commission on Pre-Commercial Procurement so this working group is not proposing to undertake detailed research into this approach.

Guidance on Early Market Engagement
Initial research has indicated that guidance on EME is based around specific innovation procurement projects, rather than generic guidance, for example:

- Pre-Commercial Procurement
- Small Business Research Initiative
- SMART SPP
- Forward Commitment Procurement

Although good quality, these documents do not provide any specific reference to how EME can operate in the context of construction procurement which has a number of complications:

- Construction has complex supply chains, and increasingly public authorities are appointing main contractors to act as an integrator for material, labour and equipment sub-contractors. This can make it difficult to gain visibility of potential sub-contractors who can be the source of innovation.
- The construction market is highly fragmented with large numbers of suppliers ranging from large multinationals to sole traders.
- A public authority will often appoint a set of professional advisors including architects, cost estimators and surveyors to assist in the options appraisal and design phase of a construction project. As the design phase has the greatest scope to encourage innovation and sustainability outcomes, should a public authority undertake EME as part of this process?
- Role of main contractor as a supply chain integrator – the main contractor will have significant influence over the management of the innovators in the supply chain.
- Involvement of designers and architects in the early stages of the procurement process – many would argue that the largest scope for innovation is at the outset of the project when the building is designed.

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4 Article 16 (f) of Directive 2004/18/EC. This applies to R&D 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.
5 The SCI Network has prepared a separate case study on this initiative which available on www.sci-network.eu
6 http://ec.europa.eu/information_society/tl/research/priv_invest/pcp/index_en.htm
7 http://ec.europa.eu/information_society/tl/research/priv_invest/pcp/index_en.htm
8 http://www.innovateuk.org/deliveringinnovation/smallbusinessresearchinitiative.ashx
9 http://www.smart-spp.eu/
10 http://www.bis.gov.uk/policies/innovation/procurement/forward-commitment
The lack of guidance specific to construction suggests that there may be a role for this working group to provide tailored support to public authorities through guidance, capacity building or case studies and this will be further explored in phase two of the project.

Summary of Legal Position of Early Market Engagement
As EME sits outside of the actual procurement process there is a level of uncertainty over whether it is regulated by the EU Procurement Directives. Our research has suggested that there are three areas buyers need to be aware of when undertaking EME:

Application of General Treaty Principles
Public procurement activity is regulated by the Treaty of the European Union. This means that any EME activity needs to be undertaken with due regard to the principles of transparency, non-discrimination and mutual recognition regardless of whether there are specific provisions within the procurement directives. No advantage or disadvantage should be given to any supplier or group of suppliers through EME; it is important that suppliers understand that the competitive phase of procurement will be carried out separately and all suppliers will be treated on equal terms. This can be stated in the invitation to open discussions.

Prior Information Notices
Under the procurement directives a public authority can issue a Prior Information Notice (PIN) inviting suppliers to submit information or expressions of interest for a forthcoming procurement. The directives specify procedures for the completion and issue of PINs.

Technical Dialogue
The recitals to the Public Sector Directive\textsuperscript{11} make specific reference to the option of using a ‘technical dialogue’ with potential suppliers in the pre-procurement phase. The object of the technical dialogue is to directly inform a public authority’s choice regarding the specification or overview of requirements.\textsuperscript{12}

While no detail is provided in the directives on the process for a technical dialogue, it does stress that any advice gained through this process should not have the effect of precluding competition.

There is a school of thought that believes the technical dialogue procedure could be subject to review under the Remedies Directive as a consequence of the ECJ decision in the \textit{Stadt Halle} case.\textsuperscript{13}

\textbf{Netherlands – Small Business Innovation Research (SBIR)}
Small Business Innovation Research (SBIR) is a tendering process in which the Dutch national government supports entrepreneurs in their research and development work. Contracts are awarded in a three-phase competition: feasibility, research phase and commercialisation.

The key feature of the SBIR programme is that the contracting authority fully funds the first two phases, while the resulting intellectual property remains with the company. Through this form of pre-commercial procurement the government is able to stimulate innovative solutions for specific social issues.

\textsuperscript{11} Recital 8 to Directive 2004/18/EC
\textsuperscript{13} Case C-26/03, European Court of Justice, January 2005
Questions:

- Has your authority undertaken EME activities for construction projects?
- Have you specifically sought innovation through your EME processes, and was this applied in the resulting procurement?
- Would EME guidance specific to the construction sector be useful?
Supplier Relationship Management

There are often good opportunities outside of the procurement process, post-award for public authorities to work with their suppliers on a voluntary basis to promote the importance of innovation to the suppliers and through them to the supply chain.

Supplier Relationship Management (SRM) is the process for managing the interaction between two entities – one of which is supplying goods, works or services to the other entity. SRM is focused on the overall relationship with a supplier rather than a specific relationship around a contract. In contrast, Contract Management refers to the activities of a buyer before, during and after a contract period to ensure that all parties to the contract fulfil their obligations.

SRM is a two-way process in that it should improve the performance of the buying organisation as well as the supplying organisation and hence be mutually beneficial. The key objectives of SRM from the buyer’s perspective can be summarised as:

- Encourage innovation
- Enhance performance, faster response from the supplier
- Lower cost of engagement
- Improved communication and collaboration
- Communicate key policies and objectives
- Supply-Demand matching
- Minimise risk
- Becoming a customer of first choice

In summary, SRM is about a public authority increasing collaboration with strategic suppliers to solve problems or deliver opportunities that in turn create value for both parties. The key components of SRM are summarised in the diagram below:

SRM has emerged as a discipline over the last five to ten years based largely on private sector practice. It is only starting to be used in the public sector and there is a level of uncertainty over how far SRM activities are regulated by the Directives as it refers to existing relationships and activities after a contract has been awarded. The public sector’s limited use of SRM can also be attributed to the
procurement obligations of public authorities, which can constrain their ability to develop long term relationships with suppliers. For example, a supplier may not be willing to invest in developing a relationship if it knows that the public authority will have to openly tender the contract after two or three years.

**Supplier Relationship Management in Construction**

Construction projects are often one-offs - that is, once a building is constructed the relationship ends. Consequently, long term relationships based upon high levels of bilateral dependency are not always necessary for either the public authority or the contractor to achieve their objectives. This short term view has been a contributor to the construction industry’s tradition of adversarial relationships - if there are no advantages to establishing long-lasting and close relationships with a client, it can be advantageous for a contractor to pursue a purely transaction-based approach.

Within many member states where there is increasing emphasis on value, performance and probity, old systems of procuring construction – which are adversarial and rooted in conflict – are no longer acceptable, and a new approach based upon relationship management is becoming increasing popular and successful. There have been a variety of public sector-led initiatives to drive more collaborative and integrated relationships within the construction industry, recognising that the traditional adversarial approach to management does not always deliver good value for money.

We are also seeing an increasing trend of public authorities seeking to aggregate their construction requirements into programmes of work or framework agreements in order to achieve economies of scale and standardisation. These long term relationships, often involving multiple projects, provide an opportunity to establish a more strategic relationship with contractors and scope to work more collaboratively on the identification and deployment of innovative ideas.

In the context of innovation, the one-off nature of construction projects mean that it can be difficult to develop and implement innovations during the delivery of a contract due to the relatively short timescale and constraints of existing design/specification. As there is also a high degree of sub-contracting within this industry, the main contractors appoint second tier contractors to deliver packages that can be easily integrated into the final solution. It is often within these sub-packages that there is scope for innovation, however traditionally the public authority is not involved in the management of these tiers and they will often change from one project to the next. This presents two opportunities for SRM:

- Innovative ideas identified after design and during construction of a project can be carried forward to future initiatives with the supplier, and developed further if needed.
- By working with the main contractor the public authority can better explore innovation opportunities within the supply chain, and potentially introduce new suppliers for future projects.

**When Can Supplier Relationship Management Be Applied**

This working group considers that there are characteristics within a buyer/supplier relationship that provide the conditions to encourage innovation:

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14 In some circumstances, especially Public Finance Initiatives and Public Private Partnerships, public authorities are seeking integrated contracts where a contractor will design, build and operate a contract. In these types of contract there is an ongoing relationship with a contractor at a contract level.
15 For example, in the UK Constructing Excellence have promoted the principles of partnering and integrated teams in construction – [www.constructingexcellence.org.uk](http://www.constructingexcellence.org.uk)
SCI-Network: Working Group on Procurement Process

- **Innovative demands**: Public authorities must be proactive in demanding innovation and clearly articulate this to suppliers along with details of their forward plan of activity.

- **Market power**: The pressure for innovation is greatest when there is significant demand. Research has suggested that a significant contract with the public sector can reduce the supplier’s risk of innovating. Furthermore, suppliers can also commit resources towards innovation for the public sector when they recognise that the client’s presence in the market is long-term rather than short-term. For public authorities these circumstances can arise in:
  - Framework Agreements for construction
  - Programmes of construction work
  - Aggregation and collaboration – where public authorities have come together to jointly procure a range of construction activity.

- **Time for the development of innovative solutions**: Clients can stimulate innovation when they allow sufficient time at the tendering stage for the development of new ideas and innovative proposals; however overriding time and cost pressures in construction projects frequently leave little room for experimentation with innovative ideas in construction. There is further opportunity to encourage innovation through SRM, provided the relationship is of sufficient duration to transcend individual project constraints.

The enablers highlighted above present the question of whether SRM is something which is relevant to smaller public authorities. We believe that this question should be explored further through the working group, but there appears to be potential for the concept and some components of relationship management to be applied in smaller projects, for example a clear articulation by the public authority of its need for innovation.

**SRM Tools and Guidance**

Research has indentified very few examples of guidance material on SRM across member states for public sector construction. Anecdotally this is due to the following factors:

- SRM is a relatively new concept for many authorities, and specific resources may not be available to implement it
- It is not regulated and is therefore is perceived as ‘low risk’
- It is usually only applied to high spend relationships – smaller authorities may not see the value in investing in SRM processes
- Many construction projects are short term and suppliers can vary
- There is an adversarial approach to construction procurement – efforts have been focused upon establishing more collaborative relationships at a contract level in the first instance.

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18 An example would be the UK NHS ProCure 21, a Supply Chain management and integration that involves developing long term relationships in a framework to supply construction services to the health care sector.
19 Kumaraswamy, M, and Dulami, M(2001). Empowering innovative improvements through creative construction procurement, Engineering, Construction and Architectural Management =, 8(5-6), 325-335
This presents a missed opportunity for authorities as there is increasing use of longer-term, programme-led contracts and framework agreements for construction. Equally, it is difficult to incorporate an innovation identified post-contract award into a one-off construction project.

Case Studies
One case study on Transport for London’s use of Supplier Relationship Management to identify and promote innovation from suppliers has been published in conjunction with this report.

Questions:

- Has your authority managed relationships with suppliers across multiple construction projects?
- Have you worked collaboratively with one or more suppliers on stimulating innovation?

Supplier Perspective

Between January and March 2011, a number of pan-European construction suppliers were interviewed to gain their perspectives on how early market engagement and supplier relationship management can be used to identify and drive sustainable solutions for public construction projects.

Identifying Innovation through Early Market Engagement

- **Key response:** the earlier the engagement, the greater the opportunity for innovation.
- It is vital to involve suppliers in the design stage in order for them to offer innovative solutions.
- Once designs are complete, suppliers’ experience is that the emphasis shifts almost entirely to price, and the opportunity for innovation is lost.
- There is a lack of consistency in mode of engagement across public authorities.
- Industry workshop days are the most common form of early market engagement – however, innovation is only occasionally featured at these events.

Driving Innovation through Supplier Relationship Management

- **Key response:** driving innovation through SRM is not possible in individual construction projects. All of the value of innovation is added at the design stage – at SRM stage it is too late to implement new concepts.
- In the case of longer-term relationships, such as framework agreements, it is possible to drive innovation through SRM.
- Suppliers favour forums with open sharing between suppliers of innovation and collaboration on non-competitive issues.
- Suppliers would like to see innovation promoted through incentivisation – e.g. the possibility of negotiating contract extensions and gain share approaches.
- It is vital to include key sub-contractors in the process at design stage. E.g. a structural steel provider can use expertise to take weight out of a building at design stage, thereby reducing raw material usage and cost.
- Suppliers identified the following ways in which public sector bodies can improve:
  - Holding lessons learnt workshops to discuss completed projects with suppliers.
  - Allow main contractors greater flexibility in sub-contracting.
SCI-Network: Working Group on Procurement Process

- Greater communication, openness and transparency – clear on what they want from the outset.

**Next Steps and Questions**

**Next Steps**
- Engage public authorities on initial findings and identify further best practice case studies and examples.
- Broaden contractor engagement and test their views with network participants. Use feedback to produce separate briefing note and promote good practice.
- Prepare briefing on Supplier Relationship Management for use by authorities wishing to undertake the process.

**Questions:**
- Are public authorities conducting Early Market Engagement and Supplier Relationship Management, but not labelling the activities as such, or not publically promoting their successes?
- Are suppliers given the opportunity to input into the design stage? If so, is this resulting in the desired innovative techniques and products?
- Are there additional elements of the procurement process which should be explored in terms of the potential to produce and drive innovation? Possible examples are the specification and evaluation stages.