

## Digital Transformation of Public Procurement as an Opportunity for the Economy

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**Abstract** In this paper, the authors investigate the impact of digitalisation of public procurement on the prospects of improving public procurement and thus enhancing the economies of the Member States and, consequently, the EU. Electronic procurement should not be perceived as a burden but rather an opportunity for the economy since it can provide solutions to many of the challenges we are facing in the public procurement—high costs of participation in public procurement procedures, lack of competition, accelerating opportunities for the economy, bid rigging, artificial splitting of contracts, and low statistics in cross-border and joint procurement. Therefore, the economy and the governments should fully exploit the advantages it offers. However, this is not going to be achieved by merely adopting the public procurement legislative rules (in 2014, the latter introduced mandatory electronic procurement), but rather by changing the perspective/relationship towards eProcurement and focusing more on the development of skills and professionalisation to fully exploit the potential of digitalisation in public procurement.

**Keywords:** • public procurement • digitalisation • digital-by-default • framework agreements • dynamic purchasing systems • electronic auctions • electronic catalogues • multi-user • multi-language electronic procurement platforms •

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## 1 Introduction

Public procurement contracts have a significant role in the economies of the European Union (hereinafter: EU) Member States, estimated at more than 16% of the EU's GDP (Maciejewski, 2018). When Contracting Authorities (hereinafter: CA) are performing public procurement procedures it is expected from them not only to acquire the desired goods, works or services and satisfy their primary needs, but to also pursue objectives of a strategic procurement, to maximise the competition, attain the best value for the money, minimise corruption and irregularities, and to overall use public procurement as a strategic tool to achieve the objectives set down in Europe 2020 strategy (European Commission, 2010). Additionally, one must be cognizant of the fact that the EU public procurement objectives are broader than the objectives pursued by other countries around the world. As outlined by *Arrowsmith*, coordinated public procurement procedures were introduced in the EU to eliminate national practices which directly or indirectly restrict access to government contracts for goods, services, and providers originating from another Member States, and for developing a single (public procurement) market, which should result in a (direct) cross-border trade (Arrowsmith, 2014: 180).

According to the European Commission (hereinafter: the Commission), practising efficient, effective and competitive public procurement is both a touchstone for a well-functioning single market and a significant channel for European investments (European Commission, 2017a). On the other hand, only a well-functioning single market can furnish a sound basis for practising efficient and effective public procurement. By taking full advantage of the opportunities it provides, such as cross-border procurement and increasing better access to procurement procedures (especially for small and medium-sized enterprises, hereinafter: SMEs), pursuing secondary policy objectives is facilitated, which further leads to smart, sustainable, and inclusive growth, which will serve to realize the objectives of the EU 2020 Strategy.

As explained by the Commission, the opening of public procurement markets can be beneficial for many reasons: firstly, it promotes competition among companies which not only increases governments' chances of achieving a higher return on their investments but also increases the efficient use of public resources; secondly, it makes the application process more transparent which

helps to fight corrupt practices; lastly, it promotes legal certainty (European Commission, 2017b). However, when performing public procurement procedures, CAs and economic operators (hereinafter: EOs) often do not take full advantage of the single market. As stated by the Commission, only 7 percent of SMEs in the EU sell cross-border (European Commission, 2015a). SMEs find it particularly challenging to access cross-border contracts due to lack of information, administrative burdens, language barriers, etc. (Williams, 2017, NA41). Such obstacles make them reluctant to participate in cross-border tenders resulting in limited business opportunities, higher prices, and less competition, which is contrary to the purpose of the single market.

Accordingly, improvement of the functioning of the single market and, consequently, public procurement procedures, is crucial for ensuring the taxpayers' money is spent effectively. Beyond that, opening the market and access to public procurement procedures to SMEs can stimulate innovation procurement, which catalyses higher quality and more efficient solutions that value environmental and social benefits. This will also encourage start-ups and innovative SMEs to both launch and grow. Additionally, enterprises of all types should benefit from increased cost-effectiveness and new business opportunities. As further discussed below, SMEs may have innovative solutions, which meet the needs of consumers but face barriers in bringing these solutions to the market.

To improve access to public procurement procedures, help SMEs and start-ups to grow, simplify the procedures, promote strategic procurement, prevent corruption, increase transparency, and to overall exploit the full benefits of the Digital Single Market a new EU legal framework for public procurement was adopted in 2014 (hereinafter: 2014 Public Procurement Package), consisting of 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 (hereinafter: Directive 2014/24/EU),<sup>1</sup> Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC<sup>2</sup> (hereinafter: Directive 2014/25/EU), and the Directive 2014/23/EU of the European Parliament and of the Council of 26

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<sup>1</sup> OJ L 94, 28. 3. 2014, p. 65–242.

<sup>2</sup> OJ L 94, 28. 3. 2014, p. 243–374.

February 2014 on the award of concession contracts<sup>3</sup> (hereinafter: Directive 2014/23/EU).

The 2014 Public Procurement Package brought several novelties (Ferk, Ferk: 2015). One of the main ones was an introduction of the progressively mandatory use of electronic means of communication (hereinafter: eProcurement). This came as no surprise both because the 2004 Public Procurement Package<sup>4</sup> had already introduced a legal framework for voluntary e-Procurement and also because in 2005 the EU Ministers voiced the hope that by 2010 at least 50 percent of public procurement above the EU thresholds would be performed electronically (Ferk, 2016: 101). Nevertheless, despite the benefits of eProcurement, the EU public sector was falling behind its own target since eProcurement was only used in 5–10 percent of the EU procurement procedures (Bickerstaff, 2014:134). According to the Commission, digitalisation contributes to greater transparency in public spending, improved access to market opportunities and better value for money (European Commission, 2016). eProcurement also facilitates skill and knowledge exchange between CAs, which encourages (cross-border) joint purchasing that can in turn bring significant value and positive outcomes for both national and EU economies.

The 2014 Public Procurement Package, which contains the most substantial obligations for the implementation of eProcurement, was introduced by Article 22 of Directive 2014/24/EU. The provisions on eProcurement in Directive 2014/25/EU (Article 40) are substantially similar to those of Directive 2014/24/EU. Directive 2014/23/EU on concessions also includes requirements on electronic means of communication. However, in the Directive 2014/23/EU these requirements are only voluntary except where the use of electronic means is mandatory under Articles 33(2) and 34 (Ferk, 2016: 101). This paper focuses on the regulation under Directive 2014/24/EU.

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<sup>3</sup> OJ L 94, 28. 3. 2014, p. 1–64.

<sup>4</sup> It consisted of Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors, OJ L 134, 30. 4. 2004, p. 1–113, and Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts, OJ L 134, 30. 4. 2004, p. 114–240.

The primary provision introducing the mandatory use of e-procurement is Article 22 of Directive 2014/24/EU (for analysis see Ferk, 2016a; Ferk, 2016b; Ferk, 2016c). The deadline for the Member States to bring into force the national legislation in compliance with Article 22 of Directive 2014/24/EU expired on 18 October 2018, as defined in Article 90 of the same Directive. The aim of Article 22 of Directive 2014/24/EU, which introduces obligatory electronic public procurement to the EU Member States, is to ensure access to such systems, which requires them to be “non-discriminatory, generally accessible and interoperable with general-purpose ICT products and should not restrict the economic operators in accessing the procurement process.” However, the rules do not in themselves guarantee that these systems are user-friendly and efficient (Ferk, 2016: 114–115; Semple, 2015: 92). The effectiveness of electronic public procurement instruments largely depends on systems (platforms) for electronic procurement supporting their use.

The potential of introducing eProcurement in the economy is significant but has not been exploited fully. In this respect, eProcurement is an excellent opportunity for the EOs to start a more active participation in public procurement procedures and for the CAs to perform public procurement procedures more efficiently with simplifying procurement procedures and reducing administrative burden and costs of EOs. In this paper, we analyse some of the main challenges of public procurement today. We will discuss the institutes, approaches, and tools available within the eProcurement initiative, which can help to address those challenges successfully in order to bolster better competition and opportunities for the economy.

The paper is structured as follows. Following the introduction in Section 1, Section 2 analyses the digitalisation of public procurement as a tool for reduction of costs. Section 3 examines a dynamic purchasing system (DPS) as an efficient eProcurement technique for improving competition and accelerating opportunities. Section 4 evaluates a DPS as a tool in combatting bid rigging. Section 5 considers the digitalisation of public procurement as a tool in combatting the artificial splitting of contracts. Section 6 investigates digitalisation as a tool for improving the participation of SMEs in cross-border public procurement opportunities. Section 7 analyses professionalisation as a process that needs to be conducted in parallel with digitalisation to exploit fully

the potential of digitalisation of public procurement. Section 8 sets forth concluding remarks.

## 2 The digitalisation of public procurement as a tool for cost cutting

One of the most apparent motives for the introduction of eProcurement should be a reduction of administrative costs of specific procurement procedures as well as the reduction of paper waste. While a reduction of administrative and material costs is often mentioned in general, reduction of paper waste is rarely considered (cf. e.g. Sigma, 2016: 2). One would think this is so self-obvious that it does not need to be explicitly listed. Unfortunately, this is not the case.

In the EU, a considerable number of eProcurement platforms exist, and their use ranges from central to local government and from specific types of purchases to all purchases. In 2015, over 300 public and private platforms had been identified (Buyse et al., 2015: 26, 138; Semple, 2015: 92), and not all of them support the “digital-by-default” approach.

Some platforms operate in a way so that the economic operators prepare the tender documentation in paper form (i.e. they print it, hand sign it, and scan it), and then send a copy in the pdf format. Such a solution is not in line with the EU’s strategic orientations and efforts towards general digitalisation based on the principle of conducting business digitally by default. The Commission in the Communication: *EU eGovernment Action Plan 2016–2020 – Accelerating the digital transformation of government* (pp. 6 and 7) explicitly outlines that it “will gradually introduce the ‘digital by default’ principle when interacting online with external stakeholders, using eIDAS services (in 2018), eInvoicing (in 2018) and eProcurement (in 2019). In order to reduce the administrative burden, the Commission will also gradually roll out the ‘once-only’ principle in its interactions with suppliers and grants participants and examine possibilities to introduce the ‘once-only’ principle for other stakeholders.”<sup>5</sup> Accordingly, in practice, the CAs and EOs which use eProcurement platforms not supporting the

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<sup>5</sup> Similarly, in March 2016, Slovenia adopted the Strategy for the Development of the Information Society Until 2020, called Digital Slovenia 2020. Slovenia’s vision and aims in the field of digitalisation are defined as: “Slovenia’s vision is to use, through the accelerated development of a digital society, the development opportunities of ICT and the Internet and thus become an advanced digital society and a reference environment for introducing innovative approaches in the use of digital technologies.” One of the objectives of the strategy to achieve the development vision is also “general digitisation according to the ‘digital by default’ principle”.

digital-by-default approach produce a massive amount of paper waste and incur high material (the cost of paper, printing, and scanning) and work costs (time required for preparing, printing, and scanning of documents). Therefore, the digitalisation of public procurement in line with the digital-by-default principle is an excellent opportunity for cutting of these costs.

### **3 Dynamic purchasing system (DPS) – an eProcurement technique *par excellence* for improving competition and accelerating opportunities**

One of the main objectives of the EU 2014 Public Procurement Package on public procurement was simplification and alleviation of administrative burdens for CAs and EOs.<sup>6</sup> Here, DPS is one of the most efficient methods to conduct the public procurement procedure of standardised goods, works, or services, with the most significant potential for achieving the goals of simplification and alleviation of administrative burdens for EOs.

A DPS is a technique for electronic procurement (not a type of procedure) intended for commonly used products, works, or services, which are generally available on the market and where broad competition is present.<sup>7</sup> A DPS was introduced in the EU legal order with the Directive 2004/18/EC as the answer to the »rapid expansion of electronic purchasing systems«. From the very onset, a DPS was meant to be operated as an end-to-end electronic process.<sup>8</sup> Namely, without electronic facilities for automatic data processing, it would be difficult to control broad competition by competitors.

For that reason, and to encourage competition to achieve better value for money (either low prices or better products), the DPS was designed as an entirely openly technique. That means that the EOs can submit a request for participating whenever after its establishment. This is fundamentally contrary to other public procurement techniques and procedures where it is no longer permitted to submit a tender after a specified deadline. This is a unique opportunity for all new EOs, such as young companies, start-ups, SMEs as well as other companies that, when establishing a DPS, may not yet have fulfilled the conditions for participation or missed the first deadline for submitting a request to participate.

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<sup>6</sup> See e.g. Directive 2014/24/EU, rec. 114.

<sup>7</sup> See e.g. Directive 2014/24/EU, rec. 63.

<sup>8</sup> Cf. Article 34(2) of Directive 2004/18/EC and Article 34(1) of Directive 2014/24/EU.

But even though from the beginning, the DPS was »designed to simplify and reduce the administrative burden associated with the repeated procurement of goods, works or services« (Sanches-Graells, 2015), it did not yield the desired results (cf. Arrowsmith, 2018: 666; Semple, 2015: 88; Telles, 2015). There are several reasons why this legislation was flawed, and failed to produce the intended results. In the professional literature, various reasons are provided and could be summarised in three groups. First, there was a lack of maturity of the CAs. Second, Directive 2004/18/EC stipulated overly restrictive rules. Third, CAs found other techniques, in particular framework agreement, as a better alternative. Below, we will present alternative to help elimination each of these drawbacks. In its revisions, designed with new Directive, the expansion of the use of the DPS is already present, at least, as *Arrowsmith* stated, in the UK (2018: 667).

First, in terms of lack of maturity of the CAs, it seems that the market was not developed enough to execute the public procurement procedures entirely digitally in the period of enforcing the 2004 Public Procurement Directives. This was due to the fact, not only that CAs in some the Member States (e.g. Slovenia) did not have any electronic tools and devices appropriate for electronic submission of a tender, but also because some of the Member States, such as Belgium, Finland, and Sweden, as the Commission reported, did not even implement the DPS in their respective national legislations (European Commission, 2011: 45). It seems that the concept of DPS was not comprehensible and that the public market was not ready for digitalisation. The lack of universally understood skills and knowledge in digital technology at the time was outlined also in the study, *The impact of dynamic purchasing systems in the electronic public procurement processes*. Its authors maintain that the DPS may become a powerful benchmarking tool for the CAs to tune their spending, forecasting, and allocating their budgets. At the same time, however, this goal will certainly be difficult to achieve, since presently many government organizations simply do not have a clear understanding of what these cost factors are (Gökhan Özbilgin, Yildirim Imamoglu, 2010: 1575). *Telles*, for example, although not providing any in-depth analysis or explanation, observed that most CAs still lack e-procurement expertise. Only when CAs are able to adopt the DPS will procurement officers become more comfortable with eProcurement (Telles, 2015). It is evident that the overall lack of public

knowledge and skills in digital technology in general certainly minimized the DPS's use in practice and therefore significantly diminished its usefulness.

Second, in terms of strict normative rules under Directive 2004/18/EC, the finding of the Commission from 2010 demonstrated »the fact that 10 Member States have added further provisions, clarifying the conceptual framework, different stages and scope of a DPS, may show that there was some lack of clarity in the provisions on DPS« (European Commission, 2011: 106). These findings were then summarised in recital 63 of Directive 2014/24/EU, which clearly states that it is necessary to simplify the DPS rules. The principal changes of the provisions governing the DPS are described below.

Instead of following the rules of an open procedure<sup>9</sup> for establishment and implementation of the DPS, CAs should, under the new Directive 2014/24/EU, follow the rules of the restricted procedure.<sup>10</sup> This is more logical since the nature of the DPS requires a two-phase operational process. The first phase involves »establishment of the system and admitting initial providers onto the system« (Eyo, 2017: 8) and the second phase involves awarding of specific contracts. However, at this point, it should be noted that the individual provisions of the restricted procedure in the implementation of DPS do not apply. As analysed by *Arrowsmith*, the CAs must follow the restricted procedure's usual rules only regarding evidence and criteria for qualification and award criteria. However, there are explicit rules on reduction of numbers process and time limits<sup>11</sup> that should not be applied (Arrowsmith, 2018: 670).

In terms of the reductions of numbers of categories, to which EO can apply and also reduction of numbers of categories that can be admitted to EO in the DPS, shall not be limited per Article 65. This provision is essential since, as has been explained above, it reflects the open nature of the DPS.

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<sup>9</sup> Cf. Article 33(2) of Directive 2004/18/EC.

<sup>10</sup> Cf. Article 34(2) of Directive 2014/24/EC.

<sup>11</sup> Cf. Article 34(2) of Directive 2014/24/EC.

The change in the type of procedure used to conduct the DPS also influenced the methods of publishing.<sup>12</sup> The CAs have been no longer obliged to publish a new notice for each order settled under the system (cf. Eyo, 2017: 10), significantly impacting savings in time and reducing an administrative burden of CAs.

Additionally, the maximum length of the DPS is no longer limited to four years.<sup>13</sup> This laudable change from the old procedure is both more utilitarian and logical since EOs now have a possibility to register to the system at any time during the operational phase of the system. This ensures compliance with both the principles of transparency and equal treatment of the EOs. These principles are relevant in the phase of performing the procurement procedure and are also critical for assessing the issue of the admissibility of amending contracts already concluded, including the question of the admissibility of extending the validity of contracts (including, e.g. the framework agreement).<sup>14</sup> The CAs can thus freely decide whether to establish a long-term system or to extend the validation of the system later, during its validation, using the publication of an extension notice under the principle of transparency. In practice, long-term systems should be used more often for purchases where continuity in the provision of services is required or desirable. The short-term system, as Brittan stated, is appropriate where rapid technological changes are expected, or in situations where the legal conditions or other requirements for the provision of services or supply of goods are expected (Brittan, 2016: 3). An ability to set up a long-term DPS or to extend its validation is an expression of the dynamic nature of the DPS enabling additional reduction of the administrative burden of CA.

The third reason is related to the high competition of a framework agreement. However, in this respect, the expansion of the use of the DPS seems unavoidable, and it appears that in some cases at least, the DPS may replace the framework agreement technique, due to its closed nature<sup>15</sup> and limited validity.<sup>16</sup> In the first place, DPS is designed to implement large volume

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<sup>12</sup> For comparison of the impact of open and restricted procedure provisions on the methods of advertising the DPS see Eyo, 2017: 237–248.

<sup>13</sup> Cf. Article 33(7) of Directive 2004/18/EC and Article 34(8) of Directive 2014/24/EU.

<sup>14</sup> For more information, see cases C-454/06, *Pressetext Nachrichtenagentur*, ECLI:EU:C:2008:351, C-160/08 *Commission v Germany*, ECLI:EU:C:2010:230, and C-91/08, *Wall AG v La ville de Francfort-sur-le-Main and Frankfurter Entsorgungs- und Service (FES) GmbH*, ECLI:EU:C:2010:182, and the Opinion in *Sigma*, 2014, p. 132 and 133.

<sup>15</sup> Cf. Directive 2014/24/EU, rec. 60, stating: “A framework agreement should not be open to entry of new economic operators once it has been concluded.”

<sup>16</sup> Cf. Directive 2014/24/EU, rec. 60.

purchasing systems, e.g. centralised purchasing systems managed by central purchasing bodies, because only large purchasing systems can produce the desired effects (saving time and money and reducing administrative burdens). However, it is also possible for individual CAs to also set up and operate the DPS. In practice, however, individual CAs most typically may not be in favour of the DPS. In practice, as described by *Telles*, the CA's obligation to invite all the admitted EO's every time when placing a new order may be unduly burdensome for the CA, and not very practical, since they may not be capable of receiving numerous bids. Besides, to an individual CA, using the DPS will likely result in higher administrative costs, since it demands the use of a sole procurement officer responsible for continually reviewing the requests for participation during the entire validity of a system and, what is more, the deadline for admissions is only 10 working days. This might be an insurmountable challenge for an individual CA, especially in cases where it has internalised framework agreements (*Telles*, 2015).

Additionally, the DPS also involves other instruments that may effectively encourage the competition on the market and create new opportunities for SMEs. Directive 2014/24/EU, for instance, promotes the division of the DPS into objectively defined categories of products, works or services,<sup>17</sup> which also enables smaller providers (micro and SMEs), that often do not meet the demanding conditions or high entry thresholds for participating in public procurement procedures, to participate. By dividing the DPS into categories, the requirements for participation will be less stringent than would be the case without the categories.

Finally, we must not forget the promotion of the use of the eCatalogues, which are encouraged to be used not only in DPS, but also in any other technique or type of procedure.<sup>18</sup> Use of eCatalogues leads to a significant reduction in administrative burdens for both the CAs and the EOs, because their use can make preparation and then the comparison of tender documentation more effective, automatic and swift. In practice, when requiring the eCatalogues the challenge is to determine both their format and content.

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<sup>17</sup> Cf. Directive 2014/24/EU, rec. 78 and 66.

<sup>18</sup> *Ibidem*, rec. 68.

DPS as the first, open and dynamic way of implementing procurement procedures, opens the door to a new way of implementing public procurement procedures, and thus new opportunities for both SMEs and CAs. Given the trend of purchasing procedures in the private sector—belatedly introduced to the public sector, as well—it is also important to emphasise another advantage of digitalisation to the CAs. Due to the employment of electronic resources, the administrative burden is expected to be reduced and time savings gained, thereby freeing up procurement officers' time and thus enabling them to spend more of their time on advancing their own professional skills, the benefits of which are presented below.

#### **4 DPS as a mechanism in combatting bid rigging**

Although the previous Section has already addressed many advantages of DPS, which should be a boost for the economy, there is an additional one, which deserves to be raised separately. Namely, the use of DPS can be efficiently used in combating bid rigging.

The OECD defined bid rigging as a practice “when bidders agree among themselves to eliminate competition in the procurement process, thereby raising prices, lowering quality and/or restricting supply” (OECD, 2016: 5). Bid rigging is one of the major risks in public procurement and has severe consequences. Bid rigging is mainly the type of collusive agreements between cartels that occur in public procurement. It is estimated that when bid rigging occurs, prices can rise over twenty percent above competitive levels (E15Initiative, 2016: 3).<sup>19</sup>

There are many types of collusive agreements in public procedures that serve to either stifle or eliminate competition, e. g. agreements on the nomination of a particular competitor as a subcontractor are widespread as are agreements in which some competitors refrain from submitting an offer or deliberately submit an inadmissible or unfavourable bid according to the criteria only superficially creating a false impression of competition (Hodošček, 2018: V).<sup>20</sup>

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<sup>19</sup> In their paper, E15Initiative provides examples of concrete consequences on the quality of public goods: “[R]oads may be of poor quality, food procurement may not offer optimal nutrition, or school buildings may be deficient in terms of safety standards, among other things” (E15Initiative, 2016: 3).

<sup>20</sup> The OECD lists and explains the following forms of bid rigging: cover bidding, bid suppression, bid rotation and market allocation (OECD, 2009: 2).

Unlike conventional cartels, collusive agreements in public procurement are a drain on public funds and thus affect the public interest. What is more, contrary to conventional cartels, collusive agreements are very difficult to quash since the transparency of public procurement procedures starting with the announcement of bid prices ensures that all bidders have an overview of the particular bidder's conduct, which is one of the reasons why all bidders strictly adhere to the agreements (Hodošček, 2018: V).<sup>21</sup>

As broad and free competition is crucial for the CAs to achieve the best value in public procurement procedures, Directive 24/2014/EU in Article 18(1) emphasises ensuring competition as one of the fundamental principles of public procurement. The competent supervisory authorities, as well as the CAs themselves, should ensure that bid rigging does not occur. However, the main obstacle in this regard is the difficulty in identifying that the collusive agreements were concluded. Nonetheless, CAs have many tools for reducing the risk of bid rigging. To this end, the OECD proposed the implementation of steps, such as collecting information on characteristics of the market; designing tender process in a way that the CA will not unnecessarily restrict competition and in a way communication among the EOs is reduced; clearly stated requirements in the tender documentation; and, education of staff on the risk of bid rigging, etc. (OECD, 2009: 4–11).<sup>22</sup>

In addition to the methods identified by the OECD, the use of a fully electronic public procurement technique DPS can significantly contribute to bid rigging prevention. The reason for this is that the DPS feature allows the EOs to enter the system throughout the *entire period of its validity*, ensuring both a larger number of bidders and stronger competition. Start-ups and SMEs are not excluded from a pre-established DPS as in the case of framework agreements. Because of this, DPS contributes to the prevention of the collusion agreements between the EOs to eliminate competition. In case of the EOs reaching such agreements, they would not be able to sustain it when a new EO, not included in the agreement, enters the DPS. Also, the uncertainty of potential inclusion of other EOs in DPS has a preventive function of concluding bid-rigging agreements. The use of DPS in public procurement procedures, therefore, results

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<sup>21</sup> According to *Sanchez-Graells*, economic literature proves that public procurement rules, such as transparency of the market, increase the probability of bid rigging (2014: 3).

<sup>22</sup> For detail and other techniques for prevention and deterrence of bid rigging see OECD (2009), *Sanchez-Graells* (2014) and OECD (2012).

in increased competition and an improved opportunity for the CA to procure under market conditions. (Hodošček, 2018: VI).

## **5 The digitalisation of public procurement as a tool in combatting the artificial splitting of contracts**

In addition to the advantages discussed above, digitalisation of public procurement can vitally contribute to reducing the problem of the artificial splitting of contracts, which distorts competition and is one of the biggest challenges of public procurement and is prohibited by Article 5(3) of Directive 2014/24/EU. Artificial splitting of contracts leads to non-transparent and non-competitive procedures and significantly limits the number of EOs which can participate in the procedures. Artificial splitting of contracts also fosters corruption. Furthermore, such infringement has other serious consequences such as ineffective contracts and penalties for CAs. If, for example, the CA applies the direct award of contracts instead of the stricter procedure that should have been carried out according to the correct estimation of the contract value, the only remedy is to cancel the procurement procedure or to declare the contract ineffective if it has already been signed (SIGMA, 2016a: 4).

The application of the provisions on public procurement depends both on the estimated value of the contract and on the object of the contract as the thresholds vary based on whether the object of the contract is supplies, works, or services (SIGMA, 2016a: 5; European Commission, 2015b: 22). Directive 2014/24/EU applies to procurements whose values exceed the thresholds laid down in Article 4. Above those thresholds, the CAs have a duty to advertise the contract in the online version of Supplement to the Official Journal of the European Union.<sup>23</sup>

Artificial splitting may occur in two ways:

1. The CA intentionally chooses such a method to calculate the estimated value of procurement that excludes the procurement from the scope of the Directive;

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<sup>23</sup> The European Commission encourages the advertising at the EU level to be carried out even when contracts value is below the thresholds if the contracts have a potential cross-border interest (European Commission, 2015b: 21).

2. The CA subdivides a procurement with the effect of preventing it from falling within the scope of the Directive while such subdivision is not justified by objective reasons.

In other words, CAs should not deliberately artificially split works, supplies, or services constituting a single procurement into smaller, separate contracts to avoid thresholds to which Directive 2014/24/EU applies.

Artificial splitting of contracts is a common practice among the CAs as it allows avoiding national or the EU rules on public procurement. Methods for calculating the estimated value of procurement are further specified in Article 5 of Directive 2014/24/EU. The basic rule is that the total amount payable, excluding VAT, is included in the calculation together with any option or renewal of a contract. The question arises which contracts should be considered a single contract. In this regard, the view is that the estimated value of contracts which serve to achieve the same object must be aggregated (European Commission, 2015b: 22).

There are, however, several additional rules on how to determine the estimated value depending on the type of the CA, techniques and instruments for electronic and aggregated procurement, and on whether the object is works. Particular supply or service contracts are subject to specific rules as well, e.g. the regular ones or the ones intended to be renewed within a given period. When contracts are awarded in the form of separate lots, the total estimated value of all lots is taken into account. The estimated value of similar supplies, works, and services awarded in a given period must be summed up, and for each of these individual contracts the rules that apply to the total value are to be respected (Article 5 of Directive 2014/24/EU). In this context, one of the most essential CJEU decisions is *Commission v. Germany*,<sup>24</sup> in which the CJEU provided guidelines defining circumstances when artificial splitting occurs, namely with the emphasis on a criteria of contracts with economic and technical function.

However, the question of the artificial splitting of contracts should not be confused with the rules regarding division into lots, which are encouraged by Directive 2014/24/EU. Its Article 46(1) stipulates that the CAs have the competence to decide on a division of a contract into separate lots. The decision

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<sup>24</sup> Case C-547/10, *Commission v Germany*, ECLI:EU:C:2012:145, para. 41.

is left to the CA. However, if the CA does not award the contract in the form of separate lots, it should provide and adequately document the main reasons for such decision (the so-called “divide or explain” rule) (SIGMA, 2016b: 3). Pursuant to Article 46(4) of Directive 2014/24/EU, the Member States have an option to make the award of contracts in the form of separate lots obligatory. The purpose of this provision is to both promote competitiveness and facilitate the participation of SMEs in public procedures. The division into lots is beneficial in many cases (Anchustegui, 2016: 133). All the same, it has to be mentioned that, according to the findings of the economic theory, such division can lead to both broader and lessened competition and it can result in an increased risk of bid rigging. The concept and importance of bid rigging are presented in more detail above. Hence, the appropriate correlation amid several lots and the number of the interested EOs is crucial (Sanchez-Graells, 2014:13). In terms of the difference among artificial splitting of contracts and division into lots, it must be noted that even though the CAs divide otherwise single contracts into smaller separate lots, the aggregated value of all these lots shall be taken into account to determine which public procurement procedure and level of transparency and type of publication must be assured, and if threshold above to which Directive 2014/24/EU is applicable is reached (Sanchez-Graells, 2016).

The digitalisation of public procurement offers efficient tools to the CAs to support them in preventing the contract splitting by application of special techniques and instruments for electronic and aggregated procurement. We can identify the following techniques and instruments which can help in addressing the issue of the artificial splitting of contracts: framework agreements, already mentioned DPS, electronic auctions (hereinafter: eAuctions) and eCatalogues.

Electronic auctions are often used, although some of the limitations for their use have already been established in the Directive itself. This procurement technique is suitable only for automatic evaluation by electronic means, where it is not necessary for the contracting authority to cooperate in determining the classification of tenderers (Directive 2014/24/EU, Article 35). However, due to digitalisation, it is expected that automatic evaluation methods will become more sophisticated and eAuctions will be even more frequently implemented.

Electronic catalogues are described in recital 5 of the preamble of Directive 2014/24/EU as “a format for the presentation and organisation of information in a manner that is common to all the participating EOs and which lends itself to electronic treatment”. They can be elaborate or straightforward, e.g. in the form of spreadsheets where the CA requires information from the EO, such as product or service specifications or prices (Directive 2014/24/EU, preamble, rec. 68). In the recent report, the Commission concluded that the interest in the use of eCatalogues is increasing in the Member States. This instrument can be used in pre-award and post-award stages of the public procurement procedure. Its use within framework agreements and DPS is particularly significant. Therefore, the rise in its popularity is not surprising (European Commission, 2019: 1, 4–5).

In terms of DPS, some literature presents predictions that this technique will replace the framework agreements due to its greater flexibility, mainly reflected in enabled access to the DPS throughout the whole period of its validity and that its duration is not limited by law (Edwards, 2016). Until the 2014 Public Procurement Legislative Package, framework agreements were (and still are) undoubtedly the most well-known and widely used purchasing technique, which CAs were (are) using to prevent artificial splitting of contracts (cf. Directive 2014/24/EU, preamble, rec. 69). However, we can expect that the DPS in years to come shall become the prevailing technique in preventing the artificial splitting of contracts.

Common to all of the techniques identified above—with the exception of framework agreements—is that digitalisation has enabled their implementation in practice and that they can significantly contribute to more competition in public procurement.

## **6 Digitalisation as a tool for improving participation of SMEs in cross-border public procurement opportunities**

The Commission considers SMEs as useful vehicles for ensuring economic growth, innovation, job creation, and social integration in the EU and stresses that SMEs are the backbone of Europe’s economy. They represent 99 percent of all businesses in the EU. In the past five years, they have created around 85 percent of new jobs and provided two-thirds of the total private sector employment in the EU (European Commission, 2019a). As SMEs have a big

influence on the economy, the EU is seeking to create a legal environment encouraging for SMEs. This is true not only for Directive 2014/24/EU but also others, for example, the (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC<sup>25</sup>(eIDAS) and the Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure,<sup>26</sup> all of which are designed to help promote SMEs.<sup>27</sup> It is, therefore, not surprising that Directive 2014/24/EU paid particular attention to SMEs, recalling that public procurement should be adapted to the needs of SMEs.<sup>28</sup>

Although a majority of the action to adjust the public procurement procedures to the needs of SMEs is expected to be done by the CAs, not all the efforts for SMEs promotion depend solely on the action of the CAs. In our view, SMEs as EOs in public procurement procedures also need to take action. Namely, the digitalisation of public procurement may not necessarily produce greater opportunities for SMEs if they remain passive. The Commission recently conducted comprehensive research on cross-border public procurement, trends, and success factors in cross-border public procurement. The Commission's Final report published in 2017 (European Commission, 2017c) demonstrates that the main obstacles to cross-border public procurement is a mix of high competition from national bidders, unfamiliar legal context or formal requirements, different types of technical specifications, additional costs (due to geographic distance and due to tax or social insurance differences), and language barriers, among other things. After performing market research and familiarising themselves with local competition, potential EOs should - instead of bidding directly abroad - connect with local bidders. They could, for example, include local foreign subcontractors or consortium partners or bid abroad as a foreign subcontractor or consortium partner. They could also bid abroad through a subsidiary located in the country of the tender or sell through local wholesalers. Further comparative studies (Ancarani et al., 2019) analyse that firms' characteristics

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<sup>25</sup> OJ L 257, 23. 7. 2014, p. 73–114.

<sup>26</sup> OJ L 157, 15. 6. 2016, p. 1–18.

<sup>27</sup> Regulation (EU) No 910/2014, OJ L 257, 23. 7. 2014, rec. 28, and Directive (EU) 2016/943, OJ L 157, 8. 6. 2016, rec. 2.

<sup>28</sup> Directive 2014/24/EU, rec. 78.

associated with size are relevant hindrances and that SMEs' involvement in public procurement are affected by a shortage of tangible (human and financial) and intangible resources (experience). On the other hand, some issues that are typically considered critical barriers, namely administrative requirements and awards based solely on the lowest price do not hinder participation.

Although public procurement procedures are - unlike the purchasing/sourcing systems in private sector - subject to stricter rules and principles, the EOs should be aware that the public procurement plays a vital role in the development of society and technology. The EOs should thus be more accepting of the idea to tendering in public procurement and use the advantages of the eProcurement, which eases the procurement process and is bringing time and costs saving along with the new opportunities, including joint procurement of various CAs (cf. Kähkönen, 2011).

## 7 Digitalisation and professionalisation—two sides of the same coin

Public procurement is governed by rules, norms and procedures, the application of which rests on individuals (El Amry, 2018: 54). On its own, the transposition of Directive 2014/24/EU into legal systems of the EU Member States is not a sufficient condition for successful implementation of eProcurement into practice and consequently achieving the objectives stated above. To drive the change, it is crucial for both, the CAs and the EOs, to improve digital and procurement skills at all stages of the procurement process. Public procurement plays a significant role in the individual economies of the Member States and therefore the EU in its entirety. In order to foster growth of the economy, it is critically important that the procurement system is not only compliant with the law, but that it also permits an opportunity for development through innovative, strategic and environmentally friendly growth. The digitalisation of public procurement makes it easier for stakeholders in public procurement procedures to achieve these goals and thereby contribute to growth of the economy. As stated by *Arbache* (2018) “the digital age is transforming the nature of markets and products, how to produce, how to deliver and pay while boosting productivity, exposing companies to new ideas, technologies, new management and business models, and creating new channels of market access” or as summarised by *Sabbagh et al.* (2012) “countries that have achieved advanced levels of digitization have realized significant benefits in their economies, their societies,

and the functioning of their public sectors. Digitalisation offers incremental economic growth since countries at the most advanced stage of digitalisation derive 20 percent more in economic benefits than those at the initial stage. Digitalisation has a proven impact on reducing unemployment, improving quality of life, and boosting citizens' access to public services. Finally, digitalisation allows governments to operate with greater transparency and efficiency”.

To achieve the objectives mentioned above of efficient, transparent, and strategic procurement as well as taking full advantages of digitalisation, the CAs are expected to deliver exceptional procurement results. However, benefits come not from merely adopting the technology, but from adapting to technology (Mühleisen, 2018). As explained by the Commission in the Commission Recommendation on the professionalisation of public procurement, public procurement is facing new challenges as it is increasingly expected to demonstrate the best value for public money, to make a strategic contribution to horizontal policy objectives and societal values, such as innovation, social inclusion, economic and environmental sustainability, and to maximize accessibility (European Commission, 2017a). Moreover, it is equally important to maintain public confidence through transparent practices with an aim to minimise fraud and corruption. This increases contracting workloads, which cannot be expected to be handled by merely a single person. As observed by *Skovgaard Olykke* (2016), to reach such lofty objectives while still procuring according to the highest standards, “contracting authorities are expected to be extraordinary multidisciplinary creatures” with legal, technical and economical knowledge as well as business skills and procedural understanding. However, CAs often lack those necessary skills, which in turn can lead to non-compliance with public procurement rules and have negative consequences on the economy and taxpayers. Accordingly, as observed by *El Amry* (2018), training and professionalisation of procurement officers is a key determinant of the efficiency of public procurement. In addition, professionalisation is critical for the successful transfer and use of eProcurement in practice, i.e. transfer, which provides an opportunity to improve the public procurement system. Professionalisation in this context consists of not only gaining knowledge concerning the benefits that eProcurement is offering, but also developing much needed technical and digital skills and to raise awareness about the advantages of the new working methods. Long-term professionalisation strategies at the

national level are essential to have the right people with the right skills and tools in the right place at the right time to deliver the best outcomes.

According to the Commission (European Commission, 2015c), nine out of ten large-scale infrastructure projects do not follow the plan and cost over-runs of up to 50 percent are common. The Commission observes that both the lack of skills and available data can result in irregularities. To this end, already a decade ago, the OECD (2009) explained “governments should invest in public procurement accordingly and provide adequate incentives to attract highly qualified officials. They should also update officials’ knowledge and skills on a regular basis to reflect regulatory, management and technological evolutions”. Still, in many countries, this is not the case. According to the OECD, it is essential for public officials to update their knowledge and skills continually to avoid mismanagement and resist the temptation of corruption. The OECD encourages governments to support officials with adequate information and advice through guidelines, training and counselling, as well as information sharing systems, databases, benchmarks and networks that help them to make informed decisions and contribute to a better understanding of markets (OECD, 2009).

To spread the workload, the CAs can also turn to joint procurement as an opportunity to exchange the know-how as sharing experiences, and best practices (especially for smaller and less experienced CAs) enables the improvement of procurement practices and increases efficiency, and impacts reputation of procurement in delivering public policy objectives. Consequently, joint procurement also reduces the chance of irregularities that occur during public procurement procedures and can negatively affect costs and ensures better value for money. Furthermore, joint procurement offers a higher bargaining power (allowing the CAs to get better prices that otherwise they would not be able to acquire alone), reduces transaction costs and increases purchasing power which buyers can use as leverage to pursue strategic objectives, such as green, innovative, social procurement etc. It has been recognised that public procurement “can shape production and consumption trends and significant demand from public authorities for ‘greener’ goods will create or enlarge markets for environmentally friendly products and services. By doing so, it will also provide incentives for companies to develop environmental technologies” (European Commission, 2008). An introduction of electronic

public procurement, the use of multi-lingual and multi-user platforms can significantly facilitate the joint procurement procedures.

In the same way, the market can also be steered towards innovative solutions as innovation is the essential driver of economic progress that benefits consumers, businesses, and the economy as a whole (ECB, 2017). Accordingly, the fastest possible transition to strategic, smart and innovative public procurement, which stimulates the development of the economy, must be pursued rather than inhibited. In doing so, we find that the processes of professionalisation and digitalisation are interdependent and that they must necessarily take place in parallel—the introduction of eProcurement makes it much easier to achieve the goals of strategic, smart and innovative public procurement. However, for the eProcurement to “fully” come to life as it was envisaged, procurement officers’ relevant skills, knowledge, and competence are needed, which without proper training and skill sharing cannot be achieved to the extent that broader benefits can be obtained and demonstrated.

## 8 Conclusion

Digital transformation of public procurement is an excellent opportunity for the economy and has a vast potential, if (fully) exploited. In this paper, we analysed some of the main challenges of public procurement today, together with the institutes, approaches, and tools available within the eProcurement initiative, which can help successfully address those challenges to ensure better competition and bring opportunities for the economy.

As the Commission (European Commission, 2018a) - the general force of the evolution of the EU (electronic) public procurement - exposed, all main actors need to be aware that the digital transformation of public procurement will bring considerable changes to public and private sectors, or as *Gjønnes* (2018) stated: “It is the most democratic process we can think of.” Public procurement has wider consequences for the economy. Reform of the public procurement system and the introduction of an “end-to-end” electronic procurement model (European Commission, 2013) is an opportunity to innovate the way public administration is organised, introducing greater transparency and discipline and contributing to the sustainable growth objectives set in Europe 2020 strategy.

The CAs can effectively direct the market from primary production on (e.g. green public procurement) by defining the guidelines and requirements of a subject of the procurement procedure. Digitalisation leads to more effective, open, and transparent public procurement. It will also encourage the CAs to perform centralised and joint public procurement and further to undertake strategic public procurement. Such joint efforts will bring stronger competition and stimulate economic development. Digitalisation offers tools to fight corruption. Also, it is the key to opening the door to new opportunities for the EOs, especially SMEs on the public procurement market within each EU Member State and cross-border within the European single market. However, as presented above, there are some challenges that SMEs will still face when entering the public procurement market that the CAs should be aware of. The CAs should thus use the appropriate approach and methods when carrying out public procurement procedures, taking into account that the digitalisation process already is pervasive. For that reason, the CAs should not perceive the eProcurement as a burden, but rather as an opportunity. The procurement officers should be open to professionalisation and strive to achieve a high level of competences, knowledge and training, starting with the trust in the new technologies, introduced by the process of digitalisation. Promoting competition, strengthening the economy and economic growth might be just a click away.

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