



Chamber of Eco Commerce, CEC

Sustainable Public Procurement Initiative 2011-2013

‘Supports and Enables Public Authorities to Become Knowledgeable Customers’

Published: January 1, 2011

Eco Innovation Through Sustainable Public Procurement

The most common misconception about ‘Sustainable Procurement’ is that green products cost more. However, upon closer inspection, this does not necessarily hold true.

Although in many, but certainly not all, cases the greener alternative may have a higher purchase price, if we analyze all the costs (throughout the working life of the product), overall the greener alternative may well prove to be cheaper over time.

If contracting authorities wish to ascertain, which products are most cost effective for them they need to apply Life-Cycle Costing (LCC) approaches in their procurement decisions.

This means comparing not just the initial purchase price of a product, but all future costs as well: Usage costs; energy/ water consumption, consumables such as ink or paper; Maintenance costs; Disposal costs/ resale value; the higher initial price of the greener product is more than compensated by the much lower usage and disposal costs.

For a great many products usage costs make up a very large portion of the costs which a contracting authority would pay. Typically this applies to energy consuming products such as vehicles, IT equipment or lighting, and of course buildings - for buildings, running costs may account for up to 85% of the life-cycle costs. This means that, although a more energy-efficient building may cost more to construct, due to the lower operating costs (e.g. heating bills) it would have a shorter payback period and a higher return on investment.

In the case of energy efficient products, a “high” purchasing price is often more than compensated by even higher long-term savings.

To get an accurate picture of costs for the contracting authority, it is also necessary to take account of the life-span of the product – the longer a product lasts the less frequently it needs to be replaced, which may well lead to savings. Many contracting authorities worldwide recognize the economic advantages of considering the life-cycle costs of products.

The public sector has immense power to stimulate investment in Eco Innovation. The public authorities have the potential to create new markets, but barriers to fulfilling this potential will need to be overcome. Key barriers include access to finance, lack of practical tools and information, lack of training, green products are perceived to cost more, lack of legal expertise in applying environmental criteria, the need for systematic implementation and integra-

tion into management systems, lack of co-operation between authorities, limited established environmental criteria for products/services, and lack of political support.

The Importance of Sustainable Public Procurement for Eco Innovation

The key rationale behind the promotion of Sustainable Public Procurement is that through the introduction of environmentally-conscious practices into everyday public spending, the authorities can stimulate the development and use of more environmentally-friendly technologies.

The total share of public purchases in some industry sectors reaches 50% and this provides public authorities with the real power to help move eco-products into mainstream. Additionally, this gives producers real incentives to pursue innovative solutions.

The success of this strategy will be in sharing the eco-innovation efforts between niche-manufacturers and mainstream industry. This can be achieved by changing the way industry perceives eco-innovation – not as a hindrance but as a business opportunity.

Public Procurement should ideally provide a good example for other consumers and encourage thinking in terms of sustainable development.

Sustainable Public Procurement (SPP)

SPP means that public authorities seek to achieve the appropriate balance between the three pillars of sustainable development - economic, social and environmental - when procuring goods, services or works at all stages of the project.

SPP is a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life-cycle when compared to goods, services and works with the same primary function that would otherwise be procured.

By using environmental criteria public authorities can buy electricity, transport services, office IT equipment, food and catering services and many other goods and services that contribute to the reduction of environmental impacts.

The concept of SPP has been widely recognized in recent years as a useful tool for driving the market for greener products and services and reducing the environmental impacts of public authorities' activities.

Green Public Procurement (GPP)

GPP means that public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life-cycle compared to goods, services and works with the same primary function that would otherwise be procured.

Benefits

The benefits associated with GPP and SPP are not limited to environmental impact, but can include everything from social and health to economic and political benefits:

- Allows public authorities to achieve environmental targets;
- Sets an example to private consumers;
- Raises awareness of environmental issues;
- Improves quality of life;
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- Raises awareness of environmental issues;
- Improves quality of life;
- Helps establish high environmental performance standards for products and services;
- Provides incentives to industry to innovate;
- Can reduce prices for environmental technologies;
- Saves money and resources when the life-cycle cost of products is considered;
- Is an effective way to demonstrate a public authority's commitment to environmental protection and sustainable consumption and production.

Barriers

- Lack of practical tools and information.
- Lack of training.
- Lack of political support.
- Green products are perceived to cost more.
- Lack of legal expertise in applying environmental criteria.
- The need for systematic implementation and integration into management systems.
- Lack of co-operation between authorities.
- Limited established environmental criteria for products/services.

Challenges and Opportunities

For many years, Eco Innovation was only a subject for niche manufacturers, while mainstream industry rarely, if ever, pursued ecologically-friendly innovations. Times have changed, however, and Eco Innovation is now recognized as serious business opportunity.

The pursuit of Eco Innovation by mainstream industries has real potential for increasing the competitiveness of the economy. By stepping to the forefront of Eco Innovation, industry could exploit the business opportunities arising in this relatively new market.

Mitigating and adapting to climate change will require the development of new and innovative low carbon emission solutions and technologies for lighting, vehicles, heating and cooling systems, information and communication technologies (ICT) and electricity production.

Many companies, however, are reluctant to invest in the development of Eco Innovative technologies when there is uncertainty about the size of the market for these products.

Public authorities purchase large volumes of products. They have a responsibility to their communities to reduce the carbon emissions of the products and services they buy. Demand from public authorities can therefore play an important role in the development and mainstreaming of Eco Innovations.

Buyers can use their purchasing power to influence suppliers and help create a more reliable market for greener products. By specifying purchasing preferences for products that have lesser environmental impacts, organizations can spur manufacturers to: use clean manufacturing processes and materials, design for the environment (DfE), consume less energy or water, minimize waste, or create less toxic products or emissions.

Life Cycle Costing (LCC)

In a procurement process a contract can be awarded based on lowest price or most economically advantageous tender. The comparison of the different economic offers therefore need not be based solely on the purchase price. A more accurate approach is to consider the "life costs" related to the ownership of the product taking into account purchase price, usage and maintenance costs and disposal/resale. Other approach is to use the "total life cost", which takes into account also cost of so called externalities.

Life-Cycle Costing is a tool which evaluates the costs of an asset throughout its life-cycle.

The conventional LCC technique is most widely used by companies and/or governments and is based on a purely financial valuation. Four main cost categories are controlled: investment, operation, maintenance and end-of-life disposal expenses.

An environmental LCC methodology takes into account the above four main cost categories plus external environmental costs. The latter may come from LCA analyses on environmental impacts, which measure for example the external costs of global warming contribution associated with emissions of different green-house gases. Environmental costs can be calculated also in respect of acidification (grams of SO₂, NO_x and NH₃), eutrophication (grams of NO_x and NH₃), land use (m²*year) or other measurable impacts.

To be introduced into an 'accounting' LCC process, environmental costs must be expressed in monetary terms. In other words, environmental costs should be quantified and monetized so they can be considered as an additional cost input in an LCC analysis.

An environmental LCC is not a stand-alone technique but draws upon the results from appropriate environmental LCA analyses. It is therefore a complementary analysis to the LCA and all inputs should be expressed in the same monetary unit.

Innovation & Risk Mitigation

Innovative solutions are by their very nature relatively new and untested. Therefore buyers are potentially exposed to risks – technical risks (that the solution does not perform as expected) and financial risks (that final costs are higher than expected). These risks need to be taken into account – in trying to assess the extent of the risk and also who is responsible for dealing with this.

We seek to identify possible risks, their likelihood of occurring, the impact they would have, and who should manage the risk. We recommend a piloting phase within the tendering procedure before committing to purchasing the full volume. We make sure that public authorities have sufficient technical knowledge at their disposal, to properly assess technical risks.

We ask suppliers to include a risk analysis and mitigation proposals as part of their tender bids. We introduce appropriate clauses into contracts indicating clear liability in the event of technical problems, or cost increases, as well as conditions for the renegotiation of contracts if required. Legal risks can also be considered an issue when engaging with the market prior to tendering, and the guidance is aimed at minimizing such risks by ensuring that the basic principles of transparency, equal treatment and non-discrimination are met.

Joint Procurement

Developing new solutions usually involves high costs, so economies of scale play a crucial role. For many new, innovative technologies having large orders early on can make a significant difference to justifying development and production costs, and in securing funding.

Bundling of demand by joining the procurement actions of several public authorities is one approach we can reduce risks and costs for individual procurers and also seen as beneficial in terms of knowledge sharing.

Joint Procurement can be a relatively complicated, resource intensive and time-consuming process:

The market sector - market sectors differ in the potential role economies of scale can play.

Co-ordinating the needs of all - agreeing on a specification that addresses the needs of all members of a buying group may prove difficult and time-consuming. Aligning contract renewal dates can also be problematic. Everyone's needs has to be adequately met.

Supplier over-reliance - If the bundled demand would most likely attract only very large suppliers who are not themselves reliant on their government contracts and therefore have strong negotiating positions, buyers may risk becoming over-reliant on these suppliers.

SMEs - Smaller companies may be automatically excluded from large contracts for capacity or geographical reasons. This could deprive the purchasers of offers of innovative products or services, and specialist or niche offerings. Using separate lots is one potential solution.

The size of the consortium - if consortium is large, it could constitute cartel behavior.

Public Private Partnership (PPP) Pilot Projects

CEC sponsored pilot projects will introduce new, innovative low carbon emission technologies and integrated solutions. These projects will encourage early market engagement between public authority procurers and suppliers and developers of new innovative products and services in the pre-procurement phase of public tenders.

These projects are managed by CEC stakeholders. These multi-partner projects involve experts from organizations worldwide. Further information on these projects will be available on the www.EcoCommerceHub.com

Emerging Technologies in Focus

The projects will specifically focus on the following products and services:

- Construction services (e.g. heating/cooling systems using renewable energy sources);
- ICT (Solid State Computers);
- Lighting systems (indoors/outdoors);
- Highly energy efficient (electric) vehicles (passenger and duty cars);
- Water Innovations.

Developing Environmental Criteria

One of the common challenges facing public procurers in implementing SPP is knowing which environmental criteria to use, as procurers will not typically have expertise in this area.

We deliver environmental criteria that has been developed based on solid scientific evidence and in co-operation with all relevant stakeholders. This criteria can be inserted directly into project documents.

Verifying the Environmental Performance of Products

Another challenge for public procurers is how to verify that products actually meet the environmental criteria. It may prove complicated and time-consuming for procurers to study technical documentation on environmental performance – particularly as this will not likely be their area of expertise.

We present environmental criteria in a simple and reliable way for the procurer to check compliance.

Outcomes

Sustainable Public Procurement Initiative and PPP Projects aim to bring innovative highly energy-efficient environmental technologies, which have just been researched, developed and tested onto the market through the public procurement process. This will be done through encouraging early market engagement between public authority procurers and suppliers in the procurement phase and result in the issue of tenders.

Public authorities will be invited to test a common integrated approach on the procurement of Eco Innovation. The approach will include integrated communication, managing the risks, assessing the financial benefits (life-cycle costing), and calculating and communicating the CO₂ savings.

Prior to the development of the standard approach, a needs analysis will be conducted to ensure the outcomes of the project are as useful as possible to public authorities and their suppliers. In addition, existing best practice in the field of Sustainable Public Procurement, legal considerations and appropriate solutions, technologies and suppliers to involve in the project will be explored.



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Integrated communication tools, documents, manuals and training sessions will also be developed to assist in building the capacity of public authorities who wish to purchase emerging technologies.

Technologies in the field of construction services (eg. heating/cooling systems using renewable energy sources), ICT (solid state computers), highly energy efficient vehicles (electric/passenger/duty cars), lighting systems (indoor/outdoor), and water innovations will be explored for the procurement activities. Awareness-raising seminars and study visits will be organized for public authorities. In order to disseminate the results widely regional events and one final conference will be held in Atlanta.

Outcomes of the project will be made available online as they are completed.

Get Involved

Become a Participating Public Authority

Public authorities may participate in the implementation phase of the pilot at their own cost. Participation involves implementing the standard process for early market engagement, driving the adoption of the innovations developed through the project and ultimately incorporating its recommendations in at least one tender.

Benefits

- The opportunity to purchase emerging technologies that deliver improvements in performance over existing technologies, and;
- Access to assistance and advice on using a pre-procurement process addressing your needs in order to increase efficiency in current procurement practices.

Become a Participating Supplier

Suppliers and developers of emerging technologies in the products mentioned previously are welcome to participate.

Benefits

- Boost your brand and sales on low emission solutions;
- Increase your presence and visibility at the forefront of Eco Innovation worldwide.

Ways to join:

Submit Initiative/Project

[Read more](#)

Submit TSF

[Read more](#)