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Are EU Institutions Still Green Actors? An Empirical Study of Green Public Procurement

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Abstract

Analysing the environmental actorness of the EU, more than one voice has spoken of the myth of a Green Europe and a dismantling process of its environmental ambitions. To date, any attempt to quantify this in a homogeneous fashion by different levels of government and institutions has run into serious difficulties. This research, however, uses green public procurement (GPP) as the research instrument to quantify the commitment to environmental policies. We construct the database from tenders published in the Supplement to the Official Journal between 2009 and 2019. Based on more than 743,061 observations, the article finds that the EU's institutions have the lowest GPP adoption rates in relation to all other levels of government. Moreover, it also records marked differences between the EU institutions where the European Parliament is performing better than the European Commission and, during Juncker Commission, EC performs worse.

Keywords: EU environmental policy; EU institutions; green public procurement; green Europe; policy-making

Introduction

The President of the European Commission (EC), Ursula Von der Leyen, has placed green policies firmly on her political agenda for Europe over the next five years (European Commission, 2019), and the 'European Green Deal' is at the top of it. It can be argued that the President is seeking to sustain the myth of a 'Green Europe', a narrative that has helped the EU over the years to gain support and build a common identity and create solidarity among its peoples (Lenschow and Sprungk, 2010, p. 134). The EU has developed an extensive body of environmental policies by which it seeks to shape the way Member States address environmental affairs. But, as pointed out by Torney (2019), the implementation and convergence of environmental policy remain a challenge, even though the gap between leaders and laggards has been reduced.

In the early 2000s, Vogel (2003) predicted that the EU would follow in the US's footsteps and gradually move in a 'less environmentally ambitious direction'. In a similar vein, Gravey and Jordan (2016) considered whether EU environmental policies might be subject to 'dismantling', a process that might lead to a stalling or even a reversal of its environmental ambitions (Gravey and Jordan, 2016; Steinebach and Knill, 2017). Any dismantling of environmental policies might reflect the fact that former green promoters no longer want to lead (Wurzel *et al*., 2017), and it was also suggested that the 'reduced appetite' for an ambitious environmental policy was the result of the enlargement process and the 2008 economic crisis (Burns *et al*., 2020). But studies of environmental policy dismantling at the EU level have been much more limited.

This study falls within this branch of literature and aims to quantify and systematically test the EU's environmental ambition (Börzel and Buzogány, 2019, p. 326). We seek to shed light on the actual effort that EU's institutions make in favour of environmental policies. This is a challenging task given that monitoring EU institutions and applying the same criteria across its different branches (namely the legislative, executive, judiciary) is far from easy. As such, comparative studies, incorporating sub-areas of environmental policy and other policy fields, are needed to confirm this trend towards policy dismantling (Pollex and Lenschow, 2020). Bürgin (2020a) has posited that quicker access to data and comparability can provide new opportunities for strengthening the Commission's role as enforcer of EU law. All in all, more comparative studies are needed in regard to the EU framework, including the case for comparative studies on Green Public Procurement (GPP) (Cheng *et al*., 2018).

To contribute to the debate, this article employs as a research instrument the EU's green purchasing power: GPP. In the EU governance framework, GPP is a voluntary not an obligatory instrument, which suggests that if EU institutions are implementing green policies in their procurement this could be interpreted as evidence not only of their green commitment but also of their broader pledge to push for green policies (Liefferink and Wurzel, 2017; Pollex and Lenschow, 2020). This instrument will be helpful to analyze whether EU institutions are not solely green policy promoters but also green policy implementers. In turn, hypotheses will rely on the assumption that GPP is a good instrument for quantifying the green awareness of institutions.

In what follows we carefully probe the myth of a Green Europe by comparing the GPP adoption rates of different levels of government and different EU institutions. Marked differences are found between EU institutions in terms of their GPP between 2009 and 2019. Our main finding is the low level of GPP adoption by EU institutions compared to other levels of government and the significant differences between EU institutions: the European Parliament, the European Commission and the Council of Europe, among others.

The rest of this study is structured as follows. The next section outlines our analytical framework for determining the extent to which the EU can be considered a green actor and an examination of the individual commitment of EU institutions to GPP. The third section describes the methodology and then in the next we unpack the results and the discussion derived from it. Conclusions are drawn in the fifth section, and finally, in the last section, we put forward the limitations of our study and future avenues of research.

I. Analytical Framework

The EU as a Green Actor

The EU's normative commitment to green policies forms part of its leadership role in relation to many environmental issues (Bretherton and Vogler, 2006). Since the early nineties, this role had 'spilled over' from climate change to environmental issues more generally (Costa, 2016, p. 115). It is worth bearing in mind that in this field, EU leadership was acquired when it decided to step up to fill the void left by United States, former world's environmental leader (Kelemen and Vogel, 2010). At the same time, the European process of economic and political integration resulted in a flood of new environmental legislation (Vig and Faure, 2004, p. 1). However, as Costa (2016) pointed

out, while during the 1990s the EU was advancing the most environmentally ambitious proposals of any industrialized economy, during the following decade it 'deployed all sorts of flexibilities to address the concerns of other key actors' (Costa, 2016, p. 117). An examination of the part played by the EU at the international level is revealing since a far larger proportion of EU policy derives from international-level discussions than is commonly thought (Jordan and Adelle, 2013). The EU not only promotes high environmental standards internationally, but it also does so among its own Member States (Knill and Liefferink, 2013). In this regard, it should be noted that providing a legal basis for the protection of the environment was from the outset an essential objective of the EU and that this would be provided by the European Court of Justice (ECJ) in 1985. Subsequently, the 1987 Single European Act gave a 'constitutional' basis to the Community's environmental policy and defined its objectives, while the 1992 Maastricht Treaty advanced its environmental competence further with environmental protection being codified not only as a principle but also as a policy goal. Later, the 1999 Amsterdam Treaty made sustainable development applicable to all EU policies, a commitment that was renewed under the 2009 Lisbon Treaty. In short, since 1985 the process of positive integration in relation to environmental thinking has become even more central to the EU decision-making process (Le Cacheux and Laurent, 2015, p. 131).

Today, more and more voices echo the idea that Green Europe is a myth that, nevertheless, forms part of EU identity. Although the EU clearly enjoys a green reputation both among the majority of its citizens and internationally (Lenschow and Sprungk, 2010, p. 151), the narrative is likely to become increasingly stretched if its commitment to environmental policy does not live up to these expectations. Along these lines, Lenschow and Sprungk (2010) claim that 'if the implementation of EU environmental policy fails on the ground or the EU proves incapable of fulfilling its global environmental commitments, the myth of Green Europe may crumble' (Lenschow and Sprungk, 2010, p. 151). For a long time, environmental policy was very much part of the so-called positive integration of the EU (Knill *et al*., 2009); that is, continuous policy expansion was the dominant pattern presented by EU environmental policy. As a result of the 2008 economic crisis, the EU's environmental policymaking entered a four-year period of almost complete regulatory inactivity (Steinebach and Knill, 2017, p. 430). It may be suggested that the price of maintaining the EU as a promoter of green policy may come at the cost of undermining the EU as an implementer of green policy.

The EU and Green Public Procurement

Public authorities are major consumers in Europe: they spend approximately 1.8 trillion euros annually, representing around 14 per cent of the EU's gross domestic product (European Commission, 2020). By using their purchasing power to choose goods and services with a low environmental impact, they can make a notable contribution to green consumption and production (OECD, 2019). This suggests that governments have an enormous power to push the market towards sustainability.

Public authorities may facilitate a transition towards a more sustainable society by resorting to different tools. Green public procurement, defined as the 'process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with

the same primary function that would otherwise be procured' (European Commission, 2008, p. 4) is one such tool. More to the point, even though this is a voluntary instrument, by promoting and using GPP, the EU's public authorities can provide the industry with real incentives to develop green technologies and products, which, in turn, incentivize citizens to buy green. This market pressure generated by GPP is positively associated with a firm's environmental certification practice (Ma *et al*., 2021). In other words, GPP has the potential to stimulate a change or behavioural shift in the profit/non-profit sector and citizens alike. Thus, it can be hypothesized that an actor categorized as a green pusher, a green promoter or a green implementer will present a significant level of adoption of GPP practices. But important barriers exist within the public administration regarding the adoption of GPP. The commitment to GPP may be hindered by 'the lack of training for public procurement officers, intergovernmental coordination, and information on financial benefits as well as higher costs' (OECD, 2019, p.41).

Within the EU, neither the 2004 nor the 2014 Directives on public procurement and utilities makes it mandatory for the Member States to adopt GPP, which means this instrument can be used as a measure of green policy implementation without a coercive mandate. However, the 2004 and 2014 Directives were adopted in light of increasing awareness of the need to afford environmental mechanisms greater weight in public tenders. As Semple (2018) and Czarnezki (2020) both report, the EC initially held fairly conservative views centered on the internal market provisions within a free market but subsequent ECJ rulings began to shape how GPP might be understood in the framework of public procurement.

Despite the existence of a legislative framework encouraging GPP at all tiers of government in the EU, adoption rates present marked differences between levels. At the bottom of the government structure, the efforts made by local authorities have been considerable in the introduction and diffusion of GPP (Ladi and Tsarouhas, 2017). Renda *et al*. (2012) found that regional and local governments are among the EU-27 GPP front-runners. Although the EU has played its role in promoting green procurement, the local authorities have long been the real implementers of GPP. There is no empirical data that allow us to analyze GPP across all government levels; the data there is provide a better indication of a specific country's or regional practices (Testa *et al*., 2012; Liu *et al*., 2019). Addressing the void, Rosell (2021) finds that regional and local governments are more prone to GPP while EU institutions are more reluctant adopters. Therefore, we expect the rate of adoption of GPP to be higher the lower the level of government (H1), except in EU institutions, which would present a higher GPP adoption rate as front-runners (H2).

The EU Institutions and Green Public Procurement

This article focuses on the state of GPP within the framework of EU governance. Our starting point is 2014 European Court of Auditors (ECA) report, which already highlighted the fact that EU institutions were not always making sustainable choices. The main contribution of the report lies in its finding that European institutions are not making 'full use of the environmental management tools promoted by the Commission' (ECA, 2014, p. 7). While it was found that all EU institutions use GPP, most of them were not employing it systematically. Indeed, the ECA reported that GPP was used in fewer

than 20 per cent of the 160 audited procedures. Moreover, more than half of these procedures were assessed as being 'not green' or only 'light green'. For that reason, the report concludes by strongly recommending that GPP be used by EU institutions and bodies wherever possible. It may be hypothesized that there are internal differences in GPP adoption among the EU's institutions and while, to date, there are no clear academic findings on the extent of these differences, insights from their respective internal procedures allow us to make several hypotheses, which rely on the assumption that GPP is a good instrument for quantifying the green awareness of institutions. The level of adherence is assessed to be low if GPP is barely adopted or not following the institution commitment or high if the institution adheres to its commitments or is consistently using GPP.

The EC, which has the monopoly on legislative initiatives, has recognized the introduction of environmental criteria as one of the objectives of its environmental policy. Yet Deters (2019) recently noted a declining activism on the part of the EC with regard to the EU's green dynamism (Deters, 2019, p. 323). This would go some way to explaining why, in the negotiating process to adopt the 2014 Directive, the EC was seen to hold fairly conservative views on GPP (Semple, 2018; Czarnezki, 2020). Along these lines, the EC has never been willing to adopt GPP as a mandatory tool. The existing EU public procurement legal framework also plays a GPP disincentivizing role (Mélon, 2019). At the same time, the Commission stated that by 2010 a total of 50 per cent of all its tendering procedures should be green, where green means 'compliant with endorsed common core GPP criteria'. Taking into account the discussion above, (H3) we expect that if the EC does not achieve a high proportion of green tendering procedures, we could consider that the Commission has a low appetite for GPP adoption. In a similar vein, the Council of the EU also endorsed that same 50 per cent target. As such, if the Council of the EU presents levels of adoption below the EU average, we could state that the institution is not a proactive implementer of GPP (H4). We expect to find that neither actor is a front-runner in green policy implementation.

The European Parliament (EP) together with the EC and the Council of the EU are the key legislative bodies for the renewal and adoption of the Union's Directives. Indeed, the EP has often delivered relatively progressive amendments and resolutions with regard to the environment (Jordan and Adelle, 2013) and has earned itself a reputation as a champion of environmental interests within the EU (Burns *et al*., 2013). Moreover, it provides a channel for those who are generally excluded from decision-making like civil society organizations, and a voice for green political parties. When it comes to the composition of the EP secretariat, which is in charge of procurement, it has been noted that officials respect task distribution and follow an expert culture (Egeberg *et al*., 2013, p. 510) As such, we expect to find a relatively high level of GPP adoption within the EP compared to other EU institutions (H5).

The EU's agencies, including the European Environmental Agency, operate all over the European continent and may as a result have quite different organizational cultures or be affected by the host countries. More importantly, the vast majority present a complex management structure based on a board englobing one representative for each Member State, a representative of the EC and sometimes of the EP. This complex structure can act as a barrier due to the potential lack of intergovernmental coordination (OECD, 2019, p. 41). That is why we posit that the EU agencies' levels of GPP will be low (H6).

The ECJ has been the EU institution responsible for validating the existence of non-market clauses in public tenders as well as promoting the more harmonized inclusion of GPP. This ability to shape existing rules combined with a proven willingness to include green public procurement in the ECJ's Vade-mecum on public procurement allows us to hypothesize that (H7) the ECJ presents a higher GPP adoption rate than other EU institutions.

Institutionally speaking, the remaining EU institutions are not as relevant as the previous ones in issues related to policy or budget. However, we will provide an overview of their relationship to GPP. Since 2009, the European Investment Bank (EIB) has been working towards sustainability following their own 'Green Procurement Guidelines and Objectives'. The bank implements a full social corporate responsibility strategy and in compliance with it each year publishes an environmental statement including its GPP record. Moreover, the EIB President has listed as a top priority the improvement of its internal environmental commitment and a desire to 'influence our suppliers and service providers through the adoption of GPP practices by including environmental criteria in our tendering processes'. We expect the EIB to present higher levels of GPP adoption than other EU institutions.

Likewise, the European Central Bank (ECB) implemented a very clear environmental agenda in 2010, publishing an environmental statement and an updated environmental statement each year providing information to the general public and other stakeholders about its environmental commitment and activities. GPP is listed as a top priority and the ECB has made it mandatory in all relevant cases (European Central Bank, 2019). Moreover, the ECB's criteria are more demanding than the core criteria in the EC's GPP toolkit (ECA, 2014). We expect to find a higher GPP adoption rate than in other EU institutions.

Although the European External Action Service (EEAS) states that it is open to the idea of adopting GPP principles, it continues to refer to green procurement as a voluntary mechanism. Indeed, in the 2014 ECA report, the EEAS stated that it did not yet use GPP. Moreover, the EEAS claims that introducing GPP into its everyday practices is unfeasible given that it operates a series of EU offices in third countries. We expect that EEAS present low levels of GPP adoption.

The European Economic and Social Committee (EESC) and the Committee of the Regions (CoR) have made GPP mandatory although this only applies to calls for tender for their joint services. The two institutions agreed to make compulsory consultations on GPP with the EU's audit scheme when a contract exceeds €60,000. The two Committees have a complex organizational structure, however, sharing their building, logistics and translation services and managing them jointly while having two distinct general secretariats. Indeed, some of the services such as the facilities are provided or facilitated by the EC. This suggests that the organization culture of the EC may influence how the Committees commit to GPP. For these reasons, we expect to find low levels of GPP adoption in both institutions. The ECA itself has also recognized that it has no internal procedures or systematic monitoring mechanisms in place to track the institutional commitment to GPP (ECA, 2014, p. 59), suggesting low levels of GPP adoption.

Finally, the Publications Office of the European Union (PO) is an inter-institutional office that serves as the official publisher for the EU institutions, agencies and bodies. The institution's commitment to GPP will be based on efficient coordination between the

parties, which makes the office dependent on the results of the entire EU institutional framework. The expected level of GPP adoption is unknown.

A summary of the hypotheses is included in Table 1.

II. Research Design

We use Green Public Procurement (GPP) as our research instrument to quantify the degree of commitment to environmental policy across government tiers and EU institutions. In the following lines, we define the database, our instrument and explanatory variables.

We draw on the Tenders Electronic Daily (TED) database, which contains all active calls for tenders published in the Supplement to the Official Journal (OJS) in the European Union for supplies, works and services. Although the database contains contracts from both EU countries and those in the European Economic Area (Norway, Iceland and Liechtenstein) and Switzerland, among others, only European Union member states are included in our study. The TED database offers the opportunity to compare different EU institutions and different governmental levels between Member States. Greece and Bulgaria were omitted due to language detection problems. We include all years between 2009 (the first year that EU institutions were included) and 2019.

Although we have two research objectives (comparing GPP in EU institutions to national, regional and local governments and comparing the GPP adoption rates of the EU institutions), we only use one database, albeit separated into two sub-samples. Here, we present these two parts separately, the EU institutions figuring in both. From our primary database, we extract contract notices from national, regional and local governments, utilities and EU institutions, while those pertaining to public law, other, non-report or other international associations outside the EU are deleted. Since the majority of contract notices involve different lots, we have had to delete those made up of more than one lot. Our database comprises 1,390,238 observations, of which 743,061 correspond to most economically advantageous tender (MEAT) criteria and the rest to lowest price offer. After excluding the latter, the MEAT contract notices are distributed as follows: national or central governments (19.71 per cent) regional governments (34.36 per cent), local governments (30.76 per cent), utilities (13.90 per cent) and EU institutions (1.28 per cent).

Next, we establish an objective measure of GPP adoption across the contracting units. The methodology we employ is to conduct a word search in all the awarding criteria in the

Table 1: Levels of GPP adoption in the EU institutional framework

Hypothesis number	*Hypothesis definition*
H1	In lower levels of government, GPP is more common
H2	EU institutions are GPP front-runners
H3	EC has a low level of GPP adoption
H4	The Council of the EU has a low level of GPP adoption
H5	EP is a GPP front-runner among EU institutions
H6	The EU's Agencies' have a low level of GPP adoption
H7	ECJ is a GPP front-runner among EU institutions

contract award notices and in each of the EU's official languages for terms related to green award criteria. We have specifically restricted these words to the 'environment' and 'sustainable'. Green concepts, such as carbon footprint, life cycle assessment (LCA) and emission standards, among others, have not been considered. We should stress here that, as such, we cannot capture all aspects of GPP; for example, technical conditions and contract performing clauses are excluded from our analysis (Appolloni *et al*., 2019). However, we consider it the best way to provide a general overview of GPP in a massive number of contractual procedures. Moreover, our primary concern is to dispose of an objective measurement for comparing all the contracting units rather than to perfectly measure GPP practices (see Rosell, 2021).

As far as EU institutions are concerned, the TED database includes hundreds of contracting authorities and in different EU languages. To facilitate comparison, we first classify more than two thousand different names of EU institutions into twelve categories. In Table 2 we show the proportion of the total tender process attributable to each of these twelve EU institutions (8,928 observations). Following this process, only 136 observations could not be assigned to any of these categories.

Other variables that are also available for each tender process include country, main sector and tender year. Note that EU institutions, bodies and agencies are located across all EU countries, but because different countries show different levels of commitment to GPP (Nissinen *et al*., 2009; Caragliu *et al*., 2011), this can naturally result in a higher or lower GPP adoption rate being associated with a country in which an institution has its headquarters. Likewise in the case of sector, there are some sectors in which GPP uptake is likely to be more relevant (Amann *et al*., 2014), and in others less so, such as utilities or military contracts. We specifically control for the following categories: general public services, economic and financial affairs, housing and community amenities, health, education, urban public transportation, environment, public order and safety, defense, ports, airports, railway services, electricity, gas and heat cycle, water and others. As for the temporal effect, we include the contract notice year to control for GPP diffusion over time since there is empirical evidence that GPP adoption has been increasing (Cheng *et al*., 2018).

Table 2: Proportion of EU institution categories

EU Institutions	*Proportion (%)*
European Commission (EC)	48.43
Agencies	36.12
European Parliament (EP)	6.77
Council of the European Union (Council)	2.66
European Central Bank (ECB)	1.56
European Economic and Social Committee (EESC)	1.20
European Investment Bank (EIB)	1.06
Publications Office of the European Union (PO)	0.98
European External Action Service (EEAS)	0.60
European Court of Auditors (ECA)	0.30
European Court of Justice (ECJ)	0.24
European Committee of the Regions (CoR)	0.08

III. Results and Discussion

Results

Our first objective is to compare the GPP adoption rates of EU institutions with other levels of government and those between different EU institutions. In Figure 1, we summarize these GPP rates by levels of government, utilities and EU institutions. It is evident that the local public sector is the front-runner in GPP adoption, with 8.65 per cent of tenders adhering to green criteria. It is followed by regional governments, while central/national governments and utilities show similar rates. These results confirm that lower levels of government are related to higher GPP adoption rates (H1). At the back of the pack, we find the EU institutions with the lowest GPP adoption rate (3.05 per cent). A t-test comparing the group means of the GPP rate of the EU institutions and that of an intermediate group – national governments – confirms that the GPP adoption rate is lower at a 99 per cent confidence level in EU institutions than in central governments. In short, this result confirms that EU institutions cannot be considered green implementers, so H2 is disproven.

Having confirmed that EU institutions present a low level of GPP adoption, we move our focus on to the individual commitments of the EU institutions (Figure 2). We can identify two groups of EU institutions in terms of their GPP adoption. A *t*-test comparing the means of the GPP rates of the ECJ, EP, EIB and ECB to those of all the other institutions confirms that these four institutions have a higher level of adoption at a 99 per cent confidence level. However, when we compare the commitment of the ECJ to that of the EP, EIB and ECB we find no statistical differences between them. Although the ECJ

Figure 1: GPP adoption by level of government. [Colour figure can be viewed at wileyonlinelibrary.com]

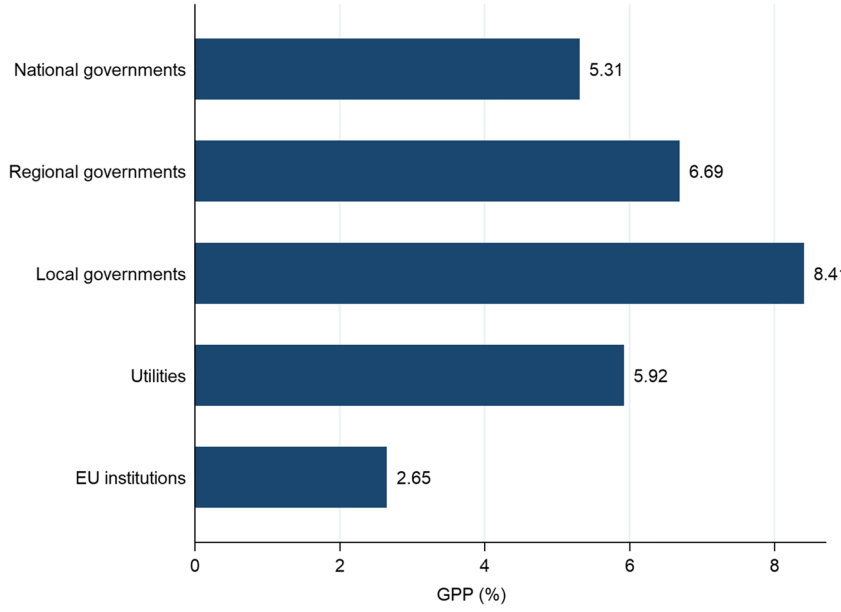
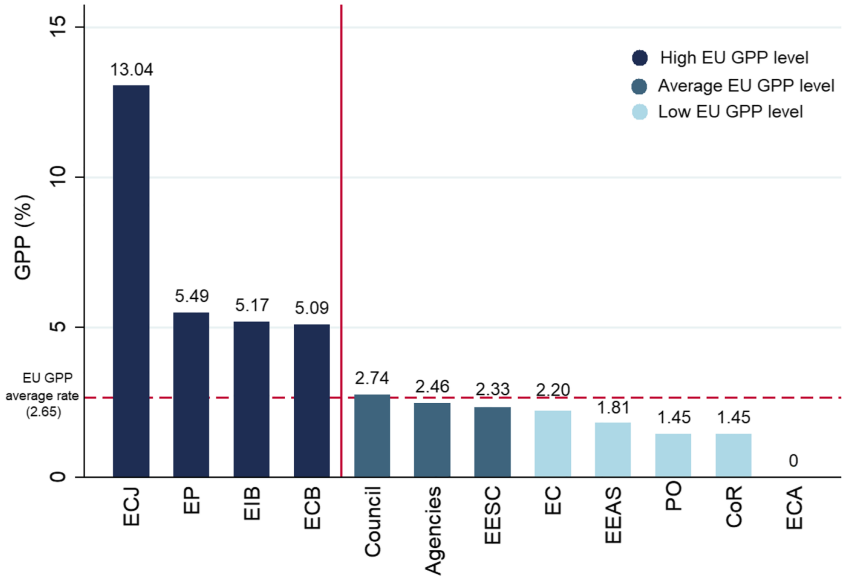


Figure 2: GPP adoption rate by EU institution. [Colour figure can be viewed at wileyonlinelibrary.com]



has a GPP uptake of 13.6 per cent, because of the small number of observations we cannot confirm that the Court has a higher percentage than the EP, EIB and ECB. However, a *t*-test comparing the means of the ECB and the European Council confirms that there are differences at a 95 per cent confidence level, while the same test between the ECJ and the European Council confirms a difference between them. There is statistical evidence that the ECJ, EP, EIB and ECB have a better GPP commitment than other EU institutions but there is no statistical evidence that the Council, Agencies and EC perform differently. We examine whether the ECA is really performing as badly as the figures suggest in comparison with the Publications Office and the CoR. We find there is no statistical difference between their respective rates of GPP adoption, suggesting that ECA is in the low level adopter group. The low GPP adoption rate of EU institutions (Figure 1) compared with that of other levels of government is very much related to the low rate recorded by the EC and Agencies, accounting for more than 84 per cent of our observations (Table 2).

In Table 3 we regress our dummy variable GPP to confirm whether EU institutions effects are significant or not. Using logistic regression, we estimate four specifications in which we combine country, sector and time effects. Specification 4 should provide the most reliable results as it includes all of these effects. However, we should take into account the fact that the explanatory power of our model is low (at around 3–9 per cent). This is because most of the explanatory power for adopting GPP lies within the contracting unit itself, and we are unable to detect the vast number of specific characteristics of the EU institutions, such as their level of knowledge of GPP, training programs run in GPP and their environmental awareness, among others (Walker and Brammer, 2009; Testa *et al*., 2012; 2016). Some EU institutions are excluded from a

Table 3: Logistic regression results on GPP

EU Institutions (base category: Agencies)	*Specification 1*		*Specification 2*		*Specification 3*		*Specification 4*	
	Coeff.	*S.E.*	*Coeff.*	*S.E.*	*Coeff.*	*S.E.*	*Coeff.*	*S.E.*
ECJ	1.699***	0.630	2.694***	0.678	2.589***	0.735	2.657***	0.735
EP	1.211***	0.179	1.757***	0.223	1.341***	0.276	1.389***	0.275
ECB	0.988***	0.345	0.513	0.459	0.781	0.650	0.752	0.652
EIB	0.848*	0.435	1.675***	0.507	1.929***	0.582	1.834***	0.585
Council	0.004	0.518	0.694	0.548	−0.047	0.576	0.107	0.582
EC	−0.207	0.148	0.353	0.251	−0.264	0.281	−0.189	0.246
EEAS	−0.425	1.015	0.265	1.031	0.538	1.056	0.514	1.059
EESC	−0.444	0.722	0.066	0.744	−0.413	0.765	−0.450	0.764
CoR	−0.759	1.012	−0.121	1.027				
PO	−0.909	1.011	0.025	1.036	−0.228	1.063	−0.134	1.064
Time			0.045**	0.022			0.044*	0.026
Country fixed effects	No		Yes		Yes		Yes	
Activity fixed effects	No		No		Yes		Yes	
Observations	8,851		8,856		7,205		7,205	
Pseudo-R^2 (adj)	0.030		0.076		0.089		0.091	

Coeff: coefficient, S.E.: standard error. Significant at: * 90 per cent confidence level; ** 95 per cent confidence level; *** 99 per cent confidence level.

number of specifications due to a low number of observations (CoR) or from all specifications (ECA).

If we focus specifically on the EU institution effects, there are some EU institutions whose effect is positive and significant when compared to our base category (Agencies). The EP, ECJ and EIB are positive and highly significant in all their specifications. Based on the previous results shown in Figure 2, we can confirm that the ECB does not adopt GPP at higher rates when fixed country, sectoral and/or temporal effects are included. Therefore, we do not have enough empirical evidence to classify ECB as an institution with high GPP levels. We confirm a high GPP level in the ECJ (H7). A plausible interpretation for the EP coefficient is that we have three to four times more probability of finding GPP within the EP rather than in EU agencies, ceteris paribus (H5). We also confirm that EC is not a front-runner in GPP (H3). The Council, the Publication Office, European Economic and Social Committee and the European Committee of the Regions do not have a positive effect on GPP (H4). Temporal effects are significant; every passing year there is a 4.5 per cent more probability of finding GPP.

Interestingly, when we include country fixed effects in the model (specifications two, three and four), its explanatory power doubles, which implies that although EU institutions' commitment should not be connected to that of individual Member States the EU countries do exercise a certain influence. When we examine the country-specific effect, only Denmark presents one that is positive and significant. This result is in line with Liefferink and Andersen (1998) and Wurzel *et al*. (2019), who discussed which states are EU environmental leaders and identified Denmark as a leading green activist in the EU. This is confirmed by Nissinen *et al*. (2009) who pinpointed Denmark as the Nordic front-runner in GPP.

We conduct an extended analysis of some EU institutions (Table 4). We select those with the largest number of observations but also those that are institutionally important: Agencies, EC, Council and EP. The main objective is to check whether previous results are maintained (Table 3) and if specific time effects for every institution are present. In the first regression, we confirm the previous result from Tables 2 and 3: EP performs better than EC, the Council and Agencies and there is no difference between these three executive institutions (H6). From odds ratio interpretation in a logistic regression, we have four times more probability of finding GPP in the EP than in a European Agency, ceteris paribus. There is also no time effect in GPP adoption for them. In other specifications in which we restrict the sample to one institution, time effects are also insignificant except in EP specification. In EC specification, we find evidence that during the Juncker's Commission (until 2019), GPP diminished; there is also a 71 per cent less probability of finding GPP in Juncker's Commission than in Barroso's, ceteris paribus.

Discussion

Our initial point tackles the question of why EU institutions are lower adopters of GPP than European national, regional and local governments. To delve into that question, in the following lines we focus on EC, Council, Agencies and EP results.

We have analyzed the legislative procedure in Directive 2014/24/EU related to public procurement. An initial inspection suggests that the EC should lead by example, proving the commitment of European institutions and instilling motivation (Andhov *et al*., 2020). Nevertheless, in the proposal drafted by the EC, in 2011, it was noted that the directive should not set GPP as a mandatory tool as it was seen as 'not appropriate'. During the negotiation, which included the EP and the Council, the clause remained unaltered. From our point of view, although EC is taking actions to encourage GPP (for

Table 4: Logistic regression results for GPP (Agencies, EC, Council and EP)

	Agencies, EC, Council and EP		*Agencies*		*EC*		*Council*		*EP*	
	Coeff.	*S.E.*	*Coeff.*	*S.E.*	*Coeff.*	*S.E.*	*Coeff.*	*S.E.*	*Coeff.*	*S.E.*
Year	0.038	0.026	0.012	0.045			0.235	0.198	0.289***	0.076
Juncker mandate					−1.240**	0.610				
Institution (Agencies)										
EC	−0.180	0.247								
Council	0.113	0.247								
EP	1.407***	0.277								
Country fixed effects	Yes		Yes		Yes		Yes		Yes	
Activity fixed effects	Yes		Yes		Yes		Yes		Yes	
Time fixed effects	No		No		Yes		No		No	
Observations	6,760		2,133		3,422		137		345	
Pseudo-R^2(adj)	0.091		0.143		0.063		0.039		0.101	

Coeff: coefficient, S.E.: standard error. Significant at: * 90 per cent confidence level; ** 95 per cent confidence level; *** 99 per cent confidence level.

example a handbook on implementing GPP), they promoted, and finally implemented, GPP as not mandatory in the Directive. And our results confirm the EC's low appetite for GPP. Anchoring our results in a broader debate, the Commission decision-making in the field of environmental policies has undergone significant modifications marked by a decreasing green dynamism (Deters, 2019, p. 323). We find major differences between Juncker's and Barroso's Commission regarding GPP adoption. The result reinforces Čavoški's (2015) main conclusion concerning the unlikeliness of progress in the field of environmental protection during the Juncker Commission. One of the first decisions taken when the Juncker's Commission assumed office was strictly linked to the EU green actorness. The Commission withdrew measures that had been tabled by Barroso's Commission, some of them in the environmental side (Kassim and Laffan, 2019). Moreover, Juncker's considered environmental policy as simply one element among many others in his growth and job creation agenda (Ashcroft, 2014) and, the new organizational structure under Juncker's resulted in the suppression of environmental initiatives that were either promoted by Commissioners or originating at the service level (Bürgin, 2020b). It could be argued that the EC is no longer an entrepreneurial actor but rather a hypocritical entrepreneur (Knill *et al*., 2020), which, in line with Lenschow *et al*. (2020), corresponds to a trend towards the EC's bureaucratic normalization in environmental policy. The EC's low appetite may be due not to institutional constraints but to a lack of intention. Furthermore, the Council presents in our results a level of GPP adoption that does not correspond to the commitment to have fifty per cent of all its tendering procedures be green. This goes against the conceptualization of a Council in the environmental area as an actor exerting exemplary internal leadership (Wurzel *et al*., 2019, p. 265).

Our results confirm that the EP is the only institution in the institutional triangle at the forefront of GPP adoption. This is in line with Burns's (2019) consideration that the EP could still exercise a positive influence on EU environmental policy. Every year, the EP is increasing its GPP adoption, while the EC is diminishing it. However, should the EP eventually opt to accommodate institutional views regarding the dismantling of environmental policy, the credibility of the Green Europe myth may no longer be sustainable, as the EU's performance in environmental policy is increasingly falling short of expectations (Lenschow and Sprungk, 2010).

Our results imply that we can allocate institutional GPP adoption rates in relation to the specific decision-making design. It seems that institutions concerned primarily with intergovernmental decision-making such as the Council of the EU seem to perform worse than institutions primarily concerned with supranational decision-making, such as the EIB and the EP.

Our results on GPP, in line with Burns and Tobin (2020), suggest a minor dismantling policy is being rolled out at the EU level or a less environmentally ambitious direction being taken. However, due to our data timeframe, we cannot confirm that the 2008 economic crisis has led to an increase of GPP adoption as suggested by Burns and Tobin (2016). Over time however, some institutions increase GPP (for example the EP) while others keep it constant (namely EC, Agencies, the Council). The low EU institution rate for GPP (compared to local or regional governments) is mainly explained by EC, Council and Agencies results.

Conclusions

The actual role played by the EU as a green actor has come in for much debate in recent years. This article has sought to disentangle this myth of a Green Europe by examining the degree of green public procurement practiced by its institutions. Studying GPP within the EU governance framework is important as it remains an optional rather than a mandatory instrument. This suggests that if EU institutions are indeed implementing green policies in their procurement actions this can be interpreted not only as a commitment to environmental sustainability but also as a willingness to promote green policies.

Our point of departure in this discussion has been that EU institutions are not front-runners when it comes to implementing GPP. Indeed, our results show that, in fact, it is the local public sector that leads the way in GPP adoption (8.7 per cent) and that the EU institutions present the lowest GPP adoption rates (3.1 per cent) in a comparative study with national (5.4 per cent) and regional (6.2 per cent) governments. Arguably of greater relevance, our results clearly show that EP performs better than the EC, Agencies, or the Council. In a more specific analysis, we also showed that EU institutions can be placed in two groups on the basis of their GPP practices. We confirm that there is indeed statistical evidence that the EP, the ECJ and the EIB have a firmer commitment to GPP than the other EU institutions, a group that includes the EC, the Council of the EU, Agencies, the EESC, the EEAS, the PO, the CoR and the ECA. In broader terms, these results seem to imply that supranational institutions, with the exception of the EC, with a clear transfer of authority display a better commitment to GPP than intergovernmental institutions. While the EP seems to be increasing the implementation of GPP over time, in the EC the Juncker mandate had a negative impact on its GPP adoption.

Finally, the results reported herein have significant implications for determining whether the EU institutions can be claimed to be greening, greenwashing or adopting a hypocritical approach. Certainly, our findings suggest not all EU institutions are greenwashing, but there is a need to decipher the logic of their actions in this field. In contrast, our evidence seems unequivocal in identifying the EC, the Council of the EU and the EU agencies, among others, as engaging in greenwashing. The logic of action among the latter seems to reflect the EU's declining green dynamism (Deters, 2019) and the 'actorness' displayed by the EC as it has shifted its stance over the last decade from actively supporting the expansion of environmental policies to openly supporting their active dismantling (Gravey and Jordan, 2020). If the EC does indeed, hereon in, choose to support rather than oppose this process of dismantling, then its remaining adversaries will comprise the greener Member States and the EP – a much-diminished coalition.

Limitations and Future Research

We need to point out a number of limitations in the preceding study. First, we only partially detect GPP uptake insofar as we focus solely on award criteria in contract tenders. Clearly, this instrument cannot be considered the perfect proxy of the importance of environmental policy and, given just how specific it is, it might introduce some bias into our results. Moreover, we should also recognize the possibility of a certain degree of misalignment in the views held by politicians on the one hand and those held by bureaucratic and technical staff in contracting units on the other, especially as the latter may be more

likely to demonstrate a greater degree of independence in relation to GPP adoption than politicians. These facts can explain, for example, the EC and Council results. A more detailed analysis, therefore, is needed. Finally, keeping in mind that GPP is not the only instrument available to authorities but is both a substitute and a complement to other policy instruments a potential explanation for the findings of this research could be that the authorities are using other instruments instead of GPP and that these might be potentially effective or a least have an impact on the environmental problem they are directed towards.

In that sense, future research should be done to develop an alternative instrument for validating our hypotheses regarding EU institutions and their commitment to a greener Europe. Other research lines related to our instrument should focus on different government level determinants like regions, local governments or urban agglomerations.

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