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1 Executive summary

This document is the 3rd stage of the implementation of activity A1.3 of the GPP4Growth project, i.e. the activity “Analysing existing policies, plans and criteria for GPP in the key GPP4Growth sectors”. More precisely, this document is the “Comparative analysis report on existing national and regional GPP policies, plans and criteria in the GPP4Growth regions”, and its aim is to provide a comparative analysis of the dynamics, impact, enablers and constraints of GPP in the GPP4Growth partnership regions.

The document starts with a description of the context of the research, providing some key information on the GPP4Growth project, its topic, i.e. green public procurement (GPP hereafter) the members of the partnership and the need for comparative analysis. It then explains the key research questions that the research aims to answer and checks the validity of the investigation by analysing the extent to which the collected data satisfy the requirements of the quantitative KPIs that the methodology of this research had set.

The document presents the conclusions from the data analysis for each of the 3 research questions. Firstly, the document addresses research question one and presents

- a) the national regulatory frameworks for GPP in partnership territories,
- b) the regional regulatory frameworks for GPP in partnership territories,
- c) the constraints to GPP implementation
- d) d) the main factors that enable and foster GPP implementation.

Secondly, the document proceeds in the description of conclusions from research question two, i.e. conclusions related to key characteristics of regulatory frameworks, the application of green criteria in procurement process and the development of monitoring and networking mechanism to promote GPP. Thirdly, the document answers research question three by analysing suggestions to improve the aforementioned aspects of GPP implementation.

The final chapter of the document discusses the key conclusions of the analysis about

- a) the level of development and dynamics of GPP implementation in partnership territories,
- b) the key supportive mechanisms that should be developed to foster GPP implementation in each territory

- c) the necessary improvements in the administrative process of applying GPP.

The document provides detailed policy recommendations to foster GPP implementation in each of the partnership regions.

Finally, in the annexes readers will find the resources used for data collection in the research.

2 Context of the research

This investigation forms part of activity A1.3 of the project GPP4Growth. GPP4 Growth is a project of the Interreg Europe programme. This programme aims to initiate and advance interregional collaborations among EU regional and local authorities so that best practices can be identified and applied in all EU regions. The project “Green public procurement for resource efficient regional growth - GPP4Growth” intends to locate best practices for integrating green public procurement (also GPP hereafter) in regional policy and for supporting public administrations and businesses to adopt lifecycle cost approaches and improve the overall management of resources and waste. The ultimate aim of the project is to improve resource efficiency in European regions.

GPP4Growth seeks to build upon the new EU public procurement reform (2016), i.e. a regulatory framework prepared by the EU to create new opportunities for public authorities to stimulate eco-innovation, resource efficiency and green growth, by using new award criteria in calls and tenders that pay particular attention on environmental considerations. Specifically, the new rules enable public authorities to setup, publish and manage calls and contracts that require businesses / bidders to: a) comply with environmental obligations, b) integrate environmental costs in their offers based on a lifecycle cost approach, and c) deliver goods fulfilling the requirements of environmental labels, reducing at the same time administrative burden.

This is particularly important for the local /regional public authorities in order to achieve regional green growth and respond to current and future environmental and economic challenges, through the adoption of GPP. Spending 2 trillion Euros each year (19 % of the EU’s Gross Domestic Product (GDP)) on goods, supplies, services and works, Europe’s public authorities can use their purchasing power to choose environmentally friendly goods and services, including efficient electronic & electrical equipment, electricity from renewable energy resources, sustainable construction works, low emission public transport vehicles etc, promoting sustainable consumption and production patterns in their territories. GPP4Growth aims to facilitate EU regions apply the EU public procurement system via the identification and exchange of best practices for GPP.

GPP4Growth brings together 9 partners from 9 countries, involving the managing authorities & regional bodies influencing regional and national policy instruments, to stimulate eco-innovation, resource efficiency and green growth by promoting GPP. The GPP4Growth partnership consists of the following organisations:

Table 1: The GPP4Growth partnership

no	Partner	Acronym	Policy instrument addressed	Country
1	University of Patras (EL)	UPAT	Operational Programme of Western Greece 2014-2020	Greece
2	Lombardy Region (IT)	Lombardy	ERDF Regional Operational Programme Lombardy	Italy
3	Lodzkie Region (PL)	Lodzkie	Regional Operational Programme Łódź province	Poland
4	Province of Antwerp (BE)	Antwerp	Flemish Public Procurement Plan 2016-2020	Belgium
5	Ministry of Environment and Spatial Planning, Regional Government of Andalusia (ES)	Andalusia	Andalusia ERDF 2014-2020 Operational Programme	Spain
6	Zemgale Planning Region (LV)	ZPR	Operational programme "Growth and Employment"	Latvia
7	Stara Zagora Regional Economic Development Agency (BG)	SZREDA	Operational Programme "Environment" 2014-2020 (OPE)	Bulgaria
8	Department of Communications, Climate Action and Environment (IE)	DCCAE	Border, Midland and Western Regional Operational Programme 2014-2020 (BMW ROP)	Ireland
9	Malta Regional Development and Dialogue Foundation (MT)	MRDDF	OPI – Fostering a competitive and sustainable economy to meet our challenges – 2014-2020	Malta

To support public administrations and businesses to adopt lifecycle cost approaches and improve the overall management of resources & waste, GPP4Growth includes a wide range

of activities, focusing on promoting the interregional learning process and the exchange of experience among regional authorities. Project activities include:

- Analysing the needs of GPP4Growth regions in Green Public Procurement.
- Identification of successful green public procurement cases.
- Evaluation and analysis of existing policies, plans, and criteria for GPP in the key GPP4Growth sectors.
- Analysis of the factors (barriers and enablers) that influence businesses in key GPP4Growth sectors to get involved in green tenders and contracts.
- Promoting public dialogue and consultation process to build consensus and ensure the successful implementation of regional action plans, through the support and participation of key regional stakeholders.
- Fostering interregional learning and capacity building through workshops, study visits, and policy learning events.
- Development of transferable tools & resources to promote benchmarking and policy learning, and transfer knowledge and lessons learnt beyond the partnership.
- Joint development of action plans to promote the improvement of the policy instruments addressed by the project.
- Increasing awareness, promoting and disseminating the project results and knowledge beyond the partnership.

Finally, GPP4Growth will utilise all the above activities to achieve the following results:

- Over 7% increase in the number of businesses in partners' regions, integrating environmental factors and costs when producing goods and/or providing supplies, services and works.
- Increased capacity of 200 staff of public administrations to effectively implement resource efficiency policies, applying GPP.
- 10 million of Euros investments unlocked to promote new green products and services development.
- Increased knowledge awareness of over 1000 stakeholders on the influence of GPP on the adoption of sustainable consumption and production patterns by businesses.

The investigation found in this document corresponds to stage 3 of the activity A1.3 of GPP4Growth. The aim of activity A1.3 is to analyse the existing policies, plans and criteria for GPP in European countries and regions, thereby identifying and providing best policy practices for GPP to be promoted in the GPP4Growth action plans and policy briefs. Stage 3 refers to the analysis of data collected by partners during stage 2 by the University of Patras in order to compare the GPP policies they have applied and to identify the necessary elements of a successful GPP implementation policy. The document at hand is the final outcome of Stage 3, i.e. a comparative analysis report, offering an overview of the policy frameworks analysed, GPP criteria in use, monitoring procedures, bodies involved, to enable partners understand the dynamics and impact of GPP in their regions. The document will be used, alongside the outcomes of GPP4Growth activity A1.4, to offer recommendations on improving existing policies in GPP4Growth regions, such as suggestions for minimising administrative burden for businesses involved in international tenders, and creating a single market with common GPP criteria.

3 Key Definitions: Green public procurement

Green public procurement can be defined as “a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured” (European Commission, 2008). Green public procurement can have significant impact when applied by national, regional and local administrations.

The support of public administrations can be the decisive factor in initialising, supporting and advancing sustainable growth and eco-innovation due to the heavy overall impact of public procurement in the economy: in OECD countries “public procurement” accounts for approximately 17% of the GDP. This significant amount of funding means that public authorities have the capacity to procure and thereby provide an important boost to environmentally friendly products and services. In general, public authorities’ impressively important purchasing powers could potentially determine production and consumption trends and, as a result, promote sustainable growth and eco-innovation.

In addition, PricewaterhouseCoopers (2009) estimated that an average decrease of 25% CO₂ emissions could be attributed to the integration of GPP practices in 2006 and Great Britain and Denmark) for ten types of product groups (Testa et al, 2016). Since the start of the 21st century, green public procurement has been identified as a key enabler for various green projects.

GPP’s ability to stimulate industry growth is evident when considering the promotion of previously niche or restricted green markets into the mainstream. For example, the North American domestic market for green Information and Communication Technology (ICT) products, such as including computers and mobile telephones, was the result of the Federal Government decision to buy green during the early 1990s. Other examples include the markets for organic food and drink, green vehicles and sustainable timber products in Europe, which were also significantly strengthened if not generated through GPP.

Beyond the immediate effects, GPP also creates substantial externalities across both the domestic economy and international supplier chains by prioritizing sustainability

considerations in government purchasing. More precisely, by utilising GPP, public authorities can (IISD, 2012, p.8):

- Support the implementation of environmental policies on water and energy efficiency, waste management, renewable energy supply, resource efficient and cleaner production, lower greenhouse gas emissions and more.
- By ensuing scaled up and long term demand, provide an incentive for investment and innovation on sustainable products, services and works.
- Improve transparency and efficiency in procurement processes.
- Realize cost savings in the construction and operation of public assets and services
- Support the introduction of new and improved sustainable goods, services and works into the market.

4 Comparative policy analysis: methods applied and data collected

Loosely speaking, a **policy** is a set of actions taken by a public organisation to control a specific system of functions within an area, to help solve problems within it or caused by occurrences in it, or to help obtain benefits from it. As concerns regional policies, the problems and benefits generally relate to broad regional goals — for example, tradeoffs among environmental, social and economic goals. Policy actions are intended to help meet such goals. However, the implementation of policies does not impact only on the intended functions by policy makers, but also on various other domains of life within an area. Hence, policy makers need to be aware of the full range of effects each set of policies can have in a specific area. Exploring the effects of alternative policies on the full range of the outcomes of interest under a variety of scenarios, and examining tradeoffs among the policies, requires a structured analytical process that supports the policymaking process.

This analytical process is public policy analysis. Public policy analysis (Walker, 2000) is a rational, systematic approach to making policy choices in the public sector. It is a process that generates information on the consequences that have followed or would follow the adoption of various policies. It uses a variety of methods and instruments to develop this information and to present it to the parties involved in the policymaking process in a manner that will eventually help them come to an informed decision. Despite this variety however, policy analysis is firmly founded upon scientific methods. This means that:

1. Research is open and explicit.
2. The analysis is as objective as possible and empirically based.
3. The epistemological and methodological assumptions are consistent with existing knowledge.
4. The results of the analysis are verifiable and reproducible.

Policy analysis is a research process and is not meant to replace the judgment of the policymakers. Rather, the goal is to provide a better basis for the exercise of that judgment by helping to clarify the problem, evaluating existing conditions, presenting the alternatives and comparing their consequences in terms of the relevant costs and benefits. The word ‘complex’ means that the policy being examined deals with a system that includes people, social

structures, portions of nature, equipment and organizations; the system being studied contains so many variables, feedback loops and interactions that it is difficult to project the consequences of a policy change.

5 Data collected and validation of the research

To develop this comparative policy analysis, each of the project partners collected data in their own territories. Data collection consisted of external and internal desk research designed to gather data about GPP implementation from both academic and administrative secondary sources. Partners collected data to answer the following research questions:

1. Research Question 1 (RQ1): What is the state and prospects of development of green public procurement in your region and country? Which are the most important enabling and constraining factors to the further development and utilisation of green public procurement?
2. Research Question 2 (RQ2): Which are the most important strategies and policies, consisting of policy frameworks analysed, GPP criteria in use, monitoring procedures and stakeholder bodies' involvement, used to reduce the impact of constraining factors and enable the further development and utilisation of green public procurement in your region and country?
3. Research Question 3 (RQ3): How will your region/country capitalise on green public procurement as an enabler of sustainable growth, in terms of developing and/or improving the policy frameworks, GPP criteria in use, monitoring procedures and stakeholder bodies' involvement?

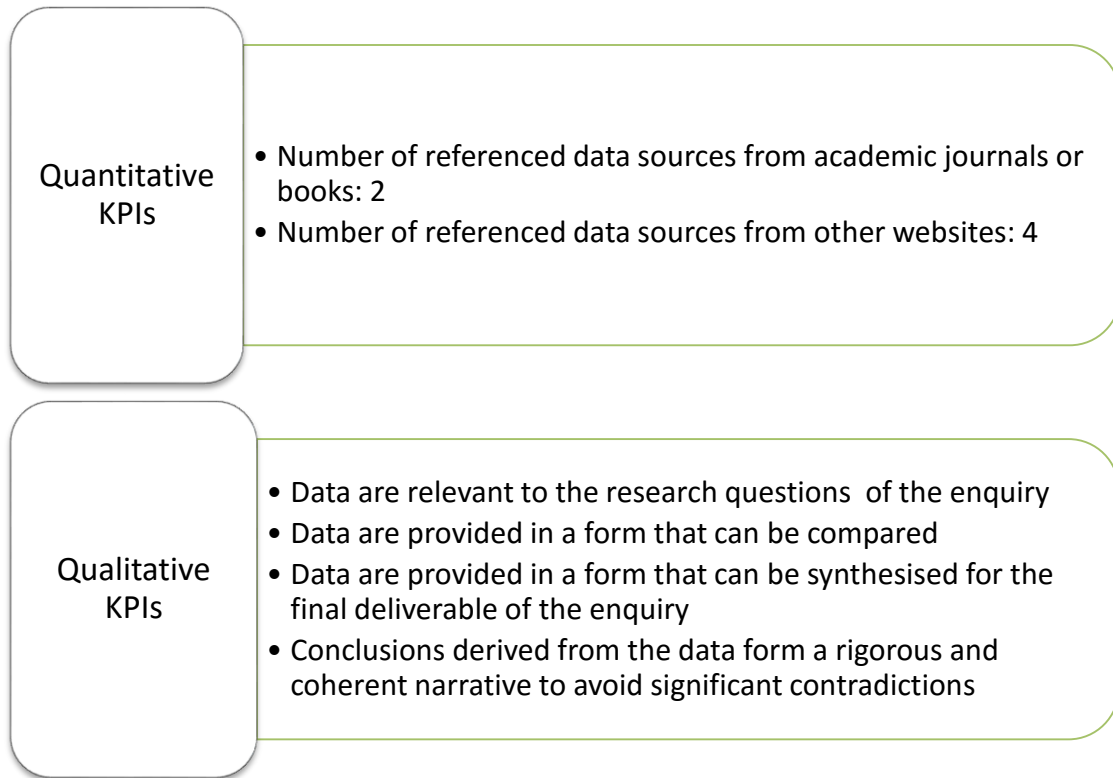
The following table summarises the number of data sources used by each partner to collect the necessary data. The sources upon which the conclusions of the following sections are based can be found in detail in the References section of this document.

Table 2: Data collection sources

Partner	Number of data sources from academic journals	Number of data sources from each partner
University of Patras (EL)	5	10
Lombardy Region (IT)	1	7
Lodzkie Region (PL)	3	6
Province of Antwerp (BE)	1	23
Ministry of Environment and Spatial Planning, Regional Government of Andalusia (ES)	2	5
Zemgale Planning Region (LV)	3	9
Stara Zagora Regional Economic Development Agency (BG)	9	2
Department of Communications, Climate Action and Environment (IE)	4	7
Malta Regional Development and Dialogue Foundation (MT)	0	6

As can be seen, the majority of partners have collected data from more sources than those required by the key performance indicators provided in the methodology, which can be seen in the following figure:

Figure 1: KPIs



Even in cases where partners did not manage to satisfy the requirement of one quantitative KPI, they compensated through providing more data sources pertaining to the other KPI. Finally, with regards to the qualitative KPIs, the analysis below shows that all KPIs are satisfied.

6 National GPP regulatory frameworks

Countries of the European Union have already begun or (in the case of Greece) are in the process of initialising the introduction of Green public procurement (GPP hereafter) in their public procurement processes. Most countries have already developed national public procurement laws that either are specifically dedicated to GPP or have dedicated entire sections in the application of green criteria in public tenders. An example of a regulatory framework specifically designed for the advancement of GPP is the *Circular of 16/05/2014* of the Belgian federal government (which followed the *Federal Action Plan for Sustainable Procurement 2009-2011* in which the Federal Government set as its aim to achieve 50% sustainable purchases by 2011), defining how Belgian Federal contracting authorities need to take into account sustainability in their daily procurement. Other examples include *the Spanish GPP Plan of the General Administration of the State and its Public Bodies* and the *Italian National Action Plan for GPP*, both put into effect in 2008.

National regulatory plans for GPP treat a number of state purchases, such as, for example in the case of Spain, the domains of construction and maintenance, transport, energy, office equipment, paper and publications, furniture, cleaning services, and the provision of event services.

Despite the application of such plans in many EU countries, the data revealed that usually, they accompany other frameworks that address the regulation of public procurement in its entirety. An excellent example of the coexistence of GPP national plans with all-encompassing public procurement plans, is the regulation of procurement processes in Poland. On the one hand, the main regulatory framework for the procurement processes of the Polish state is the *Public Procurement Law Act* (Act of 29 January 2004).

The Act includes provisions for advancing various solutions that allow for social or environmental aspects to be taken into account in the conduct of public procurement proceedings. Furthermore, it defines and describes the assessment procedures that public authorities will use to evaluate the procurement procedures. On the other hand, Poland has instituted and applied the *National Action Plan on GPP for period 2017-2020*. While the Act aims to provide the overall framework for public procurement, including GPP development,

the Plan on GPP aims to provide a number of supportive measures and tools designed to facilitate public authorities to apply GPP. These tools and measures are the following:

- In-depth study on the state of sustainable public procurement in Poland.
- Training and conferences addressed to contracting authorities, representatives of control institutions (including Regional Chambers of Audit, Supreme Audit Office) and Central Anticorruption Bureau representatives.
- Publications about sustainable public procurements.
- Examples of good practices in the application by polish contractors of environmental and social aspects in public procurement.
- Standard records for tender documentation, including social and environmental aspects.

The plan includes a number of supportive soft measures that facilitate the voluntary application of GPP on behalf of public authorities. The application of these tools and supportive procedures is not compulsory for public authorities. This is a general observation for the application of GPP in the countries of the partnership. GPP and the application of green criteria in the procurement process is not considered a compulsory process and is in general incentivised and promoted but not imposed.

However, some countries of the partnership have initialised a transition towards a more compulsory application of GPP. For example, the Italian *National Action Plan for GPP*, adopted in Italy in 2008 and revised in 2013, pointed to the voluntary application of minimum environmental criteria for 11 product groups. However, with the approval of the latest *Procurement Code (Law Decree 50 of 18 April 2016)* and the “correction” *Decree of 19 April 2017*, the adoption of the minimum environmental criteria defined by the GPP NAP became compulsory. The main reasons for this change was that the Italian government aimed to provide a further boost to the green economy, and tried to provide further stimulus and support to GPP to widen its application.

Another key characteristic of GPP in the EU is the existence of many supporting mechanisms to its implementation. These mechanisms can be either specialised public advisory institutions or even multinational/multiregional EU-funded projects designed to promote and support various aspects of the implementation of green criteria in public procurement processes.

Examples of the former are the Irish public institutions Office of Government Procurement (OGP) and the Local Government Operational Procurement Centre (LGOPC), organisations that aim to spread information about GPP amongst the relevant procurers efficiently. An example of the latter is the *GreenS Project* in Spain that aims to build the capacity of public organisations to apply GPP through training and provision of tools such as an e-learning platform.

Furthermore, in the partnership regions, GPP is not promoted only via policies designed specially for public procurement procedures. On the contrary, GPP is a key component of various policies addressing various sustainability issues. An example is Latvia's *Sustainable Development Strategy until 2030 (Latvia 2030)*, that states that: "The criteria for state and municipal procurement tendering should include energy efficiency and considerations of product life cycle analysis". Another example is the *Strategy for innovation and efficiency of the economy for years 2012-2020, Dynamic Poland*, that aims to reduce the consumption of energy and materials by the Polish economy and to introduce life cycle cost methods in the construction sector to increase its sustainability. GPP is one of the ways to change the patterns of production and consumption by the public sector, and to raise the environmental awareness of the society, especially of SMEs and businesses.

The analysis of the previous paragraphs is congruent with concluding that in the European Union, countries have acknowledged the need to regulate public procurement, and they have already developed plans for its standardisation. At the same time, with regards to GPP specifically, EU countries have so far mostly opted to apply an institutionalist-interventionist approach to its implementation, i.e. an approach that aims to aid public institutions integrate sustainability provisions voluntarily. The voluntary integration of sustainability provisions means that public administrations of regional and local levels will not treat GPP as an unwanted obligation that was imposed upon them, soon to be neglected. Instead they will own the implementation of GPP measures and will adapt them to their needs, thereby rendering them more efficient. The more efficient the implementation of GPP, the more stable and permanent it will get. The fact however, that countries such as Italy have started to move towards a more obligatory implementation of GPP, means that the voluntary implementation of GPP has not always been effective and, therefore, GPP requires greater standardisation across the public sector.

7 Regional GPP regulation

GPP regulation at a regional level is—as expected—less developed than at the national level. Despite the fact that provisions about GPP are usually present at various regional policy instruments, most partnership regions (Malta, Western Greece, Ireland, Lombardy, Zemgale, Stara Zagora) do not have specialised plans for the implementation of GPP that are designed to satisfy the local institutional and economic/industrial profile of each region. Special cases are partnership regions from Poland, Spain and Belgium. They also do have regional plans specifically dedicated to GPP development, but on the other hand they have included GPP in their regional development policies.

For example, in the case of the Lodzkie Region GPP is promoted, supported and advanced through a) *“The Development Strategy for the Lodzkie Region 2020”* which aims to utilise GPP as an instrument for assisting the introduction of an organized waste management system and the promotion of endogenous sustainable development using best practices, and b) the *“Regional Strategy of Innovation for the Lodz Region – “LORIS 2030”* which aims to improve the efficiency of innovation policy in the region and to create the conditions for innovation development in the region. However, the key policy instrument advancing GPP in Lodzkie is the Regional Operational Program for the Lodzkie Region for the years 2014 – 2020 which provides the appropriate mechanisms to strengthen the implementation of the principle of sustainable development by giving priority to development projects that advance eco-innovations & resource savings, and promote the implementation of GPP.

Similarly, in Andalusia, GPP is included in the provisions of the *Consolidated Text of the Public Sector Contracts Law (Royal Legislative Decree 3/2011, of November 14)* which regulates the contracting and procurement processes of Spanish autonomous communities (regions). In addition, GPP is to be included in the *Andalusian Law on Climate Change*, promoted by the Regional Ministry of Environment and Spatial Planning and currently being approved by the Parliament of Andalusia, that aims to contribute to the fight against climate change and move towards a low carbon economy. The new law is expected to include the criterion of the carbon footprint as a selection criterion for the procurement of products or services.

The most advanced territorial GPP policies pertain to the partner from Belgium. More precisely, the Flemish Government issued action plans on sustainable public procurement for

2009-2011 and 2012-2014 and has now included GPP in the *Flemish Public Procurement Plan*, adopted on January 29, 2016, which sets objectives on various aspects of the procurement processes (e.g. SME access, e-procurement). The starting point is the effective and efficient use of public procurement as an instrument to contribute to the realisation of policy objectives of the Flemish Government. The Flemish Government aims at 100% green purchases by 2020 within their organisation. The plan, beyond the Flemish Government, aims to strengthen the cooperation with other public actors, confirming that the impact of a public procurement policy is largest when the purchasing power of authorities is added together.

Besides engaging in dialogue with the private sector, the Flemish Government declares its desire to support local authorities in organizing more sustainable and innovative public procurement using the European initiative to establish effective coordination within and outside the organization. The implementation of the policy is coordinated by the Central Purchasing and Public Procurement Service in the Department of the Chancellery and Public Administration.

On the other hand, the development of GPP policies at local (provincial or municipal) level in Belgium, has progressed in a rather fragmented fashion. Some local authorities have drawn up policies for sustainable public procurement (eg Antwerp and Gent). The Province of Antwerp developed 28 product files with criteria for sustainable procurement, compulsory within the organisation. Many municipalities have been working step by step on specific dossiers, for example by using only recycled paper, the use of ecological cleaning products, the purchase of Fairtrade products. Finally, there is an Umbrella Association for Cities and Municipalities (VVSG) that provides a Focal Point for feedback about GPP related issues.

8 Constraining factors to GPP

Data collection revealed a number of constraining factors which are hindering the advancement of GPP implementation in the partnership regions. Infrastructural problems were identified by all partners as the most important obstacles to GPP implementation, with 7 partners (78%) pointing out that they could use additional tools, resources and mechanisms to improve their GPP procedures, and 6 partners (67%) claiming that they do not have enough personnel with the necessary skills to carry out procedures with a high degree of complexity such as GPP. An example from the former category is the region of Lombardy in Italy, where tools to monitor green tenders have not yet been put in place, whereas an example of the latter is Malta, where different types and ranks of public sector employees have different types and amount of skills with regards to GPP.

Other constraining factors that were mentioned by a small majority (56%) of partners were:

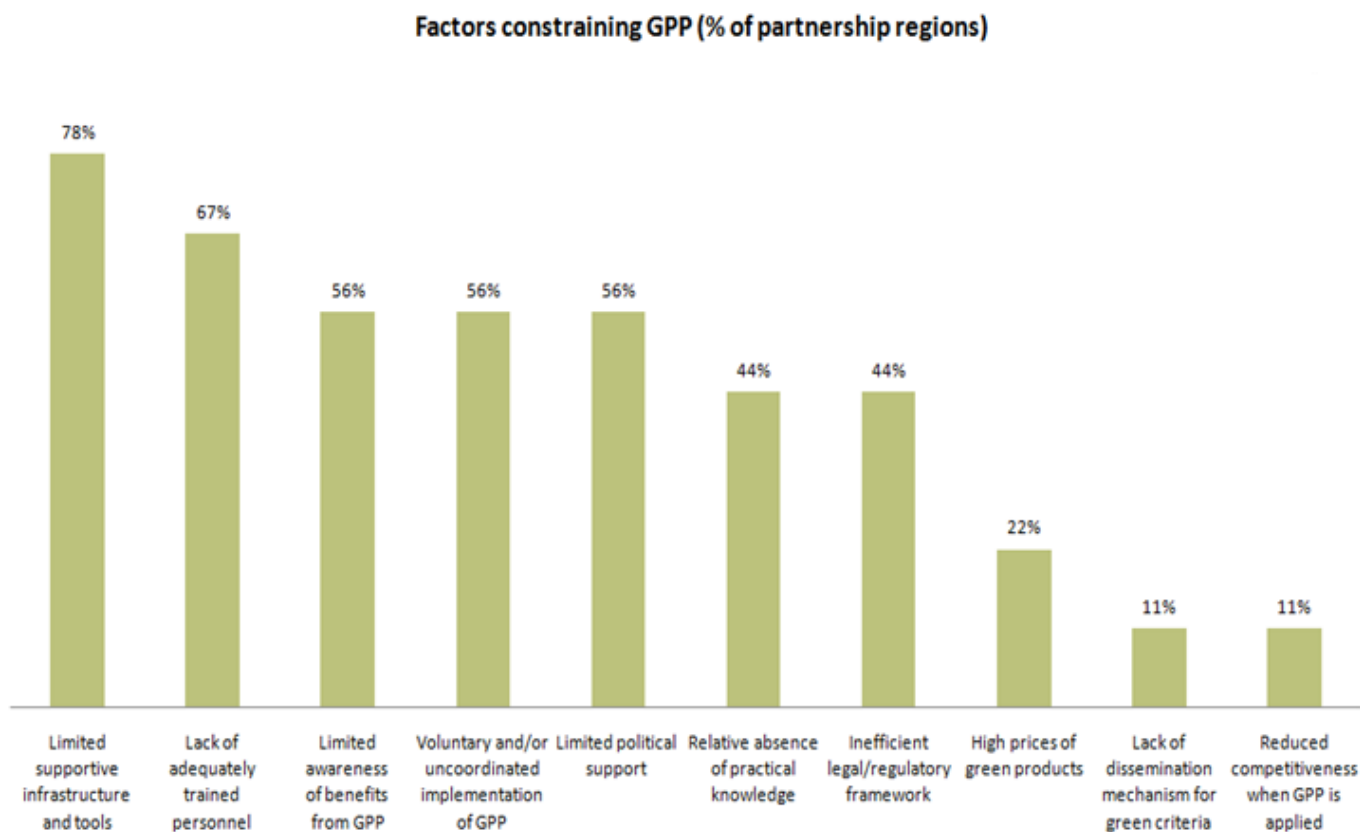
1. The lack of awareness about the benefits of applying GPP, including the persistent misperception about the 'higher cost' of green products and processes, which is derived from ignoring the lifecycle costs of various products and services.
2. Inefficient implementation of GPP due to the lack of mandatory rules for GPP and the poor coordination of public administrations during this process.
3. The limited political support to the implementation of GPP.

Finally, the following constraints were mentioned by a minority of partners:

1. The lack of practical knowledge in GPP implementation procedures (44%)
2. The absence of a specialized legal and/or regulatory framework with regards to GPP (44%).
3. The high prices of specific green products (22%).
4. The perceived negative impact of GPP in the competitiveness of the local economy (11%).
5. The lack of dissemination mechanisms to raise awareness about the importance of GPP (11%).

The following figure summarises the results of the data collection with regards to the constraining factors to GPP implementation.

Figure 2: Factors constraining GPP implementation in partnership regions



As a general comment, the fact that GPP regulation has not yet been completed in European Union regions is reflected in the analysis. More precisely, the a lack of consistency in providing supportive infrastructure and capacity building to public administrations with regards to GPP, reflects the only very recent integration of GPP regulation to national public procurement frameworks.

However, in countries where the regulation of GPP and public procurement in general has progressed at a slower pace (e.g. Latvia, Greece) there are higher number of mentions of the economic costs of green products and services as a factor limiting the advancement of GPP. This might be due to the fact that life-cycle costing methods have not been introduced (this is the case for Latvia). However, this is an indication among public sector personnel the impression still exists that greening the economy is costly and should be a secondary aim compared to achieving economic development.

9 Enablers incentivising GPP implementation

All partners provided data that revealed that enablers of GPP are those factors that help streamline its implementation. One example is the inclusion of GPP in various policy instruments addressing critical environmental issues in the partnership territories. For example, in Andalusia GPP is promoted in policies and initiatives which are not specifically aimed at GPP, but where public procurement is seen as key e.g. the “Andalusia’s Sustainable Development strategy” or the “Andalusian Environment Plan (2014-2020)”. This is important as it demonstrates that GPP should not be considered a ‘special case’ but should instead become the norm in public procurement procedures. Similar answers were given by territories that have already applied a multitude of public procurement regulations, e.g. Antwerp and Malta, where in addition to the *National Action Plan on GPP*, the latter is regulated through the *Contracts Circular No. 5021/2011 on Green Public Procurement*, and the *Contracts Circular (22/2014)* issued in December 2014 regarding the decentralisation of administrative responsibilities to all line ministries with respect to GPP.

A second enabler of GPP implementation is EU policy, consisting of the following two supporting components:

- A) EU regulation that promotes and advances the implementation of GPP in EU countries. One example is the European Commission’s circular economy (CE) package that aims to transform Europe into a more competitive resource-efficient economy in a way that is fully compatible with the jobs and growth agenda.
- B) EU-funded projects that serve as platforms for the exchange of best practices and their adaptation in the conditions of each country. Examples include the EU projects applied in Latvia, such as the “Procurement in Municipalities focusing on Energy Efficient Solutions” (PRIMES), “Green Labels Purchase, “Buy Smart”, “Buy Smart+”, and “Green public procurement bodies for innovative and sustainable institutional change”(Greens).

EU intervention is critical because it obliges partnership territories to adapt their public procurement to the principles and requirements of a common standard.

Other enablers can be described as targeted interventions designed to ease the application of GPP. These include actions such as the following:

1. Greater inclusion of life-cycle costs in public tenders
2. Increasing the awareness of environmental benefits derived from GPP.
3. Greater use of tools such as web platforms to exchange information about green products and services.
4. More efficient flow of information and knowledge about GPP and green products and services throughout the public sector utilizing capacity building courses that provide knowledge based on actual GPP cases.
5. Forming more effective administrative procedures for the implementation of GPP. Examples include developing GPP regulation with a mandatory character, increasing the transparency and impartiality of public procurement, and centralizing the monitoring and implementation procedures of GPP to a number of key responsible bodies.

10 Conclusions related to RQ2: current GPP policies

10.1 Policy frameworks (or lack thereof) promoting and regulating GPP

The absence of mandatory specialised legislation with regards to GPP in most partnership territories has increased the importance of initiatives taken by national authorities that aim to promote and advance GPP. National authorities utilise the GPP provisions found in the mostly compulsory legislation about public procurement and build upon it by issuing directions and/or forming specialised public agencies for GPP support. An example is Greece (a country where the general action plan on GPP is still under preparation), where GPP is promoted by a law (3855/2010) that sets a national inter-ministerial committee as responsible for creating and forming GPP policies. Specifically, the main responsibilities of the committee are:

1. Developing the GPP policies and form the action plans for GPP implementation.
2. Examining the adaptation of the EU green criteria or the creation of new ones if necessary.
3. Informing the stakeholders in public and private sector about the need and opportunity to provide green products and services.
4. Selecting the products' categories where green criteria will be applied.

Similar to Greece, Andalusian public authorities have issued a guide to GPP, with concrete recommendations for GPP implementation, to be used by public contracting authorities in Andalusia. Maltese authorities have instituted a GPP Office within the Office of the Prime Minister through the Ministry of Sustainable Development and Climate Change (MSDEC), which has the overall responsibility for coordinating and monitoring GPP in Malta and taking the necessary policy decisions. In general, the conclusion is that the non-mandatory or partially mandatory character of GPP implementation in partnership regions means that the dynamics of GPP implementation can be heavily influenced by the commitment and engagement of public authorities and are with the remit of their discretionary power.

10.2 Green criteria in use in GPP procedures

Partnership territories differ with regards to the levels and methods of green criteria implementation. For example, Andalusia has neither managed to develop a coherent GPP regional implementation plan nor to monitor the implementation of green criteria in the territory. As a result, it is not possible to find information on the type and frequency of green criteria utilisation in public procurement processes.

However, partners such as the Province of Antwerp in Belgium, utilise multiple sets of GPP criteria developed for specific product categories. More precisely, the GPP criteria utilized by Antwerp are the following:

1. Belgian federal agencies, do not usually list green criteria but instead refer to green criteria prepared by the EU or others (e.g. GPPtoolkit) providing good practices and examples of their use by other organisations.
2. Flemish public authorities have produced 42 product files with green criteria that address 17 product groups.
3. The Province of Antwerp has developed 28 product files, with mandatory criteria and model tender formulations. The compliance of procurers to the utilization of these green criteria is checked through internal audits in the frame of ISO14001.

Similarly to Antwerp, public authorities of Greece, Lombardy, and Malta have produced or refer to EU-prepared green criteria for specific sectors and/or products. For example, in Lombardy, the Italian GPP National action plan includes green criteria for products to be used in ICT, paper, cleaning products and services and food and catering services. Meanwhile, in Greece the Ministry of the Environment and Energy suggests the adaptation of the EU green criteria to any organization that wants to utilize them, for the following product and service groups:

- Paper for writing and for copying
- Cleaning products and services
- Office equipment
- Constructions
- Transport
- Furnishings
- Electricity

- Food and catering services
- Textile industry
- Gardening products and services

The rest of partnership territories, i.e. Ireland, Lodzkie, and Stara Zagora have followed a different method for the application of GPP criteria. Instead of developing criteria for specific categories of green products, they have opted to develop specific principles that guide public tenders, so as to ensure the procurement of green products and services. For example, in Poland, the criteria for awarding products or services include, beyond the price, the following:

1. Quality, including technical parameters, esthetic and functional characteristic
2. Environmental impact, including energy efficiency of the contract subject
3. Innovative character of procured products and services
4. Organization, professional qualification and experience of persons assigned to perform the contract, if they can have a significant impact on the quality of contract performance.
5. After-sales service and technical support, delivery terms such as delivery date, delivery method, delivery time or execution period.

Moreover, in Ireland, public authorities set out 'core' and 'comprehensive' criteria that can be implemented in the tendering process, thereby developing an improved version of the application of GPP principles in public tenders. The guidance sets out clear procedures for using green criteria across eight different product groups. This can also be supplemented where appropriate/possible with criteria available from the EU GPP category websites. Finally, in Bulgaria, green criteria can be included in the following aspects of the public procurement:

1. Technical specifications
2. Terms of performance of the public procurement
3. Personal status of the participants
4. Demonstration of technical capabilities and/or the qualification of the participants
5. Award criteria for the public procurement
6. Quality management systems for environmental protection.

10.3 Monitoring procedures for carrying out green contracts

Despite the fact that national GPP action plans have been developed in most partnership territories, in many cases (e.g. Greece, Ireland) there have not been put in place specialised monitoring mechanisms capable of providing information and data about the implementation of GPP. This lack of efficient monitoring has led to a scarcity of data about the extent to which measures promoting GPP have reduced the effects of constraints to GPP and provided a boost for its enablers. For example, the only sources of such information in Andalusia are the periodic reports of public administrations. Similarly, in Antwerp, there is no specified tool for measuring the current level of GPP in the region and some public authorities are trying to develop monitoring systems for their own organization. In addition, the use of different sets of criteria by distinct public authorities for various products and services makes overall monitoring even harder.

In the case of Lombardy, monitoring can be considered the weakest point in the framework of GPP national policies. A monitoring system is foreseen to be implemented within the new Procurement Code under the coordination of ANAC (Anticorruption National Authority) and with the support of Regional Procurement Observatories but procedures have not been established yet. An agreement between the Ministry of Environment and the Conference of Regions was signed with aim to improve the collaboration and exchange of experience in the field of GPP and in particular for the definition and implementation of monitoring procedures. Monitoring procedures have so far only been put in place in some regions by local authorities that have their own GPP strategies.

Nevertheless, there are partners with monitoring processes for GPP. For example, in Bulgaria, the Public Procurement Register and Portal are the main source for receiving systematized information about the market situation of public procurements in the country. The database is extensive enough to allow for a thorough understanding of the current situation and for tracking trends. The Register is based on market research about the cost of green products and services. When conducting monitoring of the public procurement system, monthly reports are prepared on different criteria. The main monitored indicators based on which the assessment of procurement processes takes place are the following:

- a) The number of contracting authorities and contractors

- b) The number and value of concluded contracts
- c) The allocation of procedures based on their subject, source of funding, type of procedure chosen
- d) Share of the procedures above the thresholds under art. 45a of the Public Procurement Act and others.

Despite the significance of the Register's contribution, this cannot be considered a complete monitoring and assessment method for GPP. It is necessary to introduce an effective monitoring system that maintains archival data regarding which public procurements include green criteria. Ideally, the monitoring system should also include information on the environmental impact of the decisions of the public administration for the public procurement.

The most advanced monitoring mechanisms for GPP are found in Poland and Latvia. In Poland and the region of Lodzkie, the monitoring of GPP implementation is based on information obtained by the Public Procurement Office within the framework of the annual reports on awarded contracts, submitted by Ordering Parties, due to article 98 of the Public Procurement Act. The Public Procurement Office has been instituted by the National Action Plan on GPP for period 2017-2020. In Latvia and the region of Zemgale, the main monitoring body for GPP implementation in Latvia is the Procurement Monitoring Bureau. The Bureau monitors all procurements in the country and ensures that all public tenders carry "green procurement mark". Before the year 2017, the bureau utilised non-mandatory methods to mark the compliance of public buyers with green criteria in public procurement. Due to the non-mandatory nature of such kind of marks, many green procurements were not reported by public bodies and GPP remained unmonitored. With the compulsory character of reporting since 2007 this has changed and now Latvia has a more efficient monitoring system put in place. In addition, Latvia utilises an Electronic Procurement System that provides "green catalogues" to buyers, so as to facilitate public authorities report GPP processes.

10.4 Networking to involve both public bodies and stakeholders

Most public authorities in the partnership identified three main channels through which they reach and involve the private sector and other public institutions in GPP:

1. Awareness campaigns and events conducted within the context of EU-funded projects (e.g. GreenS – Andalusia, GPPInfoNET – Italy, GRASPINNO – UPAT).
2. Workshops and initiatives of organisations responsible for supporting GPP (e.g. FIDO – Antwerp, Interministerial Task Force on GPP – Malta, Forum CompraVerde – Italy).
3. Campaigns conducted through ministries responsible for regulating GPP.

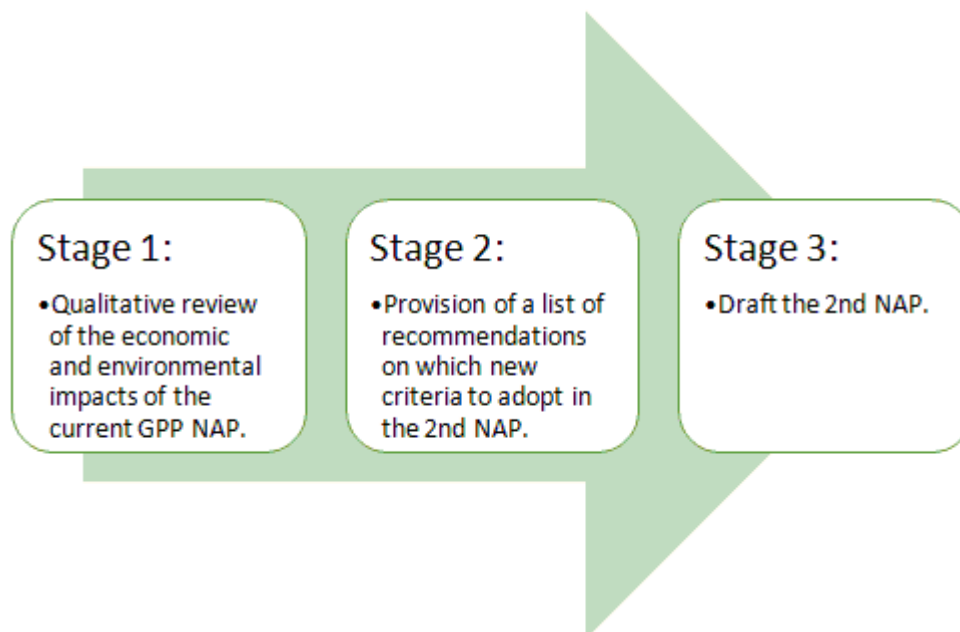
Nevertheless, the still unsatisfying share of GPP in public procurement conducted in the European Union, despite the technical progress achieved in various sectors of products and services, reveals that networking mechanisms to promote GPP are not always as effective as they should. For example, in Latvia, despite the workshops and thematic courses organised by the Ministry of Environmental Protection and Regional Development, there is a low level of involvement of the private sector in these activities. The regulatory framework for GPP will have to be further specialised to overcome this challenge.

11 Conclusions related to RQ3: capitalizing on and improving GPP policies

11.1 Improving the policy frameworks about GPP

One method to further capitalise upon GPP identified in the data was to further review, elaborate and update national regulation of GPP, either via improvements in existing national GPP/public procurement plans or through the development of new GPP regulatory frameworks. For example in Malta, as the first National Action Plan for GPP is now almost five years old, a new IMTF led by the Ministry for Sustainable Development and Climate Change (MSDEC) and with representation from all ministries was established and tasked with a comprehensive review of the first NAP with a view to developing the 2nd National Action Plan for GPP to cover the period until 2020. The justification for developing the 2nd task is the fact that resource use in Malta by public authorities continues to be an area of concern. Malta can provide a blueprint for updating GPP regulatory frameworks. The review will be conducted through three stages presented in the following figure:

Figure 3: Development process of the 2nd National Action Plan (NAP) for GPP in Malta



A special mention is due to Greece, which is the only partnership country still developing a national action plan on public procurement. A national action plan on public procurement will

serve as a unified framework that will become the main motivational factor for all public bodies to adopt GPP. It will also signal the importance of GPP to the private sector so that they are incentivised to enhance their sustainability by integrating green criteria in products and services and to be environmentally certified in order to be a part of the public procurement marketplace. Greek public authorities aim to develop the action plan on GPP according to the following process:

- **Step 1:** Monitoring of the current application of environmental goals imposed in tasks and activities/ Monitoring of the application of the usage of public criteria in public contracts
- **Step 2:** Development of action plan in the promotion of GPP and indicators
- **Step 3:** Research on the market of the products and services appropriate for the application of green criteria
- **Step 4:** Preparation of an instruction handbook for GPP
- **Step 5:** Awareness and information actions for the promotion of green public procurement
- **Step 6:** Introduction of new material and green technologies to the National Technical Specifications
- **Step 7:** Enriching of the unified invoices of authorities regulating the environment, energy, construction and mines with green articles

The process outlined above, illustrates, that, despite (or because of) the fact that Greece is the territory with the most recent adoption of a GPP plan, its newly developed regulatory framework will contain all the necessary aspects of a GPP plan including a monitoring process (Step 1) and indicators (Step 2), market research to adopt green criteria (Step 3), capacity building tools (Step 4), awareness raising campaigns (Step 5), integration of green criteria to national regulation (Step 6) and enhanced coordination and networking of public authorities (Step 7). This final step points to the importance of building more efficient coordination and networking mechanisms for the dynamism of GPP implementation in the EU. This is also true for territories with more advanced implementation of GPP, such as the Province of Antwerp. The data reveal that to augment the impact of a public procurement policy, it is necessary to strengthen the cooperation between public and private actors, since public procurement

policies are most effective when the purchasing power of various public authorities is added together.

However, to effectively combine the purchasing power of various national, regional and local public authorities, it is necessary to know their needs and potential benefits of utilizing GPP. Therefore, it is necessary to have regional action plans for the implementation of GPP. Andalusia and Lombardy offer specific examples for the need of regional specialization of GPP development to increase the environmental and economic impact of GPP. In their respective countries, the national frameworks for promoting and regulating GPP are well established and their main deficiency is the lack of awareness of their characteristics among public sector employees.

To increase the impact of GPP, it is necessary to develop a dialogue with the market at a regional level, since this is the operational level of many businesses. As a result, GPP development can often be more efficiently achieved through regional and local GPP action plans. This conclusion is shared with the analysis of the data from Stara Zagora. To increase the impact of GPP, it is essential that the objectives for sustainable development set by the public administration should be coupled with green public procurement and other actions and initiatives of the relevant municipal services. In addition, it should be ensured that GPP becomes part of the overall planning of local government. Interdepartmental and cross-sectoral participation is required, and the organizational objectives need to be in line with, and in conjunction with, the priority areas for green public procurement.

The final conclusion derived from the data is that partnership territories and countries should further integrate the EU directives and in general instructions on GPP. This is a conclusion that applies to all partners, since EU directives have been one of the most important incentives to advance GPP implementation. An example of further integration of EU GPP guidelines is observed in Ireland, where DCCAE will continue to consult with the EU GPP Advisory Group regarding the development of green criteria for key product groups which move beyond the basic legal environmental requirements to develop new and advanced criteria. These will be used to continue to drive innovation and increase greener alternatives to existing products and services.

11.2 Improving the application of green criteria in GPP procedures

To further capitalize upon the inclusion of green criteria in public procurement processes, GPP4Growth partners have identified a number of improvements in the administrative processes of public procurement. These include the following:

- Apply monitoring methods for public tenders that allow for data collection, dissemination of information and continuous assessment and revision of the procurement process (Andalusia – Spain, Stara Zagora - Bulgaria).
- Expand the application of green criteria by overcoming the misconception that they cause distortion in the markets (Lodzkie – Poland).
- Render mandatory the implementation of green criteria in public procurement (Antwerp – Belgium).
- Capacity building for public sector employees (Antwerp – Belgium).
- Expansion of products and services addressed by green criteria and further integration of EU directives, according to the latest scientific/commercial developments (Antwerp – Belgium, DCCAE – Ireland, MRDDF – Malta, ZPR - Latvia).
- Development of incentives for applying green criteria (Stara Zagora – Bulgaria).
- Development of tools to facilitate the application of green criteria, such as a green products database (UPAT - Greece).
- Develop support systems for public buyers and suppliers to facilitate the networking and production of goods and services (Lombardy – Italy).

The list reveals that, despite the application of green criteria through national GPP action plans and, in general, public procurement regulation, there are still several improvements to be made for the efficient implementation of GPP. The reason why, is that the implementation of GPP in the European Union has still not reached maturity. Obviously, public authorities with greater experience of GPP implementation (e.g. Antwerp) focus on expanding the list of products and services for which green criteria are applied and developing supportive tools and systems. However, less experienced authorities focus on amending the process of implementing green criteria itself (e.g. by overcoming fears of distorting the markets).

11.3 Improving GPP monitoring procedures

The analysis of the data revealed that partners acknowledge the need to improve their GPP monitoring processes mainly through developing centralised and specialised instruments responsible for the monitoring of GPP processes. Some partnership territories/countries have already developed such instruments in the action plans developed the last ten years. In these cases, the task at hand is to improve these instruments and/or develop specifications for their operationalisation at a regional-local level.

An example of a territory where monitoring GPP processes are currently under development is Ireland, where the DCCAE will need to work with the Office of Government Procurement to a) develop suitable reliable and accurate methods for monitoring the number and value of green contracts, and b) prepare a library of best practice tenders across all categories of green products and services. DCCAE will share these with stakeholders and the wider public to increase awareness about GPP. In Poland monitoring procedures need to be developed so as to include qualitative criteria of assessment. Similarly, in Greece, GPP monitoring will take place within the national action plan on public procurement to be developed and will include the following:

- a) A unified catalog of contracting authorities
- b) Improvements in the electronic system that currently hosts electronically the public tenders and the support of fully electronic carrying out procedures of public contracts.
- c) A specialized data base on SMEs and their participation on public procurement.
- d) Introduction of the electronic invoice approved by EE in 2014/55/EE, the European Single Procurement Document and e-Certis.
- e) Checking the congruence of environmental laws in public procurement with the directions of the Environment, Energy, Construction and Mining Auditory body, based on the responsibilities in article 10 of presidential decree 100/2014.

On the other hand, territories where monitoring GPP instruments have already been developed, they are trying to find ways to improve them. This is true for Malta (despite the fact that almost 100% of all public tenders are screened, of which around 75% are vetted for compliance) and Bulgaria. In the latter's case, the GPP monitoring system should be improved so as to maintain archival data regarding which public procurements include green criteria,

and to include information on the environmental impact of the decisions of the public administration for the public procurement. Similarly, Belgium aims to improve its monitoring by developing a user-friendly and accurate region-wide monitoring system to measure the number and value of green contracts, linked to a more general monitoring system on public procurement, combined with a periodic qualitative review also identifying environmental and economic achievements, best practices, obstacles, shortcomings and necessary adjustments and opportunities. Furthermore, in Italy, monitoring procedures should be applied both at contract levels and at organization level so as to be able to measure GPP achievements both in environmental and economic terms and GPP spread.

A notable exception found in the data is ZPR in Latvia that claims that the most important thing is not to develop a GPP monitoring system, but on the contrary, to ensure that public authorities abide by GPP regulation and implementation. This is an indication that the non-mandatory character of GPP leads to deficiencies in the implementation process of GPP that cannot be addressed through monitoring, no matter how efficient.

11.4 Improving the networking with GPP stakeholders

The data revealed that partners have proposed a number of distinct ways to improve networking with public administrations and to apply GPP at a larger scale. A key component of all the approaches was to organise a number of events designed to change the mentality of people with regards to GPP, so that they stop consider it as something expensive, overcomplicated or unnecessary.

The first type of event designed to improve networking about GPP was the organisation of specific training workshops that would familiarise even further public sector employees and representatives of the private sector offering green products and services with the processes of GPP (e.g. MRDDF-Malta). As ZPR noticed the organisation of such training events will be even more effective if they are specialised to specific types of products. Training events where teaching is conducted by experts would critically improve the involved public stakeholders' development in GPP sphere, whereas the private sector, or the suppliers of green goods, would definitely obtain the necessary legal and practical knowledge to participate in GPP. Similarly, a key aspect of the national public procurement plan to be developed in Greece is the preparation of an Instruction Handbook for GPP designed to provide all the necessary information to procurers and suppliers of green products and services.

Furthermore, other partners have acknowledged the need to organise events that will facilitate the exchange of information between suppliers of green products and services and public administrations. The aim of these, as stated by DCCAE is to increase the collaboration between public sector organisations that also involves key suppliers to the public sector (Pruess & Walker, 2011). The events can be a key element for gaining solid support from stakeholders and residents of a territory. Local authorities are well placed to encourage residents through these events to act as consumers in green procurement and environmental protection. As SZREDA noticed, they have to do this by being a role model in green procurement, by providing regular advice and counsel, as well as by involving citizens in the planning and organizing awareness-raising events and “energy” days, for example.

The final type of event proposed by partners (i.e. Andalusia, Antwerp, SZREDA) is the organisation of specialised networking events with suppliers of specific types of green products and services. Such events have the potential of further specialising and optimising

GPP processes, by a) providing more information on "green alternatives" for products usually provided to local authorities, b) bundling and diffusing more effectively information on GPP, and c) reaching and approaching more suppliers.

12 Conclusion: GPP dynamics and policy recommendations

This comparative policy analysis takes place at a moment when on the one hand the implementation of GPP has been initialized in partnership territories, but on the other hand, several steps need to be made to optimize it. Partnership territories differ to the degree of success in their implementation of GPP where in countries such as Greece, public procurement plans have not yet been developed, compared to cases such as Lombardy or Malta where GPP is widespread. Nevertheless, it is possible to conclude that EU territories are on the correct path towards a successful implementation of GPP. Steadily, green public procurement is gaining ground and becomes more and more common in partnership territories. For example, in Ireland it is estimated that by 2016 over 95% of transport tenders which equates to over €20mil included environmental considerations based on EU legislation.

This success can be explained mainly by two factors. The first one is the partnership countries' need to integrate the directives of the EU with regards to public procurement and GPP. The significance of the intervention of the EU does not limit itself in providing a regulatory framework and instructions for GPP implementation. EU-funded projects such as GreenS and GPP4Growth play a key role in providing the necessary support and networking with producers of green products and services to initialise and successfully carry out GPP procedures initiatives and directives. The second factor is the fact that most EU national governments, with the exception of Greece which will follow shortly, have set in place planning processes at a national level for public procurement that include GPP as one of its key principles and aspects. Several have also developed supportive regulatory frameworks specialised to the implementation of GPP, albeit with a partially or entirely voluntary character.

Beyond increasing the share of GPP, the application of procurement planning in EU territories has allowed for the identification of a number of necessary interventions that need to be carried out to further optimise GPP implementation and facilitate its transfer across partnership regions. These interventions include the creation of supporting mechanisms to GPP and the improvement of the administrative process of preparing and conducting green tenders. The next two sections describe these interventions and are then followed by the presentation of key policy recommendations per partner.

12.1 Mechanisms supporting the expansion and transfer of GPP

The first supporting mechanism that needs to be formed to improve GPP processes and expand their application, is the preparation of training materials and seminars for public sector employees involved in GPP. For example, to improve the implementation of GPP in Poland, it is necessary to train public sector employees at various levels, so that they know the importance of GPP and also how to follow and procure new green opportunities and solutions that appear in the markets. The importance of training for the region of Lodzkie is even more evident considering the suggestion of the partner that training should involve contracting authorities as well. Increasing contractor knowledge is a prerequisite to stimulate innovation, and has the potential to contribute to the growth of green jobs and to reduce negative environmental impacts by procuring green innovations.

Similarly, in Ireland public bodies should ensure that procurement guidance material is made available to staff (whether in hardcopy or electronic format) that points out when it is necessary to incorporate GPP criteria in tender and contract documents. Even in territories that have extensive regulatory frameworks for GPP, such as the Province of Antwerp, it is suggested to prepare a strategy that will ensure that public procurers will be able to develop the necessary competences and skills through training, and that all the relevant to GPP information and knowledge can be disseminated among relevant actors.

The last sentence points to the second supportive mechanism for GPP found in the data. To optimise the implementation of GPP, partners will have to develop the necessary networking mechanisms to come into contact with producers of green products and services and to procure the latest green innovations produced by the market. For example in Zemgale (Latvia), public dialogue and networking activities need to be intensified to ensure that public procurement staff and stakeholders are always aware of the latest GPP solutions and their impact and importance. To achieve that, public dialogue actions in EU funded projects have proven to be very important, and they should be mirrored in the national and regional planning documents like operational programmes and regional development strategies. Furthermore, it is necessary to organise informational, legislative and networking events to increase the participation of the private/commercial sector in the GPP development and dialogue processes, alongside the provision of a number of incentives for their participation in GPP processes. For instance enterprises which are using “green technologies” could have

tax “relief”, or green tender winner should have additional prerogatives in the further procurements.

Other partners have moved one step beyond the application of public dialogue and acknowledge the need of a more extensive consultation and knowledge exchange process. For example in Greece an extensive public consultation process is proposed with the participation of the following:

- Representatives of the ministries/policy makers, so as to receive all the information about GPP resulting from other participants.
- Representatives from Universities and research centers, to provide know-how and studies on the environmental impact of green products or services.
- Legal organizations, specialized legal representatives and organizations’ legal parties to interpret the EU regulations in GPP and to indicate ways to ensure the application of GPP.
- Representatives from large organizations conducting public procurements to provide the necessary experience on carrying out GPP and to indicate the most common and most usual problems in public procurements. They could also examine the application of green criteria and pinpoint issues to be solved.
- Representatives of the market e.g. Chambers of Commerce, Industry, SMEs to describe the exact situation of the enterprises and how it would be possible and most importantly feasible for the enterprises to introduce eco-labels and meet green criteria. What is more, they could also provide information on the time needed by the market to integrate and adopt energy-efficient and eco-friendly procedures, in order to start producing the new enhanced and environmentally friendly products.

The list above reveals that, in a country where public procurement planning is still in its infancy, like Greece, the creation of a permanent consultation mechanism with all major GPP stakeholders could significantly boost its implementation. However, the creation of extensive and intensive consultation mechanisms is not proposed only in territories without developed public procurement plans. For example, Lombardy has proposed the formation of a regional GPP community of practice, capable to engage in a permanent and constant exchange of knowledge on best procurement practices and green innovations. Another example is Lodzkie

where the collaboration with outside the region entities that possess know-how about GPP can increase the efficiency of GPP implementation. An example of such a process is the development of international cooperation with partner cities, which may have developed their own policies for the application of environmentally responsible public procurement. Such initiatives could stimulate the development of innovative technologies, which in turn will contribute to economic growth. The initiative is also beneficial for the environment, improving the health and wellbeing of the society, especially if it takes into account the entire life cycle of a product or service.

The third mechanism to support GPP identified in the data is the formation of a coordinating apparatus for the implementation of GPP. This is a request of partners with different characteristics to ensure the effective implementation of GPP in their territories. For example, Lodzkie Region proposes to nominate a person responsible for coordinating green procurement, so as to solve the problem of the lack of specific responsibility between public sector employees. Those responsible for GPP will have to carry out tasks such as a) carrying out a formal public procurement process, b) provide product or service description in terms of substance, finances, legal advisers, and c) apply environmental clauses in green tenders. Another example is Malta, where the Ministry of Sustainable Development and Climate Change (MSDEC) is to lead the GPP process across Government in close liaison with the Department of Contracts (DoC), and it is necessary to re-activate the GPP Inter-ministerial Task Force to coordinate and ensure the implementation of GPP by all ministries.

12.2 Improving GPP management and administration

Having presented the three key mechanisms to support GPP that should be introduced for the further increase the level of in GPP in Europe, the next step is to outline the necessary improvements in the administrative process of carrying out GPP. The first such improvement is the development of a more complete list of green criteria to be applied in GPP processes. As mentioned by Andalusia, green criteria should be developed for many distinct areas of GPP and should take into account the lists of green criteria already established by the EU and adapt them to their needs. Furthermore, methods to calculate life-cycle costs should be applied in these criteria. Another example is Greece where the application of green criteria is not only necessary but also should cover the technical specifications of the contract (link to the subject of the contract, reference to minimum standards, marks, performance or requirements,

acceptance of equivalents), the stage of exclusion and selection of candidate contractors (violation of environmental legislation as a reason for foreclosure, compliance with environmental legislation as a reason for lifting the exclusion in principle, checking the suitability of the candidate contractor for performance of the contract, restrictive reporting of selection and exclusion criteria), the stage of awarding the contract (adoption of the most economically advantageous tender as award criterion, best value for money, conditions for the introduction of environmental criteria, cost of product costing) and the stage of performance of the contract (individual terms of the contract and possibility to modify them, supervision of performance of contract terms, subcontractors).

Similarly, in Latvia the most significant improvement to GPP processes would be an increase in the list of goods and services which require mandatory GPP. The development of green criteria for products and services would not be as effectively implemented had their inclusion in public tenders been voluntary. Currently, in Latvia there are only seven categories of goods and services which require the mandatory inclusion of green criteria and have technical specifications to support this. To get results from the implementation of green criteria, it is necessary to expand the list of goods and services for which green criteria must be applied.

The conclusion above reveals another key element required to drive an improvement in GPP implementation where the application of green criteria in tenders should become compulsory. Such a change in GPP implementation processes would result in a number of benefits, such as eliminating the fear that GPP distorts the markets in Poland. Malta is another example of a country where a need to mainstream GPP has been identified and should be addressed by public authorities. Furthermore, another improvement in the administrative processes for GPP implementation is the formation of the appropriate monitoring mechanisms, capable of ensuring the adherence to green criteria in public procurement processes.

Developing such a monitoring mechanism is perhaps the most important improvement in GPP processes to take place in Andalusia, where so far trustworthy and integrated monitoring of GPP has largely been absent. GPP monitoring and public procurement in general could benefit from the utilisation of ICT technology in their procedures. For example, e-platforms are necessary to the efficient exchange of knowledge and experiences on GPP in Andalusia. In Zemgale, IT technologies could boost significantly the application of GPP in the country. For instance, the already formed Electronic Procurement System in Latvia is by itself “green”,

because using electronic procurements requires less of recourse use (as paper documentation, staff involvement etc.). Moreover, as mentioned in previous paragraphs, the implementation of IT technologies could benefit greatly the process of training of public sector employees with regards to GPP (e.g. through digitised training materials). Finally, in Ireland the following key interventions in the administrative process of implementing GPP have been identified as potential improvements:

- There are often contradicting policy objectives where procurers need to meet economic, efficiency and sustainability targets and more specific guidance will be required for procurers outlining how this is expected to be achieved. (Flynn et al, 2013; Pruess & Walker, 2011)
- The GPP Action Plan should be reviewed and a detailed policy proposal developed.
- The GPP Action Plan Implementation Group's first annual progress report should include a detailed implementation plan for a number of the areas prioritised in the Green Tenders Action Plan, to include a timeline for each of the individual actions.
- The GPP Action Plan Implementation Group should draw up terms of reference for further on-going research into GPP methodologies, target-setting and effective implementation, evaluation and monitoring.
- GPP content and reference to Green Tenders should be integrated into all public procurement-related training provided to public bodies. This should apply irrespective of whether the training intervention is developed and delivered "in-house" or by external providers.

Overall the most important improvement in GPP management that would significantly increase its share and foster its implementation throughout all the partnership territories is the development of specialised regional GPP action plans that take into account the needs and characteristics of public administrations in specific territories. Most partners invoke the need of one form or another of regional specialisation of GPP processes. For example, the region of Lodzkie argues that GPP should assess regional needs in the light of potential environmental impacts and develop a policy that defines the use of these contracts in the context of the mission and tasks of regional public administrations. In the Province of Antwerp, it is necessary

to engage to a greater extent with local authorities during GPP implementation. In Lombardy the development of specialised regional plans for GPP needs is to be part of a greater regulatory framework with measures designed to increase the regional character of GPP, such as the following:

- Development of a Regional Action Plan for GPP
- Establishment of a regional GPP community of practice
- Regional support for public purchasers to acquire competences and skills to define and manage green procurement.
- Agreement for the definition of a support and information strategy for the regional market.

12.3 Policy recommendations per partner

The policy recommendations about strengthening GPP implementation in each territory are depicted in detail in the following table:

Table 3: Policy recommendations for GPP in partnership territories

Partner territory	Policy recommendations
Andalusia/ Spain	<ul style="list-style-type: none"> • Political support for the elaboration and execution of a regional plan on GPP • Development of a monitoring system for GPP • Development of environmental criteria in different areas of GPP taking into account EU criteria and regional needs • Information and awareness campaigns addressed to contracting bodies on the benefits and beneficial effects of GPP and on considering environmental issues (and life cycle cost) in addition to the contract price. • Support for research on methodologies for calculating the life cycle cost of the product or service • GPP training activities addressed to both the public administration and the private sector • Design and maintenance of web platforms for the exchange of knowledge and experiences on GPP
Lodzkie/ Poland	<ul style="list-style-type: none"> • Assessment of regional needs in the light of potential environmental impacts and development of corresponding GPP policies for regional administrations

Partner territory	Policy recommendations
	<ul style="list-style-type: none"> • Implementation of best GPP practices • Nomination of a person responsible for coordinating green procurement • Increasing knowledge of green procurement among employees at various levels responsible for the process of implementing the public procurement procedures. • Increasing the knowledge of the contracting authorities regarding the use of environmental clauses in public procurement • Collaboration with outside entities with knowledge of green procurement
Antwerp/ Belgium	<ul style="list-style-type: none"> • Increasing the engagement of local authorities in GPP • The number of goods and services to be procured sustainably should be expanded and updated • Development of GPP process with the involvement of different stakeholders (public authorities, key suppliers, research institutions, NGO's) • Support and information strategy to ensure that public procurers can develop the necessary competences and skills through training, and that relevant information can be disseminated among relevant actors • Measures to make GPP an intrinsic, natural part of public procurement.
Ireland	<ul style="list-style-type: none"> • Harmonisation of contradicting policy objectives • Review of the GPP Action Plan and development of a detailed policy proposal • Detailed implementation plan for a number of the areas prioritised in the Green Tenders Action Plan, to include a timeline for each of the individual actions. • Development, by the GPP Action Plan Implementation Group, of terms of reference for further on-going research into GPP methodologies, target-setting and effective implementation, evaluation and monitoring. • Integration of GPP content and reference to Green Tenders into all public procurement-related training provided to public bodies. This should apply irrespective of whether the training intervention is developed and delivered "in-house" or by external providers. • Commitment of public bodies to whole-of-government objectives including GPP. • Corporate Procurement Plans should set out how any GPP skills gap will be identified and dealt with through education, training, awareness raising and/ or dissemination of information • Procurement guidance material should be made available to staff (whether in hardcopy or electronic format) about the need to incorporate GPP criteria where appropriate into the tender and contract documents.

Partner territory	Policy recommendations
	<ul style="list-style-type: none"> Where applicable and relevant to the subject matter of the contract, public bodies shall clearly specify environmental and energy efficiency criteria, among criteria specified for contracts being awarded on the basis of Most Economically Advantageous Tender.
Malta	<ul style="list-style-type: none"> The Ministry of Sustainable Development and Climate Change (MSDEC) is to lead the GPP process across Government in close liaison with the Department of Contracts (DoC) Re-activation of the GPP Inter-ministerial Task Force Intensification of the mainstreaming of GPP across the public sector Contracting Authorities (CAS).
Stara Zagora/ Bulgaria	<ul style="list-style-type: none"> Targeted measures to cover all participants in the process of green public procurement in order to increase the green criteria included in public procurements by the PA. Legislative framework or more detailed guidelines that clarify the opportunities for purchasing environmental products through public procurement. Simplified legal conditions for including criteria for environmental standards in tender documentation both for the public administration and the businesses. More funding provided for the promotion of green public procurement (in particular, better training is needed in this area for representatives of PA). Coordinated exchange of best practices and information between regional and local authorities should be mandatory. Incentives for public administrations that are bidding for public procurement with maximum environmental impact. Inclusion of key suppliers already cooperating with local authorities in the process of changing GPP regulation
Greece	<ul style="list-style-type: none"> Finalisation of the national action plan on public procurement and creation of the action plan on GPP that is foreseen in the general action plan. Public authorities and private sector should be in touch to complete and apply the national action plan. Time should be allocated to the market to get adapted to the new environmental policies and demands. As a result, there should be a transitional period that green products are adopted, but not as strictly as intended in order to allow industry to provide green products. Specific criteria e.g. ecolabels or specific procedures e.g. for the lifecycle cost approaches should be described into the new action plan. Public awareness and public lessons should occur to help employees in the public sector understand the practices and principles of the GPP in order to apply them. Introduction and exploitation of new technologies (Internet, online tools, online monitoring etc.) that help avoiding mistakes in the

Partner territory	Policy recommendations
	<p>procedures and are more resource efficient and help define green criteria.</p> <ul style="list-style-type: none"> • Reduction of bureaucracy to save time, money and energy resources. • Products to be obtained from now on to comply with the environmental rules. • Greater involvement of the private sector in the open discussions concerning the GPP
Zemgale/ Latvia	<ul style="list-style-type: none"> • Expansion of the list of goods and services which purchase requires mandatory GPP implementation. • Establishment of working groups consisting from public representatives and private/supplier representatives to adapt green criteria for new goods and services and with later inclusion of these criteria in the legislative system. These kinds of activities should be supported by the State Budget and EU budget. • There is a great importance that the public sector could rapidly response to technical progress and innovation implementation. The public administration's bureaucracy should be shortened in the meaning of fast response in the field of incoming innovations, so that the innovative, green technologies could be adopted as soon as possible. • Maintaining the intensity of public dialogue and networking activities at the same level, so that the public procurement staff and stakeholders are always aware of GPP solutions its impact and importance. • Increase in the private sector involvement in GPP through informational, legislative and networking events • Application of IT technologies capable of having a greater impact on the procurement processes in the country.
Lombardy/ Italy	<ul style="list-style-type: none"> • Development of a Regional Action Plan for GPP • Establishment of a regional GPP community of practice • Regional support for public purchasers to acquire competences and skills to define and manage green procurement. • Agreement for the definition of a support and information strategy for the regional market

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14 Annex 1: Data collection tool

GPP4Growth activity A1.3		
Input paper with proposals on policies for the support of Green Public Procurement (GPP)		
Name of Partner:		
Date:		
Details of the research	Number of data sources from academic journals referenced in desk research:	
	Number of data sources from websites referenced in desk research:	
Conclusions related to research question 1		
Conclusions related to research question 2		
Conclusions related to policy frameworks (or lack thereof) promoting and regulating GPP		
Conclusions related to green criteria in use in GPP procedures		
Conclusions related to monitoring procedures in place for carrying out and implementing green contracts		
Conclusions related to efficient networking designed to successfully involve both public bodies and stakeholders		
Conclusions related to research question 3		
Conclusions related to policy frameworks (or lack thereof) promoting and regulating GPP		
Conclusions related to green criteria in use in GPP procedures		
Conclusions related to monitoring procedures in place for carrying out and implementing green contracts		

GPP4Growth activity A1.3	
Input paper with proposals on policies for the support of Green Public Procurement (GPP)	
Conclusions related to efficient networking designed to successfully involve both public bodies and stakeholders	
Key policy proposals (please list your key recommendations)	