



"Cross-Mediterranean Environment and Health Network (CROME)"

LIFE12 ENV/GR/001040

Task Technical Report



Cross-Mediterranean Environment and Health Network

CROME-LIFE

Deliverable E.1.2

Guidance document on green procurement according with the EC Green Procurement Principles

**LIFE ENVIRONMENT PROGRAMME
LIFE12 ENV/GR/001040**

Action: E.1

TASK: E.1

Report Date: 30/9/2013

<http://www.crome-life.eu>



Task Technical Report

Bibliographical Information

Project: Cross-Mediterranean Environment and Health Network – CROME-LIFE

Subject: Guidance document on green procurement according with the EC Green Procurement Principles

LIFE ENVIRONMENT PROGRAMME

Contract No. **LIFE12 ENV/GR/001040**

Duration of Contract: 01/07/2013 - 31/12/2016

ACTION: E.1- Project management and monitoring of the project progress

TASK: E.1- Project management and monitoring of the project progress

Editing Partner: AUTH

Other Partners: CSIC, ISS, JSI

Report Date: 30/09/2013

Pages: 11 (including figures, tables, attachments)

Key Words: purchasing of goods and services, environmental-friendly green procurement, EU Ecolabel

Contact Person Editing Partner

Name: Prof. Dimosthenis Sarigiannis

Phone: +30 2310994562

Fax:

e-mail: sarigiannis@auth.gr

Authors Editing Partner

Name:

Phone:

Fax:

e-mail:

CROME-LIFE web site:

<http://www.crome-life.eu>



Task Technical Report

Table of Content

Introduction.....	4
Office material, office equipment, publications	5
Copying and graphic paper.....	5
General requirements	5
Office material.....	5
General requirements	5
General Stationery.....	5
General requirements	5
Office IT equipment.....	6
General requirements	6
Office furniture.....	8
General requirements	8
Laboratory supplies and equipment	9
General requirements	9
Catering services.....	10
General requirements	10
Meeting and conferences	11
General requirements	11



Task Technical Report

Introduction

Green Procurement (GP) 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."

The needs for GP implementation is recognized to be an emerging necessity from the simple observation that the way we consume resources in the EU is causing environmental damage at a rate that cannot be sustained. Many concerns have been raised about the increasing consumption and production patterns, both internationally and at the European level. If the world as a whole followed the EU's pattern of consumption, global resource use could quadruple within 20 years. Apart from the resulting environmental and health problems, this trend could threaten economic growth due to decreasing natural resources and the cost of addressing these issues. Moreover the concept of GP has been widely recognised 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.

GP takes place when contracting authorities also use environmental criteria to decide who to buy goods or services from. Areas where GP can be applied are numerous and belonging to various market sectors which include the purchase of construction products, IT equipment, electricity, transport services, food and catering services and many other goods and services that contribute to the reduction of environmental impacts.

While research and development is in progress to improve and deploy cleaner and more efficient technologies, it is also important to influence our consumption and production patterns so as to minimise the damage caused to the environment while maintaining an economic equilibrium at the same time. GP was introduced as part of an effort to take some concrete steps in this direction.

This report aims to identify which are the main environmental criteria to be used and applied in the frame of CROME-LIFE project activities to adhere the Green Procurement principles set by the European Union.

The report is structured to address the Green Procurement criteria we will implement for each good and service category we have prior identified to be relevant to the activities to be carried out in the course of the CROME-LIFE project life.

This guideline is intended for use by personnel in a broad range of functions including program management, financial management, procurement, materiel management, asset management, and services delivery, as well as those who are responsible for managing the greening of their department's operations.



Task Technical Report

Office material, office equipment, publications

Copying and graphic paper.

This encompasses unprinted paper for writing, printing and copying purposes (up to 170g/m²) sold in sheets or reels.

General requirements

- Paper must be made from 100% recovered paper fibres, with a minimum of 65% post-consumer recycled fibres. Recovered paper fibres include both post-consumer recycled fibres and pre-consumer recycled fibres from paper mills, also known as broke. Post-consumer recycled fibres may come from consumers, offices, printing houses, bookbinders, or similar.
- The ecological criteria of the EU Ecolabel, or other type I national ecolabels directly related to paper production (and not the management practices of the factory) must be met.
- In the paper production process, exclusively chlorine-free pulps must be used and, if possible, optical brighteners have to be avoided;
- If the procurement of paper out of primary pulp is necessary, as for example for special printers or due to the special requirements of archiving, the wood for the pulping process has to come from sustainably grown woods or from waste wood;
- The environmental burdens resulting from the process of paper production should be minimized as far as possible;
- A product declaration, comprising at least use-specific information and details of the raw material employed, has to be available.

Office material

General requirements

- The purchase of disposable products has to be avoided or at least limited as much as possible;
- Re-usable, long-life products with the following characteristics have to be used: stable construction, possibility to refill, high filling quantity, high volumetric capacity, reparability, deliverable spare parts and long functionality;
- Products made of PVC have to be avoided;
- For products with a short life span, aluminium has to be avoided;
- Unpainted alternatives (i.e. pencils and crayons) are prioritized. For painting processes which cannot be avoided, water-based paints have to be used;
- Correction pens, text markers, pens and overhead marker pens have to be solvent-free and refillable;
- Glues have to be solvent-free and water-soluble;
- Staples, paper clips and drawing pins have to be produced without any surface treatment

General Stationery

This category includes general stationery products daily used in offices other than paper.

The damage that a product causes can either be because of the quantity that is used or by the ingredients that it is produced from. Most suppliers, including the University's approved supplier, highlights 'green' versions of products that are considered to be most environmentally friendly very clearly in their catalogues.

General requirements

Adhesives – General purpose tape should preferably have a water soluble adhesive (derived from vegetable gum and therefore non-toxic) and where possible be paper or cellulose based to create a biodegradable product. If at all possible spray adhesives should be avoided as much of the product is lost



Task Technical Report

into the atmosphere. Most adhesives contain some solvents, although many are now water based and the solvent content has been reduced.

Correction Fluid – Although the majority of corrections are now done by computer, there is still some demand for correction fluid. There is a new generation of correction fluids that are water based rather than solvent based. You can also buy corrective pens that have a longer life span than the bottled variety because they are less likely to dry out.

Envelopes – There are plenty of options available for purchasing recycled envelopes. We will try to not use envelopes with plastic windows, as these are much harder to recycle than the ordinary plain envelopes.

Files & Binders – Not throw old files out unless they are broken. Simply covering existing exterior writing with labels will mean that the file can be used again. If however you have to buy new files, try to buy recycled ones from the many available through our preferred stationery supplier.

Pencils – There is now a large range of pencils available made from recycled plastic cups. They are cost comparable, and brilliant for the environment. For auto pencils we will buy ones that can be refilled.

Pens – Rather than using cheap disposable pens, we will buy better refillable pens, such as fountain pens. The quality is usually far superior and there isn't nearly as much waste. In case of non-disposable pens, we will make sure that the barrel is made from polypropylene, because it is biodegradable.

Post It Notes – Purchase Post-Its made of the lowest grade recycled waste, as they cannot be recycled themselves due to the glue used on them.

Office IT equipment

This category comprises equipment such as Computers - covering both PCs and notebooks, Monitors Imaging equipment - covering copiers, printers, scanners, faxes, and multi-functional devices (MFD).

General requirements

For the purchase of office equipment the following environmental characteristics have to be considered:

PCs, notebooks and monitors

- Lowest possible energy consumption. All products must meet the latest ENERGY STAR standards for energy performance.
- PCs and Notebook should carry the EU Ecolabel.
- PCs and Notebook must be designed so that: the memory is readily accessible and can be changed; the hard disk and, if available, the CD drive and/or DVD drive, can be changed.
- For notebooks the availability of compatible batteries and power supplies and of the keyboard and its parts shall be guaranteed for at least 3 years from the time that production ceases.
- Materials used shall not contain lead, cadmium, mercury, hexavalent chromium, PBB or PBDE as specified in Directive 2002/95/EC and its amendments.
- The background lighting of LCD monitors shall not contain more than 3.5 mg of mercury on average per lamp.
- The 'Declared A-weighted Sound Power Level' (re 1 pW) of PCs or notebooks, according to paragraph 3.2.5 of ISO 9296, measured in accordance with ISO 7779, shall not exceed:

For PCs:

- 4.0 B(A) in the idle operating mode (equivalent to 40 dB(A)).
- 4.5 B(A) when accessing a hard-disk drive (equivalent to 45 dB(A))

For notebooks:

- 3.5 B(A) in the idle operating mode (equivalent to 35 dB(A)).
- 4.0 B(A) when accessing a hard-disk drive (equivalent to 40 dB(A))
- Plastic parts heavier than 25 g shall have a permanent marking identifying the material, in conformity with ISO 11469: 2000. Excluded from this criterion are extruded plastic materials and the light-guide of flat panel displays.



Task Technical Report

- Plastic parts shall be of one polymer or compatible polymers, except for the cover, which shall consist of no more than two types of polymer, which are separable.
- Plastic parts heavier than 25g do not contain flame retardant substances or preparations that are assigned any of the following risk phrases as defined in Council Directive 67/548/EEC:

R45 [may cause cancer].
R46 [may cause heritable genetic damage].
R60 [may impair fertility].
R61 [may cause harm to the unborn child]

In addition to the above the following requirements should be considered:

- Long life-time (time of use, warranty and availability of spare parts);
- Reparability;
- Adapted to the use of recycling paper;
- The producer or supplier is liable under contract to take back the old machines and dispose of them in an environmentally sound way.

Verification

Most of the requirements listed above will be deemed to comply for the product carrying the ENERGY STAR and the Ecolabel certificates.

Any other appropriate means of proof, such as a technical dossier of the manufacturer or a test report from a recognised body demonstrating that the criteria are met will also be accepted. Alternatively the bidder must provide a written guarantee that these criterions will be met.

Imaging equipment [printers, copiers, MFDs, scanners]

- Lowest possible energy consumption. All products must meet the latest ENERGY STAR standards for energy performance.
- Appliances [with a printing function] with a maximum operating speed of more than 45 sheets per minute for A4 size paper must be equipped with automatic doublesided copying (a duplex-unit). All other devices with a lower maximum operating speed must at least offer a manual option (copiers) or an extra software-based option (printers, multifunction devices) for double-sided printing on A4 size paper.
- For devices with a printing function the 'Declared A-weighted Sound Level' (LWAd) according to ISO 9296, measured in accordance with ISO 7779, shall not exceed the limits set by the following formula:

$$\text{LWAd: } 0.035 \times \text{CPM} + 5.9 \text{ (B)}$$

Where CPM = Copies per minute. The devices shall additionally not exceed 7.5 (B) LWAd except for devices with a CPM >71.

- The bidder must guarantee the availability of spare parts for at least 3 years from the time that production ceases.
- Materials used shall not contain lead, cadmium, mercury, hexavalent chromium, PBB or PBDE as specified in Directive 2002/95/EC and its amendments.
- Plastic parts heavier than 25 g shall have a permanent marking identifying the material, in conformity with ISO 11469: 2000
- Plastic parts shall be of one polymer or compatible polymers, except for casings
- Plastic parts heavier than 25g do not contain flame retardant substances or preparations that are assigned any of the following risk phrases as defined in Council Directive 67/548/EEC:

R45 [may cause cancer].
R46 [may cause heritable genetic damage].
R60 [may impair fertility].
R61 [may cause harm to the unborn child]

- Recycling systems have to be prioritized



Task Technical Report

- Try purchasing remanufactured toner cartridges. Make sure they are from a reputable supplier.
- Consider using manufacturers and distributors that will take back old cartridges which were purchased from them.
- Look out for the Mobius Loop



Verification:

Most of the above issues listed above will be deemed to comply for the product carrying the ENERGY STAR and the Ecolabel certificate.

Any other appropriate means of proof, such as a technical dossier of the manufacturer or a test report from a recognised body demonstrating that the criteria are met will also be accepted. Alternatively the bidder must provide a written guarantee that these criteria will be met.

Office furniture

General requirements

Technical and environmental quality of the materials

- Boards made of timber and wood by-products: Lowest possible quantity of formaldehyde; exclude dangerous substances (as classified by Directive 67/548/EEC) and use timber originating from a sustainably managed forest (reference to criteria from FSC and PEFC labels) or recycled.
- Plastic components: products containing previously recycled plastic will be preferred and plastic pieces should be marked according to ISO 11469 (or equivalent) and must not contain additions of other materials that may hinder their recycling. Substances based on lead, cadmium, mercury or its compounds should not be added to plastic materials.
- Metal parts: Must be easily dismantled at the end of the products' life cycle in order to be recycled; inclusion of recycled (second fusion) metals will be preferred.
- Surface coating of wood, plastic and/or metal parts. The products used for surface coating shall:
 - Not contain hazardous substances that are classified according to Directive 1999/45/EC as carcinogenic (R40, R45, R49), harmful to the reproductive system (R60, R61, R62, R63), mutagenic (R46, R68), toxic (R23, R24, R25, R26, R27, R28, R51), allergenic when inhaled (R42) or harmful to the environment (R50, R50/53, R52/53, R52, R52/53, R53) cause heritable genetic damage (R46), danger of serious damage to health by prolonged exposure (R48), possible risks of irreversible effects (R68).
 - Not contain more than 5% by weight of volatile organic compounds (VOCs).
 - For phthalates: no use is allowed of phthalates that at the time of application fulfil the classification criteria of any of the following risk phrases (or combinations thereof):
 - R60, R61, R62, in accordance with Directive 67/58/EEC and its amendments.
 - Not contain aziridine
 - Not contain Chromium (VI) compounds
- Adhesives and glues: the VOC content of adhesives used in the assembly of furniture shall not exceed 10% by weight
- Packaging materials: packaging must consist of readily recycled material, and/or materials taken from renewable resources, or be a multi-use system. All packaging materials shall be easily separable by hand into recyclable parts consisting of one material (e.g. cardboard, paper, plastic, textile)
- All wood and wood-based materials shall come from legally sourced timber
- Wood classified with a durability class of 1 or 2 according to EN 350-2 or equivalent must not have been treated with preservatives.
- Wood not classified with a durability class of 1 or 2 according to EN 350-2 or equivalent, must not have been treated with substances classified according to Directive 1999/45/EC as



Task Technical Report

carcinogenic (R40, R45, R49), harmful to the reproductive system (R60, R61, R62, R63), mutagenic (R64, R68) or allergenic when inhaled (R42). The active substances in preservatives must not be based on arsenic, chrome or organic tin compounds.

Technical quality of the products

- Focuses on having standardised assembly connections of pieces, modularity and ergonomics (for chairs).

Environmental quality of the products

- Requirements regarding durability (minimum guarantee of at least three years); maintenance – for example, cleaning of products should be possible without the use of organic solvents; and products shall be fit for recycling and re-use.

Verification

For Plastic parts: bidders must provide a description of the plastic materials that are present and the quantities used, the way in which they are labelled and how they are attached to one another or to other materials. Products carrying a type I ecolabel fulfilling the selected criteria will be deemed to comply.

For surface coating of wood, plastic and/or metal parts: bidders must present a list with all surface treatment substances used for each material present in the furniture and their Security Data Sheet or equivalent documentation demonstrating compliance with the above criteria. Furniture carrying a type I ecolabel will be deemed to comply.

For Adhesives and glues: bidders must present a list with all adhesives used in the assembly of furniture and their Security Data Sheet or equivalent documentation where the amount of VOCs is displayed demonstrating compliance with the above criteria. Furniture carrying a type I ecolabel fulfilling will be deemed to comply.

Packaging materials: a description of the product packaging shall be provided together with a corresponding declaration of compliance with these criteria.

Laboratory supplies and equipment

As part of the aggregation strategy, a single tender should be launched with multiple lots to cover laboratory consumables, chemicals, molecular reagents and laboratory supplies. The technical specifications should address the main environmental impacts associated with the ordering, delivery and invoicing process.

General requirements

Candidates must undertake to make all catalogues available online to facilitate online purchasing. Such catalogues must be formatted to include the university's agreed core-list costs, discounts and cost breaks.

- For purchasing of lab equipment the lowest possible energy consumption criteria should be followed. All products should meet the latest ENERGY STAR standards for energy performance.
- Consider life expectancy (quality), noise level or country of origin additionally to the price tag of laboratory equipment before buying. Ask explicitly the manufacturers if this information are not provided. This will drive manufacturers to more likely consider these factors and perhaps make future products more sustainable.
- Candidates must undertake to remove all used drums, containers, pallets and packaging associated with their products at each delivery point.
- Candidates are invited to submit further proposals that will assist the university in reducing its carbon footprint, either by way of product usage/proposal or process improvement.
- Toxic substances should be purchased and used only when a substitute compound cannot be identified.



Task Technical Report

- Consumables containing toxics are disposed of in an environmental manner (i.e. in a manner that does not have negative environmental consequences).
- Use of proper packaging material (i.e. leak-proof material) for waste disposal.
- Thermometers, sphygmomanometers, manometers, and barometers should be free of mercury.

In addition to the above the following recommendations should be followed:

- Avoid over-order laboratory chemicals. It may seem the economical thing to do, but more often than not the extra supplies are discarded due to unknown factors, like possible exposure to contaminants.
- Preference should be given to suppliers that will take back equipment when it has reached the end of its life.
- If there is an alternative product that is more environmentally friendly, for example cleaning products, then consider using them.
- Consider suppliers that minimise their packaging.

Catering services

For catering services, the core criteria focus on organic food, and waste minimisation and selective collection

General requirements

- Requirements on the bidding companies: proving their financial, technical and professional capacity; supplying two professional references; and providing information on their environmental and social or ethical credentials
- Deliveries and transport: transportation vehicles must be in accordance with the transport sustainability criteria adopted by the city (for example, fulfilling minimum of EURO 5 standard for heavy weight vehicles).
- Food: Meat must be free of hormones and meet rules of EUROP classification; fish products have to comply with Marine Stewardship Council criteria (or equivalent); and organic products (according to the definition provided by Regulation EEC 2092/91) must also be included in the product assortment.
- Ban on the inclusion of genetically modified food for the catering service or for animal feed
- "Guaranteed freshness" criterion for fruit and vegetables (e.g. chard, endives, celery, basil, green salad, strawberries and cherries) with no more than three days between harvest and intake. Products are required to be marked with information provided about the harvesting firm, harvesting date and the site of the food processing centre.
- Meat freshness: red and white meats delivered in vacuum sealed packs within four days of packaging. Introduction of 'protected denomination of origin' or 'protected geographical indication' products for meat (beef, pork, lamb, cold meats and some cheese) in accordance with Council Regulation (EC) No 510/2006 of 20 March 2006
- The main fruit, vegetables and marine products to be used in carrying out the service shall, whenever possible, be selected according to the season.
- Paper products, such as kitchen paper or paper napkins, to be used in carrying out the service must be made from recycled or sustainably managed virgin fibre.
- Try not to order bottled water and provide tap water instead wherever possible.

Waste generation

- In order to reduce waste generation, food and beverages must be served using cutlery, glassware, crockery and tablecloths which are renewable or based on renewable raw materials .
- Waste produced in carrying out the service will be collected separately according to the collecting system used by the partner institution

Verification



Task Technical Report

Products carrying a Community or national organic label will be deemed to comply.

For catering services: suppliers presenting a type I ecolabel certificate for restaurants will be presumed to comply with the criteria if the certificate covers the above requirements. Alternatively bidders will have to provide a signed declaration indicating which of these criteria it is able to meet. The contracting authority will verify compliance during the contract period, and appropriate penalties will be applied for non-compliance.

Meeting and conferences

Even though government workers throughout the country are increasingly connected via cell phones, e-mail, handheld electronic devices, and other technological advances, face to face meetings and conferences are often still necessary. Unfortunately, meetings require the use of large amounts of resources and can have big impacts on the environment. With careful planning, however, organizers can incorporate "green" aspects into their meetings and conferences.

In the following are presented a list of recommendations to be followed as far as possible by the organizers of meeting and conferences throughout the CROME-LIFE project to meet the green procurement principles.

General requirements

- Select locations that, on average, minimize the distance the attendees have to travel.
- Select accommodations that allow for efficient transportation routes (walking paths, bicycle paths, public transportation).
- Choose a hotel that has energy and water conservation programs, including: automatic controls for the HVAC system; fluorescent lighting and automatic lighting controls; and low-flow taps, showerheads, and toilets
- Utilize paperless check-in, checkout, and billing procedures to minimize use of paper.
- Provide shuttle services between meetings, accommodations, and restaurants to minimize car and taxi trips if walking isn't feasible.
- Look for facilities that invite meeting attendees to share in energy conservation and waste reduction efforts-for example, by reducing paper towels, supporting use of soap dispensers versus individual soaps, avoiding waste, and participating in recycling programs.
- Look for meeting rooms with recycling bins, posted with a list of all items that can be recycled.
- Reduce paper by allowing attendees to register online. Confirm registration by e-mail when possible.
- Recycle paper inserts and plastic badges.
- Use double-sided copies.
- Print registration materials (whenever possible) on recycled paper using soy-based ink.
- Promote electronic distribution instead of printed handouts to reduce paper usage.
- Encourage use of electronic presentations and distributing disk handouts to eliminate paper waste.
- Provide information about the meeting and destination to potential attendees and allow them to register via e-mail on-line.
- Set up a system for making photocopies on demand instead of over-printing materials.
- Post minutes or other handouts on the Internet, or circulate them electronically after the meeting.