The Strategic Use of Standards to Foster Sustainability in Public Procurement in the Construction Sector in Romania

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ABSTRACT

Public procurement offers an important potential to drive sustainable development and innovation through the strategic use of standards, accounting for 14% of purchasing power in the EU and more than 19% in Romania. However, despite existing policy and legal framework both at European and national level, the strategic use of standards in public procurement remains challenging, due mostly to lack of know-how, inadequate expertise, and a pervasive bias, linking efficiency to lowest price. This article presents an applied research analysis of public tenders in the Romanian construction sector from 2020 to 2024, using random samples of approximately 200 awarded contracts annually to study the occurrence of standard references and their relevance for sustainability. Findings account for a positive trend in referencing standards and a slight increase in the use of environmental or social criteria, where in 2020 less than half of the value invested by public authorities in construction works was awarded through tenders based on the of standards. While in 2024, the total value of contracts awarded through tenders referencing standards represented more than 75% of the total contracted value. Still, the overall approach to using standards strategically to foster sustainability and innovation remains fragmented, reactive, and unsystematic, with high unpredictable variations between the urban and rural environment or between various regions. This research argues for the need to invest higher efforts in devising more focused public procurement strategies, where standards can play a major role in driving behavioural changes in the private sector, and for targeted upskilling of relevant public servants and enhanced communication of both relevant standards and the strategic use thereof.

KEYWORDS: *public tenders, standards, sustainability, constructions*

JEL CLASSIFICATION: L15, L74, F02, O38, O33

1. INTRODUCTION

Public authorities generally hold an important power to influence companies' behaviours and practices through consistent purchasing of works, products and services, which offers a significant opportunity to strategically use this purchasing power to ensure faster and better implementation of public policies to achieve societal benefits, ranging from sustainability, environment friendly behaviours, faster adoption of technologies or fostering innovation. While in the European Union public tenders account for approximately 14% of GDP, in Romania this leverage amounts to 19% of GDP, thus granting public authorities even more

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influence on the private sector. However, it proves challenging to transform public procurement into a strategic tool for sustainable development, despite policy or legal frameworks, such as the Directive 2014/24/EU, which allow for and even encourage the integration of social, digital, environmental or innovation related aspects in public tenders.

Commission documents, such as Public Procurement in the Spotlight (2025), clarify the participation rules for bidders from non-covered third countries and provide methodological guidance to integrate technical, social, environmental, and innovation standards, ensuring public procurement supports sustainable development and quality outcomes.

Technical or sustainability related standards can be referred to in public procurement documentation both to define specific characteristics of products or services, in order to ensure quality standards, but also to foster demand for sustainable products or practices, however, barriers related to lack of know-how, insufficient expertise or organisational tools, or even a persistent bias related to efficiency understood as lowest price often lead to authorities choosing the easier path and rarely referencing standards or even more so sustainability related aspects in tenders.

In this context, this article presents an applied research analysis of public tenders in the construction sector in Romania, for a period of five years, since 2020 to 2024. While the level of digitalisation of the public procurement platform (SICAP) offers little support for data collection and a comprehensive statistical analysis, we addressed this issue by analysing random samples of approximately 200 tenders per year. The related technical documentation of these tenders was processed by using Optical Character Recognition (OCR) to identify all references to standards, the types of standards referenced and their relevance for sustainability and the evolution of the strategic use of standards through the 5 years. This approach allowed us to identify potential patterns in the strategic use of public tenders as tools to foster sustainability, despite the heterogeneity of data.

The analysis presents a complex picture, with some positive trends in the use of standards in public tenders documentation over the years and an apparent increase in references to environmental and social criteria, but with a hardly strategic approach, despite the attempts of central authorities to encourage the strategic use of public tenders as a tool to foster sustainability, digitalisation of innovation. Findings show that current practices are neither consistent, nor profound enough to have a true impact on market behaviour or practices towards sustainability, with some better performance in the urban areas compared to rural ones. The paper proposes key areas of intervention, pointing towards the need for upskilling of relevant public servants, better communication of national and European strategies and a more clear focus on the understanding and strategic use of standards to enhance sustainability practices in the AEC sector in Romania.

2. LITERATURE REVIEW

According to the European Commission, public authorities in the European Union spend approx. 14% of GDP on acquisition of products, works and services. In Romania, this percentage reaches 19% of GDP, i.e. 1.9 trillion euros for public services. With this purchasing power, governments can make an important contribution to achieving sustainability goals.

Primary policy objectives of public procurement are efficiency and cost effectiveness (OECD, 2015, p. 138), proper use of taxpayer money. Secondary policy objectives of public procurement are to produce societal benefits, such as environmental improvement and stimulating innovation (Rainville, 2017).

According to Torkki et al. (2024), sustainability is considered with limitations in public tenders, even though the EU directive on public procurement and national legislation encourages sustainability.

Directive 2004/18/EC introduced initially the possibility of including environmental criteria in public procurement. Later, in 2008, the concept of Green Public Procurement (GPP) was introduced and defined as "a process whereby public authorities seek to procure goods, services, and works with a reduced environmental impact throughout their life cycle" (EU commission communication, 2008). Furthermore, Directive 2014/24/EU established additional criteria related to social, labour, and innovation aspects. These are to be incorporated into tenders to support sustainability in the production and consumption market.

Today, it is possible to refer to Sustainable Public Procurement: the process by which public institutions purchase goods, services, and construction using an approach that considers not only technical characteristics and economic costs, but also environmental and social impacts over their life cycle (Valls-Val et al., 2025). This approach contributes to the creation of a more sustainable economy. Through its purchasing power, governments influence industry practice.

Standardisation complements GPP (Green Public Procurement) by shaping standards, which, when strategically applied in tenders, can drive market demand for environmental products and services and stimulate eco-innovation (Rainville, 2017).

Moshood et al. (2024) propose criteria for evaluating project sustainability, using economic, environmental, and social indicators throughout the project life cycle. The results highlight the importance of organisational awareness and managers' knowledge in promoting sustainable practices in construction. The construction industry is under considerable pressure to adopt sustainable practices. Chang et al. (2016) analysed the sustainability practices and strategic behaviours of three major construction firms in China and found that environmental practices lag behind economic and social practices. The study also provides recommendations for facilitating the industry's transition toward greater sustainability.

GPP requires the use of environmental criteria. Standards for energy efficiency, emissions intensity, and environmental management system could effectively address these criteria. According to Rainville, 2017, the application of these criteria makes standardisation an area of critical importance for the success of GPP.

The use of standards to define participation requirements but also to detail the specifications for the provision of products, works, and services, within public procurement, can be a tool for complying with the sustainability criteria required by public authorities. Applying standards in technical specifications or award criteria dictates the necessary characteristics of a product or service to be purchased, as well as additional features upon which the evaluation can be based (Blind et al., 2020).

A limited number of studies exist on the use of standards and standardisation to address environmental and other sustainability aspects in public procurement. Researchers and construction practitioners emphasise the need for firms to respond to the negative impacts on the environment and society. In a study conducted on large construction firms in Malaysia, Bamgbade et al. (2019) highlight the role of organisational capabilities and the regulatory framework in achieving ecological sustainability. The results show that proactive firm competencies and favourable regulations can enhance sustainable performance, providing new opportunities for environmentally responsible construction practices.

The EU Eco-Innovation Action Plan states that GPP and the use of standards can drive market demand for eco-innovations (European Commission, 2011). Referencing standards in tenders can help to simulate competition among suppliers to meet (or exceed) them and can result in a wider range of solutions (Blind, 2008).

Within calls for tenders, standards can be applied in technical specifications or award criteria (Nissinen et al., 2009). References to formal standards in public procurement documentation are encouraged by the procurement directive.

According to Rainville (2017) both environmental and non-environmental standards can be used in GPP. Relevant standards include levels of environmental performance or quality, safety and labelling.

Rainville (2017) reveals that quality standards help procurers request a minimum performance or desired function eligible for consideration. Standards ensure that higher quality products or services in the market are rewarded with higher prices.

Other standards can be for certifying organisational qualifications, namely environmental management systems, such as ISO 14001, which are often applied by public procurers (Rainville, 2017). This standard may be required for contractor qualifications to certify environmental performance. It is a measure of organisational rather than product or service environmental performance. When taken up by firms, Rehfeld et al. (2004, 2007) found that environmental management systems have a positive impact on product innovation.

Whereas regulations are enacted by the government through a top-down approach, formal standards are mostly the result of a market-driven process - industry self-regulation (Büthe & Mattli, 2011).

While also beneficial for cost-competitiveness in markets, the use of standards in public procurement competitions helps purchasers to meet requirements of low costs (Blind et al., 2020). The same authors suggest that including performance or functional requirements as minimum standards - rather than very narrowly defined technical specifications - is in general more efficient and ensures openness.

Standardisation, third-party certifications such as leadership in energy and environmental design (LEED) and building research establishment environmental assessment methodology (BREEAM), and environmental management systems (EMS) are other prominent tools used to set and assess the different sustainable aspects of construction projects (Ahmed et al., 2024).

In the construction sector, public contracting authorities have high demand for buildings or infrastructure works (Blind et al., 2020). For the private sector, compliance with sustainability criteria is easier by applying recognised standards. These support companies to become more innovative and resilient for the competitive environment in the sector.

Procurement practices may influence the selection criteria used in a sector; for example, for those within the energy sector, cost-effectiveness may extend to life cycle costs to consider potential savings over the longer term. Inclusion of sustainable criteria in tenders can influence the market and transform it towards more sustainable practices (Valls-Val et al., 2025).

There is a need to recognise that there are barriers and enablers of sustainable procurement. Studies focusing on public procurement (Torkki et al., 2024) have specifically highlighted the following barriers: 1) lack of financial or human resources, 2) inadequate expertise, 3) lack of know-how, 4) unclear roles and responsibilities within the procurement organisation, 5) policy issues such as insufficient support or clarity, 6) lack of environmental knowledge and awareness, 7) lack of traceability, prioritisation, and measurement tools in organisation.

On the other hand, several authors confirm that standards have the potential to enable and maintain a market of sustainable industrial products through the purchasing power of governments.

However, although the European and national regulatory framework has evolved consistently in terms of sustainability, to date, the use of public procurement as a strategic tool for creating the market for sustainable products has been sporadically applied and, often, superficially.

3. CONTEXT

The use of standards in public procurement processes is crucial not only to ensure legal compliance but also to transform these processes into essential tools for economic and social development. Policy documents published by the European Commission and standards organisations highlight the fact that the implementation of standards brings significant benefits in terms of efficiency, transparency, and sustainability, contributing to the judicious use of public funds.

Efficiency: Process Optimisation and Cost Reduction
One of the most important advantages of using standards in public procurement is increased efficiency. Standards provide a common language and clear, validated technical specifications, eliminating ambiguities and shortening the time required to prepare documentation. When contracting authorities specify products or services according to recognised standards, the bidding process becomes simpler and faster for all participants.

For example, the use of harmonised European standards allows for better interoperability and comparability of products and services, which facilitates competition and reduces administrative efforts. This translates into lower costs for both contracting authorities (by reducing the time spent on evaluation and clarifications) and bidders (by simplifying the preparation of offers). Moreover, specifications based on standards can lead to the procurement of more reliable and durable products, minimising life-cycle costs and thus generating long-term savings. *ASRO Methodological Guide for Formulating Criteria Related to Standards in Award Documentation (2019)* emphasises that well-defined technical

specifications based on standards prevent situations where inappropriate solutions are bid, leading to costly redesigns or replacements later on.

Transparency: Combating Discriminatory Practices and Ensuring Fair Competition
Transparency is a fundamental pillar of healthy public procurement, and standards play a vital role in ensuring it. By using standards, contracting authorities can formulate objective and non-discriminatory technical specifications. This combats the tendency to develop customised requirements that favour certain economic operators or specific products.

When specifications are based on generally accepted standards, all potential bidders have a clear understanding of the requirements, which encourages the participation of a greater number of competitors. This increased competition not only reduces the risk of monopoly but also contributes to obtaining better prices and higher quality solutions. Guidelines from ANAP (the National Agency for Public Procurement in Romania) complement this vision, providing methodological guidance for formulating criteria related to standards, thus ensuring that the procurement process is open and fair for all. The transparency provided by standards increases public confidence in how funds are spent and reduces the potential for corruption.

Sustainability: Promoting Responsibility and Sustainable Development
The concept of sustainability is becoming increasingly important in public procurement, and standards are powerful tools for integrating environmental, social, and governance criteria. Standards can include specific requirements related to energy efficiency, environmental impact, the use of recyclable materials, waste reduction, ethical working conditions or corporate social responsibility.

By specifying products and services that comply with environmental standards (e.g., ISO 14001 for environmental management) or social standards (e.g., those related to occupational health and safety), contracting authorities contribute to achieving sustainable development goals. This not only leads to "greener" and more socially responsible procurement, but also stimulates innovation among economic operators to develop and offer solutions that meet these requirements. Public procurement based on sustainability standards becomes a driver of a more responsible economy and a better future.

4. RESEARCH METHODOLOGY

An extensive research has been undertaken, covering a period of 5 years, to determine the extent to which Romanian authorities are aware of these benefits and make use of standards in public procurement. This section details the methodology used to identify potential patterns in the approach of various Romanian central and local authorities to public tenders between 2020 and 2024. The research focuses on the construction sector, analysing the extent to which strategic public procurement is employed to enhance sustainability by using standards as support tools.

An in-depth and comprehensive analysis of the extent to which public procurement is used in practice as a strategic tool to enhance the level of sustainability both of practices and of products is a massive endeavour which would exceed the scope of our research and our processing capabilities. However, we identified the Architecture, Engineering and Construction (AEC) sector to be representative for attempting an overlook of the general tendencies to consider the strategic role of public tenders, for two main reasons: it is one of the sectors where the public bodies remain generally the biggest investor with a rather

homogeneous geographic spread and a proportionate allocation of funding, and the sector covers a variety of stakeholders and types of purchases, from materials to design, from construction *per se* to asset management services, which makes it relevant in terms of potential impact, but also in terms of the variety of standards that could be engaged in order to stimulate more sustainable approaches by companies of various types and sizes.

As we chose this sector, we must also acknowledge that it is characterised by a high heterogeneity of investors, types and size of projects, as well as by a high frequency of multi-annual projects. Hence, it poses significant challenges in defining representative samples for a proper statistical analysis.

The low level of digitalisation of the Romanian portal for public tenders – SICAP - is another challenge, which had to be considered in defining the span of our analysis, which allowed for little to no automation of data processing, as most public tenders documentations are originally paper documents that have been digitised, but do not allow for automatic extraction of data for processing.

For the field of construction works, announcements with values exceeding 900,400 RON (~ 180,000 EUR) were initially identified in SICAP. This is the threshold above which simplified procedures apply for works. Below this threshold, according to the applicable legislation, direct procurements are used. By applying this threshold filter for each of the five years, published and awarded announcements were identified as presented in Table 1.

Table 1. SICAP Announcements Identified

SICAP announcements	2020	2021	2022	2023	2024
Published	575	436	403	560	684
Awarded	339	283	240	365	372

Source: produced by the researchers

Considering the practical limitations of the SICAP database, for the period 2020 to 2024, we have decided to analyse random samples consisting of approximately 200 public awarded tenders out of the total published announcements per year. The selection could not be based on specific criteria due to the limitations of the platform, however, the random choice of tenders to analyse was considered a potential source of interesting findings, as it could potentially amplify the probability of identifying relevant patterns for the general behaviour of public bodies in their approach to using public tenders strategically. The calculated risk was that patterns might not be sufficiently clear to unequivocally lead to solid conclusions. However, this risk was accepted considering that the *absence* of clear patterns could also be a relevant finding, while a high level of heterogeneity would potentially show lack of a strategic approach of the current public procurement practices, thereby informing future policy and research.

As most of the public procurement documents were images of text, rather than digital documents, these have been processed using Optical Character Recognition (OCR) to convert them into machine-readable format, thereby allowing for a better processing, more accurate identification of references to standards, and better qualification of the relevance of these references in relation to sustainability issues.

The data collected considered the following criteria:

a. Type of authority: commune, city or district;
b. Value of the investment project;
c. Yes/No qualification of each entry related to the occurrence of any reference to standards in the documentation;
d. Scope of the cited standards: technical requirements, environment (Env.), social (Soc.), and governance (Gov.);
e. Status of the standard: approved or obsolete.

While in the first phase of the research only the first four criteria were considered, after processing the data we found that many of the cited standards were obsolete, so we considered introducing the fifth criterion in order to assess the level of awareness of public bodies in terms of the actual status of standards. This element could also be considered relevant as will be shown in the analysis.

In the final data set, we chose to eliminate the references to technical requirements as being irrelevant for the scope of our research for two reasons: (1) it is common practice in the AEC sector to refer to technical standards in order to define the technical requirements for the investment objective in terms of materials, specific safety parameters, installations, insulations, and so on, and (2) applying such standards does not lead to increased sustainability per se, as they are generally quality or safety requirements and can be seen as directly related to functionality, rather than sustainability.

Data was processed separately for each year for the purpose of time comparison and identifying evolution tendencies in the public bodies' approach. The separate analysis per type of public body was seen as both necessary and relevant due to the significant difference between these in terms of resources, types of projects and project values. The yes/no qualification was also deemed important, as the mere presence of references to technical standards in the documentation could be seen as a signal of low level of awareness on the relevance of standards in the public procurement, or at least an established practice in the respective body, which could be a starting point for introducing better practices in the future.
The statistical analysis was performed using one-way ANOVA to identify significant differences in the mean value of projects that included references to standards in public procurement documentation over a 5-year period. Tests were conducted separately for contracting authorities in rural and urban areas to ensure data homogeneity. A 5% significance level was applied. The results indicate differences in the dynamics of the average project value depending on the type of local authority and confirm a high variability of project values within each group.

5. ANALYSIS OF THE USAGE OF REFERENCING TO STANDARDS IN PUBLIC TENDERS OF CONSTRUCTION WORKS IN ROMANIA DURING 202-2024

Considering the generally accepted fact that public tenders can be used strategically to promote or encourage positive changes in the market behaviour and even to create or develop the market for innovative sustainable technologies, complementing regulatory approaches as well as standards in different domains, but in particular in the AEC sector, where the public bodies account for up to 50% of the total investment, varying through the years, it was our assumption that there should be a correlation between project value and references to standards in public tenders and that there would be an evolution in the usage of standards as tools to promote sustainability, in the context of the current EU policies which have increased

gradually the push towards sustainability. Such a correlation, as well as a positive evolution showing an increase above the actual increase of the market or public investment, would have been a sign of an actual strategic approach to public tenders and an enhanced use of relevant tools to determine companies to improve in terms of sustainability practices, use of sustainable materials and methods, as well as adoption of new green technologies.
Further on, we will analyse the data collected, looking at overall trends, differences by types of authorities, and the evolution in the usage of references to different types of standards over the five selected years, from 2020 to 2024.

5.1 Overall Yearly Trends (2020-2024)

In table 2 we present the aggregated data for the 5 years considered:

Table 2. Aggregated data for 2020 - 2024

Year	Sample	Total Value (Bil Ron)	Reference to Standards	Value with Standards	Share of Tenders with Standards	Share of Value with Standards	Env.	Gov.	Soc.
2020	376	1.58	188	0.76	50%	48.25%	0	32	0
2021	196	2.47	101	1.94	51.53%	78.65%	2	68	1
2022	163	1.00	82	0.62	50.31%	61.92%	2	54	2
2023	191	0.97	135	0.70	70.68%	72.49%	3	68	3
2024	197	0.82	131	0.64	66.50%	77.55%	8	66	8

Source: produced by the researchers

While there is a fluctuation in total project value, which is mostly due to the differences among types of authorities, where a sample containing more tenders in the rural environment has usually a lower total value than a sample containing more tenders in the urban, in particular if more county-level tenders are considered, a positive trend can be observed in the share of tenders referring to standards throughout the 5 years considered. The share of tenders referring to standards has increased, in particular after 2022, where we see a high increase, from around half of the tenders up to more than 70%. There seems to be a slight decrease in 2024, which is most probably due to the type of tenders considered in the tender, since the share of value of projects where standards are referred to is actually higher in 2024, compared to 2023, and also a more diverse approach in terms of types of standards can also be noticed especially in 2024.

While the general trend in public authorities of all types consider standards related to governance, which are best known both in the public and in the private environment, there is a clear upward trend in the number of references to standards related to environmental or social aspects, with a more clear increase in 2024. This shows an increase in the level of familiarity with such standards and is most likely due to the new approach of the National Agency for Public Procurement (ANAP), which has undertaken actions to develop a more efficient, transparent, and high-performing public procurement system, focused on sustainability, innovation, and increased access for SMEs. Thus, the Government of Romania (2023) approved the National Strategy for Public Tenders 2023-2027, a document that acknowledges the systematic weaknesses of public authorities regarding knowledge, understanding, strategic approach, and even the qualification of the staff involved in public procurement, as well as, in many authorities, issues related to insufficient human resources.

The strategy does refer to the need to use standards as strategic tools to foster sustainability and in general to achieve the final objectives of the public investors, and also refers to the

collaboration with the National Standards Body (ASRO), referencing a document published in partnership with ASRO in relation to the strategic use of standards in public tenders. While the impact may not be large or fast enough, a correlation can be made between the action taken by the ANAP and the more clear increase of use in sustainability related standards in public tenders at all levels in 2024.

5.2 Trends by Type of Authority

This analysis looks at the trends in the approach of different types of authorities (rural/city/county) in terms of referencing standards in public tenders in construction works over the 5 years, based on average values of the considered indicators (table 3).

Table 3. Average values per type of authority

Type	Average Total Tenders	Average Total Value (Bil Ron)	Average Tenders with Standards	Avg. Value with Standards (Bil Ron)	Avg. Share Tenders with Standards	Avg. Share Value with Standards	Avg. Env.	Avg. Gov.	Avg. Soc.
Rural	135.60	348.07	74.00	184.65	54.6%	52.80%	1.4	32.0	1.0
County	6.25	400.87	3.75	385.84	57.0%	62.76%	0.0	1.8	0.2
City	84.00	699.5	50.40	439.47	63.8%	67.00%	1.6	23.8	1.6

Source: produced by the researchers

Clearly there is an important difference in sampling, in the sense that the average total tenders for counties is considerably lower, which, however, reflects the reality of the overall structure of the total yearly tenders in construction, as the tenders organised by counties are usually in relation to large infrastructures or types of works that are out of the authority of any one particular rural or city local authority. The very important difference in the size of sample is not however reflected similarly in terms of average value, due to the fact that tenders organised by counties are generally of rather high values compared to the ones lead by rural or city authorities.

Considering these differences in samples, while cities seem to be leading in terms of average share of tenders referring to standards, the differences in approaches are not that significant, and we may comfortably conclude that around 60% of tenders in the urban environment refer to standards, while a little over 50% of tenders in rural environment do so. However, the differences between different types of authorities are not particularly important, which allow us to consider the hypothesis that there may be regions in the country where a more strategic approach to public tenders has been promoted throughout counties, while in other regions/counties the level of knowledge and understanding both of the standards and their role in promoting positive behavioural change in companies is rather low. Further research could help verify this hypothesis, which is based not only on the data analysis, but also on the current practices in local authorities, where they tend to align their approaches to the ones undertaken at county level, where it is often the case that for more complex projects, tender documentation can often be tailored based on similar, larger tenders lead by cities or counties. It should be said though that based on the particular sample analysed, it is a surprise that counties consider much less environmental and social standards than even the rural authorities, which is an aspect that could be further looked into in future qualitative research.

5.3 Evolution in terms of types of standards referred to in public tenders

There is a clear difference between the total tenders referring to standards as technical specifications and the total tenders referring to environment, governance or social aspects related standards. This is mostly due to the fact that in construction a high number of technical

standards are being used to define the quality requirements of particular materials, installations, or works. However, such standards are not relevant to our research, therefore, while we did consider all tenders referring to standards, in order to understand the level of familiarity of public authorities with standards as tools to ensure a clear understanding of requirements, for the purpose of our particular research question related to the strategic use of standards to foster sustainability, only those related to environment, governance or social responsibility remain relevant.

For instance, looking back at the initial table with aggregated data, shown at the section 4.1, from a total number of 188 tenders referring to standards in 2020, only 32 references are relevant for sustainability, and all of them are related to governance, that is to say that they are standards very widely used in all industry sectors in public tenders (i.e. ISO 9001).

In the table 4, we are looking at the share of references to environmental, governance and social responsibility related standards from the total of references captured for the 5 years, in order to identify the overall trend in including such standards in the public tenders.

Table 4. Yearly references to sustainability related standards

Year	Sample	Reference to Standards	Environment	Governance	Social	Share of Env.	Share of Gov.	Share of Soc.
2020	376	188	0	32	0	0,00	0,17	0,00
2021	196	101	2	68	1	0,02	0,67	0,01
2022	163	82	2	54	2	0,02	0,66	0,02
2023	191	135	3	68	3	0,02	0,50	0,02
2024	197	131	8	66	8	0,06	0,50	0,06

Source: produced by the researchers

Looking at the data, we can affirm that there is a somewhat positive trend in strategically using standards to encourage sustainable behaviours in companies, however, most references include governance related standards, and only in 2024 there is a slight increase in the usage of standards related to environmental or social topics, and overall it becomes clear from the data and the yearly increase rates, that public authorities hardly have a strategic approach to use standards as tools to foster sustainability. Such references are rather rare, they are not used systematically, hence they have little impact in the market for the time period considered in this research.

6 CONCLUSIONS

The consistent integration of standards into the public procurement system is an essential strategy for building an efficient, transparent, and sustainable public procurement framework. This not only ensures compliance with legislation but also maximises the value obtained from public spending, contributes to a healthy competitive environment, and supports broader sustainable development goals.

While Romanian public authorities have developed consistent practices of referring to technical standards in public tender specifications, thus ensuring some level of efficiency, transparency and non-discrimination, as well as a unitary approach and a common language, in particular for projects that represent higher public investments, these practices are still to be pushed further so as to become indeed a general practice at all levels, regardless of the size of the authority, the project or of the rural or urban environment.

There seems to be a correlation between the adoption of some public strategies and guides, such as the National Strategy for Public Tenders issues by the competent authority, as well as the various guides published by ASRO, and the increase in the usage of references to standards in public tenders, however the geographic spread is uneven, which suggests that the actual promotion and communication efforts of these strategies and tools is yet ineffective and needs to be enhanced. The National Authority for Public Tenders has created a training centre and is in the process of developing various programs and guidelines for public servants involved in the process of managing public investments, however greater effort is needed in order to increase the level of awareness and competence at all levels, but in particular in the smaller public bodies and more so in the rural environment.

While the National Strategy for Public Procurements mentions standards as strategic tools, it fails to point to the impact that strategic use of standards can have on increasing the level of sustainability and stimulating innovation and more sustainable behaviours and processes in companies. While increasing sustainability actions and behaviours in companies is not in itself an objective of the National Authority for Public Tenders, given the important impact that public tenders can have on company practices, it is worth considering redesigning the approach so as to push further the strategic use of standards, in particular sustainability related ones .This would eventually lead to a more natural digital and green transition of the sector, compensating for the generally conservative and less innovative behaviour that the AEC companies manifest, not only in Romania, but across the EU.

The data analysed in this research shows a slight increase in the usage of references to standards in public tenders, however it also shows the lack of a truly strategic approach on public tenders and usage of standards to enhance sustainability. These findings are in line with the low performance in terms of sustainability of the sector. However, the slight increase over the period of time selected signals an increase in the level of awareness related to the benefits standards can provide, in particular for the investor. A more strategic approach, a stronger message related to the benefits of standards and clear recommendations in this direction from the competent authority, as well as faster and more efficient communication and upskilling of relevant public servants can constitute a solid ground for a more systematic strategic use of standards and consequently to a faster adoption of sustainability objectives and behaviours by companies in the AEC sector.

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