



Green Public Procurement (GPP)

How widespread is Green Public Procurement in Norway, and what factors are seen as drivers and barriers to a greener procurement practice?

Christiane Løland Dolva

**Miljö och hållbart företagande
Sustainable Enterprising
Master's Thesis 2007:5**

STOCKHOLMS UNIVERSITY
Stockholm Resilience Center
Environment and sustainable enterprising
(Miljö och hållbart företagande, 20 p praktik)

Green Public Procurement (GPP):

How widespread is Green Public Procurement in Norway, and what factors are seen as drivers and barriers to a greener procurement practice?

Magister thesis fall term 2007
by Christiane Løland Dolva

Supervisor:
Bjarne Ytterhus, professor Handelshøgskolen BI, Oslo
Appointed by:
GRIP – foundation for green production and consumption



PREFACE

This thesis make up the practical part of the magister course Environment and Sustainable Enterprising at Stockholm Resilience Centre, Stockholm University. In cooperation and appointed by GRIP – a Norwegian foundation for Sustainable Consumption and Production – an assessment of the status of Green Public Procurement (GPP) in Norway and an analysis of perceived drivers and barriers for implementing more GPP has been made.

There are several persons that deserve many thanks for helping me conduct this study. First of all thanks to all my colleagues at GRIP for foreseeing me with a place to work and invaluable amounts of inspiration and knowledge. I am profoundly grateful to my supervisor Bjarne Ytterhus for taking the time to help, and for instructive and inspiring comments and lunch conversations. Thanks to all procurement officers contributing to the interviews. All my fellow students and the course administration deserve thanks for commenting and giving their point of view in the progress, and for giving me an excuse to make occasional trips to Stockholm. Last – thanks to all those who have kept me going, given me motivation, inspiration and distraction. Cheers!

January 2008 – Oslo

Christiane Løland Dolva

SUMMARY

The public sector in Norway purchases products and services for more than 300 billion NOK per year. This purchasing power can play an important role in leveraging the market share of environmentally sound products by increasing the level of environmental requirements in public contracts.

Environmental considerations in public procurement have been on the international agenda since the 1992 conference in Rio, and the OECD, the EU and the Nordic Council of Ministers have also placed Green Public Procurement (GPP) on their agendas. Together with statements from the 2002 World Summit on Sustainable Development in Johannesburg, they all underline GPP as a tool for making a shift to more sustainable production and consumption practices.

In Norway, the Government launched a Norwegian Action Plan on Environmental and Social Responsibility in Public Procurement in 2007. The aim of the plan was to encourage the public sector to demand environmentally sound products and services. However, several previous studies that have assessed the status of GPP show that, despite efforts to promote environmental considerations, there is a long way to go before these are fully integrated into public procurement practice.

The aim of this study was to produce information about how widespread the use of environmental criteria are in Norway, and to identify what drivers and barriers are seen to influence the GPP status. Based on experiences from other studies, the method design chosen was an analysis of tender documents complemented by case studies with interviews. Using both methods provided a way of balancing the results so as to get the most objective status scores on GPP together with more detailed answers on perceived drivers and barriers.

The results revealed that almost 60% of all tender documents included some kind of environmental criteria, but 1/3 of these were so unclear that it was doubtful as to whether or not they would result in any green procurement. Of the product groups that were in focus, the one that included paper and print was by far the “greenest” of the groups, with the others both containing less GPP and more unclear criteria. Compared to other studies this puts Norway at the same level as Sweden, and shows a slight improvement in total GPP compared to previous assessments. Still, taking the high amount of unclear criteria into account may lower the overall GPP score.

The interview results indicated that lack of knowledge, focus on economic considerations and product functionality, lack of support and management focus and work pressure were the five main barriers preventing GPP. Increased co-operation, increased focus from management, simplification of criteria and more available products with environmental labels were identified as drivers. The drivers and barriers identified correspond to those of previous studies, with some new findings such as identifying the lack of product specific knowledge, where previous studies have focused more on lack of procurement knowledge.

The findings are all important when it comes to working out a strategy to follow up the Norwegian Action Plan. They give information about the needs identified by the procurement officers themselves, thus giving an indication of what initiatives to prioritise.

Key words: procurement practice, environmental considerations, sustainability

TABLE OF CONTENT

1. Introduction	6
1.1 Aim	7
1.2 Research questions	7
1.3 Delimitations	7
1.4 Thesis disposition	8
2. BACKGROUND.....	8
2.1 Green Public Procurement	9
2.2 Why GPP?	9
2.2.1 Governmental strategy	10
2.2.2 Legal framework	11
2.3 How to practice GPP?.....	12
2.3.1 Definition of the subject matter of the contract	12
2.3.2 Technical specifications	12
2.3.3 Selection criteria	13
2.3.4 Award criteria.....	13
2.3.5 Criteria in contract clauses.....	13
2.4 Previous studies.....	14
2.4.1 Status on GPP.....	14
2.4.2 Perceived drivers and barriers	15
3. METHOD	17
3.1 Discussion	17
3.2 Tool 1: Analysis of tender documents.....	18
3.3 Tool 2: Interviews	21
4. RESULTS ON GPP STATUS	23
4.1 Paper and print (n = 20)	24
4.2 IT (n = 20).....	25
4.3 Cars and transport (n = 20).....	26
4.4 Textiles (n = 14)	27
4.5 Analysis and discussion	28
4.5.1 GPP status	29
4.5.2 Product specific results	30
5. THEORY	32
5.1 From policy to practice.....	32
5.2 Norm model	34
5.2.1 Norms.....	34
5.2.2 The norm-model on GPP.....	35
5.2.3 Will: value-based condition for action	36
5.2.4 Knowledge: cognitive barriers to GPP	36
5.2.5 Opportunity: systemic conditions.....	37
5.3 An actor-oriented perspective	37
5.3.1 Looking at what is determining the norm.....	38
5.3.2 Looking at what is determining the action	38
6. RESULTS ON DRIVERS AND BARRIERS.....	38
6.1 Focal points in the interviews.....	39
6.2 General findings from the interviews.....	39
6.3 Identified drivers and barriers.....	40
6.3.1 Barriers.....	40
6.3.2 Drivers.....	42
7. ANALYSIS AND DISCUSSIONS	43

8. CONCLUDING REMARKS	46
8.1 Future recommended research.....	47
8.2 Policy recommendations.....	48
8.3 Limitations	48
9. LITERATURE.....	50

TABLE OF FIGURES

Figur 1 Inclusion criteria for the division of environmental criteria.....	20
Figur 2 Selection method Tool 2.....	21
Figur 3 Results Paper & Print	24
Figur 4 Results IT	25
Figur 5 Results Cars & Transport	27
Figur 6 Results Textiles	28
Figur 7 Aggregated results of GPP.....	29
Figur 8 Total results for product groups	30
Figur 9 Hydéns norm model	35
Figur 10 Delimitations of the norm model	38

TABLE OF APPENDIX'

Appendix 1	54
Appendix 2	60
Appendix 3	66
Appendix 4	70
Appendix 5	73
Appendix 6	75
Appendix 7	77

1. Introduction

The public sector purchased products and services for approximately 275 billion NOK in 2005. With such significant market power lies a great potential for both direct environmental, financial and social improvements and a considerable influence in shifting the whole market towards the supply of more sustainable products and services (Action Plan 2007¹). The purchasing power of the public sector can play an important role in leveraging the market share of environmentally sound products by increasing the level of environmental requirements in public contracts.

Environmental considerations in public procurement have been on the international agenda since the 1992 conference in Rio, where the UN encouraged all member-states to contribute to more sustainable production and consumption (Rio Declaration²). The OECD, the EU and the Nordic Council of Ministers have also placed Green Public Procurement on their agendas. The European Commission has called on member states to draw up national action plans in order to increase the prevalence of Green Procurement in the public sector. At the 2002 World Summit on Sustainable Development in Johannesburg public authorities made a commitment to “promote public procurement policies that encourages development and diffusion of environmentally sound goods and services”³.

International political decisions, regulations and principles on Green Public Procurement (GPP) trickle down to local procurement level through national decisions and strategies. In the Norwegian Action Plan 2007-2010 on Environmental and Social Responsibility in Public Procurement the Government drew up a three-year plan with a clear vision for the public sector to lead the way as a responsible consumer, and demand environmentally sound products and services (Action Plan 2007).

However, while the legal space and the focus on promoting GPP have increased, implementation of GPP policies does not occur automatically. Studies show that there is still a long way to go before environmental considerations are fully integrated into the entire procurement process (For more info see review of previous studies 2.4)

To be able to monitor the spread of GPP, and determine whether the objectives and intentions of the action plans and political strategies have been achieved, there is a need to conduct continuous assessment of the status of GPP, and map out what drivers and barriers affect the process of implementing GPP. GRIP (foundation for sustainable production and consumption) have taken on

¹ The Norwegian Action plan on Environmental and Social Responsibility in Public Procurement, 2007 (will receive further presentation in 2. Background)

² Principle 8 Rio Declaration on Environment and Development

³ Plan of Implementation of the World Summit on Sustainable Development, §19

this mapping on behalf of the Norwegian Ministry of Environment, and have requested a survey which may give an indication of the status of GPP in Norway within some selected product groups.

1.1 Aim

The aim of this study was to produce information about how often, with what weight and what kind of environmental criteria are applied in public procurement, thus providing a general view of the current situation for GPP in Norway. The study also focuses on what drivers and barriers are seen to influence more sound environmental criteria to be integrated into public purchasing.

The aim is in a way both descriptive and explanatory. The GPP status study will give a picture of the magnitude of environmental considerations. This is necessary in order to assess development over time. The inclusion of mapping drivers and barriers is done on the basis of other studies, which show a lack of integration of environmental concerns into today's procurement practice. An analysis as to why this is, is crucial in order to give recommendations on what needs to be done to fully integrate the environment into public procurement.

1.2 Research questions

The research question consists of two focal points:

- How widespread is Green Public Procurement in Norway?
- What are the factors promoting or limiting the implementation of a more environmentally sound procurement practice in the public sector?

1.3 Delimitations

Given the research question the study consists of two parts; part one is focused on giving an overview of the status of GPP in Norway, and part two on analysing what drivers and barriers influence the spread of GPP practice. Part one was restricted to analysing environmental considerations in tender documents, getting an overview of the general situation and comparing the results with findings from previous assessments. An analysis of each criterion's implication for the specific purchases, or the specific environmental effects of the different criteria was not part of this study. Still; based on the variety of the environmental considerations found in the tender documents, a division between "well-specified criteria", "not-well-specified criteria" and "no environmental criteria" serves as a basis for the analysis (For further explanations see 3.2 Method tool 1).

Part two had the aim of getting a picture of what procurement officers themselves regard as facilitating and/or limiting factors influencing their ability to take environmental considerations. There are several elements influencing a process of implementing policy into practice, though a thorough analysis of all aspects connected to implementation of environmental considerations was not possible; therefore a limitation was made giving the study an actor oriented perspective as the focus was on gaining the view of the procurement officers. A theoretical framework was used giving the focus on the areas knowledge, will and opportunity to act, based on Hydéns Norm model (Further explanation in 5. Theory).

There is growing support of a broader view of procurement not only as green procurement but as sustainable procurement which also integrates social and ethical requirements. In this area there is still no common agreement on how to integrate ethical requirements and this study will focus only on the environmental aspect of sustainable procurement.

1.4 Thesis disposition

First, *chapter 2* will line out the context and background for the thesis questions, together with a review of results from previous studies on status, drivers and barriers to GPP. *Chapter 3* presents the methods used. Since the aim of the thesis is twofold, the methods are presented as tool 1 – part one; assessing GPP status and tool 2 – part two; identifying drivers and barriers. This structure of the research question results in *chapter 4* presenting the results from the GPP status assessment before *chapter 5* gives an introduction to the theoretical framework relevant for part two of the thesis. *Chapter 6* presents the findings on drivers and barriers, followed by analysis and discussions in *chapter 7*. This chapter links the findings from part one and two together with the theoretical framework and results from previous studies. Finally *chapter 8* gives some concluding remarks, recommendations to future studies and some policy recommendations together with a discussion of validity and reliability.

2. BACKGROUND

In this section the context and background of the thesis question will be presented. This includes a presentation of the concept of GPP, why it is important, the political focus on it as a tool for sustainable development, the legal framework for making environmental considerations and how this can be carried out practically in the procurement process.

2.1 Green Public Procurement

Public procurement can be described as legal processes which are guided by political decisions and are practically implemented by local purchasers. In order to measure the GPP status there is a need for a precise and practical definition. After analysing existing definitions and descriptions of GPP the ETAP⁴ working groups came up with the following definition that will also be used in this thesis:

“Green Public Procurement is the approach by which Public Authorities integrate environmental criteria into all stages of their procurement process, thus encouraging the spread of environmental considerations and the development of environmentally sound products, by seeking and choosing outcomes and solutions that have the least possible impact on the environment throughout their whole life-cycle”⁵

GPP is about making a shift to more sustainable production and consumption practices (Procura 2007). The World Commission on Environment and Development (WCED) defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987). For the European Union the key to sustainable development is that “Economic growth, social cohesion and environmental protection must go hand in hand” (A Sustainable Europe for a Better World, 2001). Sustainable development is not just a concept; it is a stated objective of governments around the world through for example The United Nations Commission for Sustainable Development and The World Business Council for Sustainable Development. Green procurement seeks to purchase greener varieties of goods and services that supply the same (or better) quality and functionality as the conventional choice (Erdmenger 2003).

2.2 Why GPP?

In many policy documents on sustainable development GPP is only mentioned as a complementary tool. The RELIEF Project⁶, funded within the 5th Framework Program of the European Commission, DG Research studied and calculated what environmental impacts of GPP can be identified (Erdmenger 2003). They found that if all public authorities in the EU demanded green electricity then the equivalent of 60 million tonnes of carbon dioxide could be saved. Nearly the same could be achieved if all authorities opted for buildings of high environmental quality. If all EU-procurement officers

⁴ The European Commissions Environmental Technologies Action Plan

⁵ Green Public Procurement in Europe, a status overview (2005)

http://ec.europa.eu/environment/gpp/pdf/Stateofplaysurvey2005_en.pdf

⁶ International Council for Local Environmental Initiatives

demanding efficient toilets and taps this would reduce water consumption by 200 million tonnes (Buying Green 2004).

These are only a few examples of how GPP can have an environmental impact. It is not just the direct impact on the environment that serves as arguments for implementing GPP.

First of all; limiting the environmental impact of a products life-cycle, from the extraction of raw materials, to manufacturing of the product, and through to its use and disposal, does not only have a positive impact on the environment, but can reduce utility bills, lower waste management fees and reduce spending on pollution prevention (Procura 2007). Second; the public sector, from local to national government offices, universities, schools and hospitals control large budgets and purchase vast amounts of products and services every year. Within such significant market power lies a great potential for both direct environmental, financial and social improvements and a considerable influence in shifting the whole market towards the supply of more sustainable products and services (Procura 2007). By being a demanding customer, the public sector can help the business sector to become more competitive in a market where the demand for environmental technology is growing fast (FAD 2007).

The private sector has been doing this through sustainable supply chain management, with taking responsibility for what they buy, sell and produce (Lippman 2001). By including suppliers into their environmental management programs firms have experienced lowering costs, and also being able to spread the focus on environmental considerations by demanding the same from their suppliers.

2.2.1 Governmental strategy

The Norwegian government launched a Norwegian Action Plan on Environmental and Social Responsibility in Public Procurement in 2007, with a three-year plan from 2007 to 2010. The aim of the plan is to encourage the public sector to lead the way as a responsible consumer, and demand environmentally sound products and services. The plans primary objectives are to make procurement in the public sector take place with minimum environmental impact. A strategy with a greater emphasis on the environment, life cycle costs and a positive reputation is seen as necessary in order to get a more efficient public sector that can set an example through its own procurement process (Action Plan 2007). The focus is on minimising the overall environmental impact of government purchases of products and services, making efficient use of government resources and contributing to a competitive business sector by encouraging a market that promotes innovation and development of environmental technology and environmentally sound products.

These objectives are based on the general principles that products and services must be chosen with regard to lifecycle costs, quality and environmental considerations. Priority must be given to products which are energy-efficient and have a low content of hazardous chemicals. Attention should also be given to minimising pollutant emissions and resource consumption. In the case of products for which eco-labelling criteria have been developed, such as the Nordic Swan and EU Flower labels, these criteria must be applied as far as possible (Action Plan 2007).

Dr. jur. Graver claims in his article “Environmental Demands and Public Procurement” (my translation) that the legal situation is clear, and that public organisations are obliged to consider the environmental consequences of their activities. Further he underlines that the laws and regulations on public procurement does not hinder environmental considerations to be integrated into public procurement as long as this is done in a non-discriminating way (Graver 1998). In effect this means one can not set demands that are not possible to obtain for all contenders, regardless of nationality. According to the principle in the constitution § 110c, environmental considerations shall be integrated into all decision making.

2.2.2 Legal framework

The awarding of public procurement contracts is strictly regulated by laws that aim to protect both the procurer and the contractor (Procura 2007). In the European Union, the legal framework is defined by the EU Public Procurement Directives from 2004 for purchases above a certain threshold. The most relevant principles of the EC Treaty for procurement are the principle of freedom of movement of goods, the freedom to provide services, the principle of non-discrimination, equal treatment, proportionality and transparency (Procura 2007). Norway is obliged to follow these directives because of our membership in the bilateral European Economic Area (EEA) trade agreement.

In Norway, this field is regulated by the Law of July 16th 1999 no 69 on Public Procurement (LOA 1999). This law is based on the EC Treaty and Public Procurement Directives. The Public Procurement law §6 states that “.....shall under the planning of each procurement take into consideration the life cycle costs and environmental consequences of the procurement” (LOA 1999, *my translation*).

According to the current Public Procurement regulation §3-11 (2) the “condition to carry through a contract may involve....environmental consideration”, FOA §8-3 (1) and §17-3 (1) states that in a

procurement one “...shall as far as possible put concrete environmental demands on the products performance or function”. This is supported by the FOA §17-3 (4) which conclude that performance- or function demands can consist of demands on environmental quality. With regard on how to implement environmental considerations the FOA states in §§ 17-3 (7) and (8) that environmental branding can be used as documentation on environmental quality, that other documentations shall also be accepted, and that environmental quality can be a possible award criteria (FOA §§ 13-2 and 22-2). FOA §17-13 also underlines that environmental management standards such as ISO 14001⁷ or EMAS⁸ can be used as evidence for suppliers technical qualifications (FOA 1999).

According to the Action Plan on sustainable public procurement, an adoption of a specific environmental policy for governmental procurement, containing specific requirements for prioritised product groups will enter into force by January 1st 2008 (Action Plan 2007).

2.3 How to practice GPP?

This section will provide a short description of where and how environmental considerations can be taken into a procurement process. The entire section is based on information gathered by different available guidelines: “Procura 2007”, “GRIP guide to GPP”, “Buying green 2004” and the guide “Environment and set of rules for Public Procurement 2004” from Nærings- og Handelsdepartementet⁹. This is done to give the reader a short introduction to the different aspects of public procurement.

2.3.1 Definition of the subject matter of the contract

The subject matter of a contract describes *what* is going to be purchased. In this part of the procurement process organisations have the freedom to choose what they want to buy without being regulated by procurement laws. This gives the opportunity to take environmental considerations into the evaluation of actual needs. Organisations can directly state their intention to buy green.

2.3.2 Technical specifications

Once the subject matter is defined it must be translated into measurable technical specifications which must be fulfilled. Specifications relating to environmental considerations can be based on

⁷ International Standardisation Organisation’s standard for environmental management

⁸ European Eco-Management and Auditing Scheme

⁹ Department of trade and commerce

environmental technical standards or eco-label criteria. They can also be on performance or functional requirements, production and process methods or specific material or chemical content. Technical specifications are obligatory demands, and can vary from a few to extremely detailed requirements. Environmental considerations may be taken into account as long as they do not rule out any contenders in a discriminating way, like for instance demanding one specific producer or production method.

2.3.3 Selection criteria

Selection criteria are used to evaluate whether bidders have the capacity and ability to perform the contract. Environmental selection criteria may only be used if specific environmental competence or technical capacity is needed to fulfil the contract. For instance one can demand environmental management standards, but only if they are relevant for carrying out the contract.

2.3.4 Award criteria

One can award a contract based on the lowest price or on the most economically advantageous offer. In the first case, the final decision is based solely on price, and to make this a greener procurement environmental criteria will have to be placed in the technical specifications. One can get good GPP results with this award method, but it does require a lot more from the procurement officer when it comes to constructing correct and detailed specifications. One on the other hand, when basing the award decision on the economically most advantageous offer one can take into account other considerations than price alone. Here one can include environmental criteria in several parts of the tender as long as they are related to the subject-matter, objectively quantifiable, weighted in relation to the other award criteria and clearly defined in the tender documents in order to guarantee transparency. Introducing environmental award criteria states that you prefer greener products, and that you weigh these considerations up against other concerns like for instance price, quality or functionality.

2.3.5 Criteria in contract clauses

One last possibility to include environmental criteria is in the contract performance clauses, which states the demands on how the contract shall be carried out. The contractor is obliged to follow these conditions, but the clauses can only relate to the manner in which the contract is carried out. Environmental considerations can include demands on return of packaging, environmental considerations in transport etc.

A conclusion to be made from this part of the study is that the legal space is certainly open for making environmental considerations in public procurement. There is also a wide variety of guides and handbooks on how to implement green criteria in the procurement process. Even though there has been a debate on whether the set of rules on public procurement allows for environmental considerations to be made, the conclusion may be drawn that GPP is certainly possible under the current EU procurement regime.

2.4 Previous studies

In this next section a brief review of earlier studies on GPP will be presented. They are important as they are used as a background for this thesis focus, and the results form a basis for comparisons with the findings presented later.

2.4.1 Status on GPP

Previous studies that have assessed the status of GPP show that, despite efforts to promote environmental considerations, there is a long way to go before they are fully integrated into public procurement practice. A research project funded by the Nordic Council of Ministers in 2005 revealed that for Norway only 40% of the studied tender calls included environmental aspects. Among the 258 contract notices from Norway, Denmark, Finland and Sweden, 47 % included environmental considerations, but only about half of the requirements connected to environmental considerations were well-specified (TemaNord 2005).

A survey carried out on behalf of the Swedish Environmental Protection Agency regarding environmental public procurement in Sweden showed that nearly 60% of the respondents had some kind of environmental policy in their organisation, 4 out of 10 had guidelines on environmental procurement, but only 23% considered themselves to be good at GPP in practice (Naturvårdsverket 2004).

Grip conducted a study in 2001 examining the general situation of GPP in Norway, which revealed that 45 % of the organisations that were interviewed took environmental aspects into account always or often (GRIP report 2002). In a large European survey on the status of GPP, over a thousand

tender documents were analysed, and the results showed that even in the 7 most green countries¹⁰, only about 60% of the documents contained specific environmental criteria, and in total only 23% stated that they used environmental criteria nearly always (GPP EU 2005). This European survey also analysed the way green criteria were used, and concluded that a large number of tenders analysed did contain environmental criteria. However these criteria were not well defined and it would be unlikely that the tenders would result in a greener purchase.

2.4.2 Perceived drivers and barriers

Several studies point out different challenges that limit further integration of environmental considerations into public procurement. As early as 1998, a Danish special report on Green Procurement pointed to the lack of environmental competence as being the greatest obstacle to GPP, as it requires not only overall environmental, but also technological, sector and product specific knowledge (Nielsen, Baarstrøm, Pedersen 1998). In the study for the Nordic Minister Council challenges for the purchasers in identifying significant environmental aspects of the goods and services to be purchased, in formulating criteria for environmental aspects in the tender documents, and in drafting the actual tender documents were pointed out as the greatest barriers needed to be overcome (TeamNord 2005).

The procurement officers themselves pointed out lack of knowledge regarding how to stipulate environmental requirements as a large barrier in the study for the Swedish Environmental Protection Agency (Naturvårdsverket 2004).

MMI conducted a study for GRIP and Astra Tech which aimed to do a survey of knowledge, attitudes and practice on environmental considerations related to purchasing medical supplies in the hospital sector. Only one third of the respondents said that they had an environmental policy in their organisation. None of the respondents could mention any specific environmental management system or standard, or that any goals concerning the environment were linked specific to the procurement functions. Around 50% replied that they used environmental criteria in their procurements to a large extent, though only a few said they did so to a very large extent. The lack of a clearly defined responsibility for integrating environmental considerations in procurement was stated as one of the main barriers to GPP, along with lack of knowledge of what kind of environmental criteria are allowed in public procurement. The respondents did consider more

¹⁰ Austria, Denmark, Finland, Germany, Netherlands, Sweden and UK, identified in the GPP-EU survey as the Green 7 (i.e. they consistently had more tenders with green criteria than the other 18 countries and they rated themselves more highly on the questionnaires)

environmentally sound procurement practice as very important, and considered their own influence as purchaser as extensive in achieving this goal (GRIP rapport 2002).

One of the largest surveys on GPP was conducted by the EU commission, and provided results that highlight the following barriers:

- The perception that environmentally friendlier products would be more expensive
- The lack of knowledge about the environment and how to develop environmental criteria
- Lack of management support (including money and time)
- Lack of strategic focus and organisational policy strongly promoting GPP
- Lack of practical tools and information
- Lack of training for public procurement officers

Through the results and discussions presented in this background-part of the thesis it has become evident that GPP is an important tool towards sustainable procurement, and that there is a strong governmental strategy backing the efforts in promoting environmental considerations in public procurement. The legal framework, which for a long time was seen to prevent the purchasing of greener products and services, is now seen to open up for several opportunities for GPP. Despite all this, the results from previous studies and surveys show that there is a long way to go before environmental considerations are fully integrated into the procurement process.

Based on these results is it possible to draw some conclusions on what can be expected to be identified as drivers and barriers to GPP? Several of the assessments of GPP status gave results showing a high degree of unclear environmental criteria (TemaNord 2005, GPP EU 2005). This might reflect a lack of knowledge on how to formulate environmental criteria, and correspond to the identified barriers, where lack of knowledge is the most frequently pointed out. The fact that the Swedish study gave the results that only 23% consider themselves good at GPP, further strengthens the fact that most procurement officers does not regard their own competence as sufficient.

The lack of clearly defined responsibility for integrating environmental consideration, as identified in the GRIP study, together with the EU surveys identification of lack of management support and organisational policy might lead to the conclusion that the existence of environmental management systems and standards, and a specific environmental policy for the procurement function might be important drivers in promoting GPP. Practical tools and guidelines are also pointed out as important components for successful GPP practice.

3. METHOD

In this section I will first go through a general methodological discussion based on previous experiences with similar studies. Then a description of the chosen method design is given, describing the two different tools chosen, the population selection and advantages and limitations of each assessment tool.

3.1 Discussion

There are several discussions on how to get the best possible data in surveys trying to map out the spread of GPP. Earlier studies have used questionnaires, interviews and document analysis in order to assess the level of environmental considerations implemented in public procurement. A study founded by the Nordic Council of Ministers (TemaNord 2005), with the aim of developing a method to measure the environmental soundness of public procurement, concluded that an analysis of tender documents gives a good general assessment of the status of GPP. It is a quite time-consuming method, but on the other hand is it a way to produce objective data and avoid eventual biased results which questionnaires and interviews might be vulnerable to¹¹ (TemaNord 2005). Also the experience from a large European study conducted in 2004 recommends conducting national and European benchmarking exercises on the basis of analysing tender documents, as this method proved efficient and objective (GPP-EU).

A document analysis will produce both general and specific results, giving a general picture of the state of GPP and detailed information of the different kinds of environmental criteria in various product groups (TemaNord 2005). However there are a certain number of aspects in which a document analysis alone will not be sufficient to meet the aim of this project. Information about the public body such as the organisational structure, purchasing policy or management systems or standards are not included in the tender documents, leaving no information on the underlying purchasing process or the organisation making the purchase. Neither will it be possible to detect perceived drivers or barriers without being in direct contact with procurement officers; therefore there was a need for a second complimentary approach.

¹¹ First of all it has proven hard to obtain a good response rate on questionnaires. Second, with a questionnaire one might assume that the respondents tend to be those most environmentally conscious, thus giving a biased score on the status of GPP. Respondents might also overestimate their contributions to GPP (Selnes 1999).

Based on this and experiences from other studies, the chosen method design was an analysis of contract notices and tender documents complemented by case studies with interviews. Using both methods provided a way of balancing the results as to get the most objective status scores on GPP together with more detailed answers to perceived drivers and barriers.

3.2 Tool 1: Analysis of tender documents

The entire population was defined as all public organisations, meaning communal, municipal and governmental levels, and others who are obliged to follow the Public Procurement Act. A study of the entire population is not possible, thus a sample selection was made on the basis of a stratified selection method. A stratified selection method was not chosen to simplify the sample selection, but to increase the precision and to secure representation of all prioritised product groups (Ringdal 2001). The choice of selection method was therefore based on the need for product-specific information which might be lost in a random selection, and the population was classified into corresponding groups. The product groups are Paper and Print, Cars and Transport, IT and Textiles. These product groups were selected due to the fact that they are the ones given most attention when it comes to the work of promoting GPP at GRIP, and they are also amongst the selected product groups to be given priority in the Norwegian Action Plan (Action Plan 2007).

In this study the sample was taken from the DOFFIN database for public procurement¹², where all public contract notices are published. The selection was made from the contract notices published for the months of September and October 2007. This gives a collection of cross-section data, which in comparison with previous results might give a picture of trends in GPP. The DOFFIN database allows for a division between different product groups, and a selection was made of all those notices concerning the four prioritised groups. The sample size was set to 20 for each product group in order to reach a number valuable for statistics (Selnes 1999)¹³.

One important aspect of this selection method is its lack of a random selection which limits the ability to make generalisations. The method does not exclude the possibility for any organisation to be included in the survey, but a complete calculation of the probability of each organisation to be included is not possible (Selnes 1999). In order to make any generalisations it is necessary to discuss whether the organisations in the selected sample are expected to be systematically different than the others. There is no reason to believe that those tender notices posted in September and October

¹² www.doffin.no – database for public procurement

¹³ From S. Sundman, *Applied Sampling* stating that when breaking down in small groups, there needs to be between 20-40 in each group

contain any systematic differences. However, since the aim of the study is to look at the status of GPP in Norway, it is important to keep in mind that it is not based on a probability selection. Therefore any generalisations made of the results are based on the assumption that the sample can be regarded as a selection of organisations and tender documents reflecting the general picture in Norway, thus they should be treated with caution (Selnes 1999). The method does not exclude any public purchaser, as all procurements over the threshold of 500.000NOK must be published in this database. It also provided the study with access to contact information such as e-mails and/or phone numbers directly to procurement officers in each organisation.

The aim of this part of the study was to investigate how often and to what extent green criteria are found in the tender documents. This was done through an analysis of tender documents published in DOFFIN database.

The tender documents were classified into four product groups according to their subject matter:

- Paper – including contract notices for envelopes, office-supply, books and printing services
- Textiles – including clothes, uniforms, curtains and textiles in furniture
- Cars – including leasing, hiring and purchase of cars and machines, plus transportation services
- IT equipment – including hardware, PC equipment and IT consultant services

Based on the possibilities to make environmental requirements outlined in the chapter “steps in the procurement process”, all tender documents are analysed in order to identify environmental elements in qualitative selection criteria, technical specifications, award criteria and contract clauses.

Previous studies show that environmental aspects are quite often included in different ways, but that they are frequently unclear, thus limiting their real impact on the award decision. In the European survey conducted on behalf of the European Commission (GPP EU 2005) an analysis of the “green” tenders showed that the environmental criteria were not in all cases used in the right way. In some cases a lack of detail or clarity of criteria could hinder a “green” outcome. Thus, in order to get a picture of GPP status, a differentiation of the soundness of environmental considerations was necessary. The EU survey operated with a division of “not green”, “grey”, “light green” and “solid green” criteria (GPP EU 2005). In this thesis the clarity of the different criteria were evaluated and divided into “well-specified criteria” and not-well-specified criteria” as done in the Nordic survey (TemaNord 2005).

Well-specified criteria (GPP)	Not-well-specified criteria (Light GPP)	No environmental criteria (No GPP)
Well formulated and specified criteria covering two or more environmental aspects connected to the subject matter.	Criteria which makes it unclear for what is actually required or criteria covering only minor environmental aspects of the subject matter.	No mention of environmental considerations other than HMS requirements ¹⁴

Figur 1 Inclusion criteria for the division of environmental criteria¹⁵

To be classified as a “well-specified criteria” the tender document were clear in what information was wanted, and environmental considerations covered more than one environmental aspect of the subject matter. It also needed to be clear whether the criteria were used as obligatory requirements or award criteria. An example would be the requirement “the paper must fulfil the criteria of the Nordic Swan, the EU Flower, or similar” where all different aspects required are known to the contenders, as they are specified in the criteria-sets of the mentioned environmental labels. An example of a “not-well-specified” criterion could then be “the paper must be environmentally friendly”, or “environmental aspects are considered”. Here it is not possible for the contenders to know exactly what is required, and the evaluation of which supplier presents the best product will therefore be unclear and limit the possibility for GPP.

Although the purpose of this thesis did not include an evaluation of the outcome of the purchase, or its environmental consequences, the division into the categories “well-specified criteria”, “not-well-specified criteria” and “no environmental criteria”¹⁶ was still made because the quality of GPP varied greatly between different tender documents. Thus including all mention of the environment as GPP will give distorted result on the spread of GPP. It is important to keep in mind that this might give a slightly more complex picture of the GPP status as a two-scale binary division between “GPP” and “no-GPP” would produce, but at the same time it produces more specific results.

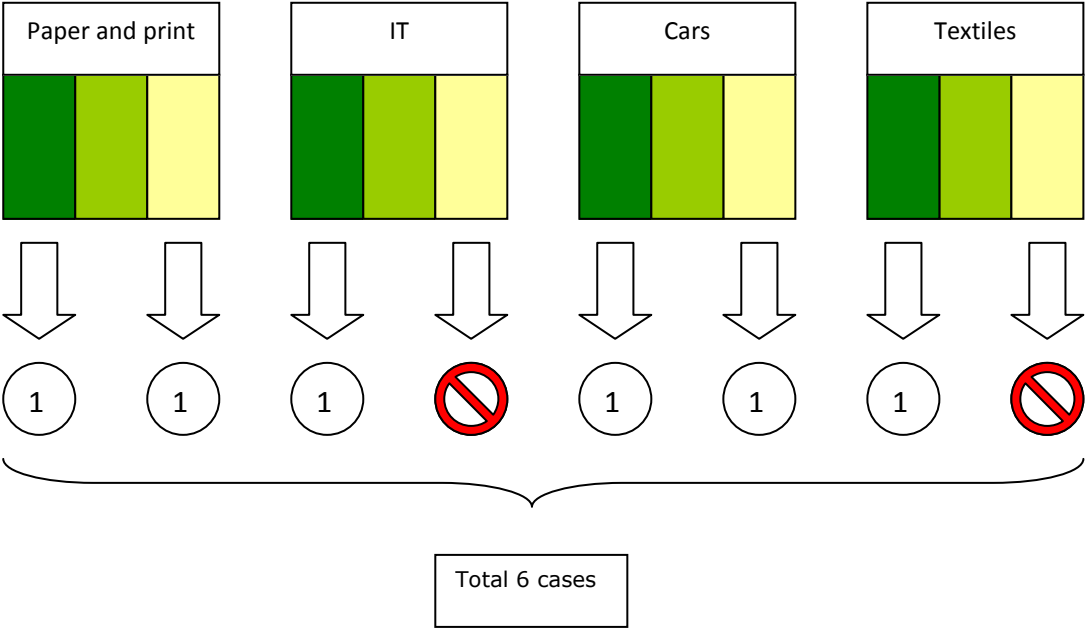
¹⁴ HMS – health, environment and safety regulations are legally binding to include in public procurement tender documents, and is therefore not considered GPP

¹⁵ Judging the environmental and juridical soundness of different criteria is a complicated matter which requires both procurement and juridical competence. The division between “well-specified criteria” and “not-well-specified criteria” presented in this study is based on an evaluation of what environmental criteria are possible according to different guidelines and available criteria-sets. As mentioned before, the analysis of tender documents is a method used based on the experience that it is less vulnerable to results biased by the respondent’s subjective view on GPP. The need to differentiate between well specified and not well specified criteria can though make it vulnerable to the author’s subjective evaluation of the tender documents.

¹⁶ When presented in the results referred to as “GPP”, “light GPP” and “no GPP”

3.3 Tool 2: Interviews

Part two of the study, the interviews, was conducted among a selection of procurement officers who were responsible for the tender documents used in the analysis. The original idea was to choose two cases within each product group; one among those with strong GPP practice, and one amongst those with a lack of GPP, making a total of 8 interviews. The stratification between sound GPP and no GPP was done in order to measure differences in perceived drivers and barriers between those with a successful GPP and those who still have a long way to go in implementing environmental considerations.



Figur 2 Selection method Tool 2

Due to lack of response from the chosen interview subjects, the end result was a conduction of 6 interviews, where IT and Textiles only gave one case each¹⁷.

A method of qualitative interviews was used in order to answer part two of the research question concerning drivers and barriers. The sample of cases was chosen as described above, and 6 interviews were conducted. The interviews took the form of conversation interviews. These kinds of qualitative interviews are frequently utilised as a method when the sample is small, and there is a need for flexibility in the interviews (Ringdal 2001). In accordance with this methodological approach, an interview template was developed which focused on the main themes based on experiences from previous studies (See 5. Theory). The template was formed listing up the relevant part-themes. This

¹⁷ The interview subjects were chosen at random within each category, and contacted first by e-mail, and then by phone calls. Where no response was received, the next subject on the list was chosen until all possible interview subjects were contacted. The interview process was conducted over a three-week period with continuous efforts to get in touch with the subjects. The lack of two cases makes the results biased, with a larger representation of those with good GPP.

template was used as an interview guide, not as a standardised questionnaire (See appendix 5). The pre-developed questions were open questions, allowing the possibility to follow up different branches of the conversation in another way than for example in survey interviews (Hellevik 2002). Thus there was a degree of flexibility as the questions could change as the interview progressed.

With a small sample, and the possibility of getting a different form on the interviews depending on the direction of the individual conversation, the method does not open up for statistical generalisations. There are too few respondents, and the selection does not make it a representative sample for the entire population. Thus the aim is more to collect information rather than to measure. This does not mean that making comparisons between the different case-results is not possible, and by following and covering the main themes according to the interview template, such a comparison will form the basis of the analysis, together with comparisons with previous studies.

The interview persons received an e-mail with the interview template in advance, in order to be able to prepare if they felt a need for that. During the interviews it became evident that few if any had looked at the template in advance. A few days after receiving the e-mail, they were contacted by phone. All interviews were conducted by phone apart from the first pilot which was conducted with a procurement officer not a part of this thesis' population sample¹⁸. The interviews were not taped, but the answers were registered by writing down the replies on a computer simultaneously with the interview. This method of recording results called for a thorough revision of the notes made during the interviews directly after finishing each case. By doing this the accuracy of the answers were secured, although it should be kept in mind that any quotes used in the analysis are not direct transcriptions from each respondent. The interviews are treated anonymously, something which was also made clear at the beginning of each conversation.

The advantages with conducting personal conversation interviews are, as stated above, the flexibility in the questioning. Also, direct contact with the respondents opens up for the possibility to ask more complex questions than for instance in a questionnaire. These are important advantages as those interviewed are regarded as having valuable information and knowledge that are important for the thesis. It is also considered important to try to get a picture of perceived drivers and barriers without letting the theoretical base be a source of asking too leading questions.

¹⁸ The pilot was conducted in order to test the developed interview template and minor revisions to the questions were made before starting the real interviews.

One problem with this kind of interview might be that the respondent does not say what he or she means because they wish to come up with the reply they think the interviewer wants (Selnes 1999). When conducting the interviews it seemed as if this might have been the case, especially since I introduced myself as coming from the organisation GRIP. Those who were familiar with the organisation tended to try to project themselves as using GRIP as a source of information several times during the interviews. It has been claimed that the accuracy of the data is dependent on the sensitivity of the questions; the more sensitive the questions, the less accurate the answers (Selnes 1999). Asking about GPP might not be sensitive in a personal matter for the respondents, but the theme is closely connected to level of knowledge and competence, and to admit a lack of such may be unpleasant and lead to biased results.

Choosing to conduct the interviews by phone may have led to certain disadvantages. In this case telephone interviews were necessary because the respondents were geographically spread, and interviewing only those in the closest regions was neither as interesting nor possible when wanting to cover the sample from the document analysis. There is also a disadvantage in doing these kinds of interviews by phone, as it is not possible to register the respondent's body language, and telephone interviews are more vulnerable to disturbances and interruptions.

Part two of this thesis – consisting of tool 2 the interviews, and with a focus on identifying drivers and barriers – has the perspective of trying to link the findings from the document analysis with the answers from the interviews in order to try to understand the reason behind today's procurement status.

4. RESULTS ON GPP STATUS

The results will be presented for each product group before going over to a more general discussion and analysis of the overall status results with a comparison to results from previous surveys.

Evaluating the environmental effect of the criteria is not part of this study, but short description of the main environmental impacts of each product group will still be presented, in order to put the purchases into a larger perspective¹⁹. For the same reason a short description on possible environmental considerations for each product group has also been given²⁰.

¹⁹ This should only be considered a brief description based on summaries presented in Erdmengers "Buying into the Environment – experiences, opportunities and potential for eco-procurement" and not a complete and scientific overview of the product's total environmental impact.

²⁰ These are based on information from existing sets of recommended criteria such as those from Miljøstyringsrådet (www.msir.se) and those currently under development by GRIP and Miljøpanelet (www.innkopspanelet.no)

4.1 Paper and print (n = 20)

The category includes paper products such as office supply, copy paper, brochures and leaflets, including some printing services.

Main environmental impact

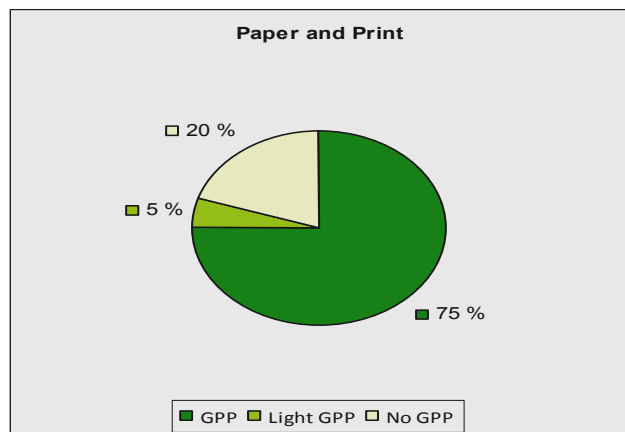
The main impacts arise from the production stage, and are related to wood consumption and the contamination of water by chemicals used in the bleaching process. Other environmental impacts include water and energy consumption during production (Erdmenger 2003). The printing process contributes to human toxicity and water and soil contamination because of the use of heavy metals in ink (Erdmenger 2003).

Possible environmental considerations

One could demand a maximum limit of CO₂ emission, or set limitations of chemical content in the product. For paper it is also possible to set requirements on the raw materials used such as a certain amount for recycled materials or forms of certified wood production. This can be documented with EPDs or licenses from eco-labels such as the Nordic Swan or the EU flower. Also, the inclusion of printing services does open up for environmental demands on the supplier, such as environmental management systems and standards.

Results

In this product group, in total 80% used some kind of environmental criteria. Among these, as many as 75% were clearly formulated environmental criteria, mostly used as selection or award criteria. The most commonly used environmental criteria were linked to the criteria of the Nordic Swan or the EU-flower criteria; as many as 60% of the analysed tender documents link their criteria



Figur 3 Results Paper and Print

to those environmental labels. Among the 25% using technical specifications to set environmental considerations, most of these also refer to environmental labelling criteria. Only 15% take advantage of stating further environmental requirements in the contract clauses, and only one was linked to the transport involved with the delivery. 25% demanded some kind of documentation for an environmental management system or standard. Only 5% were judged as "light GPP", among those was a mention of environmental considerations without stating any clear demands.

4.2 IT (n = 20)

This category includes PCs and servers, PC equipment, equipment for video conferences, mobile phones and IT consultant services.

Main environmental impact

The environmental impact in this product group is prominent in the usage stage when it comes to energy consumption and radiation. The use of scarce raw materials such as copper during the production phase, and environmental impact during the disposal phase of hazardous materials such as heavy metals, carcinogenic PCBs and other hazardous flame-retardants are also important aspects (Erdmenger 2003).

Possible environmental considerations

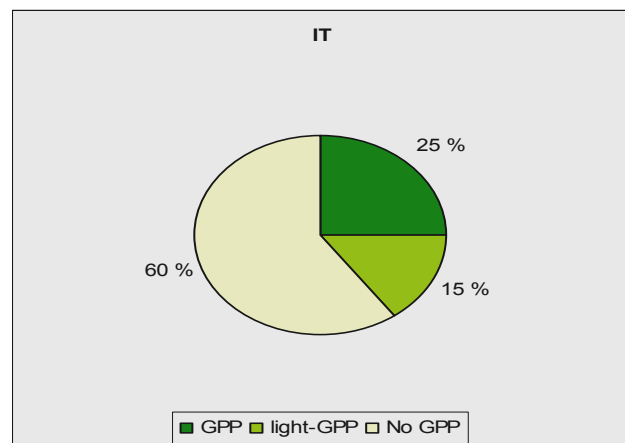
Environmental considerations and related requirements can be put on various components within this category, both on the product and the supplier. One can for example ban environmental hazardous batteries, demand that the product conform to the RoHS directives²¹ and that the products satisfy the energy savings according to ENERGY STAR²² or similar. Demanding producer responsibility for used and discarded electrical products and correct handling of waste in an environmental way is also possible. A demand regarding minimum lifespan might also give environmental advantages.

Results

For the IT category, 40% of the analysed cases mentioned some kind of environmental considerations in their tender documents.

This group had a larger proportion than paper and print of tender documents where the GPP can only be defined as light green.

This is judged on the fact that some of them did not make it clear for the supplier what



Figur 4 Results IT

was actually required, and it was often unclear whether the criteria were obligatory selection criteria, award criteria or only a random mention of the concern for the environment. Most of the clear

²¹ 2002/95/EG which states that the homogeneity material in the product will not contain lead, quicksilver, caladium, PBB or PBDE

²² ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy with the aim of protecting the environment through energy efficient products and practices designing specific criteria for receiving an ENERGY STAR label

environmental criteria in this product group are found under the technical specifications, and are linked to the use PVC and other hazardous materials, fulfilment of the RoHS directives and on environmental corporate policies. There are some references made to environmental labelling, mostly linked to the Nordic Swan, the Blue angel²³ and the EU flower. It is interesting to note that only 2 out of 20 made any reference to energy consumption in the usage stage, even though this is considered a major environmental impact, and would also represent an opportunity to cut operating expenses for the purchasing organisation. Neither of any of these purchasers made any reference to ENERGY STAR, or state exact demands on maximum energy consumption. Again it seems that it might be hard for the supplier to know what is meant when requirements state “we will give weight to energy consumption, noise and ergonomic quality” (quote from tender document – my translation). No places are there any demands made on minimum lifespan of the product. Only one case used any demands in contract clauses, concerning package and possibilities for reuse.

4.3 Cars and transport (n = 20)

This category consists of purchases, leasing and renting of cars and transport services, including some trucks and machines.

Main environmental impact

Consumption of fossil fuels and related emissions of carbon dioxide, nitrogen oxides and VOCs, noise, the use of land for parking facilities and roads, polluting water when washing and maintaining the engine, lead and acid contamination when discarding the batteries are only some of the environmental problems related to cars and the transport sector (Erdmenger 2003). For this category most of the main environmental impacts are still related to the usage stage.

Possible environmental considerations

Different criteria are used to define what can be a more environmental friendly car. These are mostly related to limits on emissions, technological specifications and the characteristics of different fuels²⁴. Requirements can thus be on maximum permitted emissions, specification of tyre type without HA oils (marked classified by EU’s classification and labelling directives (67/548/EEG)), specifications on possibilities for alternative fuels and the release of particles. Safety measures can also give environmental advantages, and can reflect on for instance Euro NCAP (European New Car Assessment Programme) or similar. The EURO emission standards are possible alternatives for

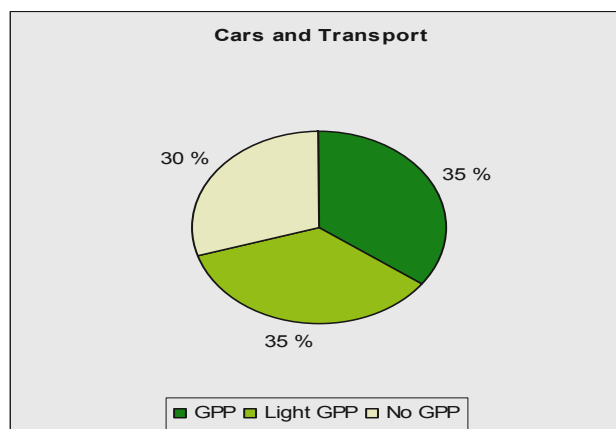
²³ A German environmental label

²⁴ <http://samferdsel.toi.no/article19518-999.html>

specific requirements²⁵. Chemicals in paint, and washing/maintenance of the car should also be considered. When it comes to transport services demands on eco-driving are relevant.

Results

A total of 70% mentioned the environment in some of form in their tender documents. It has to be said that in this group, at least half of those mentioning environmental considerations did it in a form that can not be said to conform to the criteria of GPP. Carbon dioxide emissions were mentioned by several, but without stating any limits of maximum or minimum emissions. Several examples were



Figur 5 Results cars and transport

found of statements such as “environmental considerations will be taken into account”, without any further specifications. Amongst the tender documents studied, only two can be said to have included environmental considerations in a comprehensive way.

Amongst those making environmental requirements the focus was on emissions, particle filters and the possibility for alternative fuels. Only one of the tenders asked specifically for “green cars” stating the subject matter to be electric cars, cars on bio-fuel and diesel-cars with particle filters. Meeting the criteria for the Euro3²⁶ was mentioned twice.

4.4 Textiles (n = 14)

This category consists of clothes, work clothes and uniforms. Curtains and textiles in furniture are also included. Due to the fact that there were only 14 published tender notices in the month of September and October, this category contains fewer cases than the others. This should be kept in mind when comparing the results.

Main environmental impact

The environmental impacts of clothes are connected to all phases of the life cycle, with energy and water consumption and use of chemicals during production being the most prominent. Clothes may

²⁵ For more info: The EUs strict caps on emissions from diesel and petrol cars limiting in particular nitrogen oxides and particulate matter (www.euractive.com)

²⁶ Euro 3/4 standards (2000/2005): Directive [98/69/EC](http://www.dieselnet.com/standards/eu/ld.php), further amendments in [2002/80/EC](http://www.dieselnet.com/standards/eu/ld.php), For more info: <http://www.dieselnet.com/standards/eu/ld.php> (new EURO 5 standards get into force 2009)

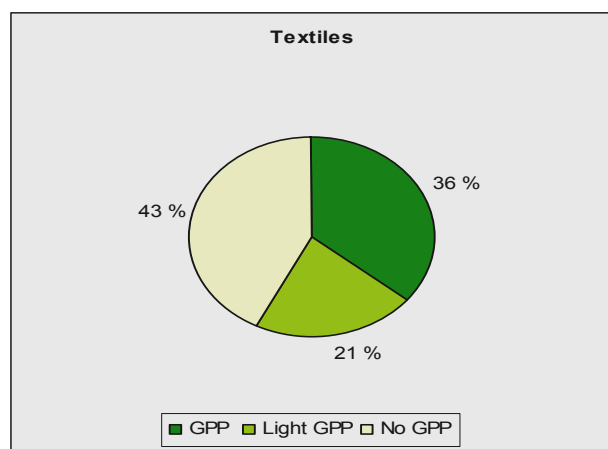
contain hazardous chemicals which means that handling the waste products might also cause environmental impacts²⁷.

Possible environmental considerations

There are specific certificates which guarantee some maximum levels of chemicals used, such as ECOTEX²⁸, the criteria used in these schemes can be used as environmental considerations in tender documents. The same goes for licenses from the Nordic Swan or the EU flower. Also considering different types of materials, such as choosing textiles that are durable, with a longer lifespan or that demand less water and energy during washing and maintenance, can reduce environmental impact.

Results

For textiles, the category of sound GPP, a total of 36%, include cases where environmental policy or action plans were required, and where the ECOTEX 100 standard was demanded²⁹. The main focus was on the use of chemicals, and also on contract clauses stating return and recirculation of packing material. The light GPP, in total 21%,



Figur 6 results textiles

include cases where environmental considerations did not consist of any clear requirements, but rather random mentioned. Still the majority did not mention any environmental requirements, and amongst those purchases including furniture, only one mentioned specific demands on the textile, while the others stated more general requirements on the entire product.

4.5 Analysis and discussion

In order to get a picture of the status of GPP today compared to previous findings, analysis and comparisons were made both of the overall total GPP status and of product specific results. The overall totals on GPP give an indication of the status of GPP in Norway³⁰ and the product specific results give some indications of barriers related to product complexity and availability on the market.

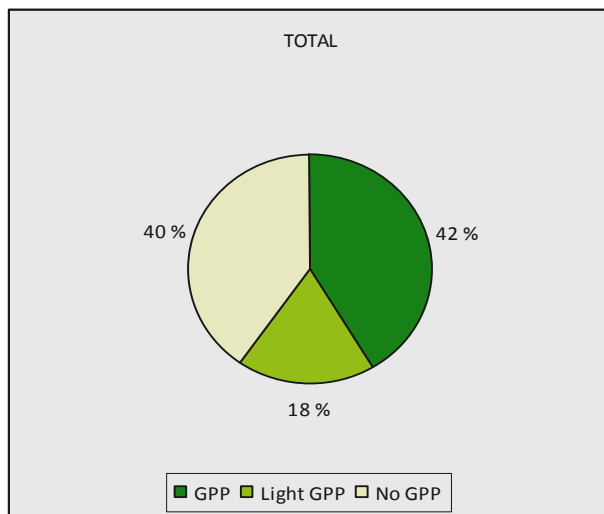
²⁷ For more info: Svenska Naturskyddsforeningen 1996: Bra Miljöval for textiler <http://www.snf.se/pdf/bmv/krit-bmv-textil.pdf>

²⁸ For more info: http://www.oeko-tex.com/xdesk/ximages/470/15540_1000-DEF.pdf

²⁹ This might be considered more of a health standard than an environmental standard, but the focus on chemical content is considered to have environmental effects as well.

³⁰ Keep in mind the discussion of statistical generalisations under 3.2 method tool 1

4.5.1 GPP status



The overall results – as seen in figure 7 – show that 60% of the tender documents involved some kind of environmental considerations, and as many as 42% of these were considered to be “well specified criteria”. In the study conducted in the Nordic countries (TemaNord 2005), 40% of the tender documents involved environmental criteria, but only half of these were well specified. This indicates a higher degree of GPP in Norway in 2007,

than in the Nordic countries in 2005.

Figur 7 Aggregated results of GPP

The previous GRIP survey (GRIP report 2002) gave an indication of 45% inclusion of environmental criteria. This survey did not indicate any difference in the soundness of the criteria, and was not a study of tender documents in itself. Therefore the results are not directly comparable, but they still correspond with the findings from this assessment.

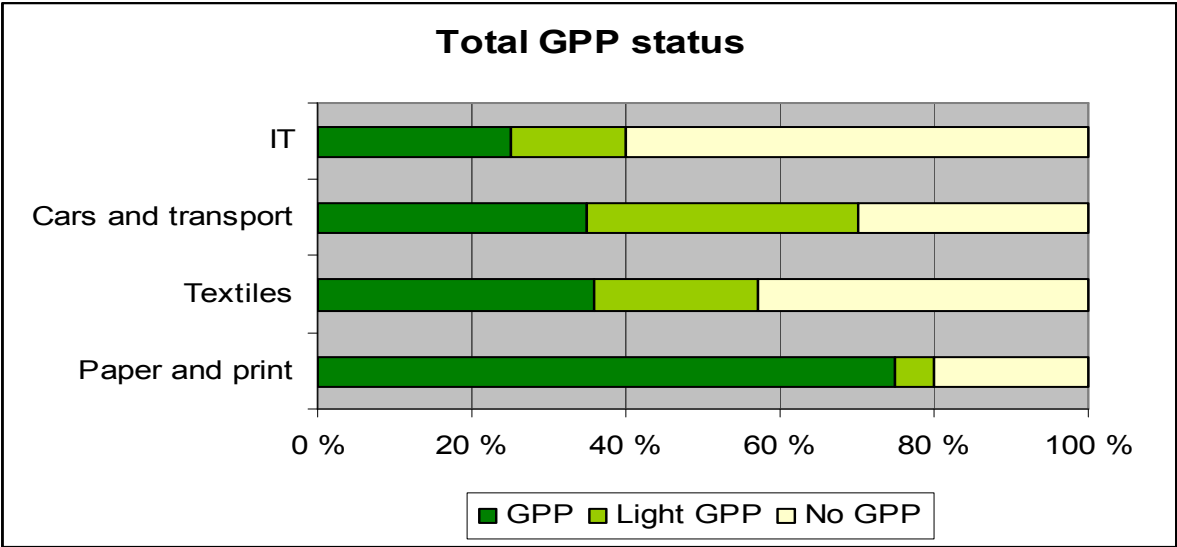
The survey for the Swedish Environmental Protection Agency (Naturvårdsverket 2005) indicated 60% GPP. But as the GRIP report, the methodology in this study was use of questionnaires and did not operate with any division between well-specified or not-well-specified criteria. It is important to note that with GPP results of 60% in Sweden, Norway and Sweden are similar in GPP status according to the results of this study. The experiences from the Swedish survey will be used to a larger degree when analysing perceived drivers and barriers, as that is were it contains more comparable results with our study.

The overall impression is that with 60% of the tender documents attempting to include environmental criteria, one can conclude that at least environmental considerations are on the agenda in several public purchasing bodies. There is a will to include such considerations when buying paper, IT, cars and textiles. Our study puts Norway at the same level with Sweden.

It is important to point out that Sweden now has a stated goal of reaching a level where 90% of all public procurement is GPP (MiljöAktuellt 30.1.2007), and if this shall be guiding also for Norway,

there is still a long way to go. In addition, the high prevalence of unclear criteria shows that it is not enough to merely focus on the amount of purchases where the environment is mentioned, but to give a thorough focus on building competence and knowledge on how to construct proper environmental criteria which can result in sound green procurements.

4.5.2 Product specific results



Figur 8 Results for each product groups

As demonstrated in figure 8 there is a large variation on the degree of GPP between the different product groups. Paper and print is clearly most “green” of the groups with 75% sound GPP practice. The other three groups have both a lower degree of GPP, and a larger degree of not-well specified criteria.

Paper was one of the products that first come to mind when considering environmental labelling. Labels have been available for a long period of time, especially in Scandinavia where the Nordic Swan at the beginning was closely connected to paper-products³¹. Thus it might be possible to consider that the availability of environmental “friendly” products can explain why this is one of the product groups which has successfully become quite green. One fact strengthening this conclusion is that amongst those in “Paper and Print” without any forms of GPP, most of the subject matters were printing services. Environmental labelling of printing services is not as common as for paper.

Another possible explanation is related to the complexity of the product. Paper products might not be such a complex product category compared to IT equipment and cars, because paper does not

³¹ Swan has had criteria on paper since 1987

consist of so many different components. The rather high level of “not-well specified criteria” in the other product groups might also support the assumption that knowledge is related to complexity of the product in focus, and reflects a lack of knowledge on how to construct environmental criteria.

The product group cars and transport is one such group where the overall efforts on trying to include environmental criteria are quite high, but where the results reflect a problem in how to construct these criteria. Statements such as “wanting low emission of carbon dioxide emissions” (quote from tender document – *my translation*), without any clear directions on what is considered low, and without any maximum emission limits occur in quite a few examples. This reflects both a lack of procurement knowledge concerning how to construct proper criteria, but may also be a result of insecurity on environmental aspects and alternatives available on the market.

The results indicate that a product with readily available environmental criteria connected to for example well-established environmental labels, and with a strong focus on more environmental friendly alternatives in the market, makes it easier for the procurement officers to create effective GPP criteria. I will be coming back to the discussion of availability in the market when discussing the results in part two of the thesis.

The EU survey (GPP EU 2005) is the only previous study found that gives product specific results. The results are though divided into four categories, “not green”, “grey”, “light green” and “solid green”. This prevents direct comparisons with our results. But it is interesting to note that they are quite divergent from the results in our study.

On paper, 62% of the results were judged to “not green” as compared to 20% in our results and only 17% “solid green” where as ours gave 75%. IT had 89% “not green” compared to our 60% and 0% “solid green” where our study identified 25% sound GPP. Clothing and textiles had 40% “not green”, which was close to our 43%, but 4% “solid green” whereas our results found 36%. For transport the European results are 55% “not green” and 11% “solid green” criteria, where our study had 30% no GPP and 35% sound GPP.

There can be several explanations as to why these results show much lower GPP status. It might be that their judging of what can be considered solid green is based on stricter criteria than the ones used in this thesis. On the other hand, the results are from several countries in the European Union³²,

³² All member states except Romania and Bulgaria

and compared to the results from the Nordic study (TemaNord 2005) it might be plausible to conclude that the Nordic countries are more advanced in GPP. However any specific statement on the difference between countries would require further investigation, and is not part of our study.

5. THEORY

The analysis of tender documents in chapter 4 was meant to provide an updated status of current GPP practice. With the presented results in mind, this part of the thesis will focus on a theoretical approach to what can be seen as drivers or barriers affecting the process of implementing GPP, and influencing the current status of GPP.

5.1 From policy to practice

Implementation – translating intent into action – is vital to achieve an effective public policy. It is about attaining those changes in behaviour required to meet the political commitments. With a growing political and public focus on a sustainable development follows, a growing demand for other considerations than mere economic concerns to be taken into account in production and consumption. This also affects the public procurement process, as it constitutes such a large part of the overall consumption in a country, and has led to the aforementioned focus on GPP.

When it comes to integrating environmental considerations into the procurement process, the ultimate goal would be to make this a norm; a procurement strategy viewed as commonly practiced. If the action has a common occurrence it will form patterns of actions that can readily make a difference toward a more sustainable development (Erdmenger 2003). The question is then, what factors influence the trickling-down of policies at national and international levels that ultimately determine the success of GPP in the local context?

Trying to analyse drivers and barriers to GPP can ultimately become an immense project including everything at institutional, political, organisational and individual levels. It is impossible to map out every aspect which can influence the process of GPP implementation; thus a need for delimitation is present. The delimitations made are based on the theoretical discussion that follows.

It is important to keep in mind that there are other theoretical approaches that could be utilised when analysing the implementation of policies. One could choose to have an approach linked to institutional theories, looking at the way political institutions are formed, and how that might have an effect on policy implementation. In the specific case of the spread of GPP an organisational

theoretical approach might be useful, analysing how organisational structures can affect the use of GPP. There are assumption on the effect of the organisation on the possibility for more sound GPP, such as the discussions regarding decentralised versus centralised procurement practise, and its effect on environmental considerations (GPP-EU 2005). Within the realm of organisational theory there is a range of different theoretical approaches that could be utilised, building on social sciences or strategic management. Many of of the different organisational approaches would on the other hand narrow the focus on explanatory factors down to looking at the organisational level of public procurement. Since previous studies have identified drivers and barriers which are closely connected to the procurement officers constructing the tender documents, and this thesis aimed to get the view from these individual actors, there was a need for a theory covering these aspects. One theoretical approach that was considered was resource theory, which looks at an organisation or a firms human resources and how they can be a source to competitive advantage (Darnall 2007). Still, this gave a focus catching only the knowledge part of factors influencing GPP. With the perception that there are other factors than knowledge affecting the procurement officers use of environmental criteria I will argue that the theoretical framework as outlined below gives a valuable and useful perspective. It includes elements of both organisational, resource based and actor oriented perspectives that ultimately lead to a framework supporting me in narrowing the focus in the interviews while at the same time being able to catch important aspects forming the development of sound GPP practise.

The Swedish political scientist Lennart Lindquist claims that the effect of a public policy is among other things dependent on the understanding, ability and will to perform the required action amongst those being subject to implementing the policy into practice (Lindquist 2004). He used these criteria to analyse the effectiveness and integration of environmental policies, and concluded that one will not reach effectiveness unless green codes of conduct are actually integrated into the political and administrative decision-making process of agencies and authorities. Thus a policy measure such as GPP can not be said to be fully integrated unless environmental concerns are given specific weight or preference through political decisions at the highest level of authority, and then communicated and implemented into the local agencies (Lindquist 2004).

Building on these findings I will, as stated earlier, narrow my focus down to the local administrative unit. Their context consists of opportunities and constraints as well as norms and traditions that can inflict on the success of the GPP implementation process (Wickenberg 2004). Each public organisation subject to the Public Procurement Act (LOA 1999), and the individual procurement officers as the ones putting the directives and policies into action, and are thus the subjects analysed

in this study. I have therefore used the theory and norm-model developed by the Swedish professor Håkan Hydén as a tool for further analysis.

5.2 Norm model

Hydén (2002) presented the theory that for a green public procurement to become common practice the ones conducting the purchases needs to have a certain set of *values* motivating environmental considerations, *knowledge* on how to conduct GPP and the *possibility* to do so in practice. His conceptual framework is that in order for sustainability policies – such as GPP – to be transferred into action (practice), normative elements such as knowledge and systemic conditions are necessary (Wickenberg 2004). This perspective opens up for an analysis of the actors and individual purchasers without losing the perspective of the context in which they perform. Hydén uses the model to look at how the norm can affect the regulations through its effect on the practical implementation in each case (Hydén 2002).

5.2.1 Norms

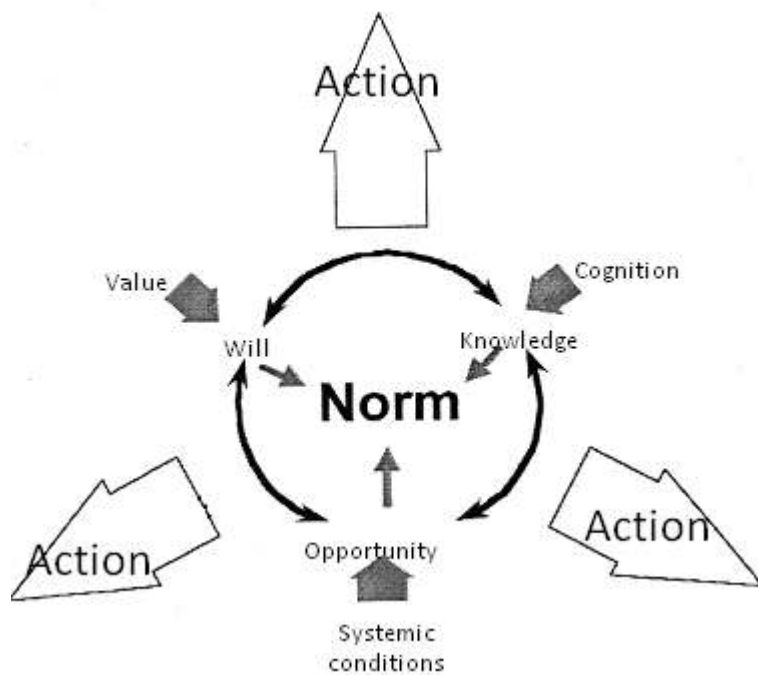
Hydén's norm-model focuses on normative elements as determining for an individual's action, and is based on the assumption that a norm can be an explanatory factor for the understanding of human actions. Hydén argues that norms can be studied empirically to help us understand why certain patterns of actions arise and others don't. The concept of norms is used for instance in sociology to study what directs certain actions and is used as a tool for understanding underlying directives (Larson 2005). The spread of the norm is an empirical question. Thus to study the spread of GPP within the framework of the norm-model will give an assessment of how well environmental considerations have been internalised into the procurement practice.

There does not exist any one definition of the concept of norms, but Hydén points out some common factors. The norm creates a disposition for action, but it is not alone determining. Contextual factors play an important role as drivers or barriers to certain patterns of behaviour (Hydén 2002).

Hydén analyse the norm as consisting of three different factors:

- Will and evaluation
- Knowledge and cognition
- System and opportunity

Hydén show how one can use these as indicators when measure the "normalisations" of GPP.



Figur 9 Hydéns norm model
 Source: Hydén, Wickenberg 2002/2004

5.2.2 The norm-model on GPP

The norm as an analytical level has several advantages. It gives the opportunity to study the motives behind an action. The norm is a reflection of the actor's subjective knowledge and objective opportunity to act accordingly. It can be used as a screening-device – a tool to make us see what is driving patterns of actions and new practice in society (Hydén 2002). It is important to point out that these are all interlinked factors often overlapping. The will and values affects what we look upon as relevant knowledge. Knowledge is related to and dependent on the system, and systemic conditions have consequences for what values and drivers are prevalent in society as a whole (Hydén 2002). Thus it might be difficult to keep the different aspects apart, but in an analytical perspective it is interesting to look at them separately to be able to get a more differentiated view of the situation.

The norm-model contains elements of both actor and system-theories. Will is something articulated by individuals and groups. Knowledge is also linked to the actor performing the action. The systemic conditions on the other hand give us a focus towards the effect of structures and the system in which the individual procurement officers acts. Thus using the ideas behind the norm-model allows for an inclusion of factors contingent to the specific case and system under study, acting as a synthesis giving importance to the interaction between actor and structure (Hydén 2002). This interaction is important because the balance between will, knowledge and systemic conditions rests on the individual decision, but reflect underlying conditions.

The model has been used for instance to analyse the phenomenon of illegal file sharing on the internet (Larsson 2004). Here the action itself (file sharing) is set as a starting point in the attempt to analyse why it has become a norm despite laws and regulations forbidding it. I argue that it is possible to use the model the other way around. By looking at the existing laws, regulations and governmental strategies to promote GPP, and analyse why these have not trickled down and become normalised behaviour amongst procurement officers.

A critique might be that the model looks at everything and anything having an effect on an individual's ability to act, and thus will not be able to produce any specific results. There is though important to be able to give weight to different factors dependent on what kinds of problems one are analysing. The model works as an instrument for analysis and as a basis for developing an interview template that worked as a guideline directing the assessment towards certain important aspects of implementing GPP. A theory catching several different aspects is compatible to the aim of this thesis being to identify different drivers and barriers to GPP.

5.2.3 Will: value-based condition for action

The motivation behind the action: What is the person in question trying to achieve? The motive is the driving force behind the norm, and points out the value behind the action (Hydén 2002). The driving forces can be formed by moral, ethics, religion, political systems or ideological influence. There can also be an economic motivation behind the norm, either egoistic or in solidarity with others.

Examples of what value-based factors can determine the inclusion of environmental considerations in the procurement process can be:

- Individual motivation – perception that they can make a difference
- Strong public pressure – focus on sustainable development
- Awareness of environmental issues – moral or value given to the protection of environment
- Incentives – prevalent motivations and/or penalties

5.2.4 Knowledge: cognitive barriers to GPP

Knowledge is often seen as a prerequisite for action. Cognition can be determined by world view or values as well, but a relevant question in this context would be whether priority is given to environmental awareness and knowledge on how to perform green public procurement in practice (Wickenberg 2004). Knowledge is required for the norm to be put into practice, thus education,

experience and competence become important success factors for integrating environmental considerations.

- Procurement legislation – knowledge on how to perform GPP in practice
- Environmental knowledge – competence on what choices are better for the environment

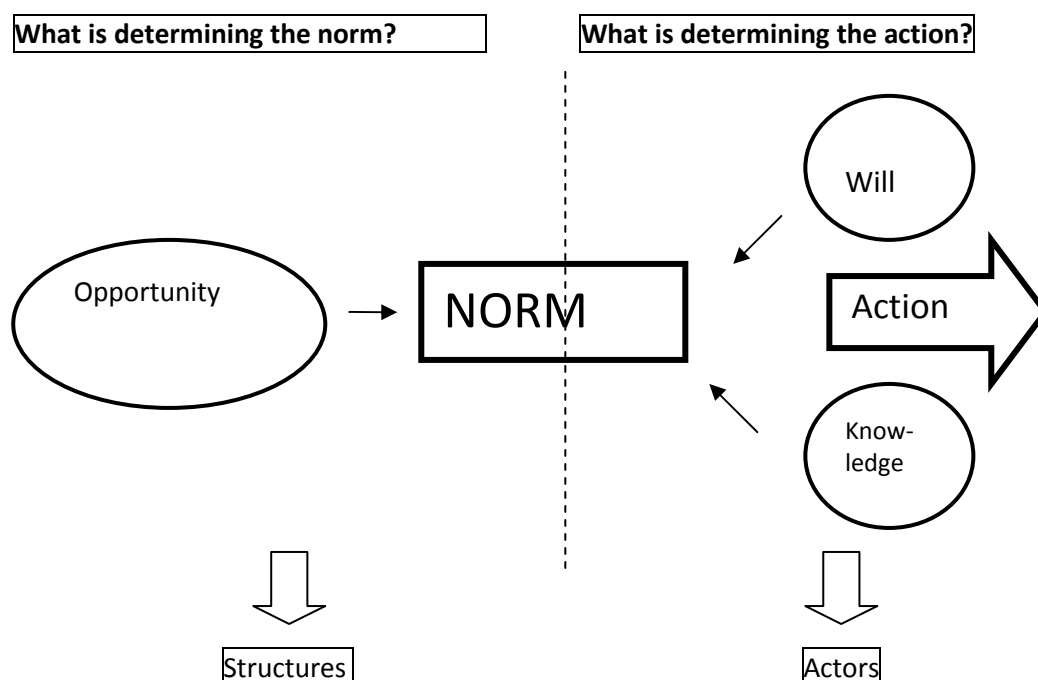
5.2.5 Opportunity: systemic conditions

The relevant question here would be: is it possible for the individual purchaser to perform the action? It is about at all having the ability to act, even though you might know how. The point is to try to understand the objective circumstances and opportunities to act. It is not enough to want to, and know how if the initiatives are not supported by the system/context in which the individual procurement officers act. Opportunity can be analysed by for example conditions such as economic, technical or political/administrative structural possibilities.

- Laws and regulations – open up for making environmental requirements
- Financial resources – a budget allowing for other alternatives than just lowest price
- Time resources – a time schedule that allows for the extra effort of evaluation life cycle costs and giving weight to environmental considerations

5.3 An actor-oriented perspective

As stated earlier, I will make one further delimitation for analytical purposes. It is possible to divide the norm-model into an actor and a system approach.



Figur 10 Delimitations of the norm model
Source: Hydén 2002

5.3.1 Looking at what is determining the norm

There are several aspects that can determine the procurement officer's opportunity to integrate environmental considerations into their procurement process, such as political initiatives, organisational structures, laws and regulations or public awareness. Basically every systemic factor can act as a determinant for the success of integrating GPP. A thorough analysis of what political decisions or organisational structures are best in promoting environmental considerations will not be the focal point of this study.

5.3.2 Looking at what is determining the action

As mentioned, integration of political decisions is done at the local level, preformed by the individual procurement officer, where opportunities and constraints as well as prevalent norms and knowledge can determine the success of the GPP (Wickenberg 2004). The focus in this thesis is on what is determining the action. In the interviews and analysis of the data I have focused on Will, Knowledge and Opportunity in order to be able to go structure the analysis and discussions.

This gives the study a focus that is more on the actor-oriented perspective of the norm-model. I argue that getting a grip on actor-oriented factors will ultimately give an opportunity to detect structures and systemic conditions that are limiting the integration of GPP. It is though important to be aware that when using Hydén's theory in this way, a focus on what is determining the action is directed towards the individual performing it.

To conclude on the outline of the theoretical framework given in this chapter: The norm model is used as a framework supporting the structure of the interviews. Without any clear guidelines, a conversational interview in this setting might not give the answers needed in the analysis. And analysing without any factors supporting and directing the analysis might give it a lack of focus. In this case, the theoretical framework was used to be able to analyse and present the findings on a structured manner in order to avoid making it only a loose sample of quotes and statements.

6. RESULTS ON DRIVERS AND BARRIERS

First, the results from the interviews will be presented. Next the analysis and discussion chapter will make the connection between my findings and results from previous studies. It will also discuss the

identified drivers and barriers in the light of the factors will knowledge and opportunity. The result-presentation is sorted under different main headings extracted from the result material.

6.1 Focal points in the interviews

In connection to the method design described in chapter 4.4, the results were revised directly after each interview. At the end of the interview period, all the results were gathered, sorted and listed linked to the theoretical variables³³. The focal points in the interviews were on:

- Status: focus on GPP, own perception of including environmental considerations, the organisational structure of the procurement process, and where and what kind of sources for information are used if environmental criteria are formed
- Knowledge: education with focus on GPP, evaluation of own competence, needs in order to get a more sound GPP and own perception of success factors in integrating environmental considerations (drivers)
- Barriers: where the respondents were asked to elaborate on what they perceived as challenges and barriers to GPP
- Background: with more structured questions on the existence of an environmental policy, environmental goals on the purchasing function, any staff with specific environmental responsibility, and the interview persons own professional status

6.2 General findings from the interviews

Since the focus of this part of the thesis is on identifying drivers and barriers, this will form the structure of how the results are presented. First some background findings are presented. For more background information see appendix 6.

Amongst the 6 interviewed cases were two universities, one large municipality, two municipality procurement co operations and one public cooperation. The selection process made the different types of organisations a random composition, as the inclusion criteria were based on the stratification between sound GPP and no GPP rather than on organisation size. Thus it is important to keep in mind that there is no possibility to generalize the identified drivers and barriers to be entirely valid for all public organisations. However they give a good indication of the main factors public procurement officers themselves see as important. When it came to the way the procurement functions were organised, there were several different alternatives including both decentralised procurements where each employee conduct their purchases, centralised procurement departments

³³ For a full presentation of the listed interview results see appendix 6

for entire organisations, and also centralised procurement co operations were procurement for several municipalities were gathered in one function, as was the case with the two municipality procurement co operations.

6.3 Identified drivers and barriers

The identified drivers and barriers are closely connected, as one identified barrier often corresponds to being a driver if things were improved³⁴. Thus the results are not clearly separated, but some aspects were mentioned only as one or the other, causing a partly separation in the presentation. They are interpreted and sorted under main headings based on what common features that were identified amongst the responses.

6.3.1 Barriers

Knowledge: when it came to lack of knowledge, the main concerns were for the product specific knowledge needed to construct proper environmental criteria. Most of the procurement officers made purchases for all different kinds of products and services, and knowing what environmental aspects are important for each product was mentioned as a barrier amongst all respondents.

“We do not always have knowledge about the specific product or service that we are buying <....> we have technical procurement competence, but lack of product specific knowledge limit the amount of environmental criteria” (Interview: Paper 2)³⁵

The only exception being one interview subject who performed only purchases of the products he was familiar with, but on the other hand felt he had a lack of knowledge and competence on the procurement itself.

Also related to product specific knowledge was the fact one respondent pointed out that, sometimes, the possible GPP criteria were so complicated that she herself didn't quite understand what she was demanding, which in turn prevented her from making the proper evaluation of the offers. She also felt that if the criteria were too complicated, the suppliers dropped out, because they felt it became too difficult and time consuming to answer the tender notices. Closely connected to the difficulties some pointed out that they felt that in a complex evaluation phase lack of information from the supplier could be a barrier to sound GPP.

³⁴ For example the factor knowledge, which is considered a driver towards more GPP, but which if there is a lack of it, becomes a barrier.

³⁵ For specific interview results from each respondent see appendix , all quotations are my translations

“All suppliers say that they are best on the environment, or that their products are environmentally friendly, which makes it up to us to evaluate whether this is right or not. Understanding what you ask for is then crucial” (Interview: IT 1).

One case mentioned that the difficulty of gaining enough knowledge about the different alternatives available on the market also worked as a barrier, as she was afraid her lack of market knowledge could either lead to her stating demands that restricted the market too much, or not stating the right criteria which would result in the “greenest” purchase.

“You have to know what it is possible to demand, and if the market is actually able to meet your demands, and here the more environmental friendly alternatives are hard to get an overview on” (Interview: Paper 2).

Lack of support and focus: half of the respondents mentioned lack of support and focus from the management as an important barrier. This was also mentioned when asked about perceived drivers or success-factors. They stated that such support would not only allow for the use of more resources, but would also make them have environmental concerns in the back of their minds at all times, which in turn would lead to more GPP. One case did point out that it was important to keep in mind that there is a long way from political or management support from the top to implementing the action in each single case.

“A continuous focus and priority on the environment would make it more in focus at all times, and that would probably increase the use of environmental criteria as well”
(Interview: Paper 2)

Work pressure: one of the cases with strong GPP did feel that work-pressure limited his ability to spend time on including environmental criteria.

“If I had plenty of time and nothing to do, of course I would want to incorporate environmental considerations, but that is not the way it is” (Interview: Paper 1).

On the other hand did another case inform that for their last tender notice they had sat down one extra day in order to incorporate environmental considerations.

Cost: Two respondents stated that they didn’t think they could end up having to pay a lot more for more environmental alternatives before economic considerations would push the environmental considerations aside. One had actually experienced that last year’s heavy weight on the environment in one tender had resulted in them excluding the environmental criteria again this year because they ended up paying a lot more than expected.

“We gave considerable weight on environmental criteria once, and now we have gone back to no such criteria because we ended up paying so much more for the product” (Interview: Textile 1)

On the other had another respondent stated that she didn't at all think the cost of buying more environmental friendly alternatives stood in the way, and that the focus on the environment preceded those of mere economic priorities.

Focus on functionality: over half of the respondents mentioned that detailed user specifications and complicated equipment with a great emphasis on functionality sometimes came in the way of environmental criteria. The organisation of most procurement functions also made it so that the ones who were going to use the product made detailed requirements which the procurement officers constructing the tender documents often didn't understand, and thus felt compelled to give first priority.

“We have other priorities in some of our procurements which makes environmental considerations secondary” (Interview: Car 2)

6.3.2 Drivers

Co-operation: among the respondents with more centralised procurement functions, the value of being able to cooperate and take advantage of each others experienced were mentioned as important when construction environmental criteria. Especially the two municipality co-operations experienced that having their procurement department centralised made it easier to incorporate GPP. In the other organisations, all responsibility was on each individual project leader, which gave little coherence in their procurement strategies.

“It is up to each procurement officer whether he/she wants to include environmental criteria” (Interview: Paper 1)

The organisation which operated with a web-link collection on their intranet considered this a valuable resource when construction environmental criteria.

Simplification: making the system of GPP as simple as possible was mentioned by most respondents as important in order to increase GPP. For example making environmental criteria as checklists or some method that could make the evaluation of offers less time consuming was pointed out. Some of the respondents stated that they were hesitant to make some requirements as they feared that the amount of documentation might be immense, and make the evaluation difficult. Predefined

award criteria were also mentioned as a tool that would make GPP easier. Still it was underlined that these should be kept as simple as possible.

Environmental labels: were by almost all respondents pointed to as a driver which encouraged the use of environmental criteria as they presented what could be considered predefined sets of criteria that were good when looking for information about environmental aspects. This is also reflected in the answers on sources of information, as most respondents used the information available on eco-label websites.

“If or when we use environmental demands we use eco-labels like the swan, or re-circulated paper products. Kind of the more simple considerations” (Interview: Paper 1)

Support: from the management is, as mentioned before, also considered a crucial success factor, as it is pointed out to make it easier to justify using more resources of both time and money when working with environmental considerations. One respondent also pointed out that for many state organisations, a political focus and political support is an important driver. She had experienced that with the increased focus from political quarters the process of implementing GPP had gained considerable speed in their municipal procurement co-operation.

7. ANALYSIS AND DISCUSSIONS

The analysis will be related to the main factors of Hydén's norm model. The results will be compared to the findings of previous studies parallel with the analysis, and comments on how the results might give indications for forming strategies on promoting GPP will be linked to each factor.

Will: It is evident that there is a strong will to include environmental considerations amongst the interviewed cases. All procurement officers did portray themselves and their organisations to include environmental considerations to a large degree, even those whose tender documents didn't show evidence of the same. Their answers and considerations around GPP indicated that they all felt it as an important aspect of their work. Still it is important to note that a significant number of respondents pointed to the fact that other considerations sometimes came first, such as specific functionality requirements. Although this in it self shall not be considered a lack of will more than a picture of how making procurements is a process where many different considerations needs to be taken into account. In addition to these findings, I will allow myself to speculate in the fact that it proved not possible to receive response from two cases, and that both these were from the group no GPP. It might be possible to at least ask the question of whether they were aware of their lack of GPP

and felt intimidated by the chance of being confronted with that. In addition it is important to note that there is a difference between will at the individual level and will at the management level. As one respondent indicated, he alone had the focus, but did not feel that the rest of his colleagues cared to make GPP, and that from the management there were no specific focus, and work pressure limited his ability to make environmental considerations.

Corresponding with the findings from previous studies, this study's results support the assumption that it is not a lack of will that is ultimately preventing further integration of GPP. As evident in the interview data, and supported by the fact that there were no significant differences between the groups strong GPP and no GPP when stating how important they felt GPP was, one might conclude that there is a will to include environmental considerations, but that this alone might not be enough to set the action out in practise.

Knowledge: It is safe to say, with the results both from the first and second part of this study, that knowledge is a crucial component when conducting GPP. The large amount of not-well specified criteria in part one can be interpreted as a sign on the fact that there is a will to include environmental criteria, but that when it comes to constructing them the varying results indicate a lack of knowledge. From the interview results, the strong concern about the difficulties of gaining product specific competence, knowing what environmental aspects to focus on and how to construct proper criteria strengthen this conclusion.

When it comes to knowledge, the results from part one of this study also indicates that complex products might limit the possibility for sound GPP if one does not possess the specific knowledge allowing to identify the relevant environmental criteria, and form the proper environmental criteria. This also largely corresponds to the findings from part one of the study, showing the more complex products groups to have less clear GPP criteria.

The results also correspond to previous findings when it comes to pointing out knowledge as an important factor in promoting GPP, although there is one additional aspect of knowledge which was pointed out here. Where previous studies have identified environmental knowledge and procurement knowledge as drivers and/or barriers, product specific knowledge was pointed out as important by several of the respondents in this study. From this one can conclude that knowing what environmental aspects to consider, how to find relevant product-specific environmental information and knowing how to construct proper environmental criteria are crucial factors when implementing

GPP. The findings from part one of the theses also support the notion that without this knowledge, the will to set environmental requirements might result in unclear criteria.

The fact that procurement officers feel that they make purchases for products they hardly know all the technical specifications for, and that this is a very important aspect limiting their ability to construct proper environmental criteria is an important new finding. It does also have consequences for how to promote GPP, showing that there is a need for information not only in general terms, but in product specific terms.

Opportunity: Even though the factor opportunity falls under a more structure-oriented approach, it is still included in this analysis as the different aspects are so entangled. Previous findings pointed out lack of management support and clearly stated responsibilities for integrating GPP as limiting the spread of environmental considerations. There are several indications in the interview results pointing to a lack of any clear responsibility for GPP. The fact that none of the organisations had any person responsible for environmental considerations, and also the statements that it was merely up to each individual project leader to include environmental criteria were mentioned as a factors that did indeed limit at least the possibility for any coherence in a possible GPP strategy. The specific case in the middle of reorganising had taken the consequences of this and was appointing a person responsible for coordinating their GPP.

The barrier work-pressure, as was pointed out by one respondent can also be said to be affecting the purchaser's opportunity to make GPP. Too much work which does not give room for including environmental criteria can be said to be linked to support from management, as they probably are the ones controlling the assigning of work. However this barrier was only identified by one respondent, which does make it relevant for further analysis at this time, especially as other respondents gave a picture that enough time was not a problem when working with GPP.

The responses from the interviews support the view that environmental labels are a driver towards more GPP. Several respondents pointed to the existence of environmental labels as factor making GPP a lot easier. References to environmental labels and their criteria were also the most commonly used source of information. This also corresponds to the findings from part one, if one consider the fact that environmental labels on paper are well-known and often used criteria, whereas the other product groups did not have that evident labelling practise to lean on.

8. CONCLUDING REMARKS

This last part of the thesis is intended to give a short summary of the main findings in order to link them up to the aim and research-questions of the thesis.

The aim of this thesis was twofold; to produce information about how often, with what weight and what kind of environmental criteria are applied in public procurement, and to identify what drivers and barriers are seen to influence more sound GPP.

When it comes to getting a view of the current situation of GPP in Norway the study of selected tender documents revealed that almost 60% of all tender documents included some kind of environmental criteria. Compared to for instance results from Sweden, this puts Norway at the same level. Still, about 1/3 of the identified Norwegian criteria were so unclear that it was doubtful whether or not they would result in any green procurement. Compared to the TemaNord (2005) study the degree of GPP in Norway in 2007 is higher than in the Nordic countries in 2005 [40%]. For the different product groups in focus, the one including paper and print was by far the most “green” of the groups, with the others both containing more no GPP and more unclear criteria.

Directing the focus towards what drivers and barriers might explain the lack of fully implemented GPP practise, the interview results indicated five main barriers:

- Knowledge – the lack of both general environmental knowledge, product specific knowledge and also to a certain extent knowledge on how to construct environmental criteria
- Cost – the limitation of not being able to give weight to the environment if it to a large extent goes on accord with economic considerations
- Lack of support and focus – meaning a lack of priority from management level which limits the individual procurement officers ability to spend more time or money on GPP
- Focus on functionality – many products with detailed user specifications and technical criteria which limit the room for environmental requirements
- Work pressure – limiting the ability to give the extra resources needed to include environmental considerations in a tender document, and to evaluate the offers thereafter

And four main drivers:

- Co-operation – more centralised procurement functions where the focus can be on procurement practice, and where experience from others and transdisciplinary procurement teams can focus on implementing GPP together
- Focus – priority and support from either management level but also from political level which facilitate the extra effort needed to implement proper GPP strategies and practises.

- Simplification – making the construction and evaluation of environmental criteria as easy as possible as to prevent having to put in a lot of extra time and resources. Here both pre-defined sets of criteria and checklists were mentioned
- Environmental labels – facilitating gaining knowledge about what alternatives are available on the market, and also facilitating the construction of environmental criteria as they often contain information clear criteria.

The drivers and barriers identified also correspond to a large extent to those of previous findings, but with some nuances. One of the main new findings was the identification of a lack of product specific knowledge. The results might also indicate a need to reorganise procurement functions as to become more centralised at least when it comes to implementing GPP. When each individual procurement officer is left on his or her own, the chances of at least a sound and coordinated common strategy on GPP might be limited. On the other hand, an analysis of what organisational structure works best when promoting GPP would require a whole different study, thus these assumptions should only be considered speculations about plausible explanations for lack of GPP based on limited data.

8.1 Future recommended research

When it comes to recommendations for further studies I will first of all underline the importance of conducting continuous assessment of GPP status in order to follow trends and patterns over time. This is also important to relate to any eventual new policy initiatives, to measure the effect of new initiatives to improve GPP. Another important aspect for further studies is on the relations between type of organisational structure and level of GPP. Considering the results pointing to co-operation as an important driver, and the positive synergies detected in the procurement co-operations amongst the interviews, it seems as if a centralization of the procurement function might increase the level of GPP.

Building on the findings from previous studies, and the data from the interviews, it is possible to suggest some hypothesis that can form the basis for future studies;

- Procurement officers who have undergone training in GPP use more environmental criteria
- Environmental policies on the procurement function lead to greater integration of GPP
- EMS systems and standards lead to greater integration of GPP
- Product groups with easily accessible environmental labels are subject to more GPP than others

8.2 Policy recommendations

The findings in our study are all important when it comes to working out a strategy to follow up the Norwegian governmental action plan on sustainable procurement. They give valuable information about the needs identified by the procurement officers themselves, thus giving an indication of what initiatives to prioritise.

Consequences for further work of promoting GPP might for instance be a focus on building competence. Especially the results pointing at a need for more product specific information influence the work with competence-building, as it suggest a need for training or available tools solving this problem. One such measure is developing sets of pre-defined, product specific criteria that can be used as templates when developing tender documents. Such criteria are under development, and supporting the implementation process and training procurement officers in using them might be, according to the results in this study, a good way to promote GPP.

A recommendation to strengthen the labelling of products and making visible more environmental friendly alternatives available can also be fruitful based on our results, as is trying to find a way to reaching a better co-operation in the procurement process, supporting initiatives for EMS systems and standards, and striving to make the possibility to include GPP as simple as possible.

8.3 Limitations

When considering the results from this thesis and the assumptions and conclusions drawn from them, there are certain aspects that are important to keep in mind as they might affect the validity and reliability of the thesis.

One important factor regarding the design of this study is the fact that the results from part one, dividing the cases into groups of strong GPP, light GPP and no GPP were based on only one test; the one specific tender document. Thus, when building on these groups as stratifications in the interview part, and treating the data as coming from either an organisation with strong GPP or an organisation without any GPP might not be entirely correct. This because having one tender notice without GPP does not automatically indicate that there is no focus at all on improving GPP in the organisation. Given the fact that the results did not give any clear patterns of data between the two groups also indicate that a sample document-analysis is not sufficient for determining the level of GPP for the entire organisation.

On the other hand might the lack of being able to detect any patterns between the two groups also indicate the problem mentioned earlier in the discussion of method design; the fact that in interviews respondents might tend to give the answers they think is wanted and exaggerate their own GPP work. This is plausible when looking at the no GPP cases that still stated that they include environmental criteria most of the time. Then again, the sound GPP case that did the complete opposite limit the possibility to make this more than mere speculations. Still, this discussion might illustrate the value of basing some of the results on a more objective method such as document analysis.

In relation to this discussion is also the division between well-specified criteria and not-well specified criteria. As mentioned before, this is a division that requires a thorough knowledge of both the juridical and procurement specific aspects of public purchasing, and might make the thesis vulnerable to the author's subjective judgement. Still, all criteria were evaluated on the basis of several different existing guides and tools on GPP. On the other hand could the divergence with the results from the GPP EU survey indicate a difference in evaluating the soundness of environmental criteria. It is important to mention the limitations related to this division as it also gives such strong directions to the stratification of the sample for the interviews.

The unfortunate fact that the interviews were not complete as originally planned did also give less accuracy to the data in this thesis. This is related to the study having a small sample size due to limited time resources. Having two no-GPP cases fall out of the assessment, which amounts to 50% less data from this group, clearly gave less opportunity to analyse the data doing any comparisons between the two groups. For future studies, a different approach to getting interview replies might be needed, such as sending out a shorter questionnaire in order to get data on the more concrete aspects. At the same time it might be important to consider not representing an organisation working with GPP when contacting possible interview persons, as this might be a source of intimidations for those with low focus on environmental considerations. However, the interviews as they were conducted were valuable when giving information about perceived drivers and barriers.

The question of sample is also relevant for the tender documents. The selection method used in this part of the study might limit the ability to make generalisations as it can not be said to be a random selection reflecting the entire population. Still, as discussed before, the sample does not exclude any procurement, and reaching a number close to 80 studied tender documents makes the possibility of looking at tendencies. Still, any generalisations made to the level of all Norwegian public organisations must be treated with caution.

9. LITERATURE

Action Plan (2007), *Norwegian Action Plan 2007-2010; Environmental and Social Responsibility in Public Procurement*, Norwegian Ministry of the Environment, Norwegian Ministry of Children and Equality and Norwegian Ministry of Government Administration and Reform

Barney, J. (1991). "Firm resources and sustainable competitive advantage", *Journal of Management*, vol. 17 (1), 99-120

Brander, L, Olsthoorn, X (2002), *Three scenarios for Green Public Procurement*, Institute for Environmental Studies, Amsterdam (http://www.iclei-europe.org/fileadmin/user_upload/Procurement/RELIEF/Publications/IVM-paper_Procurement_scenarios.pdf)

Darnall, N. (2007), "Do environmental Management Systems Improve Business Performance in an International Setting?" Paper accepted for publication in *Journal of International Management*

Erdmenger, C. (2003), *Buying into the Environment – experiences, opportunities and potential for eco-procurement*, UK: ICLEI – Greenleaf Publishing

Gillberg, M. (1999), *From green image to green practice – normative action and self-regulation*, Lund: Sociologiska institutionen, Lund universitet

Graver, H. P. (1998), Miljø og offentlige anskaffelser, *Norsk lysningsblad EØS-bilag*, 27/03/98

Grijp, N.M. van der (1998), *The greening of public procurement in the Netherlands*, In Trevor Russell (Ed.), *Greener purchasing, opportunities and innovations*, (pp. 60-70). Sheffield, UK: Greenleaf Publishing.

Hellevik, O. (2002), *Forskningsmetode i sosiologi og statsvitenskap*, Oslo: Universitetsforlaget

Hydén, H. (2002), *Normvetenskap. Sociologiska institutionen*, Lund: Sociologiska institutionen, Lund universitet

Jonsson, A. (2003), *Miljöhänsyn i statliga ramavtal*, Magisteruppsats Stockholm: CTM

Kamann, Dirk-Jan F. (2004), "Green Procurement: Balancing the Triple P", Groningen Research Institute of Purchasing, University of Groningen – Paper presented at the IPSERA Meeting in CAatania, Sicily, 3-7 April 2004

Larson, S. (2004), *Musik, Nätet & Opphovsrätten*, Lund: Sociologiska institutionen avd. rättssociologi, Lund University

Lindquist, L.J. (2004) *Sweden and ecological governance: Straddling the fence*. Manchester: Manchester University Press

Lippman, S. (2001), "Supply Chain Environmental Management", *Environmental Quality Management*, vol. 11 (2), 11-14

Persson, Å. (2004), "Environmental Policy Integration: An Introduction" Stockholm Environment Institute SEI, (<http://www.sei.se/policy/PINTS/intro.pdf>)

Ringdal, K (2001), *Enhet og Mangfold – samfunnsvitenskaplig forskning og kvantitativ metode*, Oslo: Fagbokforlaget

Selnes, F. (1999), *Markedsundersøkelser*, Oslo: Tano Aschehoug forlag

Wickenberg, Björn (2004), *Translation of Sustainability into Public Procurement Practices in Swedish Municipalities*, Master's Thesis Lund University

GUIDES ON GPP

European Commission (2004), "Buying Green – a handbook on environmental public procurement", Belgium http://ec.europa.eu/environment/gpp/pdf/buying_green_handbook_en.pdf

Nærings- og Handelsdepartementet (2004), "Veileder i Miljø og regelverket for offentlige anskaffelser"
<http://www.grip.no/felles/dokumenter/RegelverkVedOffAnskaffelser.pdf>

Sustainable Production Campaign (2007), "A guide to Cost-Effective Sustainable Public Procurement" 2nd Edition ICLEI
http://www.procuraplus.org/fileadmin/template/projects/procuraplus/files/CD-ROM/Case_Studies/Furniture_IHOBE_Spain.pdf

Miljøvennlige innkjøp, et verktøy for innkjøpere i offentlig forvaltning
http://www.miljoinnkjop.no/Skjema/Bok/miljoinnkjop_bok_des_simplex_2006.pdf

LAWS

LOA – Loven om offentlige anskaffelser LOV-1999-07-16-69 www.lovdata.no

FOA – forskriften om offentlige anskaffelser FOR-2006-04-07-402 www.lovdata.no

PREVIOUS STUDIES

GPP-EU – Bouwer M, de Jong K, Jonk M, Berman T, Bersani R, Lusser H, Nissinen A, Parikka K and Szuppinger P, (2005), "Green Public Procurement in Europe 2005 - Status overview",
http://ec.europa.eu/environment/gpp/pdf/Stateofplaysurvey2005_en.pdf

Grip: Miljø og innkjøp i norske virksomheter 2001
<http://www.grip.no/Innkjop/Nedlastningsdokumenter/Statusundersokelse%202001.pdf>

MMI rapport: Holdninger til miljøspørsmål i sykehussektoren med spesiell vekt på anskaffelse av medisinsk forbruksutstyr
<http://64.233.183.104/search?q=cache:wMMJ5DbV8FMJ:www.grip.no/Innkjop/Nedlastningsdokumenter/2000-03-01%2520Resultater%2520fra%2520sporreundersokelse.doc+holdninger+til+milj%C3%B8sp%C3%B8rsm%C3%A5l+i+sykehussektoren&hl=no&ct=clnk&cd=1&gl=no>

Naturvårdsverket (2004): Miljöanpassad offentlig upphandling, en enkätstudie. Rapport 5445,
<http://www.grip.no/innkjop/Nedlastningsdokumenter/Status%20i%20Sverige%202004.pdf>

Naturvårdsverket (2005): En mer miljøanpassad offentlig upphandling, förslag till handlingsplan,
<http://www.naturvardsverket.se/Documents/publikationer/620-5520-8.pdf>

Nielse, Baarstrøm, Pedersen (1998), Offentligen Grønne Indkøb – specialerapport. Rapportserien, no 65, Department of Environment, technology and Social Studies, Copenhagen
http://rudar.ruc.dk/bitstream/1800/838/1/Offentlige_gr%c3%b8nne_indk%c3%b8b.pdf

Stiftelsen Miljømerking (2005) "Bruk av miljømerkingskrav i anbud", Bergfald & Co
http://www.ecolabel.no/data/f/0/02/93/2_2401_0/anbud_miljokrav.pdf

Svenska Naturskyddsforeningen 1996: Bra Miljöval for textiler <http://www.snf.se/pdf/bmv/krit-bmv-textil.pdf>

TemaNord (2005), Measuring the Environmental Soundness of Public Procurement in Nordic Countries, Nordic Council of Ministers, Copenhagen
<http://www.norden.org/pub/miljo/miljo/sk/TN2005505.pdf>

INTERNET RESOURCES

The European Commission (2001), A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development.
http://eur-lex.europa.eu/LexUriServ/site/en/com/2001/com2001_0264en01.pdf (13/9/2007)

I&DeA improvement and development agency (2003), Sustainability and Local Government Procurement
<http://www.idea.gov.uk/idk/aio/69800> (20/10/2007)

EURO standard for cars: <http://www.dieselnet.com/standards/eu/ld.php>

Miljøstyringsrådet: www.msr.se

Miljøvejledning Danmark: <http://www.miljoevejledninger.dk/>

The Nordic Swan: <http://www.svanen.nu/DocNord/039sv.pdf>

The EU flower:
http://eur-lex.europa.eu/LexUriServ/site/da/oj/2002/l_133/l_13320020518da00290041.pdf

Svenska Naturskyddsforeningen, Bra Miljöval <http://www.snf.se/bmv/index.cfm>

Rio Declaration on Environment and Development:
<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163>

World Summit on Sustainable Development (2002) Draft plan of implementation of the World Summit on Sustainable Development:
http://www.iisd.ca/wssd/download%20files/impplan_26june.pdf

Grønn Stat: <http://www.gronnstat.no/start.asp>

APPENDIX 1:

Results analysis Paper and print

SUBJECT MATTER	TECHNICAL SPESIFICATIONS	SELECTION CRITERIA	AWARD CRITERIA	CONTRACT CLAUSES
Blanketter, oversetting, trykk og distribusjon	0	0	Miljø - 15% -tilfredsstillende miljømerke svanene, blomsten eller tilsvarende	0
kontorrekvisita	0	HMS, miljøpolicy, gi en beskrivelse med vekt på miljøpolicy, dens forankring samt etablerte prosedyrer, mål og kompetanse i forhold til miljø, ønskelig med en kortfattet beskrivelse av miljøtiltak og aktiviteter hos tilbyder	Miljø/kvalitet 25% bruken av miljøskadelige stoffer skal være begrenset (SFT obs-liste) Tilfredsstillende svanen, blomsten eller liknende. Beskrivelse av emballasje samt om retur og gjenvinningsordninger, dokumentere deltakelse i relevante returordninger for emballasje, EE-avfall og batterier	0
Konvolutter	Miljøkrav, svanen eller blomsten. Ønsker ikke konvolutter med SK-snitt, et lim som ikke tilfredsstillende svanen/blomsten, ønsker heller SKD-snitt (selvklebende dekktepe).	HMS, system for miljøledelse og miljørevisjon og beskrive dette, eller sende inn attester på sertifisering (ISO 14001, EMAS, Miljøfyrtårn el. Likn.)	Miljø 20% - tilfredsstillende kravene som stilles i nordisk miljømerkings kriteriedokument "svanenmerkning av papperskuvert". Oppfyllelse av basismodulen til papir tilsvarende svanekriteriene. Dokumentasjon: lisensbevis svanen eller annen dokumentasjon, men denne må være utformet i henhold til kriteriedokumentenes krav. Det må spesifiseres hvor stor andel av det som tilbys tilbyder som oppfyller disse krav.	0

Trykktjenester, blanketter, brosjyrer, veiledninger og rapporter	Svanenmerket eller ikke bleket med klor	HMS	Miljø 20%, Tilfredsstiller kravene til svanen eller blomsten, særlig på produkter det skal kjøpes mye av. "Levrandøren bør ha innført miljøledelsessystem eller tilsvarende".	
Forlagsavtale og produksjon av telefonkatalog	0	En underbygget redegjørelse for miljøhåndtering. Dok: redegjørelse for metode som benyttes for kvalitetssikring av miljøeffektiviteten i produksjonen, at utstyret som brukes i fremstillingen av slike produkter er innenfor offentlige pålegg og forskrifter og at en deltar i eventuelle returordninger. Svanenmerkning eller tilsvarende kan være tilstrekkelig.	0	0
Print- og etterbehandlingstjenester	0	HMS, tilfredsstillende miljøledelses- og miljøstyringssystem, evt. Relevant sertifisering (ISO 14001 eller EMAS).	0	0

kontorrekvisita	0	0	Miljø 20% skal så langt som mulig vær etilvirket på en miljøvennlig måte og av miljøvennlige materialer (<i>ikke spesifisert hva slags type dokumenter</i>), skal ikke inneholde stoffer klassifiserte som helsefarlige, varemerking dersom produktet kan gi allergiske reaksjoner, lagt vekt på om leverandøren tilbyr miljømerkede produkter.	0
Konvolutter	0	Redegjøre for metoder som brukes for å kvalitetssikre miljøeffektiviteten i leverandørens produksjon av trykksaker. Svanemerking eller tilsvarende kan være eksempel på tilstrekkelig dokumentasjon	Økonomisk mest fordelaktig basert på 100% pris	0
fellesblanketter	0	En underbygget redegjørelse for miljøhåndtering. Dok: redegjørelse for metode som benyttes for kvalitetssikring av miljøeffektiviteten i produksjonen, at utstyret som brukes i fremstillingen er innenfor pålegg og forskrifter og at en deltar i en eventuell returordning. Svanemerking el tilsvarende kan være dok.	Økonomisk mest fordelaktig basert på 100% pris	0
Sykkelkartbok	0	HMS	0	0

kontorrekvisita		0	HMS, ikke inneholde giftige eller andre helsefarlige stoffer, må ha returordning på tonere og blekkpatroner, emballasjen skal tas i retur når kunden mener dette er nødvendig. Samtlige produkter skal møte alle EU-krav til miljø for bransjen (<i>ingen henvisning til dokumentasjon</i>)	Miljøkrav, EU-krav, gjenvinningsordninger m.m. 20% <i>ingen yttligere henvisning, det virker som vektingen er myntet på kvalifikasjonskravene, men disse skal jo egentlig være obligatoriske...</i>	Må kunne komme opp med flere returpunkt for tonere og blekkpatroner om nødvendig, levrandøren skal arbeide for at emballasje reduseres til et minimum, emballasjen skal være resirkulerbar og ingen produkter skal inneholde PVC
Nyhetsbrev energimerking bygg, produksjon og trykk	svanenmerkt papir		HMS	ingen vekting	0
trykking og leveriang av konvolutter		0	Miljøledelsessystem eller dokumentasjon på kompetanse som sikrer utførelse med lavest mulig miljøbelastning (<i>men stillt som spørsmål...</i>)	Miljø 10%, ønsker å benytte konvolutter som er miljøvennlige, ønskelig med miljømerket som svanen, blomsten eller liknende, levrandøren bør også opplyse om andre miljøtiltak	Levrandør skal sørge for at alle produkter og tjenester som er omfattet av denne avtalen er tilstrekkelig merket, slik at oppdragsgiver er i stand til å vurdere om hensynene til helse, miljø og sikkerhet ivaretas.

rekvisita og kontorutstyr		0	HMS, miljøkrav til standard Sortiment: oppfylle svanekriterier med unntak av kriteriepunktene om rapportering, miljøledelse og markedsføring (mao kun de produktrelaterte kravene).	Miljø 30%, legges vekt på hvor stor andel av produktene som oppfyller svanekriteriene, transportløsning miljøgunstig for de kjøretøy som benyttes til utførelsen av kontrakten	levrandør skal kunne dokumentere at produsent eller importør av produktet er tilknyttet eksisterende returordninger t.eks. "Grønt Punkt" eller andre retursystem. Emballasjen som benyttes skal være resirkulerbar. Trykkfarger skal ikke inneholde tungmetaller eller halogenerte stoffer. Dieselmotorer har partikkelfilter, sjåfør har kurs i eco-driving. <i>Oppgi andel kjøretøy som benytter biodrivstoff, og andel som tilfredsstillende EURO 4</i>
Bokproduksjon og trykking		0	SAMFUNNSANSVAR: ILO og FNs barnekonvensjon art. 32	Papirkvalitet veies til 20% og oppgis at dersom noen av prøvene er miljøvennlig papirkvalitet skal det oppgis.... <i>(fungerer ikke som krav)</i>	0
Trykking av kalendere	Hippo returkartongpapir fra spesifisert leverandør		0	0	0

kontorrekvisita	Alt kopipapir skal være registrert i godkjente merkeorninger og oppfylle andre offisielle miljømerkekriterier	HMS, miljøpolicy	miljø 20%, poeng gis for beskrivelse av miljøhensyn vedr. transport, emballasje og returordn., positive miljømerkinger. Miljømerke svanen/blå engel/Eublomst, fritt for PVC, fritt for stoffer fra SFTs liste over kjemikalier, refillordninger, returorninger, hoveddel laget av fornybare ressurser, mer en 50% av emballasje laget av resirkulert materiell	0
Trykktjenester				
trykking og levering av blanketter				
Produksjon av søkermateriell		Ikke inneholde miljøskadelige komponenter. Samtlige produkter skal møte alle EU-krav til miljø for bransjen		Utelukkende benyttes svanemerket eller tilsvarende miljøvennlig papir i dokumentene man leverer tilbudet i

APPENDIX 2:

Results analysis IT

SUBJECT MATTER	TECHNICAL SPESIFICATIONS	SELECTION CRITERIA	AWARD CRITERIA	CONTRACT CLAUSES
Datarekvisita; blekk, toner, usb minne	Ikke inneholde PVC med mindre det ikke finnes alternativer. Ikke mer enn nødvendig emballasje. Skal beskrive returorninger for brukte lesertonere	HMS, miljøpolicy	miljø 20%, poeng gis for beskrivelse av miljøhensyn vedr. transport, emballasje og returordn., positive miljømerkinger. Miljømerke svanen/blå engel/Eublomst, fritt for PVC, fritt for stoffer fra SFTs liste over kjemikalier, refillordninger, returorninger, hoveddel laget av fornybare ressurser, mer en 50% av emballasje laget av resirkulert materiell	
IT-drifttjenester, inkl kjøp eller leie av alt utstyr			0	

Taleterminaler og netjtjenester		Miljøkrav: helse miljø og sikkerhetspolicy, miljøstyringssystem, (Eller: miljøredegjørelse/miljørapport, miljøopplæring internt, forbedringsprogram på miljøområdet, miljøansvarlig i virksomheten, rutiner for miljøfarlig avfall) -event oppfyller dette innen en minimum 6mnd etter avtaleinngåelse		
Drift av webløsninger, inkl maskinvare				
Mobiltelefoner				Redusere emballasjen til et nødvendig minimum, om teknologisk mulig resirkulerbart. PVC skal ikke benyttes, produktdatablad, og godkjenning/sertifisering dersom dette er lovpålagt.
Support teknisk EDB utstyr og drift				
Elektronisk loggføringssystem				
IKT sikkerhetsovervåkning				

levering av PC og servere				
IKT-konsulenttenester				
levering av IKT-utstyr og relaterte konsulenttenester				

IT-utstyr og tjenester	<p>Skal følge RoHS-direktivet (restriction of the use of certain hazardous substances of EE equipment), må kunne oppfylle krav for miljømerking, eks svanen, EU-blomsten, SPA energy star og TCO merkene. Miljøerkjæring for produkter, STF produktforskrift, STF avfallsforskrift, batterier som inneholder mer enn 0,0005 vektprosent kvikksølv, ikke-merkede batterier i henhold til produktforskriften. Ønsker ikke kjøpe inn produkter som inneholder stoffer på Prioritetslisten, OBSlisten eller klassifiseres som miljøfarlige, KFK/HKFK, 1-1-1-trikloretan, tonepulver og blekk med mer enn 1 vektprosent miljøfarlige stoffer, kreftfremkallende, allergifremkallende, kopimaskiner med flytende toner. Må kunne benytte resirkulert papir, minimum emballasje, PVC etc. etc.</p>	<p>Leverandørens miljøprofil. Må fylle ut vedlagt miljøerklæring. - miljøpolitikk og dokumenterte miljømål, miljøkrav til underleverandør, miljøstyringssystem, planlegges miljøsertifisering, Skal i avtaleperioden være medlem av returordninger for emballasje og batteri. SAMFUNNSANSVAR: lønns og arbeidsvilkår ILO</p>	<p>lagt vekt på miljøegenskaper som energiforbruk, støy, stråling, ergonomi og materialbruk.</p>	<p>NB: miljøkriterier hentet fra Østfold fylkeskommunes verktøy for miljøvennlige innkjøp.</p>
Hjemme-PC	<p>Produktene bør oppfylle kriteriene for miljømerker. Støynivå skal dokumenteres, max 4.0 LWAd</p>	<p>Leverandør bør ha innført miljøledelsessystem eller tilsvarende</p>	<p>Miljø 25%</p>	

Innkjøp av IT-utstyr				
PC og PC-utstyr				
Pcer	Tilbyder skal beskrive hva slags miljørelaterte sertifiseringer det tilbudte produktet har oppnådd (svanen/blå engel). Må ha energisparefunksjon som gjør at maskinen går i hvilemodus den tiden den ikke er i bruk. <i>Nevner materiale, men ikke som krav, produsentansvar, nevner støy og stråling, men heller ikke dette uttrykt som krav.</i>			
bærbare Pcer m tilbehør	Oppgi miljøspesifikasjoner og sertifiseringer			
Disksystem for fillagring og backup				

AV og videokonferanseutstyr			Miljø/sikkerhet 5%, miljøpåvirkning under produksjon, bruk og avhending av utstyr i henhold til tilbyders miljøerklæring. Må oppgi miljøsertifisering, beskrivelse av miljøprofil. Program for retur og resirkulering av maskinvare, innsamling og transport til anlegg for sortering. Skal følge RoHS direktivet	
Serviceavtale IT-utstyr				

APPENDIX 3:

Results analysis Cars and transport

SUBJECT MATTER	TECHNICAL SPESIFICATIONS	SELECTION CRITERIA	AWARD CRITERIA	CONTRACT CLAUSES
Leie/leasing biler til hjemmehjelptj.			Miljøhensyn 5%, ønsker at bilen skal ha lavst mulig CO2 og NOX utslipp. Oppgi andel frigjøring av miljøskadelige stoffer. Biodisel og partikkelfilter vil bli vektlagt.	
Leasingbiler	Ønsker i tillegg til bilder med vanlig drivstoff tilbud på biodisel biler,		Oppgi CO2 utslipp	
Hjullaster			Miljø 25%, spesifiserer ikke nærmere!	
Leiebilder		Produktene tilfredsstillende godkjente miljømerkeordninger, miljøvennlig veldikehol og oversikt over håndtering av avfall tjenesteproduksjonen kan medføre	Komfort/miljø/brukeregenskaper 10-20%, CO2 utslipp	
Spylebil			miljø og kvalitetssikring 5%, sertifisering (men med fokus på kvalitet), oppgis overordnet miljøstrategi.	
Transporttjenester	Skal utføres miljømessig optimalt, ikke kjøre motoren på tomgang.		Miljø 10%, har policy for miljøeffektive innkjøp, tilbyder må redgjøre for miljøprofil, miljøpolitikk, beskrive drivstoff i vognparken	

Pasienttransport	Ha fokus på muligheter for samordning av transportoppdrag	Fremlegge plan for eller beskrivelse av bedriftens miljøprofil. Antall hybridbiler, antall biler på alternativt drivstoff etc.	Miljø 5%,	Gjennom planleggelsen og utførelsen av arbeidet legge vekt på sikkerhetsmessige forhold for å ivareta helse, miljø og sikkerhet
Utleie av biler				
Lastebil	Møte krav EuroIII 2005,		Avgassutslipp og andre påvirkninger for ytre miljø, miljøvaredeklarasjon kjemikalier, finnes det merkeordninger, avfallsanvisning, konstruert for energibesparelse, retur	
4x4 pickup	Klimaanlegg skal ikke inneholde freongassene CFC eller HCFC, ikke inneholde kvikksølv eller kadmium, lakken skal ikke inneholde bly, kadmium eller krom, 85% av kjøretøyet bør være gjenvinnbar			
Lift-bil til Hurum Drift				
varetransport, distribusjon av mat				

Feiemaskin		rutiner og systemer som ivaretar leverandørens ansvarlighet og varsomhet i forhold til miljømessige konsekvenser, miljøpolicy, HMS policy,	<i>Innkjøpssamarbeid</i> miljøskjema, har produktet miljøgodkjenning, har tilbyder spesielle miljøprodukt i sitt sortiment, garantert fri for forbudte stoffer, krav til farenmerking, LCC - innsamlings, gjennbruks, gjenvinningssystem for produktet/for emballasjen, må produktet behandles som speisalavfall	
Lastetrucker				
Kommandobiler			Miljøkrav 20%, lavest mulig utslipp av miljøgasser, biler med partikkelfilter vil bli foretrukket	
Minibuss	Dokumentere drivstoffbruk, vedlikeholdsbehov etc. beskrivelse av forhold som gjør oppdragsgiver i stand til å beregne driftkostnader, krav at den har et lavt CO2 utslipp (<i>Ikke spesifisert mengde</i>)		Miljø 5%,	
Leiebil			Miljøkrav 20%, opplyse om svanemerket eller tilsvarende på bilrengjøringsprodukter, partikkelfilter på dieseler.	
pasienttransport				
Leiebil			Miljømessige hensyn vektlegges	

kjøp/leasing av miljøbiler	Elektriske biler, miljøbil max CO2-utslipp på 120 g/km, diesalbiler må ha partikkelfilter, miljøbil biodrivstoff minimum 30% innblanding, levetid, holdbarhet, reparerbarhet, gjenvinningspotensiale	Miljøkrav til leverandørene, må beskrive egen miljøstrategi og eventuell sertifisering, skal være tilknyttet avløpsnett, alt vaskevann skal gå via sandfang og oljeutskiller, minst 70% av alt avfall skal leveres til gjenvinning, produktdatablad for kjemikalier	miljø 30% batteritype og materialgjenvinningsgrad, CO2 utslipp, lokal miljøpåvirkning, grad av biodrivstoff, drivstofforbruk	NB:fikk inn for få tilbud på utlysning miljøbil, personbil
----------------------------	--	---	--	--

APPENDIX 4:

Results analysis textiles

SUBJECT MATTER	TECHNICAL SPESIFICATIONS	SELECTION CRITERIA	AWARD CRITERIA	CONTRACT CLAUSES
Gardiner				
Arbeidstøy				
Gardiner		Det skal opplyses om de tilfredsstillende miljøkravene i svanen eller blomsten (<i>fungerer ikke som krav...</i>). Eventuelle miljøsertifiseringer må oppgis. levetid og miljøhensyn (i beskrivelse av referansen...)		
Bekledningsmateriell, lue/berett				
jakker		HMS		
bekledning til asylsøkere		HMS, dokumentasjon til leverandørens miljøpolitikk, eventuelle program for miljøtiltak		
Dyner og puter				

Bekledningsmateriell		HMS, ikke inneholder skadelige stoffer, grenseverdier som angitt i Økotex standard 100 eller tilsvarende	Miljø 10%	
Bekledningsmateriell		HMS, ikke inneholder skadelige stoffer, grenseverdier som angitt i Økotex standard 100 eller tilsvarende	Miljø 10%	
Kontormøbler	I samsvar med forskrift om begrensning av bruk av helse og miljøfarlige kjemikalier, i samsvar med paragrafer i forskriften vedrørende tekstiler i møbler (§2-18, 2-20, 3-4 og 3-5. oppgis hvilke kjemikalier som er benyttet i tekstiler med flemmehemmere.	Miljøledelsessystem (ISO/EMAS/Fyrtårn)	Miljø, ikke vektet.	Emballasje tas i retur
Møbler			Miljø og returordn. 20%, miljøkrav til miljømerkene blomsten eller svanen. Teller positivt om virksomheten er sertifisert miljøfyrtårn el. Linkn. Miljørapport, handl.plan for miljø. Oppgi hvilket retursystem som benyttes.	Emballasje tas i retur
Profileringsklær				
Arbeidstøy			"generelle miljøkrav - tilby et bredt spekter av miljøvennlige produkter. Emballasjen skal være resirkulerbar. Trykkfarger skal ikke inneholde tungmetaller" Ordninger for materialretur (vektes inn under tildelingskriteriet kvalitet)	

feltuniform		Ikke inneholder skadelige stoffer. Grenseverdier som angitt i Økotex standard 100 eller tilsvarende aksepteres	Miljø 10%	
-------------	--	---	-----------	--

APPENDIX 5:

Introduksjon:

I forbindelse med regjeringens handlingsplan for miljø og samfunnsansvarlige anskaffelser arbeider vi på GRIP med en undersøkelse for å kartlegge status pr. i dag, og kanskje viktigst forsøker å skaffe oss en oversikt over hva dere som innkjøpere anser som de største mulighetene og utfordringene når det gjelder å stille miljøkrav i deres anskaffelser. Vi mener at for å nå målene om økt andel miljøbevisste anskaffelser er det avgjørende å skaffe en oversikt over hvilke erfaringer og utfordringene som finnes i praksis. I den anledning ber jeg deg ta deg tid til å svare på noen raske spørsmål rundt nettopp det å stille miljøkrav i anbud?

Status:

- I hvor stor grad anser du at det er et fokus på å stille miljøkrav i anskaffelser hos din virksomhet?
 - Vil du si det stilles miljøkrav og kriterier alltid, oftest, iblant, sjelden eller aldri?
- Helt kort, hvordan er innkjøpsfunksjonen organisert hos dere?
(er det prosjektleder/den enkelte innkjøper som sitter med ansvaret, har dere noe tverrfaglig innkjøpsteam, finnes det noen miljøansvarlig, deltar dere i et innkjøpssamarbeid)
- Dersom du stiller miljøkrav, hvor innhentes det informasjon?
(info fra produsenter og leverandører, merkeordninger eller kriteriesett, intern miljøkompetanse, bruker definerer miljøkrav, innkjøpssamarbeid, eksterne fagmiljøer, veiledere)

Kompetanse:

- Har du gjennomgått eller fått noen kursing i hvordan stille miljøkrav i anskaffelser?
- Hvordan vurderer du din egen kompetanse i forhold å stille miljøkrav?
- Føler du at du har tilstrekkelig kompetanse til å vurdere innkomne tilbud ut fra et miljøsynspunkt?
- Hvilken informasjon eller veiledning anser du som innkjøper at du behøver for å øke bruken av miljøkrav?
(Info om regelverket, verktøy, produkters miljøpåvirkning, gode eksempler, kriteriesett)

Utfordringer:

- Hva anser du som de største utfordringene når det gjelder å stille miljøkrav?
(kompetanse, tilrettelegging av ressurser, fokus fra ledelsen, tid, informasjon fra leverandører)
- Hvor viktig mener du følgende forutsetninger er for å lykkes med å innarbeide miljø i innkjøpspraksis i din virksomhet? (veldig viktig, ganske viktig, litt viktig, ikke viktig)
 - Leverandørene må kunne fremskaffe informasjon om produktenes miljøegenskaper og bedre miljøvalg?
 - Miljøhensyn må inngå i statlige eller kommunale innkjøpsregelverk
 - Ledelsen må fatte et vedtak om at miljøhensyn skal inngå ved innkjøp
 - Det må foreligge kriteriesett for de ulike produktgruppene
 - Samarbeid med andre innkjøpere om å fastsette miljøkrav

- Tilsidesettes mer ressurser for å gjøre bedre miljøvalg ved innkjøp
- Hva anser du som de største hindrene for miljøeffektive innkjøp i din virksomhet?
 - Miljøhensyn tar lengre tid (føler du at det er veldig tidskrevende?)
 - Miljøhensyn koster mer (føler du at det er veldig kostnadskrevende?)
 - Manglende interesse innen virksomheten (føler du at det er fokus på det?)
 - Manglende kompetanse (føler du at dere har tilstrekkelig kompetanse?)
 - Komplisert regelverk (føler du at regelverket åpner for miljøkrav?)
 - Fokus på pris og brukervennlighet
 - Annet

Bakgrunnsvariabler

- Er det vedtatt en miljøpolitikk for hele eller deler av virksomheten?
- Har dere noen egen miljøpolicy på innkjøp?
- Har dere noen spesifikke miljømål for innkjøpsfunksjonen som dere må rapportere på?
- Er det innført noe system for miljøledelse i hele eller deler av virksomheten?
- Finnes det miljøansvarlig personal på innkjøpsenheten?
- Hvilken stilling innehar du?
- Hvor stor er din virksomhet (har du noe ide om innkjøpsvolum?)

APPENDIX 6

General findings from the interviews.

SUMMARY INTERVIEW RESULTS							
	EMS system	Policy	Goals	Responsible person	Education	Focus	Status
Car 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	** <input checked="" type="checkbox"/>	2	2
Car 2	* <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	** <input checked="" type="checkbox"/>	1	1
Paper 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	4
Paper 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	3
IT 1	* <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	2
IT 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Textile 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	2
Textile 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
TOTAL RESULTS							
	EMS system	Policy	Goals	Responsible person	Education	Focus	Status
Strong GPP	1	1			1	1	3,2,1,1 2,4,2,2
Light GPP	1	1	1			1	1,2 1,3
<p>* EMS system related to the green state initiatives</p> <p>** courses not directly related to GPP, but which included some elements of GPP</p> <p>Focus: 1 - strong 2 - increasing 3 - weak</p> <p>Status: 1 - always 2 - mostly 3-sometimes 4 - rarely 5 - never</p>							

Figur 11 Summary of general findings

As illustrated in figure 11, only one organisation had both an environmental policy and environmental goals on the procurement function. Amongst those with strong GPP only one had any environmental policy. No one had any person responsible for the environment in their organisation, but the one case who was about to reorganise their procurement department was also going to include an expert.

Amongst those with sound GPP all but one stated that they considered the focus in their organisation to be large when it came to including environmental considerations. One did say that he had to admit that he thought the focus was limited to including HMS, and that he did not think any of the other staff members were especially interested in including environmental criteria. One particular case in the middle of reorganising stood out as having a large focus on implementing environmental considerations.

Most respondents, including those with no GPP stated that they use environmental criteria most of the time, several saying that at least they did so when it did not go on account of other important

technical specifications related to functionality. No one could say that they always included environmental criteria, as they considered it impossible on some products.

When it came to what sources of information that was utilised for construction environmental criteria there were no one that had any specific strategy or system for this. One organisation had an intranet-system where they gathered links to different websites, and most of the respondents mentioned GRIP as a source of information. Only two cases stated that they had had some kind of education or attended courses, but the focus was not specifically on GPP. Again the one specific case that were about to reorganise their procurement department did have a great emphasis on the need for competence building.

When evaluating their own competence most of the respondents, both those with strong GPP and those without, were clear on the fact that they were no experts, and that there was still a lot left to learn. This illustrates what can be characterised as the main findings in this part of the interviews, namely that there were no apparent differences or patterns between the strong GPP cases and the no GPP cases.

APPENDIX 7

Interview results				
Status	Focus	Environmental demands	Organisations	Information
Car 1	The focus is increasing, we started early, but it is a hard process. Where there are environmental labels in the market, it is easier.	Most of the time we include environmental requirements. But on quite a lot of the equipment we buy, user specifications go over environmental considerations	We have a central procurement department, where contracts and tenders are treated. Other than that there is a lot of small orders made in the different sectors of the organisation	Where there exist environmental labels we collect our information there. Other than that we use info from GRIP, the internet, but most of what we find we find on the eco-label website, where they also have checklists that simplify the process.
Car 2	we mean that we have a focus on environmental considerations	I will say that we include environmental considerations always, and if not, it is only where it is not possible to state demands that can be evaluated	We have a central department with seven persons, where all the procurements are coordinated, and we work as a transdisciplinary team	Sometimes we get info from GRIP, or different lines of business-specific information. Also we use certificates and labels where that exists.
Paper 1	Today I will have to admit that I think most of the focus limit itself to HMS and quality. I do not think many of the staff are engaged in or interested in the subject.	I do not think we include environmental demands often. Well, on paper products we always do, it is easier when there is a eco-label as the Nordic swan.	We do not have a procurement organisation, it is spread. It is up to each person making a purchase whether he or she want to include environmental criteria.	Well, when we use environmental demands we use eco-labels like the swan, or recirculated paper products. The more simple considerations.
Paper 2	Well, I would say there is a focus, but characterised as a strong focus I wouldn't say so. It depends on the individual project leader. I will say we include environmental criteria sometimes...	Sometimes	The procurement responsibility is delegated to the individual procurement officers. If there is a lack of competence we have three people in the procurement department that can contribute with advice.	We have our own intern-net sights were we have gathered several different links which are often used in collecting information for environmental considerations. I think a lot of the info there is from GRIP actually. We have one handbook specific on buildings, but I do not know the content of that one when it comes to environment.

IT 1	We have a very large degree of focus on environmental considerations! We have set aside 250.000 in our budget to promote this, and there is one person in place now that will go through every tender document and include environmental criteria in all of them, so this has a LARGE priority, and we are making templates to promote these considerations even more.	Today I will say that we include environmental considerations often	We are procurement cooperation for several different municipalities in Møre og Romsdal. I sit together with one other person as procurement directors in the cooperation. We also have a lot of contact with other municipalities and use each others experiences and competences.	We collect a lot of info from other municipalities, and their experiences. We also gather information from GRIP, and now there is as I said one person going to do this full time.
IT 2				
Textile 1	There is clearly a focus. And there is a focus from the management, we report on this	We use environmental demands, at least where it is possible. I will say most of the time.	We coordinate the procurements for five municipalities, which mean that we have responsibility for all procurements. It is up to the individual procurement officers to state environmental considerations in each project. There is no transdisciplinary team, and the demands that are used are more or less random I think.	It is most of the time the persons responsible for the products out in the municipality that report on what demands are supposed to be taken.
Textile 2				
Knowledge	Education	Own competence	Need	Important success factors
Car 1	We have attended seminars and courses, mostly on the procurement competence. There is stated a will to prioritise environmental knowledge, but the different initiatives vary.	There is always a lot more to learn. Especially in the product specific knowledge. I expect to meet more pressure to make environmental considerations. When it comes to the environmental knowledge it all comes down to the product you're going to buy and what information you get from the supplier.	Amongst other things it is nice with predefined award criteria, and also more knowledge on the directives. What it comes down to is an evaluation of which demands it is possible to state specific enough so that they can be evaluated properly	

Car 2	We have attended courses	the conversation reviles a good competence on the procurement and how to state environmental requirements		
Paper 1	No	Me myself I have the interest because I have worked with this before, but it is difficult with the procurement competence, knowing how to demand for instance eco-label criteria, and how to evaluate if one have to accept others that are not certified, but still fulfil the demands. I have the product specific competence, but not the competence on the directives etc.	If one have to open up for not only eco-label it is getting very complicated, and then you have to dive so deep into the subject that there simply isn't enough time. I see education in the procurement directives, and the juridical aspects as important.	Support from the management would make it easier for me to justify putting more resources into environmental considerations, and that would definitely increase my use of it. If it was possible to make some sort of check-list or declaration that one could use that would simplify the process, especially on the documentation.
Paper 2	There are several of us that have become certified procurement officers, and environmental considerations is a part of that education	We are no experts sitting here, and the hardest is the product-specific competence. When it comes to the directives I have some knowledge, but not full competence, no.	We used to get resources to go to courses at GRIP, but we don't anymore. A continuously focus and priority on the environment would make it more in focus at all times, and that would probably increase the use of environmental criteria as well. I think competence and knowledge is the key.	Our collection of links has been valuable. The argument that it is to expensive is irrelevant. Neither is the time aspect. It is mostly the knowledge that is important. I think there is a strong will to include environmental criteria, absolutely!
IT 1	GRIP had good courses that we attended earlier. Now most of the money set aside to promoting environmental consideration are directed towards competence and knowledge building. Group-work is good. And information on different product groups. Also getting a dialog with other procurement officers is important. We also use info from environmental organisations	Not always enough, the problem is the product specific detailed knowledge that is dedeed. It is impossible for a procurement officer to know all this.	I have enough competence on the purchasing and procurement, and the directives. I do not se why someone think the directives should make it difficult to state environmental considerations. I know where I can make demands, and I do so gladly.	

IT 2				
Textile 1	No	Now it is ok, but if the demands are supposed to get more complicated I will get a problem with evaluating them.	More absolute requirements one can set. By that I mean qualification criteria so that one can easily rule out those who do not fulfil them. That makes the process less complicated I think.	Sets of criteria would be nice, as long as they are not too complicated.
Textile 2				
Challenges				
Car 1	COST: I don't think we can end up paying a lot more before it is down prioritised again. But some considerations shall be taken no matter what. But I see that we take environmental considerations despite costs now.	OTHER CONSIDERATIONS: sometimes the user specifications are so detailed that it goes on behalf of the environment.	EVALUATION: of there is one supplier with many different products the evaluation might be hard.	FOCUS: there must be a focus on it, most definitely, and also to make all the small purchasers aware of environmental considerations and choose eco-labelled when they can.
Car 2	KNOWLEDGE: it is most important to be able to state demands that are specific enough. Everybody can state general demands saying that we want to consider the environment, but the specific demands that make a difference are the most important thing to formulate, and to know exactly what one can demand and what actually matters is hard.	FOCUS FROM management: is good, but it is important to keep in mind that it is a long way from focus from the top to actual action in each single case, so focus is not enough	USER SPECIFICATIONS: some scientific equipment have so many user specifications that it is not sensible to state any environmental demands	

Paper 1	WORK PRESSURE: work-pressure limit my ability to spend time on including environmental criteria, if I had plenty of time and nothing to do, of course I would want to incorporate environmental considerations, but that is not the way it is unfortunately.	COMPLICATED DOCUMENTATION: when one has to open up for other kinds of documentation than eco-label, it gets to complicated and extensive.	COMPLICATED DIRECTIVES: the laws and regulations are complicated to understand, and makes the process less easy.	
Paper 2	INFORMATION FROM SUPPLIERS: Sometimes lack of information from the suppliers limit our possibility to evaluate environmental demands.	KNOWLEDGE: we do not always have knowledge about the specific product or service that we are buying, which makes it hard to get proper knowledge about the procurement. We do have the technical procurement competence, but product specific knowledge limit the amount of environmental criteria	FOCUS ON OTHER THINGS: we have had other priorities in our procurements which make environmental considerations secondary.	MARKET KNOWLEDGE: it is hard to obtain knowledge about the market. You have to know what it is possible to demand, and if the market is actually able to meet your demands, and here the more environmental friendly alternatives are hard to get an overview on.
IT 1	KNOWLEDGE: it is very complex. One needs to know a lot not only about the environment, but also a lot of product specific knowledge to understand the content of your demands. The detailed product knowledge is something we as procurers do not have.	ENVIRONMENTAL KNOWLEDGE: getting objective environmental information is crucial, but difficult. Especially when it is product specific and we buy many different products.	INFORMATION FROM SUPPLIER: all suppliers say that they are best on the environment, or that their products are environmental friendly, which makes it up to us to evaluative whether this is right or not. The more documentation one have to demand, the more complex the process is.	SUPPORT FROM MANAGEMENT: is definitely important! For us that means the political leadership, which plays a huge role. When environmental considerations are taken into politics, the focus gets more and more on procurement as well.
IT 2				

Textile 1	COMPLICATED DEMANDS: some of the demands are so complicated that the evaluation gets very hard. That makes the evaluation process difficult. Also, when they are too complicated the suppliers drop of, because it gets to hard to answer the tender notices. Sometimes they are so massive that it is hard for me to evaluate whether they are relevant and in proportion to the subject matter.	KNOWLEDGE: when the demands and criteria gets so complicated that you do not understand what you are asking or why, then it gets meaningless, and most of all almost impossible to evaluate. As a procurer then, it gets to complicated. It is the product specific competence that is hard.	The challenge is to find those few but really effective criteria. Now some of the considerations advised to take are so complicated you need a doctor's degree to understand and evaluate them.	COST: if one put too much weight on environmental criteria it does easily get very expensive. We did that once and now we have gone back to no demands because last year we ended up paying so much more for the product because we gave environmental considerations so much weight.
Textile 2				
Background	Policy	Goals	Environmental responsibility	Status
Car 1	yes	no	no, we are all dedicated	consultant on procurement
Car 2	Yes	yes - we have several different goals that we report on and include in our environmental accounting. We are a green university through the grøn stat project	No, no specific person in charge	procurement director
Paper 1	No, or, some departments might have done something, but they do not follow up in practise, so I will say no	No	no	ingenieur - work a lot with procurements
Paper 2	No policy, and there is no backing from the management, but of course it is met positively if we do include environmental criteria.	No, but we are miljøfyrtårn certified, so there is a quality leader, but the level of that is mostly on fulfilling governmental demands and laws and regulations.	No	Procurement officer on operative purchases and as advisor
IT 1	No, but expect one to come. And we use environmental demands anyway, it is the law.	We have one miljøfyrtårn kommune. That helps a little bit. At least on the focus.	one is in place now	procurement director
IT 2				

Textile 1	No	No, but we do get evaluated on the environmental criteria we use, so they have to be there and they are reported on.	No	Procurement consult
Textile 2				