The Digitalization of the Public Procurement Life Cycle: The National eProcurement Ecosystem Between Innovation and Critical Issues*

Enrica Cibella

(Ph.D. Student at University of Palermo)

ABSTRACT One of the most far-reaching innovations introduced by Legislative Decree no. 36/2023 concerns the digitalization of all the phases that make up the life cycle of public contracts, from design to execution (art. 21 of Decree-Law no. 36/2023), and not only the phase of the award procedures. In fact, the complete digitalization of public procurement would lead to greater speed and flexibility of procedures, greater transparency and therefore a lower risk of corruption and criminal infiltration, as well as a more general simplification of administrative action by reducing the burden on contracting authorities, ensuring greater completeness of data and streamlining access procedures. This is a rather ambitious project, the implementation of which requires the cooperation of the contracting authorities, in particular with the National Anti-Corruption Authority and the Agency for Digital Italy. In fact, the new Public Procurement Code, in the absence of a clear regulatory framework, has put into positive terms the principles established by the caselaw, constituting a fundamental piece for the establishment of a "rule of technology" aimed at guaranteeing the protection of the legal rights and interests of the subjects of modern society.

1. The digitalization of the public procurement: Legislative Decree no. 36/2023, the culmination of a slow regulatory process

From 1 January 2024, the provisions of the new Public Procurement Code have become fully effective, providing for the digitalization of the entire lifecycle of public contracts. The planning, design, publication, award and execution phases of the contract will be managed by the contracting authorities using certified digital procurement platforms which each public entity must use.

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This is an epochal turning point as it is the first time that digitalization has been extended to all the phases that characterize the life of a public contract, with a view to full digitalization in light of the principle of interoperability and cooperation between public and private actors.

Digitalization applies to all contracts subject to the provisions of the Code, i.e. procurement or concession contracts, whatever the amount, in ordinary and special sectors.⁴

The digital transformation of the public administration, as envisaged in the Three-Year Plan for IT in the PA,⁵ is based on the simplification and innovation of administrative procedures, with the aim of improving the efficiency and quality of the services offered to citizens and businesses.

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Approved by Legislative Decree no. 36 of 31 March 2023, containing the "Public Procurement Code" implementing Article 1 of Law no. 78 of 21 June 2022, which contains the delegation to the Government.

² Art. 21, par. 1 of Legislative Decree no. 36/23 states that "the digital life cycle of public contracts is usually divided into programming, design, publication, award and execution". All translation from Italian into English contained in this paper are mine and therefore solely my responsibility.

responsibility.

These platforms must be used for the drafting or acquisition of documents relating to the various tender procedures, the transmission of data and documents to the ANAC database, access to tender documents, the presentation of the Single European Procurement Document, the submission of tenders, the opening, management and storage of tender documents, the technical, accounting and administrative control of contracts during their execution and the management of guarantees. See ANAC website Scatta la digitalizzazione degli appalti: più trasparenza, meno burocrazia, 2 January 2024, available at www.anticorruzione.it/-/dal-2-

⁴ See ANAC website *Digitalizzazione dei contratti pubblici* available at www.anticorruzione.it/-/digitali zzazione-contratti-pubblici.

zzazione-contratti-pubblici. 5 "Piano Triennale per l'informatica nella PA". Starting from the 2016 Stability Law, which redefined its objectives and general characteristics, the Three-Year Plan has exercised the essential reference in the planning of the PA's digitalization actions. It is an essential tool to promote the digital transformation of the country through the adoption of a digitalization strategy with operational indications, such as objectives and expected results, which can be attributed to administrative actions

The digitalization of public procurement is a fundamental part of this simplification process, helping to streamline and speed up purchasing procedures of public administrations, widen the participation of market players and make the procurement lifecycle even more transparent, easing checks and timely controls.

Digitalization is one way of achieving administrative cooperation. In fact, one of the key words of the reform is interoperability between certified platforms and centralized infrastructure services, which is a prerequisite electronic communication, automated exchange and re-use of data between public administrations, as well as for the full application of the "once only" principle.⁶
The use of IT tools by the public

administration⁷ is now a legal obligation, covered by Art. 97 cost. and the principles of effectiveness efficiency, and economy enshrined in art. 1 of Law 241/1990.

In fact, the new Code represents an important stage⁸ in a process of regulatory and technical evolution of ancient origins: the digitalization of public contracts and the management of tendering procedures on IT platforms is not a new phenomenon, much less a recent one.

With the Digital Administration Code⁹ (CAD) of 2005, important steps were already taken to regulate digital signatures and certified electronic mail.

must be read in conjunction with the provisions of the CAD.¹⁰

In addition, the previous Public Contracts Legislative Decree no. 50/2016, contained some provisions regulating the digitalization of public contracts, although it did not extend it to the entire life cycle of the

The digitalization of contracts has been part of our lives for about a decade now: a very important impulse in this direction was given by European Directive 2014/24/EU,¹¹ which represents the legal basis of the now "old code" and which has the merit of having triggered the process of regulatory evolution that has led to the adoption of Legislative Decree no. 36/2023.

As part of this evolutionary process, it is also necessary to recall the "Decree on Digital Innovation". 12 and Simplification

Indeed, the new Public Procurement Code

⁶ According to this principle, citizens and businesses provide their data to public authorities only once and the authorities can communicate with each other and exchange official data and documents at the user's request. In this context, see Commission Implementing Regulation (EU) 2022/1463 of 5 August 2022 laying down the technical and operational specifications of the technical system for the automated cross-border exchange of evidence and the application of the "una tantum" principle pursuant to Regulation (EU) 2018/1724 of the European

Parliament and of the Council.

Think of the "digital first" principle, which sees the digital tool as the primary service channel for e-government activities. Or again, the "digital by default" principle, according to which public administration. must provide digital services as a default option (and which we have tried to achieve with CAD).

⁸ See G.M. Racca, La digitalizzazione dei contratti pubblici: adeguatezza delle pubbliche amministrazioni e qualificazione delle imprese, in R. Cavallo Perin and D.U. Galetta (eds.), Il diritto dell'amministrazione pub-

blica digitale, Turin, Giappichelli, 2020, 321 ff.

9 Legislative Decree no. 82 of 7 March 2005, a consolidated text that brings together and organizes the rules on the computerization of the public administration in its relations with citizens and businesses.

¹⁰ Art. 21, par. 2 of Legislative Decree no. 36/23 provides that "the activities related to the life cycle referred to in paragraph 1 shall be managed, in compliance with the provisions of the Digital Administration Code referred to in Legislative Decree of 7 March 2005, no. 82, through interoperable digital platforms and services, as indicated in Article 22"

¹¹ In 2014, the Parliament and the Council adopted a new public-procurement package, including Directive 2014/24/EU on public procurement (repealing Directive 2004/18/EC) and Directive 2014/25/EU on procurement procedures for entities operating in the water, energy, transport and postal-services sectors (repealing Directive 2004/17/EC). The public-procurement legislative package is completed by a new Directive on concessions (Directive 2014/23/EU), which establishes a legal framework for the award of concessions, ensuring that all EU economic operators have effective and nondiscriminatory access to the EU market.

¹² Legislative Decree no. 76/2020, which was converted into Law no. 120/2020 and whose Title III contains the regulatory provisions for accelerating the country's digital transformation process. This is a set of regulatory measures aimed at reshaping digital governance, accelerating the digitalization of public services and simplifying relations between citizens and public administration, also with the view to spread the culture of innovation and overcome the digital divide, with attention also paid to access to IT tools for people with disabilities in order to respond to their needs, and to ensure a digital and digitised administration capable of providing measures aimed at extending, in application of the "digital first" principle, remote contacts and the range of on-line services provided by public administrations that can be used by citizens through their digital identity. In particular, the regulation of the National Digital Data Platform has been completely rewritten, confirming the innovations introduced by Legislative Decree no. 34/2020. See: AGID website, *Il Decreto Semplificazio*ne e innovazione digitale è legge: nuove regole e strumenti per la digitalizzazione dei servizi pubblici, 23 September 2020, available at: www.agid.gov.it /it/agenzia/stampa-e-comunicazione/notizie/2020/09/23/ il-decreto-semplificazione-innovazione-digitale-legge-n

Legislative Decree no. 77 of 31 May 2021¹³ or, more recently, the Ministerial Decree of 2 August 2021, no. 312, issued by the Ministry of Sustainable Infrastructure and Mobility, 14 which defines new methods and deadlines for the gradual introduction of electronicmodelling methods and tools in public-works contracts for construction and infrastructure.¹⁵

See also recent art. 3 bis of law no. 241/1990, with which the legislator, revising the regulatory provisions of the law, introduced a timid reference to the possibility of using telematic tools in the administrative procedure with Legislative Decree no. 76 of 16 July 2020.

The new Code seems to have implemented most of the provisions contained in the regulatory interventions mentioned above, thus carrying out an important work of recomposing the pieces of a fragmented mosaic.

The content of the new Code, and in particular of article 43 "Methods and tools for the digital management of construction information"¹⁶ and of Annex I.9, ¹⁷ are the logical consequence of this evolutionary process, which, as highlighted above, was initiated several years ago and which represents a further stage in the current regulatory landscape. 18

The PNRR¹⁹ ("Piano Nazionale di Ripresa e Resilienza") gave a great boost to our country's digital-transition path, providing the national legislator with a necessary deadline to speed up the process already underway, without which the rules in question would have remained unimplemented, as was the case with the 2016 Code.

It is precisely the PNRR that identifies digitalization as a cornerstone on which to build the public administration of the future.

In fact, the new Code is perfectly in line with the timing dictated by the PNRR, which, in measure M1C1-75, provides for the full operation of e-procurement²⁰ ("National operation of e-procurement²⁰ ("National digital procurement ecosystem",²¹ i.e. the entire system of platforms and digital infrastructure services that, once established or, in any case, once fully interoperable and integrated with each other, will allow the fully

uove-regole.strumenti#:~:text=Queste%20alcune%20no vità%20%2D%20tra%20le,di%20trasformazione%20di gitale%20del%20Paese.

13 The second part of the decree provides for simplifica-

tion measures affecting some of the sectors covered by the PNRR (including ecological transition, public works, digitalization) in order to encourage their full implementation.

Also known as the "Bim Decree" or "Baratono Decree", it amends and updates Ministerial Decree no. 560/2017. The latter was issued under the signature of Minister Enrico Giovannini pursuant to art. 48, paragraph 6 of the Simplifications-bis Decree, and is part of the Government's strategic lines aimed at encouraging the path towards an effective and truly feasible digital

15 The legislator's ratio was to achieve an increasing consensus on BIM, by reviewing the gradual temporal implementation of the methodology in question and the introduction of reward points, to take into account the emergency period caused by the COVID-19 pandemic, but also to take into account the difficulties encountered by many contracting authorities in dealing with the need to reorganize their structure and adequately train the personnel involved.

16 "Metodi e strumenti di gestione informativa digitale

delle costruzioni". In particular, it is necessary to highlight how the name changes: from "specific electronic methods and tools" (art. 23 of Legislative Decree no. 50/2016) to "Methods and tools for digital information management of constructions" summarized in the term Building Information Modeling (BIM). It is the first time that the legislator explicitly refers to Building Information Modelling at the level of primary legislation. The main provisions are Articles 41 and 43 (the latter transposes and clarifies the discipline introduced by the 2016 Code, in Ministerial Decree no. 560 of 1 December 2017 and in Decree-Law no. 77 of 31 of May 2021).

¹⁷ It regulates the methods and conditions for adopting information and digital-management methods and tools. The appendices to the Code have a fundamental dispositive role and complete the framework of application with measures of a regulatory nature and containing detailed regulations.

¹⁸ BIM was born as a complex and innovative methodology, essential for the construction, architectural and infrastructure sectors, mainly of public interest, which today plays an essential role in the planning, execution and management of works, allowing significant savings in time and costs, as it encourages collaboration between the professionals involved throughout the life cycle of a work and ensures access to constantly updated information, reducing the percentage of errors and the number of changes.

¹⁹ The PNRR, approved on 13 July 2021 with the implementing decision of the Council of the European Union, includes an annex with ambitious objectives regarding the digital transition of the public administration, with particular reference to e-procurement. See G. Carlotti, I principi nel Codice dei contratti pubblici: la digitalizzazione, in Giustizia Amministrativa, 26 April 2023. ²⁰ Report on the state of implementation of the National Recovery and Resilience Plan of the Court of Audit ("Relazione sullo stato di attuazione del Piano Nazionale di Ripresa e Resilienza della Corte dei Conti"), drawn up pursuant to art. 7, paragraph 7, of Legislative Decree of 31 May 2021, no. 77, converted with amendments by Law of 29 July 2021, no. 108 of November 2023.
²¹ Sentence contained in art. 22, par. 1, according to

which "The national digital procurement ecosystem (eprocurement) is made up of the platforms and digital infrastructure services enabling the management of the life cycle of public contracts, as referred to in Article 23, and the digital procurement platforms used by contracting authorities, as referred to in Article 25".

digital management of all phases of the contract life cycle).

2. The main innovations resulting from the digitalization of the entire life cycle of public contracts

The new Code undoubtedly has the merit of revising the existing complex legal and technological material and of giving it an overall vision. We are faced with a single, albeit sectoral, regulatory framework.

The move to e-procurement means rethinking the entire lifecycle of a public contract from a legal and organizational point of view, in order to take advantage of the changes brought about by ICT.²²

As highlighted above, the main innovation introduced by Legislative Decree no. 36/2023 is that digitalization is not limited to some phases of the public-contract lifecycle, but extends to the entire procedure, including its execution. It therefore has a positive impact on public contracts at every stage of their life cycle, and determines a more concrete implementation of the principles of good performance and efficiency of administrative action, especially in terms of simplification and standardisation of procedures.

The National Database of Public Contracts (art. 23, NDPC),²³ which is the exclusive property of ANAC²⁴ ("Autorità Nazionale Anti Corruzione"), is the beating heart of e-procurement and provides the services and information necessary to carry out the phases of the entire life cycle of public contracts.

It interacts, on the one hand, with the certified platforms used by the contracting authorities and, on the other hand, with the governmental databases that contain the information necessary for the contracting and awarding authorities to manage the different phases of the life cycle of public contracts.²⁵

²² M. Pignatti, La digitalizzazione e le tecnologie informatiche per l'efficienza e l'innovazione nei contratti pubblici, in Federalismi.it, 20 April 2022, 21.
²³ The operating motheds of the DDNOS.

The legislation on the national public-procurement database came into force on 1 January. It is a tool that allows the contracting authority to simplify and speed up procedures and, thanks to the network it forms with other public databases, ²⁶ to check immediately the needs of the economic operators involved.

In this process of digital transformation, ANAC and the AgID²⁷ assume the role of undisputed protagonists.

The advent of digitalization has brought about significant changes in the legal advertising of tenders and public-procurement notices at the European and national levels.

From 1 January 2024, the ANAC will become a national e-sender for advertising in Europe, i.e. the only body responsible for sending notices to the EU Publications Office. As a result, contracting authorities and awarding bodies will no longer have to organize this transmission themselves.

As far as legal advertising is concerned, the legal-advertising platform set up at the BDNCP replaces the Official Gazette of the Italian Republic, a special series relating to public contracts. Consequently, notices relating to procedures launched after 1 January 2024 will be published on the BDNCP's legal-notice platform and will have legal effect from the date of publication on the platform.²⁸

Legal advertising is free, so there are no longer any costs for economic operators, contracting authorities or awarding bodies.²⁹

²³ The operating methods of the BDNCP are laid down in the provision pursuant to art. 23 of the Code, adopted by resolution no. 261 of 20 June 2023, available on the ANAC website at www.anticorruzione.it/-/delibera-n.-261-del-20-giugno-2023-provvedimento-art-23-bdncp.

Pursuant to Article 62 bis of the Digital Administration Code, which enables the national e-procurement ecosystem.
 For example, the register of natural and legal persons

managed by the Revenue Agency, the Index of Public Administrations (IPA) managed by the AgID, the register of companies and the registers of chambers of commerce created and managed by InfoCamere.

²⁶ It is a networking tool that allows to check the requirements of economic operators, speed up procedures and ensure compliance with the law.

²⁷ "Agenzia per l'Italia Digitale". Its mission is to coordinate administrations in the implementation of the Three-Year Plan for Public Administration IT and to promote the digital transformation of the country.
²⁸ ANAC website *Digitalizzazione dei contratti pubblici*

available at: www.anticorruzione.it/-/digitalizzazione-contratti-pubblici.

contratti-pubblici.
²⁹ The methods of carrying out legal advertising in the National Database of Public Contracts are governed by the provision ex article 27 of the Code, adopted in agreement with the Ministry of Infrastructure and Transport with Resolution no. 263 of 20 June 2023, available on the ANAC website www.anticorruzione.it/-/delibera-n.-263-del-20-giugno-2023-provvedimento-art.-27-pubblicit%C3%A0-legale. Further information on the fulfilment of the legalpublicity obligations for procedures initiated before 31 December 2023 can be found in the press release issued in agreement with the Ministry of Infrastructure and Transport with resolution no. 582 of 13 December 2023, available on the ANAC website at www.anticorr uzione.it/-/delibera-n.-582-del-13-dicembre-2023-adozi one-comunicato-relativo-avvio-processo-digitalizzazione.

At this stage, the paper procedures are destined to be forgotten; every part of the procedure will be transferred to the digitalprocurement platforms, as well as some other activities.30

The new platforms must be digital natives,³¹ i.e. they must manage procurement from the planning to the execution phase in a fully computerized manner.

For public authorities and economic operators, it will be necessary to work directly on the platform in order to create digital documents at source that allow direct data collection.

The *ratio* is to simplify the administration, to make it more agile, faster and more efficient. Through digitalization, the principles of good performance, transparency and impartiality of administrative action are implemented.

Today, the need for security requires us to think of the digital system as a mandatory system, in which the administrations are legally obliged to prepare tools for the use of the platforms, accompanied by a system of sanctions.

The reform has made important progress with regard to the economic operator's virtual file.³² It is not new to our legal system,³³ but it is only now, thanks to the impetus provided by the PNRR and, more generally, by the EU, that conditions are in place to make it actually

30 For example, the advertising of offers designed to guarantee total transparency or at least to facilitate the right to access.

This is not just a simple dematerialization of adminis-

trative activities carried out by scanning paper documents, as it has often been the case in the past. G.M. Racca, La digitalizzazione necessaria dei contratti pubblici: per un'Amazon pubblica, in DPCE Online, 4674, www.dpceonline.it/index.php/dpceo available at:

nline/article/view/1183/1136

work.

The economic operator's virtual file, prepared by ANAC, is a tool that allows access to information about an economic operator regarding the fulfillment of eligibility requirements for public procurement and the absence of grounds for exclusion (for example, judicial criminal record, anti-mafia certificates or tax and social security regularity).

The economic operator can enter the data and documents contained in the file, which are then automatically updated by the certifying bodies (Ministry of Justice, Ministry of the INPS, Interior. Inail) thanks interoperability. In fact, the data can be consulted by the contracting authorities and reused in all procurement procedures involving the same economic operator.³⁴

It is a sort of electronic Curriculum Vitae of the company and of the economic operators working with the PA, allowing the economic operator to check what information the public administration has on their account. It responds to the "once only" principle as well as to simplification and cost-effectiveness.

The digitalization of public procurement guarantees the application of the principles of equal treatment, competition, transparency (art. 3 of the new Code), the traceability of tendering procedures and the integrity and confidentiality of tenders.

In particular, it makes it possible to trace and rationalize information right from the planning stage, from the analysis of needs to the obtaining of authorizations.

In fact, the complete digitalization of the procurement process leads to transparency - and therefore to a lower risk of corruption and criminal infiltration - by simplifying the administrative burden upon contracting authorities for the production and publication of data, guaranteeing greater completeness of these data and allowing their immediate use by citizens, speeding up the procedures for requesting access, and ensuring timely market monitoring in a preventive manner.

In the execution phase, digitalization reduces the workload of the project manager and allows continuous monitoring of the progress of the contract, thus reducing the

^{32 &}quot;Fascicolo informatico dell'operatore economico". It enables the contracting authorities and contracting entities to obtain documents proving that they meet the general, technical-organizational and economic-financial requirements for the award of public contracts, and economic operators to enter into the system the documents that they have to produce at their own expense. Access to the file allows the economic operators to create a repository where they can collect documents useful for their participation in public-procurement procedures.

³³ In order to allow for an increasingly streamlined and agile management of the administrative procedures related to the verification of the requirements, ANAC, with Resolution no. 464 of 27 July 2022, adopted the provision implementing art. 81 paragraph 2 of the 2016 Code, introducing the virtual file of the economic operator (FVOE), published in the Official Gazette General Series no. 249 of 24 October 2022.

³⁴ Scatta la digitalizzazione degli appalti: più trasparenza, meno burocrazia, available at: www.anticor ruzione.it/-/dal-2-gennaio-scatta-la-digitalizzazione-degl i-appalti-ecco-come-avverrà-e-cosa-cambia.

number of disputes.

It certainly has an impact on the scope of tasks: it requires the presence of specialized officials who know how to navigate digital platforms and use IT procedures.

Art. 36, paragraph 1 of the Code identifies a number of activities that must be carried out digitally. In fact, the offer of the successful economic operator, the tender reports and documents, the data and information required for the award of the contract shall be made available to all candidates and tenderers not definitively excluded through the digital procurement platform used by the contracting authority or the awarding entity, together with the digital notification of the award of the contract

Paragraph 2 of the aforementioned provision is undoubtedly peculiar in that it makes the documents referred to in paragraph 1, as well as the tenders submitted, available through the aforementioned platform to the economic operators ranked in the first five places.

This is a provision of immense importance, as it allows for the mutual control of bids, eliminating the need to exercise the right to access and thus exponentially increasing the effectiveness of the protections in favor of the economic operators.

In fact, public procurement is the area in which completeness and effectiveness of procedural guarantees have been achieved more than in any other area.

It provides for both vertical cooperation (between economic operators³⁵ and the PA) and horizontal cooperation between administrations.³⁶

A coordination structure is also provided for: the "Control room" at the Presidency of the Council (art. 221 Legislative Decree no. 36/23) with the task of supervising the system of digitalization of contracts, without prejudice to the functions of ANAC and the technical functions of AgID, as well as a help

desk,³⁹ which will support the activity of the "Control room" and which will be active for the two semesters from the date of entry into force of the Code (art. 221, par. 3 of Legislative Decree no. 36/23).

Finally, an issue closely related to digitalization is the qualification of contracting authorities and central purchasing bodies (art. 63 Legislative Decree no. 36/23): these two issues are closely related, as contracting entities, in order to be qualified, must be digitalized.⁴⁰

The qualification is a guarantee that certifies the ability of the contracting authorities to manage the activities that characterize the process of acquiring goods, services or jobs, according to the criteria of: quality, efficiency, professionalism and respect for the principles of cost-effectiveness, effectiveness, timeliness and correctness.

As from 1 July 2023, contracting authorities will have to be qualified in order to carry out procedures for the acquisition of goods and services for amounts exceeding the thresholds established for direct awards (140,000 euros) and for amounts exceeding 500,000 euros.⁴¹

⁴¹ Qualification is not required to place orders using the purchasing tools provided by purchasing centers and aggregators. Non-qualified contracting authorities must use the purchasing tools of other qualified contracting authorities or qualified central purchasing bodies or directly use the auxiliary purchasing activities of other qualified entities for amounts exceeding €500,000.

³⁹ "Sportello unico di supporto tecnico".

⁴⁰ Annex II.4, which implements articles. 62 and 63 of the Code, implements the new qualification system for contracting entities established by the Memorandum of Understanding between the Presidency of the Council of Ministers and ANAC of 17 December 2021, followed by ANAC Resolution no. 441 of 28 September 2022, which introduced the regulation of qualification requirements and the registration of contracting entities on the specific list managed by the Authority. Article 4, paragraphs 1 and 2, of Annex II.4 of Legislative Decree no. 36/2023, stipulating that, in order to be admitted to the qualification procedure for the design and award of works, contracting entities must meet the following requirements: a) registration in the Single Register of Contracting Entities (AUSA) referred to in Article 33ter of Legislative Decree no. 179 of 18 October 2012, converted and amended by Legislative Decree no. 221 of 17 December 2012; b) the presence in its organization chart of an office or structure permanently dedicated to the planning and awarding of works; c) the availability of digital-procurement platforms as referred to in Articles 25 and 26 of Legislative Decree no. 36/2023.

³⁵ Who must elect a special domicile, must be accredited on the digital platform and must also delegate the authorization and verification of data on the virtual file of the economic operator.
³⁶ Interoperability creates application problems and is,

in fact, the implementation of the principle of loyal cooperation in the context of administrative relations. Public authorities must work together to achieve a common result by making available the information databases represented by the National Digital Data Platform.

³⁸ Its composition and functioning are specified in Annex V.3.

3. From digitalization to automation of the administrative procedures: art. 30 Legislative Decree no. 36/2023

Art. 30 of the new Public Procurement Code, entitled "Use of automated procedures in the lifecycle of public contracts", puts a positive spin on the subject of automation in the context of public procurement and, more generally, in our legal system, pending the approval of the Artificial Intelligence Act⁴² by the European legislator.

The mentioned provision updates the regulatory system on the subject of public procurement: before Art. 30, there was no rule of positive law regulating the use of Artificial Intelligence (AI) by the public administration.

In fact, scholarship and caselaw argued whether the use of new technologies by the administration is a manifestation of the exercise of power (even if implicit)⁴³ or a mere organizational module of an investigative nature can be considered closed. 44

⁴² "Proposal for a regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence and amending certain union legislative acts" cd. *Artificial Intelligence Act (AIA)*. Available at: https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-laying-down-harmonised-rules-artificial-intelligence.

This is a European regulation that establishes four different levels of AI risk (unacceptable risk, high risk, limited risk, minimal risk), according to which AI applications will be categorized and consequently subjected to different levels of oversight, with the aim of ensuring that AI systems used within the European Union are fully in line with EU rights and values, ensuring human control, safety, privacy, transparency, non-discrimination and social and environmental well-being. ⁴³ In fact, some argue that "algorithmic power" is the manifestation of an implicit power which, because of the principle of legality on which administrative action is based, requires a prior attribution rule. S. Civitarese Matteucci, *Umano troppo umano. Decisioni ammini-*strative automatizzate e principio di legalità, in Diritto pubblico, 2019, 1, 1 ff.; N. Bassi, *Principio di legalità* e poteri amministrativi impliciti, Milan, Giuffrè, 2001; F. Merusi, I sentieri interrotti della legalità, in Quaderni costituzionali, 2006, 276 ff.; G. Morbidelli, Il principio di legalità e i cd. poteri impliciti, in Diritto amministra*tivo*, 2007, 703 ff.

44 However, others argue that the use of automated tools

⁴⁴ However, others argue that the use of automated tools within the administrative procedure represents a mere accessory and functional organizational module with respect to the exercise of the administrative power attributed by the primary source (Council of State, Sect. VI, 13 December 2019, No. 8472, ruled that in the face of the use of AI tools by the administration, there would be no substantial legality deficit, since the use of the algorithms would represent a specific procedural typology in which the use of automation would only represent the "modus operandi of the authoritative choice, to be carried out on the basis of the legal norm attributing the

Art. 30 is an "open" provision, referring to AI but also to other IT tools such as blockchain; in fact, it uses the generic term "technological solutions", 45 leaving leeway for the use of ever more advanced technologies in the future.

Furthermore, the legislator was very careful in defining the rule: in fact, they use the generic term "in the life cycle of public procurement".

The new Public Procurement Code, in regulating the matter, has implemented what, in the absence of a general legislative regulation, was the argumentative result of administrative caselaw, 46 especially with

power and the purposes attributed by it to the public body, holder of the power". See F. Nassuato, *Legalità algoritmica nell'azione amministrativa e regime dei vizi procedimentali*, in *Rivista interdisciplinare sul diritto delle amministrazioni pubbliche*, 1, 2022, 150 ff.; E. Cibella, *Il principio di precauzione nell'ambiente digitale*, in *PA Persona e Amministrazione*, 24 September 2023. ⁴⁵ Art. 30, par. 1 of Legislative Decree no. 36/23 "In order to improve efficiency, contracting authorities and awarding bodies shall, as far as possible, automate their activities using technological solutions, including artificial intelligence and distributed register technologies, in compliance with the specific relevant provisions".

⁴⁶ Contrary to the orientation of the administrative judge of first instance (see in particular TAR Lazio, section III bis, decision no. 9227 of 10 September 2018 and no. 10964 of 13 September 2019), who on several occasions had been asked to give his/her opinion on administrative procedures based on the use of AI tools, and that had opted for a closed attitude towards the phenomenon in question, stating that the use of algorithms by the public administration had a "servant function" which must be recognized as an "instrumental and merely auxiliary [role] within the administrative procedure and never dominating or replacing human activity", the Council of State, with the well-known decision no. 2270/2019 has declared that "the use of an IT procedure leading directly to the final decision must not be stigmatized, but rather, in principle, encouraged". The Council of State has traced for the first time the boundaries between public power and the use of AI tools, recognizing the possibility for the administration to use new technologies, albeit only in the context of limited administrative activity. Subsequently, the Council of State, in the decisions nos. 8472, 8473 and 8474 of 2019, declared that there were in fact "no reasons of principle to limit the use to restricted and not discretionary administrative activity, both expressions of authoritative activity carried out in the pursuit of the public interest". In particular, without prejudice to the need to "guarantee the traceability of the final decision to the competent authority or body on the basis of the law conferring the power", the Council has developed the so-called "principle of algorithmic legality", the violation of which would allow the public authority to be reviewed before the same administrative judge. More specifically, the principle of algorithmic legality consists of three corollaries: the principle of transparency, according to which everyone has the right to be aware of the existence of automated decisionmaking processes that concern them and, in this case, to receive significant information on the logic applied; the

regard to the principles it had already established.

In particular, art. 30, paragraph 3, codifies the principles of legibility and comprehensibility,⁴⁷ the non-exclusivity of the algorithmic decision⁴⁸ and non-discrimination.⁴⁹

Art 30 paragraph 2 1

Art. 30, paragraph 2, letter a) provides that contracting authorities and awarding bodies must ensure the availability of the source code, the relevant documentation and any other element useful for understanding the operational logic.

In this context, administrative caselaw has also had the opportunity to express itself on the issue of access to and transparency of the source code.⁵⁰ In particular, one of the first

principle of non-exclusivity of algorithmic decision, according to which, in the event that an automated decision produces legal effects that concern or significantly affect a person, the latter has the right that such decision be not based solely on the automated process; the principle of algorithmic non-discrimination, based on "Recital 71" of the GDPR, according to which the data controller should use appropriate mathematical or statistical procedures for profiling and implement appropriate technical and organizational measures to ensure, in particular, that the factors leading to inaccuracies in the data are rectified and the risk of error is minimized.

⁴⁷ According to which every economic operator has the right to be informed of the existence of automated decision-making processes concerning him/her and, in this case, to receive substantial information on the logic applied.

plied. ⁴⁸ Where there is human input into the decision-making process which can control, validate or reject the automated decision.

⁴⁹ Requiring the owner to take appropriate technical and organizational measures to avoid discriminatory effects on economic operators.
 ⁵⁰ The issue arose in the context of the extraordinary re-

cruitment procedure for teaching staff, authorized by Law no. 107 of 13 July 2015 (the "Buona scuola" reform), launched by the then Minister of Education, who, in order to organize the deployment of a very large number of teachers in different locations throughout the national territory, entrusted the procedure to a software produced by the private company HPE Servizi Srl, programmed to order, select and decide on the questions received from candidates, taking into account the preferences expressed and the legislation in force. However, as the decisions produced by the algorithm were considered to be unreasonable and incomprehensible, a significant dispute arose, in particular before administrative judges, who took the opportunity to clarify some issues, giving rise to a real body of caselaw on the use of algorithms in the administrative process. E. Carloni, Algoritmi su carta. Politiche di digitalizzazione e trasformazione digitale delle amministrazioni, in Diritto pubblico, 2019, 2, 363-392; M.C. Cavallaro and G. Smorto, Decisione pubblica e responsabilità dell'amministrazione nella società dell'algoritmo, in Federalismi.it, 2019; A. Simoncini, Profili costituzionali della amministrazione algoritmica, in Flore, 4, 2019, 1149 ff.; L. Viola, L'intelligenza artificiale nel procedimento e nel procesissues that the administrative judges⁵¹ had to deal with was the possibility of accessing the allocation algorithm on the basis of art. 22 of Law 241 of 1990, in order to understand its functioning and *modus decidendi*.

The TAR Lazio, with decision no. 3769 of 2017, stated that since the algorithm actually decides which location teachers are assigned, it essentially constitutes the administrative procedure that produces the final act and therefore gives rise to the right to access pursuant to Law no. 241/1990.⁵²

Once the right to access has been recognized, the intellectual nature of the documents whose disclosure is requested is no longer a legitimate reason for exclusion under art. 24 of Law 241/1990 and therefore cannot be opposed by the private company.

In this regard, it is also necessary to recall the General Data Protection Regulation (GDPR): "In order to ensure a consistent level of protection for natural persons throughout the Union and to prevent disparities that may hinder the free movement of personal data in the internal market, there is a need for a regulation that guarantees legal certainty and transparency for economic operators (...), offers natural persons in all Member States the same level of enforceable rights and obligations and responsibilities as data controllers and data processors, and ensures the supervision of the consistent processing of personal data" (Recital 13 GDPR). In fact, the GDPR is the most explicit regulatory link in

so amministrativo: lo stato dell'arte, in Foro amministrativo, 9, 5, 2018, 1598 ff.; F. Orecchioni, L'algoritmo in tribunale. La mobilità dei docenti ai tempi della L.107, available at: www.dirittoscolastico.it/lalgoritmo-tribunale-la-mobilita-dei-docenti-ai-tempi-del-la-l-n107; M.C. Cavallaro, Imputazione e responsabilità delle decisioni automatizzate, in Erdal Review, 1, 1-2, 2020, 69 ff

ff. ⁵¹ TAR Lazio, Section III bis, Decision no. 3769/2017; I. Forgione, *Il caso dell'accesso al software MIUR per l'assegnazione dei docenti*, in *Giornale di diritto amministrativo*, 5, 24, 2018, 647-661; L. Viola, *op. cit.*; TAR Lazio, Section III *bis*, decision no. 9227 of 10 September 2018 and no. 10964 of 13 September 2019. ⁵² In particular, it stated that the algorithm, although it

In particular, it stated that the algorithm, although it does not in itself constitute an administrative act, is substantially similar to it pursuant to art. 22 of Law no. 241/1990, since it is functional for judicial protection and an instrument for the implementation of the citizen's right to information. Consequently, the public authority has the obligation to provide not only all the instructions relating to the functioning of the algorithm in order to ensure that the functioning of the software is also comprehensible even to the common citizen, but also the source code of the algorithm. See A. Simoncini, L'algoritmo incostituzionale intelligenza artificiale e il futuro delle libertà, in BioLaw Journal, 1/2019, 63 ff.

which it is possible to trace the origin of the Institute of Algorithmic Transparency, as it represents a regulatory discipline that cuts across the entire field of law.

The role of art. 15 GDPR is then fundamental and, together with articles 13 and 14, is part of what is defined as the "Magna Carta" of the interested parties right to information. Moreover, by providing for the interested parties "right to access", it allows the recipient of an algorithmic decision to know not only what data are involved in the processing, but also the existence of an automated decision-making process to which his/her data are subjected.⁵³

The public administration purchasing an AI system must therefore: i) ensure the availability of the source code, the associated documentation and all documents useful for ensuring the operating logic; ii) ensure the comprehensibility of the IT tool and therefore guarantee an adequate level of transparency to allow the interpretation of the results; iii) include in the call for tenders clauses that oblige the supplier to provide support and maintenance in the event of malfunctions, as well as to correct any errors or distortions.

Artificial Intelligence can be used in different ways in public procedures.

One could think of a "virtual assistant of the RUP", ⁵⁴ conceived as a tool to support the activities that characterize the life cycle of the contract through the use of advanced technologies capable of providing effective support to human activity, in particular by carrying out a series of activities that lend themselves to being delegated to "intelligent machines", such as the preparation of tender documents. ⁵⁵

Another innovation is chatbots, ⁵⁶ which are computer programs designed to simulate a conversation, particularly through the use of chat or instant messaging.

Chatbots can be used in public procurement to improve efficiency, simplify the communication process and provide

assistance to users involved in different stages of the procurement cycle.

They can be used to provide information on procurement procedures,⁵⁷ assist in compiling documentation,⁵⁸ answer frequently asked questions⁵⁹ and help resolve technical issues.⁶⁰

As far as anti-corruption tools are concerned, "MePAwatch" is very important, an application that processes information on transactions carried out in the Electronic Public Administration Market (MePA)⁶¹ in the last three years, monitoring "behavioral" indicators that highlight the work of public administrations and economic operators with regard to some phenomena that can be considered risky in relation to the Internal Regulations and the Procurement Code.⁶²

Think again of the digital construction site, 63 where the ubiquitous use of technology makes it possible to translate everything that happens on the site into structured, usable and exchangeable data, thus allowing to know in real time what is happening on the site and to intervene in time. The use of AI tools would make it possible to have almost complete knowledge of the site, which would make it possible to record, monitor and manage the production process, the costs incurred by the company, the information on the progress of the work and the information on the safety and health of the workers.

The digital site is a site that is generally known in its entirety thanks to the use of

Chatbots can answer questions from bidders and suppliers about procurement procedures, requirements, deadlines and other relevant information.
 Helping bidders and suppliers complete the documen-

Helping bidders and suppliers complete the documentation required to participate in a tender. This may include guidance on completing forms, explaining requirements and assisting with the submission of bids.

59 Providing in the complete the documentation requirements and assisting with the submission of bids.

⁵⁹ Providing instant answers to common questions about procurement processes, evaluation criteria, rules and regulations.

regulations.

60 Automatically resolving or providing preliminary answers for technical issues during the online bidding process.

cess.

An online platform that allows public administrations to carry out purchases and contracts electronically, facilitating the transparency and efficiency of the procedures introduced by d.P.R. no. 101/2002, which gave public bodies the possibility of using telematic procedures for the purchase of goods and services for amounts below the Community threshold.

⁶² A. Corrado, *op. cit.*, 142.

⁶³ It refers to the application of digital technologies and IT solutions in the construction industry. The aim is to improve the efficiency, transparency and overall management of construction projects through the use of advanced technological tools.

⁵³ C. Colapietro, *Diritto alla riservatezza e principi di pubblicità e trasparenza: quale bilanciamento?*, in *Consulta Online* 22 April 2020

sulta Online, 22 April 2020.
54 "Responsabile Unico di Progetto".

⁵⁵ See A. Corrado, I nuovi contratti pubblici, intelligenza artificiale e blockchain: le sfide del prossimo futuro, in Federalismi.it, 26 July 2023, 148-152.

⁵⁶ Think of CRM Customer Relationship Management, which is the main communication and support channel for users of the Consip e-Procurement ecosystem. See A. Corrado, *op cit.*, 140-141.

hardware and software, including the use of Artificial Intelligence.⁶⁴

4. Final remarks: critical issues of the reform

The project launched by Legislative Decree no. 36/3023 is certainly very ambitious and raises many critical issues. What the new code develops is a hard digitalization, which does not consist in simple substitution of digital for paper, but which requires to rethink the administration and reformulate the administrative procedure.

The legislation is punctual, very detailed, sometimes incomplete because it leaves a lot of room for implementation and negotiation. There are many problems with the application of digitalization.

In fact, although the actual start of the reform was on 1 January, the reform is not yet effectively operational. If on the one hand the conditions of the PNRR are strict, on the other hand the timing of the Italian administration has to be taken into account.

Some administrations are still unprepared, not so much in terms of achieving full digitalization, but rather in terms of implementing forms of automation. 65

First of all, it is inconceivable to operate such a complex system without adequate training of the staff. The digital divide⁶⁶ is a phenomenon that still exists in our country, given the high average age of public-administration employees and the need to professionalize and train staff.⁶⁷ Italy ranks 25th in Europe in terms of technological and digital skills.⁶⁸

Another problem concerns the qualification

of contracting authorities: they cannot be qualified if they are not fully digitalized, with the consequence that, if this does not happen, even the provisions on digitalization in the new Code will not be successful.

Then there is the problem of the rapid obsolescence of IT tools: it must be emphasized that technology can change and evolve rapidly, posing a constant challenge to the Public Procurement Authority, as the timing of the Italian bureaucratic apparatus is often unable to keep up with technological innovation.

Today, there are still only a few certified platforms capable of digitalizing the entire contract lifecycle. The list is held by ANAC and almost all of them are already in the login test phase (preliminary phase to the request for ANAC services, which allows the creation of full interoperability).⁶⁹

In addition, certification by AgID is required to ensure confidence in the platforms' ability to manage and store data reliably.⁷⁰ So, we are late.

The main challenge of the code is undoubtedly to create real interoperability, so that the needs of companies are no longer identified by the presentation of certificates by economic operators, but by automated procedures that save precious time. Digitalization can only work if everyone works together.

For the time being, digitalization is not complete, but it is certainly an important step that represents a point of no return. It is the beginning of a journey that will take many years. There is still a lot of work to be done.

This is certainly an opportunity for improvement, for dynamism in the system and for innovation.

⁶⁴ Think of the Building Information Modeling mentioned above, or the glocalization and GPS devices that, when implemented with AI, can improve the accuracy of plan creation, allowing for better management of resources and more accurate planning of activities on site.
⁶⁵ It is no coincidence that the transitional regime has been sufficiently long and spread out over the course of

²⁰²³ to allow time for the administration to adapt.

66 Disparities in access and use of information and communication technologies (ICT) can relate to various aspects, including access to digital resources, the technical skills of staff, the efficiency of online services offered and transparency in the use of information technologies.

nologies.

67 J.B. Auby, *Il diritto amministrativo di fronte alle sfide digitali*, in *Istituzioni del Federalismo*, 3, 2019, 643 ff.

68 CorCom, Desi 2021: *l'Italia sale di cinque posizioni*

ma resta lo "scoglio" competenze digitali, available at: www.corrierecomunicazioni.it/digital-economy/desi-20 21-litalia-sale-di-cinque-posizioni-ma-resta-lo-scoglioco mpetenze-digitali.

⁶⁹ The tests are encountering some technical difficulties and however there are deadlines to comply with: to obtain certification the process must be completed, otherwise registration on the ANAC list is not possible.

Art. 26 new "technical rules" code, according to which "1. The technical requirements of the digital procurement platforms, as well as the compliance of these platforms with the provisions of article 22, paragraph 2, shall be established by AGID, in agreement with ANAC and the Presidency of the Council of Ministers, Department of Digital Transformation, within sixty days from the date of entry into force of the Code. 2. The same provision referred to in paragraph 1 shall establish the procedures for the certification of digital procurement platforms. 3. The certification of digital procurement platforms issued by AGID allows them to be integrated into the services of the national public procurement database. ANAC will maintain and manage the register of certified platforms".