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Sustainable procurement of desktop and portable computers

Region Stockholm (Sweden)

Background

Region Stockholm is responsible for healthcare, public transport, regional planning and culture across 26 municipalities in the capital city region. Containing 23% of Sweden's population (2.3 million people), Stockholm is the largest regional body in the country.


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Region Stockholm first adopted an environmental programme in 1990, and has since taken a systemic and goal oriented approach to sustainability. It's Environmental Programme (2017-2021) contains 15 environmental goals and 24 indicators across the region's responsibilities in health and medical care, public transport and other transport activities, and Region Stockholm's own properties and installations.

Since the 1990's, the region has reduced its direct greenhouse gas emissions by 70%, in large part due targeting emission reduction in key procurement categories, including transport and energy.

Region Stockholm has also applied environmental requirements for ICT procurement since 2010, and has had binding contract terms addressing social responsibility since 2014. Since 2015 most of the ICT contracts have been followed up through desktop or factory audits. It is also a participant of the Procura+ Interest Group on Socially Responsible Public Procurement, which aims to support public authorities to procure information and communication technology (ICT) hardware products, and foster exchange on procurement pilots as part of the 3 year EuropeanAid funded Make ICT Fair project.

Procurement objectives

Region Stockholm has identified ICT as a priority area to be addressed in their procurement, due to the high risk of human rights, labour rights, and child labour violations within the supply chain. As an energy consuming product category, sustainable ICT procurement also contributes to the region's energy efficiency and carbon reduction targets.

The region's ICT procurement approach therefore has a number of objectives. Its procurement should promote innovation in products that are free of substances hazardous to the environment and human health, have a low environmental impact from a life cycle perspective, and stimulate sustainable product development, while reinforcing social responsibility in the supply chain for goods and services, making effective sustainability demands based on analyses of environmental impact and human rights.

In terms of market engagement, Region Stockholm held an open meeting for suppliers (both resellers and brand owners), followed by individual meetings. The proposed sustainability criteria and social contract performance clauses were also sent to suppliers for comments, and this feedback informed the preparation of eight ICT tenders carried out that year.

Criteria used

Subject matter of the contract:

Stationary and portable computers.

Technical specifications:

1. Energy Star: desktops should meet Energy Star Program Requirements for Computers Version 6.1 June 2014 or later. In case of change of model during the contract period, products must comply with the latest version of Energy Star.

Documentation confirming compliance with the requirements shall be available from the supplier and sent to the contracting authority on request. Examples of verification include EU-Energy Star's website, self-declaration according to IT Eco Declaration, product sheet or supplier's assurance that clearly indicates that the supplier has measured and declared the product according to Energy Stat's measurement and criteria.

"When using award criteria, make sure that the points awarded are significant enough to make action worthwhile (no less than 30% is recommended), otherwise the criteria will not have the desired impact."

2. Halogen free: computers shall be halogen-free. The requirement applies to all plastic parts> 25 grams, with the substances halogen bromine and chlorine with maximum I_{GT} (gate trigger voltage) concentrations according to IEC61249-2-21 standard. Motherboards are exempt from this requirement.

3. Mercury free: laptops should have a display that is completely free of mercury i.e. less than 0.1% by weight per light source.

For requirements 2 and 3, documentation confirming compliance with the requirement shall be available from the supplier and sent to the contracting authority upon request. Such documentation may be a product declaration or supplier's assurance.

4. Packaging requirements, plastic: plastic in packaging should not consist of PVC.

5. Packaging requirement, paper/cardboard: cellulose in packaging must be of recycled pulp, unbleached pulp, or pulp bleached without chlorine gas, in accordance with the TFC or EFC method. The AOX emissions to the recipient must not exceed 0.25kg/ ton of pulp.

For requirements 4 and 5, documentation that confirms the requirement is met must be available from the suppler and shall be sent to the contracting authority on request. Documentation may be a certificate from the packaging supplier.

Award criteria:

Bids were evaluated using a 70% price and 30% quality weighting.

Environment (15%)

1. TCO: (the computers should be TCO-certified or equivalent.

2. Halogen-free mother board: the mother board should not contain halogenated flame retardants with the substances halogen, bromine and chlorine with maximum I_{GT} (gate trigger voltage) concentrations according to IEC61249-2-21 standard.

3. Phthalate-free cables: Internal and External cables shall not contain the following phthalates at levels above 0.1%.

Subject	CAS Registry Number
Benzyl butyl phthalate (BBP)	85-68-7
Di (2-ethylhexyl) phthalate (DEHP)	117-81-7
Dibutyl phthalate (DBP)	84-74-2
Diisobutyl phthalate (DIBP)	84-69-5

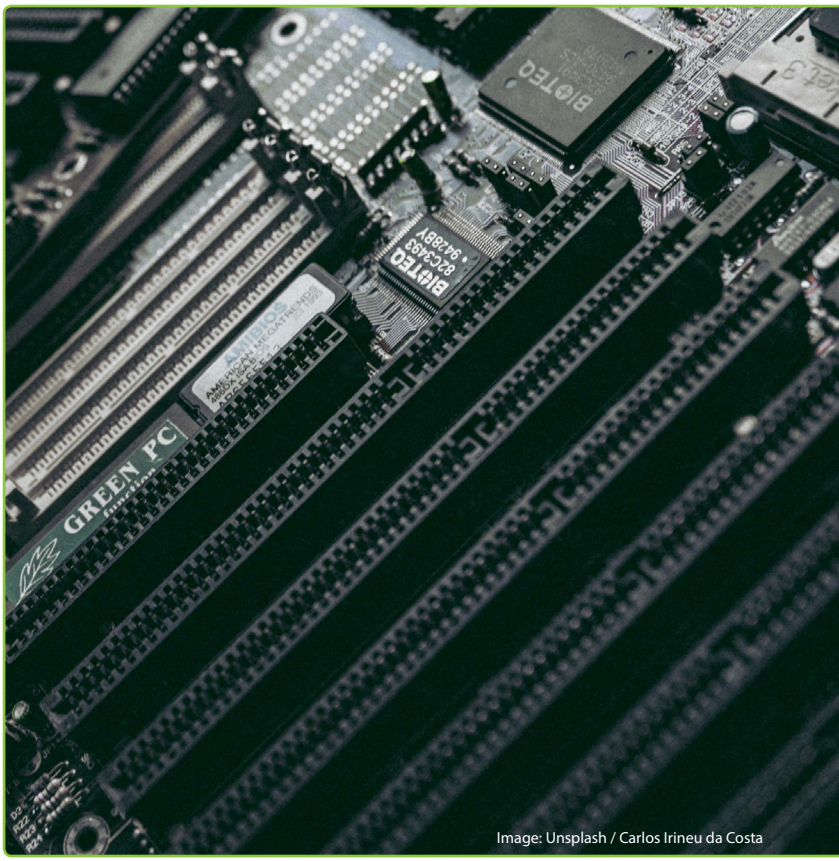

Image: Unsplash / Carlos Irineu da Costa

4. PVC-free internal cabling: internal cables should not contain PVC.

5. PVC-free external power cables: Computers should be supplied with PVC-free external power cables. Only one power cable should be supplied per computer.

6. Phosphorus compounds: additively added phosphorous compounds listed in SFS 2016: 1067 Appendix to the Act on tax on Chemicals in Certain Electronics should not be included in concentrations above 0.1% by weight in either the homogenous material in circuit boards, except for the card components, or in plastic parts > 25g.

7. Chemical substitution: the tenderer should show that trademark offered computers work with chemical substitution according to the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, e.g. Green Screen.

8. Environmental impact in a life cycle perspective: the bidder should offer computers where the climate impact in a life cycle perspective has been analysed and documented, in accordance with the ISO 14040 series, ISO/ TS 14067 or ISO 14025.

9. Durability: portable computers should have passed sustainability testing carried out in accordance with the US standard MIL810G for the least fall test and shock resistance as well as one of the following durability properties; vibration resistance, display resistance or temperature resistance.

In addition, a range of criteria aimed at improving working conditions within the ICT supply chain were also included, such as criteria on monitoring systems, transparency, risk assessment, and conflict mineral policy.

Contract performance clauses:

1. Topics on the REACH Candidate List: The supplier shall declare the existence of substances in the REACH regulation candidate list (Article 59 of Regulation (EC) No 1907/2006), present in concentrations above 0.1% by weight in each individual part of a product. If new substances are listed on the Candidate List during the contract period which are present in products at concentrations higher than the limit, the client shall be notified within six months.

2. Sustainable supply chains: Region Stockholm expects suppliers to respect the shared Swedish region's "Supplier Code of Conduct", and demonstrate transparent and systematic work to reduce the risks in the supply chain for the products offered and address conflict mineral related problems. In line with this, social responsibility criteria were also included in the tender.

Products shall be produced under conditions which are compatible with: the UN Declaration of Human Rights, the ILO Core Conventions, UN convention on the Rights of the Child, UN Convention Against Corruption, as well as the working environment and labour laws of the country where the goods are manufactured. This shall be done by having relevant policies in place, adopted at the highest levels of the company, carrying out risk assessments, encouraging uptake throughout the supply chain, and monitoring compliance and having a management system for non-compliance.

Results

The value of the contract is approximately 7 million euros. Three suppliers bid, and each supplier could meet some of the requirements. Verification of some of the supply chain criteria was sometimes challenging (for example, the criteria relating to routines and processes).

Environmental impacts

The Stockholm Region first introduced stringent environmental requirements for purchasing computers in 2010, including low energy consumption, the use of recycled plastic in new products and eliminating lead, mercury and halogenated flame retardants from new computers (see case study here). At this time, it proved difficult for suppliers to meet all of the sustainability requirements. For example, only a few suppliers were able to meet the requirement for the use of recycled plastic in new computers, and only one was able to remove PVC from the computers' internal and external cables.
Reflecting this in the latest procurement, recycled plastic was removed as a requirement, while restricted substance requirements were increased, and new durability and packaging requirements added.

Monitoring and transparency, as assessed in the award criteria, have improved over time. In the first procurement where award criteria were applied, it was found that all suppliers could disclose information about the final assembly factory, but not all suppliers could do this for component factories, and no suppliers could disclose the chemical inventory in the final assembly factory. Now, almost all suppliers can disclose information about final assembly and components, and one supplier has been able to disclose the chemical inventory.

However, suppliers have also reported that some criteria have not led to changes in production. For example, cables continue to contain PVC. For criteria to be considered a game changer by the industry, many more public buyers would need to make similar demands, in order to have impact in this global industry.

Lessons learned

Begin your procurement process with a supplier dialogue, in order that suppliers can better understand the expectations and procurers can improve the formulation of criteria. After the procurement, it is also useful to follow-up with dialogue, to assess the process and make future improvements.

When using award criteria, make sure that the points awarded are significant enough to make action worthwhile (no less than 30% is recommended), otherwise the criteria will not have the desired impact.

From the very beginning, have a plan to monitor and follow-up on suppliers' performance, and communicate this clearly to bidders. Sanctions for non-performance should be included in the contract.

Regardless of whether you as an authority have the resources to develop sustainability criteria in ICT procurement, there is one thing that all authorities could start doing immediately, and that is prolonging the lead-in times. When buyers have a short lead-in time, it can result in excessive overtime being required of workers in the supply chain, and can even result in ICT equipment being shipped by air instead of by train or boat.

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The tender documents (in Swedish) are available here.

For related information, please see European GPP criteria for Computers and Monitors and the Technical Background Report.