

Nordic Capitals for green growth

Six Nordic cities have come together establishing a capacity building network and a peer to peer collaboration on how to use procurement to develop sustainable supply chains. All of the cities are frontrunners in sustainable public procurement. Every city has its own success stories and ways of conducting sustainable procurement.

Experiences of the cities show that green growth in all businesses can be promoted through everyday procurement activities if you have long term political commitments to support the work.

The City of Copenhagen

Copenhagen's goal is to become the world's first carbon neutral capital city. This vision is stated in the Copenhagen (CPH) 2025 Climate Plan. The CPH 2025 Plan highlights the important role of procurement, stating that "the City will, by virtue of its large procurement volume, actively seek to move the market in a climate friendly direction".

To assist this, a unit called 'Team Green Public Procurement (GPP)' was established to work across all administrative and strategic procurement units, providing support for sustainable procurement and market engagement activities regarding environmental and climate issues.

Team GPP assists the procurers in the whole tender process from market engagement process to the development of GPP requirements. The team is also in charge of following up procurements and dialogue with the supplier during the contract.

The City of Stockholm

The city of Stockholm aims to be fossil free by 2040.

One of the most important prerequisites enabling persistent environmental requirements is to have a clear political mission. This allows you to make changes to the way you procure.

The city's Environment Program reveals the ambitions within six priority areas: sustainable energy use, environmentally efficient transport, sustainable use of land and water, efficient cycle of resources, non-toxic city, healthy indoor environment. The program includes 30 sub targets and 40 indicators, also for procurement. An integrated management system allows a sufficient monitoring of the targets.

The City of Oslo

The City of Oslo has a goal to cut green house gas emission by 50 % in 2020 and 95 % by 2030. The city aims at being fossil free within 2030.

The city's Procurement strategy has a central steering document for the procurement function.

Sustainability is integrated in the general procurement strategy. The sustainable procurement objectives are

- More sustainable consumption and re-use
- Waste reduction and recycling
- 50% eco-labelled food and beverages

The Cities of Espoo, Vantaa and Helsinki

The three cities are all part of the bigger Helsinki Metropolitan Area. They have all signed energy efficiency agreements with the Ministry of Employment and trade and have all CO₂ reduction as a target. Sustainable procurement together with innovation promoting actions is in focus.

The cities of Espoo, Vantaa and Helsinki are all part of the Smart & clean Metropolitan Area, a co-operation to make the region the best test bed in the world for smart and clean solutions. New technologies and services are tested in different areas of the cities.



CASE COPENHAGEN:

Driving sustainability in SMEs – environmental requirements for moving services

Background

In 2014 Copenhagen made a tender on moving services and storage. The procurement was divided in two different contracts: One on activities under 75.000 DKK where there was only one supplier and another contract for all the assignments that were exceeding 75.000 DKK. Altogether the annual spend of city of Copenhagen on moving services is 4,2 million DKK. All institutions in the City administration are able to use the contract.

Procurement objectives:

The tender evaluation criteria was lowest price, and the environmental requirements were minimum criteria.

The environmental requirements focused on:

- the supplier's work with continuous improvement in reducing the negative environmental impacts, measuring and monitoring the impacts
- development of environmental accounting and reporting
 - moving boxes should consist of at least 60% recycled material and be produced of legal and sustainable wood
- moving boxes shall be free from PVC and of substances from the List of Undesirable Substances (LOUS) provided by the the Danish EPA
- the vehicles used must comply with the Euro 4 standard

For fleet requirements it was estimated that at this time stricter Euro standards would be difficult for suppliers to fulfill and it might give them a non-proportional economic burden if they should change their fleet or invest in new trucks to be able to bid on the contract. Instead it was



a requirement that all newly purchased vehicles should have the newest EU standard and follow the Danish Transport Authority's recommendations on energy labelling.

Results of supplier development

Bryder og Sønner, a small moving service company won the contract. The dialogue between the city and the supplier has been good and constructive and company has been willing to improve their environmental work and policy. Participating in a public tendering process with strict environmental requirements was also a learning process.

In its' environmental work the supplier has for example:

1. Developed an environment policy focussing on vehicles, health and safety, the goods used in daily operations , the use of electricity, water and heating, fuel consumption and choosing the optimal size of vehicles . They are measuring and monitoring the impact in their annual environmental report.
2. Become aware of the electricity used in the office building and in the storage location, for instance in relation to lighting. They have now changed all the lighting in the warehouse to LED with incorporated sensors, providing them with savings of 68 % on electricity. This amounts to an annual saving of 59.000 DKK and 24 tons CO₂. The return of investment is estimated to be 4,5 years.

3. Moving boxes are now made from 100% FSC certified recycled fibre, ascertaining also that they are made of legal and sustainable wood.

Bryder og Sønner was together with the City of Copenhagen nominated for Green Public Procurement Price in 2015, which is an annual award in Denmark.

Lessons learned

The main learning has been that working with green procurement goes well beyond mere criteria development. As a public authority you can make room for environmental improvements in the dialogue with suppliers, by focussing on capacity building and awareness raising. This is especially important in relation to SMEs as suppliers.

The use of contract clauses for continuous improvements is of great importance and gives the city a platform for engaging with their suppliers, making sure that they start a process for sustainable transition and incorporate sustainability into their business activities.

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CASE STOCKHOLM:

A flexible approach key in sustainable transport procurement

Background

City of Stockholm has the goal to be fossil fuel free by 2040. In order to reach this the city has intensified their work with environmental requirements for transport within their public procurement.

In 2010 the city started setting stricter environmental requirements for transport in procurement of transport services and since 2014 also in procurement of goods, adding up to a total of around ten contracts. Earlier the requirements were exhaustive and concerned a restricted number of contracts. With time the city has changed its strategy. Nowadays they rather set a limited amount of requirements, focusing on the vehicles and fuel, in many contracts.

Procurement objectives

The city's environmental requirements for transport focus on vehicles and fuel with the aim to

speed the transition towards new technologies in fossil-free road transport.

The subcategories of transport services have all different environmental impacts and are on different starting levels. Therefore, the requirements must be based on the present situation in each particular sector. Market analysis is always done in order to design the requirements on a suitable level. Transportation services in the city of include for example passenger transportation, delivery of groceries and furniture and office removals.

Procurement methods

The city of Stockholm has used different kind of methods in implementing environmental criteria in procurements of the different transport services:

Case 1: Groceries – Requirement scale

The logistics in the groceries sector is characterized by large volumes and many delivery outlets.

It is challenging for smaller suppliers to make competitive bids. At the same time, the city aims at getting access to a larger number of smaller suppliers, to increase the supply of fresh and organic groceries. In this area the lifetime of the vehicle fleet is relatively long, approximately 6–8 years, and the investment plan for vehicles is therefore not that flexible for smaller suppliers with only two or three cars. Therefore, the approach taken in the procurement was to allow the suppliers to improve their fleet during the contract period according to a progressive scale. Suppliers with up to five vehicles were only subjected to basic requirements. Larger suppliers, however, have to have vehicles with high environmental profile (defined by the city) according to a progressive scale. The bigger the fleet, the more environmental vehicles.

Case 2: Moving of furniture and offices – flexible contract clauses

In the moving industry the environmental profile of companies varies to a large extent. The lifetime for the vehicle fleet differs but is often long, about 8–10 years. Altogether, this means that the purchaser should start slowly in introducing environmental requirements, and gradually escalate them. The city's approach here has been to introduce requirements as contract clauses; the suppliers have to invest in cleaner vehicles after 6 months into the contract period.

Case 3: Passenger transport – reducing carbon emissions

In passenger transport services, cars and special vehicles adapted for transporting people with disabilities, are used. There are strong requirements on reliability, punctuality, and the behavior of drivers. The service providers are taxi companies. Although the taxi industry has been a frontrunner in clean vehicles, the adoption of alternative fuels has been slower for the specially adapted vehicles. The city set a requirement on the amount of carbon dioxide emissions from the special vehicles used for the city services. Thus, the average for the whole fleet used in the service must not exceed 160/190 g/km. In practice this means that not all vehicles need to be exchanged if there are enough cars with low emission levels.

Supplier development

It takes time for environmental requirements to become mainstream. When suppliers meet the environmental criteria in the tender, they also get feedback that they are on a right track. Studies have shown that several of the city's suppliers are moving towards a vehicle fleet completely relying on renewable fuels. This helps the whole market in the transition.

The city's requirements are tough, but are always adjusted to the specific sector in order not to restrict competition or drive prices. It is all about providing flexibility and allowing suppliers the time to change.

Lessons learned

Environmental requirements do not necessarily need to be used as selection criteria. The environmental objectives are often better reached by good contract clauses to be fulfilled during the contract period. Making environmental requirements is a good thing - following up on them is the goal.

On top of that this way of working also improves the co-operation between the procurement and the environmental departments.

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www.stockholm.se/miljobilar

Downloads:

Read more: [Experience and impacts of environmental requirements for transport in public procurement –report, May 2016](#)
<http://www.stockholm.se/Fristaende-webbplatser/Fackforvaltningssajter/Miljoforvaltningen/Miljobilar/Broschyror-och-rapporter/>



CASE ESPOO:

Procurement of a Logistics Center – gained efficiency and reduced transports

Background

The logistics services in the city of Espoo are managed by Espoo Logistics. They serve all the city's 14 000 employees at about 1300 addresses. In previous years goods were delivered directly to delivery points. Thus, the majority of goods were delivered directly to the city's 1300 addresses from several suppliers. Also several different supplier ordering services and ordering systems for goods were in use. Back then, only social and health care services had centralized logistics for supplies. In 2013 the decision was made to scale up the centralized logistics for the whole city organization.

Espoo Logistics manages the supply chain as a whole. All other logistics services, operation of routes and systems are now procured from companies. The services include school transportations, charter bus services, transport for the elderly and handicapped and the supply of all basic accessories and equipment.

After the centralized logistics were introduced, the delivery transports reduced dramatically and better control for supply chain was achieved. The results have been outstanding with supply price cuts, saved working hours in several operational units and a new webstore for supplies.

Procurement objectives

Several objectives were set for centralized logistics concerning supply of goods and materials for the whole city:

- The location of the warehouse location must be within 50 km radius from Espoo
- Only one delivery / day to each delivery point (combined deliveries)
- Complete management system including warehouse management, webstore, and customer and product management
- The service provider must have a quality management system

- The fleet for deliveries must comply at a minimum with the EURO IV/Euro 4 standard

The role of a good market dialogue

The objectives for the solution were shaped during and after a dialogue with potential suppliers. The market dialogue played a crucial role in getting information on pricing methods and available possibilities for the logistics center concept. Four companies participated in the market dialogue and several discussions were carried out. The dialogue helped to raise the target level and the possibilities of the new webstore were recognized. A market testing method was applied in comparing the efficiency of in-house services against an outsourced service. The projected savings with a procured service were estimated to over 200 000 euros / year.

Results

The contract was won by Posti Ltd.

- The city pays only for the resources that are in use: warehouse space (warehouse hotel) and deliveries.
- Supply prices were cut down, in some fields -20 %.
- Working hours are saved in operational units.
- Benefits of centralized supply chain management system: centralized invoicing, tracking system, operational data with analyses.
- Better overall control of supplies used city wide. It is easier to make changes for example more to make more environmentally friendly choices.

Environmental benefits:

- Delivery transports of suppliers reduced dramatically from 1300 delivery points to 1 centralized delivery point.
- The service provider has low emission vehicles: biogas and electric and each vehicle has a driving style monitoring system
- All delivery, transport, freight and warehouse services in Finland by Posti Ltd are 100% carbon neutral. The company provides CO₂ calculation reports to all customers and as part of the company's environmental program they actively reduce emissions in operations by route optimization, eco-driving and transport aggregation

Lessons learned

The role of market dialogue was bigger than in normal procurement cases. The market of logistics is changing rapidly and new international companies are entering the Finnish market. Increased competition gives more possibilities for ambitious goals. The city of Espoo assumes that the next tendering round will interest more service providers to participate in and the city can set more ambitious goals for the procurement.

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CASE HELSINKI:

Environmental management standards in printing service procurement – raising supplier awareness

Background

The city conducted five separate procurements of printing services in 2015 and 2016. The services included printing of e.g. annual reports, publications and business cards. The procurement process was led by the Procurement Centre of the City of Helsinki.

The procurements included several environmental criteria such as environmental criteria of the subject-matter and the selection criteria of the tenderer.

Procurement objectives

The overall objective of all five procurements was to reduce the environmental impacts of services used by Helsinki. The more specific aim for the specific procurements was to use environmental

criteria in the selection of bidders as well as in the technical specifications for the paper used.

Persistent market dialogue

A dialogue with suppliers of printing services has been carried out during several years as procurements of printing services are conducted on a yearly basis. Thus, the city has built up a good knowledge about the printing industry. The sector is characterized by small scale businesses. Most companies have only very limited resources for developing their sustainability work, such as setting up an environmental management system. Knowing this, the city has managed to set criteria on environmental management in a constructive way without excluding too many small companies by requiring third party certifications such as ISO 14001.

Setting the optimal level of criteria

In the course of the five successive printing service procurements, the city developed the criteria used based on the information obtained in the dialogue with suppliers and the previous tenders received. The city learned to slightly modify the requirement for the environmental management system as well as the requirement for the verification accepted, in order to get more accurate tenders.

The requirement of environmental management was used as selection criteria.

The tenderer shall produce the printing service using an environmental management system which is audited by a professional auditor. A description of the environmental management system was required to be attached to the tender.

As means of proof of compliance the city also accepted: ISO 14001, EMAS, the eco-compass (a Finnish environmental management system) or equivalent systems as well as the Nordic Swan or EU Ecolabel.

Results of supplier development

The feedback from the suppliers has proven that they now have a better understanding of the city's targets and how they can live up to them. One supplier excluded twice from two different competitions, now has the ISO 14001 certificate.

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CASE OSLO:

Fossil free construction sites through public procurement

Background

The city of Oslo has a goal to cut greenhouse gas emissions by 50 percent by 2020 and by 95 percent by 2030. In addition, all public buildings in Oslo should be built as plus-houses and Oslo should be fossil free city by 2030. Omsorgsbygg, the Agency for social service buildings, is the undertaker for buildings such as nursing homes, institutions, kindergartens, and fire stations. They aim to be front runner in developing and managing green and energy efficient buildings.

Especially in wintertime the air quality in the city rises above acceptable levels due to emissions. As much as 24% of the city's transport emissions comes from construction machinery, and heating and drying of construction sites. The energy source is mainly diesel fuels. Transportation to and from the building sites comes in addition to the emissions mentioned above. It has become evident that there is a considerable potential to reduce

emissions from the city's construction sites. One of the goals is to use procurement as tool to reduce these emissions on construction sites.

Achieving the goals – the role of market dialogue

In March 2016 Omsorgsbygg, together with Bellona and The National Programme for Supplier Development, invited suppliers to a market dialogue conference. The invited suppliers were providers of heating and drying solutions for construction sites and construction machinery or means of transportation. In addition, contractors, different environmental groups and politicians participated.

The goal was to use the knowledge in the market in order to find answers to the following questions:

- What kind of solutions can the market deliver today to help reduce emissions in the construction sites?

- What solutions could be developed in the near future to eliminate emissions from construction sites altogether?
- What are the barriers?
- How can we use public procurements to reduce emissions from building sites?

The response from the market was clear: There are solutions available on the market today that can reduce emissions; some have a higher price than traditional solutions, but some do not. They are, however, not widely used because traditional solutions tend to dominate the market as tender specifications seldom call for alternative solutions. Other solutions, like fully electrical construction machinery, are not readily available and will require further development. However, these too can be developed when sufficient demand exists.

Results

Based on the market dialogue, it became clear that there were three areas representing the main sources of emissions from construction sites:

1. Heating and drying of the buildings
2. Emissions from construction machinery
3. Emissions from transport to and from the construction site

Most easily available solutions exist for the first two. In fact, most of heating and drying can use district-heating / heating-pumps, which are usually going to be installed for the buildings anyway and can be installed earlier process. Also, more or less all machinery can run on fossil-free fuel. In order to achieve the third alternative, other suppliers than contractors need to be involved.

As a result of the market dialogue Omsorgsbygg conducted three pilot projects:

- At Pastor Fangens vei 22 photovoltaics were installed as a first step in the refurbish-process, instead of the last, making it possible to produce renewable energy on site for the construction phase.
- Fossil free construction site was included as an alternative in the demolition contract of the old Fossum kindergarten. The contractor lived up to this without any further costs.
- Testing out prototype electrical construction machinery

Omsorgsbygg is now developing the monitoring of the savings and energy-efficiency of the measures taken.

Lessons learned

The pilots provided a good example of how the procurement-process can be used to solve challenges in an important area, and how a dialogue with the market can create interest and attention resulting in specific measures. The dialogue revealed many previously unknown solutions that the suppliers were eager to share with the city.

The city of Oslo will include the reduction of emissions and fossil free construction site as criteria in all tenders from 2017 onwards. As a frontrunner, the next steps will be requiring a higher share of electrical machinery used at the construction site. This is a step in creating a market for electrical machinery.

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CASE VANTAA:

Developing the market for Energy service contracting for local authority needs

Background

In 2013 an ESCO, Energy Service Contracting procurement process was launched in Vantaa in order to improve the energy efficiency of 14 municipal buildings over the next eight years.

Procurement objectives

Defining the procurement targets required a great deal of forward planning and time, as the objective was to achieve energy savings in the most efficient and economically sound way possible. The climate targets of the City of Vantaa were also taken into account in the procurement process. When drawing up the energy-saving targets, it was agreed that they should be sensible, achievable and easy to carry out.

An Energy Service Contract project is funded with realised energy savings. The service model was selected on the premise that the energy-saving

measures and savings can be kicked off immediately. It was calculated that these kinds of savings would have been delayed far into the future if the work had been carried out separately with funding for the energy saving measures applied from the City's budget.

What was the role of market dialogue?

Before publishing the actual procurement notice, discussions were carried out with different stakeholders on the thoughts and experiences of ESCO procurement. To promote innovative solutions from the participating companies, the notice didn't define what energy-saving calculation models should be used nor were any boundary conditions presented. Instead, the participants were given detailed initial information about the energy audits for three buildings enclosed with the notice, on the basis of which they were able to select and suggest energy-saving measures.

The negotiated procedure was selected and four negotiations were carried out with each tenderer, going through the targets, procurement principles, contract model, final call for tender, and award criteria. The selection of the award criteria was one of the challenging tasks.

Criteria used

As there has not been that many of municipal ESCO-projects in Finland and the city of Vantaa did not want to restrict competition too much, all previous ESCO-projects were accepted as references.

In the end, the award criteria and their focus areas were selected so that they also supported the targets set for the project.

The final award criteria were:

- Euros saved MWh/a, weight 20%
- Savings/a MWh, weight 20%
- Savings/a tCO₂ekv, weight 30%
- Remaining savings in 2023 (MWh), weight 30%

Contract management and monitoring savings

The implementation of savings is monitored in follow-up meetings held once a year. If the targets are exceeded, the profit will be distributed equally between the ESCO service provider and the City of Vantaa. In the follow-up, the entire project, and not individual properties, is examined. This means that in one property the savings target may not be reached while in another property it is exceeded.

Results

The city required a savings guarantee of 100 % from the supplier. The target of the contract period is to achieve savings of up to 30,000 MWh in heat and electric energy. This means annual savings of over EUR 200,000 in the energy costs of the City of Vantaa. The project investment of EUR 1.5 million will not incur any costs to the City of Vantaa, as the costs will be covered with the savings produced by the project within the agreed time. The implementation of savings is monitored in follow-up meetings held once a year. If the targets are exceeded, the profit will be distributed equally between the ESCO service provider and the City of Vantaa.

Lessons learned

Have an open dialogue with possible tenderers from the start – listen and take note, that way you will avoid misunderstandings. Treat everyone equally.

ESCO procurement projects have a lot of unused potential – they are a good way to improve the technical functioning and energy efficiency of buildings. Encouraged by the results of the ESCO-project, the city launched a second ESCO-procurement in 2016.

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Link to case description:

http://www.motiva.fi/files/9182/ESCO_Procurement_by_the_City_of_Vantaa_Curiosity_and_Persistence.pdf

