

**STRENGTHENING ANTICORRUPTION VIA DIGITAL  
TRANSFORMATION IN ITALY. CRITICAL ISSUES AND  
PERSPECTIVES**

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## 1. INTRODUCTION

Although it is quite recent respect to criminal law<sup>2</sup>, an analysis of the Italian system of corruption prevention may be interesting for the strengthening of a European anti-corruption strategy<sup>3</sup>. Its digital evolution shows an integration between several tools, to guarantee overall good administration<sup>4</sup>.

At an international level a broad notion of corruption (“*the misuse of entrusted power for private benefit*”) is widely used<sup>5</sup>, and recently shared by the European

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<sup>2</sup> Unlike administrative prevention, the repressive strategy against corruption has been known since ancient times. Already in 70 BC., Cicero delivered the *Orationes in Verrem* to accuse the Sicily *propraetor* of the “*crimen de pecuniis repetundis*”, one of the most serious crimes in the Roman Republic.

<sup>3</sup> EU Commission, *Proposal for a directive on combating corruption, replacing Council Framework Decision 2003/568/JHA and the Convention on the fight against corruption involving officials of the European Communities or officials of Member States of the European Union and amending Directive (EU) 2017/1371*, COM/2023/234 final; EU Commission, High Representative of the Union for Foreign Affairs and Security Policy, *Joint communication on the fight against corruption*, JOIN(2023) 12 final, 3 May 2023.

<sup>4</sup> A. PIOGGIA, M.G. PACILLI, F. MANNELLA, *Good Administration, Integrity and Corruption*, in E. CARLONI, M. GNALDI (eds.), *Understanding and Fighting Corruption in Europe. From Repression to Prevention*, Springer, Cham, 2021, 73 et seq.; J. PONCE, *Preventing corruption through the promotion of the right to good administration*, and F. MANNELLA, *Corruption and the right to good administration*, in E. CARLONI, D. PAOLETTI (eds.), *Preventing corruption through administrative measures*, Morlacchi, Perugia, 2019, respectively 61 et seq., 137 et seq.

<sup>5</sup> Notion widespread especially by Transparency International and the World Bank, concept so vague to fit into every national context: J. POPE, *Confronting Corruption: The Elements of a National Integrity System*, Transparency International Source Book, 2000, 1; R. MESSICK, R. KLEINFELD, *Writing an Effective Anticorruption Law*, PREM Notes, no. 58, 2001. See: S.R. ACKERMAN, *Corruption and Government. Causes, Consequences, and Reform*, Cambridge University Press, Cambridge, 1999; M. DE BENEDETTO, *Corruption from a Regulatory Perspective*, HART, Oxford, 2021, 33-34; G.M. RACCA, R. CAVALLO PERIN, *Corruption as a violation of fundamental rights*, in G.M. RACCA, C.R. YUKINS (eds.), *Integrity and efficiency in sustainable public contracts: balancing corruption concerns in public procurement internationally*, Bruylant, Bruxelles, 2014, 42 et seq.

Commission<sup>6</sup>. In Italy, in addition to crimes against public administration, the notion includes more general violations of impartiality, but also of good performance. These are principles that are enshrined in art. 97 of the Italian Constitution.<sup>7</sup>

The United Nations Convention against Corruption (UNCAC), signed in Mérida in 2003, imposed a radical perspective change<sup>8</sup>, integrating the repressive approach of fighting corruption<sup>9</sup> with preventive policies<sup>10</sup>. The Convention was ratified by Italy in 2009<sup>11</sup> and the legislation has been implemented starting from the Anti-corruption Law of 2012<sup>12</sup>.

In a decade, some significant events in Italian anti-corruption legal system have taken place: the creation of a specific independent administrative authority (also in charge of monitoring of public procurement); the Covid-19 pandemic and the subsequent implementation phase of the National Recovery and Resilience Plan (PNRR). In particular,

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<sup>6</sup> *Joint communication on the fight against corruption*, cit., par. 1.

<sup>7</sup> ANAC, National Anticorruption Plan 2019 (PNA 2019), decision no. 1064, 13 November 2019, 12.

<sup>8</sup> Previous treaties, such as the Council of Europe Conventions (the Criminal one, 1997, and the Civil one, 1999) and the OECD Convention (1997), were dedicated only to the repression of corruption. See: G.M. RACCA, R. CAVALLO PERIN, G.L. ALBANO, *Public Contracts and International Public Policy Against Corruption*, in M. AUDIT, S.W. SCHILL (eds. by) *Transnational Law of Public Contracts*, Bruxelles, Bruylant, 2016, 845 et seq.

<sup>9</sup> R. CANTONE, E. CARLONI, *Limits of Corruption Repression and New Prevention Policies*, in E. CARLONI, M. GNALDI (eds.), *Understanding and Fighting Corruption in Europe*, cit., 5 et seq.; M. DE BENEDETTO, *Corruption from a Regulatory Perspective*, cit., 67-68; B. ROTHSTEIN, *Controlling Corruption. The Social Contract Approach*, Oxford University Press, Oxford, 2021, 152.

<sup>10</sup> Art. 5, par. 1, UNCAC, 867 et seq.

<sup>11</sup> Law 3 August 2009, no. 116.

<sup>12</sup> Law no. 190 of 6 November 2012. See: B.G. MATTARELLA, *The Italian efforts on anti-corruption*, in G.M. RACCA, C.R. YUKINS (eds.), *Integrity and efficiency in sustainable public contracts*, cit., 61 et seq.

the pandemic had a heavy impact on regulations and performance of public contracts<sup>13</sup>: transparency<sup>14</sup> and digitalisation have been identified as tools to ensure integrity in emergency<sup>15</sup>. The Recovery Plan included the revision of public procurement legislation, which led to the enactment of the new Public Contracts Code<sup>16</sup>. Instead, the reform concerning anti-corruption and transparency, expected by June 2021, has not yet been implemented<sup>17</sup>.

Therefore, after such cross-contaminations between national, European, and international principles of administrative law<sup>18</sup>, the analysis of the Italian anti-corruption

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<sup>13</sup> ANAC, *L'Autorità e l'emergenza Covid-19*, annex to *Relazione annuale 2019*, 2 July 2020; G.M. RACCA, C.R. YUKINS, *Emergency procurement and corruption*, in S. WILLIAMS, J. TILLIPMAN (eds.), *Routledge Handbook of Public Procurement Corruption*, Routledge, Oxon-New York, 2024, 76 et seq.

<sup>14</sup> L. FOLLIOT LALLIOT, C.R. YUKINS, *COVID-19: Lessons learned in public procurement. Time for a new normal?*, in *Concurrences*, 2020, 3, 46 et seq.; E. CARLONI, *La trasparenza come risposta all'emergenza*, in ANAC web site, 29 April 2020, at [link](#).

<sup>15</sup> ANAC, *Strategie e azioni per l'effettiva semplificazione e trasparenza nei contratti pubblici attraverso la completa digitalizzazione: le proposte dell'Autorità*, 27 May 2020; L. DONATO, M. MARICONDA, M. MIRRONE, *La digitalizzazione possibile degli appalti pubblici. L'analisi della Banca d'Italia per l'Anac sulle prospettive dell'e-procurement*, in *Astrid Rassegna*, 2020, 8.

<sup>16</sup> Legislative Decree 31 March 2023 no. 36.

<sup>17</sup> This reform was not included among the priorities listed in the European decision which approved the Italian PNRR: European Council, doc. 10160/21, 13 July 2021. The transparency and anti-corruption bill, drawn up in last years by a commission chaired by prof. B.G. Mattarella, is still pending at the Department of Public Function.

<sup>18</sup> R. FERRARA, *Introduzione al diritto amministrativo. Le pubbliche amministrazioni nell'era della globalizzazione*, Laterza, Roma-Bari, 2014, 209.

regulation will be provided. This seems of interest also for other jurisdictions<sup>19</sup> due to its approach<sup>20</sup>, its strategies of digitalisation and data analysis<sup>21</sup>.

Furthermore, it will be underlined how the Italian anti-corruption system is strongly connected with the monitoring of public procurement, considered a risky area of corruption, together with healthcare and land management<sup>22</sup>. For this reason, the main examples of digital tools to guarantee integrity and efficiency can be found particularly the in procurement sector.

## **2. CORRUPTION PREVENTION VIA DIGITAL TRANSFORMATION**

The digitalisation is a powerful tool against corruption: it is no longer a matter of intuition; there are specific studies on this issue<sup>23</sup>. Comparing the Digital Economy and

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<sup>19</sup> See the bilateral and multilateral international relations held by ANAC, in its annual reports to Parliament; R. CANTONE, N. PARISI, *L'Autorità Nazionale Anticorruzione e la vita di relazione internazionale. L'esperienza innovativa di ANAC dal 2014 al 2020*, ESI, Napoli, 2021, 101 et seq.

<sup>20</sup> Italian chapters of the *Rule of Law Reports* by the EU Commission (see below, par. 3); B. BOSCHETTI, *Pathways of anti-corruption law in the global arena*, in *JusOnline*, 2018, 1, 366 et seq.

<sup>21</sup> In the sense proposed in the conferences organized by the University of Turin with ANAC: “Semplificare, integrare, digitalizzare. Giornata della trasparenza 2023”, 9 March 2023 (video available at [link](#)) and “L’Autorità Nazionale Anticorruzione e l’Università degli Studi di Torino per nuovi modelli di amministrazione intelligente”, 1 October 2019 (video available at [link](#)).

<sup>22</sup> On digitalisation as a tool for good administration in these sectors, see: G. SDANGANELLI, *Liability Issues in Data-driven Healthcare and Harmonisation Efforts in Europe*; M. DEMICHELIS, *The Digital Evolution of Urban Planning and Land-Use Management in Italy*, both in this *Journal*, 2022, issue no. 2.

<sup>23</sup> P. COPPOLA, + *Digitale – Corruzione + Democrazia. La trasformazione digitale della pubblica amministrazione*, Maggioli, Santarcangelo di Romagna, 2022.

Society Index (DESI)<sup>24</sup> and the Corruption Perception Index<sup>25</sup>, a one-to-one deadlock relationship is found. Inefficiency and corruption could be fought through information technology but, at the same time, the development of digital potential is hampered by inefficiency and corruption<sup>26</sup>. The data shows that the rankings on digital transformation and the perception of good administration essentially coincide<sup>27</sup>.

Data, traceable and accessible, record all the administrative activities, making monitoring of public organizations and transparency towards citizens feasible<sup>28</sup>. Digitalisation rationalizes the points of contact between public and private, thereby

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<sup>24</sup> In the ranking, Italy is gaining points. In 2022, it will be in 18th place among the countries of the Union: EU Commission, *Digital Economy and Society Index (DESI) 2022. Italy*. It remains behind in terms of implementing the once-only principle: *Digital Economy and Society Index (DESI) 2022. Thematic chapters*, 67 et seq.

<sup>25</sup> Italy ranked 42<sup>nd</sup> in 2023, earning 14 points since 2012: <https://www.transparency.org/en/cpi/2023>

<sup>26</sup> G. MASSARO, M. MASULLI, G. SGUEO, *Italia interrotta: il peso della corruzione sulla crescita economica*, Studio I-Com per Riparte il Futuro, 2018, 57.

<sup>27</sup> B. BOSCHETTI, B. CELATI, *La buona amministrazione*, Laboratorio Futuro, Istituto Toniolo, RecoveryLab, Università Cattolica, Milano, 6 et seq. The theories according to which corruption promotes efficiency (“greasing the wheels”) have been refuted: E. CARLONI, P. POLINORI, D. DAVID, *Public Procurement and Corruption: Perspectives, Rules, Experiences*, in E. CARLONI, M. GNALDI (eds.), *Understanding and Fighting Corruption in Europe*, cit., 127 et seq.; M. DE BENEDETTO, *Corruption from a Regulatory Perspective*, cit., 63-64.

<sup>28</sup> OECD, *Analytics for Integrity. Data-Driven Approaches for Enhancing Corruption and Fraud Risk Assessments*, 2019. See: B. PONTI, A. CERILLO-I-MARTÍNEZ, F. DI MASCIÒ, *Transparency, Digitalization and Corruption*, in E. CARLONI, M. GNALDI (eds.), *Understanding and Fighting Corruption in Europe*, cit., 97 et seq.; M. TRAPANI, *La prevenzione e il controllo della corruzione e dell’etica pubblica mediante l’utilizzo delle nuove tecnologie*, in *Forum di quaderni costituzionali*, 2018, 4 et seq.

facilitating the improvement of the quality of administrative activity for those who act in an honest manner and reducing the spaces for those who engage in corrupt practices<sup>29</sup>.

The native digital formation of documents can streamline administrative activities and processes by reducing duplications, because they allow the direct acquisition and verification of information. From an organizational point of view, the collection and analysis of data are essential for re-engineering administrative processes, and for redistribution of skills among offices. Technological tools could reduce and simplify even the same anti-corruption obligations and controls: one case is the application of transparency by default, which saves officials from the manual uploading work of data or the management of access requests<sup>30</sup>.

The digital strengthening of controls, starting from mapping and planning, is part of a risk management strategy, to use them efficiently and effectively<sup>31</sup>, and to correct deficiencies in real time<sup>32</sup>.

And finally, as other complex systems, public administration finds properly in the use of big data the main tool for governance and correct exercise of (ineliminable)

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<sup>29</sup> I. ADAM, M. FAZEKAS, *Are emerging technologies helping win the fight against corruption? A review of the state of evidence*, in *Information Economics and Policy*, 2021, 57, 5.

<sup>30</sup> See below, par. 4.1.

<sup>31</sup> M. DE BENEDETTO, *Corruption and controls*, in *European Journal of Law Reform*, 2015, 4, 488, who underlines that controls have a hybrid nature, a way to fight corruption, but also an opportunity for corrupt transactions.

<sup>32</sup> According to the Deming cycle (PDCA: “*plan, do, check, act*”): G. GALLONE, *La prevenzione amministrativa del rischio corruzione*, in *Dir. econ.*, 2018, 357 et seq. In general: B.L. BOSCHETTI, *La de-strutturazione del procedimento amministrativo, Nuove forme adattive tra settori e sistemi*, ETS, Pisa, 2018, 195 et seq.

discretionary powers<sup>33</sup>. For this reason, the organization of public information technology is necessary, avoiding the single agency approach, which undermines the public cognitive function. In this sense, the European Union is creating a common data space which could have significant implications on the corruption prevention<sup>34</sup>.

### **3. DIGITAL PERSPECTIVES IN THE INTERNATIONAL AND EUROPEAN ANTI-CORRUPTION FRAMEWORK**

In 190 States Parties, the systems to prevent corruption are based on minimum objectives set by UNCAC. It obliges to establish independent bodies for the prevention of corruption<sup>35</sup>, not imposing a particular organizational form. It only states that it must be guaranteed the necessary independence through material resources and specialized staff<sup>36</sup>. Thus, in some cases, the anti-corruption bodies act only with preventive policies; in others, they exercise also repressive powers. The degree of their autonomy may also vary.

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<sup>33</sup> P. BORDALO FAUSTINO, *Regulating discretion in public procurement: an anti-corruption tool?*, in G.M. RACCA, C.R. YUKINS (eds.), *Integrity and efficiency in sustainable public contracts*, cit., 147 et seq.; V. BRIGANTE, *Law enforcement against corruption in Italian Public procurement, between hetero-imposed Measures and procedural solutions*, in *Italian Journal of Public Law*, 2019, 1, 334 et seq.; M. DE BENEDETTO, *Corruption from a Regulatory Perspective*, cit., 42.

<sup>34</sup> EU Commission, Communication: *A European strategy for data*, COM(2020) 66, 19 February 2020, *Appendix*, which provides for data spaces in Health; Industrial & Manufacturing; Agriculture; Finance; Mobility; Green Deal; Energy; Public Administration (including procurement); Skills. See below, last paragraph.

<sup>35</sup> Art. 6, par. 1, UNCAC.

<sup>36</sup> *Ibid.*, art. 6, par. 2.



Sometimes, they are associated with other institutions (Courts, Parliament, ministerial offices, etc.)<sup>37</sup>.

The Convention requires these authorities to pursue two fundamental goals: to apply effective and coordinated corruption prevention policies, also promoting the participation of society<sup>38</sup>, and to increase and disseminate knowledge about the prevention of corruption<sup>39</sup>. This apparently secondary function is even placed on the same level as the anti-corruption policies, as part of the mission of the bodies. Against a widespread and elusive phenomenon such as corruption, large public knowledge and information is required to monitor public institutions, and to guarantee transparency towards the whole community<sup>40</sup>.

Although the Mérida Convention does not yet expressly mention digitalisation as a tool for preventing corruption, in 2015 the Conference of the States Parties to the Convention reread many of its articles in the perspective of technological progress<sup>41</sup>. Emphasizing the

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<sup>37</sup> OECD, *Specialised Anti-corruption Institutions. Review of Models. Anti-corruption Network for Eastern Europe and Central Asia*, Paris, 2008. See: F. MERLONI, *Corruption and Public Administration. The Italian Case in a Comparative Perspective*, Routledge, Oxon-New York, 2019, 9 et seq.; M. PIERRI, *Autorità indipendenti e politiche di contrasto alla corruzione: esperienze europee a confronto*, in *DPCE online*, 2021, 2, 2323 et seq.

<sup>38</sup> *Ibid.*, art. 5, par. 1 and art. 6, par. 1, lett. b).

<sup>39</sup> *Ibid.*, art. 6, par. 1, lett. b).

<sup>40</sup> V. BRIGANTE, *Evolving pathways of administrative decisions. Cognitive activity data, measures and algorithms in the changing administration*, Editoriale Scientifica, Napoli, 2019; M. FALCONE, *Ripensare il potere conoscitivo pubblico tra algoritmi e Big Data*, Editoriale Scientifica, Napoli, 2023; S. ROSSA, *Contributo allo studio delle funzioni amministrative digitali. Il processo di digitalizzazione della Pubblica amministrazione e il ruolo dei dati aperti*, Wolters Kluwer-CEDAM, Milano, 2021.

<sup>41</sup> Sixth session of the Conference of the States Parties to the United Nations Convention against Corruption, Resolution no. 6/7, *Promoting the use of information and communications technologies for the implementation of the United Nations Convention against Corruption*, November 2015.

importance of respecting and promoting the freedom to seek, receive, publish and disseminate information<sup>42</sup>, it required establishing accessible online mechanisms for providing information to the appropriate bodies and open data<sup>43</sup>.

In the international context, the OECD also has dealt with the prevention of corruption through recommendations on public integrity, transparency and monitoring tools based on reliable data collection systems<sup>44</sup>. These acts are non-binding but can still have a positive impact as moral persuasion. Moreover, recently, OECD introduced an open digital system of indicators which measure the institutional response of countries in implementing public integrity<sup>45</sup>, and conducted a survey on the degree of use of generative AI tools for anti-corruption in 39 countries<sup>46</sup>.

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<sup>42</sup> *Ibid.*, premises.

<sup>43</sup> *Ibid.*, par. 4-5. Relating to public procurement, UNCAC itself requires the States to create “*appropriate systems*” for the stipulation of contracts “*effective, inter alia, in preventing corruption*”, with obligations of publicity, transparency and responsible management of public expenditures (art. 9, par. 1). Recently, see the resolution of the Tenth session of the Conference of the States Parties to the United Nations Convention against Corruption, *Promoting transparency and integrity in public procurement in support of the 2030 Agenda for Sustainable Development*, 15 December 2023.

<sup>44</sup> OECD, *Recommendation on Public Integrity*, 2017, point 3. With a specific focus on infrastructures and public procurement: *Recommendation of the Council on Public Procurement*, 2015; *Reforming Public Procurement: Progress in Implementing the 2015*, 2019; *Recommendation of the Council on the Governance of Infrastructure*, 2020; *Managing risks in the public procurement of goods, services and infrastructure*, 2023.

<sup>45</sup> <https://oecd-public-integrity-indicators.org/>

<sup>46</sup> OECD, *Generative AI for anti-corruption and integrity in Government. Taking stock of promise, perils and practice*, Artificial Intelligence Papers, no. 12, March 2024, which presents some experiments concern the use of AI to automate operational efficiency, conduct unstructured data analysis, monitor regulatory compliance.

Until now, the European Union had not established a common legal framework for the prevention of corruption, although the Treaties entitle it of issuing directives to combat transnational crimes (hence corruption)<sup>47</sup>, to prevent crime<sup>48</sup> and protects the right of good administration<sup>49</sup>.

Nevertheless, an indirect basis for the obligation of Member States to prevent corruption can be identified<sup>50</sup>: such as in the transparency and efficiency standards set by the public procurement directives<sup>51</sup>, or in the principle of sound financial management which requires the fight and prevention of fraud and any other illegal activities affecting the financial interests of the Union<sup>52</sup>.

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<sup>47</sup> Art. 83, TFEU.

<sup>48</sup> Art. 84, TFEU.

<sup>49</sup> Art. 41 of the Charter of Fundamental Rights of the European Union. See: P. CRAIG, *Article 41 – The Right to Good Administration*, in S. PEERS, T. HERVEY, J. KENNER, A. WARD (eds.), *The EU Charter of Fundamental Rights. A Commentary*, Hart, Oxford, 2021, 1125 et seq.; H.C.H. HOFMANN, G.C. ROWE, A.H. TÜRK, *Administrative Law and Policy of the European Union*, Oxford University Press, Oxford, 2011, 143 et seq.

<sup>50</sup> C. BENETAZZO, *ANAC e sistema europeo dei contratti pubblici*, Giappichelli, Torino, 2020, 190-191; G.M. RACCA, *Public Procurement and Corruption: the EU challenges*, in E. CARLONI, D. PAOLETTI, *Preventing corruption through administrative measures*, cit., 95.

<sup>51</sup> R. CANTONE, N. PARISI, *L'Autorità Nazionale Anticorruzione e la vita di relazione internazionale*, cit., 76-77; E. CARLONI, *L'anticorruzione e la trasparenza nel sistema di procurement pubblico: tendenze e prospettive ai tempi del PNRR*, in *Dir. amm.*, 2022, 3, 647 et seq.; G.M. RACCA, *The role of third parties in the execution of public contracts*, in L. FOLLIOT-LALLIOT - S. TORRICELLI (eds), *Contrôle et contentieux des contrats publics - Oversight and remedies in public contracts*, Bruylant, Bruxelles, 2017, 415 et seq.

<sup>52</sup> Artt. 310 and 325, TFEU. See: P. SZAREK-MASON, *OLAF: The anti-corruption policy within the European Union*, in J.-B. AUBY, E. BREEN, T. PERROULD (eds.), *Corruption and Conflict of Interest. A Comparative Law Approach*, Edward Elgar, Cheltenham, 2014, 288-289.

On 3<sup>rd</sup> May 2023 the Commission, involved by the European Network for Public Ethics (ENPE)<sup>53</sup>, presented the proposal for a directive on anti-corruption<sup>54</sup>. Based on UNCAC<sup>55</sup>, the Commission is tasked with providing support and coordination, also through the preparation of an overview of sectoral risks of corruption in the Union and the facilitation of the information exchange among Member States and experts across the Union<sup>56</sup>. In addition to the cooperation in the fight against corruption between national authorities, Europol, Eurojust, the European Public Prosecutor's Office, the European Anti-Fraud Office (OLAF) and the Commission<sup>57</sup>, the draft requires Member States to collect, publish and communicate to the Commission statistical data on corruption crimes<sup>58</sup>.

These provisions emphasize the information function on corruption. However, the draft limits this data collection only to the repressive phase of investigations, trials, and convictions, not exploiting its potential for prevention<sup>59</sup>. Nevertheless, the communication accompanying the proposal requires the digitalisation and the open competition in a

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<sup>53</sup> European Network for Public Ethics, *Position paper of the European Network for Public Ethics on the European Union anti-corruption package*, April 2023. On the ENPE (in French: *Réseau Européen d'Éthique Publique*), established in Paris on 10 June 2022, see: S. LEVSTIK, *Understanding anti-corruption networks: structure and functions*, in this issue of the *Journal*.

<sup>54</sup> EU Commission, *Proposal for a directive on combating corruption*, cit. See: Hearing of President of ANAC, Camera dei deputati, 18 July 2023.

<sup>55</sup> Access to information, management of conflicts of interests, transparency on assets of officials and interaction between private and public sectors are subject of attention: art. 3, par. 3 of the Proposal for a directive, cit.

<sup>56</sup> *Ibid.*, art. 25, par. 2.

<sup>57</sup> *Ibid.*, art. 24.

<sup>58</sup> *Ibid.*, art. 26, par. 2.

<sup>59</sup> Hearing of President of ANAC, 18 July 2023, cit.

transparent environment, conducted by trained professionals to shutting down opportunities for corruption, especially in public procurement<sup>60</sup>.

So far, the Commission has already dealt with corruption in the *Rule of Law Reports*, with attached national chapters, that might have a persuasive role towards the Member States. In the Italian chapter of the 2021 Report, the Commission mentioned among best practices ANAC, as “*the main entity in charge of the prevention of corruption within the public administration supervising the adoption of the local three-year anti-corruption plans*”; the National Anti-Corruption Plan (PNA), as an aid to the definition and implementation of the three-year plans of each administration and the monitoring system of the plans themselves, implemented through a platform for collecting the relevant data; the implementation of the National Database of Public Contracts (BDNCP) in order to prevent corruption risks especially in conjunction with the pandemic emergency<sup>61</sup>.

Both the 2022 and 2023 reports highlight the link between the fight against corruption and the access to relevant information and interconnection of databases to carry out financial investigations, with efficient cooperation between financial intelligence units and tax, audit, and competition authorities<sup>62</sup>. With reference to Italy, the first recommends continuing effective operations of prosecution service against corruption, including by enhancing digitalisation and interconnection of registries<sup>63</sup>; the second (apart from the doubts regarding the draft law on the abolition of the offence of abuse of public office, which could

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<sup>60</sup> *Joint communication on the fight against corruption*, cit., par. 3.2.

<sup>61</sup> EU Commission, *2021 Rule of Law Report. Country Chapter on the rule of law situation in Italy*, par. II.

<sup>62</sup> EU Commission, *2022 Rule of Law Report*, par. 2.2 and *2023 Rule of Law Report*, par. 2.2.

<sup>63</sup> EU Commission, *2022 Rule of Law Report. Country Chapter on the rule of law situation in Italy*, par. 2.

impact the effective detection of and fight against corruption<sup>64</sup>), underlines the relevance of connecting BDNCP with the register of beneficial owners to implement anti-money laundering regulations<sup>65</sup>.

#### **4. DIGITAL TOOLS OF THE ITALIAN ANTI-CORRUPTION SYSTEM**

The digitalisation and data collection have always characterized the Italian institutions dealing with the prevention of corruption. Already the Anti-Corruption Law of 2012 linked the prevention of corruption with the opening of data, permitting also citizens to verify correct use of public resources<sup>66</sup>.

The first analysis of public contracts data, using corruption risk indicators, was carried out by a working group established by the Commission on Integrity and Transparency

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<sup>64</sup> The Commission refers to the opinions of the National Magistrates Association, the National Anti-Mafia Prosecutor, the former President of ANAC, and the Deputy Prosecutor in Rome.

<sup>65</sup> EU Commission, *2023 Rule of Law Report. Country Chapter on the rule of law situation in Italy*, par. II. See the Decree of 29 September 2023 of the Ministry of Business and Made in Italy on the Italian Register of Beneficial Owners. The operation of the register is currently suspended due to pending disputes (order of the Council of State, no. 3533 of 17 May 2024).

<sup>66</sup> G.M. RACCA, *La prevenzione e il contrasto della corruzione nei contratti pubblici (art. 1, commi 14-25, 32 e 52-58)*, in B.G. MATTARELLA, M. PELISSERO (eds.), *La legge anticorruzione. Prevenzione e repressione della corruzione*, Giappichelli, Torino, 2013, 126.

(CIVIT) and the Public Contracts Authority (AVCP) in 2013<sup>67</sup>, and the current ANAC<sup>68</sup> continues to collect and use data to carry out its functions of prevention and supervision on public procurement<sup>69</sup>.

In 2016, the unification of databases required rules harmonization on transparency, publicity, traceability of tender procedures, also to fight against corruption<sup>70</sup>. This was considered a basic element for the legitimation and independence of the new Anti-Corruption Authority<sup>71</sup>, in order not to be captured, having a plurality of data sources, as well as for implementing openness towards other institutions, civil society, citizens and scientific research<sup>72</sup>.

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<sup>67</sup> ANAC, *Rapporto sul primo anno di attuazione della legge n. 190/2012*, 21-22.

<sup>68</sup> Law-Decree 24 June 2014 no. 90, art. 19, which established the merger by incorporation of CIVIT and AVCP, forming the current ANAC. See: F. MERLONI, *Corruption and Public Administration*, cit., 29 et seq.; G.M. RACCA, *Dall'Autorità sui contratti pubblici all'Autorità nazionale anticorruzione: il cambiamento del sistema*, in *Dir. amm.*, 2015, 2-3, 345 et seq.; M. PIGNATTI, *Autorità Nazionale Anticorruzione (ANAC)*, in *Dig. pubbl., Aggiornamento*, 2017, 73 et seq.

<sup>69</sup> Hearing of President of ANAC, Senato della Repubblica, 21 October 2021; B. BOSCHETTI, N. BERTI, *La prevenzione della corruzione nei contratti pubblici a dieci anni dalla l. n. 190/2012: prove di un nuovo diritto amministrativo (tra risultato, fiducia e discrezionalità)*, in *Ist. federalismo*, 2022, 3, 605 et seq.

<sup>70</sup> Law 28 January 2016 no. 11, art. 1, lett. q), no. 2.

<sup>71</sup> M. BOMBARDELLI, *Le autorità amministrative indipendenti. Report annuale 2013 – Italia*, in this *Journal*, 2012, 4, 5.

<sup>72</sup> G.M. RACCA, R. CAVALLO PERIN, *Corruption as a violation of fundamental rights*, cit., 42 et seq.

#### ***4.1 Digital strategies for transparency and corruption prevention***

The aims of the Recovery Plan on the reorganization of anti-corruption regulations<sup>73</sup> include the creation of a “Single Transparency Platform,” which could have a disruptive effect on the current system.<sup>74</sup>, lightening the publication obligations of the administrations, and guaranteeing a single access point to public information. It seems that it should act as a hub<sup>75</sup>, in which will be uploaded documents and data subject to publication, connected with the administration websites<sup>76</sup>. This system could relieve administrations from the burden of managing their own portals and encourage controls also by citizens facilitating the comparability of data<sup>77</sup>.

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<sup>73</sup> PNRR, reforms “*Semplificazione in materia di contratti pubblici*”, “*Abrogazione e revisione di norme che alimentano la corruzione*”. On the impact of the quality of regulation on the quality of administration, and opportunities for corruption: M. DE BENEDETTO, *Corruption from a Regulatory Perspective*, cit., *passim*; EAD., *Regolazione e anticorruzione*, in *Ist. federalismo*, 2022, 3, espec. 412 et seq.

<sup>74</sup> A. CORRADO, *Il futuro della disciplina di prevenzione della corruzione e della trasparenza amministrativa: una moda destinata a passare? L'ultima parola al Legislatore*, in *federalismi.it*, 2021, 29, 135 et seq.; F. GORGERINO, *L'accesso come diritto fondamentale e strumento di democrazia: prospettive per la riforma della trasparenza amministrativa*, in *federalismi.it*, 2022, 5, 96 et seq. On the excess of information that can compromise the efficacy of transparency: N. RANGONE, *A Behavioural Approach to Administrative Corruption Prevention*, in A. CERRILLO I MARTÍNEZ, J. PONCE (eds.), *Preventing Corruption and Promoting Good Government and Public Integrity*, Bruxelles, Bruylant, 2017, available also at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2881878](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2881878).

<sup>75</sup> ANAC, *Relazione annuale 2021. Presentazione del Presidente avv. Giuseppe Busia*, 23 June 2022, 6.

<sup>76</sup> V. VARONE, “*Amministrazione trasparente*” al banco di prova della nuova Governance della trasparenza, verso una Piattaforma unica, in *federalismi.it*, 2023, 5, 265-266.

<sup>77</sup> B. PONTI, *Dieci anni di diritto alla trasparenza amministrativa: caratteri originari, trasformazione e integrazione del modello*, in *Ist. federalismo*, 2022, 3, 651 et seq.



There is not yet a specific regulatory basis for the Single Transparency Platform<sup>78</sup>. Only the Competition Law and the Decree on Local Public Services of 2022 refer to it<sup>79</sup>, as the Code of public contracts of 2023<sup>80</sup>. The project is still at a preliminary stage; nonetheless, on 7<sup>th</sup> August 2023, ANAC signed an agreement with the National Research Council (CNR) for the experimentation of innovative technologies to the automatic recovery, classification and interpretation of the information that may flow into the Single Transparency Platform<sup>81</sup>.

The analysis of the three-year corruption prevention and transparency plans (PTPCT)<sup>82</sup> and of the related reports of the corruption prevention managers (RPCT)<sup>83</sup> can constitute another challenge for increasing ANAC's information assets<sup>84</sup>.

Within each administration, three-year plans are drawn up based on the National Plan adopted by ANAC; the Authority collects the data of PTPCTs and reuse them for the

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<sup>78</sup> According to the Recovery Plan, the platform could be created in via administrative by ANAC.

<sup>79</sup> Law no. 118 of 2022, art. 8; Legislative Decree no. 201 of 2022, art. 31.

<sup>80</sup> See below, next paragraph.

<sup>81</sup> Agreement available at [link](#).

<sup>82</sup> Law no. 190 of 2012, art. 1, par. 8. See: E. CARLONI, A. NIELI, *Bagliori al tramonto. I piani di prevenzione della corruzione tra contrasto della criminalità e assorbimento nel piano integrato*, in *Ist. federalismo*, 2022, 1, 117 et seq.

<sup>83</sup> Law no. 190 of 2012, art. 1, par. 7.

<sup>84</sup> M. GNALDI, *Building knowledge from datasets of public administrations*, in E. CARLONI, D. PAOLETTI (eds.), *Preventing corruption through administrative measures*, cit., 231 et seq.

drafting of national plans<sup>85</sup>. For this purpose, a platform for the acquisition and monitoring of the PTPCT has been launched since 1<sup>st</sup> July 2019<sup>86</sup>.

The platform developed in collaboration with the University of Rome “Tor Vergata” and University of Campania “Luigi Vanvitelli”, is experimental and not binding for administrations, although a considerable number of them (around 2000) joined it. Mentioned in 2021 as good practice by the European Union<sup>87</sup>, it allows the uploading of information relating to anti-corruption plans<sup>88</sup>. Analysing this data, ANAC found critical issues but also a general acceptance of the anti-corruption measures, as the participation of managers and staff in training and the overall prevention strategy, the integration of control and risk management systems<sup>89</sup>.

The recent incorporation of the anti-corruption plans in the integrated plans of activity and organization (PIAO)<sup>90</sup> has prompted concerns among some observers that it may pose a risk to the system<sup>91</sup> or alternatively, that it necessitates a rethink of the aforementioned

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<sup>85</sup> F. MERLONI, *Corruption and Public Administration*, cit., 34 et seq.

<sup>86</sup> ANAC, *Relazione annuale 2021*, 23 June 2022, 127 et seq.; *Relazione annuale 2019*, 2 July 2020, 88 et seq.

<sup>87</sup> See above, par. 3.

<sup>88</sup> Law no. 190 of 2012, art. 1, par. 14.

<sup>89</sup> ANAC, *Relazione annuale 2022*, 8 June 2023, 83 et seq.; PNA 2022, Annex 11.

<sup>90</sup> Law-Decree no. 80 of 2021, art. 6, converted by Law no. 113 of 2021.

<sup>91</sup> A. CORRADO, *La difficile strada della semplificazione imboccata dal PIAO*, in *federalismi.it*, 2022, 27, 186 et seq.; C. TUBERTINI, *La nuova pianificazione integrata dell'attività e dell'organizzazione amministrativa*, in *Giornale dir. amm.*, 2022, 5, 614 et seq. The Decree of the President of the Republic no. 81 of 2022 included in the new PIAO, the plan for the use of ITs, the performance plan, the organizational plan for remote working, the anti-corruption and transparency plan. See: Italian Council of State, opinions no. 506 and 902 of 2022.

system. While making some recommendations, ANAC welcomed the reform<sup>92</sup>, because the prevention of corruption constitutes a transversal dimension for the creation of public value (primary goal of the PIAO)<sup>93</sup>, to be balanced with the needs of efficiency and high performance<sup>94</sup>. The Authority considers positively also the integration in unitary asset the data relating to each section of the PIAO<sup>95</sup>. Likewise, the integration between the plan monitoring tools could have benefits<sup>96</sup>, also as a knowledge base for the future design of measures and the improvement of the risk management system<sup>97</sup>.

Thus, the PIAOs might constitute a fundamental compliance model for public administrations<sup>98</sup>. However, they must be structured in digital forms<sup>99</sup> (and drawn up, in case, with the support of AI tools<sup>100</sup>), directly connected to the monitoring authorities (ANAC and

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<sup>92</sup> ANAC, PNA 2022, 31.

<sup>93</sup> Decree of the Minister for public administration, 30 June 2022, containing the standard scheme of PIAO.

<sup>94</sup> ANAC, PNA 2022, cit., 23-24.

<sup>95</sup> *Ibid.*, 29.

<sup>96</sup> A. CORRADO, *La difficile strada della semplificazione imboccata dal PIAO*, cit., 203-204.

<sup>97</sup> ANAC, PNA 2022, cit., 41.

<sup>98</sup> Italian Council of State, opinions no. 506 and 902 of 2022, cit.

<sup>99</sup> To date, the PIAO must be published on the institutional website of the administration and sent to the Department of Public Function portal by 31 January every year (at the [link](#)).

<sup>100</sup> OECD, *Generative AI for anti-corruption and integrity in Government*, cit., survey dedicated in particular to use of Large Language Models (LLM); F. MERENDA, *Legalità, algoritmi e corruzione: le tecniche di intelligenza artificiale potrebbero essere utilizzate nel e per il sistema di prevenzione della corruzione?*, in *Rivista italiana di informatica e diritto*, 2022, 2, 23 et seq.

the Department of Public Function)<sup>101</sup>. This can allow checks, so that they are not just formal requirements that give the appearance of compliance<sup>102</sup>.

## **5. PUBLIC PROCUREMENT DATABASES AS A FUNDAMENTAL INSTRUMENT FOR INTEGRITY AND EFFICIENCY**

According to EU Commission, transparency and digitalisation always constitute the first aim of public contracts registers<sup>103</sup>. The second goal is the possibility of experimenting with analyses of the data collected<sup>104</sup>.

In 2018, 17 Member States were equipped with a national contract register<sup>105</sup>. Managed by public bodies (Ministries or Procurement Agencies), they generally deal with the publication and award phases, more rarely also payments and contractual implementation<sup>106</sup>.

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<sup>101</sup> Law-Decree no. 80 of 2021; Decree of the Minister for Public Administration, 30 June 2022.

<sup>102</sup> G.M. RACCA, *La responsabilità delle organizzazioni pubbliche nella trasformazione digitale e i principi di collaborazione e buona fede*, in *Dir. amm.*, 2022, 3, 634; EAD, *Abuso d'ufficio e contratti pubblici*, in *federalismi.it*, forthcoming; M. DE BENEDETTO, *Corruption from a Regulatory Perspective*, cit., 20 et seq.

<sup>103</sup> EU Commission, *EXEP Report on Contract Registers*, Bruxelles, 2018, 1.

<sup>104</sup> EU Commission, Communication: *Making Public Procurement work in and for Europe*, COM(2017) 572 final, 3 October 2017, par. 4, lett. d).

<sup>105</sup> EU Commission, *EXEP Report on Contract Registers*, cit., 2.

<sup>106</sup> M. MENDES, M. FAZEKAS, *DIGIWHIST Recommendations for the Implementation of Open Public Procurement Data. An Implementer's Guide*, DIGIWHIST, 2017, 10; W. HARTUNG, K. KUZMA, *Article 51. Form and manner of publication of notices*, in R. CARANTA, A. SANCHEZ-GRAELLS (eds.), *European Public Procurement. Commentary*

Given the results of the survey, the Commission recommends that they keep track of information regarding the contract and its modifications, to provide an overall view of the procurement cycle<sup>107</sup>, and that documents must be native digital to obtain structured data and to allow textual analysis<sup>108</sup>, directly connected with TED<sup>109</sup>.

With reference to enforcement mechanisms, instead of imposing sanctions or legal conditions, the Commission recognizes that the most effective solution consists in the automatic acquisition of data, without burdening officials with further information obligations, respecting the once-only principle<sup>110</sup>.

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on Directive 2014/24/EU, Elgar, Cheltenham, 2021, 534. Similar problems are found with reference to Open Contracting Data Standard (OCDS): A. SANCHEZ-GRAELLS, *Procurement Corruption and Artificial Intelligence: Between the potential of enabling data architectures and the constraints of due process Requirements*, in S. WILLIAMS, J. TILLIPMAN (eds.), *Routledge Handbook of Public Procurement Corruption*, cit., 34.

<sup>107</sup> EU Commission, Communication: *A data space to improve public spending, boost data-driven policy-making and improve access to tenders for SMEs*, 16 March 2023, 2023/C 98 I/01, par. 5.; resolution of UNCAC Conference, *Promoting transparency and integrity in public procurement*, cit., premises.

<sup>108</sup> EU Commission, *EXEP Report on Contract Registers*, cit., 7-8.

<sup>109</sup> *Ibid.*, 10-11. TED is the procurement supplement of the Official Journal of the European Union: annexes V and VIII to Directive 2014/24/EU. Once a year, the Commission publishes TED data in CSV format: [www.data.europa.eu](http://www.data.europa.eu). TED data is also available on [www.opentender.eu](http://www.opentender.eu), a platform delivered by the DIGIWHIST project. See: V. POLTORATSKAIA, M. FAZEKAS, *Data analytics for anti-corruption in public procurement*, in S. WILLIAMS, J. TILLIPMAN (eds.), *Routledge Handbook of Public Procurement Corruption*, cit., 55; I. ADAM, M. FAZEKAS, *Big data analytics as a tool for auditors to identify and prevent fraud and corruption in public procurement*, in *ECA Journal*, 2019, 2, 175. The European Court of Auditors highlighted the poor quality of TED data, recommending the Commission to improve it: *Special report 28/2023: Public procurement in the EU – Less competition for contracts awarded for works, goods and services in the 10 years up to 2021*, parr. 71 et seq.

<sup>110</sup> R. KRIMMER, A. PRENTZA, S. MAMROT (eds.), *The Once-Only Principle. The TOOP Project*, Springer, Cham, 2021, in which a chapter is dedicated to Italy: F. GORGERINO, *Legal Basis and Regulatory Applications of the Once-*

The Italian national procurement register is the National Public Contracts Database (BDNCP), reinforced by recent reforms<sup>111</sup>. Hub for interoperability with public and private procurement platforms and databases, BDNCP is being consolidated to the effective monitoring of whole life cycle of public procurement<sup>112</sup>. In parallel, another section of BDNCP, the Virtual Company Dossier, is evolving to reduce the documentary burden for the qualification of economic operators<sup>113</sup>.

BDNCP was established in 2010, with the purpose of the reduction of administrative burdens and effectiveness, transparency, and real-time control of public spending; the respect of rule of law, good administration, and the prevention of corruption<sup>114</sup>. It has been included among the databases of national interest<sup>115</sup>, connected with the National Data Platform

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*Only Principle: The Italian Case*, 104 et seq. Now, for public procurement, Legislative Decree no. 36 of 2023, art. 19, par. 2, states that data is sent only once to a single information system, and cannot be requested from other systems, but is made available by the receiving information system.

<sup>111</sup> New Public Contracts Code (artt. 19 et seq.). Hearing of President of ANAC, Camera dei Deputati, 3 March 2022.

<sup>112</sup> According to art. 21, par. 1 of Legislative Decree n. 36 of 2023, the digital life cycle of public contracts is divided into: programming and design, publication, award and execution.

<sup>113</sup> Legislative Decree no. 36 of 2023, art. 24. See: G.M. RACCA, *Digital Transformation for an Effective E-Procurement*, in C. RISVIG HAMER, M. ANDHOV, E. BERTELSEN, R. CARANTA (eds.), *Into the Northern Light. In memory of Steen Treumer*, Ex Tuto Publishing, Copenhagen, 2022, 215 et seq.

<sup>114</sup> Legislative Decree no. 82 of 2005, art. 62-*bis*, introduced by art. 44 of Law no. 235 of 2010.

<sup>115</sup> *Ibid.*, art. 60, par. 3-*bis*, lett. c).

(PDND)<sup>116</sup>. The Public Contracts Code of 2016 attributed to ANAC the governance on public procurement system and so the management of BDNCP<sup>117</sup>.

The database was designed to track all the procurement procedures' phases, marked by a primary key (CIG), from the publication of the tender notice or the transmission of the invitation letters, until execution and payments<sup>118</sup>. Thus, the civil servant charged with the procedure (RUP)<sup>119</sup> is required to progressively upload in the electronic reporting sheets the information relating to all the phases of awarding and execution of the public contract<sup>120</sup>.

From 1<sup>st</sup> January 2024, the new rules regarding the digitalisation of public procurement<sup>121</sup> came into force. According to these provisions, BDNCP will include some

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<sup>116</sup> *Ibid.*, art. 50-ter. See: I. ALBERTI, *La creazione di un sistema informativo unitario pubblico con la Piattaforma digitale nazionale dati*, in *Ist. federalismo*, 2022, 2, 473 ss.

<sup>117</sup> Legislative Decree no. 50 of 2016, art. 213, par. 8.

<sup>118</sup> R. NAI, E. SULIS, R. MEO, F. GORGERINO, G.M. RACCA, L. GENGA, *Process Mining on a Public Procurement Dataset: a Case Study*, in *Machine Learning and Principles and Practice of Knowledge Discovery in Databases. International Workshops of ECML PKDD 2023*, Springer, Cham, forthcoming.

<sup>119</sup> Legislative Decree no. 36 of 2023, art. 15.

<sup>120</sup> *Ibid.*, art. 222, par. 9.

<sup>121</sup> *Ibid.*, artt. 19-36. ANAC, decision no. 261 of 20 June 2023, in which (art. 10) are listed the information to transmit to BDNCP. The technical specifications of the interoperability services and the information transmission paths are published on the [Developers Italia portal](#) in a section dedicated to the "[Public contracts platform](#)". See also ANAC, decision no. 382 of 13 December 2023.

sections: the register of contracting authorities (AUSA), the platform for legal advertising, the Virtual Company Dossier, the “Casellario” of public contracts<sup>122</sup>.

Many believe that only the direct connection of BDNCP with the procurement platforms<sup>123</sup> can avoid the bad quality of procurement data<sup>124</sup>. Until now, the main gap in the database concerns the names of the economic operators participating in tenders, which makes it impossible to detect collusive behaviour<sup>125</sup>. It should be noted that this data could be already obtained from the websites of administrations<sup>126</sup>, as demonstrated<sup>127</sup>. Repealed by the

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<sup>122</sup> In which must be noted the exclusions and other events relating to past performance: Legislative Decree no. 36 of 2023, art. 222, par. 10; ANAC decision no. 272 of 20 June 2023.

<sup>123</sup> The new Code provides that procurement platforms must be certified by the Agency for Digital Italy (AGID) and included into a register held by ANAC: Legislative Decree no. 36 of 2023, art. 26; AGID, *Regole tecniche recanti Requisiti tecnici e modalità di certificazione delle Piattaforme di approvvigionamento digitale*, 1 June 2023. See ANAC website at [link](#).

<sup>124</sup> R. NAI, E. SULIS, P. PASTERIS, M. GIUNTA, R. MEO, *Exploitation and Merge of Information Sources for Public Procurement Improvement*, in *Machine Learning and Principles and Practice of Knowledge Discovery in Databases. International Workshops of ECML PKDD 2022*, Springer, Cham, 2023, 89 et seq.; M. TROÌA, *Data analysis e costruzione di indicatori di rischio di corruzione per la Banca dati nazionale dei contratti pubblici*, ESI, Napoli, 2020, 65.

<sup>125</sup> ANAC, *Relazione annuale 2021*, 23 June 2022, 186; R. NAI, et al., *Exploitation and Merge of Information Sources for Public Procurement Improvement*, loc. cit.

<sup>126</sup> Law n. 190 of 2012, art. 1, par. 32, stated that contracting authorities, for each procedure, were required to publish: the structure proposer; the object of the tender; the list of operators invited to submit offers; the successful tenderer; the award amount; the times of completion of the work, service, or supply; the amounts paid. Every year the administrations had to transmit this information to ANAC.

<sup>127</sup> See: A. MELANDRI, G. BEVILACQUA, F. MORANDO, D. ALLAVENA, *Misurare la corruzione sul grafo dei contratti pubblici italiani*, in M. GNALDI, B. PONTI (eds.), *Misurare la corruzione. Obiettivi, metodi, esperienze*, Franco Angeli, Milano, 2018, 113-135, about the portal [www.contrattipubblici.org](http://www.contrattipubblici.org). See also: <https://www.ondata.it/esploriamo-i-dati-di-appaltipop/>.



new Code, this open data should now be absorbed into BDNCP data flow in compliance with the once-only principle<sup>128</sup>.

BDNCP very rarely registered the awards and names of the winners, as well as the contract conclusion, payments, litigation<sup>129</sup>. To date, ANAC has not collected the documents relating to the award procedures<sup>130</sup>. The new Code provides that the publication of documents is ensured by BDNCP, interconnected with TED<sup>131</sup>, with contracting authorities websites<sup>132</sup>, and the new Transparency Portal<sup>133</sup>.

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<sup>128</sup> Legislative Decree no. 36 of 2023, art. 20, par. 2, and art. 28, par. 3.

<sup>129</sup> Using AI tools, it is possible to link BDNCP and sentences issued by the Italian administrative Courts: R. NAI, R. MEO, G. MORINA, P. PASTERIS, *Public tenders, complaints, machine learning and recommender systems: a case study in public administration*, in *Computer Law and Security Review*, 2023, 51, 105887; R. NAI, *et al.*, *Process Mining on a Public Procurement Dataset: a Case Study*, loc. cit.

<sup>130</sup> A. CORRADO, *La trasparenza negli appalti pubblici, tra obblighi di pubblicazione e pubblicità legale*, in *federalismi.it*, 2018, 1, 2 et seq.

<sup>131</sup> Legislative Decree no. 36 of 2023, art. 84 and Annex II.7.

<sup>132</sup> *Ibid.*, artt. 27 - 85.

<sup>133</sup> See above, par. 4.1. A. CORRADO, *Il regime della trasparenza e dell'accesso digitale ai documenti nei contratti pubblici: vantaggi e criticità alla vigilia dell'applicazione delle nuove norme del Codice*, in *federalismi.it*, 2023, 31, 80 et seq.

Initially BDNCP was not accessible<sup>134</sup>, if not on request<sup>135</sup>. From 2020, has become open access, both in the form of raw data<sup>136</sup>, and in an easy-to-consult dashboard<sup>137</sup>. Preceded by some experiments<sup>138</sup>, driven by the CEF-ENEIDE European project<sup>139</sup>, from 2022 BDNCP is accessible also in the Open Contracting Data Standard (OCDS)<sup>140</sup>.

### ***5.1 Indicators of corruption risk measurement***

Like with the “Golden-Picci” index<sup>141</sup>, almost all experiments to objectively measure corruption have so far focused on the use of public procurement data, not only in

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<sup>134</sup> F. ADDANTE, *Anac, poco trasparente la banca dati contratti pubblici: ecco perché*, 29 June 2018.

<sup>135</sup> ANAC, decision no. 264, 1 March 2018. On the basis of this regulation, the University of Turin stipulated on 16 January 2019 an Agreement with ANAC for access to BDNCP data for scientific research.

<sup>136</sup> See ANAC website, at [link](#).

<sup>137</sup> See ANAC website, at [link](#). F. SBICCA, *La gestione degli appalti pubblici: monitoraggio e vigilanza*, in CNEL, *Relazione 2021*, 423 et seq.

<sup>138</sup> F. SAJIA, A. NELSON, *Open Contracting: l'Italia muove i primi passi*, in L. FIORENTINO, A. LA CHIMIA (eds.), *Il procurement delle pubbliche amministrazioni. Tra innovazione e sostenibilità*, Il Mulino, Bologna, 2021, 437 et seq.

<sup>139</sup> Based on an Action of the EU Commission: [CEF-TC-2018-4 Azione n. 2018 IT-IA-0170](#).

<sup>140</sup> ANAC website, at [link](#). OCDS is an open data model which allows reuse and comparison at an international level, developed by *Open Contracting Partnership*. See: Transparency International Italia, ACT Project, *Open Data On Procurement Procedures*, March 2021.

<sup>141</sup> The “Golden-Picci” index was formulated in 2005 on public works, comparing the infrastructures built in Italy with respect to the public spending dedicated to them. This indicator constitutes a corruption proxies, i.e. an indirect measurement, given the current impossibility to distinguish inefficiencies (maladministration) from criminal

Italy<sup>142</sup>. In addition to constituting a risky sector, despite the critical issues of the databases<sup>143</sup>, in public procurement we have probably the greatest quantity of data at the moment<sup>144</sup>.

Among the most significant indicators<sup>145</sup>, ANAC lists the comparison among the reference prices developed to identify price overspending<sup>146</sup>, prices applied by the same company in the national territory, the quantity of goods purchased and the goods actually needed; the adoption of an anomalous selection procedure; tenders with a single

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offenses (genuine corruption): M.A. GOLDEN, L. PICCI, *Proposal for a new measure of corruption, illustrated with Italian data*, in *Economics and Politics*, vol. 17, no. 1, 2005, 37 et seq.

<sup>142</sup> I. ADAM, M. FAZEKAS, *Big data analytics as a tool for auditors to identify and prevent fraud and corruption*, cit., 172 et seq.; F. DECAROLIS, C. GIORGIANTONIO, *Corruption red flags in public procurement: new evidence from Italian calls for tenders*, in *EPJ Data Science*, no. 11/2022; F. DECAROLIS, R. FISMÁN, P. PINOTTI, S. VANNUPELLI, *Rules, discretion, and corruption in procurement: evidence from Italian government contracting*, in *NBER Working Paper Series*, Cambridge, 2020; M. FAZEKAS, G. KOCSIS, *Uncovering High-Level Corruption: Cross-National Corruption Proxies Using Government Contracting Data*, in *GTI-WP*, 2015, 02, Budapest, Government Transparency Institute; M. TROÌA, *Data analysis e costruzione di indicatori di rischio di corruzione*, cit., 28 et seq. Recently, see the World Bank report, containing 60 indicators relating to risky behaviours in procurement cycle, collusion among bidders, supplier characteristics, political connections, already tested in Brazil: *Governance Risk Assessment System (GRAS). Advanced Data Analytics for Detecting Fraud, Corruption, and Collusion in Public Expenditures*, 2023.

<sup>143</sup> See above, previous paragraph.

<sup>144</sup> See ANAC website, [studies and documents](#).

<sup>145</sup> F. SBICCA, G. MARINO, *Efficienza dei contratti pubblici e sviluppo di indicatori di rischio corruttivo*, 2018.

<sup>146</sup> Law-Decree no. 66 of 2014, converted by Law no. 89 of 2014, art. 9, par. 7, art. 10, par. 3.

participant<sup>147</sup>; repeated awards to the same company; the illegitimate use of contractual extensions.

In 2022, ANAC opened a business intelligence portal for measuring corruption<sup>148</sup>, financed by European funds<sup>149</sup> and based on a plurality of datasets<sup>150</sup>. In the portal<sup>151</sup> it is possible to visualize three categories of indicators of corruption risk, according to scientific literature<sup>152</sup>. The Authority has developed some context indicators, useful for framing the socio-economic reality of areas, collected in domains (education, economy, social capital and crime)<sup>153</sup>. Other indicators concern population density, *per capita* income and the “risk of

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<sup>147</sup> I. ADAM, M. FAZEKAS, *Big data analytics as a tool for auditors to identify and prevent fraud and corruption*, cit., 173. This indicator, however, may not be useful where the submission of a single offer is specifically avoided (by mafia organizations): R. MILANI, F. CALDERONI, C. CARBONE, M. ROTONDI, *L’impatto di corruzione e mafia sugli appalti pubblici: un’esplorazione empirica*, in M. GNALDI, B. PONTI (eds.), *Misurare la corruzione*, cit., 147-148.

<sup>148</sup> Available at [link](#).

<sup>149</sup> Project “[Misurazione del rischio di corruzione a livello territoriale e promozione della trasparenza](#)”. See: ANAC, *Relazione annuale 2021*, cit., 170 et seq.; F. SBICCA, et al., *La misurazione della corruzione: la Banca dati nazionale dei contratti pubblici e la costruzione di indicatori di rischio corruttivo*, in CNEL, *Relazione 2020*, 397 et seq.; S. BROWN, K. GRANICKAS, *Behind Italy’s ‘small revolution’ in the fight for corruption-free contracts*, 21 September 2022, available on Open Contracting website at [link](#).

<sup>150</sup> See the *Memorandum of Understanding* of 20 November 2017, available at [link](#). In reality, the project had data sources external to ANAC but not those envisaged by the memorandum: B. PONTI, *Attività amministrativa e trattamento dei dati personali. Gli standard di legalità tra tutela e funzionalità*, Franco Angeli, Milano, 2023, 121 et seq. The components are based on data from ISTAT, the Ministry of the Interior, INVALSI (for the level of education), AVIS (association of blood donors) to measure social capital in terms of solidarity and volunteering.

<sup>151</sup> Available at [link](#).

<sup>152</sup> ANAC website, [bibliographical references](#).

<sup>153</sup> ANAC, Dashboard [Territorial Context](#).

contagion” between municipalities dissolved due to mafia infiltration<sup>154</sup>. Finally, indicators based on BDNCP<sup>155</sup> take into consideration: the percentage of procedures awarded at the most economically advantageous offer; the number and value of negotiated procedures; the number of contracts awarded and modified; the variance in costs and execution times; failure to send data to ANAC; tenders with only one offer; offers excluded and exclusions of all offers except one; contracts awarded to the same company<sup>156</sup>; the extension of the notice publication period; the amount of contracts below the European threshold.

Since October 2023, ANAC has published datasets relating to tenders using PNRR and National Complementary Plan (PNC) funds<sup>157</sup>. At the same time, it gave the possibility of searching for contracts with the “PNRR flag” indicator<sup>158</sup>. These are important initiatives to guarantee the transparent management of PNRR funds<sup>159</sup>, given that publication of data of the REGIS platform<sup>160</sup> in a reusable open format has only been partially implemented by Government <sup>161</sup>.

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<sup>154</sup> ANAC, Dashboard [Municipal Indicators](#).

<sup>155</sup> ANAC, Dashboard [Tender Indicators](#).

<sup>156</sup> Based on the “Gini coefficient”, this indicator considers the consecutive awarding of contracts as a general condition of corruption risk.

<sup>157</sup> Law-Decree no. 77 of 2021, art. 47, par. 4. See ANAC website, at [link](#).

<sup>158</sup> Available at [link](#).

<sup>159</sup> Open Polis, [I nostri nuovi open data sui bandi del Pnrr](#), 3 April 2023.

<sup>160</sup> Platform for the monitoring of projects financed by the PNRR: Law no. 178 of 2020, art. 1, par. 1043.

<sup>161</sup> At the moment, only aggregate data on PNRR projects are published: [PNRR open data catalogue](#). See articles on Open Polis website, at [link](#).

## ***5.2 Data analysis by the Italian Anti-Corruption Authority (ANAC)***

ANAC has already used databases for the drafting of regulatory documents, to realize market investigations, monitoring of public contracts and the implementation of anti-corruption measures. These are not many cases, but they still represent examples of the potential inherent in the collection and use of its information assets.

The Authority publishes every four months reports on the trend of the public procurement market. They often attract a notable audience, as a tool to understand the impact of public contracts on the national economy<sup>162</sup>. Since 2021, the reports have been integrated with innovative analyses, such as the use of digital awarding procedures<sup>163</sup>. This knowledge is useful to the Authority, e.g. for the preparation of standard tender documents<sup>164</sup>.

The public procurement monitoring can be realized for areas, by categories of authorities or by product sectors; in conjunction with specific cases<sup>165</sup>. The outcomes flow into acts transmitted to the contracting authority and, if necessary, to the Public Prosecutor's

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<sup>162</sup> G.M. RACCA, *Collaborative and strategic procurement for supporting industrial innovation*, in É. MULLER (eds.), *La commande publique, un levrier pour l'action publique?*, Dalloz, Paris, 2018, 121 et seq.

<sup>163</sup> See the last Report, October 2023, at [link](#).

<sup>164</sup> ANAC, *Bando tipo n. 1/2023*, decision no. 309 of 27 June 2023, standard tender document to be adopted in digital awarding procedures of services and supplies, above the European thresholds.

<sup>165</sup> ANAC, *Direttiva programmatica sull'attività di vigilanza dell'A.N.AC.*, decision no. 413, 6 September 2022. See: F. MERLONI, *Corruption and Public Administration*, cit. 58 et seq.; F. MORANDO, *Open data, come usarli nella lotta alla corruzione: il caso di Anac*, in [www.agendadigitale.eu](http://www.agendadigitale.eu), 9 March 2021.

offices and the Court of Auditors<sup>166</sup>. Among the first cases, in 2015 ANAC verified the contracts of the Municipality of Rome, in conjunction with the so-called “Mafia Capitale” criminal investigation<sup>167</sup>. In 2017, was concluded an inspection on Hera and Herambiente, public companies in charge of waste cycle management in some areas of Emilia-Romagna, Marche, Veneto, and Friuli<sup>168</sup>.

One of the most comprehensive investigations concerns the procurement of products and services related to the Covid-19 pandemic. The analysis encompasses purchases of products and equipment directly related to the fight against the virus, including personal protective equipment (PPE), reagents, ventilators, and other essential supplies.<sup>169</sup>

In January 2023, ANAC published the survey, realized also through BDNCP, on the methods of managing conflict of interest in direct assignments concerning technical services

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<sup>166</sup> ANAC cannot directly punish a contracting authority for the violation of procurement rules; nonetheless, it can sanction failure to respond or challenge tender documents: Legislative Decree no. 36 of 2023, art. 220 and 222.

<sup>167</sup> Analysis involved BDNCP data relating to the contractual period 2012-2014. ANAC discovered a critical situation in the management of procurement procedures, characterized by significant shortcomings, partly due to the organizational structure and partly dependent on superficiality and omissions: ANAC, decision no. 207, 2 March 2016.

<sup>168</sup> In the sector, notoriously at risk of corruption, the Authority found critical issues relating to awarding procedures, the object of assignments, the renewal of contracts. The final resolution criticized the bad quality of the data transmitted to BDNCP, which damages the possibility to realize analysis: ANAC, decision no. 626, 7 June 2017.

<sup>169</sup> ANAC, *Indagine conoscitiva sugli affidamenti in regime emergenziale di forniture e servizi sanitari connessi al trattamento ed al contenimento dell'epidemia da COVID-19*, 4 August 2020. F. SBICCA *et al.*, *Appalti pubblici: sistemi di monitoraggio e vigilanza*, in CNEL, *Relazione 2020*, 287 et seq.; G.M. RACCA, C.R. YUKINS, *Emergency procurement and corruption*, *cit.*, 79.

by municipalities<sup>170</sup>. Nevertheless, the possibility of verifying the truthfulness of self-declarations regarding the absence of conflicts of interest using digital systems remains a distant prospect<sup>171</sup>.

BDNCP data have been also used by other institutions, such as Parliament and the Court of Auditors, for monitoring the values, times, and progress of public works, services, and supplies, starting from those most relevant for the relaunch of the national economy<sup>172</sup>.

## 6. CONCLUDING REMARKS

As shown in this study, the digital perspective is part of the anti-corruption strategies. In this respect, the Italian legal system and the development of ANAC functions seem consistent with global standards, both for the prevention of corruption, and for the monitoring of public contracts<sup>173</sup>. In order to avoid ANAC to duplicate existing controls, it

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<sup>170</sup> Statement from the President of ANAC n. 1 of 11 January 2023. The new Public Contracts Code imposes the obligation to declare and abstain for the person who manages in the award procedure, or in the execution phase (Legislative Decree no. 36 of 2023, art. 16, par. 3). Contracting authorities must adopt adequate measures to identify, prevent and resolve conflict of interests and ensure that the declaration obligations are respected (art. 16, par. 4). In general, on this topic, see: J.-B. AUBY, E. BREEN, T. PERROULD (eds.), *Corruption and Conflict of Interest. A Comparative Law Approach*, cit., *passim*.

<sup>171</sup> B. PONTI, *Attività amministrativa e trattamento dei dati personali*, cit., 131 et seq.

<sup>172</sup> In November 2023, the Research Service of the Camera dei Deputati published the last report on the national strategic and priority infrastructures. The results are presented into the SILOS portal (<https://silos.infrastrutturestrategiche.it/>). See: *Infrastrutture strategiche e prioritarie. Rapporto annuale. Stato di attuazione al 31 agosto 2023*, 21 November 2023.

<sup>173</sup> In 2023, the UNCAC Conference (resolution *Promoting transparency and integrity in public procurement*, cit.) encouraged to make use of “integrated electronic procurement systems that collect, manage, simplify, standardize



is essential that its data collection and analysis assume ever greater importance, shared with other institutions, researchers, and citizens.

This perspective aligns with the European framework. The Commission has formulated a first strategy for the creation of a common data space, public and private, with multiple purposes, including transparency, responsibility and quality of public spending, the fight against corruption, the effective application of the European law and the introduction of innovative applications GovTech<sup>174</sup>. However, this implies an improvement of the quality of national data, currently fragmented and available in different formats, which does not make it easily usable in real time<sup>175</sup>. To date, the project has consisted of an experimentation, left to the voluntary participation of the Member States, with Commission opting for a

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*and publish open data on the whole procurement cycle”, “supporting analysis of procurement data and automated risk indicators”, and called upon the establishment of oversight authorities having “the necessary resources for assessing, as part of their audits of public bodies, the governance, the processes implemented for public procurement and the quality of internal control”.* These statements are very similar to the Italian approach to monitoring public contracts also to prevent corruption.

<sup>174</sup> EU Commission, Communication: *A European strategy for data*, cit., par. 5; *Commission Implementing Decision on the financing of the Digital Europe Programme and the adoption of the multiannual work programme for 2021 – 2022*, C(2021) 7914 final, *Annex*, par. 2.2.1.12.1; *Staff Working Document on Common European Data Spaces*, SWD(2022) 45 final, 23 February 2022, par. 6.8.2. See also, for the general context, the Communication: *Enhancing the European Administrative Space (ComPAct)*, 25 October 2023, COM(2023) 667 final. For the Procurement Data Space, the final objective is to integrate data sources on national sub-threshold contracts with TED data on contracts above the thresholds. An ontology was adopted to define public procurement data within the strategy ISA<sup>2</sup>, and used in the pilot project *eProcurement Analytics: Report on policy support for e-Procurement. E-Procurement ontology*, version 1, 2016; EU Commission, *Interoperability in end-to-end eProcurement*, Bruxelles, 2020, 20. See: G. LODI, panel “eProcurement & semantics”, SEMIC 2021 Conference, 8 December 2021, video available at [link](#).

<sup>175</sup> Communication: *A European strategy for data*, cit., *Appendix*, par. 8; Communication: *A data space to improve public spending, boost data-driven policy-making and improve access to tenders for SMEs*, cit., par. 3.

flexible approach to governance. The Italian case can represent a best practice from which to start for experimentation.

Thus, this analysis leads necessarily to an open perspective, towards the development of data collection activities at a continental level, not just national, with the aim of preventing corruption and guaranteeing good administration, in the direction clearly identified by the European Parliament<sup>176</sup>.

**Abstract.** *The article highlights some points of interests of the Italian anti-corruption model, particularly its digital transformation, with respect to the international and European regulatory framework. It focuses on the collection and use of data and digital strategies for transparency, integrity, and efficiency in public administration, as the Transparency Portal and the digital evolution of the integrated plans of activity and organization (PIAO). It takes into consideration also the public procurement databases as an instrument for administrative integrity and efficiency, and some early examples of data analysis carried out by the National Anti-Corruption Authority (ANAC) in this sector.*

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<sup>176</sup> Resolution of 15 December 2021, *on the evaluation of preventive measures for avoiding corruption, irregular spending and misuse of EU and national funds in case of emergency funds and crisis-related spending areas* (2020/2222(INI)).