Sustainable public procurement best practices at a sub-national level: drivers of strategic public procurement practices in Catalonia and Barcelona

Lela Mélon¹

Abstract: The strategic use of public procurement across the European Union to contribute to sustainable development has been underdeveloped and unequally distributed among the EU Member States, with seven Member States being sustainable public procurement leaders, and the rest of the Member States having a very modest sustainable public procurement uptake. While Spain has not been one of the best performers, the outstanding Catalan performance as a Spanish autonomous community calls for the analysis of the driving factors that enabled a high sustainable public procurement uptake at the regional and local level. The present article explores the policy coherence, the accompanying legal framework and the supporting activities that have been carried out in Catalonia to incorporate green public procurement as the default procurement option at the regional and local level to serve as a potential model for a transition towards green public procurement for other regional and local procurement authorities.

Keywords: sustainability, green public procurement, best practices

1. The Value of Local and Regional Green Public Procurement Best Practices for Sustainable Outcomes – a prelude

Despite the permissive EU legal framework, allowing for the inclusion of environmental and social considerations in public purchasing processes,² the uptake of strategic public procurement across the EU remains modest and differs amongst not only countries but also amongst the regions of the same country.³ The present article focuses more on the green, rather than sustainable procurement,⁴ as the former represents a more developed and strategically important form of sustainable procurement⁵ in the light of the climate emergency. Furthermore, focusing on one of the two components of sustainable public procurement (hereinafter: SPP) already represents a specific challenge. By way of example, the rather loose definition of green

¹ Marie Curie Fellow at the University Pompeu Fabra; lela.melon@upf.edu. The research was funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 789461 (SCOM Project – Sustainable Company).

² Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on Public Procurement and Repealing Directive 2004/18/EC OJ L 94; Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on Procurement by Entities Operating in the Water, Energy, Transport and Postal Services Sectors and Repealing Directive 2004/17/EC OJ L 94.

³ Clement, S.; Watt, J.; Semple, A. *The Procura+ Manual. A Guide to Implementing Sustainable Procurement*, 3rd ed.; ICLEI—Local Governments for Sustainability, European Secretariat: Freiburg, Germany, 2016; p. 13.

⁴ A process by which public authorities seek to achieve the appropriate balance between the three pillars of sustainable development - economic, social and environmental - when procuring goods, services or works at all stages of the project. See EU Commission Directorate-General Environment. Available online: http://ec.europa.eu/environment/gpp/versus_en.htm (accessed on 21 March 2020).

⁵ EU Commission. *Buying Green! A Handbook on Green Public Procurement*, 3rd ed.; European Commission: Luxembourg, 2016.

public procurement (hereinafter: GPP) as “procuring 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,”⁶ following the qualitative nature of sustainability science,⁷ limits the comparability of GPP practices across jurisdictions. SPP adds to the GPP a social component, adding further to the complexity of the public purchases processes. A global consensus exists on the key sectors in need of reform for a transition to a sustainable future, reflected in the EU-wide approach towards the GPP, currently providing GPP guidelines for twenty sectors that contribute the most towards environmental improvement and lowering public expenditure while incentivising suppliers for providing green market solutions.⁸ Focusing on those sectors while implementing GPP on a supranational, national, regional or local level arguably contributes to the sustainability agenda in the most meaningful manner.

Despite this common denominator, the national, regional and local approaches to strategic public procurement differ significantly across the EU. In Spain, in terms of strategic procurement, the local and regional authorities carry out approximately 55% of GPP (in terms of value above 80%), SPP and public procurement of innovation (hereinafter: PPI) and the national authorities only about less than 10%.⁹ The present article explores the drivers of good performance in the field of GPP in the regional and local context of Catalonia and Barcelona, in particular the historical path from the traditional public procurement processes towards SPP. Catalonia has been continuously acknowledged for its SPP efforts; it has received the 2013 Diamond Purchase Award in the category of public service¹⁰ and a runner up position in 2019 Procura+ Awards with its Sustainable framework contract for cleaning services,¹¹ with Barcelona as the local leader in parallel winning the award for best practice in GPP in Spain at a Green Purchasing conference in Avilés,¹² a finalist position at the European Public Sector Award in 2011 for best practice,¹³ the Diamond Purchase Award for SMART-SPP activities in 2012¹⁴ and the Procura+ Award for Procurement Initiative of the Year 2018.¹⁵

Based on the findings, the article aims to discern which of the drivers of GPP, namely leadership, enabling legislation or mandatory GPP legislation¹⁶ and/or supporting activities and networks, represent(s) the decisive factor(s) for GPP success at the regional and local level by using the example of Catalonia and Barcelona. The analysis of the historical trajectory of best

⁶ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Public Procurement for a Better Environment COM/2008/0400 Final. Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52008DC0400> (accessed on 21 March 2020).

⁷ Joachim H. Spangenberg, Sustainability science: A review, an analysis and some empirical lessons 38:3 Environmental Conservation 2011.

⁸ European Commission, EU GPP Criteria. Available online: https://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm (accessed on 21 March 2020).

⁹ European Commission (2016) Study on “Strategic use of public procurement in promoting green, social and innovation policies” Spain In-Depth Country Report, Ref. Ares(2016)2783140. Available online: http://www.conr.es/sites/default/files/archivos/ES%20Country%20Report_v3-0.pdf (accessed on 18.04.2020).

¹⁰ AERCE, Premios El Diamante de la Compra 2013.

¹¹ Procura+, available online: <https://procuraplus.org/awards/> (accessed on 28 March 2020).

¹² European Award for Innovation in Public Administration Avilés 2011.

¹³ EPSA Award 2011.

¹⁴ AERCE, Premios El Diamante de la Compra 2012.

¹⁵ Procura+, available online: <https://procuraplus.org/index.php?id=221> (accessed on 28 March 2020).

¹⁶ Zhu, Q.; Geng, Y.; Sarkis, J. (2013) ‘Motivating green public procurement in China: An individual level perspective’ 126:5 *Journal of Environmental Management*.

regional and local practices further contributes to the scholarship on the drivers and inhibitors of GPP practices in the regional and local context, providing a basis for further research on the matter and on the possibility of transplanting those practices to other regional and local jurisdictions.

In terms of the research design and methodology, a desk research and an analysis of secondary resources on the best practices and design of GPP in Catalonia and Barcelona will serve as the main methodological approach, coupled with the traditional legal analysis of regional and local public procurement legal rules. By providing a systematic and chronological overview of the public procurement legislation and the GPP practices in Catalonia and Barcelona, the decisive drivers for a high GPP uptake are to be determined, allowing for further research on the possibility of transplanting those practices to other regional and local contexts across the EU.

The article analyses the Catalan example of GPP best practices primarily due to the fact that the uptake of GPP in Spain has been fairly modest, yet Catalonia, and especially Barcelona, are repeatedly named in the scholarship as best practice examples of GPP in Europe, suggesting that the legal framework contributes to a high GPP uptake only to a limited extent. Accounting also for the autonomy of autonomous communities in Spain, the article aims to determine the optimal drivers for advancements in GPP practices, reaching beyond mere GPP legislation and outlining policy coherence for sustainability at the level of regional and local governance.

The paper is structured as follows. Section 2 discusses the regional and local public procurement GPP rules, while Section 3 enumerates the supporting GPP activities accompanying or preceding these mandatory rules, suggesting the direction and strength of the causal relationship between the successful implementation of mandatory rules in the field and a broad application of sustainable criteria in the public procurement processes. Section 4 concludes and provides an overview of findings for further research on their possible application to similar regional and local public procurement processes in the EU.

2. On the law: the public procurement legal framework in Catalonia and Barcelona

While the complexity of the EU legal framework on public procurement has been seen as an impediment for a wider GPP uptake,¹⁷ the national transposition of the EU Public Procurement Directives into national laws added to that complexity. In the EU Member States where the autonomous communities enjoy the right to self-regulate, such complexity can either be alleviated by more detailed and instructive rules or exacerbated by further vagueness entrenching the uncertainty of the GPP procedure.¹⁸ Spain is characterised by multi-level governance in public procurement, with the legal system applicable nationally¹⁹ and policy

¹⁷ Mélon, L. (2020) 'More Than a Nudge? Arguments and Tools for Mandating Green Public Procurement in the EU' 12(3):988 *Sustainability*.

¹⁸ Bouwer, M.; De Jong, K.; Jonk, M.; Berman, T.; Bersani, R.; Lusser, H.; Nissinen, A.; Parikka, K.; Szuppinger, P. Green Public Procurement in Europe 2005—Status Overview 2006. Available online: http://ec.europa.eu/environment/gpp/pdf/Stateofplaysurvey2005_en.pdf. (accessed on 21 March 2019), p.44.

¹⁹ Ley 9/2017, de 8 de noviembre, de Contratos del Sector Público, por la que se transponen al ordenamiento jurídico español las Directivas del Parlamento Europeo y del Consejo 2014/23 / UE y 2014/24 / UE, de 26 de febrero de 2014.

making and actual expenditure largely carried out at the regional and local level.²⁰ The regional and local contracting authorities are the primary drivers of strategic public procurement, accounting for 54% of GPP procedures and 58% of SPP procedures.²¹ Under the assumption that higher levels of policy institutionalisation through dedicated support mechanisms result in relatively higher levels of GPP uptake,²² the present article analyses such policy considerations at the regional and local level.

2.1 The regional level: Catalonia

Catalonia is a Spanish autonomous community with approximately 7.5 million inhabitants and a total gross domestic product of about €242 million, with some legislative capacity and exclusive competences managed by the Catalan Government.²³ The Ministry of Territory and Sustainability is governmental expert body for environmental policy, in charge of promoting GPP within the government. The Catalan public procurement legal framework can be represented by a three-level structure: the European level, the Spanish level and the Catalan level. Its relative simplicity on the face value speaks in favour of legal certainty, which has been found to incentivise GPP practices,²⁴ with the Catalan level entailing mandatory GPP provisions as early as of 1991, which have been argued as a necessary but not a sufficient condition for a significant GPP uptake in a given jurisdiction.²⁵

²⁰ European Commission (n9).

²¹ Ibid, p.56.

²² Testa, F.; Annunziata, E.; Iraldo, F.; Freyab, M. (2016) Drawbacks and opportunities of green public procurement: an effective tool for sustainable production. 112(3) *Journal of Cleaner Production*, pp.1893-1900.

²³ Idescat. Statistical Institute of Catalonia, 2018. Available online: <http://www.idescat.cat/pub/?id=aec&n=354> (accessed on 26.03.2020).

²⁴ Mélon, L. (n17).

²⁵ Ibid; Diófási, O. and Valkó, L. (2014) 'Step by step towards mandatory green public procurement' 22:1 *Periodica Polytechnica Social and Management Sciences*; Tommasetti, A., Mussari, R., Maione, G., Sorrentino, D. (2020) Sustainability Accounting and Reporting in the Public Sector: Towards Public Value Co-Creation? 12 *Sustainability*.

Figure 1: the regulation of public procurement in Catalonia

While the permissive nature of the current EU public procurement regulations regarding the use of environmental criteria in public tendering has been argued as an important step towards a more strategic use of public procurement,²⁶ it has simultaneously been found insufficient for stimulating a significant GPP uptake.²⁷ Catalonia as a successful GPP jurisdiction has been supporting its GPP efforts with mandatory (sectoral) legislation since the year 1991,²⁸ a finding supporting the scholarly arguments on the need for mandatory legislation for a transition towards a systemic and broad GPP use. Catalan environmental policy is based on the avoidance, internalisation and/or reduction of negative externalities in its purchases of products, works and services.²⁹ Section 2 focuses on the analysis of primary legal sources at the regional and local level, building on the assumption that the national implementation of EU public procurement rules is rather homogeneous in terms of its content and that it has by itself

²⁶ Van den Abeele, E. (2014) Integrating social and environmental dimensions in public procurement: one small step for the internal market, one giant leap for the EU? ETUI Working Paper 2014.08. Available online: <https://www.etui.org/Publications2/Working-Papers/Integrating-social-and-environmental-dimensions-in-public-procurement-one-small-step-for-the-internal-market-one-giant-leap-for-the-EU> (accessed on 24.04.2020).

²⁷ Andhov, M. (2019) Contracting Authorities and Strategic Goals of Public Procurement – A Relationship Defined by Discretion? in Bogojevic, S. et al. (eds) *Discretion in EU Public Procurement Law* (Hart Publishing 2019).

²⁸ Acuerdo del Gobierno, de 24 de diciembre de 1991 (Diario Oficial de la Generalidad de Cataluña 1537, de 3 de enero de 1992).

²⁹ Puig Ventosa, I., Freire González, J. i L. Almazor Escartín, 'Política ambiental i competitivitat de l'economia catalana' TEMAH 2. Departament de Medi Ambient i Habitatge. Generalitat de Catalunya, 2007.

not spurred a wide GPP uptake across the EU.³⁰ The following timeline graphically represents the most important legal instruments inserting mandatory GPP criteria in Catalan law:

Figure 2: the timeline of legal instruments with mandatory GPP provisions in Catalonia

In the year 1991, legislation was passed imposing ‘ecological’ obligations for some categories of purchases by the Catalan government. Based on the EU environmental policies, enacted outside of the scope of public procurement law,³¹ the act emphasised the obligation of governments to lead by example.³² By virtue of law, all governmental departments, its independent organisms and state owned companies were required to purchase only recycled or ecological paper for its internal functions and preferably also for its external relations and publications, further establishing guidelines for identification of recycled or ecological paper. Furthermore, all new vehicles purchased that run on gasoline were required to be equipped with a catalytic converter that is needed for running on unleaded petrol, and, within the budgetary limits, the existing fleet should be upgraded with such a converter. Being passed nearly 30 years ago, this law attests to the high level of awareness of the Catalan government of the EU environmental policies and the proactive nature of Catalan public procurement law in the attempt to contribute to the achievement of those policies. These measures surpassed mere recommendations, amounting to firm legal obligations for the government and state-owned companies. Following the technological developments and the need to resolve the issue of air pollution, the policy has been made more ambitious in the year 2017 with the introduction of mandatory rules on the acquisition of low-emission vehicles and other aspects for the environmental improvement of vehicle fleets,³³ requiring the purchase of electric or hybrid vehicles as a default option. GPP enhancements through the GPP2020 programme brought

³⁰ Hasanbeigi, A., Becqué, R., Springer, C. (2019) ‘Curbing Carbon from Consumption: The Role of Green Public Procurement,’ p.19. Available online: <https://www.climateworks.org/wp-content/uploads/2019/09/Green-Public-Procurement-Final-28Aug2019.pdf> (accessed 22.03.2020).

³¹ Council Directive 70/220/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles OJ L 76; Council Directive 85/210/EEC of 20 March 1985 on the approximation of the laws of the Member States concerning the lead content of petrol OJ L 96; 81/972/EEC Council Recommendation of 3 December 1981 concerning the re-use of waste paper and the use of recycled paper OJ L 355.

³² Acuerdo del Gobierno (n28).

³³ Acord del Govern, de 3 de enero de 2017, per a l'adquisició de vehicles de baixes emissions i altres aspectes per a la millora ambiental de les flotes vehicles.

about significant reduction in CO₂ emissions and energy consumption,³⁴ while simultaneously implementing circular economy driven objectives by leasing and renting rather than purchasing the needed vehicles.³⁵

In the year 1998, legislation has been passed in Catalonia establishing the criteria to be determined in technical specifications regarding the quality of materials used in construction, applicable to the Catalan government and its autonomous bodies.³⁶ By requiring certification issued by an officially recognised certification body in the EU or the proof of equivalent quality in the procurement procedure, this law inserted mandatory environmental standards in the public works contracts in the construction industry. The same year legislation has been passed establishing measures for water savings in certain buildings and homes,³⁷ based on the understanding of (at the time local) conditions of high water demand and simultaneous water scarcity, calling for rational and sustainable use of water. Buildings owned by the Catalan government and used for public services, even if managed privately, that have been newly construed or have been subject of extensive rehabilitation as well as any aid-financed housing or managed by the Catalan government, were required to install mechanisms for the reduction of water consumption. Inspired by the local unsustainable experience, the proactive attitude of the Catalan government resulted in mandatory water management requirements in its public procurement processes to lead by example and stimulate the private market offering of sustainable water management products.

As a matter of a proactive attitude regarding socially sustainable public procurement, a law has been passed in 2004 establishing that all departments, public enterprises and autonomous bodies of the Catalan government need to reserve up to 20% of their contracts for being awarded to labour insertion centres.³⁸ Surpassing the debate on green public procurement the present example supports the arguments on the importance of the leadership role that the Catalan government took regarding sustainable public procurement before such option has been enacted at the EU level. The so-called social public procurement has been further supplemented with Guidelines for protection and promotion of human rights in public procurement,³⁹ shying away from the national, regional and local social inclusion approach and towards a more global outlook, thereby portraying the understanding that sustainability is a global challenge, which should be resolved at the local level.

³⁴ Ministry of Territory and Infrastructure and Catalan Institute for Energy, Government of Catalonia, Ecoinstitut SCCL and associated partners, GPP2020 Implementation activities in Catalonia. Available online: https://gpp2020.eu/fileadmin/files/D2.4_GPP_2020_Results_Catalonia_en_final.pdf (accessed on 12.04.2020), p.3.

³⁵ Lease of low-emission vehicles by the Roads Directorate General; lease-to-buy contract for fleets for the Ministry of Home Affairs; renting electric scooters for the Barcelona City Police; lease-purchase of low-carbon cars for the Ministry of Territory and Sustainability.

³⁶ Resolución de 22 de junio de 1998, por la cual se da publicidad al Acuerdo del Gobierno de la Generalitat de 9 de junio de 1998, por el cual se fijan los criterios para la utilización en la obra pública de determinados productos utilizados en la construcción (DOGC 2694, de 3 de agosto de 1998); Ley 3/1998, de 27 de febrero, de la intervención integral de la Administración Ambiental (DOGC 2598, de 13 de Marzo 1998).

³⁷ Decreto 202/1998, de 30 de julio, por el que se establecen medidas de fomento para el ahorro de agua en determinados edificios y viviendas.

³⁸ Article 19(6) Ley 7/2004, de 16 de julio, de medidas fiscales y administrativas (BOE 235, Disposición nº 16713).

³⁹ Tornos, J., Fernandez de Losada, A.; Calvete, A.; Amrbos, J (2017) Guia per a la protecció i promoció dels drets humans en la contractació pública. Available online: www.993Responsible.org (accessed on 26.04.2020).

The Catalan efforts for greening the procurement processes became less sector-specific and more general in the year 2005, when an agreement has been issued approving measures for promoting the greening of public procurement at the governmental level and its affiliated or linked entities.⁴⁰ The cooperation between the Ministry of Territory and Sustainability and the Ministry of Vice Presidency, and Economy and Finance resulted in the inclusion of environmental criteria in most framework agreements as of the year 2005. Progressive incorporation of environmental criteria into main supplier agreements of the Catalan centralised purchasing system has been mandated, establishing in parallel technical procurement criteria for routine decentralised purchases of governmental departments and its associated bodies. The agreement further established a commission for monitoring the GPP uptake, entrusted with the task of developing further GPP guidelines and documentation. Followed by a new general agreement on GPP in the year 2009,⁴¹ providing further instructions on the inclusion of environmental criteria in public purchasing. It represents the incorporation of criteria foreseen in the Strategy for the smart specialisation of Catalonia (RIS3CAT),⁴² the Catalonia 2020 Strategy (ECAT 2020)⁴³ and the Catalan Ecodesign strategy⁴⁴ for a circular and eco-innovative economy.

In 2007, the Catalan GPP efforts were focused on energy savings and energy efficiency.⁴⁵ Under the Catalan energetic transition plan for the period of 2006-2015 and the acknowledgement that the Catalan government represents the biggest energy consumer in Catalunya, it obliged all buildings of governmental use, consuming more than 200.000 kWh/year of energy, to have an energy consumption audit in place in one year that was to be repeated every 5 years. These buildings needed to comply with some specific requirements, such as limiting the heating to 20°C and cooling to 25°C and obligatory yearly plans at the departmental level on investment in energy savings, energy efficiency and the use of renewable energy. The goal of 11% of energy savings by the year 2015 has been made a joint responsibility of each and every governmental department with the extensive support of the Catalan Energy Institute as the programme's coordinating entity. The agreement introduced specific requirements in the field of IT equipment, electrodomestic appliances, lightbulb purchases and vehicles. The goals were supported with additional awareness-raising activities for public servants. Reformed in 2018, a new agreement has been enacted in the framework of the Catalan energetic transition plan for the period of 2018-2022, based on the work and data gathered in a ten-year period under the proposal issued in the year 2007,⁴⁶ to achieve further energy and greenhouse emissions savings of 7.74% in the period 2018-2022. Inspired also with the EU requirement of new or substantially refurbished governmental properties being almost 'net-zero buildings',⁴⁷ the amended agreement furthers the installation and use of solar power

⁴⁰ Acuerdo del Gobierno, de 11 de octubre de w, de medidas para fomentar la ambientalización de la contratación pública de la Administración de la Generalitat de Catalunya y de las entidades y empresas públicas que están adscritas o vinculadas.

⁴¹ Acord del Govern, de 9 de desembre de 2009, de mesures en matèria de contractació pública.

⁴² Generalitat de Catalunya Pla d'acció de la RIS3CAT 2015-2020.

⁴³ Generalitat de Catalunya Estratègia Catalunya 2020.

⁴⁴ Acuerdo GOV /73/2015, de 26 de mayo, por el que se aprueba la Estrategia de impulso a la economía verde y a la economía circular (DOGC 6881); Acuerdo GOV/80/2015, de 2 de junio, por el que se aprueba la Estrategia catalana de ecodiseño para una economía circular y ecoinnovadora (ecodiscat) (DOGC 6885).

⁴⁵ Proposta d'acord pel qual s'aprova el desenvolupament del programa d'estalvi i eficiència energètica als edificis i equipaments de la Generalitat de Catalunya.

⁴⁶ Acord del Govern, de 4 de desembre de 2018, pel qual s'aprova el Pla d'estalvi i eficiència energètica als edificis i equipaments de la Generalitat de Catalunya, en el marc de la transició energètica de Catalunya, per al període 2018-2022.

⁴⁷ Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings OJ L 153; Directive 2012/27/EU of the European Parliament and of the Council of 25

on such governmental property. An interdepartmental commission has been created to streamline the actions taken in the framework of the agreement. The renewed agreement represents advancements in the use of electric cars by the public officers (30% of the vehicle fleet of the Catalan Government to be electric by 2025, by 2030 the objective is 100%), as well as in the field of renewable energy (the energy contracted for the supply of the governmental buildings needs to be of 100% renewable origin). Understanding the need for adaptation to greener practices of the tendering entities, the agreement allows for a long contractual term up to 12 years for the companies involved to recover the cost of providing energy efficiency services.

In the year 2019 the Government of Catalonia adhered to the Ellen MacArthur Foundation New Plastics Economy Global Commitment,⁴⁸ resulting in the adoption of a law⁴⁹ enacting measures for minimisation of the use of disposable plastic containers and disposable plastic products (such as cutlery, plates, cups, cups, and sticks), applicable to the departments of the administration of the Catalan Government and all entities and bodies of its public sector as well as at to the events that those entities organise. The law is quite far-reaching; even the catering services are prohibited to supply beverages in single use plastic containers or providing any single-use plastics in their sales, all down to the vending machines used in those entities. These restrictions can be inserted in the public procurement process as a technical specification or conversely as a contract performance clause. It is interesting to note that the national government has not adhered to this Commitment, and it seems that the forward-looking policy making of Catalonia is characteristic for the regional and local authorities.

2.2 The upgrade: the local level of Barcelona City

The Barcelona More Sustainable City Council Programme (hereinafter: +SCC Programme)⁵⁰ as an ambitious overarching GPP plan has been created with the goal of greening of all municipal procurement, an ambition that has its inceptions in the year 1995 with the accession of Barcelona City to the Aalborg charter.⁵¹ In the year 1998, Agenda 21 has been defined as a result of the Aalborg commitment⁵² as a project enforcing new ecologically-friendly measures and increasing awareness activities, carefully built through an intense participatory process under the supervision of the Barcelona's Council for the Environment and Sustainability (Consell Municipal de Medi Ambient i Sostenibilitat) for the period of 2002-2012. It is interesting to note that the Barcelona City's approach to GPP started with greening

October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC OJ L 315.

⁴⁸ Ellen MacArthur Foundation (2020) 'New Plastics Economy Global Commitment: Commitments, vision and definitions.' Available online: <https://www.newplasticseconomy.org/assets/doc/Global-Commitment-Definitions-2020-1.pdf> (accessed on 26.03.2020).

⁴⁹ Acord de Govern, de data 11 de junio 2019, de restricció de determinats productes de plastic d'un sol ús a la Generalitat de Catalunya.

⁵⁰ Since 2006. Available online: <http://www.ajsosteniblebcn.cat/en/> (accessed on 29 March 2020).

⁵¹ Aalborg Charter. Charter of European Cities & Towns Towards Sustainability (as approved by the participants at the European Conference on Sustainable Cities & Towns in Aalborg, Denmark on 27 May 1994).

⁵² With 10 main objectives, carefully defined in an extremely participative process open to the public. *See more in* Castiella, T. and Franquesa, T. (2003) La Agenda 21 de Barcelona: Un Proceso Participativo por el Cambio. Available online: https://www.miteco.gob.es/es/ceneam/articulos-de-opinion/2003_04castiella_tcm30-163562.pdf (accessed on 29 March 2020).

the organisation on the inside in 2001 through the Green Office Programme,⁵³ which has been converted in the year 2006 into the +SCC Programme, covering general public procurement processes. This programme is just a small part of the Barcelona More Sustainable Programme as a network programme, which represents a large cohesive strategy of embedding environmental and social concerns into the society. This allows for policy coherence and cohesion in other fields at the municipal and regional level, which GPP as a singular activity could not have achieved. This coherent, organic approach might as well be compared to the private sector efforts in terms of the distinction between weak sustainability and strong sustainability actions. While isolated GPP policy allows for a limited positive environmental impact, the results are likely not going to be optimal and can be compared to the results of the weak sustainability strategies in the private sector which has a limited effect on minimising the negative impact of corporations on the environment and the society. The organic approach, on the other hand, provides consistency and interlinked policy instruments that achieve more optimal results.⁵⁴

Based on the Agenda 21, successive governmental measures, municipal decrees and other regulations have reinforced the inclusion of environmental criteria in the public procurement. The launch of the Sustainable City Council Convention in the year 2010 is one of the most notable ones, representing a participative process to evaluate past actions and to define common future objectives and actions.⁵⁵ In 2013, the Municipal Decree for Responsible Public Procurement has been enacted, obliging all contracting bodies to integrate green requirements when tendering for 12 high priority procurement categories,⁵⁶ namely food services, electricity supply, telecommunications, computers, wood, office furniture, works projects, events, paper, textile products, vehicles, cleaning and selective collection of waste. The measure affected more than 50,000 tenders annually in the amount of €1.1 billion⁵⁷ and was followed in 2015 by Instructions to services on the inclusion of environmental and social criteria in procurement contracts, making green requirements compulsory for all contracting authorities tendering for 12 high priority procurement categories.⁵⁸ The Municipal Decree for Sustainable Public Procurement in 2017 expanded the mandatory sustainable procurement and strengthened its social dimension,⁵⁹ culminating in the implementation of a city-wide mandatory sustainable procurement, acknowledged as a best practice by the 2018 Procura+ Award. The timeline hereunder serves as a visual representation of the most important legal instruments enacted at

⁵³ Ajuntament de Barcelona (2012) Guia de l'oficina verde. Available online: http://mediambient.gencat.cat/web/.content/home/ambits_dactuacio/educacio_i_sostenibilitat/educacio_per_a_la_sostenibilitat/suport_educatiu/ambits_tematics/consum/recursos-educatius-consum/guia_oficina_verda/guia_de_loficina_verda.pdf (accessed on 14,04,2020).

⁵⁴ See more in Neumayer, E. *Weak versus Strong Sustainability* (Edward Elgar Publishing 2013).

⁵⁵ Available online: http://www.ajsosteniblebcn.cat/document_final_convencio_as_7886.pdf (accessed on 29 March 2020).

⁵⁶ Decret d'Alcaldia relatiu a la contractació pública responsable amb criteris socials i ambientals, per a l'efectiva aplicació de consideracions de tipus social i ambiental als contractes del sector públic que subscriguin l'Ajuntament de Barcelona i les entitats dependents que tenen la condició de poder adjudicar (Ref. 4043/13).

⁵⁷ Procura+. Available online: <https://procuraplus.org/index.php?id=221> (accessed on 29 March 2020).

⁵⁸ Instruccions tècniques per a l'aplicació de criteris de sostenibilitat (2015), available online: http://www.ajsosteniblebcn.cat/ins_cat_tot_maq_67482.pdf (accessed on 29 March 2020).

⁵⁹ Decret d'Alcaldia S1/D/2017-1271 de 24 d'abril, de contractació pública sostenible de l'Ajuntament de Barcelona.

the local Barcelona City level, to the exclusion of sectoral instruments of detailed instructions on the 12 high priority procurement categories.

Figure 3: Barcelona City Council Sustainable Public Procurement Instruments

Despite the relative seemingly dispersed and scarce legislation in the period between the years 1998 and 2006, those years were very active in terms of public consultation, participation and the amelioration of sustainable criteria at the local level as the most appropriate driver of the transition towards sustainability.⁶⁰

2.3 The case of PPI: on the spirit but not on the goal

PPI allows the public authorities to act as launch customers and promote the use of innovation-friendly procurement practices. Inserted in the EU law as of the year 2014⁶¹ as procurement where contracting authorities act as a launch customer of innovative goods or services which are not yet available on a large-scale commercial basis,⁶² PPI calls for innovation to cater to societal needs in general and has not been envisaged exclusively for achieving sustainability goals.⁶³ It can be argued that PPI serves those goals as a matter of reverse causality: sustainability by default requires novel solutions for minimising negative societal and environmental impacts of the existing linear production methods, thereby holding a special place in the PPI process. PPI has not been designed for furthering sustainability concerns per se. For that reason it receives a relatively modest attention in the framework of the present paper, only insofar as it has been used specifically in the context of sustainable solutions either by the Catalan government or by the Barcelona City. Furthermore, as PPI does not require the same amount of training and guidance as GPP, as the innovative solutions are

⁶⁰ Agenda 21 (n52).

⁶¹ Article 31 of the Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC OJ L 94.

⁶² Annex E. Specific requirements for innovation procurement (PCP/PPI) supported by Horizon 2020 grants, within HORIZON 2020 – Work Programme 2016-2017.

⁶³ “[...]inter alia with the purpose of helping to solve societal challenges or to support the Europe 2020 strategy for smart, sustainable and inclusive growth.” Article 3(22) of the Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on Public Procurement and Repealing Directive 2004/18/EC OJ L 94.

to be provided by the tenderers themselves, it is used as an example of furthering of sustainability policy through new forms of public-private partnerships.

In general, PPI aims to deliver higher quality public service on an optimal budget, addresses an arising need, modernises public services, helps start-ups and innovative SMEs launch and grow and moves markets towards innovation.⁶⁴ In the context of sustainability, innovation in public and private markets is crucial, combining the environmental protection of national systems with business innovation while delivering essential goods and services, serving social goals of human health, equity, and environmental justice.⁶⁵ Spain introduced PPI in its policy framework in the year 2010 with its Innovation Strategy e2i for the years 2010-2015, aiming at fostering growth in priority innovation markets,⁶⁶ one of them being sustainability.⁶⁷ The strategy has been implemented into Spanish law with the Law 14/2011.⁶⁸ At the national level, this policy has been subordinated to the Spanish sustainability strategy,⁶⁹ framing the whole innovation policy in the framework of environmental and social sustainability.

Similarly to the GPP, the autonomous Spanish regions and municipalities developed their own approaches to the innovation procurement.⁷⁰ Catalonia inserted innovation as a general policy aim of public procurement in the year 2015⁷¹ and in the year 2016 determined eight types of contracts to be considered in the PPI process, out of which half were envisaged as SPP contracts,⁷² supporting the argument that not all PPI is envisaged for achieving sustainable goals. Supported by several PPI guidelines, it follows the structure of support for

⁶⁴ EU Commission, Commission notice Guidance on Innovation Procurement, C(2018) 3051 final.

⁶⁵ Larson, A. *Sustainability, Innovation, and Entrepreneurship* (Saylor Foundation 2011).

⁶⁶ Ministerio de Ciencia e Innovación, Estrategia Estatal de Innovación, available at: http://www.idi.mineco.gob.es/stfls/MICINN/Innovacion/FICHEROS/Spanish_Innovation_Strategy.pdf (accessed on 04.04.2020).

⁶⁷ Ibid, p.10.

⁶⁸ Ley 14/2011, de 1 de junio, de la Ciencia, la Tecnología y la Innovación, available at: http://www.boe.es/diario_boe/txt.php?id=BOE-A-2011-9617 (accessed on 04.04.2020).

⁶⁹ Ministerio para la transición ecológica y el reto demográfico, Estrategia para la Economía Sostenible (2007), available at https://www.miteco.gob.es/es/ministerio/planes-estrategias/estrategia-espanola-desarrollo-sostenible/EEDSnov07_editdic_tcm30-88638.pdf (accessed on 04.04.2020).

⁷⁰ Generalitat de Catalunya, Programa de compra pública d'innovació de la RIS3CAT (2017).

⁷¹ Ordre eco/124/2015, de 27 d'abril, per la qual s'estableixen el procediment i el model dels continguts de sol·licitud per a la programació en el Programa operatiu del Fons Europeu de Desenvolupament Regional Catalunya 2014-2020 (PO FEDER Catalunya 2014-2020) dels projectes de compra pública innovadora; Ordre ECC/1087/2015, de 5 de juny, Ordre ECC 1087/2015, de 5 de juny, per la qual es regula l'obtenció del segell de Petita i Mitjana Empresa Innovadora i es crea i regula el Registre de la Petita i Mitjana Empresa Innovadora.

⁷² Contracts to promote saving energy efficiency in buildings and equipment; contracts with the aim of implementing mechanisms to reduce water consumption, residents or energy or the introduction of renewable energies in buildings and public facilities; contracts promoting sustainable mobility and the use of non-contaminating vehicles; contracts based on the principles of the circular economy. See Acord del Govern, de data 11/06/2019, per a l'impuls de la compra pública estratègica d'innovació en l'àmbit de l'Administració de la Generalitat de Catalunya i el seu sector públic.

the uptake of GPP at the Catalan level,⁷³ giving priority to the procurement of sustainable products, services and works under the general policy framework of innovative procurement.⁷⁴

Barcelona, on the other hand, defined PPI as solving societal challenges and needs by asking the market for the existing or future solutions which offer good value for money under the life cycle cost method,⁷⁵ framing its whole PPI strategy in terms of sustainability. More than a matter of reverse causality, the PPI policy in Barcelona seems to be subdued to sustainability concerns,⁷⁶ the latter having a higher position in the hierarchy of societal needs than the innovation itself. The life cycle costing (hereinafter: LCC) namely encompasses all costs incurred during the lifetime of the product, work or service: purchase price and all associated costs (costs of delivery, installation, insurance, etc.); operating costs (including energy, fuel and water use, spare parts and maintenance); end-of-life costs (e.g. disposal and decommissioning costs) and under some specific conditions even the cost of externalities, such as greenhouse gas emissions,⁷⁷ incorporating by default sustainability concerns in the public procurement process. The argument is corroborated by the Barcelona City defining PPI as “[...]public procurement which makes use of the innovative solutions (products, technologies, processes) that arise from the procurement process to promote a greater impact on sustainable and inclusive growth in society.”⁷⁸ Aside from this general focus on sustainability, the PPI also follows the successful four-level structure of implementation of GPP: a political mandate at the highest level, training, means and professional human resources and measurement.⁷⁹

One of the successful sustainable PPI procedures has been carried out by the Directorate General of Mobility Infrastructure of the Generalitat of Catalonia for the procurement of sustainable paved surfaces. Involving diverse sectors in the design, production, construction and maintenance of road surfaces provided new methods and procedures making the paved surfaces more economically and environmentally sustainable, adding new value to their basic functions of road safety,⁸⁰ such as reducing the heat island effect, the generation of noise, atmospheric pollution and its durability. With the project, the carbon footprint of the pavement in its life cycle is to be reduced by 12% compared to a conventional one.⁸¹

⁷³ Generalitat de Catalunya, Guia per a la compra pública d’innovació a l’àmbit de la Generalitat de Catalunya i el seu sector públic; Ministeri d’Economia i Competitivitat en esborrany, Guia 2.0 per a la compra pública d’innovació; Guia sobre la contractació pública com a motor d’innovació en les PIME i els serveis públics: Guia per a autoritats públiques sobre la contractació pública d’innovació. Procurement of Innovation Platform; Guia de bones pràctiques per al foment de l’R+D+I en l’àmbit de la contractació pública.

⁷⁴ RIS3CAT (n70).

⁷⁵ The Open Digitisation Programme from Barcelona City Council’s Office for Technology and Digital Innovation, Innovative public procurement guide, p.9. Available at: https://ajuntament.barcelona.cat/contractaciopublica/sites/default/files/innovative_public_procurement_guide_2_017.pdf (accessed on 05.04.2020).

⁷⁶ Article 6.3 of Decret d’Alcaldia S1/D/2017-1271 (n59).

⁷⁷ EU Commission, Buying green! (n5) p.57.

⁷⁸ Barcelona City, Innovative public procurement guide (n75), p.8.

⁷⁹ Ibid, p. 13.

⁸⁰ Generalitat de Catalunya, Monitoratge de la RIS3CAT, 5. El potencial de la compra pública d’innovació per respondre als grans reptes de la societat (2019), p. 7-9. Available online: http://catalunya2020.gencat.cat/web/.content/00_catalunya2020/Documents/estrategies/fitxers/cpi-respostes-eficaces.pdf (accessed on 08.04.2020).

⁸¹ Ibid.

In terms of social sustainability, the Catalan government built on the success of the Sant Pau Hospital's Stop & Go⁸² and RITMOCORE⁸³ projects to regionally implement new comprehensive and patient-centered care models for arrhythmias with implantable cardiac devices. Under the framework of RIS3CAT, a call for operational programme for the SISCAT centres has been issued with the objective of implementing CPI projects across Catalonia, resulting in 18 projects being chosen for a broader implementation of novel solutions for patient care. The newly developed model entails the company selling the devices and supplying, monitoring and maintaining them remotely for the periods of four years as a public-private cooperation saving resources to the hospital and benefiting the patient.

In terms of circular economy, the PPI has helped to coordinate the tasks of waste collection, which has traditionally been a local competence in Catalonia. With the view of ameliorating the existing practices and processes and streamlining them in line with best practices, the PPI call defined a common framework for local entities to propose and execute pilot projects to modernize traditional municipal waste collection services, incorporate the active participation of citizens (more co-responsibility), propose new business models of shared value (economic, social and environmental) and allow advancing towards a circular economy model. A collaborative model has been developed between different levels of public administration to define systemic long-term objectives and local coordinated initiatives, with a high citizens' involvement for achieving these objectives.⁸⁴

At the municipal level, several sustainability oriented PPI procedures have been carried out: from the initial "BCN Open Challenge," providing solutions for six sustainability challenges related to public space and public services under a dedicated innovation fund of 1 million EUR,⁸⁵ to the library energy efficiency PPI project of the Barcelona City Council in the framework of the international Smart Procurement European Alliance project.⁸⁶ The BCN Open Challenge provided solutions for the following challenges: reducing bicycle thefts in the city, empowering support systems to reduce social isolation, monitoring pedestrian flows in the city, tools for digitalisation of museum and archive collections, automatic detection and alerts of damaged road surfaces and empowering local retail through technology. The library energy efficiency project provided energy saving solutions based on the initial sample of 10 municipal libraries, which is to be rolled out to all the remaining libraries and serves as the basis of solving challenges posed under the ERDF RIS3cat programme for the maintenance of all municipal buildings. Barcelona City is striving to reap the benefits of these innovative procedures for the benefit of a general sustainable public administration reform.

2.4 The summary of mandatory GPP in Catalonia and Barcelona

⁸² A project of reorganisation of the healthcare model of patients in need of an implantable automatic defibrillator. It started in 2010 and received the second prize from the European Silver Economy Awards 2018. Available online: <https://ted.europa.eu/udl?uri=TED:NOTICE:418211-2015:TEXT:EN:HTML> (accessed on 08.04.2020).

⁸³ A project defining a comprehensive and integrated treatment model for people with symptomatic bradycardias requiring the implantation of pacemakers. Available at: <http://www.ritmocore-ppi.eu/about-us/> (accessed on 08.04.2020).

⁸⁴ Generalitat de Catalunya (n80), p.14-15.

⁸⁵ Available online: <https://bcnopenchallenge.wordpress.com/> (accessed on 08.04.2020).

⁸⁶ Barcelona City, Innovative public procurement guide (n68), p.21.

These diverse policy frameworks and legal acts culminated in widespread mandatory GPP practices in Catalonia as well as in the City of Barcelona. As of the year 2017, at the level of Barcelona City, GPP is mandated beyond the 12 core priority categories with supporting detailed guidelines and training activities. These GPP procurement practices include purchasing of work uniforms according to the International Labour Organisation recommendations and with restricted presence of chemicals; acquisition of certified sustainable wood; sourcing 100% of electricity from renewable energy sources or high-efficient cogeneration; school catering services with food from ecological agriculture; computers complying with at least the Energy Star standard; sourcing 100% of recycled paper; priority for acquiring electric vehicles; procuring buildings and public spaces with the highest energy, water and environmental self-sufficiency; requiring a greening plan for public events; communication products based on eco-publishing criteria and more sustainable materials and practices; eco-designed or eco-labelled office furniture, produced using recycled or sustainable raw materials and free of toxic substances; selective waste collection and the use of green cleaning products and other materials.⁸⁷ At the level of Catalonia, mandatory GPP is a matter of centralised procurement⁸⁸ for eight (8) product groups through regularly reviewed agreements and contracts: printing and writing paper,⁸⁹ office stationary,⁹⁰ office furniture,⁹¹ building cleaning services,⁹² postal services,⁹³ energy supply,⁹⁴ surveillance and security,⁹⁵ and vehicles.⁹⁶ As to the decentralised Catalan procurement, the Ministry of Territory and Sustainability provides tools and direct support to any governmental body that wishes to include criteria in their tenders, hence for those purchases GPP is not mandated but rather incentivised by the supporting tools.⁹⁷

Section 2 laid out the historical trajectory of the GPP legislative development at the regional level of Catalonia and the local level of Barcelona City, allowing for a construction of the argument that the Catalan implementation of mandatory GPP followed the following structure: the first phase of mandatory singular sectoral GPP; the second phase of mandatory sectoral legislation for the high priority procurement categories and the third phase of general

⁸⁷ Instruccions tècniques per a l'aplicació de criteris de sostenibilitat (n58).

⁸⁸ Decret 96/2001, de 20 de març, sobre organització i competències per a la contractació dels subministraments i dels seus serveis complementaris, relacionats o derivats dins l'Administració de la Generalitat i altres organismes públics.

⁸⁹ Acord marc per al subministrament de paper per a impressió i escriptura (Exp. CCS 2017 12).

⁹⁰ Acord marc per al subministrament de material d'oficina.

⁹¹ Acord marc per al subministrament i instal·lació de mobiliari d'oficina (Exp. CCS 2017 1).

⁹² Acord marc dels serveis de neteja (Exp. CCS 2016 4).

⁹³ Acord marc dels serveis de missatgeria i transport en fred (Exp. CCS 2020 2).

⁹⁴ Acord marc del subministrament d'energia (Exp. CCS 2017 2).

⁹⁵ Acord marc dels serveis de vigilància i seguretat (Exp. CCS 2017 4).

⁹⁶ Contractació centralitzada de subministrament de vehicles en la modalitat d'arrendament sense opció de compra (Exp. CCS 2018 VEH).

⁹⁷ Guia de publicacions ambientalment correctes –model GPP toolkit-; Guia de Solvència tècnica i gestió Ambiental: Propostes pels contractes d'obres i serveis (2010); Guia d'ambientalització de menjadors col·lectius –model GPP toolkit -; Guia d'esdeveniments ambientalment correctes -model GPP toolkit-; Guia d'ambientalització de la contractació del tèxtil -model GPP toolkit-; Guia per a la compra verda de vehicles -model GPP toolkit-; Guia per a l'adopció de criteris mediambientals en els contractes de manteniment d'instal·lacions d'edificis - model GPP toolkit -. Available online at: http://territori.gencat.cat/ca/01_departament/07_perfil_de_contractant/compra_contractacio_publica_verda/guies_per_a_lambientalitzacio/ (accessed on 03.04.2020).

mandatory GPP for the central authorities at the regional and local level. Section 3 therefore explores the trajectory from the initial impulses for mandatory GPP to the general imposition of GPP requirements, identifying the drivers for successful GPP implementation and additional impulses for successful GPP practices beyond the mandatory legislation.

3. The Catalan Model: the three-phase approach to mandatory GPP at the regional level, supported by general local commitment to sustainability

While mandatory legislation is considered as one of the main factors contributing to a high GPP uptake,⁹⁸ it needs to be supported by policy and strategy, presupposing leadership and accountability, appropriate implementation, alignment with organisational goals, and understanding of supply chains and (at least) environmental considerations in the supply chain to achieve a high GPP uptake.⁹⁹ The present section aims at providing an overview of the underlying Catalan GPP policies, the policy-making and strategic organs representing the leadership in the implementation of the legislation presented hereabove in Section 2, allowing for the determination of the factors that contributed to the highly developed GPP practices in Catalonia.

Starting as early as in the 1990s, a general public commitment towards sustainability has been present in Catalonia in general and in Barcelona City in particular. While at the regional level the commitment developed from mandatory GPP legislation for stationary and vehicles under the consideration of the need for public contribution to sustainability, Barcelona City undertook a general municipal sustainable commitment with its Agenda 21 programme without concrete measures in place at the time. At the two levels this could be defined as the Phase 1 of the GPP implementation, in line with the existing scholarship.¹⁰⁰ While the two approaches differ, their aim has been similar: to exercise leadership in the quest for sustainability by leading by example.¹⁰¹

Thinking globally and acting locally, the Barcelona's Agenda 21 has been the result of four years' research by the Municipal Council for the Environment and Sustainability, supported by over 420 organisations such as universities, businesses, trade unions, local schools and government organisations. Its basic principle is one of collective responsibility, encouraging a democratic approach to joint work. Barcelona's approach towards GPP therefore goes beyond raising awareness and providing technical support for mandatory measures, but is rather one of cohesion and active involvement for all stakeholders, which has arguably been one of Barcelona's key ingredients for a high GPP uptake and timely development of innovative

⁹⁸ EEA Technical Report No.1/2008, Time for action — towards sustainable consumption and production in Europe, 2008. Available at: https://www.eea.europa.eu/publications/technical_report_2008_1 (accessed on 08.04.2020).

⁹⁹ Mélon (n17), p.16.

¹⁰⁰ Nissinen, A.; Parikka-Alholaa, K., Ritab, H. (2009) Environmental criteria in the public purchases above the EU threshold values by three Nordic countries: 2003 and 2005 68:6 *Ecological Economics*, pp. 1838-1849.

¹⁰¹ Ajuntament de Barcelona (2009) Barcelona Works Towards Sustainability. Available online: <http://www.bcn.cat/climatechange/docs/web%20AGENDA21%202009%20angles.pdf> (accessed on 08.04.2020); Acuerdo del Gobierno (n28).

sustainable solutions.¹⁰² To carry out such an ambitious plan, Barcelona needed to build on the legal possibilities of the regional public procurement framework. Already in the year 2002, a support plan has been implemented to promote the Action Plans and the implementation of good practices, including the distribution of a methodological guide, an advisory service, specific training sessions, Action 21 Awards and a website for networking.¹⁰³ These supporting activities have been the core of Barcelona's GPP commitment from the beginning and have been scaled up in every subsequent revision of Barcelona's commitment to sustainable action. The following figure represents the growth of supporting GPP actions: from the Aalborg Commitment, to the actions of Municipal Council, the Barcelona Agenda 21 implementation act and the elaboration of ten (10) actions,¹⁰⁴ an upscaling of the Agenda 21 in the year 2012 to the Barcelona +Sostenible programme,¹⁰⁵ adding plans for private action, supported by

Figure 4: The development of GPP activities in Barcelona, translated and adapted from the Barcelona City Website scheme

research centres, free courses, conferences and seminars to educate adults, students and businesses on GPP. Continuing in 2017 with a sustainability plan for the business sector, private entities were invited to join Barcelona's commitment towards sustainability. The Phase 2 of the GPP implementation in Barcelona would therefore correspond to the 2013 Municipal Decree for Responsible Public Procurement mandating GPP in 12 high priority procurement categories: food services, electricity supply, telecommunications, computers, wood, office furniture, works projects, events, paper, textile products, vehicles, cleaning and selective collection of waste as a part of the renewal of the Agenda 21 goals in 2012. In Catalonia, the same phase can be represented by the 2005 inclusion of environmental criteria in most

¹⁰² See more in Marshall, T. *Transforming Barcelona: The Renewal of a European Metropolis* (Routledge 2004).

¹⁰³ Ajuntament de Barcelona (n101) p.5.

¹⁰⁴ Protecting natural spaces and biodiversity and expanding urban green areas; protecting the compact and diverse city with high quality public space; improving mobility; reaching optimal environmental quality levels for a healthy city; preserving natural resources and promoting the use of renewable energies; reducing waste production and promoting a recycling and reuse culture; increasing social cohesion and strengthening the mechanisms for fairness and participation; promoting sustainable-development-oriented economic activity; increasing public awareness of sustainability through environmental education and communication and reducing the city's impact on our planet and promote international cooperation. See Ajuntament de Barcelona (n93).

¹⁰⁵ Ajuntament de Barcelona, Citizen Commitment to Sustainability 2012-2022. Available online: https://www.barcelona.cat/barcelonasostenible/sites/default/files/commitment22_2017_web.pdf (accessed on 08.04.2020).

framework agreements of the centralised purchasing system, suggesting that the development at the Catalan level has represented a fruitful basis for developments at the municipal level. While the GPP policy has been in place at the municipal level since the year 2002, the mandatory legislation has not been enacted until the year 2013, by the time when Catalan experience could be harvested and municipal consultation serving as a basis for the determination of the 12 crucial sustainability categories. Building on the experience of mandatory sectoral GPP legislation, the Phase 3 of a general GPP obligation has been enacted at the regional and municipal level: at the Catalan level in the year 2009 and at the municipal level of Barcelona in the year 2017.¹⁰⁶

3.1. The leadership and the commitment: setting the stage of the letter of law

The present section builds on the existing scholarship on the drivers and barriers for a high GPP uptake,¹⁰⁷ discerning factors of influence on GPP uptake in the case of Catalonia and Barcelona, contributing further to the existing knowledge. The policy environment represents a defining factor for determining the extent of GPP engagement,¹⁰⁸ and the Catalan regional and local experience supports this finding. The environmentally and socially conscious attitude has been present at both levels since the 1990s and has since been progressively implemented throughout diverse governmental policies.¹⁰⁹ While the commitment towards sustainability has been found to be a necessary condition for a high GPP uptake, for it becoming a sufficient condition it further requires concrete organisational goals related to the policy.¹¹⁰ In Catalonia, organisational as well as GPP goals have been defined in line with the EU environmental policies from the year 1991.¹¹¹ Barcelona City built its GPP goals through an intense stakeholder participative procedure as one of the drivers of high GPP uptake¹¹² from the accession to the Aalborg Charter to the implementation of Agenda 21 in the year 2002. Closely following the three-phase approach presented in the previous section, those goals were broadened accordingly in every consecutive phase to finally cover the whole public procurement process, setting concrete environmentally material targets. At the regional level, the GPP implementation started with the mandatory use of recycled paper supported by guidelines setting out the characteristics of such paper, culminating in a general sustainability policy for almost all governmental activity and concrete goal setting in low-carbon

¹⁰⁶ For a more detailed discussion on the legislative instruments see Section 2.

¹⁰⁷ Gelderman, Cees J.; Semeijn, J., Vluggen, R. (2017) Development of sustainability in public sector procurement 37(6) *Public Money and Management*, pp.435-442.

¹⁰⁸ Brammer, S., Walker, H. (2011) Sustainable procurement in the public sector: an international comparative study 31(4) *International Journal of Operations and Production*, pp.452-476.

¹⁰⁹ By way of example, fostering GPP in Catalonia has been perceived as only one of the activities undertaken in the framework of implementing green economy across the territory in the private and public markets. See Generalitat de Catalunya (2012) Green Economy Best Practices in Catalunya, available online: http://www.gencat.cat/mediamb/publicacions/monografies/green_economy_best_practices_eng.pdf (accessed on 14.04.2020).

¹¹⁰ Thomson, J., Jackson, T. (2007) Sustainable procurement in practice: Lessons from local government 50:3 *Journal of Environmental Planning and Management*, pp. 421-444.

¹¹¹ Supporting the decision for the mandatory use of the recycled paper and using unleaded petrol for governmental vehicles with EU legislation, e.g. European Union Council Recommendation 81/972 and the Directives 70/229 and 85/210.

¹¹² Gelderman, Semeijn and Vluggen (n107).

procurement under the auspices of the GPP2020 framework.¹¹³ Barcelona's latest version of its Agenda 21 programme, now called Ajuntament +Sostenible,¹¹⁴ entails not only policies, guidelines and GPP targets, but additionally implements a strategic plan for internal sustainability across diverse municipality departments,¹¹⁵ recognising its strategic role in achieving global sustainability under the UN 2030 Agenda.¹¹⁶ Understanding the importance of leading by example at all levels, also in organisational terms, the Green Office Programme¹¹⁷ represents a commitment to preserving the environment while simultaneously saving in energy and economic resources, as a matter of much needed policy coherence in sustainability. It is important to note that the commitment towards sustainability has been much broader than a mere commitment to GPP at the regional and local level, as Figure 5 hereunder portrays.¹¹⁸ GPP represents only two of numerous Catalan policy actions enacted in the framework of the Catalan commitment towards sustainability.

¹¹³ See GPP2020 Annual Monitoring Report. Available online: https://gpp2020.eu/fileadmin/files/Training_materials/GPP_2020_3rd_Annual_EU_Monitoring_Report_2016_fi nal.pdf (accessed on 11.04.2020).

¹¹⁴ Ajuntament de Barcelona (n105).

¹¹⁵ Security Management and Prevention; Department of Urban Ecology; Institute of Culture of Barcelona; Municipal Environmental Area; Metropolitan Transport Company; CLABSA and Barcelona Municipal Services. See more at http://www.ajsosteniblebcn.cat/en/strategic-plans-for-internal-sustainability_59477 (accessed on 12.04.2020).

¹¹⁶ Ajuntament de Barcelona (2020) 2030 Agenda Strategy for Barcelona City. Available online: <https://ajuntament.barcelona.cat/agenda2030/sites/default/files/2020-02/Government%20measure%20-%20202030%20AGENDA%20STRATEGY%20FOR%20BARCELONA%20CITY.pdf> (accessed on 11.04.2020).

¹¹⁷ Guia de l'oficina verde (n48).

¹¹⁸ Generalitat de Catalunya (n109); Ministerio de Agricultura, Alimentación y Medio Ambiente, Fichas Actuaciones Cataluña, Anexo III, available online: https://www.miteco.gob.es/images/es/Anexo%20III_Fichas_Actuaciones_Cataluña_tcm30-193037.pdf (accessed on 18.04.2020).

Figure 5: Sustainability Policy Actions in Catalonia

The relationship between sustainability initiatives and GPP has been found to be one of a positive correlation,¹¹⁹ and it is not surprising that the successful GPP uptake in Catalonia and Barcelona has been supported from the beginning by general sustainability initiatives at the regional and municipal level. Aiming at becoming a sustainability leader, Catalonia based its quest for green economy on an efficient use of resources and on reconciling economic development with the improvement of people's welfare and intra- and intergenerational solidarity.¹²⁰

In the case of Barcelona, the signature of the Aalborg Charter in 1995 represented an early commitment towards sustainable development as a part of its governance strategy, the result of which was the creation of the local Agenda 21 programme and the implementation of sustainability criteria in municipal services and activities. The region is further affirming its sustainability commitments by undertaking additional GPP commitments under the existing

¹¹⁹ Thai, K. V. (2001) Public procurement re-examined 1(1) *Journal of Public Procurement*, pp. 9–50.

¹²⁰ Generalitat de Catalunya (2012) (n109).

legislation, furthering its GPP agenda beyond the phase 3, such as in the case of Catalonia being a crucial player in the GPP2020 Project.¹²¹ Low-carbon procurement represents a deepening of Catalan GPP efforts, where the commitment to low-carbon procurement has been intensified and quantified through the involvement of the Catalan Ministry of Territory and Sustainability and the Catalan Energy Institute (ICAEN), with the direct support of the Council of Local Environmental Initiatives of the Region of Girona, Catalan Central Supply Commission, the Ministry of Home Affairs, Institutional Relations and Participation, the Economic Development Agency of the Province of Lleida, Barcelona Metropolitan Area, Barcelona City Council and Barcelona Regional Government (Diputació de Barcelona) in the project.¹²² A commitment has been made for a further strategic use of GPP to support the EU's goal of achieving a 20% reduction in greenhouse gas emissions, a 20% increase in the share of renewable energy and a 20% increase in energy efficiency by the year 2020. As shown in the final Catalan report, out of the 100 successful tenders under the GPP2020 frameworks, 15 were carried out in Catalonia, achieving 18,5% of savings in terms of greenhouse gas emissions and 16,9% of savings in terms of energy consumption at the governmental level¹²³ and 86,9% of savings in terms of greenhouse gas emissions and 46,3% in terms of energy consumption from other Catalan Public Authorities. The involvement in the GPP2020 project has not been limited to the regional or local level, but rather represented a result of intense cooperation between the two levels,¹²⁴ supporting the argument that the GPP in Catalonia amounts to more than a singular exercise of a strategic use of public procurement processes.

As to the leadership, the combination of a top-down and bottom-up approach is crucial for the achievement of a broad GPP implementation¹²⁵ and the following figure portrays the multi-faceted and multi-level GPP leadership in Catalonia.

Figure 6: GPP Functional Diagram of Catalonia, source: Generalitat de Catalunya 2019

Beyond the external focus on the supranational developments in the field of sustainability that has been present throughout the development of GPP in Catalonia and Barcelona, internal

¹²¹ GPP 2020, Procurement for a Low Carbon Economy. Available online: <https://gpp2020.eu/home/> (accessed on 12.04.2020).

¹²² Ministry of Territory and Infrastructure (n34).

¹²³ Ibid p.3.

¹²⁴ Ibid.

¹²⁵ For a discussion in the Dutch context, see Gelderman, Semeijn and Vluggen (n100).

motivation has been present since the initial GPP implementation activities, reflected in the functional organisation today depicted in Figure 5 hereabove. Intense cooperation is taking place between the regional and local level, in the framework of centralised as well as decentralised procurement processes. Even in the case of separate national and international projects, such as GPP2020, the two levels cooperate closely, allowing for the flow of

Catalonia and Barcelona, allowing for the determination of novel best practices supporting a successful transition to GPP.

3.2. Guidelines and trainings: the supporting activities

The scholarship has highlighted the importance of clear guidelines and proper training activities for a high GPP uptake to bridge the gap between the legal GPP rules and their practical implementation.¹²⁷ Given the entrenchment of procurement officials in the traditional purchasing procedures, based on the lowest price criterion, in the absence of these activities the skill set of the change agents would not suffice to support a practical implementation of environmentally and socially conscious practices.¹²⁸

The guidelines and trainings in the case of Catalonia and Barcelona followed the three-phase approach to mandatory GPP legislation, being developed for each additional product or service group in the consecutive phases of broadening the scope of mandatory GPP. The approach of combining sustainable public procurement with other, compulsory and/or voluntary instruments maximizes environmental, social and economic benefits, while promoting innovation and development in a green and inclusive economy. It is an organic and all-inclusive approach towards sustainability that reflects in the high GPP uptake and the nature of the Catalan economy as a whole. The analysis of the regional and the local development of the GPP supporting activities merits discussion in separate sections, as the supporting tools are numerous and differ according to the procurement method (e.g. whether it regards centralised procurement or a decentralised one in the case of Catalonia) and a final analysis of the interaction between those supporting activities at the regional and local level.

3.2.1 Catalonia: centralised and decentralised procurement

Regarding the centralised procurement, Catalonia included mandatory environmental considerations as of the year 2005 in eight (8) out of twelve (12) procurement categories:

¹²⁷ Mélon (n17); Andhov, M., Caranta, R., Stoffel, T., Grandia, J., Janssen, W. A., Vornicu, R., ... Wiesbrock, A. (2020). Sustainability through public procurement: the way forward – Reform Proposals. Available at SSRN: <https://ssrn.com/abstract=3559393>.

¹²⁸ Ibid.

electricity and gas,¹²⁹ office material,¹³⁰ office furniture,¹³¹ cleaning,¹³² paper¹³³ and postal services and messaging¹³⁴ and achieved significant improvement in the environmental impact of governmental purchasing in those categories. Each of the framework agreements entails specific environmental requirements in the accompanying specific administrative clauses guiding the contracting under the given framework, setting the common conditions for the contracts carried out under the respective framework and the penalties for non-compliance with those conditions. Aside from the formal inclusion of environmental criteria in centralised public purchases, their practical implementation is supported by additional instruments assuring their inclusion in the derived contracts. In the case of transferring GPP criteria from the framework agreement to individual contracts, when those criteria are introduced as award criteria at the framework level, the Catalan Government requires 15% of the award criteria of the individual tenders to be taken directly from the results of the evaluation of the environmental conditions in the framework agreement, ensuring that GPP passes also into individual contracts.¹³⁵ Furthermore, to simplify the procedure for bidding companies and the

¹²⁹ Generalitat de Catalunya (2017) Acord marc del subministrament d'energia (Exp. CCS 2017); Generalitat de Catalunya (2017) Plec de clàusules administratives particulars que regula l'Acord marc del subministrament d'energia (Exp. CCS 2017 2), available online: <https://contractacio.gencat.cat/web/.content/gestionar/compra-centralitzada/families/energia/ccs-2017-2-pcap.pdf> (accessed on 19.04.2020); Generalitat de Catalunya (2017) Plec de prescripcions tècniques particulars que regula l'Acord marc del subministrament d'energia (Exp. CCS 2017 2), available online: <https://contractacio.gencat.cat/web/.content/gestionar/compra-centralitzada/families/energia/ccs-2017-2-ppt.pdf> (accessed on 18.04.2020).

¹³⁰ Generalitat de Catalunya (2014) l'Acord marc per al subministrament de material d'oficina (Exp. 2014/1); Generalitat de Catalunya (2014) Plec de clàusules administratives particulars que regula l'Acord marc per al subministrament de material d'oficina (Exp. 2014/1), available online: https://contractaciopublica.gencat.cat/ecofin_pscp/AppJava/notice.pscp?reqCode=viewCn&idDoc=45127136 (accessed on 19.04.2020).

¹³¹ Generalitat de Catalunya (2017) Acord marc per al subministrament i instal·lació de mobiliari d'oficina (Exp. CCS 2017 1); Generalitat de Catalunya (2017) Plec de prescripcions tècniques particulars de l'Acord marc per a la contractació del subministrament i instal·lació de mobiliari d'oficina (CCS 2017 1), available online: <https://contractacio.gencat.cat/web/.content/gestionar/compra-centralitzada/families/mobiliari-oficina/ccs-2017-1-ppt.pdf> (accessed on 19.04.2020).

¹³² Generalitat de Catalunya (2016) Acord marc dels serveis de neteja (Exp. CCS 2016 4); Generalitat de Catalunya (2016) Plec de Prescripcions Tècniques que regulen l'acord marc dels serveis de neteja (CCS 2016 4), available online: <https://contractacio.gencat.cat/web/.content/gestionar/compra-centralitzada/families/neteja/ccs-2016-4-ppt.pdf> (accessed on 19.04.2020).

¹³³ Generalitat de Catalunya (2017) Acord marc per al subministrament de paper per a impressió i escriptura (Exp. CCS 2017 12); Generalitat de Catalunya (2017) Plec de clàusules administratives particulars que regula l'acord marc per al subministrament de paper per a impressió i escriptura (Exp. CCS 2017 12), available online: <https://contractacio.gencat.cat/web/.content/gestionar/compra-centralitzada/families/paper/ccs-2017-12-pcap.pdf> (accessed on 19.04.2020); Generalitat de Catalunya (2017) Plec de prescripcions tècniques que regulen l'Acord marc per al subministrament de paper per a impressió i escriptura (Exp. CCS 2017 12), available online: <https://contractacio.gencat.cat/web/.content/gestionar/compra-centralitzada/families/paper/ccs-2017-12-ppt.pdf> (accessed on 19.04.2020).

¹³⁴ Generalitat de Catalunya (2020) Acord marc dels serveis de missatgeria i transport en fred (Exp. CCS 2020 2); Generalitat de Catalunya (2016) Acord marc de serveis postals (Exp. CCS 2016 23); Generalitat de Catalunya (2015) Acord marc dels serveis de missatgeria (Exp. CCS 2015 11).

¹³⁵ E.g. *see* Acord marc dels serveis de neteja (n132) Article 34t(10): “Criterios de adjudicación y su ponderación en los contratos basados en el Acuerdo Marco. En los contratos basados los criterios de adjudicación que se tendrán que utilizar serán: La puntuación obtenida en la valoración del Acuerdo Marco en lo referente a los criterios de Plan de calidad adaptado al Acuerdo Marco, formación y criterios ambientales: 15 puntos. Esta puntuación se aplicará dando la máxima puntuación a la empresa adjudicataria que haya obtenido la mejor puntuación en los criterios del Acuerdo Marco referentes al Plan de calidad, formación y criterios ambientales y al resto de forma inversamente proporcional.”

users of the framework agreement, the Central Purchasing Commission centralised the efforts to assess the environmental issues of the major contracts.

Beyond imposing mandatory environmental criteria in the centralised procurement processes, the GPP experience obtained since the year 1990s allowed for the identification of possible pitfalls in the legislative architecture ex-ante, resulting in additional legislative provisions remedying the shortcomings and ensuring the desired environmental effects of GPP.¹³⁶ As regards the centralised procurement, environmental conditions are framed in a similar manner as the conditions in the EU GPP guidelines,¹³⁷ allowing for the construction of the argument that these conditions alone cannot represent the sole decisive distinguishing factor for a high GPP uptake in Catalonia, as they have been implemented in a similar (albeit voluntary) manner across the EU Member States. Their mandatory nature though contributed to positive environmental and market transition outcomes, as attested by the Catalan GPP monitoring reports. By way of example, under the electricity framework agreement, the volume of contracted electricity from renewable sources represented a 94,1% of the total in the year 2017, avoiding 9,8% of the emissions derived from the consumption of electricity in Catalonia and providing a decrease in the cost of supply.¹³⁸ In the case of cleaning services, the follow-up report provided an insight on the performance of those public contracts, calling for improvement in on average approximately 30% of the awarded contracts, ensuring an improved environmental performance of contracts.¹³⁹ Furthermore, as a tool for greening the private market, the mandatory GPP enlarged the private market offer of eco-certified cleaning products in a relatively short timeframe of 2 years.¹⁴⁰ As a step further from pure ‘greening’ of public purchasing, leading by example and stimulating the market offerings of environmentally friendly solutions, the centralised GPP aimed at achieving those results at a lower market price, harvesting the economies of scale and scope, and providing higher value for money for the taxpayers. The present paragraph introduces the monitoring activities as a distinguishing factor of successful GPP implementation in Catalonia, and it has proved as such also in the case of Barcelona City GPP.¹⁴¹

In the field of decentralised procurement, Catalonia disposes of seven (7) different sets of GPP guidelines under the 2009 agreement of the Government on public procurement measures,¹⁴² allowing the departments and the affiliated public companies to incorporate

¹³⁶ Such as the requirement of 15% of the points in the derived contract being awarded for the inclusion of the environmental criteria determined at the level of the framework agreement. Ibid.

¹³⁷ EU GPP Criteria, available online: https://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm (accessed on 19.04.2020).

¹³⁸ Ecoinstitut SCCL (2018) Catalan GPP Networking Group Report. Available online: http://comprasostenible.net/wp-content/uploads/2018/10/Electricitat_Xarxa_CPV_Catalunya_summary_EN.pdf (accessed on 18.04.2020).

¹³⁹ Generalitat de Catalunya, Comissió Central de Subministraments (2019) Auditories de compliment de les clàusules ambientals. Acord marc dels serveis de neteja CCS 2016 4.

¹⁴⁰ Report on Catalan GPP of cleaning services. Available online: http://comprasostenible.net/wp-content/uploads/2019/02/Productes_Verds_DGQA.pdf (accessed on 19.04.2020).

¹⁴¹ Either individual product monitoring or automatic monitoring process. See European Commission (2016) GPP In practice, Issue no.61. Available online: https://ec.europa.eu/environment/gpp/pdf/news_alert/Issue61_Case_Study_124_Sustainable_City_Barcelona.pdf (accessed on 20.04.2020).

¹⁴² Acord del Govern (n41).

environmental criteria in their contracts. In fact, without the accompanying exhaustive guidelines the 2009 act represents a mere skeleton of GPP, leaving it open as to how to procure environmentally friendly. Covering the topics of publications,¹⁴³ technical solvency and environmental management,¹⁴⁴ public catering services,¹⁴⁵ events,¹⁴⁶ textiles,¹⁴⁷ vehicles,¹⁴⁸ and building maintenance contracts,¹⁴⁹ these guidelines facilitate the GPP uptake where environmental conditions are allowed to be accounted for, but not required to be. It is a model toolkit, similar to the EU GPP guidelines, guiding towards environmentally conscious purchasing as a necessary but not a sufficient condition for a GPP uptake in instances where such practices are voluntary. In the absence of mandatory nature, incentivising GPP practices through capacity building and awareness-raising activities becomes essential.¹⁵⁰ With the aim of systemising responsible consumption within the Catalan Administration, the number of tenders including eco-efficiency and eco-innovation criteria has been increased, as well as the competitiveness of businesses with environmentally accredited products or services. To that effect, training activities and promotion of green products and services of EMAS registered companies, Ecolabeled products and recycled, biodegradable or recyclable products¹⁵¹ serve as complements to the voluntary GPP guidelines to contribute to the greening of the Catalan economy. Furthermore, the Environmental Qualification Service provides on-hands support to

¹⁴³ Guía de publicaciones ambientalmente correctas, available online: http://territori.gencat.cat/web/.content/home/01_departament/perfil_de_contractant/compra_contractacio_verda_publica/guies/guies_de_la_generalitat_de_catalunya/documents/ES_Guia_publicacions_ambientalment_correccte_s.pdf (accessed on 18.04.2020).

¹⁴⁴ Guía de solvencia técnica y gestión ambiental, available online: http://territori.gencat.cat/web/.content/home/01_departament/perfil_de_contractant/compra_contractacio_verda_publica/guies/guies_de_la_generalitat_de_catalunya/documents/guia_solvencia_cast.pdf (accessed on 18.04.2020).

¹⁴⁵ Guía de ambientalización de comedores colectivos, available online: http://territori.gencat.cat/web/.content/home/01_departament/perfil_de_contractant/compra_contractacio_verda_publica/guies/guies_de_la_generalitat_de_catalunya/documents/guia_comedores_colectivos.pdf (accessed on 19.04.2020).

¹⁴⁶ Guía de eventos ambientalmente correctos, available online: http://territori.gencat.cat/web/.content/home/01_departament/perfil_de_contractant/compra_contractacio_verda_publica/guies/guies_de_la_generalitat_de_catalunya/documents/guia_esdeveniments_amb.pdf (accessed on 19.04.2020).

¹⁴⁷ Guía de ambientalización de la contratación del textil, available online: http://territori.gencat.cat/web/.content/home/01_departament/perfil_de_contractant/compra_contractacio_verda_publica/guies/guies_de_la_generalitat_de_catalunya/documents/guia_amb_contr_textil.pdf (accessed on 19.04.2020).

¹⁴⁸ Guía para la compra verde de vehículos, available online: http://territori.gencat.cat/web/.content/home/01_departament/perfil_de_contractant/compra_contractacio_verda_publica/guies/guies_de_la_generalitat_de_catalunya/documents/ES_guia_compra_verda_vehicles.pdf (accessed on 19.04.2020).

¹⁴⁹ Guía para la adopción de criterios medioambientales en los contratos de mantenimiento de instalaciones de edificios, available online: http://territori.gencat.cat/web/.content/home/01_departament/perfil_de_contractant/compra_contractacio_verda_publica/guies/guies_de_la_generalitat_de_catalunya/documents/GUIA_manteniment_cast.pdf (accessed on 19.04.2020).

¹⁵⁰ For a detailed yearly overview the reports of the Central Commission can be consulted. *See e.g.* Memòria de la Comissió Central de Subministraments 2018, available online: <https://contractacio.gencat.cat/web/.content/difusio/publicacions/memories/ccs/darrera-memoria.pdf> (accessed on 19.04.2020).

¹⁵¹ Agència de Residus de Catalunya, established by Llei 15/2003, de 13 de juny, de modificació de la Llei 6/1993, del 15 de juliol, reguladora dels residus.

other public departments in greening of their documents.¹⁵² The proactive nature of Catalan GPP is reflected also in the insertion of additional supporting activities in narrower sections of GPP, such as low-carbon procurement and circular economy, to further align the nature of Catalan GPP with the EU sustainability agenda. In the case of low-carbon procurement, diverse forms of training have been carried out to increase low carbon procurement in practice: direct training for procurers as well as train-the-trainer seminars for procurement training providers,¹⁵³ with freely accessible training material at the GPP2020 website and GPP2020 yearly networking events at the municipal¹⁵⁴ and regional level.¹⁵⁵

3.2.2 Barcelona: the local GPP supporting materials and activities

In the case of Barcelona, GPP supporting activities were important as of the year 1990s,¹⁵⁶ formalised with internal GPP guidelines in the year 2001, focusing on the internal sustainability practices as an exercise of “leading by example.”¹⁵⁷ While guidelines have been important already at the stage of implementation of the internal organisational GPP, they gained in importance when the GPP programme has been broadened to cover all public procurement beyond mere organisational purchases in the year 2006.¹⁵⁸ Aside for the detailed content of the guidelines developed in the year 2015, following the 2013 mandatory GPP implementation at the municipal level, the process of developing those guidelines carries importance for the quality of GPP at the municipal level.

The distinguishing factor of GPP implementation in Barcelona City lies in the participative process that led up to the creation of technical instructions supporting the mandatory GPP. The Sustainable City Council Convention has been launched in the year 2010, based on a participative process, aimed at evaluating past actions and defining future objectives and actions.¹⁵⁹ This process, named the A+S Convention, involved more than 300 public officials from all levels, different departments and independent organisations, serving as an informative and empowering process, defining by consensus the public procurement goals for the 2012-2020 period. Aside from the leadership and the mandatory nature of GPP, the organic transformation towards environmentally friendly purchasing supports a high GPP uptake as it presupposes a certain amount of individual motivation for engaging in strategic public procurement. Participating in the determination of GPP goals and having the opportunity to express the feasibility of implementation of novel practices in the existing public procurement framework does not only empower the public administrators, but also provides the leadership with practical insight on the appropriateness of the proposed GPP solutions. The resulting GPP

¹⁵² Servei de Qualificació Ambiental, established by Decret 277/2016, de 2 d'agost, de reestructuració del Departament de Territori i Sostenibilitat.

¹⁵³ Ministry of Territory and Infrastructure (n34).

¹⁵⁴ GPP Networking Event in Barcelona in 2015, see <https://gpp2020.eu/news/newsletter/newsletter-setup/issue-5/> (accessed on 22.04.2020).

¹⁵⁵ Catalan GPP Networking Event in Barcelona in 2016, see https://gpp2020.eu/fileadmin/files/Training_materials/Training_reports_photos_etc/2a_Jornada_Intercanvi_Programa_def.pdf (accessed on 22.04.2020).

¹⁵⁶ Aalborg Charter (n51).

¹⁵⁷ Guia de l'oficina verde (n53).

¹⁵⁸ SCC+ Programme (n55).

¹⁵⁹ Sustainable City Council Convention (n55).

plan and the technical instructions for the mandatory GPP categories are therefore the outcome of an inclusive participative process,¹⁶⁰ resulting in the definition of the Technical Instructions for the Application of Sustainability Criteria.¹⁶¹ This participatory process has not been an exception, but rather a *modus operandi* at the municipal level, as it has been implemented repeatedly on several occasions, representing a constitutive block towards building a GPP system.

For the twelve (12) mandatory GPP categories there are elaborate and detailed GPP guidelines available,¹⁶² establishing common environmental criteria to be uniformly applied for the City Council procurement, allowing only for very limited and well substantiated derogations. Defining the scope, priorities, and the environmental criteria, these guidelines represent an exhaustive guidance on GPP, that is further supported by additional guidance material and direct help in implementation by the +SCC to all the departments and divisions of the organisation. Furthermore, for other municipal contracts not subject to mandatory GPP,¹⁶³ the guidelines establish a manner of application to allow for the incorporation of environmental criteria in different contracting phases by defining the key environmental criteria through referral to the main environmental impacts generated throughout the life cycle of a product or service and incorporating the paradigm of the circular economy by promoting the reduction and efficient use of materials.¹⁶⁴ The guidelines also entail the requirement of training of the staff of the contracted service provider on the environmental criteria, attempting to insert an organic change towards sustainability not only in the operations and purchasing procedures of the public authority in question, but also in the operations of the private entity in question. By such a requirement, a simultaneous transformation towards environmentally friendly solutions is incentivised in the public as well as private markets. This is especially valuable in the light of the fact that GPP has become mandatory for all municipal public procurement beyond the initial twelve (12) categories in the year 2017.

As to other supporting GPP activities, involving key players through regular informing and awareness raising activities has been at the forefront. Such activities are carried out via the City Council's regular e-bulletin,¹⁶⁵ the +SCC Programme website,¹⁶⁶ trainings, in the form of an email consultation service¹⁶⁷ and targeted information campaigns.¹⁶⁸ Furthermore, the +SCC Programme features regular meetings of internal working groups and the creation of other specific groups for specific topics. The organic nature of GPP implementation not only ensures a high GPP uptake carrying a sizeable environmental impact, but also internalises the sustainability considerations for the public procurement officers, making GPP more than an exercise in compliance: an organic sustainable transformation of public administration. The

¹⁶⁰ European Commission (n141).

¹⁶¹ Decret d'Alcaldia (n56).

¹⁶² Instruccions tècniques per a l'aplicació de criteris de sostenibilitat (n58).

¹⁶³ Ajuntament de Barcelona (2017) Guía de contratación pública ambiental. Available online: https://ajuntament.barcelona.cat/contractaciopublica/sites/default/files/guia_contratacion_publica_ambiental_es.pdf (accessed on 21.04.2020).

¹⁶⁴ Ibid.

¹⁶⁵ The e-newsletter, issued since the year 2010. See Ajuntament + Sostenible Newsletter, available online: http://www.ajsosteniblebcn.cat/en/previous-newsletters_106300 (accessed on 21.04.2020).

¹⁶⁶ www.ajsosteniblebcn.cat/en (accessed on 21.04.2020).

¹⁶⁷ ajuntamentsostenible@bcn.cat

¹⁶⁸ E.g. 37 diverse events have been carried out in the year 2017. See Ajuntament de Barcelona, Comunicació i formació 2017, available online: <http://www.ajsosteniblebcn.cat/116330.pdf> (accessed on 21.04.2020).

culmination of this approach is the official acknowledgement of GPP efforts and best practices at the municipal level, awarding excellent work with A+S Awards,¹⁶⁹ acknowledging the value of individual efforts and further disseminating best practices at the local and regional level.¹⁷⁰

3.3. On synergies, spillover effects and learning networks: going beyond the letter of law

The organic intertwined top-down and bottom-up approach to GPP at the regional and municipal level, as described hereabove in sections 3.1 and 3.2, has been based not only on the EU legislative developments, but also aspired to incorporate the already existing European best practices, knowledge of which has been obtained by active participation in multiple international public procurement networks. Such participation allowed for the shortening of the learning curve by learning from the experience of other administrations. At the regional and municipal level such networks furthered the GPP efforts and deepened further the aims of GPP in the local context. The networks can be divided in two groups: international and national, contributing to the same aim of knowledge sharing and knowledge expanding, thereby transferring the newest developments and best practices from the international to the regional and local level.

In terms of national networks at the regional level, the Land Stewardship Network has been created in the year 2000, involving the Catalan Government, Ministry of Territory and Sustainability, University of Vic and over 150 other organisations,¹⁷¹ cooperating also in a pan European project Land Stewardship Project,¹⁷² creating additional synergies beyond the local context, fostering land stewardship as a conservation strategy for the Catalan natural, cultural and landscape resources and values. In the year 2006 the Catalan Waste Agency created the Buy Recycled Network to promote the market of recycled, recyclable and/or biodegradable products and support the introduction of circular economy in GPP as a meeting point among different market players in the public and private sector. The network's objectives have been redefined with the help of Ecoinstitut to be given a new impetus in the year 2013.¹⁷³ The Catalan Green Public Procurement Networking Group has been launched in the year 2017 by the Catalan Government, promoting strategic procurement practices in the region,¹⁷⁴ encouraging coordination, exchange and collective action to promote and implement GPP in Catalonia.

¹⁶⁹ See more at <http://www.ajsosteniblebcn.cat/ca/els-premis> 85146 (accessed on 22.04.2020).

¹⁷⁰ Also District and city subsidies, Energy Excellence Awards, Subsidies to promote the purchase of low-emission electric vehicles, Catalonia Ecodesign Award, Grants of the Biodiversity foundation for the realization of projects in matter of adaptation to the climatic change, etc. See Ajuts i premis, available online: <https://www.barcelona.cat/barcelonasostenible/ca/entitats-i-empreses/bulleti/427/ajuts-i-premis> (accessed on 22.04.2020).

¹⁷¹ La Xarxa de Custòdia del Territori, available online: <http://www.custodiaterritori.org/ca/> (accessed on 22.04.2020).

¹⁷² The Land Stewardship Project. Available online: <https://www.landstewardship.eu/> (accessed on 22.04.2020).

¹⁷³ Ecoinstitut (2016) Dossier d'Ecoinstitut 12/2016. Available online: http://www.ecoinstitut.coop/Dossier_cat.pdf (accessed on 22.04.2020).

¹⁷⁴ Consisting of the Catalan Government, Barcelona City Council, municipalities of Barcelona region, the Catalan Association of Towns and Counties, the Polytechnic University of Catalonia and the Catalan Institute for Energy.

In terms of international networks, the Catalan government, as well as Barcelona City Council, actively participate in the ICLEI's Procura+ European Sustainable Procurement Network. Barcelona City has been its member since the year 2004, vice-chairing the network until the year 2012. Alongside Barcelona and the Catalan government, the Catalan Waste Agency also joined the network, furthering the organic learning and advancement in GPP practices across the administrations, transferring the knowledge from the municipal to the regional level and vice-versa. The Procura+ Awards that were awarded to the Catalan Government and the Barcelona City attest to the success of the participation in the network.

Barcelona has been a member of international networks since the year 1986, when it has co-created a network called EUROCITIES with five (5) other cities,¹⁷⁵ currently encompassing local governments of over 140 Europe's largest cities and 45 partner cities, providing a platform for knowledge sharing and the exchange of ideas. Dealing with environmental and social issues, adding a local aspect to the European multilevel governance, the network provides its members with projects, activities and events through six thematic forums. Furthermore, the Association of Cities and Regions for sustainable Resource management (hereinafter: ACR+) joined together at the international level the Barcelona City, the Catalan Waste Agency, the Barcelona Metropolitan Area and the Urban ecology Agency of Barcelona in the year 1994, promoting sustainable resource management and thereby accelerating the transition towards a circular economy at the local, regional, national and supranational level.¹⁷⁶ Besides the Association being climate neutral, it has successfully carried out more than thirty (30) projects under five working themes: awareness raising and communication, operational instruments and monitoring, legal and economic instruments, strategy and planning and cooperation and capacity building. The municipal experience with GPP and SPP has been shared at the EU level also under the PROGRESS axis of the EU Employment and Social Innovation (EaSI) financing instrument 2014-2020. EUROCITIES is regularly exchanging information and expertise on municipal governance, contributing to its official reports, with several cities being simultaneously members of both organisations, further strengthening the cooperation among the two bodies.

As to the national networks at the local level, they are covering diverse fields, contributing to the sustainability of the public administration. In the year 1997 the Sustainable cities Network¹⁷⁷ has been created by the Barcelona Provincial Council and the Department of Territory and Sustainability as an association of municipalities committed to the environment, sharing the concerns, needs and experiences, and promoting and implementing sustainable projects of common interest through training and awareness-raising activities. The focus of the network has been on improving GPP municipal policies and corporate social responsibility of local governments and municipal businesses.¹⁷⁸ The network has also participated in a variety of European GPP projects, creating further synergies and sharing local experience while

¹⁷⁵ Birmingham, Frankfurt, Lyon, Milan and Rotterdam. See EUROCITIES, available online: <http://eurocities.eu> (accessed on 22.04.2020).

¹⁷⁶ Association of Cities and Regions for sustainable Resource management. Available online: <https://www.acrplus.org/en/> (accessed at 26.04.2020).

¹⁷⁷ Xarxa de Pobles i Ciutats cap a la Sostenibilitat. See <https://www.diba.cat/en/web/xarxasost> (accessed on 22.04.2020).

¹⁷⁸ Generalitat de Catalunya (n109) p.47.

learning from the supranational one, as well as organising seminars and conferences for public procurers, providing technical and economic support for diverse projects. As early as in the year 1998, the Catalan Government inserted sustainability concerns through Green School Program at different levels and in different municipalities, culminating in the creation of the Schools Network for Sustainability in the year 2009¹⁷⁹ as a network of green schools and local networks promoting and developing education programmes for sustainability, with the aim of all schools integrating sustainability in their educational programme. Going beyond the pure GPP procedures, the public purchasing and policy decisions in the Catalan school system are to be made sustainable, transforming the educational system as an act of policy coherence and an organic shift of societal focus towards sustainability.

All of the networks at the international and national level contributed to finding solutions to the existing local and regional GPP challenges, while simultaneously expanding GPP knowledge based on the existing practices of the network participants. Catalan experience has been shared at the EU level and vice versa, the European experiences have been informing the policy-making at the Catalan level and the level of Barcelona City. The proactive sustainable attitude at the local and regional level has preceded the participation of the local and regional public procurement authorities in national and international networks yet it has been amplified through the exchange of best practices and cooperation with other national and international public authorities. This organic, mixed top-down and bottom-up approach to GPP experience sharing at the international and national level contributed to the quality of the GPP framework at the Catalan regional and local level, further fuelling the proactive action on the matter at both levels.

4. Conclusion

As majority of the public purchasing decisions occurs at the regional and local levels, local action for achieving global results is of utmost importance, especially as the cities are in a decisive position as the “largest entity causing environmental impact and the smallest entity that can take remedial action.”¹⁸⁰ While the strategic use of public procurement has traditionally been framed at the top under the traditional top-down approach, environmentally friendly procurement under the local conditions requires a proactive attitude of the procurers at the regional and local level, suggesting that a bottom-up approach also needs to be present for encountering efficient sustainable solutions in public procurement. Yet the divergence between regional and local administration across the EU Member States calls for the determination of drivers of successful GPP practices in the case of best performers.

The present article set out to determine the success factors in the case of Catalonia and the Barcelona City, providing additional insights in the GPP development in these two jurisdictions where mandatory GPP has existed for nearly 10 years. The article identified

¹⁷⁹ La Xarxa d'Escoles per a la Sostenibilitat de Catalunya (XESC). See <http://www.escolesxesc.cat/index.php/qui-som/que-es-la-xesc> (accessed on 23.04.2020).

¹⁸⁰ Aalborg Charter (n51).

several interconnected and mutually reinforcing distinguishing factors at the regional and local level of a high GPP uptake, without classifying it hierarchically while acknowledging the importance of mandatory legislation to that effect. The factors identified are the proactive role of governance at the regional and local level and the cohesion of the policies and leadership at the two level; the active role of the leadership as well as that of individual administrators in implementing and defining the GPP; the rigorous following, understanding and implementation of supranational sustainability policies; the active engagement by public procurement officials at all levels of public administration (voluntary and incentivised through mandatory legislation and through accompanying tools in organisational and substantive terms); detailed GPP guidelines at the regional and local level adapted to the regional and local conditions; public-private partnerships and accompanying sustainability and GPP activities stimulating the private market to offer more environmentally-friendly sustainable solutions; regular monitoring of GPP outcomes and active participation in national and international GPP networks to enhance the existing GPP practices. Rigorously developing general sustainability policies also in terms of greening the regional and local economy allows for broadening and deepening the GPP policies as the offer of environmentally friendly options increases and the prices decrease accordingly.

The unique mixture of the identified factors makes it challenging to provide a method of application of the Catalan GPP approach to other regional and local authorities to achieve the same GPP success, especially as legal transplants have been proven as questionable in legal scholarship and practical tools need to be adapted to local reality and are path dependent on the culture in question. What can be deduced from the findings provided by the present article is the need for organic engagement in GPP, much as the one required in the private market to pass from the weak sustainability practices with limited positive environmental impact and strong sustainability practices that organically engage in providing positive environmental results, to achieve a meaningful engagement in GPP practices. The lesson to be learned by the Catalan example is one on a mandatory approach to GPP, supported by active participation and training of all levels of public administrations to ensure that GPP obligations are appropriately and satisfactorily embedded in the process of public procurement. A gradual approach to mandatory GPP implementation is recommended, especially if aiming for active engagement of public procurement officers in the process of formulating environmental requirements adapted to the local and regional conditions, thereby contributing to the local sustainable transformation in an optimal manner.

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