Ten years of active regional transparency in Spain through open data: period 2013-2023

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ABSTRACT
Introduction: Active transparency being provided through open data enables the reuse of the information that is disclosed and, therefore, increases its value. **Methodology:** A transparency indicator has been formulated based on the law 19/2013 on transparency, access to public information and good governance, which weights the disclosure of information according to the scale that is proposed by Tim Berners-Lee, assessing biannually the performance over the period 2013-2023. **Results:** The scores are not very high and, although they improved in the first eight years, they declined slightly in the last period. The regional differences are very marked, with some autonomous communities doing an adequate job (Basque Country, Catalonia) and others whose score in 2023 is zero points (Extremadura and Community of Madrid). Although four autonomous communities managed to maintain or improve their scores, the longitudinal analysis shows that most of the autonomous communities experienced negative variability throughout the study, which seems to indicate that it is more difficult to maintain initiatives than to implement them. **Discussion and conclusions:** The two most relevant initiatives, Catalonia and the Basque Country followed different patterns of behavior. In any case, either of them could be established as an example to be followed by autonomous communities that have neglected the information associated with active transparency through their open data portals or by those that have never considered this task.

Keywords: autonomous communities; open data; Spain; open government; transparency; five-star data; public information.

1. INTRODUCTION

The international movement towards transparency originated in the 18th century with a liberal interpretation of a State without secrets. Thus, nothing would remain out of the public eye (Buendía-Espinosa & Salas-Durazo, 2020).

In Spain, the approval of a transparency law has been late. Therefore, it has become the only country in the European Union with more than one million inhabitants without having a regulation governing the fundamental right of access to public information (Garriga-Portolà, 2013). The regulation has been described as unambitious (Serrano Maíllo et al., 2017), receiving comments such as great failure, law that was stillborn or law that includes four deadly sins (Nuet i Pujals, 2015). However, the approval of Law 19/2013 on transparency, access to public information and good governance, coupled with increased concern about corruption, has led to an increase in studies related to transparency in recent years (Rodríguez-Navas et al., 2017).

Ten years have just passed since Law 19/2013 on transparency, access to public information and good governance, was passed in Spain. This law has meant a boost for the provision of information that has been complemented by several autonomous laws (Sierra-Rodríguez, 2022), noting (see Table 1) that all the autonomous regions (except the Basque Country, which has submitted its preliminary draft bill in 2024 on Transparency of Euskadi), have developed their own regulations to develop and adapt the national law to the specificities of their environment.

Table 1. *Autonomous regulations at the end of 2023.*

Andalusia	Law 1/2014, dated June 24, on Public Transparency of Andalusia.
Aragon	Law 8/2015, dated March 25, on Transparency of Public Activity and Citizen Participation of Aragon.
Canary Islands	Law 12/2014, dated December 26, on Transparency and Access to Public Information.
Cantabria	Law 1/2018, dated March 21, on Transparency of Public Activity.
Castile and Leon	Law 3/2015, dated March 4, 2015, on Transparency and Citizen Participation of Castile and Leon.
Castile-La Mancha	Law 4/2016, dated December 15, on Transparency and Good Governance of Castile-La Mancha.
Catalonia	Law 19/2014, dated December 29, on Transparency, Access to Public Information and Good Governance.
Community of Madrid	Law 10/2019 dated April 10, 2019, on Transparency and Participation of the Community of Madrid.
Autonomous Community of Navarre	Regional Law 5/2018, dated May 17, on Transparency, Access to Public Information and Good Government
Valencian Community	Law 1/2022, dated April 13, of the Generalitat, on Transparency and Good Governance of the Valencian Community.
Extremadura	Law 4/2013, dated May 21, 2013, on Open Government of Extremadura.
Galicia	Law 1/2016, dated January 18, on Transparency and Good Governance of Extremadura
Balearic Islands	Law 4/2011, dated 31 March, on Good Administration and Good Governance of the Balearic Islands
La Rioja	Law 3/2014, dated September 11, on Transparency and Good Governance of La Rioja
Basque Country	Draft Bill 2024 on Transparency of the Basque Country
Principality of Asturias	Law 8/2018, dated September 14, on Transparency, Good Governance and Stakeholder Groups
Region of Murcia	Law 12/2014, dated December 16, on Transparency and Citizen Participation of the Autonomous Community of the Region of Murcia.

Source: Elaborated by the authors based on information from the Transparency and Good Governance Council of Spain (https://www.consejodetransparencia.es/ct_Home/transparencia/transparencia-en-espanya.html).

Despite the fact that Spain is one of the countries with the worst results in terms of fiscal transparency, i.e., reduced transparency in public accounts (Sánchez-Bayón, 2023), as shown in Table 1, the commitment to transparency in Spain is resolute. Transparency has been established as an inspiring principle and a fundamental axis in the functioning of public authorities (Chamorro-González, 2022) playing a fundamental role in democratic governance as it provides intangible values such as credibility and reputation (Muñoz Lalinde & Peña Orozco, 2022). It has even established itself as a control mechanism or technique with respect to the administration (Campos Acuña & Vaquero García, 2019; Sánchez de Diego Fernández de la Riva & Sierra Rodríguez, 2020; García Salas, 2022).

In addition to the promotion of transparency, fostered by the aforementioned regulations, there are other initiatives of considerable interest, and there are international organizations at the service of the development of accessibility and availability of information (Castañeda-Rodríguez & León-Silva, 2024). One of them, as pointed out by Medina Torres and Jaramillo (2021), is the Open Government Partnership created in 2011 by Brazil, the United States, the Philippines, Indonesia, Mexico, Norway, the United Kingdom and South Africa, which in 2024 has a total of 75 member countries and 104 local jurisdictions as members (Open Government Partnership, 2024). Membership in this organization must be supported by an open government declaration, a letter of commitment and an action plan that promotes open government (Banfi, 2013), and must pass an independent review mechanism (Delgado Morales, 2021).

The Government of Spain joined the Open Government Partnership in the summer of 2011, and it is currently engaged in its fourth action plan composed of ten commitments with the aim of strengthening accountability and transparency, promoting citizen participation and establishing public integrity measures. Although it is not intended to dwell on its analysis, it should be mentioned that an approach to the content of this 4th open government action plan can be found in Delgado Morales (2021), and that a qualitative analysis using CAQDAS is available in González-García and García-García (2022).

Several Spanish autonomous regions have joined the initiative (Open Government Partnership, 2024), being adhered: Aragon, joined in 2020 and first action plan for the period 2021-2023; Asturias, joined in 2022, with its first action plan for the years 2022 and 2023; Basque Country, joined in 2018 with two action plans having been subscribed (2018-2020 and 2021-2024); Catalonia, joined in 2020 with an action plan for the period 2021-2023 and Comunidad Valenciana, joined in 2022 and which is implementing three commitments of its 2022-2023 action plan.

Together with the development of regulations and the work of supranational organizations, open government data is one of the open government initiatives that have grown the most in recent years. With the obvious differences in concrete views on digitization by the interventionist or liberationist schools noted by Sánchez-Bayón et al. (2024), it is undeniable that governments around the world are increasingly fostering a data-driven public sector, an end-to-end asset for public innovation, service delivery, and policy formulation (Kawashita et al., 2024). Thus, meeting the needs and desires of a citizenry immersed in the digital world, which requires continuous and universal transparency in public management through the disclosure and openness of data (García-García & Alonso-Magdaleno, 2023). And there is no doubt that making government datasets available will contribute positively to increasing trust in governance by promoting transparency and accountability (Emigawaty et al., 2023; De Juana-Espinosa & Luján-Mora, 2020; Tubekova et al., 2023) being, the requirement to advance in smart governance (Cerrillo-Martínez, 2018), the dissemination of quality information that allows to be analyzed and is easily reusable Cerrillo-Martínez & Casadesús-de-Mingo, 2021).

Publicly accessible websites have been the means chosen by leaders to provide information on government activities and performance (Grimmelikhuijsen & Meijer, 2012; Mabillard & Keuffer, 2020). Three are the digital platforms that have typically been employed to promote transparency: the institutional web, the first tool used in the dissemination of public information on the network, which offers content of all kinds in a not very orderly manner; transparency portals, which have proliferated in recent years centralizing information on this subject but without taking into account the dimension of reuse in dissemination; and open data or open data portals, which contemplate free licenses and reusable formats as a priority so that information can be processed in a simple manner overcoming the limitations of basic PDF dissemination (García-García & Curto-Rodríguez, 2019). It is this technological dimension that will generate a qualitative advance in the contents of accountability and transparency (Criado-Grande, 2013; Cruz-Meléndez & Pinacho-Ríos, 2020), due to its power to transform public administrations (Criado-Grande, 2016) thanks to fundamental open data in open government policies (Díez-Garrido & Melero Lázaro, 2022) that facilitate a monitoring task that would otherwise be practically impossible (Curto-Rodríguez, 2020).

Spain is a powerhouse in open data (Abella et al., 2022), with 312 open data portals as of March 2024 (Ministry for Digital Transformation and the Civil Service, n.d.) offering a total of more than 80,000 datasets, according to the national portal datos.gob.es. In any case, the type of open data is very varied, and so are its sources of value, so it is not surprising that the number of datasets supplied has increased. For example, in the Spanish autonomous communities it has gone from approximately 5,000 datasets in 2013 (Curto-Rodríguez, 2015), to more than 38,000 in 2023. In any case, and as noted above, one of the strengths of open data is to stimulate the solution of a wide range of public problems (Pozen, 2020) and to favor transparency (Lnenicka & Nikiforova, 2021). Therefore, the research has focused on analyzing the latter aspect.

2. OBJECTIVES

Although it seems clear that the open data movement will allow a more transparent administration, better services and research at lower cost (Ferrer-Sapena et al., 2011), the most recent literature shows that there is still a long way to go in the understanding of its theoretical foundations, methodology and general progress (Tang & Li, 2024), so it seemed appropriate to delve deeper into this topic.

Spain is a largely decentralized country (Martínez-Vázquez, 2014), practically quasi-federal (Bastida et al., 2019). Therefore, following Alcaraz et al. (2017), this study focuses on the interest of autonomous regions as a study target, since in Spain there are several governments that make decisions autonomously in different contexts, having to combine limited resources with a large number of competencies to be addressed and having to justify the actions carried out to citizens.

The study of transparency and open data at the regional level in Spain is a field that has hardly been explored, even though open data is, in the opinion of those responsible for open government in the autonomous regions, the second most developed dimension of open government (Curto-Rodríguez et al., 2024). After the publication of the "Spanish Frankenstein of open data" (Garriga-Portolà, 2013), which describes the main open data initiatives in the country and identifies Spain as an international benchmark in open data (despite lacking at that time a law regulating the fundamental right of access to public information), and other initial works on similar topics such as those of the Orange Foundation and Arvo Consultores (2014) and Curto-Rodríguez (2015), few researchers have been encouraged to complete this knowledge-gap in the literature. Some deal with regulations, such as Valle Escolano (2019), who carries out a detailed study on the specific features of each regional transparency law; or Galletero Campos and Álvarez Peralta (2021), who analyze the legislative situation of thirteen regional laws on institutional advertising. Some deal with regulations, such as Valle Escolano (2019), which carries out a detailed study on the specific features of each regional transparency law; or Galletero Campos and Álvarez Peralta (2021), who analyze the legislative situation of thirteen regional laws

on institutional advertising. Others, such as Beltrán-Orenes and Martínez-Pastor (2019), provide a regional overview of public procurement; while Boix Palop and Castellanos Claramunt (2021) coordinate a work entitled *Transparencia y comunidades autónomas: una perspectiva multinivel* (Transparency and autonomous communities: a multilevel perspective), which includes some comparative studies. All this means that, given the lack of attention to intermediate levels, this approach becomes relevant in this research work.

Having chosen the perspective of the Spanish autonomous governments, the main objective of the research is to find out whether the Spanish autonomous open data initiatives include attention to transparency and accountability among their tasks. This question is intended to be answered for each of the six terms considered (2013, 2015, 2017, 2019, 2021 and 2023) and in a disaggregated manner for each of the seventeen autonomous regions.

Likewise, and as secondary objectives, the aim is to analyze the overall evolution of the transparency indicator, determining whether its two components, the existence of information and the quality of reuse, are evolving in the same direction. Also, at the aggregate level, the aim is to estimate measures of position and measures of dispersion that will make it possible to observe whether the existence of differences in scores between autonomous regions is due to some phenomenon in the distribution of values, such as asymmetry, among others.

Another aspect to be considered by the study is the identification of which autonomous communities are the leaders in transparency through open data. The location of these autonomous communities should be accompanied by a detailed description of their initiatives to illustrate the path to be followed by the autonomous communities that are lagging behind. Finally, it would be interesting to carry out a typological analysis of the variation in the scores of the autonomous regions, with the aim of finding out how performance has evolved. This would make it possible to determine whether the scores have remained stable or whether, on the contrary, there have been fluctuations, which would make it possible to make a judgment on the degree of difficulty in keeping the information updated once the initial coding and/or implementation of the portals has been carried out.

3. METHODOLOGY

The lack of consensus on the use of a tool for measuring transparency led to the development of a proprietary tool with two aspects: the existence of information and the assessment of the potential degree of openness.

When developing the checklist (existence of information), there is no standard in transparency measurements (Sierra-Rodríguez, 2018), although its central core should be composed of data of a social, political and economic nature (Kaufmann & Kraay, 2002), fiscal policy intentions, public sector accounts and their projections (Kopits & Craig, 1998), and any information that allows evaluating the actions of policy makers (Rodríguez-Navas et al., 2017). Therefore, and given that transparency laws indicate subjects, procedures and channels to access information of interest (Cruz Meléndez & Valencia López, 2022), it has been decided to analyze the active transparency section paying special attention to articles 6 to 8 of Law 19/2013, on transparency, access to public information and good governance (which are the common minimum applicable at the national level) when selecting the items to be included (Table 2).

Table 2. *Checklist.*

Economic-financial accountability
Expenditure and revenue budgets:
By any classification *(organic, functional or economic).*
By budget items
Report with description of budgetary programs
Budget execution:

Monthly information on execution
Annual settlement
Budget modifications
Budgets of public entities, companies and foundations
Annual accounts of public companies
General Account of the Autonomous Community
Compliance with the budget stability objective
Level and breakdown of indebtedness
Audit report
Accountability of the governors
Organization chart and contact
Remuneration of members of government and senior officials
Declarations of assets of members of government
Declarations of activities of members of government
List and remuneration of positions of trust
Accountability in grants and contracts
Grants and subsidies
Scholarships, prizes or competitions
Contracts awarded

Source: Elaborated by the authors.

It was decided not to be satisfied with the mere existence of information, so, secondly, the aim was to weight the dissemination in terms of its degree of openness. As the development of evaluation strategies is underdeveloped largely due to difficulties in identifying qualitative and quantitative measures (Ahmadi Zeleti et al., 2023), several options have been considered. Some interesting initiatives are "*Meloda*" (metric to assess the reuse of open data), proposed by Abella et al. (2014), or "*Odapri*" (proposal to measure the reputation of portals), developed by Ortiz-de-Urbina-Criado et al. (2023), or five star data (Berners-Lee, 2009). The five star data tool was chosen because it is simple to use and widely accepted. It is a scale that identifies five degrees of information openness: first level, all information existing on the web, even if it is not structured; second level, machine-readable data, even if proprietary formats are used; third level, open, structured and non-proprietary formats; fourth level, data that is also linkable; and fifth level, fully linkable data.

It should also be noted that there is the MESTA Methodology but it has been discarded for three reasons: first, because it was launched in the middle of our research (on March 28, 2017); second, because of its complexity (it covers aspects such as content, form, updating, accessibility, clarity, structure, reusability, place of publication, availability of banner, etc.); and, third, because it is rarely used by researchers.

Once having explained the items to be considered and having defined the weighting according to the formats in which the information is offered, the indicator of active transparency through open data can be defined. The indicator will award one point if the open data portal has one or more datasets that provide updated information on each item of information, adding additional points for each level of the Berners-Lee scale (one on the first scale, two on the second, three on the third, and four for levels four or five stars —both relating to the semantic web—). Thus, the minimum autonomic value would be zero points (in the total absence of updated data that would allow the specifications of any of the items contemplated by the checklist to be considered as met) and a maximum value of one hundred points (obtained if the twenty items are met at semantic web levels, that is, in at least a level four or five format of the five star data tool). The visits to the portals were made in December of the years of 2013, 2015, 2017, 2019, 2021 and 2023, checking the results in January to observe that the changes in terms of the number of datasets offered were not greater than the tolerance level set at 3%. The fieldwork was carried out manually, i.e. without using search engines (neither by title nor by category), thus avoiding the exclusion from the study of datasets that might use non-standard

terminology or that were misclassified. The titles of all the datasets in the portal were displayed, accessing the detailed content and/or downloading when necessary. After indicating the information collection process, the following section presents the main results achieved.

4. RESULTS

Results are presented starting with the overall assessment of each autonomous community (Table 3), which breaks down, on the one hand, the number of items addressed, i.e., the existence of information and, on the other hand, the reusable quality of the information disclosed according to the format in which it is being offered.

Table 3. *Summary of scores achieved by autonomous community for the years 2013-2015-2017-2017-2019-2021-2023.*

| Rk	CC.AA.	dec-13			dec-15			dec-17			dec-19			dec-21			dec-23		
		Itat	*Reu*	**Total**	*Itat*	*Reu*	**Total**	*Itat*	*Reu*	**Total**	*Itat*	*Reu*	**Total**	*Itat*	*Reu*	**Total**	*Itat*	*Reu*	**Total**
1st	CAT	2	4	**6**	2	4	**6**	5	20	**25**	7	26	**33**	8	31	**39**	11	42	**53**
2nd	VAS	11	33	**44**	12	36	**48**	10	30	**40**	11	35	**46**	11	35	**46**	9	31	**40**
3rd	CNR	0	0	**0**	2	6	**8**	1	3	**4**	4	12	**16**	5	15	**20**	7	23	**30**
4th	NAV	6	18	**24**	6	18	**24**	6	18	**24**	6	18	**24**	9	27	**36**	6	21	**27**
5th	CTL	3	12	**15**	3	12	**15**	6	18	**24**	6	20	**26**	7	21	**28**	6	17	**23**
6th	AND	5	11	**16**	5	11	**16**	7	21	**28**	9	23	**32**	9	23	**32**	5	17	**22**
7th -8th	RIO	0	0	**0**	0	0	**0**	5	15	**20**	6	18	**24**	5	15	**20**	4	16	**20**
7th -8th	CNT	0	0	**0**	0	0	**0**	0	0	**0**	4	16	**20**	4	16	**20**	4	16	**20**
9th -10th	AST	0	0	**0**	0	0	**0**	0	0	**0**	1	2	**3**	3	9	**12**	6	13	**19**
9th -10th	ARA	3	9	**12**	4	12	**16**	5	15	**20**	6	20	**26**	8	24	**32**	4	13	**17**
11th	MUR	0	0	**0**	0	0	**0**	1	2	**3**	5	15	**20**	6	18	**24**	4	13	**17**
12th	BAL	2	7	**9**	2	7	**9**	2	8	**10**	6	18	**24**	8	32	**40**	3	12	**15**
13th	CTM	0	0	**0**	1	4	**5**	1	3	**4**	3	8	**11**	3	8	**11**	3	6	**9**
14th	VAL	0	0	**0**	0	0	**0**	0	0	**0**	2	6	**8**	0	0	**0**	2	6	**8**
15th	GAL	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	1	3	**4**
16th	EXT	5	15	**20**	5	15	**20**	2	6	**8**	2	6	**8**	1	3	**4**	0	0	**0**
17th	MAD	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**	0	0	**0**
TOT				**146**			**167**			**210**			**321**			**364**			**324**

Note1: AND - Andalusia, ARA - Aragon, AST - Principality of Asturias, BAL - Balearic Islands, CAT - Catalonia, CNR - Canary Islands, CNT - Cantabria, CTL - Castilla y Leon, CTM - Castilla-La Mancha, EXT - Extremadura, GAL - Galicia, MAD - Community of Madrid, MUR - Region of Murcia, NAV - Community of Navarra, RIO - La Rioja, VAL - Community of Valencia, VAS - Basque Country, CC.AA. - autonomous communities.
Note2: *Itat - Number of items indicated in Table two considered as attended; Reu - Reuse quality according to the five star data level.*
Source: Elaborated by the authors.

The total values in Table 3 show that the scores at the global level have progressively increased in the period 2013-2021 but not uniformly since, although a milder advance is identified between the years 2013 and 2017, it is more noticeable between 2017 and 2021. Also, it is observed that the decline in the period 2021-2023, leaves the cumulative scores at values close to those of 2019. Figure 1 shows that the variability occurs in both the number of items addressed and the potential for reusable openness, so that the two components of the active transparency score move in the same direction.

Figure 1: *Evolution of the added value of transparency through open data.*
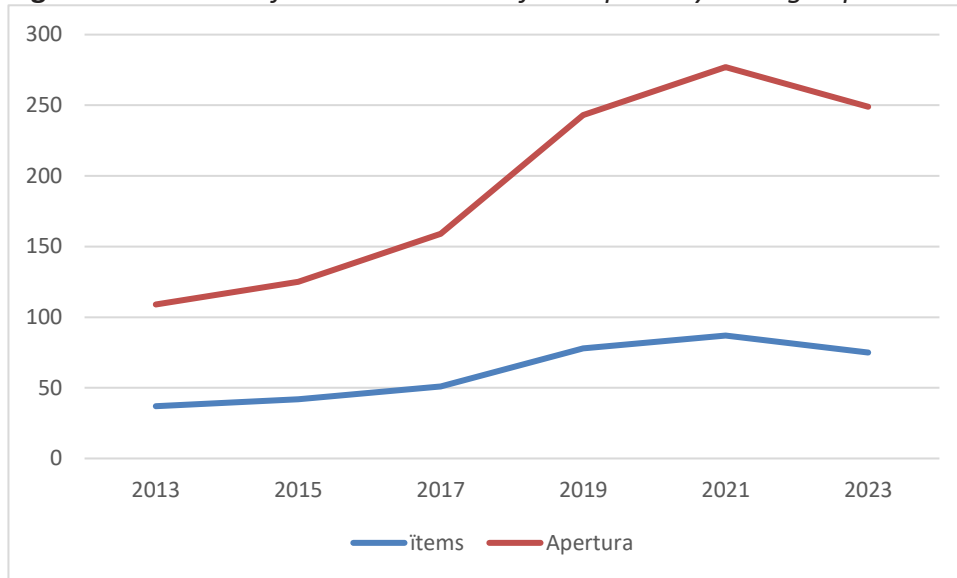
Source: Elaborated by the authors.

The following table shows the position and dispersion parameters (Table 4) that summarize the performance of the transparency indicator in each of the periods under study

Table 4. *Summary of position and dispersion parameters of the 2013-2015-2017-2017-2019-2021-2023 indicator.*

Values		PT2015	PT2017	PT2019	PT2021	PT2023
Mean	8.590	9.820	12.350	18.880	21.410	19.060
Standard Deviation		12.700	12.670	12.650	15.060	13.690
Coefficient of Variation		1.29	1.02	0.67	0.73	0.72
Asymmetry		1.843	.679	.195	-.087	.840

Source: Elaborated by the authors.

It can be observed (Table 4) that the mean score does not show very high values (let us recall that the maximum score would be 100 points), although there is a marked upward trend. The variation of the standard deviation is not very marked, although the values of the coefficient of variation (calculated as the quotient between the standard deviation and the mean) show a decreasing trend, which implies that in recent periods the arithmetic mean is more representative of the data as a whole. In any case, the scores for the asymmetry indicator are striking, with values greater than zero in five of the six periods analyzed (the graphical representation is shown in Figure 2).

**Figure 2:** *Transparency indicator asymmetry by period under study.*
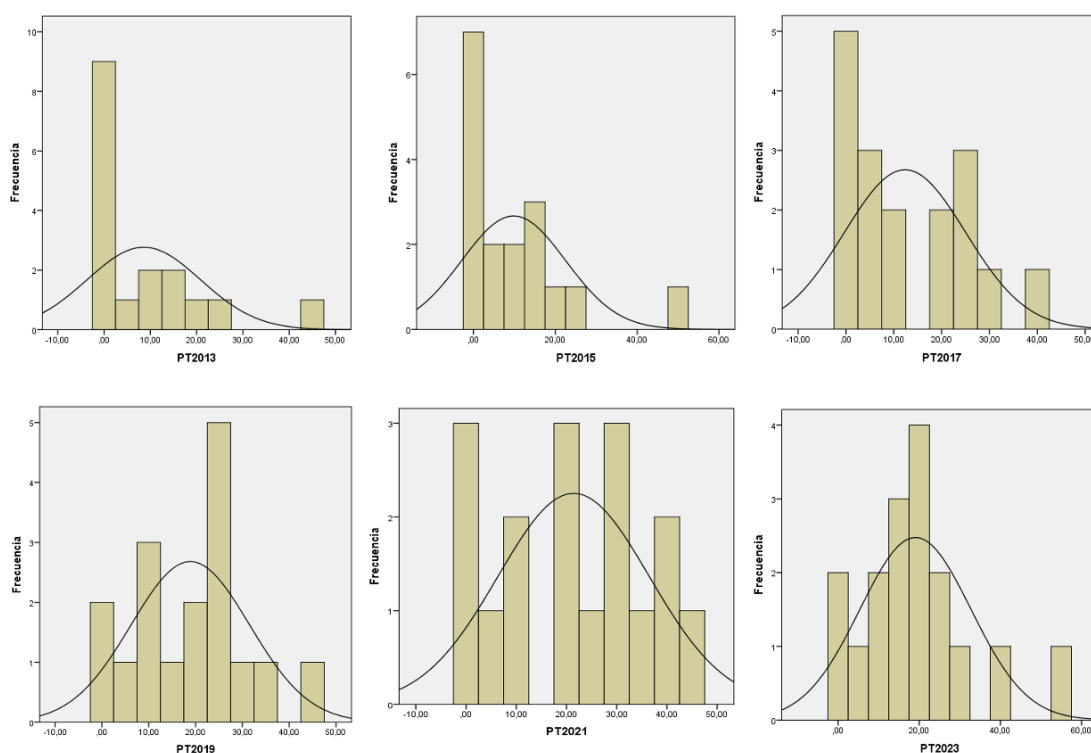
Source: Elaborated by the authors.

Thus, as shown in Table 4 (asymmetry values) and Figure 2 (graphical representation of the curves), it can be seen that there is a predominance of marked asymmetry values that show that the indicator is far from a normal distribution. Let us recall that in a normal distribution the curves accompanying the histograms in Figure 2 would be symmetrical, i.e. the shape of their tails - to the right and to the left of the peak - would be equal. This asymmetry, positive on five of the six occasions, implies that observations to the right of the mean are more distant from the mean than observations to the left. In our research, this means that the few autonomous regions that are advanced in accountability are well above the mean score. If 2013 is taken as an example, it can be seen (see Table 3) that eleven autonomous communities have scores below the mean of 8.59 (and closer to this value) while only six autonomous communities exceed it (with a greater distance, such as the Basque Country with 44 points, 35 points above the mean).

Having pointed out the significant inequality between autonomous regions, it seems interesting to consider the evolution of each autonomous region over the ten years of research. Leaving aside the Community of Madrid, which is the only autonomous community that has shown a constant performance longitudinally (zero points throughout the study), it can be seen that the rest of the autonomous communities have experienced variations in their transparency indicator scores. For the sake of clarity, the regions have been classified into two groups: those that have never declined in score (Figure 3) and those that have (Figure 4).

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Figure 3: Autonomies with no decline in the indicator score.
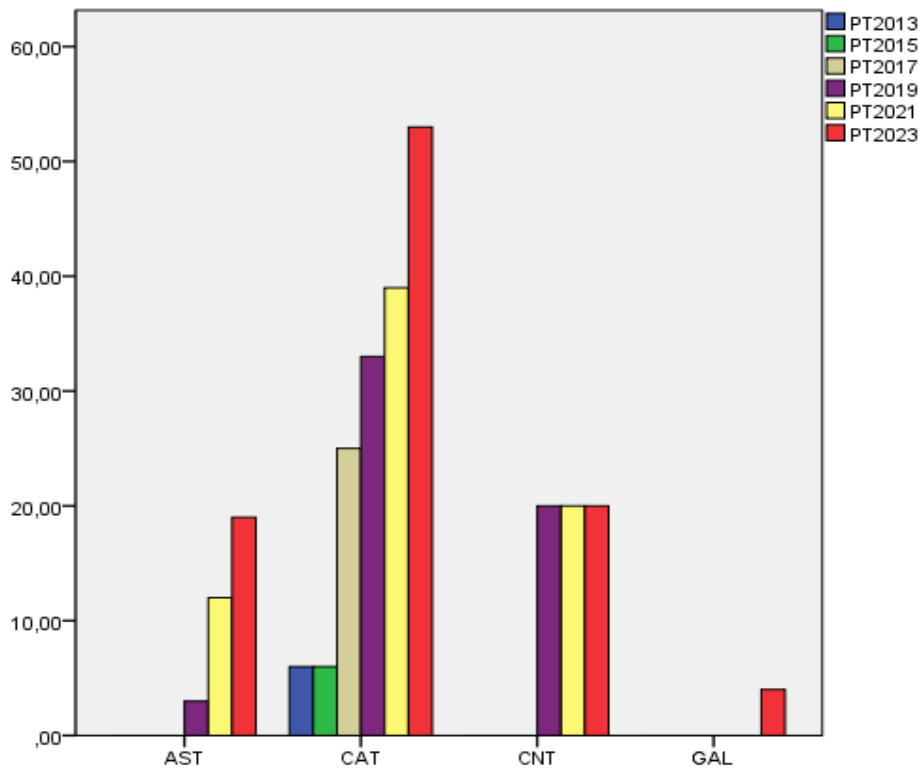
Note: AST - Principado de Asturias, CAT - Catalonia, CNT - Cantabria, GAL - Galicia.
**Source:** Elaborated by the authors.

Figure 3 shows that only four autonomous regions have not experienced any declines. In first place is the Principality of Asturias, which goes from not disclosing information associated with active transparency in the first three periods of the study, to a progressive improvement in the following three. Secondly, there is Catalonia (the autonomic leader in 2023) that after repeating scores in 2013 and 2015 experiences a continuous improvement. In third place, the case of Cantabria is mentioned, which, after the opening of its data portal, has managed to maintain its score. Finally, there is Galicia, which manages to complete an item for the first time, specifically budget information.

On the other hand, there are the twelve autonomous communities that have seen their score decrease at least at some point in the six periods analyzed (Figure 4).

Figure 4 shows the variability of the autonomous regions that have declined at some (or several) times during the study. As can be seen, the process is experienced by all types of autonomous communities, both those with high values (such as the Basque Country, which shows slight oscillations) and those with reduced performances (such as the Valencian Community, which goes from having a positive score in 2019 to totaling zero points in 2021). Exceptionally striking is the case of Extremadura, an autonomous community with a promising start in 2013 and 2015 in which it formed part of the most advanced autonomous communities in the country, which has progressively reduced its score to zero points, which has made it share the last place with the Community of Madrid in 2023.

Figure 4: Autonomous Regions with declining indicator scores.
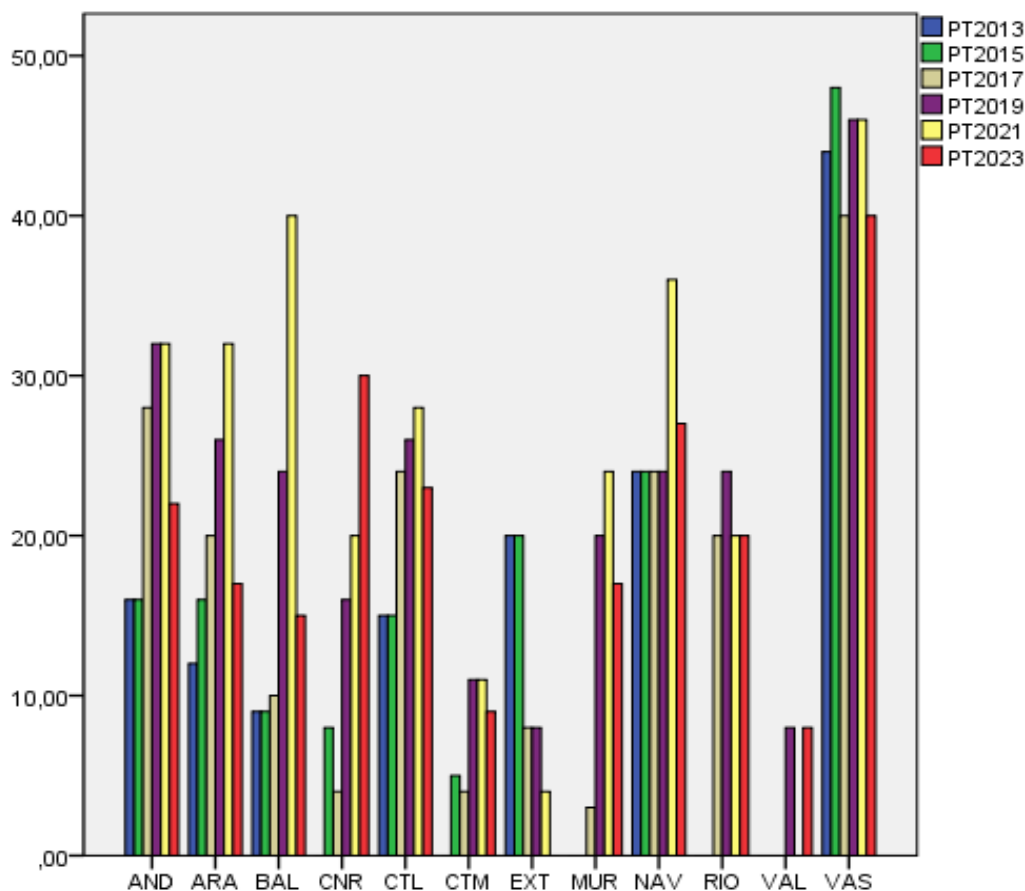
Note: AND - Andalusia, ARA - Aragon, BAL - Balearic Islands, CNR - Canary Islands, CTL - Castilla y Leon, CTM - Castile-La Mancha, EXT - Extremadura, MAD - Community of Madrid, MUR - Region of Murcia, NAV - Community of Navarre, RIO - La Rioja, VAL - Community of Valencia, VAS - Basque Country.
Source: Elaborated by the authors.

5. DISCUSSION AND CONCLUSIONS

The concept of active transparency, in the field of the public sector, refers to the disclosure of information about the different decisions taken by governments on the destination of resources and above all the additional content that allows monitoring the task that has been carried out. In current times, where there is a fourth industrial revolution characterized by robotics, artificial intelligence, the internet of things or big data, it does not seem wise to disclose information in any form. It seems logical, therefore, not to be satisfied with simply making information available and to demand the use of free licenses and open formats that overcome the limitations of PDF files. In this way, free access to information will allow its automated processing by means of computer programs and/or applications that, by taking this data as raw material, will allow its exploitation and use.

This paper aims to assess the communication model that favors accountability through open data. Open data portals, the destination of open data that are accompanied by a series of metadata that give them greater value, centralize the information and facilitate its location thanks to powerful built-in search engines. The focus is on the intermediate governments of a highly decentralized country such as Spain, where the autonomous communities are very different from each other in terms of surface area, population, income level or the existence of their own language. The analysis examines compliance with twenty items of information based on Law 19/2013

on transparency, access to public information and good governance, and its reuse potential according to the five-star data scale. Based on these two parameters, a transparency indicator is elaborated whose minimum value is zero points and a maximum value of 100 points. The fieldwork was carried out through biannual reviews over the period 2013-2023, which made it possible to have six snapshots of Spanish regional performance and to assess the evolution over ten years by analyzing more than 100,000 data sets.

The results at the aggregate level show a clear upward trend, with three stages: a slight increase between 2013 and 2017, a significant acceleration between 2017 and 2021, and a slight decline in 2023. The coverage of the indicator has had a minimum of 8% over the total maximum in 2013 (when open data initiatives in Spain were emerging) reaching a maximum of 21% in 2019. These values cannot be considered high, but at least they can identify a certain level of attention to active transparency through open data on the part of the Spanish autonomous regions.

At the autonomous community level, the results show important differences from the first period analyzed (range of forty-four points between the leading autonomous community, the Basque Country, and those that obtained zero points), to the last (fifty-three points separating Catalonia from the autonomous communities with no score). The findings seem to be in line with the statement by Jiménez Sánchez et al. (2022) that Spain is the second European country (after Italy) in which the disparity in the quality of autonomous governments is the highest. Also, these results seem to confirm that the concept of the Spanish Frankenstein of open data, pointed out by Garriga-Portolá (2013), can also be applied to the subset of open data associated with transparency, since the initiatives are very different from each other in terms of the nature of the information disclosed, codification of the information, a variety of formats, etc.

It can also be seen that the differences between the autonomous communities are accompanied by a significant positive asymmetry, indicating that the most advanced autonomous communities are further away from the average than the worst. A typological analysis for 2023 would identify three groups of scores: five autonomous regions lagging behind (with Extremadura or the Community of Madrid standing out with zero points); ten autonomous regions with intermediate scores (between 10% and 30% of the maximum achievable); and the binomial Basque Country and Catalonia (40 and 53 points respectively). These two leading regions in terms of accountability through open data account for more than 40% of the total score, although they present a different pattern of behavior, which is why it is necessary to take a closer look at their initiatives.

On the one hand, the Basque Country, national leader in five of the six reviews carried out by the work, has maintained a correct performance longitudinally. Despite being the only Spanish autonomous region without an approved transparency law (its draft law was sent to parliament in December 2023 and has seen the preliminary draft approved in 2024), it was a pioneer through the launch in 2010 of its internationally recognized and imitated Irekia program (Basque term whose translation into Spanish is open). The Basque Country was also the first Spanish regional government to have an open government development plan within the framework of the Open Government Partnership, and is currently immersed in its second action plan. Its open data portal, called Open Data Euskadi, has been the most populated at regional level throughout the study, being only surpassed by the Canary Islands in 2023 with 13,000 datasets (compared to 11,000 in the Basque Country), although in both repositories there is abundant statistical information that crosses, segments or combines primary information.

Catalonia, on the other hand, has been a clear example of continuous improvement. Starting from very low scores on the transparency indicator in 2013 and 2015, it has progressively improved its performance to become a national leader. Incorporated into the Open Government Partnership in 2020, it has already completed its first action plan subscribed for the period 2021-2023, although its merit, in terms of the disclosure of transparent information in a reusable manner, must be attributed to those responsible for its data portal Dades Obertes. The repository has not been concerned with the number of datasets offered, departing from other initiatives that

considered this fact as a priority (since a greater number of datasets could attribute to them a better developed work), making two relevant updates to its portal: the first in 2017, where it compiled more than 1,000 geographic information datasets in one; and the second from 2017, with a firm commitment to quality (rather than quantity), formulating most of the datasets in several different formats and concentrating its efforts on promoting reusability.

On the opposite side, there are two autonomous regions with zero performance. As for the Community of Madrid, the only autonomy with zero points throughout the study, everything seems to indicate that it has never wanted to contemplate as one of the utilities of its open data portal, attention to transparency. Extremadura, on the other hand, has been a sad and clear example of neglect, dropping from third place in the 2013 ranking, having practically abandoned its initiative from the year indicated (without updating the existing datasets and without incorporating any new ones throughout the entire period). It is difficult to guess the reasons for these two behaviors, since Extremadura and the Community of Madrid share little more than their geographical proximity, being very different in terms of income, GDP, population, etc. The recommendation for both is to look at the examples identified, i.e. Catalonia and the Basque Country.

Turning to the analysis of the variation in the scores of the autonomous communities, it can be seen that only four of the seventeen autonomous communities have not reduced their scores at any time during the study. The fact that three times as many autonomous regions have declined as those that have not shows that it is more difficult to update than to launch a dataset. For this reason, it is believed that those responsible for open data portals should be required, after the initial coding of a dataset and its incorporation into the portal, to make a commitment to keep it updated whenever necessary.

Before concluding the work, it should be mentioned, as limitations of the study, that the evaluations have been carried out using a single indicator and that the results could have been different if another tool had been used. The recent methodological proposal called MESTA (Methodology for the Evaluation and Monitoring of Transparency in Public Activity) developed by the Council for Transparency and Good Governance could have been chosen, but the fact that it has had a timid practical application (Ros-Medina, 2020), and the absence of consensus when measuring transparency through open data, led to the choice of one that is easy to understand: the existence of information and its reusable quality.

With regard to future lines of research, and given that the autonomous cities of Ceuta and Melilla have been left out of this analysis due to their obvious differences in size and resources with the Spanish autonomous regions, a future study could be carried out in a comparative manner with other municipalities. Likewise, a ranking accumulating the sum of the six partial scores would place the Basque Country in first place with 264 points, Catalonia with 162 and Navarre with 159, three "singular" communities in terms of their own language, article of access to the constitution, or foralism (Comunidad Foral de Navarra). All this suggests that it is necessary to think about what is behind this performance and that goes beyond simple regulations (Navarre has one of the most ambitious autonomous open government legislations and the Basque Country does not have regulations that have completed the parliamentary process) or membership of the Open Government Partnership (Catalonia and the Basque Country are adhered autonomous governments, but not Navarre).

Finally, since there is a strong belief that active transparency through open data overcomes the limitations of disclosing information in any way and in any format, one final thought is to consider a future where not only information is kept up to date, but also that it progressively includes more and more data associated with government transparency. It seems that the trend is positive, as shown in the study by Curto-Rodríguez et al. In their opinion, despite the identification of relevant obstacles to development (resistance to change, economic-budgetary or legal-regulatory issues), open government in general (and open data in particular) is expected to grow and expand in the future. It is hoped that the excellent examples identified: the Basque Country and Catalonia, will be used as a reference for other autonomous communities and will result in a better performance of the Autonomous Communities that still have a great margin for improvement.

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