

# The Future of Public Administration Through the Use of Blockchain Technology

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Blockchain technology is now firmly implemented in our daily lives. From cryptocurrencies to its applications in the restructuring of supply chains, to the phenomenon of Non-Fungible Tokens (NFT) in the field of art, the prophecy of the Tapscott brothers seems to be coming true<sup>1</sup>.

Public administration, on the other hand, appears to have deliberately remained on the sidelines of this epoch-making revolution.

And yet, the possible applications of distributed ledgers range over the entire field of action of public authorities. Blockchain is capable of changing the face not only of certification functions, but also of the management of subjectively complex administrative procedures (in particular, the public procurement sector) and public contracts (with the figure of smart contracts).

Its potential appears even more significant if we think about the contribution it can make to the exploitation of big data and the fertile cross-fertilisation that can arise from combining this with public decision-making automation and artificial intelligence<sup>2</sup>.

Moreover, the ever-increasing diffusion of blockchain in the organisation and conduct of business activities makes it necessary and no longer postponeable to open the Public Administration to this technology, also in order to prevent such a gap from making dialogue between the private and public sectors even more difficult. The application of these new technologies are capable of radically changing (in a more efficient and rapid manner) the way in which most of the actions that are currently under the control of

the public administration (transfer of registered assets, voting, constitution of commercial entities and companies, etc.) are carried out. If the public administration does not keep up with the changing times, we run the risk that entire sectors of public control will be privatised and absorbed into the monopoly of the so-called big tech.

In this perspective the pandemic crisis has contributed to a clear acceleration of the digital transition in all sectors. It is no coincidence that, together with the passage to the green economy, the digital transition is the key element of the NextGenerationEU plan, which will mark the development of the European project. The technology of distributed registers is a fundamental and indispensable element of this common strategy, defined as the “Path to digital decade” by the European Commission<sup>3</sup>.

At a technical level, various solutions are already being studied that can adapt the model of *permissionless* blockchain networks to the needs and peculiarities of the public system.

On the legal level, however, the debate seems to be in a more embryonic state and to be rather far from reaching a shared structure.

The challenge is to build a unitary theoretical and regulatory model of “administrative blockchain” that goes beyond the borders of the single Member States. The legal framework of reference is, in fact, still disorganised, scattered as it is between the General Data Protection Regulation (G.D.P.R.) and the electronic IDentification Authentication and Signature (eIDAS) Regulation.

It should not be overlooked that the application of blockchain technology to the

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<sup>1</sup> D. Tapscott and A Tapscott, *Blockchain Revolution: How the Technology Behind Bitcoin is Changing Money, Business, and the World*, Penguin, London, 2016.

<sup>2</sup> European Investment Bank, *Artificial intelligence, blockchain and the future of Europe: How disruptive technologies create opportunities for a green and digital economy - Main Report*, June 2021.

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<sup>3</sup> European Commission, *Proposal for a Decision of the European Parliament and of the Council establishing the 2030 Policy Programme “Path to the Digital Decade”*, Brussels, 15 September 2021.

public sector is destined to lead to the surpassing of the classic model of central authority, opening up, in a perspective of disintermediation, to forms of citizen participation in the management of the administrative procedure and data codetention.

Such a revolutionary approach leads to questions about its effects on the traditional dogmatic constructions that are the foundations of administrative law: the notion of administrative procedure itself, the role of the Public Administration and of the citizens, the administrative transparency.

This monographic section shows the ferment that is beginning to pervade both European administrative doctrine and the practitioners of law themselves (as in the experience of the Comunidad Autónoma de Aragón).

There is still a long way to go, but positive signs seem to be coming in, encouraging us to continue along a path that is to a large extent obligatory.

In fact, it is from here that the near future of the Public Administration passes, at least in part.