Legal and Technological Conditions in the Process of Electronisation in Communication between Parties in Public Procurement

Uwarunkowania prawne i techniczne procesu elektronizacji w komunikacji stron w zamówieniach publicznych

SUMMARY

Starting from 18 October 2018, public procurement procedures with a value equal to and exceeding the amounts specified in the secondary legislation issued pursuant to Article 11 (8) of the Public Procurement Law (i.e. above the so-called EU thresholds) are covered by the obligation of full electronic communication between the contracting authority and economic operators. Currently, a tender (or an application to participate in the procedure) in a procedure above the EU thresholds, to be valid, must be submitted only in electronic form (and not in paper form) and signed with a qualified electronic signature. The new legal situation resulted in the need to employ, both by economic operators and contracting authorities, new IT tools allowing them to achieve compliance in this regard. Meanwhile, many economic operators, especially medium and small ones, have not had sufficient IT infrastructure (especially software) as well as sufficient knowledge of the ways and methods of electronic preparation and implementation of public procurement processes. A provisional way to implement new solutions is to provide the miniPortal for e-Procurement, which allows for the safe submission of a tender or application for participation in proceedings and statements, including a European Single Procurement Document compliant with the requirements laid down in both the EU law and national law. However, this tool poses many technical problems, causing a number of disruptions in the public procurement process. The publication contains information stemming from the author’s and other practitioners’ direct observation of the communication between parties in the public procurement process.

Keywords: electronisation; public procurement; electronic signature; tender; secure electronic signature; means of electronic communication; e-PUAP; miniPortal
INTRODUCTION

The extremely fast progress of information technology has induced the Polish legislature\(^1\), obliged to do so by the Union legislation\(^2\), to include in the Act of 29 January 2004 – Public Procurement Law\(^3\) a provision of Article 10a which stipulates that in the communication between the contracting authority and the economic operator in public procurement proceedings, in particular the submission of tenders or application for admission to procedure, and the declarations, including the declaration made on the European Single Procurement Document (ESPD) document, shall be carried out using electronic means of communication. The means of electronic communication are both the technical solutions, i.e. ITC equipment (hardware) and related programmes (software), which enable communication at a distance by means of data transmission between electronic systems. Although both the contracting authority and the economic operator are treated as professional entities, thus having better expertise in information technology than the average and have a well-organised computer network, it was decided on a gradual and staged implementation of this method of communication between the parties of public procurement process. This approach should be assessed as reasonable since in fact entrepreneurs as potential economic operators seeking public contracts – especially those who are classified as SMEs – are not prepared for a radical abandonment of the traditional (paper) form of contact with contracting authorities. Likewise, not all contracting authorities have a sufficient level of substantive knowledge to allow the immediate implementation of full electronisation in public procurement.

In the first phase of the implementation of the public procurement electronisation programme, an obligation was introduced to submit the European Single Procurement Document form, drawn up in accordance with the model standard form set out in the European Commission implementing Regulation issued pursuant to Article 59 (2) of the Directive 2014/24/EU and Article 80 (3) of the Directive 2014/25/EU. The obligation to draw up and then transmit electronically ESPDs to the contracting party has been applicable since 18 April 2018. In the course of completing and using it, both economic operators and the contracting authorities were gaining the first experience in electronic forms of communication. This phase of the implementation of electronisation seems to have confirmed that the parties

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(contracting authorities and economic operators), despite numerous problems, clearly improved their skills in this area.

In the second stage, the beginning of which was scheduled for 18 October 2018, it was decided to implement full electronic communication between the contracting authority and the economic operators, assuming that both parties would be duly prepared to do so. However, the practice showed that this assumption was too optimistic. Many economic operators, especially medium and small ones, have not had sufficient IT infrastructure (especially software) as well as sufficient knowledge of the ways and methods of electronic preparation and implementation of public procurement processes. As a consequence, the amendment to the Public Procurement Law (PPL) of 20 July 2018\(^4\) shifted the obligation to implement electronisation of public procurement contracts with values below the EU thresholds\(^5\) until 1 January 2020. On the other hand, contracts of a value equal to and exceeding the amounts laid down in the secondary legislation issued pursuant to Article 11 (8) of the Public Procurement Law (equal to and above the EU thresholds), the communication between the contracting authority and economic operators is already fully electronic.

The rationale behind introducing electronic communications between public procurement parties is to streamline the proceedings by speeding up and reducing its costs. The European Union, by introducing electronic communication solutions in the area of public procurement\(^6\), seeks to harmonise the procurement market and facilitate tendering in all Member States. Has the period that elapsed since the entry into force of the rules on mutual information of these entities, omitting the traditional (paper) form and at the same time imposing communication electronically, confirmed the correctness of such solutions? The answer to this question seems to be positive, although the process of full implementation of this idea, however recommendable it may be, can take a few months or maybe even years.

To fully assess the issue in question, it is necessary to discuss the legal relationships between the parties to the public procurement procedure during the phases of tender preparation and submission to the contracting authority and the opening, testing and evaluation of tenders submitted. This discussion also addresses the use of IT tools in the procurement process allowing for the overall implementation of the provisions of the Public Procurement Law.


\(^5\) That is below the amounts provided for in the Ordinance of the Minister of Development and Finance based on Article 11 (8) of the Act of 29 January 2004 – Public Procurement Law.

\(^6\) For example, through provisions of the Directives 2014/24/EU and 2014/25/EU.
THE TENDER MUST BE SIGNED

The provisions of the Public Procurement Law do not define the term “tender” (or “offer”). Therefore, in accordance with Article 14 PPL, it is necessary to refer in this respect to the provisions of the Civil Code (CC). The key role in defining this term is played by the provision of Article 66 § 1 CC, which states that “a statement [made to – M.C.] to the other party of the will to conclude an agreement is an offer if it specifies the essential provisions of the agreement”. Thus, the offer is a clearly expressed declaration of will of a person having full capacity to perform acts in law and addressed to another person (persons) for the purpose of concluding a contract. Subject to exceptions provided for in the Act, the will of a person performing a legal transaction may be expressed by any behaviour of that person who discloses his/her will in a sufficient manner, including by disclosing his/her will in electronic form (Article 60 CC).

In accordance with one of the basic principles of public procurement, namely the principle of the written procedure, the public procurement procedure is conducted in writing, subject to exceptions provided for in the Act. There is no doubt that prior to the introduction of electronic communication in public procurement into the Polish legal system, a tender (or a request to participate in the procedure), to be considered valid, must have been signed by persons authorised to represent the economic operator (or by their attorney). This was in line with the provision of Article 78 CC, which states that for a legal transaction to be considered made in writing, it is sufficient to sign the document containing the content of the declaration of will with one’s own hand. The signature on the tender/application completed in paper form was to be made in the form of a legible and full signature containing the forename and surname of the authorised person, or by affixing initials with a sufficient number of graphic signs and additionally a stamp with a legible forename and surname and, if applicable, a title of the person concerned. A tender/application not signed by the economic operator may not be considered as a declaration of will of a given person (natural or legal person), which results in its dismissal due to its non-compliance with the Act (Article 89 (1) (1) PPL).

With the development of computer technology, the approach to the form of the valid expression of a declaration of will has changed. As a result, the legislature concluded that for a legal act to remain valid, it is sufficient to submit a declaration of will in an electronic form and affix a qualified electronic signature to it. A declaration of will made in electronic form is equivalent to a declaration of will made in writing (Article 81 § 1 and 2 CC)\(^7\).

\(^7\) Introduced to the Polish legal system with the Act of 5 September 2016 amending the Civil Code (Journal of Laws 2016, item 1579), which became effective on 7 October 2016.
Under the legislation currently in force, a tender (or an application to participate in the procedure), to be valid, must be submitted in writing in paper form with the economic operator’s handwritten signature (possible with regard to tenders submitted in procedures with the contract value below the EU thresholds\(^8\)) or in electronic form with a qualified electronic signature (for tenders submitted in procedures with, the contract value equal to or exceeding the amounts specified in the regulations issued under Article 11 (8) PPL).

Since the affixing of an electronic signature under the declaration of will has been equated in terms of legal consequences with the handwritten signature of the person concerned, the field in which such a form of signature is used is thus expanded. This area includes, among other things, public procurement procedures, which are subject to the continuous influence of EU legislation, on the basis of which certain solutions have already been adopted and accepted.

**ELECTRONIC SIGNATURE INSTEAD OF HANDWRITTEN SIGNATURE**

The Act of 29 January 2004 – Public Procurement Law does not contain definitions of electronic document or qualified electronic signature. This issue is governed by other acts of European and national law\(^9\). Pursuant to the Act of 17 February 2005 on computerisation of the activity of entities performing public tasks, an electronic document is a set of data, forming a separate semantic whole, systematised in a specific structure and recorded on an IT data recording medium. Such a document does not have to have a qualified electronic signature to remain valid. For example, valid documents are those issued (generated) in the form of certificates by such institutions as the Social Insurance Institution (ZUS), Revenue Office, banks or the National Criminal Register.

On the other hand, “electronic signature” means data in electronic form which is attached to or logically associated with other data in electronic form and which is used by the signatory to sign (Article 3 (10) of the Regulation 910/2014). Such a signature is equivalent to a handwritten signature, which means that it confirms the identity of the signatory, thus making it impossible to deny the fact of signing, is linked to the signed content and prevents making changes to the signed content.

\(^8\) It is also possible here to submit the tender in an electronic form if the contracting authority accepts this solution.

A qualified (secure) electronic signature means an advanced electronic signature that is created by a qualified electronic signature creation device, and which is based on a qualified certificate for electronic signatures. It is equivalent, in terms of legal effect, to a handwritten signature. A “qualified signature” must meet the requirements of EU law (Article 26 of the Regulation 910/2014) which make it an advanced form of electronic anti-counterfeit protection. The characteristics of this device include: assigning the signature only to the signatory and remaining under the control of this person, enabling the identification of the signatory beyond doubt, and linking the signatory’s identity to the signed data in such a way that any subsequent change is recognisable. Such a signature may only be assigned to a natural person and enables each time the identification of the signatory. It is to be made using a specially configured signature-creation device. The reliability (certainty) of the manufacture of a signature device and its compliance with the security requirements is guaranteed by a certificate of electronic signature. It means an electronic certificate which assigns data used for signature validation to a natural person and confirms personal data of that person. Entities authorised to issue and renew secure signature certificates are those recorded with the register of trust service providers of the Ministry of Digitization (e.g. Trusted Third Party, in Polish – Zaufana Trzecia Strona) run by the National Certification Centre.

All persons authorised to represent the economic operator must have a secure (qualified) signature to make a valid offer or request to participate in the tendering procedure. If the entity representation is collective, each of those persons must have an electronic signature with a qualified certificate. The same rule applies to the signing a European Single Procurement Document.

ELECTRONIC COMMUNICATION MEANS

According to Article 36 (1) (7) PPL, the contracting authority should inform the economic operators in the terms of reference about the manner of communicating with the economic operators and submitting statements or documents, if the contracting authority, in the situations referred to in Article 10c–10e (waiving the requirement of electronic communication in tendering and requirement of the use of electronic tools for the modelling of construction data), provides for a different way of communication than by means of electronic communication, and persons authorised to communicate with economic operators. Electronic communication means are understood as electronic communication means within the meaning of the Act of 18 July 2002 on the provision of services electronically¹⁰ (Article 2 (17)

¹⁰ Consolidated text 2019, item 123. Pursuant to the Act of 20 July 2018 amending the Act – Public Procurement Law, the words “or fax” were deleted from this definition which means that a fax
PPL). Following the statutory delegation under Article 10g PPL, the President of the Council of Ministers issued on 27 June 2017 the Regulation on the use of electronic means of communication in the public procurement procedure and the provision and storage of electronic documents\textsuperscript{11}. Other sources of national law should also be used when considering the use of electronic means of communication\textsuperscript{12}. Economic operators must be fully aware of the manner of communication chosen by the contracting authority to communicate with them. This knowledge is necessary to ensure that there are no barriers to the communication between the parties to the proceedings, which is extremely important in terms of preserving the general principle of public procurement, namely the principle of fair competition and equal treatment of economic operators (Article 7 (1) PPL). Precise notification to economic operators on how to submit a tender (application for participation) also limits the number of appeals against particular actions and decisions of the contracting authority to the National Board of Appeal.

The contracting authority is required to specify in the notice or in the terms of reference (SIWZ), or in another document initiating the contract award procedure, the electronic means of communication using which it will communicate with the economic operators in the contract award procedure, together with technical and organisational requirements for sending and receiving electronic documents and information provided using them. The use of electronic means of communication by the economic operator for contacting the contracting authority may be made dependent on prior approval by the economic operator of the rules of use of the website made available by the contracting authority as specified in the notice or in the terms of reference or in another document initiating the procurement procedure (§ 2 (1) and (2) UEMC). The specified method of communication between the parties may not discriminate against any economic operators and may not limit their access to the public procurement award procedure. The contracting authority must specify in the notice or in the terms of reference information on: the characteristics of the connection, the format of the data being sent, coding and marking the time of data transfer.

The system of communication between the contracting authority and the economic operator must ensure:

\textsuperscript{11} Journal of Laws 2017, item 1320, hereinafter: UEMC.

the identification of entities who submit tenders/applications via the profile of the company and the person authorised for representation, i.e. enable the unambiguous identification of this entity or person,

- the determination of the exact time and date of receipt of the tenders/applications submitted by these entities,

- the accountability of actions taken by economic operators,

- the protection against access to the content of the tenders/applications before the time limits set for their opening, by encrypting the content of these documents and providing access only to authorised persons,

- the possibility to set and change the dates for submitting and opening offers/applications only to persons authorised by the contracting authority,

- access to all or part of the documentation of the procurement procedure at individual stages only to authorised persons,

- the possibility of making the tenders/applications, and also other documents obtained from the economic operators, available to third parties, taking into account their division into public and secret parts,

- the possibility to delete the tenders and applications in a way that prevents them from being recovered and users becoming familiar with their content if the tender/application is returned by the contracting authority or withdrawn or altered by the economic operator\textsuperscript{13}.

Withdrawal from the use of electronic means of communication is only possible in the cases specified in Article10c (1) and regards a small group of procedures. Furthermore, the contracting authority is always obliged to indicate in the record of the proceedings the reasons why it has waived the requirement to use electronic means of communication\textsuperscript{14}.

From 18 October 2018 onwards, the contracting authority shall, in the terms of reference (SIWZ) or in the contract notice, inform on the manner of communication with the economic entities and the transmission of statements and documents, and shall indicate the persons authorised to communicate with them. In practice, the contracting authorities inform that such communication shall be done using miniPortal (https://miniportal.uzp.gov.pl), specially established for this purpose, which is integrated into the ePUAP platform (https://epuap.gov.pl/wps/portal), or e-mail. Commercial purchasing platforms are also used, tailored to the specificities of the procedures run by these contracting authorities which themselves acquired utility programmes. The economic operator wishing to participate in a public procurement procedure must have an account set on ePUAP. It shall then have access to the forms of: submission, amendment, withdrawal of the tender or application, and to the communication form (other than the tender/application submission

\textsuperscript{13} A. Serpina-Forkasiewicz, Elektronizacja – problemy prawne, „Przetargi Publiczne” 2018, nr 4.

\textsuperscript{14} Ibidem, p. 34.
form). The technical and organisational requirements for sending and receiving electronic documents, electronic copies of documents and statements and information communicated using them are described in the miniPortal’s terms of use and ePUAP’s terms of use. The maximum size of files sent through dedicated forms for submission, amendment, withdrawal of the tender or application for participation and for communication is 150 MB. The contracting authorities shall also inform that the date of submission of the tender, applications, notices, electronic documents, statements or electronic copies of documents or statements and other information is to be determined according to the date of their transfer to ePUAP.

This latter issue is justified by the wording of Article 61 § 2 CC in conjunction with Article 14 PPL (the so-called qualified theory of service), stating that the declaration of will expressed in electronic form is made to another person once it has been entered in an electronic communication means in such a way that the person can become acquainted with its content. In this situation, the contracting authority (or economic operator), if it does not learn about the content of the received information on a regular basis is vulnerable to possible negative legal effects resulting from the lack of familiarity with the content of this information\(^\text{15}\). The introduction of a declaration of intent to a means of electronic communication means results in a presumption that the addressee had the opportunity to read the statement. According to the decision of the Supreme Court of 10 December 2003, “a declaration of will in an electronic form online is deemed submitted at the moment of putting into the computerised system maintained and controlled by the recipient, i.e. when the declaration is accepted by the recipient’s server and the relevant data is recorded therein”\(^\text{16}\).

Electronic documents, statements or electronic copies of documents or statements must be submitted by the economic operator using the communication form as attachments. As a rule, the contracting authority allow for the possibility of submitting electronic documents, statements or electronic copies of documents or statements by electronic mail to a specified e-mail address. The manner in which electronic documents, statements or electronic copies of documents or statements are drawn up must be in compliance with the requirements laid down in the relevant legislation\(^\text{17}\).

\(^{15}\) Thus, ruled in the judgement of the National Board of Appeal of 26 July 2018, KIO 1374/18.
\(^{16}\) Decision of the Supreme Court of 10 December 2003, V CZ 127/03, OSNC 2005, No. 1, item 12.
\(^{17}\) Hence, in accordance with the Regulation of the President of the Council of Ministers of 27 June 2017 on the use of electronic means of communication in the public procurement procedure and the provision and storage of electronic documents (Journal of Laws of 2017, item 1320) and the Regulation of the Minister of Development of 26 July 2016 on the types of documents which may be requested by the contracting authority from the economic operator in the public procurement procedure (Journal of Laws 2016, item 1126 as amended).
Where an electronic document is submitted by the economic operator in a format that compresses the data to compression, the economic operator, before sending it, signs the files containing the compressed data with a qualified electronic signature, which is equivalent to certifying by the economic operator as true all electronic copies of the documents contained in that file, except for copies duly certified by another economic operator applying jointly with the former for the award of the contract, or by an entity on whose abilities or situation the economic operator relies, or by a subcontractor.

**miniPORTAL UZP – THE TEST PASSED SUCCESSFULLY?**

The Public Procurement Office intends to create a comprehensive technical solution for the entire public procurement process, including its monitoring. This solution, currently being implemented jointly with the Ministry of Digitisation and the Ministry of Enterprise and Technology, is supposed to build and use a central e-Procurement Platform and e-Services Portals. It is to be a free-of-charge tool, available to all contracting authorities and economic operators. Due to the fast pace of implementation of EU and national regulations concerning full electronic communication between the contracting authority and economic operators, in the absence of universal tools, on 4 October 2018 the miniPortal for e-Procurement, i.e. a temporary solution allowing for safe submission of a tender or application to participate in the procedure and statements, including the Single European Procurement Document, in accordance with the requirements of both the EU directive and national law, was made available.

The miniPortal for e-Procurement allows getting information on a particular procedure indicating the manner of proceeding, the BZP/TED number (number of publication in the Public Procurement Bulletin or in the Official Journal of the European Union). The system automatically generates an ID of the procedure indicating the title or name of the proceeding, the name and address of the contracting authority, the deadline for submitting tenders/applications. Having reviewed the contract notice and/or the terms of reference (SIWZ) and having decided to apply for a specific contract, the economic operator shall prepare, via the ePUAP platform, an electronic tender or application for participation in the proceedings. After preparing the tender/application, the economic operator must sign the document (tender or application) with the qualified electronic signature. The person or persons authorised to represent the entity concerned has the signatory powers. The economic operator shall send such a signed electronic tender or application once the document is encrypted with a public key, using the special forms available on the ePUAP platform. The contracting authority must have an account in the Public Procurement Bulletin and an electronic register box on the ePUAP platform (with
the privileges of a public institution) allowing the use of the platform services. After the publication of the contract notice in the Official Journal of the European Union, the contracting authority may proceed to draw up a sheet for the procedure. This is done by completing the appropriate form, and the condition for its effective completion is to provide the identification number given by TED (the European public procurement journal) and the reference number assigned internally by the contracting authority. In addition, the time limit for tender submission and the opening dates must be filled in. The publication of the form will allow the public key to be automatically shared.

It is extremely important to ensure that tenders/applications submitted in proceedings are protected against the interference of any person (apart from the economic operator who submitted them) in their content before the opening date. This is done by automatically generated key pairs (public key and private key). Encryption and decryption of tenders is done using the so-called asymmetric cryptography (public key and private key). The public key is used to encrypt the offer by the economic operator, and the private key, which is undeliverable until just before the tender is opened, allows the ordering party to decrypt it. The application for tender encrypting and decrypting can be downloaded from the miniPortal website. A correctly encrypted tender, together with supporting documents, should be submitted to the contracting authority by means of the form of tender or application submission, modification or withdrawal. To be able to send a tender to the contracting authority, the economic operator must have an account on the ePUAP platform, as this can only be done through this channel.\[18\]

A very important issue to consider when using electronic communication tools is the manner in which the tenders are publicly opened. When opening the tenders, the contracting authority is required, in accordance with Article 86 (4) PPL, to specify the names and addresses of the economic operators, as well as information about the price, deadline for the contract performance, warranty period and payment terms contained in the tenders. Then, the contracting authority evaluates the tenders, in particular by verifying qualified electronic signatures using special signature verification software. In accordance with the principle of openness, the tenders are subject to opening during a public session, enabling the economic operators to become familiar with the content of the tenders and allowing them to assess the chances to win the contract. Not only economic operators but all those interested in observing this activity (mass media, market experts) can participate in the opening of the tenders, so the opening session is open to everyone (erga omnes). It is now possible to open electronic tenders with the participation of people who have appeared at the contracting authority’s offices and then posting its results on the website. This solution is criticized by some authors, because:

\[18\] A. Wiktorowski, MiniPortal UZP – pierwsze doświadczenia, „Przetargi Publiczne” 2019, nr 1.
it seems unreasonable that the slogan of liquidation of distance barriers, shortening of proceedings, etc. (which is to be done by submitting offers in electronic form and conducting communication as part of proceedings only in electronic form) covered the need to verify the correctness and reliability of the activities carried out by it at such a crucial time as opening the tenders\textsuperscript{19}.

As it results from observations of pending public procurement proceedings, this is currently the dominant form of tender opening. To extend the formula of direct access to data contained in decrypted tenders, it is proposed to create the so-called virtual conference rooms, owing to which all interested parties could watch on-line the tender opening session\textsuperscript{20}.

The previous experience of both contracting authorities and economic operators indicates that the miniPortal meets the minimum requirements for the electronisation of the procurement process with respect to the tender submission, modification or withdrawal. Users, however, point to a limited number of functionalities and frequent system blockages. More and more entities, both the economic operators and contracting parties, decide to buy commercial purchasing platforms, allowing them to be adapted to the specificities of their activity. For the above reasons, it is expected that a publicly available tool, compliant with all legal and technical requirements, enabling full and secure communication of the parties in public procurement procedures, will be developed.

REFERENCES

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Judgement of the National Board of Appeal of 26 July 2018, KIO 1374/18.

\textsuperscript{19} Idem, Otwarcie ofert elektronicznych, „Przetargi Publiczne” 2018, nr 8.
\textsuperscript{20} Ibidem, p. 30.


Regulation of the Minister of Development of 26 July 2016 on the types of documents which may be requested by the contracting authority from the economic operator in the public procurement procedure (Journal of Laws 2016, item 1126 as amended).

Regulation of the President of the Council of Ministers of 27 June 2017 on the use of electronic means of communication in the public procurement procedure and the provision and storage of electronic documents (Journal of Laws 2017, item 1320).


**STRESZCZENIE**

Począwszy od 18 października 2018 r. w postępowaniach o zamówienie publiczne o wartości równej i przekraczającej kwoty określone w przepisach wykonawczych, wydawanych na podstawie art. 11 ust. 8 Prawa zamówień publicznych (czyli powyżej tzw. progów unijnych), obowiązuje pełna elektroniczna komunikacja pomiędzy zamawiającym a wykonawcami. Obecnie ofertę (lub wniosek o dopuszczenie do udziału w postępowaniu) w postępowaniu o wartości powyżej progów unijnych składa się, pod rygorem nieważności, wyłącznie w postaci elektronicznej (a nie papierowej) i opatruje kwalifikowanym podpisem elektronicznym. Nowy stan prawny spowodował konieczność skorzystania przez wykonawców, lecz także zamawiających, z nowych narzędzi informatycznych umożliwiających spełnienie wymogów w tym zakresie. Tymczasem wielu wykonawców, zwłaszcza tych średnich i małych, nie posiadało i nadal nie posiada dostatecznej infrastruktury informatycznej (zwłaszcza oprogramowania) oraz wystarczającej wiedzy o sposobach i metodach elektronicznego przygotowania i realizacji zamówień publicznych. Doraźnym sposobem służącym wdrożeniu nowych rozwiązań jest udostępnienie miniPortalu e-Zamówień, pozwalającego na bezpieczne złożenie oferty lub wniosku o dopuszczenie do udziału w postępowaniu oraz oświadczeń (w tym jednolitego europejskiego dokumentu zamówienia) zgodnych z wymogami przewidzianymi w prawie zarówno unijnym, jak i krajowym. Narzędzie to sprawia jednak wiele problemów natury technicznej, co powoduje szereg perturbacji w procesie zamówień publicznych. Niniejsze opracowanie zawiera informacje wynikające z bezpośredniej obserwacji komunikowania się stron w zamówieniach publicznych dokonanej przez autora oraz innych praktyków w tej dziedzinie.

**Słowa kluczowe:** elektronizacja; zamówienia publiczne; podpis elektroniczny; oferta; bezpieczny podpis elektroniczny; środki komunikacji elektronicznej; e-PUAP; miniPortal