THE UPTAKE OF GREEN PUBLIC PROCUREMENT IN THE EU27

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List of abbreviations

AT: Austria
BE: Belgium
BG: Bulgaria
CY: Cyprus
CZ: Czech Republic
DE: Germany
DK: Denmark
EE: Estonia
ES: Spain
EU: European Union
FI: Finland
FR: France
GDP: Gross Domestic Product
GPP: Green Public Procurement
GR: Greece
HU: Hungary
IE: Ireland
IT: Italy
LCC: Life Cycle Costing
LT: Lithuania
LU: Luxembourg
LV: Latvia
MT: Malta
NL: Netherlands
PL: Poland
PT: Portugal
RO: Romania
SCP/SIP: Sustainable Consumption and Production and Sustainable Industrial Policy
SE: Sweden
SI: Slovenia
SK: Slovakia
TCO: Total Cost of Ownership
TED: Tenders Electronic Daily
UK: United Kingdom
MAIN FINDINGS

1. **The uptake of EU core Green Public Procurement (GPP) criteria in the EU27 is significant.** Our survey on the procurement of ten product/service groups shows that 26% of the last contracts signed by public authorities in the EU27 included all EU core GPP criteria. In addition, 55% of these contracts included at least one EU core GPP criterion.

2. **The uptake of EU core GPP criteria is on the increase.** The percentage of last contracts that included at least one EU core GPP criterion (55%) is much higher than the percentage of contracts signed in 2009-2010 containing some form of GPP criteria, be they EU, national, regional, local or other ones (29%). This suggests that GPP uptake is increasing.

3. **In terms of value of procurement, GPP uptake appears very significant.** Besides asking information about last contracts signed, we also collected information on a total of 236,752 contracts signed by public authorities in 2009-2010, for a value of 117.5 billion Euros. Results show that 38% of the total value procured included GPP criteria, be they EU, national, regional, local or other ones.

4. **The uptake of EU GPP criteria varies significantly across the EU27.** There are four top performing countries, in which EU core GPP criteria were applied in 40%-60% of the last contracts signed by public authorities. On the other hand, there are as many as twelve countries where this occurred in less than 20% of the last contracts.

5. **The uptake of EU core GPP criteria does not vary only across countries, but also across product groups.** For one of the ten product groups considered, over 50% of the contracts respond to EU core GPP criteria, thus meeting the target set at the EU level. Yet, four product groups still lag significantly behind with an uptake level below 20%.

6. **A few individual EU core GPP criteria are very frequently used.** Out of a total of 24 EU core GPP criteria considered, only three were used by more than 50% of the respondents in the last contracts they signed to procure the related product. Conversely, four of these criteria were used by less than 20% of the respondents.

7. **Life Cycle Costing (LCC) and Total Cost of Ownership (TCO) methods are not frequently used by public authorities.** The most commonly used criterion is still the purchasing cost (64%), followed by a mix of the latter and LCC or TCO (30%); and finally, by the predominant use of LCC/TCO (6%).

8. **Many authorities face difficulties in including GPP criteria in public procurement.** On a 1 to 5 scale, the average level of perceived difficulty among all respondents is 3.06. Independent regulators and central government respondents reported the highest levels of perceived difficulty.
THE UPTAKE OF GREEN PUBLIC PROCUREMENT IN THE EU27

EXECUTIVE SUMMARY

During the past decade, the role of governments and public institutions in the achievement of public policy goals has been thoroughly reconsidered. In particular, there is an increasing awareness of the fact that sustainability goals such as the production and consumption of environmentally friendly products and services can be promoted not only by regulation, but also by including environmental considerations in the daily activities of government as a purchaser of products and services. Since public procurement accounted for approximately 19.9% of the EU Gross Domestic Product (GDP), encouraging the use of “green” criteria in public procurement is a very important way to stimulate markets to produce and sell greener products.\(^1\) Accordingly, the Europe 2020 strategy mentions the need to encourage “wider use of green public procurement” within the context of the flagship initiative on a “Resource-efficient Europe”\(^2\). At the same time, stimulating GPP might also mean contributing significantly to smart growth by encouraging the development of environmental and climate-friendly technologies.

EU institutions have emphasized the importance of GPP since 2001, when the Commission adopted an Interpretative Communication on the “Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement” (COM(2001) 274), which was the first to explain how environmental concerns may be taken into account at each separate stage of the contract award process in public procurement. Later on, in 2004, the Council and the European Parliament adopted two directives on public procurement\(^3\) containing specific reference to the possibility of including

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\(^3\) Directive 2004/18/EC covers public works contracts, public supply contracts and public service contracts. Directive 2004/17/EC covers the procurement procedures of entities operating in the water, energy, transport and postal services sectors.
environmental considerations as specific provisions on the inclusion of environmental requirements in technical specifications (Article 23(3)b); the use of eco-labels (Article 23(6)); setting social and environmental conditions for the performance of contracts (Article 26); requiring economic operators to demonstrate they have met their environmental obligations (Article 27); requiring economic operators to demonstrate they can perform a contract in accordance with environmental management measures (Articles 48(2)f and 50); and applying award criteria based on environmental characteristics (Article 53).

Following the 2008 Communication “Public Procurement for a Better Environment”\(^4\) which accompanied the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan,\(^5\) the European Commission has developed common GPP criteria for a number of product and service groups, inviting authorities to include these criteria into their tendering procedures and thus to purchase greener products, works and services. These common criteria should also lead to a more harmonised use of green criteria in procurement procedures throughout the EU. More specifically, the Commission initially identified 10 product and service groups, and proposed a first set of “core” criteria to foster GPP uptake by procuring authorities. The ten selected product groups are: cleaning products and services; construction; electricity; catering services and food products; gardening services and products; office IT equipment; copying and graphic paper; textiles; transport; and furniture.\(^6\)

\(^4\) COM(2008)400. The Communication defines Green Public Procurement (GPP) as “a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured.” The text of the Communication is available at: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0400:FIN:EN:PDF. For further details, see also the dedicated website of the European Commission, Directorate General for Environment: http://ec.europa.eu/environment/gpp/what_en.htm


\(^6\) At the time of writing, the European Commission had expanded the initial list to 19 EU GPP criteria sets. The complete list of criteria is available at: http://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm.
For each of those product groups, the Commission has set:

- **“Core criteria”** – *i.e.*, criteria suitable for use by any contracting authority across the EU, which address key environmental impacts and are designed to be used with minimum additional verification efforts or cost increases.

- **“Comprehensive criteria”**, aimed at contracting authorities who wish to purchase the best environmental products available on the market. These criteria may require additional verification efforts or a slight increase in cost compared to other products with the same functionality.

The European Commission has set the objective to achieve a 50% uptake of “core” GPP criteria by 2010, and announced the intention to monitor this uptake. This study by the Centre for European Policy Studies (CEPS) and the College of Europe (CoE) is part of this monitoring exercise. In other words, it aims at measuring the level of uptake of EU core GPP criteria by procuring authorities in the EU27.

We obtained our results through a targeted survey of contracting authorities in the 27 Member States of the European Union. Specifically, we developed and widely disseminated a questionnaire, in which public authorities were asked whether and to what extent they make use of “any form of green” criteria when procuring the selected products and services; and how often and for which of the ten abovementioned product groups they used specific GPP criteria from the EU GPP criteria set.

The questionnaire asked respondents to give specific information on the last contract signed for each of the ten product groups, plus information on all contracts signed in the period between 2009 and 2010. We assumed that the most recent contract gives the most up-to-date information on GPP practices. Moreover, some product groups (e.g. electricity) will not be procured more than once every two years by one authority, so in these cases, the last contract also represents "all contracts" in this product group for the period 2009-2010. In order to verify if the last contract was not an outlier, the information provided on the last contract was complemented by the information given by respondents on all contracts signed in 2009 and 2010 for a given product group.

Overall, 18,517 questionnaires were sent to unique contact points of public authorities across the EU27. Our final sample consists of a total of 1,783 individual contracts, amounting to a little over 6 billion Euros in terms of procured value. The
general information collected on all contracts in 2009-2010 reported on a total of 236,752 contracts worth over 117.5 billion Euros. We received 856 (usable) responses, which corresponds to a response rate of 4%. Figure A below shows the number of individual contracts analyzed per country (in red), as well as the total number of contracts per country covered by our survey (Luxembourg is not included in our results, as we have received no response from the local authorities, despite repeated attempts).

The low response rate in some cases, such as in the Netherlands, can be explained by the recent conduct of a survey on GPP at the national level, which may have led to a certain “consultation fatigue” among respondents. Another reason for varying response rates is the difference in the degree of GPP awareness among different Member States. Finally, the response rate has been low in some countries that recently experienced severe cuts in the public sector.

In our survey of GPP uptake in the EU27, we have decided to collect information by distinguishing between type of authority and level of government, to offer a more in-depth view of the patterns of uptake among different types of procurers. Figure B provides a breakdown of our sample in terms of type of authorities. As shown in the figure, central and local government authorities are the most numerous in our

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7 We have decided to include both data from 2009 and 2010 in our survey. This is dictated by the need to build the most comprehensive picture of the uptake of GPP among public institutions in the EU27. In particular, procurers that have tendered large contracts in 2009 might not replicate the same purchase for 2010: asking for information related to 2010 only would not take these 2009 contracts into account.

8 Country codes follow the Eurostat denomination. For a complete list of country codes, see the list of abbreviations in the beginning of the study.
sample, each accounting for one third of the total number of authorities that responded to our survey.

![Figure B - Percentage of responses by type of authority](image)

Figure C below shows that, today, most public authorities in Member States include an environmental component in their procurement processes. From this standpoint, regional and local government authorities appear as the strongest performers in our sample: 67% reportedly include a “green” component in their procurement policy, against 60% of central government authorities. To the contrary, 49% of independent regulators include an environmental component in their contracts.

These results are broadly consistent with the findings of a previous study for the European Commission completed by PricewaterhouseCoopers (PWC) in 2009, which looked only at the seven Member States considered - at the time - as the most advanced in GPP uptake (i.e., Austria, Denmark, Finland, Germany, the Netherlands, Sweden, and the UK). In the PWC study, on average, 71% of authorities in these countries reported to have an environmental component in their public procurement, with local authorities outperforming central ones (percentages of 72% and 67% respectively).
In what follows, we show the overall level of GPP uptake measured in different ways. The figures reported can be considered as our “answer” to the main research and policy question underpinning the present study: namely, whether the level of EU GPP uptake has reached the target set by the European Commission in 2008 – that 50% of procurement for the selected ten product/service groups comply with the EU “core” GPP criteria by 2010. Overall, our conclusion is that public authorities in the EU 27 have gone a long way towards improving the “greenness” of their public procurement practice. However, for many product and service groups, considerable improvements are still needed to reach the 50% target.
**FINDING #1**

*The Uptake of EU core GPP criteria in the EU27 is significant.*

An individual contract is considered “green” by our study only if it includes all the surveyed EU “core” green criteria. According to the information provided by the respondents on the last contract signed, 26% of the total number of these contracts is “green”. Although significant, such level of uptake is well below the 50% uptake target. However, considering the difficulty of including all “core” green criteria for a product/service group, a 26% uptake should be seen as a conservative estimate and a lower bound for the overall level of EU GPP uptake. Moreover, 55% of the last contracts included at least one of the surveyed EU core criteria.

**FINDING #2**

*The uptake of EU core GPP criteria is on the increase.*

The percentage of last contracts that included at least one EU core GPP criterion (55%) is much higher than the percentage of contracts signed in 2009-2010 that contained some form of GPP criteria, be they EU, national, regional, local or other ones (29%). This suggests that GPP uptake is increasing.

**FINDING #3**

*In terms of value of procurement, GPP uptake appears very significant.*

Based on the information provided by respondents on all contracts signed in 2009-2010, 38% of the total value procured included some form of GPP criteria. This figure further confirms the significant level of uptake reported in last contracts (i.e., 26%). These results are based on the analysis of the self-reporting by public authorities on 236,752 contracts for an overall value of approximately 117.5 billion Euros. Instead, the up-take of EU GPP criteria, by monetary value, in the last contracts signed for each product group is 19%. However, as explained in the main report (Section 2), this figure does not constitute an accurate estimate of the actual up-take level as it may include outliers that do not necessarily represent the overall procurement trend of the responding public authority.
FINDING #4

The uptake of EU GPP criteria varies significantly across the EU27

Figure D shows the overall level of EU GPP uptake for all ten product/service groups in the EU27. The different shades of green in the figure portray a very fragmented picture of the EU27, with four top performers (Belgium, Denmark, the Netherlands, and Sweden), followed by a second group of countries reporting a level of uptake between 20% and 40% for the selected 10 product and service groups. It must however be borne in mind that for some countries, due to the low response rate, these results must be read with caution.

Overall, the level of EU GPP uptake in the EU27 appears lower than the 50% target set by the European Commission in 2008. As many as twelve countries – i.e. Portugal, Ireland, Poland, the Czech Republic, Finland, Slovenia, Hungary, Romania, Bulgaria, Greece, Latvia and Estonia – feature a level of EU GPP uptake that is below 20%. As mentioned, Luxembourg (in grey in the figure) could not be included in our analysis due to the fact that we received no responses to our survey.

Figure E instead shows the total value of procurement including GPP criteria for the ten product/service groups in all contracts signed in 2009 and 2010. In total, 7 countries have a level of uptake of 50% or more. The top performer and the only country with an uptake above 80% is Finland, followed by 4 countries (the Netherlands, Latvia, Hungary, and Lithuania) that have an uptake between 60% and 80%. Italy, Austria, Belgium, and Romania display an uptake between 40% and 60%, with the former two reaching a level equal to or higher than 50%. Finally, 6 countries perform between 20% and 40% (Slovenia, Denmark, Sweden, Germany, Spain and the Czech Republic) followed by 11 countries with a level of uptake below 20% (Bulgaria, Cyprus, Poland, Greece, Slovakia, France, Estonia, Malta, the United Kingdom, Ireland and Portugal).

There are several reasons for this fragmentation, including the fact that certain countries have adopted National Action Plans several years ago and feature a more

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9 As mentioned, the level of uptake refers to the percentage of individual contracts that included all core green criteria set at the EU level. It is worth stressing that some countries and public authorities are using their own set of green procurement criteria. These are often very similar to those established at the EU level and described above, while in other instances the overlap is only partial. This is why measuring the actual uptake of the EU GPP criteria remains a challenging exercise, as already shown in previous studies on the subject (Adelphi 2011; PwC 2009).
complete set of training and dissemination tools to raise the awareness of the importance of GPP. As regards the ranking of countries with respect to their GPP uptake performance, these results are broadly in line with the PWC and Adelphi studies, with some exceptions.

Figure D – Uptake of EU GPP in the EU27 (share of last contracts – by number)*

*Luxembourg excluded due to unavailability of data.
**Finding #5**

*The uptake of EU core GPP criteria does not vary only across countries, but also across product groups.*

The current levels of EU GPP uptake also differ when broken down by product group. In figure F below, the red bar shows the extent to which public authorities have included “any form of green” criteria (regardless of compliance with EU core GPP criteria); the light green bar shows the percentage of contracts that included “at least one EU core GPP criterion”; finally, the dark green bar displays the percentage of contracts that complied with all EU core GPP criteria. For 8 out of 10 product groups, responses indicate that half of the contracts include some form of green criteria. It is worth specifying that this question in our survey is of a more subjective nature, because the definition of "green" was left to the respondent.
Conversely, questions on the application of EU core GPP criteria for a product/service group implied the provision of specific data (e.g., if they included requirements on energy efficiency) by respondents\textsuperscript{10}. In this case, only one product group (transport) meets the 50% target set at the EU level. Conversely, four product groups (furniture, textiles, food products and catering services, and construction) significantly lag behind with a level of uptake below 20%.

\textsuperscript{10} This is why in the case of Construction the uptake of at least one EU core GPP criterion appears higher than the reported use of any (unspecified) form of green criteria. In other words, sometimes administrations may be “greener” than they think.
Figure F – “Green” contracts by number of contracts

<table>
<thead>
<tr>
<th>Category</th>
<th>Some form of &quot;green&quot;</th>
<th>All Core Criteria</th>
<th>At Least 1 Core Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>54%</td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td>Furniture</td>
<td>14%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>67%</td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td>Textiles</td>
<td>14%</td>
<td>47%</td>
<td></td>
</tr>
<tr>
<td>Copying and Graphic Paper</td>
<td>30%</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>Office IT Equipment</td>
<td>48%</td>
<td>72%</td>
<td></td>
</tr>
<tr>
<td>Gardening Products and Services</td>
<td>60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Products and Catering Services</td>
<td>12%</td>
<td>48%</td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td>23%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>3%</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>Cleaning Services and Products</td>
<td>25%</td>
<td>55%</td>
<td></td>
</tr>
</tbody>
</table>

*No data available on the inclusion of EU core GPP criteria for Gardening Products and Services*
Finding #6
A few individual EU core GPP criteria are very frequently used

Figure G displays the reported level of uptake for the individual EU core GPP criteria used in our survey for all product/service groups, with the exception of Gardening Products and Services. As shown in the figure, only three out of the 24 EU core GPP criteria included in the survey were reportedly used by more than 50% of the respondents: double printing and energy performance for office IT equipment, and the criterion on CO2 emissions for transport. The high score for energy performance of IT equipment surely also stems from the fact that, under the Energy Star regulation, central governments have the obligation to buy energy efficient equipment.

Conversely, some of the surveyed EU core GPP criteria are seldom employed by public authorities when procuring the products or services for which such criteria were conceived.
FIGURE G– UPTAKE OF INDIVIDUAL EU CORE GPP CRITERIA FOR 9 PRODUCT GROUPS*

- Office IT- Double printing: 69%
- Office IT- Energy performance: 65%
- Transport- CO2 emissions: 60%
- Cleaning- Max level of harmful substances: 48%
- Paper- >75% recovered paper fibres or virgin fibre: 45%
- Paper- Elementary or totally Chlorine Free: 40%
- Construction- Waste management: 40%
- Upgradeability or replaceability of components: 39%
- Cleaning- Environmentally-friendly packaging: 38%
- Food- Share of organic sources: 34%
- Textiles- Max level of harmful substances: 34%
- Transport- Other pollutants: 33%
- Construction- Energy efficiency: 32%
- Construction- Environment-friendly materials: 31%
- Furniture- Packaging materials: 30%
- Furniture- Max level of harmful substances: 30%
- Furniture- Durability and/or reparability: 28%
- Food- Environment-friendly packaging: 28%
- Textiles- Organic and/or recycled fibres: 23%
- Furniture- Legally sourced timber: 21%
- Construction- Water saving installations: 19%
- Textiles- Use of certain pesticides: 17%
- Construction- Experience of the architect: 15%
- Transport- Noise emissions of vehicles: 11%

*No data available on EU core GPP criteria for Gardening Products and Services.
We also asked respondents to our survey to report on the methods that are more commonly used to evaluate contracts. These included life cycle costing (LCC) and Total Cost of Ownership (TCO)\textsuperscript{11}, a mix of LCC, TCO and purchasing costs, and mostly evaluation on the basis of the purchasing cost. Figure H below illustrates the distribution of award criteria per type of authority in our sample (a breakdown per country is provided in Annex C). On average, the most commonly used criterion is still purchasing costs (64%), followed by the mixed option (30%). Finally, decisions are rarely based predominantly on LCC/TCO (6%).

This order does not change when results are broken down per type of authority. Specifically,

- Purchasing cost – the most widespread criterion - is used by 70% of independent regulators, 66% of regional governments, 63% of local governments and 62% of central governments.

- A mix of LCC/TCO and purchasing costs (red bars in the figure) is used by 35% of “other semi-public authorities”, and less often by – in decreasing order – local government authorities (32%), regional governments (31%), central government procurers (29%), and independent regulatory authorities (24%).

- Finally, LCC/TCO is predominantly used as an award criterion by 13% of “other semi-public authorities”, by 9% of responding central government institutions and by 6% or less of other types of authorities.

These results are broadly in line with those obtained by PWC (2009), based on contracts signed between 2006 and 2007. The PWC study found that in seven of the leading European countries on EU GPP, LCC was regularly used only by 13% of the respondents, while 45% of the respondents reported using “sometimes

\textsuperscript{11} Life Cycle Costing (LCC) is a technique used to estimate the total costs that are linked with a purchase. It takes into account not only the costs of buying a product, but also its running costs (energy, maintenance) and the disposal of it. This is often also referred to as Total Cost of Ownership (TCO). LCC can also take into account environmental externalities ("Whole LCC"). A more detailed definition of LCC and related information can be found at: http://ec.europa.eu/environment/gpp/pdf/toolkit/module1_factsheet_lcc.pdf.
evaluation on LCC, sometimes evaluation on purchasing costs”, and 41% only used purchasing costs.

**Figure H – Use of LCC, TCO and Purchasing Cost in Evaluating Tenders**

Table A below displays the top ten member states evaluating tenders according to purchasing cost and LCC/TCO, respectively. In some countries, like Portugal and Romania, the use of LCC or TCO is still very limited. Ireland is the country where LCC/TCO is most widespread: however, even there, only 25% of respondents reported that they mostly make use of this evaluation criterion.
Our survey also asked authorities to report on the perceived level of difficulty of including “green” criteria in contracts. We used a five points scale ranging from 1= very easy to 5= very difficult. The average level of perceived difficulty among all respondents is 3.06. Independent regulators and central government respondents reported the highest levels of perceived difficulty with 3.21 and 3.16 respectively. For local governments, the average perceived level of difficulty was 3.09, while regional governoerns reported an average level of perceived difficulty of 2.84 and other semi-public authorities of 2.50. 17% of the respondents reported that they found the process reatllveley easy (with scores ranging between 1 and 2), 44% reported a perceived difficulty of 3 out of 5, and the remaining 39% found including green criteria in public procurement to be relativeley difficult (with scores ranging between 4 and 5). A complete breakdown of the average level of perceived difficulty per country is provided in Annex C.
Figure I – Perceived difficulty of including green criteria in procurement

- Total: 3.06
- Other (semi) public authorities and organisations: 2.50
- Independent Regulator (e.g. Telecommunications, water, energy): 3.21
- Local government (e.g. municipalities): 3.09
- Regional government (e.g. county, region, province): 2.84
- Central government: 3.16
THE UPTAKE OF GREEN PUBLIC PROCUREMENT IN THE EU27

INTRODUCTION

Over the past decade, EU institutions have placed growing emphasis on the need to ensure that public administrations contribute to the achievement of environmental policy goals. In particular, a key document for Green Public Procurement policies in the EU is the 2001 EC Interpretative Communication on the “Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement”,\(^1\) which clarified how Community law offered numerous possibilities to public purchasers wishing to integrate environmental considerations into public procurement procedures. Later, the Communication was followed by the 6th Environmental Action Plan (in 2002)\(^2\) and by the Communication on Integrated Product Policy (2003)\(^3\) that present green public procurement as a central tool to create the appropriate economic and legal framework for continuous environmental improvement. In 2004, the new legal framework for Public Procurement\(^4\) explicitly mentioned the possibility to include green criteria in procurement processes. In the same year, the “Buying Green!” Handbook\(^5\) was published in order to provide procurers with specific guidance on GPP. Later, the Renewed EU Sustainable Development Strategy (2006) and, in 2008, the Sustainable Consumption and Production and

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Sustainable Industrial Policy (SCP/SIP) Action Plan\textsuperscript{17} and the Communication on “Public procurement for a better environment”\textsuperscript{18} completed the framework. Under the SCP/SIP Action Plan, the European Commission undertook to further strengthen GPP; with the 2008 Communication, the Commission provided further guidance on how to reduce the environmental impact caused by public sector consumption and on how to use GPP to stimulate innovation in environmental technologies, products and services. At EU level, the European Commission also set an indicative target that, by 2010, 50\% of all public tendering procedures should be green, where “green” means compliant with endorsed common core EU GPP criteria\textsuperscript{19}. This approach was later supported and endorsed by the Competitiveness Council on 25-26 September 2008 and by the Environment Council in 2008.\textsuperscript{20} The present study has been commissioned in order to monitor the 50\% GPP targets.

The large portion of EU GDP accounted for by public procurement (estimated at 19.9\% for 2009) indicates that public authorities can significantly affect market demand with their purchasing decisions. Against this background, GPP is expected to contribute to the achievement of the goals set by the EU 2020 strategy in terms of sustainable and smart growth, especially by encouraging the development of climate-friendly technologies\textsuperscript{21}. The adoption of the EU 2020 Strategy is therefore likely to be coupled with an even stronger attention for the promotion of GPP

\textsuperscript{17} COM (2008) 397. The Action Plan contains a dedicated section on how to promote green public procurement through voluntary measures and announces the Communication issued later the same year. For further details, see: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0397:FIN:EN:PDF


\textsuperscript{19} The Commission was officially entrusted with a number of tasks, including (i) setting common GPP criteria; (ii) encouraging publication of information on life-cycle costing (LCC) of products; (iii) increasing certainty about legal possibilities to include environmental criteria in tender documents; (iv) establishing support for the promotion and implementation of GPP through a political target linked to indicators and monitoring.


\textsuperscript{21} For further details, see: http://ec.europa.eu/europe2020/index_en.htm
among public administrations, and especially within the context of the flagship initiative on “Resource Efficient Europe”.\(^{22}\)

More in detail, in order to promote the uptake of GPP in the EU, the European Commission developed common GPP criteria for 19 product and service groups (as of February 2012),\(^{23}\) inviting authorities to include these criteria into their tendering procedures so as to purchase greener products, works and services. These common criteria should also lead to a more harmonised use of procurement criteria throughout the EU, thus positively contributing to the consolidation of the EU Internal Market.

Initially, the European Commission had identified 10 product and service groups, and proposed a first set of criteria for GPP uptake in 2008. These first 10 product groups, which are also those covered by the present study, are:

- Cleaning products and services;
- Construction;
- Electricity;
- Catering and food;
- Gardening;
- Office IT equipment;
- Copying and graphic paper;
- Textiles;
- Transport;
- Furniture.

For each of those groups, this study monitors compliance with the “core criteria” set by the Commission – i.e., criteria suitable for use by any contracting authority across the EU. Core criteria address key environmental impacts and are designed

\(^{22}\) For additional information on this flagship initiative, see the dedicated website at: http://ec.europa.eu/resource-efficient-europe/. For specific details on concrete actions in this areas and reference to example on procurement practice, such as the case of the Eco-Buy initiative of the City of Vienna, see: http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/11/43&format=HTML&aged=0&language=EN&guiLanguage=en

\(^{23}\) For further details, and the updated list of criteria see: http://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm. As will be explained further on, the initial list of product/service groups covered 10 categories and was then expanded.
to be used with minimum additional verification efforts or cost increases.\textsuperscript{24} They differ for each of the products and services identified, and are backed by a technical report for each product group (see Annex F to this report for the list of core criteria for each product group). Since some Member States and public authorities are using different GPP criteria from the ones provided by the Commission, the criteria were formulated in more general terms so as to take into account green procurement practices which are similar, but not exactly the same as the EU criteria.

This report contains an analysis of the level of uptake of a selection of EU core GPP criteria, as they were available in 2010 (some have been updated in 2012, but all the data provided in this study refer to the 2010 version of each criterion). As will be explained in greater detail in the methodological section below, we have decided to limit our analysis to a subset of the EU core GPP criteria for each product/service group. This selection was agreed with the European Commission and is primarily intended to strike a balance between the goal of providing an accurate picture of the uptake of EU core criteria for each product/service group, and the need to obtain a statistically meaningful number of responses to our questionnaire. Surveying all the existing core criteria for each product group would have significantly reduced the expected response rate to the survey, thus undermining the validity of our findings.

\section{1.1 Purpose and structure of the report}

As already announced in the Communication “Public procurement for a better environment”, the European Commission must regularly monitor GPP uptake. The Communication also clarifies that since EU “core” GPP criteria are used as a basis for target-setting and benchmarking, monitoring must take into account compliance with EU “core” GPP criteria.

Partially similar monitoring exercises have already been done by two studies in the past few years\textsuperscript{25}. The present study provides information on GPP uptake in the

\textsuperscript{24} Conversely, a second set of criteria, the so-called “comprehensive criteria” are for authorities who wish to purchase the best environmental products available on the market. These criteria may require additional verification efforts or a slight increase in cost compared to other products with the same functionality.

\textsuperscript{25} Adelphi et al. (2011), “Strategic Use of Public Procurement in Europe”, final Report to the European Commission, MARKT/2010/02/ C; PricewaterhouseCoopers, Significant and Ecofys
EU27, with specific reference to the target set at EU level, that by 2010 50% of all public procurement procedures are compliant with endorsed common core EU GPP criteria. As mentioned, our analysis covers the first ten product and service groups selected at the EU level, and is focused in particular on the so-called “core” criteria identified by the European Commission. For some product groups, comprehensive criteria of special interest have been surveyed as well. The inclusion of these criteria however did not influence the overall answer on the GPP uptake in the EU27.

Section 2 below explains in detail the methodology we have followed in order to complete the analysis, as well as the size of the sample of authorities and public contracts we were able to survey. Section 3 reports our main findings on the uptake of GPP throughout the EU27 in general terms. Finally, concluding remarks and policy suggestions are provided in Section 4.

This study also features six annexes. Annex A includes the comparison of our findings with those of previous studies carried out for the European Commission. Annex B describes the current level of EU GPP uptake in the EU27 by reporting the responses provided by public authorities on the last contracts and all contracts they signed in 2009 and 2010 for each of the ten product/service groups under examination. Annex C contains detailed country fiches, where results per country are shown and briefly discussed. Where relevant, we compare our findings with those of the EU level studies (Annex A) and four studies performed at national level. Annex D provides bibliographic references; Annex E contains the original questionnaire we used for our survey (only in the English version, although the questionnaire was translated in all the official languages of the EU for the survey). Finally, Annex F describes the core criteria selected at the EU level for the 10 product/service groups that are the subject of this study.

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26 The studies were performed in Italy, the Netherlands, the Slovak Republic, and Spain. For further details, see Annex C.
2 METHODOLOGY

This Section describes the methodological approach that was chosen, in agreement with the European Commission, to appraise the level of GPP uptake in the EU27 for the already mentioned ten product and service groups. In order to secure a greater level of detail in our analysis, we have relied on the support of 27 national public procurement experts selected by the College of Europe. In addition to collecting contact information and translating questionnaires in their respective language, national experts also conducted personal interviews with public authorities during the questionnaire design process for design feedback, and acted as contact persons for their own countries to ease the process of data collection. Besides desk research and a review of the recent literature, this study essentially draws on the findings of a comprehensive data collection exercise based on an online survey that was submitted to public authorities at different levels of government in each EU Member State. For the survey, we contacted 18,517 authorities out of an estimated total of at least 167,000, and retrieved 856 responses with detailed information on 1,783 “last contracts” signed, as well as less detailed information on a total of 236,752 contracts signed between 2009 and 2010.

In what follows, we illustrate in greater detail our approach for designing and administering the questionnaire used for the data collection. In particular, Section 2.1 describes the questionnaire; while Section 2.2 explains how we addressed the problem of building a representative sample.

2.1 The questionnaire used

A questionnaire was designed in order to collect data on the procurement behaviors of public authorities across the EU27 (see Annex E for the original text of the questionnaire in the English language). The questionnaire was translated in all the national languages of the EU27 and disseminated both in paper and online/HTML format to facilitate data collection and tailor the survey to the respondents’ preferences. The online questionnaires were promoted on the European
Commission web page as well as on the web sites of some public authorities and promoted by procurement networks\textsuperscript{27}.

The questionnaire was structured as follows:

- A general section contained questions on the respondent’s role in the public sector, level of government, estimated level of GPP uptake, etc.

- Another section focused on each of the 10 product groups. In this case, two separate sets of questions were directed at the respondents:
  - The first set of questions concerned the last contract that a given procurement authority signed in the period 2009-2010 for the product group at hand.
  - Then, respondents were asked to provide “general information” on their total procurement in the 2009-2010 timeframe for the product group at hand.

In the remainder of the text, when reporting the results from the set of questions on the last contracts, we will refer to such contracts as “individual contracts” in order to differentiate them from the contracts reported under the “general information” part.

Overall, 18,517 questionnaires were sent to unique contact points of public authorities across the EU\textsuperscript{27}. The contact information database was constructed through the efforts of the national experts as well as through information available from the Tenders Electronic Daily (TED) database\textsuperscript{28}. The contact information gathered from the TED database was collected only from those tender announcements that included the 10 product groups filtered with respect to their CPV\textsuperscript{29} codes. By doing this we tried to ensure that the questionnaire was sent to public authorities that have procured, in 2009/2010, at least one of the ten

\textsuperscript{27} For further details, see: http://ec.europa.eu/environment/gpp/survey2011_en.htm.
\textsuperscript{28} TED is the online version of the ‘Supplement to the Official Journal of the European Union’, dedicated to European public procurement. Information about every procurement document is published in the 23 official EU languages. All notices from the European Union’s institutions are published in full in these languages. http://ted.europa.eu/TED/main/HomePage.do
\textsuperscript{29} Regulation 2195/2002 on the Common Procurement Vocabulary (CPV) lists the “supplies, works or services forming the subject of the contract” and provides as well correspondence tables of the CPV with CPA 1996 and NACE Rev.1. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002R2195:en:NOT
product/service groups that form the subject of this study. The survey was carried out between 12 September and 28 October 2011 for a duration of 7 weeks.

2.2 Accuracy and representativeness

Our overarching goal in this study was to assess whether the current GPP uptake in the public authorities of the EU27 is reaching the objective set by the European Commission’s Communication “Public procurement for a better environment” – i.e., that, by 2010, 50% of all public tendering procedures should be green. In order to make statistically valid statements from the data collected, we had to ensure that (i) our results are as accurate as possible; and (ii) the sample of authorities contacted is statistically representative. Below, we discuss both concepts.

2.2.1 Accuracy: balancing the level of detail with the response rate

A number of steps were taken in order to avoid sampling errors and to obtain a statistically significant data set that would allow us to make statistical inferences. First, in order to avoid the risk of a low response rate stemming from the content of the questionnaire we have discussed the questionnaire thoroughly with the European Commission and submitted a draft of the questionnaire for consultation to the informal GPP Advisory Group coordinated by the European Commission. Second, we complemented our analysis by including targeted consultations of experts in a number of Member States. Moreover, the survey questionnaires were translated into the different native languages of respondents to reach a higher number of local authorities and make it easier for them to respond.

In terms of accuracy, our questionnaire goes far beyond what was done in previous monitoring exercises. As a matter of fact, ours is the first survey in which information is collected for the 27 Member States of the European Union, and not based only on information related to the last contract signed by responding authorities. This is a very important achievement: for example, the previous report related to GPP uptake in 2006-2007 (PWC, 2009) only looked at seven Member States (the top performing ones, or “green-7”), and only gathered information on the last contract signed. The latter issue can create concerns, as responding authorities might have an incentive to report the “last green contract”, rather than the “last contract” only. This could lead to over-stating GPP uptake, if the results based on the last contract are generalized as results for the whole practice of a given authority. We would thus not expect that “false positives” (cases of authorities considered as “green”, which in fact do not always use green criteria)
and “false negatives” (cases in which the last contract was not green, but the authority indeed uses green criteria) compensate each other in the results of such a survey. Rather, we would expect “false positives” to be more numerous, exacerbating the problem of the selection bias that already exists (though to a much lesser extent) due to the fact that authorities that decide to respond to the questionnaire might on average be more likely to be “green” than non-responding ones.

In addition, our results allow for tracking progress on GPP uptake, in line with the overarching goal of the monitoring exercise. More specifically, we can compare our detailed results for 1,783 “last contracts” with slightly less detailed results on 236,752 contracts signed by more than 800 authorities during the period 2009-2010. As shown in our main findings and throughout the text, we can indeed show – based on these data sources – that several countries exhibit signs of progress in the level of GPP uptake in the past two years.

Finally, the level of detail of our survey has also resulted in a slightly lower response rate than what obtained by other surveys in this field. Put differently, we have tried to strike a different balance between accuracy and representativeness, and we believe that, overall, the result is robust. Section 2.2.2 below contains our assessment of the precision of the individual results obtained per Member State.

2.2.2 Representativeness of the sample

Assessing the representativeness of a given sample can be done from both an ex ante and an ex post perspective. From an ex ante perspective, one can estimate the number of responses needed (so-called estimated “net sample size”) out of the total number of questionnaires sent (so-called “gross sample size”), which in turn is a fraction of the total population. Once the survey has been completed, adopting an

\[ \text{precision level} = \frac{z^2 \times p \times (1-p)}{ss^2} \]

where the sample size is measured as

\[ ss = \frac{n}{\sqrt{(1 + \frac{p(1-p)}{n})}} \]

30 The level of precision is calculated as follows: precision level = \( \frac{z^2 \times p \times (1-p)}{ss^2} \), where the sample size is measured as \( ss = \frac{n}{\sqrt{(1 + \frac{p(1-p)}{n})}} \).

ss= Sample Size (Number of responses for a country)
p= Population Size (Total number of contacts for a country)
z= 1.65 (for 90% confidence from the Cumulative Normal Probability Table)
p= 50% (target level of up-take)
**ex post** perspective amounts to asking whether the number of responses obtained is indeed sufficient to guarantee a given level of accuracy. We take this latter approach in this section, since we are describing the level of precision of a survey that has already been finalized.

In order to determine the precision of our findings, we use a technique called “estimation of the confidence interval”. In statistics, the confidence interval measures the level of precision of estimates derived by use of samples instead of the total population. For a known population and sample size, it is possible to infer with a certain level of confidence that a given result is within a confidence interval around the GPP uptake target of 50%.

The main data we have in terms of sample size are the following:

- **Gross sample size** = 18,517
- **Net sample size** = 856

Given the size of our sample, we consider it reasonable to use either a normal distribution or a hyper-geometric distribution, as was done in previous studies (PWC, 2009). Hence, Table 1 shows the level of precision of our results expressed both according to a normal distribution and a hypergeometric one. Since the difference in results is negligible, below we explain our estimates of the confidence interval based on a normal distribution.

In order to illustrate the meaning of confidence interval, we can use an example from Table 1 below. For Germany, the calculated level of precision is 6.7% with a 90% confidence. This means that if our survey result for Germany is 50% uptake, there is a 90% probability that the “real” value falls between 43.3% and 56.7%, or ±6.7% with respect to the survey result. This value makes our estimate for Germany reasonably precise; however, for most countries we have not reached the same level of precision. Table 1 shows (fourth column) that the countries for which we have reached the highest level of accuracy are Germany and Slovenia; for another 16 Member States the results are reasonably precise; but for 5 countries (Ireland, Luxembourg, Portugal, Malta and Slovakia) we could not obtain a sufficient level of precision due to the very low number of responses.

Overall, it must be recalled that the net sample size required to satisfy a certain level of accuracy is only weakly affected by the size of the gross sample. As observed also by PWC (2009: 65), “the smaller the population, the smaller the variation in sample outcome, however, the effect is limited”. As a result, as the net sample size and the gross sample size both increase, the level of accuracy also increases. This
explains why our total result for all Member States, reported at the end of Table 1, shows that our estimate for the whole EU is way more precise than estimates for every individual Member State. Should we find a 50% uptake, there would be only a 10% likelihood that the actual result does not fall between 47.2% and 52.8%.

Table 1 – Level of precision of our results, per Member State

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Contacts (gross sample size)</th>
<th>Responses obtained (per authority)</th>
<th>Precision Level Normal Distribution (90% confidence)</th>
<th>Precision Level Hypergeometric Distribution (90% confidence)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT</td>
<td>547</td>
<td>18</td>
<td>19.10%</td>
<td>19.14%</td>
</tr>
<tr>
<td>BE</td>
<td>862</td>
<td>29</td>
<td>15.10%</td>
<td>15.13%</td>
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<tr>
<td>BG</td>
<td>516</td>
<td>21</td>
<td>17.60%</td>
<td>17.65%</td>
</tr>
<tr>
<td>CY</td>
<td>155</td>
<td>46</td>
<td>10.20%</td>
<td>10.23%</td>
</tr>
<tr>
<td>CZ</td>
<td>533</td>
<td>17</td>
<td>19.70%</td>
<td>19.71%</td>
</tr>
<tr>
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<td>146</td>
<td>6.70%</td>
<td>6.66%</td>
</tr>
<tr>
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<td>13.39%</td>
</tr>
<tr>
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<td>448</td>
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<td>16.40%</td>
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<tr>
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<td>1150</td>
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<td>13%</td>
<td>13%</td>
</tr>
<tr>
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<td>16.50%</td>
<td>16.51%</td>
</tr>
<tr>
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<tr>
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<td>19.60%</td>
<td>19.56%</td>
</tr>
<tr>
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<td>10.50%</td>
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</tr>
<tr>
<td>SI</td>
<td>430</td>
<td>162</td>
<td>5.10%</td>
<td>5.12%</td>
</tr>
<tr>
<td>SK</td>
<td>159</td>
<td>6</td>
<td>33.10%</td>
<td>33.14%</td>
</tr>
<tr>
<td>UK</td>
<td>998</td>
<td>16</td>
<td>20.50%</td>
<td>20.47%</td>
</tr>
<tr>
<td>Total</td>
<td>18517</td>
<td>856</td>
<td>2.8%</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

* No responses obtained for Luxembourg
3 DISCUSSION OF EMPIRICAL FINDINGS

In this Section, we describe the main conclusions we drew from the analysis of the responses received, in particular for what concerns the general part of our questionnaire, and further present data regarding our main findings. As mentioned earlier, a detailed breakdown of our results both per product group and per country are included in Annexes B and C respectively.

3.1 The majority of respondents include an environmental component in their procurement

Figure 1 below provides a breakdown of the percentage of respondents (per type of authority) that reported whether their organisation includes “an environmental component” in its procurement policy (a detailed breakdown of these responses per country is provided in the country fiches in Annex C). The figure shows that regional and local government authorities are the strongest performers in our sample, 67% of them having a “green” component in their procurement policy, followed by central governments with 60% while independent regulators stand at only 49%.

These results are broadly consistent with the findings of a previous study for the European Commission completed by PricewaterhouseCoopers in 2009, which – as mentioned - looked only at the seven Member States considered as the most advanced countries in GPP at the time (Austria, Denmark, Finland, Germany, the Netherlands, Sweden, and the UK). In the PWC study, on average 71% of authorities in these countries reported to have an environmental component in their public procurement. In the PWC study, local authorities also had a higher percentage (72%) than central ones (67%). Further detailed comparison between the 7 analyzed countries of the PWC study and this report is provided in Annex A.

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31 For each authority type, percentages do not add up to 100% because not all the participants to the survey responded to this question.
3.2 Most authorities “often” use green requirements when procuring goods or services

Figure 2 below provides a breakdown of the frequency with which each type of authority believes that certain “green” criteria such as limits on substances harmful to human health and the environment, energy efficiency and renewable energy, waste management, and so on, are included in its procurement policy. Only a small percentage of authorities report that they always include green requirements in their procurement policy (purple bars in the figure). Other (semi)-public authorities are the best performers in this respect (13%), followed by local governments (7%). Regional governments in our sample often include an environmental criterion in their procurement policy in 51% of the cases, followed by local governments (47%) and other (semi)-public authorities (45%). Independent regulators and central governments in our sample reported that they rarely include a “green” component in 43% and 41% of the cases respectively, while the corresponding percentage among local governments and regional ones are 32% and 25% respectively. Finally, independent regulators reported they never include green requirements in 16% of the cases. The corresponding percentage for central governments is 12%. Finally, only 5% of respondents among regional authorities reported that green criteria are never included, and the corresponding percentage for local authorities is 6%.
Figure 2 – Inclusion of “green” requirements in procurement procedures*

*Not all respondents answered this question; hence the sum of percentage points per authority-type may not add up to 100%.

3.3 Perceptions regarding the difficulty of including green criteria vary across the EU27

The survey also required authorities to report on the perceived level of difficulty of including “green” criteria in contracts. We used a five points scale ranging from 1 = very easy to 5 = very difficult. The average level of perceived difficulty among all respondents is 3.06. Independent regulators and central government respondents reported the highest levels of perceived difficulty with 3.21 and 3.16 respectively. For local governments the average perceived level of difficulty was 3.09, while regional governments reported an average level of difficulty of 2.84 and other semi-public authorities of 2.50. Only 17% of the respondents find the inclusion of GPP criteria relatively easy (scores ranging between 1 and 2), while 44% reported a perceived difficulty of 3 out of 5, and the remaining 39% find it relatively difficult (with scores ranging between 4 and 5) 32.

It is worth adding that the authorities that reported not to include any environmental component in their procurement process also find it more difficult to include GPP criteria in contracts when compared to authorities reporting the existence of an environmental component in their procurement policy. Specifically, 54% of the respondents in the former group reported to find it difficult (i.e., 32% reported 4 and 22% reported 5 as perceived level of difficulty), whereas the same

32 A breakdown of the average level of perceived difficulty per country is provided in Annex C to this report
figure for the latter group is lower, at 32% (24% of respondents reported 4 and 8% reported 5 as perceived level of difficulty).

Figure 3 – Perceived level of difficulty of including green criteria in public procurement

3.4 Purchasing price remains the predominant criterion to evaluate contracts

Traditionally, public procurers have relied mostly on the offered price (i.e., on the purchasing cost for the procurer) as the key award criterion. However, the need to take into account other factors, e.g. environmental and wider sustainability concerns, has led EU and national institutions to advocate a wider use of more sophisticated methods, such as “life cycle costing” (LCC) and “total cost of ownership” (TCO). Accordingly, we have asked respondents if they still use purchasing costs as the main award criterion, or have moved to a mix of LCC/TCO and purchasing costs, or even use LCC/TCO as their standard criterion for evaluating offers.

The figure below illustrates the distribution of award criteria per type of authority in our sample. The figures are calculated over the total number of responses available for this question. On average, the most commonly used criterion is purchasing costs (64%), followed by the mixed option (30%). Finally, LCC/TCO is the least commonly used criterion (6%).
Such order remains unaltered when results are broken down per type of authority. Specifically, purchasing costs – the most widespread criterion – is used in 70% of the cases by independent regulators, in 66% of the cases by regional governments, closely followed by local governments (63%) and by central governments (62%). A mix of LCC/TCO and purchasing costs (red bars in the figure) is used by other semi-public authorities in 35% of the cases and in similar but lower proportion by other types of authorities. Finally, LCC/TCO is predominantly used as an award criterion by other semi-public authorities in 13% of the cases, by central governments in 9% of the cases included in our sample, and never goes above 6% for the other types of authorities.

It is worth noting that 36% of the respondents using purchasing costs to evaluate proposals reported to find the inclusion of green criteria in contracts to be difficult (on a scale of 5, 11% reported 4 and 25% reported 5 as perceived level of difficulty). The ratio is 33% for respondents using LCC/TCO (on a scale of 5, 17% reported 4 and 16% reported 5). Finally, 34% of the respondents using a hybrid of both evaluation methods reported to find it difficult to include green criteria in procurement (on a scale of 5, 10% reported 4 and 24% reported 5).

Figure 4 – Use of life cycle costing (LCC), total cost of ownership (TCO) and purchasing cost

These results are broadly in line with those obtained by PWC (2009), based on contracts signed between 2006 and 2007. The PWC study found that in seven of the leading European countries on GPP, LCC/TCO was regularly used only by 13%
of the respondents, while 45% of the respondents observed that they used “sometimes evaluation on LCC, sometimes evaluation on purchasing costs”, and 41% only used purchasing costs.

Table 2 below displays the top ten member states evaluating tenders according to purchasing cost and LCC/TCO. In some countries, like Portugal and Romania, the use of LCC or TCO is still very limited. Ireland is the country where LCC/TCO is most widespread: however, even there, only 25% of respondents reported that the always make use of these evaluation criteria.

<table>
<thead>
<tr>
<th>Top 10 countries purchasing mainly according to</th>
<th>Purchasing Cost</th>
<th>LCC/TCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>86%</td>
<td>IE</td>
</tr>
<tr>
<td>RO</td>
<td>82%</td>
<td>NL</td>
</tr>
<tr>
<td>PL</td>
<td>76%</td>
<td>UK</td>
</tr>
<tr>
<td>GR</td>
<td>69%</td>
<td>SK</td>
</tr>
<tr>
<td>MT</td>
<td>67%</td>
<td>SI</td>
</tr>
<tr>
<td>CZ</td>
<td>65%</td>
<td>BG</td>
</tr>
<tr>
<td>EE</td>
<td>63%</td>
<td>DK</td>
</tr>
<tr>
<td>HU</td>
<td>62%</td>
<td>CY</td>
</tr>
<tr>
<td>LV</td>
<td>61%</td>
<td>GR</td>
</tr>
<tr>
<td>BE</td>
<td>59%</td>
<td>HU</td>
</tr>
</tbody>
</table>

### 3.5 More than 50% of public authorities use at least one EU core GPP criterion when procuring

Overall, 55% of surveyed public authorities included at least one EU core GPP criterion in their last contracts. The inclusion of all surveyed EU GPP criteria instead is at 26%. More in detail, 48% of central government authorities reportedly used at least one EU core GPP criterion. However, only 17% of them used all EU core GPP criteria in their public contracts. Figures are broadly similar for independent regulators that used all EU core GPP criteria only in 14% of the cases. Instead, percentages are higher for local and regional government authorities. In this case, the inclusion of at least one EU core criterion is above 60%. Accordingly,
there seems to be room for promoting a greater uptake of green criteria especially in the public contracts awarded by central governments and independent regulators.

Figure 5 – Inclusion of EU GPP criteria in individual contracts

3.6 GPP uptake in the EU27: still a very fragmented picture

Figure 6 shows the overall level of EU GPP uptake for all ten product/service groups in the EU27. The different shades of green in the figure portray a very fragmented picture, with four top performers (Belgium, Denmark, the Netherlands, and Sweden), followed by a second group of countries reporting a level of uptake between 20% and 40% for the selected 10 product and service groups. Overall, the level of EU GPP uptake in the EU27 appears lower than the 50% target set by the European Commission in 2008. As many as twelve countries – Portugal, Ireland, Poland, the Czech Republic, Finland, Slovenia, Hungary, Romania, Bulgaria, Greece, Latvia and Estonia – feature a level of EU GPP uptake that is below 20%. Due to the low response rate in some countries, these results have to be read with caution.

Luxembourg (in grey in the figure) could not be included in our analysis due to the fact that we received no responses to our survey.
A similarly fragmented picture can be observed when looking at the monetary value of all contracts signed by respondents in 2009 and 2010, as illustrated in the figure below.
There are several possible explanations for this fragmentation in GPP uptake:

- **The existence and implementation of dedicated National Action Plans (NAPs) for GPP.** Many of the countries that lead in GPP uptake are also those where a NAP was adopted early on. For example, Denmark has introduced the first NAP back in 1994, and then revised it in 2008. The Netherlands has a dedicated NAP since 2003 (revised in 2007). To the contrary, the study by Adelphi (2011) reports that several countries did not have NAPs in place for the period covered by this study (Estonia, Latvia, Romania, Bulgaria, Greece, Hungary and Ireland).

- **The variety of approaches and targets in the EU27.** The study by Adelphi (2011) reports that some countries have set general GPP targets for all public contracts, and only in three cases these targets are aligned with the EU target of achieving a 50% uptake by 2010 (Latvia, Denmark, Portugal). In some countries, targets have been set also for specific product groups: however, across the EU27, only a subset of countries have included in their NAPs all the 10 product groups indicated by the European Commission, and many other
countries have indicated other product or service groups, sometimes partly overlapping with the EU ones. As a result, any survey exercise like the one presented in this study might capture only part of the reality. We have tried to avoid this problem by asking also for general information on green procurement, regardless of the product group: this, compared to previous studies, could potentially alleviate the problem of capturing such a variety of practices.

- **Different practices of the inclusion of green criteria.** Public authorities can include green criteria at different stages of the procurement process. Including them in technical specifications is making them a "must-have", while their inclusion in the contract award phase, as a preferential element with a certain weighing, will not necessarily lead to a green contract. Table 3 below shows data from the OECD procurement survey on this issue.

- **Governance-related problems.** Further analysis would be needed in order to find out whether monitoring and enforcement of the provisions in support of GPP are effective in laggard countries. Leading countries in GPP seem to exhibit more consistent and significant efforts in the direction of establishing credible, long-standing policies with compulsory elements, as well as “institutionalized, proactive capacity-building efforts”\(^\text{34}\). Table 3 (right part) shows that many of the less well performing European countries have a less developed set of guidance materials on green public procurement, from guidance documents to codes of practice, training tools and ad hoc advice/support.

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\(^{34}\) Adelphi (2011), at III.
Table 3 – Stages of procurement cycle where green criteria are applied and available guidance (2010)

<table>
<thead>
<tr>
<th>Country</th>
<th>In the technical specifications</th>
<th>In the award phase</th>
<th>As a contract performance clause</th>
<th>Practical guide</th>
<th>Training materials</th>
<th>Ad hoc advice</th>
<th>Code of practice</th>
</tr>
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<tr>
<td>Austria</td>
<td>●</td>
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<td>●</td>
<td>○</td>
<td>○</td>
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<tr>
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<td>○</td>
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<td>○</td>
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<tr>
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<td>●</td>
</tr>
</tbody>
</table>

Source: OECD 2010 Survey on Public Procurement

3.7 Summary of uptake of individual EU core GPP criteria

Figure 7 below shows the reported level of uptake for each of the EU core GPP criteria that were surveyed in our questionnaire for the 10 product and service groups. These findings are based on the data obtained from respondents on the last contract signed for a given product group in 2009-2010.
Figure 8 – Level of uptake of individual EU core GPP criteria for 9 product groups*

*No data available on EU core GPP criteria for Gardening Products and Services
In particular, the figure shows which EU GPP criteria were more frequently included in public procurement by our respondents across the EU27. Reportedly, only three EU GPP criteria were used by more than 50% of the respondents. These are the criteria on double printing and energy performance of office IT equipment, and requirements on CO2 emissions in transport. The criterion on the maximum level of harmful substances in cleaning products and services follows closely, with an uptake of 48%. All other criteria were adopted by less than 50% of respondents for their relative product or service group. Some of the EU GPP criteria surveyed in this study were used very infrequently by public authorities in the EU27.

3.8 Green criteria are frequently included in the technical specifications of contracts

Finally, we asked procuring authorities to report at which stage of the procurement process green criteria were included. The figure below reports the results for all product and service groups combined. The preferred stage to include green requirements in the last procured contracts of our sample is in the definition of technical specifications (38%), followed by inclusion in the definition of the subject matter of the contract (25%). The inclusion of green criteria in contract performance clauses and in the technical/professional ability of the tenderer is less widespread (15% and 14% of the cases, respectively). Green criteria were included at the award criteria stage in only 10% of the cases.

Figure 9 – Stage of inclusion of green criteria during procurement process for all product groups
4 CONCLUDING REMARKS AND POLICY SUGGESTIONS

In this Section, we conclude by summarizing the main findings of our survey, and provide an interpretation of these results.

As a first, preliminary finding, it is safe to state that under the present conditions, monitoring progress towards the achievement of the EU-stated goal of reaching 50% of EU GPP uptake in selected product/service groups is very difficult. This is due to a number of concurring factors, including most notably: (i) the wide variety of definitions adopted across the EU27 as regards what belongs to the different product groups; (ii) various classifications of when a contract can be considered to be green; and not the least, (iii) the very limited availability of information on GPP in official European and national statistics or in dedicated databases on public contracts, such as TED. To be sure, one can show that some countries do more GPP than others, yet obtaining more detailed information remains a challenging exercise.

That said, we have tried to maximize the accuracy of our results by asking respondents three sets of information: (i) on their general green procurement practices, (ii) on GPP criteria included in the last contract signed for each of the ten product groups; and (iii) on the share of green contracts signed for each product group in 2009 and 2010, both in terms of number and overall value. This information requirement made our questionnaire inevitably more burdensome for respondents, thus leading to a lower amount of replies compared to previous studies. We believe, however, that the results we are able to provide can be considered more detailed than those included in previous reports. Finally, the consistency of data obtained from different parts of the questionnaire gives robustness to our overall results.

The main findings of our analysis can be summarized as follows:

- **The uptake of EU core Green Public Procurement (GPP) criteria in the EU27 is significant.** Our survey on the procurement of ten product/service groups shows that 26% of the last contracts signed by public authorities in the EU27 for the ten product groups included all EU core GPP criteria. In addition, 55% of the last contracts signed included at least one EU core GPP criterion.

- **The uptake of EU core GPP criteria is on the increase.** The percentage of last contracts that included at least one EU core GPP criterion (55%) is much higher than the percentage of contracts signed in 2009-2010 that contained
some form of GPP criteria, be they EU, national, regional, local or other ones (29%). This suggests that GPP uptake is increasing.

- **In terms of value of procurement, GPP uptake appears very significant.** Besides asking information about last contracts signed, we also collected information on a total of 236,752 contracts signed by public authorities in 2009-2010, for a value of 117.5 billion Euros. Results show that 38% of the total value procured included GPP criteria, be they EU, national, regional, local or other ones.

- **The majority of public authorities are undertaking some form of GPP.** Today, two thirds of the regional and local government authorities, 60% of central government authorities and 49% of independent regulators in the EU27 include a “green” component in their procurement policy.

- **The uptake of EU GPP criteria varies significantly across the EU27.** There are four top performing countries, in which EU core GPP criteria were applied in 40%-60% of the last contracts signed by public authorities. On the other hand, there are as many as twelve countries where this occurred in less than 20% of the last contracts. For some countries, because of low response rates, these results must however be read with caution.

- **The uptake of EU core GPP criteria does not vary only across countries, but also across product groups.** For one of the ten product groups considered (transport), over 50% of the contracts respond to EU core GPP criteria, thus meeting the target set at the EU level. Yet, four product groups still lag significantly behind (furniture, textiles, food products and catering services, and construction) with an uptake level below 20%.

- **A few individual EU core GPP criteria are very frequently used.** Out of a total of 24 EU core GPP criteria considered, only three were used by more than 50% of the respondents in the last contracts they signed to procure the related product. Conversely, four of these criteria were used by less than 20% of the respondents.

- **Life Cycle Costing (LCC) and Total Cost of Ownership (TCO) methods are not frequently used by public authorities.** The most commonly used criterion is still the purchasing cost (64%), followed by a mix of the latter and LCC or TCO (30%); and finally, by the predominant use of LCC/TCO (6%).

- **Many authorities face difficulties in including GPP criteria in public procurement.** On a 1 to 5 scale, the average level of perceived
difficulty among all respondents is 3.06. Independent regulators and central
government respondents reported the highest levels of perceived difficulty.

In summary, the overall picture that emerges from our analysis is encouraging, but
a lot must still be done. On the one hand, we found encouraging evidence on the
rise of environmental concerns in public procurement, a development that the EU
has been advocating in the past decade.

Yet, in order to facilitate future monitoring exercises, we recommend the following
actions:

- Further harmonization of terminologies, taxonomies, targets, and overall scope
  of national GPP policies. The existing fragmentation – documented in the
  previous sections of the report as well as in Adelphi (2011) makes monitoring
  and implementation prohibitively difficult.

- A number of EU core GPP criteria are rarely used in Member States. These
criteria should be reconsidered by the European Commission, together with
stakeholders. In terms of a responsive approach to regulation, there is a need to
look at the reasons for their limited uptake, which would then lead to a
reflection on whether these criteria should be removed from the list or further
promoted.

- Awareness-raising and training initiatives should be promoted in all the EU27,
with specific reference to those countries that appear to be lagging behind in
terms of GPP uptake.

- More coordination between the European Commission and Member States
would be highly desirable to improve the response rate in monitoring exercises.
As a matter of fact, some countries conduct their own surveys of green or
sustainable procurement, and these largely overlap with exercises like the one
contained in this study. Other countries seem to feature a very loose multi-level
coordination between central government and local/regional authorities, which
makes the statistical exercise all the more difficult.

- Standardization of the questionnaire over time is also desirable, in order to
trigger “learning by doing” among responding authorities, thus reducing the
administrative burden generated by the survey. After all, it is difficult to
monitor the progress of GPP up-take if surveys are based on different questions
each time. We believe that the questionnaire used for the present study is the
most accurate used to date in this type of exercises: however, only the combined
effect of learning by doing and stronger coordination between the EU and
Member States can help achieve accurate results without losing out in terms of the response rate. In addition, it must be borne in mind that criteria are regularly revised so that the definition of what is green is also changing over time. Many of the 10 product groups included in this survey have been revised in early 2012 which lead in many cases to more stringent criteria. Moreover, the Clean Vehicles Directive (2009/33/EC)\(^{35}\) is making green procurement mandatory to a certain degree. Similar obligations could follow if the proposed Energy Efficiency Directive\(^{36}\) (COM/2011/0370 final, currently under discussion) is adopted, thus requiring a new definition of what is green in these fields.

\(^{35}\) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32009L0033:EN:NOT

\(^{36}\) http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52011PC0370:EN:NOT