Revision of the Green Public Procurement (GPP) Criteria for Textile Products

BACKGROUND REPORT

(Draft) Working Document

for

1st AHWG MEETING FOR THE REVISION OF THE EU GPP CRITERIA FOR TEXTILE PRODUCTS

September 2012

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EUROPEAN COMMISSION

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Date: 27th September 2012

Place: Brussels

Authors

Nicholas Dodd, Oliver Wolf (JRC-IPTS)

DG JRC (IPTS) 2012

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1. Introduction

The aim of this briefing report is to provide background material on Green Public Procurement (GPP) to inform the first meeting for the revision of the European GPP criteria for textiles on the 27th September 2012 in Brussels. It also provides initial summary recommendations on possible revision areas, drawing on material contained in this report and the EU Ecolabel revision proposals

In this introductory section we briefly summarise the policy framework for Green Public Procurement (GPP), the scope to apply GPP within EU procurement law and the market potential for GPP textiles.

1.1 The policy framework for GPP

Green Public Procurement (GPP) is a voluntary policy instrument within the European Commission's Sustainable Consumption and Production and Sustainable Industrial Policy (SCP/SIP) Action Plan (2008) [1] and the Roadmap for a Resource-Efficient Europe (2011) [2]. It is defined as:

> *'…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.'*

Each year European public authorities spend the equivalent of 16% of the EU Gross Domestic Product. The aim of Green Public Procurement (GPP) is therefore to harness this considerable spending power in order to shape production and consumption trends and to enlarge markets for environmentally friendly products and services in support of the wider EU agenda of increased growth and competitiveness.

These aims are articulated by Communication COM(2008) 400 *Public procurement for a better environment* [3]. The Communication provides guidance on how to reduce

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[1] *Communication from the commission to the European Parliament, the council, the European Economic and Social Committee and the Committee of the Regions on the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan*, 16th July 2008

[2] *Communication from the commission to the European Parliament, the council, the European Economic and Social Committee and the Committee of the Regions on the Roadmap to a Resource Efficient Europe,* 20th September 2011

[3] European Commission, *Public procurement for a better environment*, COM(2008) 400 final, Brussels 16th July 2008

the environmental impact caused by public sector consumption and how to use GPP to stimulate innovation in environmental technologies, products and services. It also establishes the objective that public procurement should be based on common 'core' criteria endorsed at an EU level. The importance of considering the life cycle cost of products was also highlighted.

GPP was highlighted by both the SCP/IP and the 2020 Roadmap as a route through which the Commission will provide guidance and tools for public authorities to 'green' their procurement practices. This includes the setting of common GPP criteria for products and services together with indicative targets based on the level of the best performing member states.

1.2 The scope to apply GPP within EU procurement law

EU procurement law creates the opportunity to include environmental considerations in contract award processes. Directives 2004/17/EC and 2004/18/EC contain specific references to the inclusion of environmental considerations, stating that contracting authorities:

> *'...may contribute to the protection of the environment and the promotion of sustainable development, whilst ensuring the possibility of obtaining the best value for money for their contracts.'*

Other specific references within the Articles of these Directives provide further provisions for the introduction of environmental considerations into the procurement process [4]:

- the inclusion of environmental requirements in technical specifications (Article 23(3)b);
- the use of eco-labels (Article 23(6));
- setting social and environmental conditions for the performance of contracts (Article 26);
- requiring economic operators to demonstrate they have met their environmental obligations (Article 27);

[4] European Commission, *EU public procurement directives*, http://ec.europa.eu/environment/gpp/eu_public_directives_en.htm

- requiring economic operators to demonstrate they can perform a contract in accordance with environmental management measures (Articles 48(2)f and 50); and
- applying award criteria based on environmental characteristics (Article 53).

To advise procurers further a toolkit and handbook have been developed which provide a useful framework for considering the different stages in the process that GPP criteria could be introduced. Table 1.2.1 summarises the main five main areas highlighted.

For each product/service group GPP technical specifications are draw up in line with Communication (2008) 400, which distinguishes between core and comprehensive criteria:

- Core criteria are those suitable for use by any contracting authority across the Member States and address the key environmental impacts. They are designed to be used with minimum additional verification effort or cost increases.
- Comprehensive criteria are for those who wish to purchase the best products available on the market. These may require additional verification effort or a slight increase in cost compared to other products with the same functionality.

Additional award criteria and contract performance criteria can be tailored to reflect the nature of each product or service.

Table 1.2.1 Where GPP can be incorporated into the procurement process

Procurement criteria	How the criteria can be used
Subject matter	o Specifies exactly what the procurer intends to buy o The nature of any associated environmental improvements must be specified
Exclusion criteria	o This can be used to exclude applicants that may have breached environmental law.
Technical capacity	o Applicants can be requested to demonstrate their capacity to perform the prescribed measures.
Technical specifications	o Provide measurable minimum requirements against which the performance of tenders will be evaluated alongside cost considerations. o Can be used to specify criteria relating to production processes and methods relating to the good, services and or works being supplier

	◦ It can also be used to define the function that is required from the good, service or works ◦ *Proportionality* must be applied in relation to the fulfilment of environmental improvement objectives ◦ They can be defined in terms of international, European or national *or equivalent* standards
Award criteria	◦ Allocate additional credits for tenders that have already met cost criteria ◦ Can be used where there is limited knowledge of the cost/availability of environmental specifications ◦ The Life Cycle Cost of environmental specifications can be taken into consideration
Contract performance	◦ Can be used to specify that goods, works or services are supplied in a way that minimises environmental impacts ◦ Environmental performance can be linked to penalties or bonuses in contracts

1.3 Characterising the market for GPP textiles

A guide to socially responsible public purchasing published in 2007 by Eurocities and ICLEI highlighted the significant role of the public sector as purchasers of textiles and clothing, in particular workwear [5]. It has been estimated that a quarter of the workforce may to wear clothing required by their employer [6]. Workwear was defined as including:

- Representative workwear (e.g. police uniforms)
- Functional workwear (e.g. for waste collection services)
- Protective clothing (e.g. for firemen)

Protective textiles – a subset of workwear - was recently highlighted by the EU Lead Market Initiative (LMI) as a key area for industrial innovation. Public procurement of functional protective clothing for fire-fighters, emergency services, police forces and

[5] ICLEI and Eurocities (2007) *RESPIRO guide on socially responsible procurement of textiles and clothing*

[6] Centre for Remanufacturing and Re-use, *An investigation to determine the feasibility of garment labelling to enable better end-of-life management of corporate clothing*, March 2009

the military sector as well as for health care professionals in public hospitals was identified as a key market driver for innovation.

Other significant areas of procurement highlighted by best practice projects include bed linen and towels by health services and care facilities, interior textiles such as curtains and upholstery, and textiles used as part of general hygiene services for buildings – such as washroom handtowels [7].

An important factor to consider is that some public sector contracts are for textile services rather than textile products. Companies therefore tender to provide and maintain a supply of functional textiles to specification [8]. The contractor may then be responsible for the life cycle of the product.

Statistics relating to the EU public procurement of textiles appear to be limited in their availability. For example, the Eurostat PRODCOM database does not distinguish public sector purchases. A number of high level estimates have been quoted by EU initiatives. The EU Lead Market Initiative (LMI) recently estimated that public markets for the textile and clothing industry may have a value in the order of 10 billion Euros/annum. Eurocities and ICLEI In 2008 estimated that the total turnover of companies in the EU15 selling *workwear* was €4 billion, approximately half of which was thought to be accounted for by public procurement.

An estimate of fabric consumption for seven EU countries - Germany, Belgium, Spain, France, UK, Italy, Netherlands) – between 1990-2000 is presented in Table 1.3.1. The equivalent estimate for health services was 56,000 tonnes [9], making a comparison difficult because the assumption made for the standard width of cotton fabric was not noted by Promptex. Other significant public services not included within the survey include local authority workers involved in the delivery of services such as municipal waste management.

More recent 2005 survey data for the same countries [10] is understood to be available but could not be located by this study. The co-ordinator of the survey, Promptex, highlighted cotton and wool as being the most significant fibres procured, with

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[7] ETSA and Euratex (2006) *Handbook of textile purchasing: Success stories relating to textile service*, http://www.eco-forum.dk/textile-purchase/index_files/Page2479.htm

[8] European Textile Services Association, *Healthcare & hospitals*, http://www.etsa-europe.org/homefs.htm

[9] Promptex, Euratex and ETUF-TCL (2005) *Public procurement awarding guide for the clothing textile sector*

[10] See footnote 9

synthetics (excluding natural-synthetic blends) accounting for 7 only % of the market [11]. Blends such as poly-cotton and poly-viscose are understood, however, to be important because of their specific qualities e.g. to reduce laundering costs, enhanced fabric durability.

Limited information is available about the procurement of specialist technical fibres such as aramids (modified polyamides), but they are understood to be used by the military and the police in anti-ballistic clothing. Nylon (polyamide) is understood to be commonly used for abrasion resistant functions.

Table 1.3.1 Fabric consumption by major public services (average 1990-2000)

Public service	Wool and blends (Thousand of metres)	Cotton and blends (Thousand of metres)	Synthetic and man-made fibres excluding blends (thousands of metres)
Army	4,590	15,699	1,140
Fire brigades	-	1,800	935
Police	1,685	501	-
Post Office	1,696	1,744	220
Railway	1,860	2,180	103
Total	*9,831*	*21,924*	*2,398*

Source: Promptex (2005)

[11] Just Style, *Public sector procurement in Europe obscured by price*, 26th January 2007, http://www.just-style.com/comment/public-sector-procurement-in-europe-skewed-by-price_id96279.aspx

Section 1 summary

- The procurement process can be used in a number of different ways to encourage innovative textile tenders;
- Core and comprehensive technical specifications form the basis for the GPP textile criteria;
- Exclusion, technical capacity, award and contract performance criteria can be used to further define and reward innovation;
- Publicly procured textiles have very distinct applications and functions which are likely to inform procurers technical requirements.
- Limited data is available from which to gauge the scale of the market for the public procurement of textiles.
- Workwear appears to represent the most significant market segment, with others including health and care service bed linen and towels, interior textiles such as curtains and upholstery, and fabrics used by hygiene services.
- Cotton and wool appear to be the most commonly procured natural fibres, although synthetic blends are understood to play an important role because of their specific functional qualities.
- Textile services may play a significant role in public procurement, with contractors responsible for the life cycle of textile products.

Questions for stakeholders

- Have we identified the most important market segments?
- Can you provide access to more detailed market intelligence on the EU public procurement of textiles?

2. The current scope and application of GPP textile criteria

In this section we begin by examining the scope and coverage of the current GPP textile criteria and the current extent of their implementation by Member States. We then consider in what form the criteria are currently being applied by Member States and review initial feedback from a stakeholder questionnaire.

2.1 Current scope and coverage of the GPP textile criteria

The current GPP textile criteria were published in early 2012. The current scope of the criteria reflects the scope in article 1 of the Commission Decision of 9 July 2009 "establishing the ecological criteria for the award of the Community Ecolabel for textile products'' [Decision 567/2009]. Three categories are defined:

- textile clothing and accessories: clothing and accessories (such as handkerchiefs, scarves, bags, shopping bags, rucksacks, belts etc.) consisting of at least 90 % by weight of textile fibres;
- interior textiles: textile products for interior use consisting of at least 90 % by weight of textile fibres. Mats and rugs are included. Wall to wall floor coverings and wall coverings are excluded;
- fibres, yarn and fabric (including durable non-woven) intended for use in textile clothing and accessories or interior textiles.

Furthermore, for 'textile clothing and accessories' and for 'interior textiles': down, feathers, membranes and coatings need not be taken into account in the calculation of the percentage of textile fibres. The key environmental impacts that the current criteria are intended to address are listed in Table 2.1.1.

Feedback on the current scope of the label was invited from stakeholders in June 2012 in the form of a questionnaire. The results of the questionnaire and specific comments relating to the scope and definition are discussed in section 2.3 of this report.

Table 2.1.1 Environmental impacts addressed by the current GPP criteria

Key environmental areas		GPP approach
• Air pollution, ozone formation (smog), bioaccumulation or food chain exposure and hazardous effects on aquatic organisms or the increased growth of undesirable aquatic organisms which can degrade water quality, due to the inappropriate use of certain pesticides and fertilisers in the production of fibres, and substances used during the processing of fibres and final textile products • Negative impact on the occupational health of users due to residues of certain substances harmful to human health • Avoidance of early failure and consequent waste of textiles by promoting colour–fast fabrics that do not shrink during use		• Purchase organically produced textiles • Purchase used textiles which can be reused for their original purpose or purchase textiles that contain recycled fibres • Purchase textiles with a reduced use of environmentally harmful substances in production • Purchase textiles with lower residues of substances harmful to human health • Purchase textiles which meet the minimum requirements for colour fastness and dimensional stability

Note: The order of impacts does not necessarily reflect the order of their importance.

The current GPP criteria are largely based on the EU Ecolabel textiles criteria which have been structured into options for core and comprehensive subject matter and technical criteria. The technical criteria mainly consist of criteria selected from the Process and Chemicals and Fitness for Use sections of EU Ecolabel criteria. Options for additional criteria selected from the Fibre criteria are suggested. Award criteria to encourage organic fibre production and recycled content fibres are also provided. Further summary detail of the criteria can be found in Table 2.1.2.

Table 2.1.2 Overview of the current EU GPP textile criteria

Specification	Technical criteria	
	Core criteria	**Comprehensive criteria**
1. Pesticides	0.05 ppm limit for individual listed pesticides 0.75 ppm total sum contents for specific listed groups of pesticides	0.05 ppm limit for individual listed pesticides 0.5 ppm and 2.0 ppm total sum contents for specific listed groups of pesticides
2. Dyes classified as sensitising/allergenic and CMR	The listed dyes should not be used in the manufacture of the final product.	The listed dyes should not be used in the manufacture of the final product.
3. Arylamines	The final product shall not contain the listed aryl amines.	The final product should not contain the listed aryl amines.
4. Flame retardants	The four listed flame retardants shall not be used in the final product.	The six listed flame retardants shall not be used in the final product.
5. Biocides	Limit value of 0.5 ppm for the concentration of two listed biocides in the final product.	Limit value of 0.05 ppm for the concentration of three listed biocides in the final product.
6. Phthalate softeners	The eight listed softeners shall individually not be present at more than 0.1% by weight in final products that will come into contact with the skin.	The eight listed softeners shall individually not be present at more than 0.1% by weight in final products that will come into contact with the skin.
7. Formaldehyde	Limit values of 70 ppm for products that come into direct contact with the skin and 300 ppm for all other products.	Limit values of 20 ppm in products for babies and young children, 30 ppm for products that come into direct contact with the skin and 75 ppm for all other products.
8. Heavy metals	Specific limit values for five listed metals.	Specific limit values for ten listed metals.

9. Colour fastness and dimensional stability		
9.1 Dimensional changes during washing and drying 9.2 Colour fastness to washing 9.3 Colour fastness to perspiration 9.4 Colour fastness to wet rubbing 9.5 Colour fastness to dry rubbing 9.6 Colour fastness to light	*Tolerances are stipulated in each case, with variations and exceptions for washable/removable curtain/furniture fabric, durable non-wovens, knitted products, terry towelling, indigo denim, wool and keratin fibres, and linen and bast fibres.*	*There are minor distinguishments specified between core and comprehensive*
Specification	**Possible additional technical specifications**	
	Core criteria	**Comprehensive criteria**
Fibre EU Ecolabel criteria	*Where the following fibres make up more than 5% by weight of the textile fibres in the product:* Acrylic (criterion 1) Cotton (criterion 2) Elastane (criterion 3) Flax and other bast fibres (criterion 4) Greasy wool and other keratin fibres (criterion 5) Man-made cellulosic fibres (criterion 6) Polyamide (criterion 7) Polyester (criterion 8)	*No distinguishment is stipulated between core and comprehensive criteria*

	Polypropylene (criterion 9)	
Processes and chemicals EU Ecolabel criteria	*The following criterion relating to chemical and processing methods:* Auxiliaries and finishing agents for fibres and yarns (criterion 10) Auxiliary chemicals (criterion 14) Detergents, fabric softeners and complexing agents (criterion 15) Bleaching agents (criterion 16) Impurities in dyes (criterion 17) Impurities in pigments (criterion 18) Wastewater discharges (criterion 27)	*Distinguishment between core and comprehensive not specified*
Specification	**Award criteria**	
	Core criteria	**Comprehensive criteria**
Organically produced cotton or other natural fibres	Tenderers must indicate the proportion of the fibres used in the final product deriving from organic production according to Regulation (EC) No 834/2007.	*Distinguishment between core and comprehensive not specified*
Recycled fibres	Tenderers must indicate the proportion of the product made of recycled fibres that is derived from textile and clothing manufacturers *or* from post-consumer waste.	*Distinguishment between core and comprehensive not specified*

2.2 Implementation of GPP textile criteria by public procurers

In this section we draw upon recent surveys in order to develop a better picture of the extent and nature of EU and Member State GPP textile criteria implementation across the EU27.

2.2.1 The extent to which the current criteria are being implemented

Surveys are commissioned annually by the European Commission in order to monitor the process of GPP. The most recent was carried out in 2011 by the Centre for European Policy Studies and the College of Europe based on procurement contracts sent out during 2010/11.

They found that textiles represented the least numerous product group in terms of contracts with 76 reported. Of the contracts reported 66% were for clothing and accessories, 18% for interior textiles and 16% for fibre, yarns and fabrics. The stages of procurement at which green criteria were included are summarised in Figure 2.2.1 below. Technical specifications and subject matter can be seen to be the most popular stage.

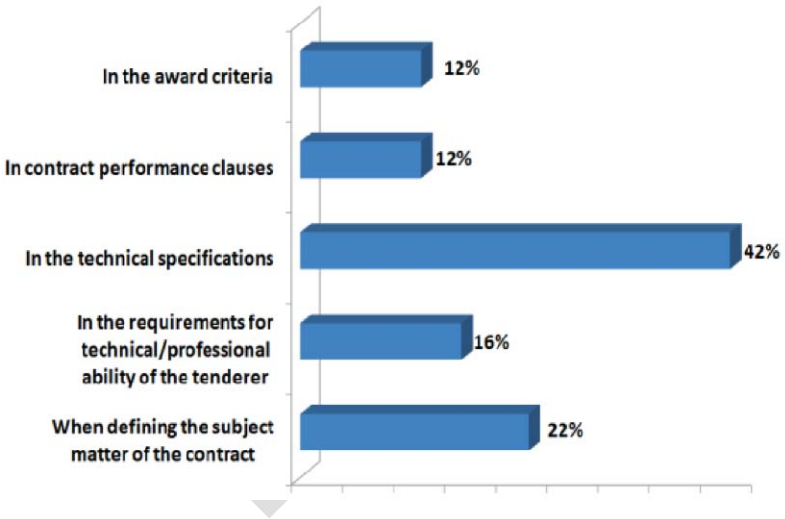

Figure 2.2.1 At what procurement stage were green criteria included?
(Source: CEPS and CE 2012)

Figure 2.2.2 illustrates the top three Member States for inclusion of at least one core GPP criterion in tender specifications – Sweden, France and Spain – and the top three for inclusion of all the GPP core criteria. The criteria with the highest uptake were maximum levels for harmful substances (34%), use of organic or recycled fibres (23%) and limits on the presence of certain pesticides in products (17%). A more

detailed 2010 survey of Member State GPP criteria highlights overlaps between the use of EU GPP criteria and references to the criteria of other labels such as Oeko-Tex 100. These findings are discussed further in Section 2.2.2.

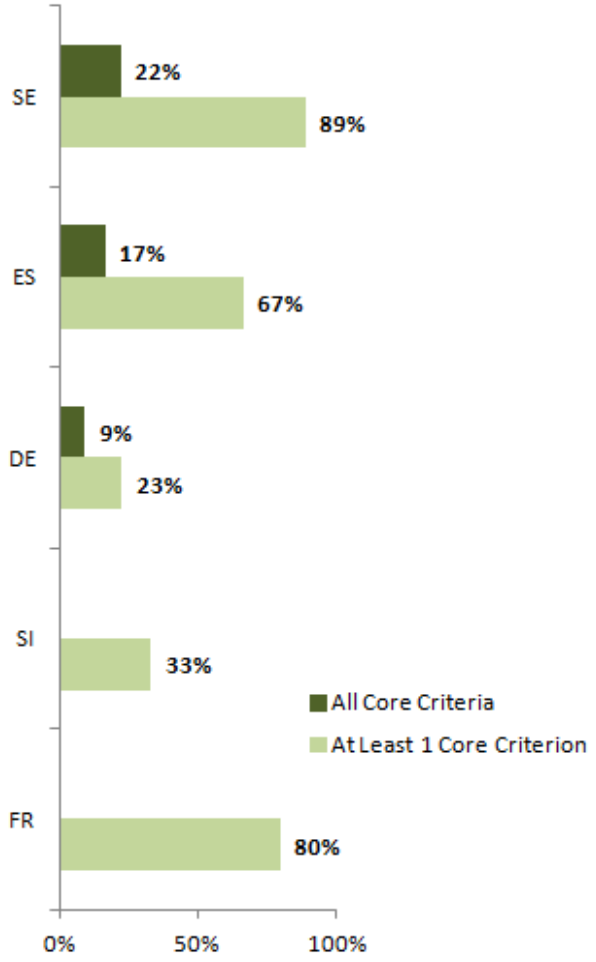

Figure 2.2.2 Introduction of textile core criteria into contracts by selected Member States (Source: CEPS and CE 2012)

2.2.2 GPP criteria currently in use by selected Member States

A report prepared in 2010 by AEA Technology for the UK Government provides insight into how Member States are implementing GPP textile criteria [12]. Product scope and the environmental aspects addressed by criteria sets were surveyed for ten Member States. The findings are summarised in Table 2.2.1.

The findings highlight that whilst most Member States had general product definitions, Denmark and the Netherlands have developed criteria and guidance that

[12] AEA, *Assessment and Comparison of National Green and Sustainable Public Procurement Criteria and Underlying Schemes*, Report to the European Commission

are more specific to GPP applications. Denmark focusses on workwear, protective clothing, curtains and bed linen. The Netherlands has developed criteria for office soft furnishings and workwear. Germany and Finland do not currently cover textile products.

Table 2.2.1 Scope and criteria coverage of ten Member State GPP criteria sets

Member State	GPP documentation	Environmental aspects addressed
Austria	Criteria document - Ecological criteria for textiles	- Pesticides - Chemical content - Organic fibres - Recycled fibres
Belgium	Textiles and ready to wear - Criteria document - Clothing and accessories	- Chemical content - Organic fibres - Recycled fibres
	Textiles and ready to wear: - Criteria document - Leather products	- Chemical content
Denmark	Guidance Document for Clothing and textiles - Work overalls - Work-wear - Work-wear with protective properties - Curtains - Gloves - Bed linen	- Chemical content - EMS - Organic fibres - Risk assessment - Wastewater treatment - Recycling of fibres
France	Guide to sustainable public procurement – GEM DD- Buying Clothing	- Waste - Chemical content - End of life - Organic/fair trade cotton
Netherlands	Criteria Document for Office soft furnishing	- Chemical content - Recycling - Recycled fibres
	Criteria Document for Work-wear	- Chemical content - Recycling - Recycled fibres - Organic fibres
Norway	Criteria Document - Clothing and textiles	- Chemical content - Disposal - Packaging
Sweden	Furnishing and textiles • Criteria Document for Textiles and leather	- Chemical content
UK	Criteria Document - Textiles Standards	- Pesticides - Emissions

Source: AEA Technology *for* DEFRA (2010)

Whilst there were many commonalities identified between the criteria sets, variations could be seen in the extent of their coverage – particularly in terms of restrictions on the use of certain hazardous substances – and in their broader coverage of issues such as product design, supply chain management and product end-of-life. Where necessary the findings of the report have been updated to reflect recent changes to national GPP criteria, for example in the UK.

Novel criteria and labelling references that do not currently form part of the EU GPP criteria are summarised below, organised under common headings:

Product-specific

- CE marking for work gloves and protective work wear (Denmark);

Supply chain

- Biological wastewater treatment (Denmark);
- Tracking and documentation of supplier energy, water and chemical consumption (Denmark);
- Traceability requirements for each factory and the industrial equipment they use (France);

Product design and specification

- Specification of fabrics that require less retreatment (Denmark);
- Design, cleaning and repair of workwear to extend its life (Netherlands);
- Requirement for LCA evidence to support the selection/use of novel new fibres such as PLA and PTT (UK);

End of life services

- Working overalls, workwear and bed linen should be recycled or re-used, with award criteria used to incentivise innovation (Denmark, France, Netherlands, UK);
- Careful end of life treatment of clothing containing hazardous chemicals e.g. flame retardants (Norway);

Type III Ecolabels

- Verification by Nordic Swan (Belgium, Denmark, Norway, Sweden)
- Verification by Oeko-Tex 100 (Austria, Belgium, Denmark, Netherlands and Sweden)

- Verification by Oeko-Tex 1000 (Sweden)

2.3 Feedback from the GPP stakeholder questionnaire

A questionnaire designed to obtain more feedback on experience and application of the EU GPP textile criteria, as well as the use of other novel textile definitions and tender specifications, was circulated to the GPP Advisory Group and selected experts in May 2012. The questionnaire can be found in Annex 1.

The response rate was 17.5%, comprising five Member States (UK, the Netherlands, Slovak Republic, Malta and Cyprus) and two private companies (W.L.Gore and SEMCo), so cannot be considered to be fully representative. Nonetheless, useful feedback was provided based on the experience of the respondees. The findings are summarised below:

Summary of GPP Advisory Group and Stakeholder questionnaire response

1: Scope of the current GPP criteria

a. Is the current scope clear and adequate?

- The general view was that the scope was clear but views differed on whether they are adequate.
- One Member State with a well developed GPP programme highlighted the need to focus on specific products.
- A supplier suggested that applications differ significantly, and questioned whether these could be adequately assessed with one set of criteria.

b. Are there any areas where you think the scope should be more specific to reflect GPP procurement priorities?

- One Member State highlighted the need to identify specific GPP related products and end-uses e.g. clothing/workwear, workwear cleaning services, interior office decoration (wall-, floor-, windowcoverings), bedclothes.

2: Experience using the existing GPP criteria

a. Do you have any suggestions on how to improve the current GPP criteria?

- It is important to ensure that all Green Public Procurement are easily understood by non-technical officials.
- Criteria should clearly indicate what is expected of bidders and where they may obtain information to ensure compliance e.g. REACH, Safety Data Sheets. This is important for low volume/threshold competitions;

- More emphasis should be placed on the relative environmental importance of the different criteria, end-of-life criteria and opportunities for recycling and re-use;
- Consideration should be given to service contracts for textiles that could incorporate specific environmental requirements;
- Technical suggestions were received from one respondent:
    - Improve the focus on CMR, PBT/vPvBT and endocrine disrupting substances
    - The listing of TCEP (Tris(2-chlorethyl)phosphate) under phthalates was queried
    - DHNUP (Di(heptyl, nonyl, undecyl) phthalate) CAS 68515-42-4 and Bis(2-metoxyetyl) phthalate CAS117-82-8 should be added

b. Have you, or any public organisations you work, with encountered any difficulties using the criteria?

- Limited availability of supply in the local market, reflected in the number of technical non-compliant bids and subsequent reissue of tenders.
- Alternative means of proof in the form of certifications, other than the EU Ecolabel, posed challenges when checking compliance.
- The criteria are more difficult to apply to PPE procurement and ancillary services;
- Lack of comprehension by suppliers of the benefits derived from considering the very detailed level of criteria (e.g. individual heavy metals, pesticides, etc).

3: GPP best practice in relation to public procurement of textiles

a: Have you or any public procurers you work with introduced GPP textile criteria into contracts?

- Two respondents referred to existing national GPP criteria instead of EU GPP criteria, although these were based on the EU GPP criteria.

b: In relation to the examples provided, where and how were the criteria applied in the procurement process ?

- In most cases they usually form part of procurers' Technical Specifications
- For one Member State basic sustainability policies, procedures, accreditations and level of development are examined as standard at Pre-Qualification stage for all clothing and related contracts.

c: In relation to the examples provided, what were the challenges faced and lessons learnt from the procurement process?

- The users of the criteria, i.e. procurers, often don't have the competence to verify very complicated criteria as according to the procurement legislation you are obliged to be open regarding evidence.
- Understanding in the market place varies with even some large, established suppliers showing a very poor grasp of what is required whilst some SME companies may be more competent.
- Some ecolabel schemes are very onerous to achieve even for large well resourced companies due to the fractured nature of their supply chains.
- In order to ensure a good selection of solutions to choose from, it is advisable to use criteria that are consistent with commonly uses standards in the textile industry.

d: Are you aware of any examples of the use of Life Cycle Costing in the procurement of textile environmental improvements?

- The general view was that LCC is not used;
- Reference was, however, made to potential cost benefits from reduced energy and water use for laundering and from reduced disposal costs.
- The reduced the annualised cost of ownership from extending the lifespan of products was also cited;

4: New environmental criteria used in contracts

a: Have you or any public procurers you work with introduced environmental criteria other than the ones in the EU GPP guideline?

- The French military was cited as an example, with information about supply chain impacts and social compliance requested;
- A supplier made reference to Oeko-Tex 100 being requested. Many public contracts in EU for functional fabrics specify Oeko-Tex 100 or equivalent in some form. It is possible to fulfil most GPP functionalities without major problems.
- In addition to selected EU GPP criteria the following additional areas were covered by national GPP criteria and specific procurement examples:
    - Laundry and care of garments - lower wash temperatures, avoid dry cleaning wherever possible, if specialist treatments are required etc.
    - Durability and expected wear rate of garments

- Materials/Garments can be re-used or recycled (based on a Zero to Landfill policy).
- Logos should be capable of being removed to reduce issues surrounding sending clothing to Charity for re-use.

o Compliance with the German standard DIN 61 650 was applied when procuring cleaning textiles.

b: How were the new environmental criteria verified?

o Where new products have been introduced additional evidence of compliance is sought. For new suppliers, evidence of corporate compliance was sought at tender stage but further verification is required for products finally selected.

o A supplier noted from their experience that extra points may be awarded for independent verification (e.g. "EU Ecolabel or equivalent") and also quantitative information e.g. transportation CO_2 footprint.

c. If you or any public procurers you work have introduced other environmental criteria did they work or were there any difficulties?

o It was noted by a supplier that often the time available to produce a comprehensive, verifiable information in tenders is too short.

o The textile industry lacks measuring or reporting standards such as Product Category Rules. Therefore, fair comparability of the data supplied by the applicants has to be treated with great care.

o A proliferation of different reporting formats could place a burden of reporting out of proportion with the potential benefits.

Section 2 Summary

- Clothing is the most commonly procured textile product.
- Technical ability, subject matter and technical specifications are the most commonly differentiators used in GPP textile tenders.
- A number of Member States have tailored GPP criteria to better reflect GPP textile applications. The possibility of amending the scope accordingly was highlighted by questionnaire respondees.
- Respondees to a questionnaire highlighted the need for easily understood and verifiable criteria that reflect existing industry standards.
- New criteria areas identified from Member State GPP criteria and highlighted by questionnaire respondees as being relevant to the product group included:
  - whole life costing of replacement and energy/water use,
  - provision of LCA evidence for innovative fibres,
  - design for durability, repair, re-use and recycling,
  - the provision of take-back services.
- Care should be taken with any new criteria to ensure the burden of reporting is manageable.

Questions for stakeholders

- Should the scope be made more specific in order to reflect the distinct textile products procured by public authorities?
- Should the criteria be amended to improve harmonisation with Oeko-Tex 100?
- Should technical fibres such as aramid be brought into the scope?
- How could the possible new criteria areas identified be introduced into the GPP criteria?

3. Innovation in textile public procurement practices

In this section we bring together evidence of innovation by public procurers of textiles. It is important to learn from the experience of public procurers and to better understand their priorities in order to ensure that the criteria are relevant and can be used effectively by procurers.

3.1 Characterising GPP innovators

Examples of current best practice in GPP for textiles have been compiled using a combination of:

- Existing GPP case studies,
- Existing EU Ecolabel license holders,
- Suggestions from stakeholders,
- A literature search.

The examples we have been able to identify are summarised in Table 3.1.1, divided into suppliers (supply side) and procurers (demand side). Whilst the examples cannot be taken to be representative they serve to highlight the nature of the best practices being implemented by leading eco-innovators.

On the supply side it can be seen that the large suppliers are responding to GPP demand for core and comprehensive criteria specifications. Large specialist contractors such as TDV [13] and Klopman [14] offer hazardous substance certifications such as Oeko-Tex 100 as standard, together with content standards such as organic and fair trade cotton and recycled content. Klopman and Carrington Career Workwear are also notable for their focus on BAT production processes.

Carrington CW and Teijin Aramid illustrate different responses to an increasing focus by some GPP procurers on the end-of-life of products, the former focusing on product redesign and mechanical recycling routes [15], the latter offering product take-

[13] TDV Industries, *Fabric selector*, http://www.tdv-industries.fr/en/fabrics/selector/

[14] Klopman International, *Environmental responsibility*, http://www.klopman.com/aboutus/responsibility/theenvironment/

[15] Carrington Career and Workwear, *Case study*, http://www.uniformreuse.co.uk/corporatewear-studies.html

back to complete a closed loop chemical recycling route for aramid fibres [16]. Teijin Aramid claims to have carried out an LCA study the results of which indicate significant environmental benefits arising from a recycling route [17].

Carrington CW and Beirholm A/S illustrate how energy and water use during the use phase can be priorities. Carrington CW has focused on care labeling whereas Beirholm specialises in fibre blends for which LCA evidence exists of the use phase benefits to clients, who in turn save energy and water [18].

On the demand side it can be seen that major procurers such as the City of Zürich [19] and the French military [20] have piloted the large-scale procurement of products with reduced levels of hazardous substances and organic cotton fibre content. In both cases the scale of procurement enabled any over costs to be minimised to 10-22%. In the case of France award criteria were used to encourage higher organic fibre content.

In the case of the UK's National Health Service (NHS) and Royal Maim Group the use phase and end-of-life phases have been a focus. NHS pilot projects have requested the take-back of uniforms and explored potential savings to laundries and domestic washing from different fibre blends [21]. The Post Office has worked with a specialist contractor to divert uniforms from landfill [22].

[16] Teijin Aramid, *Recycling*, http://www.teijinaramid.com/sustainability/recycling/

[17] See footnote 16

[18] Personal communication

[19] European Commission, *Sustainable procurement of workwear in Zurich*, Green Public Procurement case study,

[20] European Commission, *Sustainable uniforms for the French military*, Green Public Procurement case study

[21] DEFRA, *Sustainable clothing procurement – Uniforms in the NHS*, April 20122

[22] Centre for Remanufacturing and Re-use, *An investigation to determine the feasibility of garment labelling to enable better end-of-life management of corporate clothing*, March 2009

Table 3.1.1 Example GPP eco-innovators

Organisation	Products or services	Product performance specifications
Supply side		
TDV Industries (France)	Technical fabrics, work clothing, military clothing	• Use of unspecified % organic cotton content • Procurement of fair trade (IPM) cotton • Use of polyester with a high % recycled content • Product lines made from 'eco-cleaning' fabrics which reduce washing requirements • Oeko-tex 100 certification
Klopman (Italy)	Protective wear, workwear and corporatewear	• Oeko-tex 100 certification • EU Ecolabelled polycotton blends incorporating fair trade or organic cotton • BAT production processes
Carrington Career and Workwear (UK)	Corporate and workwear garments	• Redesign of blended garments in order to facilitate efficient take-back and recycling • In-depth care label instructions to extend the life of garments • Installation of heat recovery from dyeing and stenter frames (drying equipment)
Teijin Aramid (Netherlands)	Ballistic and protective fabrics	• Manufacturing of ballistic protection fabrics with a high recycled content • Buy-back of used Twaron aramid fabrics which are used to manufacture new fibres
Beirholm A/S (Denmark)	Bath and bed linen	• Use of poly-cotton blends to reduce clients' laundry energy and water consumption

Demand side		
City of Zürich (Austria)	Police and care worker shirts	• 4,000 shirts/annum manufactured from 100 % organic cotton (substituting for polyester/non organic cotton blends) • Requirement for a shirt of improved quality and longer lifespan • The cost premium was minimised to 10%
French Ministry of Defence	Navy, army and air force knitwear	• Procurement of 36,000 cotton jerseys to specifications to hazardous substance criteria for aryl amines, azo dyes, formaldehyde and cadmium • Procurement of 150,000 cotton jerseys to the same specifications with the addition of a requirement for organic cotton • 20% weighting in award criteria for sustainability considerations
National Health Service (UK)	Nurses uniforms	• Pilot study engaging four health service trusts • Themes addressed included end-of-life disposal/recycling and laundry improvements and associated cost savings,
Royal Mail Group (UK)	Postal workers uniforms	• Use of a specialist contractor to collect and track the take-back of uniforms for recycling/re-use • Colour coded collection routes for staff

3.2 The application of Life Cycle Costing to GPP

Our own literature search combined with feedback from stakeholders to date suggests that there are limited formal examples of the application of LCC thinking to textile procurement. Examples we have identified relate to the following procurement issues:

- Energy use for laundering: A number of industry stakeholders have identified the need to minimise energy and water use during the laundering of textiles as a significant driver during tender negotiations. This can support the case for life cycle costing of fabric choices. For example, LCA evidence shows

that towels and clothing manufactured from polycotton blends reduce energy use for washing and drying by 17% [23]. The blended fabrics may also last twice as long when abrasion resistance and tensile strength are taken into account.

- Textile maintenance, disposal and replacement costs: In the UK a cost benefit analysis of textiles procured under the Government Buying Standards (GPP) was carried out in 2010 [24]. An option to extend the scope of the criteria to address life cycle costs (option 2) was analysed and compared with the cost of maintaining the existing criteria (baseline) and extending the criteria to fully reflect the EU GPP criteria (option 1). The results of the analysis expressed as Net Present Values are presented in Table 3.2.1. The higher resulting NPV for Option 2 is accounted for by:
    - Reduced waste management costs;
    - Lower textile replacement rates;
    - Reduced energy use associated with textile cleaning.

  It is to be noted, however, that comparative analysis of the baseline option was not presented in the cost benefit analysis report .

Table 3.2.1 Cost impact assessment of UK GPP textile procurement options

	Option1 EU GPP alignment		**Option2 Whole life approach**	
	Low (£m NPV)	**High (£m NPV)**	**Low (£m NPV)**	**High (£m NPV)**
Additional cost of procuring textile	£1,50	£3,38	£6,40	£17,20

Note: Net Present Value is calculated using a 3.5% discount rate

[23] Kalliala,E.M, and P,Nousiainen, *Environmental profile of cotton and polyester-cotton fabrics*, AUTEX Research Journal Vol 1, No.1, 1999

[24] DEFRA, *Revised government buying standards for textiles – impact assessment*, 12th December 2010

Section 3 Summary

- Selected examples of GPP procurers illustrate how large-scale contracts have been used to mainstream core and comprehensive criteria whilst minimising additional costs;
- There is evidence that suppliers are bringing forward a range of innovations in response to GPP criteria and pilot projects, these include:
  - certifications that hazardous substances have not been used,
  - fibre improvement specifications,
  - manufacturing process improvements,
  - product designs intended to reduce costs during the use phase
  - end-of-life take-back services
- Whilst there appears to be limited use of LCC techniques, there is evidence that life cycle thinking is used in textile services and has been demonstrated by at least one Member State in their assessment of policy options.

Questions for stakeholders

- Are you aware of additional examples and innovations that may be relevant to the revision process?
- How could the procurement process be used to encourage some of the innovations highlighted?
- Do you have relevant worked LCC examples or data that could be shared with JRC-IPTS?

4. Summary recommendations

In this section we provide summary recommendations as to how the EU GPP criteria could be revised. The recommendations are presented for discussion under the standard GPP procurement headings to which they relate.

Cross reference has also been made to parallel proposals made by the EU Ecolabel revision which could enhance the environmental improvement potential.

Possible framework for revision of the EU GPP textile criteria

Key environmental areas	• The environmental areas addressed by the criteria could be improved in order to address: - Reduced energy, water and detergent use during the use phase - Reduce impacts associated with landfilling, incineration and resource inefficiency associated with the end-of-life phase. • The EU Ecolabel is also proposing an enhanced focus on energy, water and chemical use during dyeing, printing and finishing
GPP approach	• Design and specification in order to reduce impacts during the use phase • Contracting of services in order to repair, re-use or recycle textiles • The EU Ecolabel is also proposing an enhanced focus on the process efficiency of dyeing, printing and finishing
Subject matter	• The scope could be refined to focus on specific clothing and interior textile products that are commonly procured e.g. uniforms, PPE, bed linen; • These GPP products may have distinct requirements and standards which may warrant specific criteria.

Technical capacity	• Process efficiency at manufacturing sites could be addressed by requesting basic information from bidders (see proposed EU Ecolabel Criterion 13).
Technical specifications	• Introduction of IPM cotton as an alternative specification to organic cotton (reflecting EU Ecolabel proposals) • Specific reference to the proposed EU Ecolabel Restricted Substance List (RSL) and the Oeko-Tex 100 standard criteria could be introduced as a means of compliance. • Definition of services that would be required to achieve use phase and end-of-life environmental improvements. • Definition of more specific functional standards related to the durability of the product e.g. flame retardancy, abrasion resistance, water repellency. • Fibres not covered by the EU Ecolabel criteria would require an LCA evaluation to substantiate environmental claims
Award criteria	• Further differentiation of tenders based on minimum contents of organic and IPM cotton, and of recycled content. • Possible differentiation based on Life Cycle Costing of products and/or textile services. Factors could include reduced laundry and waste management costs, annualised procurement costs and durability. • Possible differentiation of tenders based on the process efficiency of dyeing, printing and finishing stages (based on EU Ecolabel proposals)

Contract performance	• Possible use of performance clauses for organic, IPM and recycled content that reward increases in content during the contract period. • Possible use of performance clauses for end-of-life services in which higher re-use rates or high value recycling could be rewarded.