

The Influence of Sustainable Reporting Obligations on Public Purchasing

Peer-reviewed author version

SCHOENMAEKERS, Sarah (2023) The Influence of Sustainable Reporting Obligations on Public Purchasing. In: ERA-Forum (Internet), 23 (3) , p. 377 -395 (Art N° 8).

DOI: 10.1007/s12027-022-00726-5

Handle: <http://hdl.handle.net/1942/41575>

The influence of sustainable reporting obligations on public purchasing

Sarah Schoenmaekers*

Abstract

Public procurement is a key market-based instrument to achieve smart, sustainable and inclusive growth while ensuring the most efficient use of public funds. It is widely known that procurement can be used to spur innovation and to address major societal challenges. For public authorities it is however not always easy to achieve objectives of sustainability by means of public purchasing. While mandatory sustainable procurement requirements exist for some sectors or products, general mandatory requirements for environmental, social and innovation procurement do not (yet) exist. This contribution will discuss whether and to what extent the sustainable reporting obligations under Directive 2013/34/EU, Regulation 2019/2088 and Regulation 2020/852/EU can help contracting authorities to determine whether the supplies, services or works they purchase are in fact sustainable in nature.

Keywords

sustainable procurement – sustainable reporting obligations – sustainable investment - labels

1. Sustainability and Directive 2014/24/EU

1.1. Sustainability in all phases of the procurement process

Already in its 2010 Communication, entitled ‘Europe 2020, a strategy for smart, sustainable and inclusive growth’¹, the European Commission identified public procurement as a key market-based instrument to achieve smart, sustainable and inclusive growth. Taking into account article 11 TFEU, which requires that environmental protection requirements must be integrated into the definition and implementation of the Union policies and activities, in particular with a view to promoting sustainable development, Directive 2014/24/EU on public procurement² clarifies how contracting authorities can contribute to the protection of the environment and the promotion of sustainable development, whilst ensuring that they can obtain the best value for money for their contracts.³

* Sarah Schoenmaekers is Associate Professor of European law at Maastricht University, Endowed Professor of European law at the Open Universiteit and Visiting Professor at Hasselt University, sarah.schoenmaekers@maastrichtuniversity.nl

¹ Communication from the European Commission, Europe 2020 A strategy for smart, sustainable and inclusive growth COM(2010) 2020 final, 3.3.2010.

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, 28.3.2014, pp. 65-242. This contribution will not deal with Directives 2014/23/EU or 2014/25/EU.

³ Recital 91 Directive 2014/24/EU.

When it comes to green public procurement in particular⁴, which is the focus of this contribution, Directive 2014/24/EU contains several provisions that allow environmental concerns to be taken into account.

First of all Article 18(2) holds that Member States are required to take appropriate measures to ensure that in the performance of public contracts economic operators comply with applicable obligations in the field of environmental, social and labour law. A violation of such obligation can be a reason for exclusion on the basis of Article 57(4) of the Directive. Non-compliance with such obligations may even lead to an abnormally low tender for which economic operators have to provide an explanation.⁵

Furthermore, as held by Article 42(3)(a), technical specifications can be formulated in terms of performance or functional requirements, including environmental characteristics, provided that the parameters are sufficiently precise to allow tenderers to determine the subject-matter of the contract and to allow contracting authorities to award the contract. In this regard it should be noted that practice performance-based specifications have -contrary to the use of technical specifications in combination with standards as meant in Article 42(3)(b)- only rarely been used in procurement procedures.⁶ While they might be easier to draft as they do not need to be as detailed as 'hard core' technical specifications, the process of transforming needs, problems and challenges into functional requirements is not easy and requires education and training at the side of contracting authorities.⁷ Functional procurement is hence aligned to the professionalization of the procurement process.⁸

Another example of the possibility to take sustainability concerns into account is Article 70, which stipulates that contract performance conditions may include economic, innovation-related, environmental, social or employment-related considerations. It is not hard to imagine that also when it comes to the actual execution of the contract, contracting authorities may face difficulties to formulate such criteria and assess compliance with them.

⁴ Green Public Procurement means that public authorities seek to purchase goods, services and works with a reduced environmental impact throughout their life-cycle compared to goods, services and works with the same primary function which would otherwise be procured. Sustainable Public Procurement (SPP) is 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. [https://ec.europa.eu/environment/gpp/versus_en.htm#:~:text=Sustainable%20Public%20Procurement%20\(SP%20is,all%20stages%20of%20the%20project](https://ec.europa.eu/environment/gpp/versus_en.htm#:~:text=Sustainable%20Public%20Procurement%20(SP%20is,all%20stages%20of%20the%20project).

⁵ Article 69(2)(d) Directive 2014/24/EU.

⁶ F. Klatt, *Performance-based Specifications in Public Procurement: Exploring the Case of Germany*, 5th IBA Bachelor Thesis Conference, 2 July 2015, Enschede, The Netherlands.

⁷ C. Edquist & J. Zabala-Iturruiagagoitia, 'Public Procurement for Innovation (PPI) as Mission-oriented Innovation Policy', *Research Policy* 41, 2012, pp. 1757-1769. In addition contracting authorities might not feel comfortable to give up control and to let the market come up with solutions.

⁸ Even if less time would be invested in drafting up performance-based specifications, the work of contracting authorities might be shifted from the specification writing stage to the evaluation and monitoring stage. F. Klatt, *Performance-based Specifications in Public Procurement: Exploring the Case of Germany*, 5th IBA Bachelor Thesis Conference, 2 July 2015, Enschede, The Netherlands, p. 9; L. Turley, M. Hug Silva, S. Benson & C. Dominguez, *Performance-based Specifications: Exploring when they work and why*, International Institute for Sustainable Development, Canada, 2014. If performance-based specifications are well designed, these risks can be captured, at least to a certain extent.

Finally⁹ Article 67(1) on contract award criteria should be mentioned. This Article is of significant importance as it holds that contracting authorities shall base the award of public contracts on the most economically advantageous tender. As held by article 67(2), the most economically advantageous tender from the point of view of the contracting authority has to be identified on the basis of the price or cost, using a cost-effectiveness approach, such as life-cycle costing and may include the best price-quality ratio, which has to be assessed on the basis of criteria, including qualitative, environmental and/or social aspects. The notion of life-cycle costing includes all costs over the life cycle of works, suppliers or services.¹⁰ This includes internal costs, such as research to be carried out, development, production, transport, use, maintenance and end-of-life disposal costs but can also include costs imputed to environmental externalities linked to the product, service or works during its life cycle, such as the costs of emissions of greenhouse gases and other pollutant emissions and other climate mitigation costs, provided their monetary value can be determined and verified.¹¹ Indeed, to go beyond price, methodologies are necessary to take into account a broader range of costs and benefits related to product production, acquisition and use and life-cycle costing is a tool that provides a structured approach that can assist contracting authorities with their decision-making process when comparing works, supplies or services.¹² Attempts to measure and monetize life-cycle costs are still in their infancy and due to many difficulties such as the lack of data and absence of a (common) understanding of data, actors in the procurement process are slow and reluctant to adopt life-cycle costing practices.¹³

1.2. Procurement, labels and greenwashing

As sustainability requirements always need to be linked to the subject matter of the contract¹⁴ and hence cannot be overly general, the design and assessment of environmental, social or other characteristics is in most cases not an easy task for contracting authorities. Specifically when it comes to life-cycle costing there are many practical challenges such as the lack of data, uncertainties related to the applied methodologies, difficulties in calculating environmental costs, short procurement budget periods, risks and uncertainty on price change as well as new technologies.¹⁵ As held by Andhov et al, technical specifications, technical criteria, contract

⁹ There are other references to sustainability, e.g. in relation to sheltered workshops (Article 20) and environmental certification schemes such as the Eco-Management and Audit Schemes (Article 62). These will not be discussed within the scope of this contribution.

¹⁰ Recital 96 Directive 2014/24/EU.

¹¹ Article 68(1) and recital 96 Directive 2014/24/EU.

¹² J. J. Czarnecki and S. Van Garsse, 'What is life-cycle costing?' in: M. Andhov, R. Caranta & A. Wiesbrock, *Cost and EU Public Procurement Law – Life-cycle Costing for Sustainability*, Routledge, London, 2021, p. 3.

¹³ Ibid, p. 3, referring to D.C. Dragos and B. Neamtu, 'Sustainable Public Procurement in the EU: Experiences and Prospects' in F. Lichère et al (eds), *Modernising Public Procurement: The New Directive*, Djøf Publishing 2014, p. 324 and A.P. Higham et al, 'Life Cycle Costing: Evaluating Its Use in UK Practice', 2015, 33 *Structural Survey*, p. 73; M.R. De Giacomoa et al, 'Does Green Public Procurement Lead to Life Cycle Costing (LCC) Adoption?', *Journal of Purchasing and Supply Management*, 2018, 3.

¹⁴ For technical specifications see Article 42(1) and recital 74, for award criteria see Article 67(3) and for contracts performance conditions see Article 70.

¹⁵ M. Andhov, R. Caranta & A. Wiesbrock, 'The European Union Law of life-cycle costing', in M. Andhov, R. Caranta & A. Wiesbrock, *Cost and EU Public Procurement Law – Life-cycle Costing for Sustainability*, Routledge, London, 2021, p. 32.

clauses, labels and other certifications are used as alternatives¹⁶, while, as indicated above, the creation of technical specifications, criteria and contract clauses often comes with own challenges.

Specifically the use of labels can be a useful tool to assist contracting authorities to purchase works, supplies or services with specific environmental, social or other characteristics. More specifically, ecolabels can be used to translate the environmental criteria of labels into technical specifications, without there being any need for the contracting authority to specify the underlying label criteria.¹⁷ In addition, contracting authorities can require a specific label as means of proof that the works, services or supplies correspond to the required characteristics in the technical specifications, the award criteria or the contract performance conditions as long as the label requirements are linked to the subject matter of the contract, based on objectively verifiable and non-discriminatory criteria, established in an open and transparent procedure, accessible to all interested parties and set by a third party.¹⁸ Labels allow contracting authorities to differentiate between purchases on the basis of their environmental impact and contribute to the simplification and facilitation of the communication process, the process of criteria development and contractual follow-up, decision-making process and monitoring of the sustainable procurement process.¹⁹

Nevertheless, it is widely known that many of the green claims, particularly with regard to eco-labelling, cannot be substantiated and often consist of greenwashing, whereby companies deceptively promote the perception that its products, aims or policies are environmental friendly. As consumers have an increasingly high demand for sustainable products, greenwashing seems to have increased over the years. The 2020 EEA wide sweep on misleading sustainability claims coordinated by the European Commission on the basis of which websites are screened to identify breaches of consumer law in a given online market and enforcement decisions of national authorities are considered, revealed that Consumer Protection Cooperation Authorities found that in 42% of the cases authorities had at least a reason to believe that the claim may be false or deceptive and potentially could be qualified as an unfair commercial practice under the Unfair Commercial Practices Directive^{20, 21}

¹⁶ Ibid, p. 32.

¹⁷ It should be noted that on the basis of Article 43 and recital 75, contracting authorities can only require labels if the label requirements contain criteria which are linked to the subject-matter of the contract and are appropriate to define characteristics of the works, supplies or services that are the subject-matter of the contracts; the labels are established in an open and transparent procedure; the labels are accessible to all interested parties; the label requirements are set by a third party over which the economic operator applying for the label cannot exercise decisive influence.

¹⁸ Article 43(1) Directive 2014/24/EU.

¹⁹ M. Koszweska, in M. Andhov, R. Caranta & A. Wiesbrock, *Cost and EU Public Procurement Law – Life-cycle Costing for Sustainability*, Routledge, London, 2021, p. 138-141.

²⁰ Directive 2019/2161 amending Council Directive 93/13/EEC and Directives 98/6EC, 2005/29/EC and 2011/83/EU as regards the better enforcement and modernisation of EU consumer protection rules, OJ L 328, 18.12.2019, pp. 7-28.

²¹ https://ec.europa.eu/info/live-work-travel-eu/consumer-rights-and-complaints/enforcement-consumer-protection/sweeps_en

To tackle this issue the Commission has indicated in the European Green Deal²² that companies making green claims should substantiate these against a standard methodology to assess their impact on the environment. In this light the Commission committed itself to step up its regulatory and non-regulatory efforts to tackle false green claims. The 2020 Circular Economy action plan, which is one of the main building blocks of the European Green Deal, also expresses the Commission's commitment to further strengthen consumer protection against green washing and premature obsolescence, setting minimum requirement for sustainability labels/logos and for information tools. In addition it includes the Commission's proposals to substantiate environmental claims by means of Product and Organisation Environmental Footprint Methods and holds that the Commission will test the integration of these methods in the EU ecolabel which will include more systematically durability, recyclability and recycled content in the EU Ecolabel criteria.²³

While many other legislative and policy developments are taking place and several Commission proposals have been launched in 2022 specifically with a eye to protect consumers by curing the information asymmetry problem with regard to environmental claims²⁴ and to increase company's due diligence²⁵, this contribution focuses on the sustainable reporting obligations that are currently in force on the basis of Directive 2013/34/EU²⁶ as amended by Directive 2014/95/EU²⁷, Regulation 2019/2088²⁸ and Regulation 2020/852²⁹, and discusses whether and to what extent they can help contracting authorities to determine whether the purchases they intend to make are indeed sustainable in nature.

²² Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, *The European Green Deal*, COM/2019/640 final, 11.12.2019.

²³ Ibid.

²⁴ See e.g. Commission Proposal for a Directive of the European Parliament and of the Council amending Directives 2005/29/EC and 2011/83/EC as regards empowering consumers for the green transition through better protection against unfair practices and better information. These Directives were amended in 2019 by Directive 2019/2161/EU of the European Parliament and of the Council of 27 November 2019 amending Council Directive 93/13/EEC and Directives 98/6/EC, 2005/29/EC and 2011/83/EU of the European Parliament and of the Council as regards the better enforcement and modernisation of Union consumer protection rules, OJ L 328, 18.12.2019, pp. 7-28..

²⁵ Commission Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive 2019/1937/EU, COM/2022/71 final.

²⁶ Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC, OJ L 182, 29.6.2013, pp. 19-76.

²⁷ Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, OJ L 330, 15.11.2014, pp. 1-9

²⁸ Regulation 2019/2088/EU of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector, O L 317, 9.12.2019, pp. 1-16.

²⁹ Regulation 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation 2019/2088, OJ L 198, 22.06.2020, pp. 13-43.

2. The Accounting Directive

2.1. Scope of the Directive

Directive 2013/34/EU, also known as the Accounting Directive, is applicable to (certain types of) limited liability companies³⁰ in the European Union and sets out general financial reporting obligations and detailed rules on the presentation of the balance sheets, profit and loss accounts as well as rules on non-financial reporting. These obligations can vary depending on a company's size and exemptions are allowed for micro, small and medium-sized undertakings³¹. The Directive is applicable to all types of undertakings, regardless of the sector, that are listed in Annex I or II and fulfil the requirements of Article 1.³²

2.2. Aims of the Directive

Directive 2013/34/EU aims to coordinate national provisions concerning the presentation and content of annual financial statements and management reports, the measurement bases used therein and their publication in respect of certain types of undertakings with limited liability.³³ Such information is important to protect shareholders, members and third parties. Of specific importance within the scope of this contribution is Article 19(1), which stipulates that the management report that companies have to draw up and that will be published and audited³⁴, has to include a fair review of the development and performance of the undertaking's business and of its position and to the extent necessary for an understanding of the undertaking's development, performance or position, this analysis has to include financial and, where appropriate, non-financial key performance indicators, including information relating to environmental and employee matters.³⁵ Disclosure of such non-financial information is considered vital for identifying sustainability risks, helps measuring, monitoring and managing of an undertaking's impact on society and improves Union-wide comparability.³⁶ In addition it improves public confidence in financial statements and reports and can facilitate cross-border investment.³⁷

³⁰ Recitals 3 and 5 Directive 2013/34/EU. It should be noted that on 21 April 2021, the Commission presented a proposal to amend the Directive. The proposal extends the scope of the Directive so that credit institutions and insurance companies that are not limited liability companies, including cooperative banks and mutual and cooperative insurance companies are included, provided they meet the relevant size criteria. See Proposal for a Directive of the European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation 537/2014 as regards corporate sustainable reporting, Brussels, 21.4.2021, COM(2021) 189 final.

³¹ See e.g. Articles 31 and 36 Directive 2013/34/EU. These requirements will not be further discussed due to the scope of this paper.

³² As will be seen, this is contrary to Regulation 2019/2088/EU which is only applicable to financial market participants or financial advisers.

³³ Recital 3 Directive 2013/34/EU.

³⁴ Article 33 and 34 Directive 2013/34/EU.

³⁵ See also recital 26 Directive 2013/34/EU.

³⁶ Recital 3 Directive 2014/95/EU.

³⁷ Recital 55 Directive 2013/34/EU. It should be noted however that Member States have the possibility to exempt small and medium-sized undertaking from the obligation to include non-financial information in their report and small undertakings can even be fully exempted from the obligation to draw up a management report. See Article 19(3) and (4) and recital 27 Directive 2013/34/EU.

Due to the revision of Directive 2013/34/EU by Directive 2014/95/EU, Article 19a now explicitly obliges large undertakings³⁸ to always prepare a non-financial statement as part of their management report which should, to the extent that this is necessary to understand the undertaking's position, include as a minimum environmental, social and employee matters, respects for human rights, anti-corruption and bribery matters.³⁹ As regards environmental matters, the Article adds that such statements should contain details of the current and foreseeable impacts of the undertaking's operations on the environment, and, as appropriate, on health and safety, the use of renewable and/or non-renewable energy, greenhouse gas emissions, water use and air pollution.⁴⁰ While this gives a bit more clarity as to which topics the management report should cover, it is interesting to note that a Commission proposal⁴¹ is currently hanging that aims to improve sustainability reporting even more in order to better harness the potential of the European single market to contribute to the transition towards a fully sustainable and inclusive financial system.⁴² Interesting to note within the scope of this contribution is that the proposal explains in great detail which information should be provided in management reports when it comes to sustainability. It demands for example that undertakings describe their plans to ensure that their business model and strategy are compatible with the transition to a sustainable economy and with the limiting of global warming to 1.5°C in line with the Paris Agreement. Another important aspect is that the proposal specifically refers to the Sustainable Finance Disclosure Regulation and the Taxonomy Regulation -which will be discussed in chapters 3 and 4 of this contribution- and aims to ensure that the reporting requirements for companies under Directive 2013/34/EU are consistent with the obligations under the taxonomy. This should be achieved through sustainability reporting standards (Article 19b proposal) which will take into account the indicators that companies have to disclose about the extent to which their activities are environmentally sustainable according to the Taxonomy Regulation.

On 21 June 2022, following negotiations in trilogues, the Parliament and the Council reached a provisional political agreement. Both the Parliament and the Council will need to formally approve the provisional agreement after which the Directive will be published in the Official Journal of the EU, entering in force 20 days after.

3. The Sustainable Finance Disclosure Regulation 2019/2088/EU

3.1. Scope of the Regulation

³⁸ These are defined as public-interest entities exceeding on their balance sheet dates the criterion of the average number of 500 employees during the financial year.

³⁹ Article 29a Directive 2013/34/EU also include this obligation for the consolidated management report of public-interest companies which are parent undertakings of a large group exceeding on its balance sheet dates, on a consolidated basis, the criterion of the average number of 500 employees during the financial year.

⁴⁰ Recital 6 Directive 2014/95/EU.

⁴¹ Proposal for a Directive of the European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation 537/2014 as regards corporate sustainable reporting, Brussels, 21.4.2021, COM(2021) 189 final.

⁴² As this contribution is not focussing on a discussion of all new aspects of the proposal, it will limit itself to pointing out some interesting aspects that are relevant within the current discussion.

Regulation 2019/2088/EU, which entered into force on 10 March 2021, lays down harmonised rules for financial market participants and financial advisers on transparency with regard to the integration of sustainability risks and the consideration of adverse sustainability impacts in their processes and the provision of sustainability-related information with respect to financial products. In accordance with Article 2, the term financial market participants refers to insurance undertakings, investment firms that provide portfolio management, institutions for occupational retirement provision, manufacturers of pension products, alternative investment fund managers and certain other fund managers and credit institutions. Financial advisers include certain insurance intermediaries and undertakings and credit institutions and investment firms which provide investment advice.

When considering the definition of contracting authorities, as provided for by Article 2(1)(1) of Directive 2014/24/EU, it is clear that most contracting authorities can in principle⁴³ not be qualified as financial market participants or financial advisers such authorities include the State, regional or local authorities and bodies governed by public law, the latter being characterized by their establishment for the *specific* purpose of meeting needs in the *general interest*, not having an industrial or commercial character.⁴⁴ As held by the Court in *Commission v Spain*, if a body operates in normal market conditions with regard to the activities intended to meet needs in the general interest, aims to make a profit and bears losses associated with the exercise of its activity, it is unlikely that the needs it seeks to meet are not of an industrial or commercial nature.⁴⁵ It can be argued that most financial market participants and advisers are specifically pursuing commercial needs and hence will not be covered by the definition of contracting authority of the procurement Directive, even though exceptions might be possible. This is further illustrated by the fact that Article 13 of Regulation 2019/2088/EU is focusing on 'marketing' communication, whereas contracting authorities in a procurement procedure are typically not the seller but the purchaser.⁴⁶ As this contribution does not aim to discuss in detail under which conditions, if any, a contracting authority may exceptionally be covered by the definition of financial market participant but aims to focus on whether the Reporting Regulations can be of relevance for contracting authorities in general, the discussion will now focus on the actual purpose of Regulation 2019/2088/EU.

3.2. Aims of the Regulation

⁴³ It could be possible that a certain financial market participant could fall under the definition of body governed by public law if the criteria of Article 2(4) Directive 2014/24/EU would be fulfilled.

⁴⁴ The Court of Justice has held that the concept of 'contracting authority', including that of 'body governed by public law' should, in light of the objectives of the directives on public procurement seeking to exclude the possibility that a body financed or controlled by the State, regional authorities or other bodies governed by public law may be guided by considerations other than economic ones, be interpreted in functional terms and broadly. It is irrelevant that, in addition to the activities intended to meet needs in the general interest, the entity in question also carries out other activities for profit on the competitive market. It is important in that regard that the body is able to be guided by non-economic considerations. See Case C-567/15 *LitSpecMet* ECLI:EU:C:2017:736, §31 and 40 and Case C-18/01 *Korhonen* CELI:Eu:C:2003:300, § 51.

⁴⁵ Case C-283/00 *Commission v Spain* ECLI:EU:C:2003:544, §81-82.

⁴⁶ It has to be noted however that according to Article 2(1)(e), that the notion of economic operator also includes public entities.

As the Union is increasingly faced with the catastrophic and unpredictable consequences of climate change, resource depletion and other sustainably-related issues, urgent action was needed to mobilise capital not only through public policies but also by the financial services sector. In this light, Regulation 2019/2088 requires financial market participants and financial advisers to disclose specific information on their websites about their policies on the integration of sustainability risks and the consideration of adverse sustainability impacts in their investment decision-making process, investment advice or insurance advice.⁴⁷ In this regard they should assess on a continuous basis not only all relevant financial risks but also all relevant sustainability risks that may have a relevant material negative impact on the financial returns of an investment or advice.⁴⁸ As stipulated in Articles 10 and 11 of the Regulation, for each financial product that promotes environmental and/or social characteristics or that has sustainable investment or the reduction of carbon emissions as its objective, financial market participants are required to publish and maintain on their website certain information, such as a description of these characteristics and the methodologies used to assess, measure and monitor these and periodic reports have to be drawn up.⁴⁹

4. The Taxonomy Regulation

4.1. Scope of the Regulation

Regulation 2020/852/EU, also known as the Taxonomy Regulation, supplements the rules laid down in Regulation 2019/2088. The Regulation is applicable to measures adopted by Member States or by the Union that set out requirements for financial market participants or issuers⁵⁰ in respect of financial products or corporate bonds that are made available as environmentally sustainable; financial market participants that make available financial products; and undertakings which are subject to the obligation to publish a non-financial statement or a consolidated non-financial statements in accordance with Directive 2013/34/EU^{51, 52} As the definition of financial market participant is the same as in Regulation 2019/2088/EU, reference is made to what has been mentioned above with regard to the position of

⁴⁷ See for more details Article 3 and 6 and Recitals 8, 10 and 15 Regulation 2019/2088/EU. The Regulation aims to achieve more transparency on how these risks are integrated in investment decisions and investment or insurance advice. As held by recitals 5 and 24, disclosures to end investors on the integration of sustainability risks, on the consideration of adverse sustainability impacts, on sustainable investment objectives, or on the promotion of environmental or social characteristics, in investment decision-making and in advisory processes were not sufficiently developed as there were no harmonised requirements.

⁴⁸ Recitals 12 and 14 Regulation 2019/2088/EU.

⁴⁹ Articles 10 and 11 Regulation 2019/2088/EU.

⁵⁰ An issuer is defined in Article 2(h) Regulation 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market and repealing Directive 2003/71/EC, *OJ L 168*, 30.6.2017, p. 12) as a legal entity which issues or proposes to issue securities.

⁵¹ Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC, *OJ L 182*, 29.6.2013, p. 19, has been amended by Directive 2014/95/EU.

⁵² Article 1(2) Regulation 2020/852/EU.

contracting authorities from a procurement perspective⁵³, taking into account again that the aim of this contribution is not to provide for a detailed discussion on whether and when a specific (financial) entity can be covered by the notion of contracting authority. In any case it is clear that the Taxonomy Regulation is not only applicable to financial market participants but also to large undertakings which are public-interest entities⁵⁴ exceeding on their balance sheet dates the criterion of the average number of 500 employees⁵⁵ during the financial year and public-interest entities which are parent undertakings of a large group exceeding on its balance sheet dates, on a consolidated basis, the criterion of the average number of 500 employees during the financial year.

4.2. Aims of the Regulation

The Taxonomy Regulation establishes criteria for determining whether an economic activity qualifies as environmentally sustainable for the purposes of establishing the degree to which an investment is environmentally sustainable.⁵⁶ While Regulation 2019/2088 merely indicates that a sustainable investment means an investment in an economic activity that contributes to an environmental objective⁵⁷, as measured, for example by key resource efficiency indicators on the use of (renewable) energy, raw materials, the production of waste and greenhouse gas emissions or an investment in an economic activity that contributes to a social objective⁵⁸ or an investment in human capital or economically or socially disadvantaged communities, the Taxonomy Regulation establishes actual criteria for determining whether an economic activity qualifies as environmentally sustainable for the purposes of establishing the degree to which an investment is environmentally sustainable. Such criteria should take into account the life cycle of the products and services provided by that economic activity in addition to the environmental impact of the economic activity itself, including taking into account evidence from existing life-cycle assessments, in particular by considering their production, use and end of life.⁵⁹ While the Taxonomy Regulation is hence not focussing on social objectives⁶⁰ it aims to reorient capital flows towards environmentally sustainable

⁵³ In this regard it should be noted that recital 11 refers to requirements for ‘marketing’ financial products or corporate bonds which again leads to the conclusion that financial market participants are not established to meet needs in the general interest, not having a industrial or commercial character as required from contracting authorities in the procurement Directive.

⁵⁴ See for a definition Article 2(13) Directive 2006/43/EC of the European Parliament and of the Council of 17 May 2006 on statutory audits of annual accounts and consolidated accounts, amending Council Directives 78/660/EC and 83/349/EEC and repealing Council Directive 84/253/EEC, OJ L 157, 9.6.2006, oo. 87-107.

⁵⁵ See for more details article 19a and 29a Directive 2013/34/EU.

⁵⁶ Article 1(1) Regulation 2020/852/EU.

⁵⁷ Recital 17 Regulation 2019/2088/EU. This can be measured for example by key resource efficiency indicators on the use of energy, renewable energy, raw materials, water and land, on the production of waste and greenhouse gas emissions, or on its impact on biodiversity and the circular economy. It should be added that such investments may not significantly harm any of those objectives and that the investee companies follow good governance practices.

⁵⁸ The Regulation specifically refers to an investment that contributes to tackling inequality or that fosters social cohesion, social integration and labour relations.

⁵⁹ Recital 34 Regulation 2020/852/EU.

⁶⁰ As held by Recital 6, as a first step, clear guidance on activities that qualify as contributing to environmental objectives help to inform investors about the investments that fund environmentally sustainable economic activities. Further guidance on activities that contribute to other sustainability objectives, including social objectives, might be developed at a later stage.

activities and investments. The requirement to market financial products or corporate bonds as environmentally sustainable investment, aims to enhance investor confidence and awareness of the environmental impact of those financial products or corporate bonds, to create visibility and to address concerns about greenwashing.⁶¹ While ecolabels can in this regard be useful tools to identify financial products or services that meet certain environmental performance criteria, different national labelling schemes or requirements can discourage investing across borders if they use different criteria. In addition, economic operators that wish to attract investment from abroad would be disincentivized from accessing cross-border capital markets for the purposes of sustainable investment.⁶² To address these obstacles, the Taxonomy Regulation aims for a unified classification system and helps co create the world's first-ever green list classification system for sustainable economic activities on the basis of a common language that investors and business can use. It does not contain an exhaustive list of environmentally sustainable economic activities but provides a general framework that will allow for the progressive development of an EU-wide classification system. The classification should lead to the eventual establishment of labels that formally recognise compliance with those standards across the Union.

As held by Article 3, an economic activity will qualify as environmentally sustainable where it contributes substantially⁶³ to one or more of the environmental objectives set out in the Directive, does not significantly harm⁶⁴ any of those objectives, is carried out in compliance with certain minimum safeguards⁶⁵ and complies with certain technical screening criteria that have been established by the Commission. These objectives are climate change mitigation, climate change adaptation, the sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control and the protection and restoration of biodiversity and ecosystems.⁶⁶ Articles 10-15 provide more detailed requirements that have to be fulfilled per environmental objective and indicate that the Commission will adopt a delegated act to supplement these requirements by establishing technical screening criteria for determining the conditions under which a specific economic activity qualifies as contributing significantly to each objective and to establish technical screening criteria to determine whether an economic activity in respect of which technical screening criteria have been established causes significant harm to such objective(s).

Member States and the Union are required to apply the criteria set out in Article 3 for the purposes of any measure setting out requirements for financial market participants or issuers

⁶¹ Greenwashing is, in the context of the Taxonomy Regulation, defined as the practice of gaining an unfair competitive advantage by marketing a financial product as environmentally friendly, when in fact basis environmental standards have not been met.

⁶² Recital 11 Regulation 2020/852/EU.

⁶³ As held by Article 16, an economic activity shall qualify as contributing substantially to one or more of the environmental objectives by directly enabling other activities to make a substantial contribution to one or more of these objectives.

⁶⁴ This is further developed in Article 17 Regulation 2020/852/EU.

⁶⁵ This is further clarified in Article 18 Regulation 2020/852/EU.

⁶⁶ Article 9 Regulation 2020/852/EU.

in respect of financial products that are made available as environmentally sustainable.⁶⁷ It is interesting to note that this includes standards and labels. It follows that the issuing of national labels is hence still allowed as long as the criteria of the Taxonomy Regulation are used to determine which economic activities qualify as environmentally sustainable.

Finally, it should be noted that when it comes to (non-financial) undertakings which are subject to an obligation to publish non-financial information on the basis of Article 19a and 29a of Directive 2013/34/EU, the Taxonomy Regulation imposes the inclusion of information on how and to what extent the undertaking's activities are associated with economic activities that qualify as environmentally sustainable under the Taxonomy Regulation in these non-financial (consolidated) statements. This will be further discussed in chapter 3.

5. Relevance of the sustainable reporting obligations for public procurement

5.1. The Accounting Directive

As the sustainability reporting obligations for companies under Directive 2013/34/EU are specifically focussing on the resilience of the undertakings' business models and corporate strategies to risk related to sustainability matters, the information provided for by companies in their management report will most likely provide rather broad insights on the sustainable market behaviour of economic operators, which is in principle not linked to the subject-matter of a particular procurement contract. This will not change after the proposal that is currently hanging will enter into force which demands more detailed information, e.g. regarding limiting global warming, as also this information is about the undertakings' conduct in general.

Nevertheless, contracting authorities are in the possibility to consult this information, not only because economic operators may provide them with such information, specifically if the tender refers to sustainability criteria, but also because this information is made publicly available on the basis of Article 30(1) Directive 2013/34/EU.⁶⁸ While this information can hence not play a major role when assessing compliance with technical specifications, selection and award criteria, or contract performance conditions, it may in any case shed some light on an economic operator's technical and professional ability as meant in Article 57 of Directive 2014/24/EU.

5.2. The Sustainable Finance Disclosure Regulation

As indicated above, the main purpose of the Disclosure Regulation is to be found in the reduction of information asymmetries with regard to the integration of sustainability risks, the promotion of environmental or social characteristics and sustainable investments by requiring financial market participants and financial advisers to make precontractual and ongoing

⁶⁷ Article 4 Regulation 2020/852/EU.

⁶⁸ In each Member State the information will be disclosed in a central, commercial or companies register. See Article 16(1) Directive 2017/1132 of the European Parliament and of the Council of 14 June 2017 relating to certain aspects of company law, *OJ L 169*, 30.6.2017, pp. 46-127.

disclosures to end investors when they act as agents of those end investors.⁶⁹ When looking at this rationale from a procurement angle, it should be noted that in public procurement processes there is always an information asymmetry problem as economic operators are in most cases better informed than procurement officials about the social and environmental characteristics of the products they offer, the works they execute or the services they provide. It would hence be very helpful if tools would be available to help contracting authorities to make more informed decisions regarding the sustainability aspects of the submitted tender proposals.

While financial products are not typically the subject of a procurement contract, and are even excluded by Article 10(e) of Directive 2014/24/EU, which explicitly indicates that the Directive is not applicable to public service contracts for financial services in connection with the issue, sale, purchase or transfer of securities or other financial instruments within the meaning of Directive 2004/39/EC⁷⁰, it is not difficult to imagine that the sustainable aspects of a certain financial product may reveal information about the sustainable features of the companies that are linked to it and which may participate in a procurement procedure for works, suppliers or services. Such information will often be very limited however and will in any case not be linked to the subject-matter of a particular procurement contract. Nevertheless, as stipulated in recital 19 of Regulation 2019/2088/EU, the consideration of sustainability factors in the investment decision-making and advisory processes can realise benefits beyond financial markets. It can increase the resilience of the real economy and the stability of the financial system. For example, the more listed companies realize that their sustainability performances are closely considered by financial market participants, the more they may be inclined to extend their sustainable efforts or quit the production of non-sustainable alternatives. This brings more sustainable products to the market which contracting authorities can then purchase by means of a public procurement procedure. Obviously this can have spill-over effects to small and medium sized enterprises from the supply perspective and to private consumers from the demand side of the market.

5.3. The Taxonomy Regulation

As the Taxonomy Regulation is focussing on private investments, it is fascinating that recital 43 of the Taxonomy Regulation specifically refers to public procurement, by stipulating that when establishing and updating the technical screening criteria, the Commission has to take relevant Union law into account, including the Communication of the Commission of 16 July 2018 on Public procurement for a better environment⁷¹. This Communication aims to provide guidance on how to reduce the environmental impact by public sector consumption and stipulates that the process-oriented definition of green public procurement is insufficient to allow objective benchmarking and target setting. The obstacles identified in the

⁶⁹ Recital 10 Regulation 2019/2088/EU.

⁷⁰ This Directive is repealed by Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, *OJ L* 173, 12.6.2014, pp. 349-496. Regulation 2019/2088/EU refers on numerous occasions to Directive 2014/65/EU and stipulates in recital 11 that it supplements the disclosure requirements laid down in that Directive.

⁷¹ 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, Brussels, 16.7.2008, COM/2008/0400 final.

Communication will hence have most certainly been an inspiration for the Commission when drafting up the proposal for the Taxonomy Regulation, specifically as the Communication mentions that common green public procurement criteria have the advantage of avoiding market distortions and reduced competition which could arise as a result of differing national green public procurement criteria.

Another reference to procurement can be found in recital 44 which holds that when establishing and updating the technical screening criteria, the Commission has to take the specificities of the infrastructure sector into account as well as environmental, social and economic externalities within a cost-benefit analysis and has to consider relevant Union law such as the general procurement Directive 2014/24/EU, the concessions Directive 2014/23/EU⁷² and Directive 2014/25/EU⁷³ on procurement by entities operating in the utilities sector. Interesting to note is that the procurement Directives do not explicitly refer to technical screening criteria so that one can wonder what the link is between procurement and the Taxonomy Regulation, which deals with sustainable investment, in this regard. On this subject it should be mentioned that each of the key stages of procurement (planning, method selection, contract planning, tender evaluation and contract award, contract management, review and monitoring, and audit and reporting) has linkages to associated aspects of public investment management and budgeting.⁷⁴ Indeed, the term ‘investment’ is not limited to products offered by financial market participants as meant in the Taxonomy Regulation, as the idea that governments ought to ‘invest’ in public infrastructure and institutional assets to support production and trade is well established in economic literature.⁷⁵ As remarked by Ranjaram et al., to be effective, procurement needs to be understood in the context of the broader functioning of the public sector and not as a self-standing system.⁷⁶ It should not merely be looked at from a procedural perspective or only be seen as a technical contracting exercise. On the contrary, public procurement systems are integral to public investment management because they have a potentially significant impact on the cost-benefit calculus that justifies the project.⁷⁷ Indeed, making better use of information from upstream public investment management and budgeting can enhance key stages of procurement and project implementation and contribute to efficiency in public investment.⁷⁸ In this regard the Council of the European Union confirms that in the European Union a considerable part of the public

⁷² Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts, *OJ L 94*, 28.3.2014, p. 1.

⁷³ 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 sector and repealing Directive 2014/17/EC, *OJ L 94*, 28.3.2014, p. 243.

⁷⁴ A. Ranjaram, R. Turkewitz & N. Biletska, *The Power of Public Investment Management – Transforming Resources into Assets for Growth*, World Bank Group, Washington, 2014, pp. 129-155.

⁷⁵ *Ibid.*, p. 2.

⁷⁶ *Ibid.*, p. 139. The authors start their analysis by indicating that most internal development assistance is classified as a capital expenditure and deployed to finance public investment projects which forms the bulk of investment spending in low-income countries.

⁷⁷ A. Ranjaram, R. Turkewitz & N. Biletska, *The Power of Public Investment Management – Transforming Resources into Assets for Growth*, World Bank Group, Washington, 2014, p. 136.

⁷⁸ *Ibid.*, p. 141.

‘investment’ is carried out through public procurement.⁷⁹ In its Conclusions on *Public Investment through Public Procurement: Sustainable Recovery and Reboosting of a Resilient EU Economy*, it considers that public buyers should use their purchasing power strategically to obtain better value for money, and support the transition to a greener, more innovative and circular economy, in particular by investing in sustainable infrastructure, in reusable, recyclable, repairable and resource efficient products and in the renovation of public buildings.⁸⁰ The Council hence underlines the role model function of the public sector in meeting sustainable objectives. It explicitly supports ambitious environmental considerations such as criteria or targets and their practical implications for procurement procedures and urges the Member States and the Commission to monitor and measure the implementation of public investments and the progress in achieving innovative and sustainable objectives. While public procurement is the focus of the Council’s Conclusions, it calls on the Commission to foster policy coherence with the Action Plan on Financing Sustainable Growth and the Taxonomy Regulation.⁸¹ The link between public procurement and the taxonomy framework, even though rather indirect, can hence not be denied.

While recital 11 of the Taxonomy Regulation aims that it aims to channel private investment into sustainable activities and is hence focussing on private procurement, it is, for the reasons mentioned above, not that difficult to imagine that the Regulation will have spill-over effects to public purchasing, specifically as it encourages a shift to more sustainable companies. Indeed, a classification of environmentally sustainable financial activities can encourage economic operators not covered by this Regulation, on a voluntary basis, to publish and disclose information regarding the environmentally sustainable economic activities they carry out. This may in turn be useful for contracting authorities in public procurement procedures, for example because the products and services offered can inspire public authorities when drafting up technical specifications, award criteria and contract performance criteria. Making better use of information from upstream public investment management and budgeting can hence enhance key stages of procurement and project implementation and contribute to efficiency in public investment.

It should be noted that while the Accounting Directive is focussing on the behaviour and performance of companies in a broad sense, and while the Sustainable Finance Disclosure Regulation is concerned with general corporate policies of financial market participants and advisers, the Taxonomy Regulation focuses on the ‘economic activities’ of companies to determine whether they are environmentally sustainable. This entails that the focus is much narrower as companies can have perform different types of economic activities which entails that it will not be sufficient to merely care about general corporate policies. As indicated above, contracting authorities can integrate environmental requirements in the technical

⁷⁹ Council Conclusions, *Public Investment through Public Procurement: Sustainable Recovery and Reboosting of a Resilient EU Economy*, Brussels 25 November 2020.

⁸⁰ *Ibid.*, §13.

⁸¹ *Ibid.*, §11.

specifications⁸², contract award criteria⁸³ and contract performance conditions⁸⁴, if these are linked to the specific subject-matter of the contract of the contract at issue.⁸⁵ They may also require a specific label if the label requirements only concern criteria which are linked to the subject matter of the contract and are appropriate to define characteristics of the works, supplies or services that are the subject-matter of the contract.⁸⁶ The fact that the Taxonomy Regulation introduces a common concept of environmentally sustainable investment for the eventual purpose of establishing labels that formally recognise compliance with those standards, is a first step to address concerns about greenwashing that will hopefully be expanded to other economic sectors. There is in any case nothing that can withhold contracting authorities to be inspired by the environmental objectives of the Regulation and the technical screening criteria of the Delegated Acts in a specific procurement as long as these relate to the subject-matter of the particular procurement.

To give some concrete examples on the link between the Taxonomy Regulation and public procurement, reference can firstly be made to point 5.3 in Annex I of the 2021 Commission's Delegated Act on climate change mitigation or adaptation which introduces technical screening criteria for construction, extension and operation of waste water collection and treatment and renewals of these infrastructure.⁸⁷ It stipulates that there is a substantial contribution to climate change mitigation if the net energy consumption of the waste water treatment plant equals to or is lower than 35 kWh per population equivalent per annum for treatment plant capacity below 10,000 population equipment. As held by the Joint Research Centre of the European Commission, this may have an impact on the EU green public procurement criteria for waste water infrastructure⁸⁸, which are developed in a different EU policy context, where the legislation almost only focuses on the performance of end-of-pipe treatments.⁸⁹ In this context, the EU green public procurement criteria⁹⁰ could represent not only an opportunity to go beyond minimum environmental requirements, but also an opportunity for a transitional voluntary application of measures that are introduced elsewhere and that are as such not applicable to public procurement procedures.

⁸² Article 42(1) Directive 2014/24/EU.

⁸³ Article 67(2) Directive 2014/24/EU.

⁸⁴ Article 70 Directive 2014/24/EU.

⁸⁵ As selection criteria are linked to the suitability to pursue the professional activity, the economic and financial standing and the technical and professional ability of tenderers and are hence not focussing on specific economic activities as such, they are not relevant in this regard. See also Case C-448/01 *EVN Wienstrom* ECLI:EU:VC/2003:651, §67-68.

⁸⁶ Article 43 and recital 75 Directive 2014/24/EU.

⁸⁷ Commission Delegated Regulation 2021/2139 of 4 June 2021 supplementing Regulation 2020/852 of the European Parliament and of the Council by establishing technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation of climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives, OJ L 442, 9.12.2021, pp. 1-349.

⁸⁸ These can be found at https://ec.europa.eu/environment/gpp/pdf/waste_water_criteria.pdf, last visited 16 August 2022.

⁸⁹ A. Delre, M.G. La Placa, F. Alfieri, G. Faranca, M.A. Kowalska, C. Vidal Abarca Garrido, O. Wolf, JRC Science for Policy Report, *Assessment of the European Union Green Public Procurement Criteria for four products groups*, Publication Office of the European Union, 2022, p. 27.

⁹⁰ The green public procurement criteria are voluntary in nature and developed to facilitate the inclusion of green requirement in public tender documents.

A second example relates to water-based heaters. The current EU green public procurement criteria do not cover the minimum water heating energy efficiency for which requirements are set out in Commission Delegated Regulation 811/2013⁹¹ and Commission Regulation 813/2013⁹². As held in the report of the Joint Research Centre, an aspect that could possibly deliver improvement in terms of the environmental impact of water-based heaters is smart monitoring and/or the use of high-efficiency thermostats/sensors, which are mentioned in the Taxonomy Climate Delegated Act as well as in the Energy Performance of Building Directive.⁹³ It is clear that also in this regard the technical screening criteria of the Delegated Act are worth exploring for further possible alignment.

6. Conclusions

The analysis above has clarified that the disclosure obligations as imposed by the Accounting directive, the Sustainable Finance Disclosure Regulation and the Taxonomy Regulation can indeed have relevance for public procurement.

Information disclosed on the basis of the Accounting Directive may be of interest to contracting authorities and may specifically shed some light on an economic operator's technical and professional ability.

When it comes to the Sustainable Finance Disclosure Regulation, the sustainable aspects of financial products, which are at first sight not relevant for contracting authorities when purchasing works, supplies or services, may reveal information about the sustainable features of the companies that are linked to them and which may participate in a procurement procedure for works, suppliers or services. It cannot be ignored however that technical specifications, selection and award criteria and contract performance conditions should always be linked to the subject-matter of the specific contract which entails that information on general corporate strategies cannot be taken into account by contracting authorities when drafting up tender documents and assessing tenders. That being said, the consideration of sustainability factors in the investment decision-making and advisory processes can increase the resilience of the real economy and the stability of the financial system.

As far as the Taxonomy Regulation is concerned, it should be noted that the environmental objectives and the technical screening criteria as provided for in the Delegated Acts are not only useful when it comes to private investments, but can be of interest in the context of public investment and public procurement as well. Indeed, a classification of environmentally

⁹¹ Commission Delegated Regulation 811/2013 of 18 February 2013 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of space heaters, combination heaters, packages of space heater, temperature control and solar device and packages of combination heater, temperature control and solar device, *OJ L 239*, 6.9.2013, pp. 1-82.

⁹² Commission Regulation 813/2013 of 2 August 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for space heaters and combination heaters, *OJ L 239*, 6.9.2013, pp. 136-161.

⁹³ A. Delre, M.G. La Placa, F. Alfieri, G. Faranca, M.A. Kowalska, C. Vidal Abarca Garrido, O. Wolf, JRC Science for Policy Report, *Assessment of the European Union Green Public Procurement Criteria for four products groups*, Publication Office of the European Union, 2022, p. 36.

sustainable financial activities can serve as a basis for many other economic activities that are subjected to public procurement as well.

References

M. Andhov, R. Caranta & A. Wiesbrock, 'The European Union Law of life-cycle costing', in M. Andhov, R. Caranta & A. Wiesbrock (eds.), *Cost and EU Public Procurement Law – Life-cycle Costing for Sustainability*, Routledge, London, 2021, p. 32.

J. J. Czarnezki and S. Van Garsse, 'What is life-cycle costing?' in: M. Andhov, R. Caranta & A. Wiesbrock (eds), *Cost and EU Public Procurement Law – Life-cycle Costing for Sustainability*, Routledge, London, 2021, p. 3.

M. R. De Giacomo et al., 'Does Green Public Procurement Lead to Life Cycle Costing (LCC) Adoption?', *Journal of Purchasing and Supply Management*, 2018, 3.

A. Delre, M.G. La Placa, F. Alfieri, G. Faranca, M.A. Kowalska, C. Vidal Abarca Garrido, O. Wolf, JRC Science for Policy Report, *Assessment of the European Union Green Public Procurement Criteria for four products groups*, Publication Office of the European Union, 2022, p. 27.

D. C. Dragos and B. Neamtu, 'Sustainable Public Procurement in the EU: Experiences and Prospects' in F. Lichère et. al (eds), *Modernising Public Procurement: The New Directive*, Djøf Publishing, 2014, 324.

C. Edquist & J. Zabala-Iturruiagagoitia, 'Public Procurement for Innovation (PPI) as Mission-oriented Innovation Policy', *Research Policy* 41, 2012, pp. 1757-1769.

A. P. Higham et al., 'Life Cycle Costing: Evaluating Its Use in UK Practice', 2015, 33 *Structural Survey*, p. 73.

F. Klatt, *Performance-based Specifications in Public Procurement: Exploring the Case of Germany*, 5th IBA Bachelor Thesis Conference, 2 July 2015, Enschede, The Netherlands.

M. Koszweska, in M. Andhov, R. Caranta & A. Wiesbrock, *Cost and EU Public Procurement Law – Life-cycle Costing for Sustainability*, Routledge, London, 2021, pp. 138-141.

A. Ranjaram, R. Turkewitz & N. Biletska, *The Power of Public Investment Management – Transforming Resources into Assets for Growth*, World Bank Group, Washington, 2014, pp. 129-155.

L. Turley, M. Hug Silva, S. Benson & C. Dominguez, *Performance-based Specifications: Exploring when they work and why*, International Institute for Sustainable Development, Canada, 2014.