Artificial Intelligence as a Tool to Make Better Regulations*

Elsa Marina Álvarez González

(Professor of Administrative Law, Academic Secretariat of I-INGOT, Instituto de Investigaciones Jurídicas en Gobierno y Territorio, University of Málaga)

ABSTRACT Excessive regulations constitute a serious problem and have created a weak system of legal sources made up of laws and regulations that lack quality and rationality. This deficient legislative technique undermines the principle of legal certainty and, in our opinion, contributes to the present lack of trust in the political-legislative system. Given this situation, we believe there is an urgent need to improve regulatory quality in order to ensure good governance and high levels of transparency. To achieve this, introducing artificial intelligence into the regulatory process is, in our view, essential. Although this is not yet provided for in our legal system, given the advances in technological innovations and their application to many areas of activity, including administrative action, we believe that this is an issue which administrative law must address sooner rather than later.

1. Introduction

The regulatory function in Spain and other neighbouring countries is being negatively affected by accelerated changes currently taking place. Excessive regulations constitute a serious problem and have created a weak system of legal sources made up of laws and regulations that lack quality and rationality. This deficient legislative technique undermines the principle of legal certainty and, in our opinion, contributes to the present lack of trust in the political-legislative system.

Given this situation, we believe there is an urgent need to improve regulatory quality in order to ensure good governance and high levels of transparency. To achieve this, introducing artificial intelligence into the regulatory process is, in our view, essential. Although this is not yet provided for in our legal system, given the advances in technological innovations and their application to many areas of activity, including administrative action, we believe that this is an issue which administrative law must address sooner rather than later.

Moreover, if artificial intelligence can be used by public administrations to streamline and speed up the processing of administrative procedures, or to issue reports generated by algorithms based on the data held by a given body, we believe that it can also be useful in the regulatory process.

Artificial intelligence can contribute to better quality decision-making based on a thorough analysis of all the data made available to the public administration, and on existing precedents. In our view, this will also contribute to improving the quality of our regulations. This would mean automating certain procedures in the regulatory process, without, of course, affecting the rights of citizens and groups who play an active role in the process, especially in the prior consultation and public information procedures.

Several public bodies are providing significant impetus to improving the quality of regulations. These include the adoption by the EU of the Recommendation of the Council of the Organisation for Economic Co-operation and Development (OECD) on improving the quality of government regulation (1995) and the 2001 White Paper on European Governance, which makes better law-making an objective. Other examples include the "Interinstitutional Agreement on Better Law-making" adopted by the European Parliament, the Council and the European Commission in December 2003, and the March 2005 action plan, "Better Regulation for Growth and Jobs in the European Union", which updates and complements the 2002 Action Plan for "Simplifying and Improving the Regulatory Environment". In addition, the document "Guiding Principles for Regulatory Quality and Better Regulation" (2005) states that regulatory quality is crucial to the effectiveness of government action, and introduces, through regulatory impact analysis, an EU-wide need to assess, structure and support political decision-making. It also requires the Commission to submit an annual report to the European Council and the

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European Parliament on the application of the principles of subsidiarity and proportionality and on activities to improve the quality and accessibility of legislation.

The EU's objectives are clearly laid out in the "Better Law-making 2006" report, which states that: "A regulatory environment that is well-devised, clear, understandable and as simple as possible is key to protecting citizens' welfare, public health and the environment. At the same time it ensures a fair market place where European business can compete effectively and with innovative products. The Better Regulation agenda sets out to achieve this at both EU and national level in a concerted effort by EU institutions and Member States and in a manner that maximises public policy benefits while minimizing the costs that regulations impose on the EU economy." It is therefore evident from this programme that a clear and simple regulatory framework is essential for society and the economy, and that this applies across the board to all public institutions.

Also noteworthy is the 2010 Communication on "Smart Regulation in the EU", which not only complements and reformulates some of the regulatory quality principles in the "Better Regulation" initiative, but also includes principles such as the ex-post evaluation of legislation and improved electronic access to all EU legislation.[1]

The 2015 "Better Regulation" agenda is a package of measures that applies both to new legislative proposals and existing European legislation. It covers the whole policy cycle which includes preparation, adoption, implementation (national transposition, delegated acts of the European Commission), application (including monitoring and effective compliance by the Member States) and evaluation and revision. In addition, any EU intervention must take into account its legal, economic and environmental impact in order to ensure sustainable development (art. 11 TFEU). Moreover, in accordance with the principles of subsidiarity and proportionality (art. 5.1 TEU), in areas of shared competence, the EU must be able to justify the added value of its action and not go beyond what is

necessary to address the problem at hand at the supranational level.[2] In this regard, we can highlight the adoption of a set of guidelines designed to help Commission services improve the way they legislate throughout the regulatory cycle and to explain how the Commission helps Member States implement EU law.[3] The guidelines are complemented by a "Better Regulation" toolbox which provides detailed guidance on issues such as drafting the explanatory memorandum that the Commission must ensure accompanies legislative proposals, and the choice of the specific legal instrument or implementation plans.[4]

This new approach to European regulatory activity has the support and participation of the two institutions that make up the European legislature, namely, the Council and the European Parliament. This is evidenced by the 2016 Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on better law-making.[5]

Also noteworthy is the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "Better Regulation: Joining forces to make better laws", of 29 April 2021, in which the European Commission outlines the achievements made in this area, and the issues that still need to be addressed in order to achieve better law-making. Among its achievements is the "Fit for Future Platform" launched by the Commission in May 2020, and whose 2021 work programme highlights the potential of digitalisation, the need to support the efficiency of classification, authorization, and notification obligations, and improve legislative quality to avoid inconsistencies or duplication, while adopting

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[1] All the measures adopted by the European Commission regarding better regulation can be found on the Better Regulation website (http://ec.europa.eu/governance/better_regulation/index_es.htm) and the Impact Assessment website. (http://ec.europa.eu/governance/impact/index_en.htm).

[2] B. Pérez De Las Heras, *La agenda de legislar mejor como eje de gobernanza democrática en la Unión Europea: impacto y potencialidades para las entidades subestatales*, in *Revista General de Derecho Administrativo*, no. 50, 2019, 3.

[3] European Commission, *Better Regulation guidelines*, Commission Staff Working Document, SWD (2017) 350, 7 July 2017, available at https://ec.europa.eu/info/sites/info/files/better-regulation-guidelines. pdf.

[4] European Commission, *Better Regulation toolbox*, available at https://ec.europa.eu/info/sites/info/files/better-regulation-toolbox_2.pdf.

[5] Published in the DOUE L 123 of May 12, 2016. This Agreement replaces the 2003 Agreement and the 2005 Interinstitutional Agreement on Impact Assessment.

a consistent forward-looking approach.

As regards Spain, the first measure taken in this area was the approval of several guidelines by the Council of Ministers. These include the Agreement of the Council of Ministers of 18 October 1991, approving the guidelines on the form and structure of draft bills,[6] and the Agreement of the Council of Ministers of 22 July 2005, approving the guidelines on regulatory technique.[7] Both provide technical guidance on the preparation and, in particular, the drafting of legal provisions. They do not confer any rights or obligations on third parties, and being non-regulatory in nature, cannot be invoked as a source of law in court. They have been adopted to facilitate the understanding and application of regulations.

In addition to these guidelines on regulatory technique, we must add some factors directly or indirectly related to the legislative technique that some laws have regulated rather unsystematically. These include the obligation to respect the principles of necessity, proportionality, legal certainty, transparency, accessibility, simplicity and effectiveness in the exercise of the regulatory initiative; the ex ante and ex post analysis of regulations and the guarantee of a public hearing during the drafting stage of regulations, which is included in Spanish Law 2/2011, of 4 March, on Sustainable Economy (hereinafter, LES). Other examples include Spanish Law 19/2013, of 9 December, on Transparency, Access to Public Information and Good Governance (hereinafter, LTAIBG), which aims to increase and strengthen transparency in public activities through active disclosure obligations for all public administrations and public entities in terms of institutional, organizational, and planning information; and Spanish Law 20/2013, of 9 December, on the Guarantee of Market Unity (hereinafter, LGUE), which aims to promote an efficient regulatory framework for economic activities that simplifies existing legislation, eliminates unnecessary regulations, establishes more streamlined procedures and minimizes administrative burdens.

However, the most significant progress in this area was the regulation of the principles of good regulation in Spanish Law 39/2015, of

1 October, on the Common Administrative Procedure for Public Administrations (hereinafter, LPAC). Title VI of this law is dedicated to the legislative initiative and regulatory power of public administrations. In addition to some improvements to current regulations on hierarchy and the publication of rules and principles of good regulation, it includes new provisions aimed at increasing citizen participation in the procedure for drafting regulations, together with new provisions on the ex ante and ex post evaluation of the impact of regulations.

Finally, a number of autonomous communities have also been innovative in these areas. These include Catalonia which has had a very active better-regulation policy for more than ten years.[8] Nevertheless, all public authorities should be aware of the importance of improving our regulations. An important step forward was the creation of the Observatory of Good Regulatory Practices by the Spanish government and the autonomous communities in December 2022, although we will have to wait until it is up and running to assess its effectiveness.

In any event, this paper has a forward-looking perspective, as it seeks to lay the foundations for what the regulatory process will be (or should be) like in the coming years. This inevitably means taking into account technological advances and the implementation of artificial intelligence in public administration in order to apply them to the regulatory process. We believe this will help improve the quality and rationality of our regulations.

2. *The Regulatory Process: Open and Electronic*

When we talk about the regulatory process, we are not just talking about the administrative process of drafting regulations (whether legal or regulatory), rather, the regulatory process encompasses all the actions that take place from the moment the public decision is taken, including the process of drafting the regulation and its period of validity, until the moment it is no longer part of the legal system.[9] Therefore, it includes

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[6] Published in the BOE of 18 November 1991.
[7] Published in the BOE of 29 July, 2005.

[8] https://presidencia.gencat.cat/es/ambits_d_actuacio/mil lora_regulacio_normativa/.
[9] Professor D. Canals Ametller, *El proceso normativo ante el avance tecnológico y la transformación digital (inteligencia artificial, redes sociales y datos masivos)*, in *Revista General de Derecho Administrativo*, no. 50,

regulatory impact assessments, whether ex ante (before drafting and adoption) or ex post (after publication and implementation), as well as any amendments to the legislation before it is repealed or annulled. The regulatory cycle thus includes conception, drafting, implementation, evaluation and review.[10]

The measures adopted in recent years in Spain as regards regulatory quality and in particular the amendments made to the LPAC, have strengthened the principles of good regulation and affect the entire regulatory process. Thus, art. 129.1 LPAC establishes that the exercise of regulatory initiative by the competent administrations is subject to the principles of necessity, effectiveness, proportionality, legal certainty, transparency and efficiency. These principles address the need to bring law-making and governance closer to citizens. In this way, citizens can be involved in the process of adopting regulations that may affect their rights and interests. In short, it is a form of open government in an environment conducive to dialogue and continuous interaction, with greater emphasis on public transparency and citizen participation in the definition and implementation of public policies and the adoption of legal regulations.[11]

Open government seeks to unite two fundamental concepts of developed societies: government and citizenship. For open government to work, ensuring access to information, providing adequate channels for public participation and reinforcing transparency and accountability[12] is

fundamental. This is closely linked to good governance, which is regulated by national and autonomous community transparency laws. The aim of these laws is to increase and strengthen the transparency of public activities, regulate and guarantee the right of access to information and establish the good governance obligations that public officials must comply with.[13] Accordingly, if good governance refers to the way governments and senior officials carry out their functions,[14] good administration refers to the way administrative functions are carried out, with the opposite being the concept of maladministration.[15] Both concepts are included in a number of international and national regulations.[16]

If we link the ideas of good governance and good administration to the regulatory process, it would be easy to achieve an open and transparent regulatory process that guarantees good governance. Thus, when the LTAIBG sets out the obligation to carry out public functions transparently, it is also referring to regulatory transparency and greater openness towards citizen participation in the drafting of regulations, which would lead to better regulatory output (art. 26.2).

2019, defined it as "a set of actions and stages leading to the adoption of a public decision of a regulatory nature which constitutes the lifecycle or validity of a legal regulation until it is no longer part of the legal system".

[10] F. De Montalvo Jääskeläinen, *La evaluación ex post de las normas: un análisis del nuevo modelo español*, in *Revista Parlamentaria de la Asamblea de Madrid*, no. 36, 2017, 148.

[11] The OECD defines open government as "a culture of governance that promotes the principles of transparency, integrity, accountability and stakeholder participation in support of democracy and inclusive growth." (OECD Recommendation of the Council on Open Government, of December 14, 2017).

[12] The Spanish IV Open Government Plan 2020-2024, approved on October 29 2020 by agreement of the Plenary of the Open Government Forum, includes 10 commitments made by public administrations to boost transparency and accountability, improve participation, establish public integrity systems, and raise awareness of open government among citizens and public employees, with the aim of contributing to a more just, peaceful and inclusive society.

[13] On good governance, see M. Zambonino Pulito, *Buen Gobierno y Buena Administración. Cuestiones claves*, Madrid, Iustel, 2019.

[14] See in this regard, M. Villoria Mendeta and A. Izquierdo Sánchez, *Ética pública y buen gobierno: Regenerando la democracia y luchando contra la corrupción desde el servicio público*, Madrid, Tecnos, 2015.

[15] See J. Ponce Solé and M. Villoria Mendieta, *Presentación del Anuario y Estudio introductorio a la edición de 2019: el impacto de la pandemia de COVID-19*, in *Anuario del Buen Gobierno y de la Calidad de la Regulación*, Madrid, Fundación Democracia y Gobierno Local, 2020.

[16] For instance, the Charter of Fundamental Rights of the European Union (art. 41); the EC (although it implicitly refers to good administration, as argued by J. Ponce Solé, in *Deber de buena administración y procedimiento administrativo debido. Las bases constitucionales del procedimiento administrativo y del ejercicio de la discrecionalidad*, Pamplona, Lex Nova, 2001); and the Statutes of Autonomy (which already expressly include the right to good administration). Moreover, the right to good administration is already applied on a daily basis to resolve certain disputes by the Spanish Supreme Court and the courts of justice of the autonomous communities, which have handed down many rulings on the matter. Thus, for example, in the judgement of 18 December 2019, the Supreme Court stated that "... the right to a good public administration gives rise to the effective implementation of a number of citizens' rights. It is not, therefore, merely a formula devoid of content, but instead obliges public administrations to fulfil these rights in such a way that a correlative set of enforceable duties is imposed on them ...".

Regulatory transparency should apply to the entire regulatory process and not only to public access to regulations once they have been adopted. We therefore believe that transparency should cover the processing of the regulatory dossier itself, including the preliminary phase, the process of drafting the content of the regulation and the stakeholders involved. This not only allows for a better understanding of the legal regulation, but also provides a "regulatory footprint", i.e., the ability to know which stakeholders were involved in the process of drafting the regulation. This is achieved by disclosing the contacts with the administration that promoted the regulatory initiative and indicating which of the contents of the regulation stem from the contributions of these interest groups.[17] It is also important to keep records in an administrative file. In Spain, informal meetings of executive branch officials who lobby for draft laws and regulations have not so far been made public, but the obligations of transparency and the right to good administration mean that this situation must change.[18]

In addition, the regulatory process must be an electronic process. If we want to improve the effectiveness and efficiency of the process, we must use electronic media and new information and communication technologies (ICTs).[19] Thus, art. 133.1 LPAC regulates the procedure of prior public consultation, stipulating that this procedure must be carried out through the web portal of the competent administration. Similarly, art. 133.2 LPAC stipulates that the normal hearing procedure for those whose rights and interests may be affected by the future regulation must be carried out on the corresponding web portal.[20]

However, we must also encourage the use of digital platforms and social networks. Although the presence of public administrations on these platforms is still at an early stage, digital participation in the regulatory process opens the doors to numerous innovative technological possibilities, such as the use of artificial intelligence and big data in the regulatory decision-making process and in the actual drafting of the regulation. We are convinced that the correct use of digital platforms would allow us to gather empirical data that could be used to improve our regulatory quality and techniques, although we are of course aware of the risks and challenges involved.

Other countries are now using this type of technology in the regulatory process. One example is the US, where computational text analysis is being applied to the electronic regulatory process, known as eRulemaking. This is carried out on a digital platform which encourages a high level of citizen participation. In the final section of this work, we will return to these issues and discuss the benefits of using technological innovation in the regulatory process.

3. *The Use of Artificial Intelligence in the Regulatory Process*

There is no denying that artificial intelligence has become an integral part of our lives. It is already used in many areas of society (health, finance, marketing, mobility, etc.) and, of course, in public administration. The advantages of using technological tools

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[17] See J. Ponce Solé, *Mejora de la regulación, lobbies y huella normativa*, Valencia, Tirant Lo Blanch, 2016.

[18] The 2014 transparency law of the autonomous community of Catalonia regulated lobbies in the State and the so-called "regulatory footprint".

[19] As Canals points out, the use of Web 2.0 tools will mean a transition from Web 1.0 (public administrations' online presence for the simple dissemination of documents and public information) to Web 2.0 or the collaborative web, where a many people can interact and actively participate by sharing information on digital platforms and social networks,, and where the presence of public administrations implies a greater openness to communication and a more dynamic relationship: D. Canals Ametller. *Transparencia y nuevos cauces de participación de la sociedad civil en el proceso normativo*, in *Revista Informaciòn Comercial Española*, n. 907, 2019, 96.

[20] In fact, within the scope of the General State Admin-

istration, the electronic channels were set out in Order PRE/1590/2016, of October 3. This contains the agreement of the Spanish Council of Ministers of September 20, 2016, in which instructions were issued to enable this type of public participation in the regulatory process. The instructions include a definition of ministerial access points as virtual venues that provide two options, "prior public consultation" and "public hearing and information", together with the opportunity for citizens to submit their contributions in a free text box, and also attach documents. Citizens will receive notification of the receipt of their contributions. In order to facilitate participation, the access point will have a search engine to find regulatory projects submitted for consultation, hearing or public information, including those that are still open and those for which the procedure has been finalised. The search engine will use the following search criteria: normative rank, material scope, the wording of the title, open/closed procedure and the deadline date for contributions. It will also include a link to the Transparency Portal. The General Access Point (administración.gob.es) has a link to the participatory access point, and, on its home page, will have a link to the ministerial departments' access points.

and applications in different sectors are obvious, but there are also some disadvantages, especially in terms of ethical implications, respect for people's fundamental rights and, in particular, the right to data protection and privacy. As a result, the law faces major challenges in this area, as regulation is still undeveloped.

In this section we will examine the benefits and drawbacks of using artificial intelligence not only in public administration but also in the management of the regulatory process, and, in particular, how it would help to improve the quality of our regulations. The use of data by public administrations through algorithms would facilitate public decision-making and help assess the effectiveness and efficiency of regulations. This would mean introducing intelligent governance into the regulatory process. Therefore, we will focus on the measures that have been taken both in Spain and the EU regarding artificial intelligence in the field of public administration and then examine its potential use in the regulatory process.

3.1. *Public actions on artificial intelligence*

In recent years, the EU has launched several initiatives in the field of artificial intelligence. For instance, in 2018 the Commission adopted the European AI Strategy which aims to take advantage of the opportunities offered by artificial intelligence and address the challenges it brings.[21] It put people at the centre of the development of artificial intelligence (human-centred AI) and encouraged the use of this powerful technology to help solve some of the world's biggest challenges, from treating chronic diseases, fighting climate change and anticipating natural disasters, to making transport safer, fighting crime and improving cybersecurity.

The White Paper on Artificial Intelligence was also adopted in 2020. It aims to lay the foundations for Europe to combine its technological and industrial potential with a high-quality digital infrastructure and a regulatory framework based on its core values, so that it can become a world leader in innovation in the data economy and its applications, as set out in the European Data

Strategy.[22] This will enable the development of an artificial intelligence ecosystem that delivers the benefits of technology to society and the European economy as a whole.

Given the enormous impact that artificial intelligence can have on our society and the need for it to be trustworthy, it is crucial that European artificial intelligence is based on our fundamental values and rights, including those of human dignity and privacy protection. In addition, the use of artificial intelligence systems can play an important role in achieving the SDGs and supporting democratic processes and social rights.

It should also be noted that, in the context of the European Data Strategy, improving access to and management of data is crucial, as it is impossible to develop artificial intelligence and other digital applications without data. The vast amount of new data that will be generated is an opportunity for Europe to become a leader in data and artificial intelligence transformation. Promoting responsible data-management practices and encouraging data compliance with the FAIR principles[23] will help to build trust and enable the re-use of data. Equally important is investment in key IT infrastructure and technologies.

However, as with any new technology, the use of artificial intelligence presents both opportunities and risks. Citizens are concerned that they will be powerless to protect their rights and safety from informational imbalances in algorithmic decision-making, whereas businesses are concerned about legal uncertainty. While artificial intelligence can help protect citizens' security and enable them to enjoy their fundamental rights, there are also concerns that artificial intelligence could have unforeseen consequences or be used for malicious purposes. These concerns must be addressed. Moreover, in addition to the lack of investment and skills, a lack of trust is one of the main obstacles to achieving a wider uptake of artificial intelligence.

It is essential, therefore, to establish a basic regulation in this area that sets out

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[21] Published in April, *Artificial Intelligence for Europe* [COM(2018) 237 final.

[22] *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the European Data Strategy*, COM(2020) 66 final.
[23] Namely, easy to find, accessible, interoperable and reusable', as called for in the 2018 Commission FAIR Data Expert Group Final Report and Action Plan (https://ec.europa.eu/info/sites /info/files/turning_fair_ into_reality_1.pdf).

fundamental principles and lays the foundations for the correct use of AI. In this regard, we can highlight the proposal for a European Regulation laying down organizational rules on artificial intelligence presented by the European Commission in April 2021, and pending approval by the European Parliament and the European Council. This regulatory proposal consists of 69 articles divided into 12 titles, together with eight annexes. Its purpose is to regulate artificial-intelligence systems with a view to enhancing their potential benefits and neutralizing their dangers in a way that is compatible with the EU's values and principles. It lays down certain preventive control measures for artificial-intelligence systems and promotes their safe and ethical use by providing a set of rules aimed at mitigating certain risks and negative consequences. To this end, it regulates high-risk artificial intelligence systems and establishes harmonized transparency rules for those systems designed to interact with natural persons for the purpose of generating or manipulating images, audio or video content.

In terms of subjective scope, the proposed European regulation covers all participants in the artificial-intelligence value chain (i.e. providers, importers, distributors) and applies to those located in the EU, as well as those located in a third country if the output produced by the artificial-intelligence system is used in the EU. Regarding objective scope, the proposed regulation classifies artificial intelligence into four risk levels, and imposes more or less stringent obligations depending on their classification:

A) Prohibited systems. This category contains an exclusive list of artificial-intelligence systems that are subject to periodic review and whose use is considered unacceptable due to the risk they pose to safety, life and fundamental rights. The list includes systems capable of distorting human behaviour, making predictions about groups in order to identify their vulnerabilities or special circumstances, or those allowing biometric identification and real-time video mass surveillance by authorities in public spaces. The latter are subject to prior authorization by a judicial or administrative authority, although in justified cases of urgency such authorization may be requested after they have been used. This gives rise to debate as a posteriori authorization may violate data-protection regulations and the fundamental right to privacy.

B) High-risk systems. This category includes other artificial-intelligence systems, which, although not prohibited, pose a high risk to individuals' rights and freedoms and that should therefore be subject to more stringent obligations to ensure their legal, ethical, robust and safe use. This exclusive list is also subject to future periodic review in order to adapt it to new technologies. The systems in this category include safety components for regulated sectors or critical infrastructure such as air transport, motor vehicle surveillance and rail transport. The list also includes systems used for biometric identification and categorization, recruitment, border control, law enforcement and assessing individuals' credit scoring.

C) Medium- and low-risk systems. Systems that do not pose a high risk to rights and freedoms. They include certain less sophisticated or intrusive technologies such as virtual assistants and chatbots.

D) Remaining systems. In principle, these would not be subject to any particular obligation. Moreover, agents in the chain would be free to choose whether or not they wish to adhere to the voluntary compliance systems. Consequently, these systems would in principle fall outside the scope of the regulation.

The proposal also lays down rules on penalties, including fines, applicable to infringements of the regulation. The fines can vary between the following amounts:

A) non-compliance with prohibited practices and data governance obligations by high-risk AI systems: up to €30 million or, if the offender is a company, up to 6% of its total worldwide annual turnover for the previous financial year;

B) non-compliance with any other requirements or obligations: up to €20 million or, if the offender is a company, up to 4% of its total worldwide annual turnover for the previous financial year;

C) supplying incorrect, incomplete or misleading information to notified bodies and/or national competent authorities: up to €10 million or, if the offender is a company, up to 2% of its total worldwide annual turnover for the previous financial year.

In short, as Professor Huergo Lora has pointed out, the European Commission has adopted a regulatory model for artificial

intelligence that includes different administrative-intervention techniques. It combines the total or partial prohibition of certain activities in order to avoid risks (in line with the precautionary principle), with a system of authorisation (preventive control), and ex post control (using this risk-creating technique to impose civil and, where appropriate, criminal liability on those who cause harm). All this, together with an inspection system, usually initiated at the request of the injured parties, which helps the parties and the courts to detect and prove wrongdoing.[24]

We will have to wait until the proposed regulation is finally adopted to see the finished text. Once adopted, the regulation will be directly applicable in all EU countries, which will allow for a harmonized regulation of artificial-intelligence systems throughout the Union.

In Spain, the R&D&I Strategy on Artificial Intelligence was adopted in 2019 and is a key element in the development of the "Coordinated Plan on Artificial Intelligence", adopted by the European Commission at the end of 2018. Furthermore, the Strategy is framed within the Sustainable Development Goals (SDGs), which are set out in the Spanish Action Plan for the Implementation of the 2030 Agenda. It sets out six priorities whose main objective is to make the instruments for promoting R&D&I more effective and to identify how and where technology can help our country grow. It also includes seven recommendations for public policies to align regulatory, structural and organizational adaptations to advances in artificial intelligence. The Strategy is the seed of the Spanish National Strategy for Artificial Intelligence (hereinafter, NSAI) adopted in December 2020, which coordinates state investments and policies to encourage the use of these technologies in our society and economy. It constitutes a reference framework and an incentive for the public and private sectors. In fact, the promotion of artificial intelligence is one of the main elements of the Digital Spain Agenda 2025.[25] This is a key

cross-cutting element for transforming the production model and boosting Spain's economic growth in the coming years. As such, the aim is not only to promote research and business innovation in artificial intelligence, but also to use it to transform the economy and society. This includes the functioning of public services, the transparency of public administrations, and addressing major social challenges such as the gender gap, the digital divide and the transition to a green economy. The Digital Spain Agenda 2025 has been updated by the Digital Spain Agenda 2026, which provides a roadmap for the country's digital transformation. This ambitious strategy aims to harness the full benefits of new technologies to deliver stronger and more sustainable economic growth, more quality jobs and higher productivity, contributing to social and territorial cohesion and bringing prosperity and well-being to all citizens.

It is also worth highlighting the economic boost provided by the NextGenerationEU funds. These are available to fund projects aimed at: the digital transition; building technological capabilities; capacity building in strategic digital value chains; accelerating the deployment of infrastructures and very high-capacity networks (especially fibre and 5G) and improving the EU's ability to protect itself against cyber threats; providing safe communication environments, especially through quantum encryption; and ensuring access to data for judicial and political purposes.

3.2. *Artificial Intelligence as a Tool for Better Law-Making*

3.2.1. *The Challenges of Artificial Intelligence in Public Administration*

Artificial intelligence in public administration is still at an early stage of development. However, there are already some very interesting cases,[26] particularly in

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[24] *El proyecto de Reglamento sobre la Inteligencia Artificial*, published in the blog *El Almacén de Derecho*, on April 17, 2021 (https://almacendederecho.org/el-proyecto-de-reglamento-sobre-la-inteligencia-artificial).
[25] Submitted in July 2020, its ninth line of action addresses the data economy and artificial intelligence. The Digital Spain Agenda 2025 can be found at:

https://www.lamoncloa.gob.es/presidente/actividades/Documents/2020/230720-EspañaDigital_2025.pdf.
[26] Cerrillo I Martinez highlights data analysis to predict fire risk to buildings (Atlanta) or flood risk (Hampton), or to identify premises requiring inspection (Las Vegas, Chicago), and even to detect irregularities, fraud and corruption. Natural language processing and machine learning algorithms are also being used to process citizens' requests (Federal Business Opportunities portal). Public administrations use artificial intelligence to support their decision-making process (predictive policing systems, decision support systems for doctors or early

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the provision of public services such as transport, security, health, social services and education. Moreover, artificial intelligence is also being used for traffic management and to personalize public services by analysing citizens' personal data and the behaviour of other users through profiling.

However, the main difficulty in integrating artificial intelligence into the activities of public administrations is how to provide legal certainty for the applications and uses of artificial intelligence in public administrations. Without going into the legal nature of the technology itself, or the interesting debate as to whether an algorithm would be a legal regulation and therefore a source of law,[27] different ways have been suggested to provide legal certainty for the use of artificial intelligence in public administration through its regulation. These range from self-regulation by the designers of the IT processes themselves, adopting a completely new regulatory framework; adapting existing regulations, or applying current regulations to emerging artificial

intelligence applications.

Given the current development of artificial intelligence in our country, we understand that applying existing legislation could present problems since it is not adapted to new technologies. However, by adapting its provisions to the new situation, we believe that the principles governing the actions of public administrations would be fully applicable and would ensure that the use of artificial intelligence complies with the legal system and fully respects fundamental rights.

To this end, several issues need highlighting. First, we must identify the function that each application or use of artificial intelligence – algorithm – fulfils within administrative actions. In this regard, we can distinguish between predictive algorithms and non-predictive algorithms.[28] As Professor Huergo Lora explains, there are algorithms that can interpret a legal regime to facilitate the administration's decision-making, for instance, programmes that help pay a tax, calculate the grant due to a company under a certain aid scheme, a retirement pension or a teacher's teaching load. They facilitate administrative actions (saving man-hours and minimizing errors) without influencing its content. The programmes are tantamount to a formula that interprets the regulation or rules the administration has to apply (in fact, some legal regulations, bases for tenders or selection procedures already describe the facts using a mathematical formula). Most importantly, it must be possible (in order to check what the administration has done) to apply the regulation 'manually', without the algorithm, to see whether the application of the algorithm is correct or not. The algorithm, therefore, does not affect the content of the administrative action. If the algorithm is incorrect, due to an error in its configuration or application, the result would be unlawful and relatively easy to detect.

There are also algorithms that can be used to mechanise or automate regulated processes – without changing their regulatory framework – but where the process is too complex to be replicated without the algorithm. Therefore, when it is time to monitor the administrative action, it cannot be done without the algorithm and a verification

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warning system to prevent school dropouts), or to allocate grants or evaluate teachers (New York). Another AI application is the use of automated response systems to answer questions asked in natural language, or spoken dialogue systems based on voice recognition to provide information, advice and citizen services. So, through chatbots, for example, public administrations can respond to citizens' questions. A. Cerrillo I Martinez, *El impacto de la inteligencia artificial en el Derecho Administrativo, ¿nuevos conceptos para nuevas realidades técnicas?*, in *Revista General de Derecho Administrativo,* n. 50, 2019, 3.

[27] This debate focuses on several issues: 1) not all algorithms used by the public administration produce legal effects; 2) algorithms do not expire once they are complied with or used, and some of them, such as those that use automatic learning, may even lead to innovation in the legal system by incorporating criteria that are not explicitly provided for in the regulation; 3) the procedure for creating algorithms is a long way off from complying with the procedural steps for drawing up regulations and their publication. On this issue, see A. Huergo Lora, *Una aproximación a los algoritmos desde el Derecho administrativo*, in A. Huergo Lora, G.M. Diaz Gonzalez (eds.)*, La regulación de los algoritmos,* Pamplona, Aranzadi, 2020, 64, in which argues that algorithms do not have a regulatory nature. In contrast, A. Boix Palop, *Los algoritmos son reglamentos: la necesidad de extender las garantías propias de las normas reglamentarias a los programas empleados por la Administración para la adopción de decisiones*, in *Revista de Derecho Público: Teoría y Método*, vol. 1, 2020, argues that the algorithms used by public administrations for the effective adoption of decisions must be considered regulations because they fulfil a material function which, in a strict sense, is equivalent to that of legal rules, as they regulate and predetermine the actions of the public authorities.

[28] A. Huergo Lora, *Una aproximación a los algoritmos desde el Derecho administrativo*, 68.

of how it has worked is needed. This is the case with complex processes to allocate limited resources (e.g., competitive internal promotions for a large number of civil servants, as was the case in Italy, or the allocation of internal-medicine residency positions, which was suspended as a precautionary measure by the Admnistrative Chamber of the Spanish Supreme Court in 2020), where the individual results are interrelated. The legal control of such algorithmic decision-making cannot simply be a matter of manually applying the rule to see if it is consistent with algorithmic performance. Instead, the functioning of the algorithm must be examined, which requires knowledge of all the factors involved in determining its result.

Other algorithms help to steer administrative action in a certain direction and, unlike those mentioned above, provide their own decision-making elements. These are predictive algorithms and represent artificial intelligence in the strict sense of the word. Normally, their effect is equivalent to a scale, which is one of the most common ways of managing administrative action. In this case, however, the scale is not set by a regulation or a non-regulatory administrative decision (such as a set of specific administrative clauses or the terms and conditions of a tender), but by the algorithm itself, based on an analysis of previous cases. The algorithm is designed to achieve an objective set by the regulation, such as identifying students who are at risk of educational underachievement. It does this by creating a 'portrait' based on an analysis of data collected in previous years. The specific characteristics of the portrait are not determined by a person, but by the algorithmic model. Such models are currently used (without regulatory authorization) to support decisions to initiate proceedings, or, at a lower level of legal finalization, to channel the use of public welfare or surveillance resources (e.g. to identify individuals who may require tracing due to an undetected risk situation). In the absence of an algorithm, such decisions would, in practice, lack legal control (they are not discretionary administrative acts, but informal or procedural measures), so the risks involved in the use of these algorithmic models is limited.

To ensure that public decisions do not discriminate against individuals or groups, it is important to avoid bias in both data and algorithms. Discrimination may indeed occur as a result of the data used. If data are of poor quality, contain errors, are flawed, or reflect pre-existing patterns of inequality and discrimination that are consciously or unconsciously transferred to the algorithm, it will learn from biased data or data that discriminate based on gender, race or other conditions, and will make bad decisions or decisions that lead to discrimination. Moreover, the biases may be in the algorithms themselves, and may have been introduced intentionally or unintentionally by the designers or users of the algorithms. In either case, bias can lead to discriminatory decisions by public administrations. To avoid this, data quality must be improved and algorithms should be designed to be particularly sensitive to possible discriminations. In addition, there is a need to encourage the participation of stakeholders in algorithmic decision-making and more broadly, the participation of citizens in the design of algorithms.[29]

It is noteworthy that scholars have called for the creation of committees of experts or other interdisciplinary collegiate bodies which also include representatives of society, to monitor the development of algorithms and, more generally, to assess the impact of artificial intelligence on society and carry out risk analyses.[30] It is also important to create a register of artificial intelligence algorithms and systems used by public administrations. This should be accompanied by a system for certifying that the systems comply with the prevailing regulations and codes. Periodic inspections or audits to check the functioning of the algorithms should also be carried out.[31]

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[29] A. Cerillo I Martinez, *El impacto de la inteligencia artificial en el Derecho Administrativo, ¿nuevos conceptos para nuevas realidades técnicas?*, 16.

[30] See in this regard D. Canals Ametller, *Incidencia del avance tecnológico en el derecho público (elaboración, práctica, docencia e investigación)*, in B. Puentes Ciciña (ed.), *El derecho ante la transformación digital: oportunidades, riesgos y garantías*, Barcelona, Atelier, 2019, 31-50.

[31] In O. Cortes, *Algoritmos y algunos retos jurídico-institucionales para su aplicación en la Administración pública*, in *Revista Vasca de Gestión de Personas y Organizaciones Públicas*, 18, 2020, 59, the author states that the register would be used, if necessary, to interrupt the use of those algorithms that do not adequately fulfil their function or that show behaviour at variance with what is expected. Regarding periodic inspections, these would be used to ascertain how the registered algorithms are performing. This would involve an audit or inspection of their performance, both in terms of regula-

Another important issue is the need to guarantee the transparency principle in the use of artificial intelligence in public administrations.[32] This requires addressing the opacity that characterizes algorithms, an opacity that has led to them being called 'black-box algorithms'. Algorithmic opacity may be due to a lack of access to information, or because accessible information on algorithms does not actually exist. The technical complexity of algorithms makes them difficult for citizens to understand, and therefore renders them inaccessible. Whatever the case, the fact is that public administrations do not formalize their decisions to use algorithms, nor do they document the sources or the results obtained by the algorithms. In our view, administrations should provide access to the content of the algorithms. Moreover, they should formalize and document the decision to use artificial intelligence, including details of its purposes, resources, results, etc., and most importantly, provide an explanation of how the algorithms work and a rationale for the results obtained. These actions, combined with audits of how the algorithms actually work, would guarantee transparency. Despite the complexity of artificial intelligence, under the transparency principle, it should always be possible to justify any decision taken with the help of artificial intelligence that may have a significant impact on people. Furthermore, it should always be possible to simplify the calculations of the artificial-intelligence system in order to make them understandable,[33] because algorithmic transparency is the only way to build a healthy

digital public administration.[34]

The need to achieve interoperability between different public administrations has also been called for, since artificial intelligence does not recognize national and regional governments or borders. At present, the difficulty lies in the fact that each public authority has established its own trust framework, which prevents cross-border exchanges and hampers the functioning of the single market for businesses and citizens.[35] With this in mind, the EU adopted Regulation (EU) 2018/1807 of the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the European Union. The regulation addresses the need for administrative cooperation based on a review of the European Interoperability Framework, and aims to improve digital cooperation between public administrations in Europe through the free flow of data.

Finally, it is essential that the use of artificial intelligence in public-administration activities respects data protection and privacy rights, and is compatible with the protection afforded to these rights by the legal system at both the European and national levels. As such, Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and Spanish Organic Law 3/2018 of 5 December on the Protection of Personal Data and Guarantee of Digital Rights, ensure a high level of protection of personal data and incorporate data-protection principles at the design phase and by default.

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tory compliance and ensuring that they are performing according to the law. Control could be exercised over the results provided by the systems - ex ante, before the results become effective, or ex post once effectiveness has been achieved – and even over the training of the algorithms, by supervising the information provided for their learning and checking their effects before they are put into operation.
32 In this regard, A. Merchàn Murillo, *Inteligencia artificial y blockchain: retos jurídicos en paralelo*, in *Revista Española de Derecho Administrativo*, 50, 2019, 25, points out that the use of artificial intelligence by public administrations will require reconciling the transparency principle and publication of administrative documents with personal-data protection and the privacy rights under a clear and explicit regulatory framework.
33 A. Merchàn Murillo, *Inteligencia artificial y blockchain: retos jurídicos en paralelo*, 12.

[34] G. Vestri, *La inteligencia artificial ante el desafío de la transparencia algorítmica. Una aproximación desde la perspectiva jurídico-administrativa*, in *Revista Aragonesa de Administración Pública*, 56, 2021, 382. The author argues that algorithmic transparency should be approached from two angles. On the one hand, there is a clear need to ensure that the public administration's choice of algorithm is transparent. On the other hand, it must be possible to verify the transparency of the algorithm when it is in operation in the public administration, thus guaranteeing that an interested party can determine how algorithms make decisions. In this way, a double level of transparency can be achieved, which is vital given the intangibility of an algorithm. A distinction is thus made between ex ante transparency (during the contracting or provision phase of the artificial intelligence system) and ex post transparency (once the artificial intelligence system is up and running).
[35] In this regard, see A. Merchàn Murillo, *Inteligencia artificial y blockchain: retos jurídicos en paralelo*, 10.

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In short, the process of adapting our administrative legal system to take advantage of the benefits and opportunities offered by artificial intelligence and improve administrative action involves determining how to control algorithms so that they do not violate citizens' rights.[36] These controls should be exercised at different levels.[37] Thus, at the European level, a European artificial-intelligence agency could be set up to define European policy and strategy in this area and monitor algorithms in general. Indeed, the regulatory-framework proposal on artificial intelligence proposes the creation of a European Artificial Intelligence Board comprising high-level representatives of the competent national supervisory authorities, the European Data Protection Supervisor and the Commission. Its role, however, will be to facilitate the smooth, effective and harmonized implementation of the new regulation, rather than to monitor or supervise. The Board will issue recommendations and opinions to the Commission on high-risk artificial intelligence systems and on issues related to the effective and uniform application of the new regulation. It will also act as a centre of expertise for national authorities, contributing to the development of specialist knowledge and supporting standardization activities in this area.

At the national level, the monitoring and supervisory functions could be entrusted to the Spanish State Secretariat for Digitalisation and Artificial Intelligence[38] or to a newly created body under the Secretariat.

A final level of control would be exercised by the courts. The administrative control they exercise would become an intelligent automated administrative action, whose limits and adaptation to the legal system of the algorithmic administration would be determined by a judge.

3.2.2. *Artificial Intelligence in the Regulatory Process*

As mentioned above, we are convinced that artificial intelligence can contribute to making better regulations. Since there are no specific rules for its use in regulatory proceedings, it is necessary to apply the criteria set out in Spanish Law 40/2015, on the Legal Regime of the Public Sector (hereinafter, LRJSP) for electronic administrative actions in the processing of administrative procedures.

First, we would like to point out that although artificial intelligence can clearly facilitate the exercise of regulated powers,[39] its use in the exercise of discretionary powers is less clear. In such cases, the Administration determines the rights, goods or interests that should remain outside the scope of artificial intelligence, so that they cannot be replaced by an algorithm, even if it is technologically possible to do so. In other words, certain decisions should be left to human discretion, a concept that has been referred to as the "reserve of humanity"[40]. It is true, however, that the greatest efficiency gains are to be found in discretionary decision-making using artificial-intelligence tools. Here, the transformation is qualitatively different in those areas where increased computational capacity allows for new inferences and a better identification of situations, causes or possible solutions. In this case, the increase in efficiency is linked to an improvement in the ability to use these tools to evaluate situations or take decisions that are different from those that would have been taken or are generally taken by human beings, and that are also not

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[36] See C. Campos, *Inteligencia artificial e innovación en la Administración pública: (in)necesarias regulaciones para la garantía del servicio público*, in *Revista Vasca de Gestión de Personas y Organizaciones Públicas*, 3, 2019, 74-91.

[37] In this regard, see O. Cortes, *Algoritmos y algunos retos jurídico-institucionales para su aplicación en la Administración pública*, 54-63.

[38] Set up pursuant to Royal Decree 403/2020, of 25 February, which develops the basic organisational structure of the Ministry of Economic Affairs and Digital Transformation. Under the head of the Ministry, this body will, within the scope of its competences, exercise the functions set out in art. 62 of the LRJSP, regarding the promotion of the digitalisation of society and the economy in a way that respects individual and collective rights, as well as the values of the legal system (art. 8.1).

[39] As is well known, and as García de Enterría and Tomás Ramón Fernández point out, it is assumed that "the Law can exhaustively determine each and every one of the conditions for the exercise of the power, in such a way as to construct a complete legal provision and a power applicable to it, which is also defined in all its terms and consequences (for example, retirement based on a civil servant's age, promotion based on length of service, tax settlement - application of a quota established by the Law to a base established on a specific taxable event - etc.)". In these cases, "the Administration functions in a way that could be called automatic.", *Curso de Derecho Administrativo,* vol. I, 11th ed., 2000, 454

[40] J. Ponce Solé, *Inteligencia artificial, Derecho administrativo y reserva de humanidad: algoritmos y procedimiento administrativo debido tecnológico*, in *Revista General de Derecho Administrativo*, 50, 2019, 28.

easily anticipated or foreseen by normative and regulatory instruments. And it is in these cases that the greatest risks lie, because the functioning of this type of programme is unknown, in other words, there is a black-box effect. This can prevent programmers from reliably predetermining the specific results of the programme once it has been executed, forcing them to rely, to a certain extent blindly, on the validity of these results based solely on the assumption that the programming has been carried out correctly. It is here that public law must take a stand and provide a legal response.[41]

So far, German public law has expressly prohibited, in its administrative procedure act, the use of algorithms for the adoption of decisions affecting citizens' rights that may have a discretionary content, whereas art. 41 of our LRJSP only regulates simple automated decisions.[42] However, this is an issue that should be reviewed sooner rather than later, as it seems that applying the precautionary principle to automated administrative actions in such a strict way may conflict with the principle of effectiveness.

In any case, and without knowing what the future of administrative law will be in this matter, as far as legislative and regulatory power is concerned, it is a discretionary power, but with regulated procedures. The discretionary nature of this power has added value for discretionary administrative acts, as it involves the decision to regulate an issue by creating a legal regulation that will eventually become part of the legal system, with all that this entails. We believe that the will to decide to regulate a matter, as well as the motives and reasons for doing so, i.e. the adoption of the initiative itself, cannot be left in the hands of artificial intelligence (it is difficult to imagine that a computer programme could ever demonstrate this will), but there are some procedures within the complex regulatory process that could be speeded up by automated administrative action and artificial intelligence tools, thus leading to better

regulatory quality.

We should remember that art. 41.1 of the LRJSP states that an automated administrative action is "any act or action carried out entirely by electronic means by a public administration within the framework of an administrative procedure, and without the direct intervention of a public employee." In this type of action, the competent body or bodies responsible for defining the specifications, programming, maintenance, supervision and quality control and, where appropriate, auditing of the information system and its source code, must be designated beforehand. The body responsible for reviewing challenges must also be identified. This will ensure that competence is exercised only by the body assigned such competence, i.e. it must have the effective capacity to monitor the functioning of the algorithms.

In any case, given that the exercise of regulatory power is clearly the responsibility of the body to which it has been delegated, and that this body is responsible for supervising the algorithms used in the regulatory process, the prior consultation, hearing and public-information procedures can all be fully automated. These procedures channel public participation in the regulatory process and, as we have seen, so far only electronic means have been regulated, but we must be aware of the power of social networks and platforms to channel information. Therefore, we are mindful of the fact that public participation in the regulatory process through social networks would allow us to obtain valuable information that, processed with artificial intelligence, would help public bodies make regulatory decisions.[43] Admittedly, the use of social networks as a channel for digital participation still poses challenges, as, given the existing digital divide, it creates inequalities. Moreover, the use of social networks by public administrations is still very limited and those that do use them (mainly local authorities) do so in the same way as other regular users of the network.

Similarly, we have the example of the US, where federal agencies are embracing technological innovation in the regulatory process by using computerized text analysis

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[41] A. Boix Palop, *Los algoritmos son reglamentos: la necesidad de extender las garantías propias de las normas reglamentarias a los programas empleados por la Administración para la adopción de decisions*, 230.

[42] I. Martín Delgado, *Naturaleza, concepto y régimen jurídico de la actuación administrativa automatizada*, in *Revista de Administración Pública*, 180, 2009, 371, also suggests prohibiting administrative decisions with a significant discretionary content.

[43] See in this regard, D. Canals Ametller, *El proceso normativo ante el avance tecnológico y la transformación digital (inteligencia artificial, redes sociales y datos masivos)*, 11.

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(eRulemaking) for citizen participation. This is carried out on a digital platform that encourages high participation and whose results are evaluated using artificial intelligence. Thus, in the phase prior to the drafting of regulatory standards, the pre-regulatory process (notice-and-comment) is managed electronically and new technologies are used to distribute information and collect comments from the public on regulatory initiatives via a single online platform.[44]

This model has been the subject of several studies which show that incorporating new technologies into the regulation-making process serves four purposes: first, transparency and participation in the content of the regulation increases its democratic legitimacy; second, regulatory quality is improved because eRulemaking provides additional information, including information on the impacts of a specific rule or regulation and the positive and negative effects of the measures or other regulatory options; third, greater efficiency is achieved since it reduces the operating costs of the federal agency concerned; and fourth, there is increased compliance with regulations by addressees and public administrations as greater regulatory transparency implies greater acceptance and facilitates judicial control.[45]

However, a shortcoming of the American model is the fact that increased public participation does not always translate into quality information. Thus, one of the current challenges of eRulemaking is to ensure that new technologies effectively improve the quality of citizen participation and regulations. Nevertheless, it is clear that interest in the regulatory process has increased significantly in the United States. There has also been a considerable increase in public participation,

with US agencies receiving millions of comments each year from citizens and organisations representing a wide range of interests regarding their respective regulatory proposals. These comments are a valuable source of information that can be used to examine empirically how public agencies relate to citizens. Indeed, several such analyses have already been undertaken.[46]

Furthermore, this information and the vast amount of data it generates can also be used to improve the public decision-making process. Thus, we can distinguish between different types of regulatory data: (a) data prior to the adoption of a regulatory initiative (empirical and/or specialized data and information used to make regulatory decisions. These data are obtained from the results of prior consultations, hearings and public information procedures, sectoral institutional reports, monitoring and supervisory bodies, analyses of case-law outcomes, academic research, and participation on platforms and social networks, as discussed in this paper); b) data following the adoption and entry into force of the regulatory provision, and in particular, data on the effective implementation and enforcement of legal regulations; and c) official data from the legal systems in force, given the large number of regulations and regulatory types, the lack of clarity of which urgently calls for simplification and streamlining of legal sources.[47]

The benefits of using digital technologies in the regulatory process are obvious. They can assess citizen participation, interpret the impact of regulation or its degree of

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[44] For L. Arroyo Jiménez, *Participación electrónica y elaboración de normas administrativas en España y en los Estados Unidos de América*, in I. Martin Delgado (ed.), *La reforma de la administración electrónica: una oportunidad para la innovación desde el derecho*, Madrid, INAP, 2017, 231-258, eRulemaking is a different approach to processing and resolving regulatory procedures; it is a way of managing procedures to make regulations based on the use of new information and communication technologies that go beyond mere websites. This is because tools such as those enabling electronic claims or public meetings can be incorporated into the procedure, and social networks, blogs or other applications can increase transparency and citizen participation.
[45] D. Canals Ametller, quoting Professor Arroyo, in *El proceso normativo ante el avance tecnológico y la transformación digital (inteligencia artificial, redes sociales y datos masivos)*, 13.

[46] See M.A. Livermore, V. Eidelman, B. Grom, *Computationally Assisted Regulatory Participation*, in *Notre Dam Law Review,* vol. 93, issue 3, 2018, 977. These authors have conducted a large-scale "sentimental analysis" of public comments, to see how word choices in millions of public comments relate to measures or ideology in a variety of settings and to assess what attitudes are reflected in the texts. Having applied a basic and replicable sentimental analysis procedure to public comments received for all non-minor regulations over the course of the Obama Administration, they found that administrative agencies with more moderate ideological leanings tend to receive comments containing more positive language. Such analysis indicates that the agencies' political characteristics are correlated with the characteristics of the comments. As noted by D. Canals Ametller, *El proceso normativo ante el avance tecnológico y la transformación digital (inteligencia artificial, redes sociales y datos masivos)*, 16.
[47] As argued by D. Canals Ametller, *El proceso normativo ante el avance tecnológico y la transformación digital (inteligencia artificial, redes sociales y datos masivos)*, 17.

compliance; facilitate regulatory assessment (both ex ante and ex post), provide greater regulatory transparency and produce information on how to regulate certain situations. Having access to this privileged information undoubtedly leads to improved regulatory quality. We therefore believe that implementing artificial intelligence tools would significantly speed up these processes and help Spain rank among the most advanced countries in terms of regulatory improvement.[48]

Although administrative law will eventually have to address this issue, we would like to think that progress is being made in this area. In this regard, we can highlight the adoption of the Digital Rights Charter, one of the commitments made by Spain in the Digital Spain 2025 plan, which recognizes the challenges posed by the adaptation of current rights to the virtual environment. It includes a set of principles and rights to guide future regulatory projects, and public policies to guarantee the protection of individual and collective rights in the new digital environment.

The Charter is a non-binding soft law document that recognizes and demands the protection of rights already provided for in Spanish Organic Law 3/2018, of 5 December, on Data Protection and the Guarantee of Digital Rights. It includes new contributions regarding the protection of the elderly and people with disabilities in the digital environment, conditions for health protection in the digital environment, and, above all, and of particular interest to us, rights regarding artificial intelligence (section XXIII of the Charter). More specifically, it includes the right to algorithmic non-discrimination; it ensures transparency, auditability, explainability and traceability, and it guarantees accessibility, usability and reliability. The will of the individual prevails, in such a way that individuals "have the right not to be subject to a decision based solely on automated decision-making processes, including those using artificial intelligence procedures, that produce legal effects or significantly affect them in a similar way (…). In such cases, the following rights are recognized: a) the right to request human supervision and intervention, b) the right to challenge automated or algorithmic decisions." As such, individuals "shall be informed of the use of AI systems that communicate with human beings using natural language in all its forms. In all cases, assistance from a human being at the request of the interested party shall be guaranteed. The use of AI systems aimed at psychologically manipulating or disturbing persons, in any aspect affecting fundamental rights, is prohibited."

Indeed, the Charter is a programme-outcome document that provides a roadmap for addressing the challenges of adapting existing rights to the virtual environment. It does not create new rights, but rather protects existing rights in the context of digital competencies. Although its lack of regulatory value prevents the rights recognised in the Charter from being binding, this is not its purpose. Instead, it is intended to reflect the existing trends and realities of contemporary society, and serve as a guide for future regulatory adaptation and development. The introduction to the Charter clearly states that its objectives are threefold: to describe the impact and consequences of digital

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[48] As is well-known, to measure regulatory improvement at the international level, a series of indicators - Indicators of Regulatory Policy and Governance (iREG) - were drawn up by the OECD in 2015 to measure countries' regulatory quality. The 2018 OECD Regulatory Policy Outlook report - which analyses countries' initiatives to improve regulatory quality when compared to the principles set out in the 2012 OECD Council Recommendation on Regulatory Policy and Governance - notes that Spain is gradually expanding its better regulation agenda, which initially focused on simplifying administrative burdens, stakeholder participation and evaluation. Thus, an easy-to-navigate platform was created, the "Transparency Portal", where the Annual Regulatory Plan can be consulted and which allows for public consultation, although stakeholder participation has not yet been systematically carried out.

Along the same lines, the regulatory impact analysis report must, and in practice does, accompany all regulatory projects. The updated 2009 Methodological Guide will provide regulators with an effective tool for improving the preparation of the regulatory impact-analysis report. It has been suggested that the guide could go further by providing advice on data-collection methods and clear and transparent methodologies for assessments. The report also notes that Spain would benefit from developing standard techniques for ex post evaluation, which is still in its infancy and not yet systematically implemented. It mentions the Office of Regulatory Coordination and Quality as a regulatory oversight body that was launched in 2018 to oversee the implementation of regulatory improvement requirements, specifically by examining the contents of regulatory impact-analysis reports and ex post assessments. However, despite these improvements, Spain is below the OECD average in key areas (public participation, ex ante assessment, regulatory impact analysis reports and ex post assessment).

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environments and spaces; to anticipate future scenarios that can be predicted; and to revalidate and legitimize the principles, techniques and policies that, based on the culture of fundamental rights, should be applied in current and future digital environments and spaces.

Therefore, we see the Charter as a step forward in the digital transformation of public administration and in line with other initiatives that have been carried out in this area. Such initiatives include the proposed European Regulation on artificial intelligence, and the Portuguese Charter of Human Rights in the Digital Age (Law number 27/2021, of 17 May). Portugal has followed in the footsteps of other countries that have adopted specific laws to recognize rights in the digital environment, for instance, the French Digital Republic Law of 2016, while Spain has aligned itself with Italy, which adopted its Declaration of Internet Rights in 2015.

The Spanish National Plan for Digital Skills, included in the Digital Agenda 2026 and which part of Spain's Recovery, Transformation and Resilience Plan, is also noteworthy. The Plan's objective is to ensure the digital training and inclusion of all workers and citizens in order to foster the creation of quality jobs, reduce unemployment, increase productivity and, above all, contribute to closing gender, social and territorial gaps.

Irrespective of the model chosen to develop artificial intelligence in public administration, this process must be accompanied by a plan to specialize technical resources and infrastructures, together with the introduction of a package of measures aimed at the training and specialization of public-administration staff.

4. *Criteria for Regulatory Rationality*

The drafting of poor-quality regulations is not only detrimental to legal certainty but also to legal rationality. We therefore believe that the only way to achieve quality rules in our legal system is to develop criteria and key elements that must be considered when drafting rules, together with the introduction of artificial intelligence into the regulatory process. We believe that different types of regulatory rationality should be introduced in Spain that include several criteria.[49] Namely:

A) Linguistic rationality. If a regulation is not clear and understandable, it will be difficult to comply with it. Thus, it must be clear, precise and simple, so that the main addressee of the regulation, the citizen, can understand its content. Moreover, if the regulation concerns technical or complex issues, descriptive elements or definitions must be introduced. But we must go further and appreciate the importance of language, using simple, precise vocabulary and avoiding ambiguity and redundancy. To achieve this, training should be provided for civil servants or experts who draft regulations. We must not forget that our legislators are no longer, as in the past, made up of learned people.[50]

B) Logical rationality. The regulation must be consistent with existing laws and avoid repetition or reiteration of other regulations. Systemic repetition of higher regulations in a higher rank are common. References and cross-references should be used as this avoids unnecessary proliferation of legal regulations.

C) Formal or technical rationality. The procedure established for drafting and approval must be followed and, in order to have legal effect, it must be published in the appropriate Official State Gazette. Within the drafting procedure, it is essential that the regulatory impact-analysis report justifies the necessity and proportionality of the regulation, and that the economic report supports the budgetary availability for its implementation. The *ex ante* assessment should provide all the necessary information on the regulation and allow us to extract its regulatory footprint.

D) Systematic rationality. Regulations must have a logical and systematic order that gives meaning to their content. To this end, the current guidelines establish a basic structure. Regulations must have a title, an

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49 Several years ago, the authors M. Atienza, *Con-*

tribución a una Teoría de la Legislación, Cuadernos Civitas, Santander, Editorial Civitas, 1997, 27 and 28, and A. Calsamiglia, Ciencia Jurídica, *El Derecho y la Justicia*, in *Enciclopedia Iberoamericana de Filosofía*, 11, Madrid, Editorial Trotta, 1996 suggested providing the norms with higher quality standards in the following areas: 1) communicative or linguistic; 2) formal juris-diction; 3) pragmatic; 4) teleological, and 5) ethical.
50 As was the case in the age of the Enlightenment, when the legislative assemblies were made up of "learned and eloquent men who confer amongst themselves, who discuss the most sublime matters, who dispute with heated interest or offended self-esteem, and in who do not decide the plurality of votes, but after long examination and great debates...". J. Bentham, *Estilo de las leyes*, in *Tratados de Legislación Civil y Penal*, Madrid, Editora Nacional, 1981, 536.

explanatory part (preamble or explanatory statement), proposals (articles), a final part (transitional, final, derogatory provisions, etc.) and, where appropriate, annexes. In addition, everything must follow a systematic order so that the content of the regulation is logically distributed within its titles or chapters.

E) Teleological rationality. The quality of the regulation should not only address its formal or technical quality, but also its material quality. An ex post evaluation of the regulation should be carried out to ensure that the objectives pursued have been achieved and that the costs and burdens derived from it were justified and adequately assessed.[51] An adopted regulation must be evaluated to see whether it satisfies basic standards of rationality and reaches acceptable levels of clarity, coherence, efficacy, effectiveness, axiological suitability and efficiency, criteria which, if properly applied, make it possible to distinguish between good and bad legislation.

F) Organisational rationality. Another important issue is the need for coordination between the various bodies responsible for regulatory oversight. The OECD itself has pointed out that oversight mechanisms are essential in order to reduce the gap between the formal requirements of better regulation instruments, their practical implementation and the necessary cultural change. Although administrative organisation varies from one country to another, public policy, by virtue of its cross-cutting nature, is subject to fragmented governance, where different bodies are assigned oversight functions in regulatory quality-improvement policy. In

Spain, there are several ministries with competences in this area, for example: the Ministry of Territorial Policy and Public Function, which is responsible for fostering the simplification of administrative procedures, monitoring the reduction of administrative burdens, ensuring the transparency of public actions, promoting the Administration's digital agenda and encouraging citizen participation in the regulatory drafting process; the Ministry of Economy and Business, which checks various aspects of the quality of the economic impact analysis: general, sectoral, on market unity, competition and competitiveness, and plays a key role in the ex post evaluation of the results of the regulation; and the Ministry of Industry, Trade and Tourism, which is responsible for assessing the economic impact of regulations on small and medium-sized enterprises (SMEs). In addition, there is the Office of Coordination and Regulatory Quality, which is part of the Ministry of the Presidency, Parliamentary Relations and Equality and is responsible for promoting the coordination and quality of the government's regulatory activity, and the Council of State, which is responsible for assessing the legality of regulations, the processing procedure, the efficiency of the Administration in achieving its objectives, and the legal quality of regulations and draft bills. All these, together with other bodies that also participate in the regulatory cycle, in addition to those that draft and process regulatory projects, such as the General Technical Secretariats of all the various ministries, the National Commission for Markets and Competition or the General Codification Commission. Therefore, this is another issue that we should address and one in which we should strive for organisational simplification, as this is the only way to ensure that supervisory functions can be carried out responsibly, independently and transparently.

G) Technological rationality. Lastly, and in line with what we have analysed in this paper, we should be committed to introducing technological innovation into the regulatory process. There are many benefits to be gained from using artificial intelligence for to assess and interpret of the huge amount of regulatory data generated throughout the process. These range from improving citizen participation by enabling the use of platforms and social networks for prior consultation, providing

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[51] Regarding the ex post evaluation of regulations, the questions Atienza suggests we ask ourselves could be useful: First, what are your goals? Are there any undeclared objectives or results (required or not by the "legislator")? Are they justified according to socially dominant values, constitutional principles or certain ethical concepts? Also, in relation to more technical matters: are the contents of the law (the obligations, prohibitions and permits it contains) and the institutions that it considers, appropriate to achieve the objectives? Are there incentives (positive or negative sanctions) and resources (for example, financial) that can ensure the effectiveness of the law? Does the law leave gaps or create contradictions or, on the contrary, does it regulate everything it should regulate and does it do so harmoniously, taking into account all the articles and the rest of the legal system? Finally, is it written in such a way that the regulation's message is reasonably clear and can be understood by its addressees - direct and indirect – and does not give rise to interpretive problems that could have been avoided?: M. Atienza, *Sobre la nueva Ley de Reproducción Humana Asistida*, *in Revista De Bioética y Derecho*, 2009, vol. 14, 4.

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information and public hearings, to strengthening regulatory evaluations (ex ante and ex post) and measuring the degree of acceptance and compliance with the regulation. All this will improve regulatory quality and the regulatory decision-making process.

We believe that the content of the regulation is as important as its effectiveness. In other words, "it is not enough just to examine the regulations in the abstract, we must also see how they actually work."[52] The criteria for regulatory rationality would allow us to guarantee the principle of legitimate expectations, which is key to protecting citizens' rights in the face of unforeseeable regulatory changes. This includes not only the protection of citizens' legitimate expectations, who adapt their economic behaviour to existing legislation in the face of regulatory changes that are not reasonably foreseeable, as established by case law,[53] but also, and more importantly, protecting against unnecessary regulations that disrupt, complicate or make the application of existing legislation more difficult.[54] This is the only way to comply with art. 3.1.e) of the LRJSP which stipulates that public administrations must observe the principles of good faith and legitimate trust in

their actions.

The regulatory rationality test should be carried out during the initial phase of each regulatory development process by a specialised body created ad hoc in each public administration with regulatory powers, given that both the legislative initiative and regulatory power are vested in the government (either state or autonomous, or even local in the case of local governments' regulatory power). Thus, when the regulation reaches the parliamentary-debate stage (in the case of laws), its text already meets all the linguistic, technical and formal criteria.

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[52] A. Nieto, *El Derecho comunitario europeo como derecho común vulgar*, in *Revista de Administración Pública*, no. 200, 2016, 28.

[53] For clarification, we can highlight the Spanish Supreme Court decision of June 23, 2014, which states that "The principle of the protection of legitimate expectations is neither new nor unusual in our jurisprudence. Several judgments have made it operational in different areas to safeguard those who have acted under its protection. These include the judgments of November 23, 1984 (official case repertory 1984/5956), June 30, 2001 (cassation 8016/95), April 26, 2010 (cassation 1887/05), November 28, 2012 (cassation 5300/09) and January 22, 2013 (cassation 470/11). The last two judgments, passed with regards taxation, adopt the criteria already established in the case law of the European Court of Justice, according to which the principle is binding on all public authorities: (i) if the belief of the administration that supports it is based on external signs and not on mere subjective appraisals or psychological convictions and, (ii) assessing the interests at stake, the situation of those who have legitimately relied on the Administration is worthy of protection [Judgments of April 26, 1988, Krüechen (316/96); 1 April 1993, Lageder and others (joined cases C-31/91 to C-44/91); 5 October 1993, Driessen and others (joined cases C-13/92 to C-16/92); 17 July 1997, Affish (C-183/95); 3 December 1998, Belgocodex (C-381/97); and 11 July 2002, Marks & Spencer (C-62/00)].

[54] Similarly, S. Muñoz Machado, *Regulación y confianza legítima*, in *Revista de Administración Pública*, no. 200, 2016, 160.

Studia Varia