



MUSEUMS AND SUSTAINABLE DEVELOPMENT. MUSEUM MANAGEMENT AND DIGITAL COMMUNICATION TO ACHIEVE THE SDG.

MUSEOS Y DESARROLLO SOSTENIBLE. GESTIÓN MUSEÍSTICA Y COMUNICACIÓN DIGITAL PARA ALCANZAR LOS ODS.

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ABSTRACT

During the 20th century, museums have experienced an evolution in their identity and practices, which has brought the realization of their educational mission. Under the present context of the 2030 Agenda, this research aims to expose how museums are cultural actors with the power to contribute to achieving Sustainable Development, especially through their connection with SDG 4 (Quality Education). For this reason, the thematic area of this work is the communication of museum institutions and it is justified in both methodological and circumstantial aspects as it is part of a national context, in which the mission of the action plan approved by the United Nations has been extolled and new mechanisms have been promoted to achieve the SDGs. Bearing in mind that museums, regardless of their ownership, are actors that contribute to public value by producing social and cultural capital, the purpose of this paper is to study the place of Spanish museums in the 2030 Agenda. It provides a historical approach and a qualitative consultation with museum professionals in order to offer results with which to convey the need to incorporate the 2030 Agenda in the strategic plans of museums to increase its dissemination and generate the maximum educational value for citizens.

Keywords: Agenda 2030, Communication, Education, Museum, SDG 4.

RESUMEN

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Las instituciones museísticas han experimentado durante el siglo XX una evolución en su identidad y en sus prácticas que ha supuesto la cristalización de su misión educativa. De hecho, actualmente los museos tienen potestad para contribuir al logro del Desarrollo Sostenible, especialmente mediante su vinculación con el ODS 4 (Educación de calidad). Por ello, este trabajo tiene como área temática la comunicación de las instituciones museísticas. Se justifica en aspectos tanto metodológicos como coyunturales al inscribirse en un contexto nacional que ha ensalzado la misión del plan de acción aprobado por las Naciones Unidas y que ha impulsado nuevos mecanismos para alcanzar los ODS. Teniendo en cuenta que los museos, independientemente de su titularidad, son actores que contribuyen al valor público produciendo capital social y cultural, el presente trabajo tiene como objeto de estudio conocer el lugar que ocupan los museos españoles en la Agenda 2030. Se aporta un enfoque histórico y una consulta cualitativa a los profesionales de las instituciones museísticas a fin de ofrecer resultados con los que transmitir la necesidad de incorporar la Agenda 2030 en los planes estratégicos de los museos para aumentar la difusión de la misma y generar el máximo valor educativo para la ciudadanía.

Palabras clave: Agenda 2030, Comunicación, Educación, Museo, ODS 4.

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1. INTRODUCTION

In a global context where Sustainable Development is a revolution in the management of institutions, museums are revealed as essential social agents to achieve the 2030 Agenda, especially through Sustainable Development Goal number 4 (Quality Education). Therefore, it is of interest to research whether museum communication and specifically its digital dimension, is identified as a resource for the dissemination of this work. Thus, from a social point of view and from a national perspective, it is studied whether museum organizations publicly assume their role in achieving Sustainable Development. For this purpose, the present work aims to study the place that Spanish museums occupy in the 2030 Agenda through the opinion of their professionals.

2. OBJECTIVES

The main objective of this research is to know the role that digital communication plays in museum management to achieve the SDGs. Furthermore, to achieve this objective, a series of preliminary objectives of a secondary nature have been proposed, such as: perceiving the relationship between Spanish museums and the 2030 Agenda, with a special interest in SDG 4 (Quality Education); find out the level of knowledge that national museum institutions have of the 2030 Agenda by consulting their professionals, and knowing the relevance of museum institutional communication in the dissemination and achievement of the SDGs.

3. METHODOLOGY

To achieve these objectives, descriptive-exploratory research has been designed that is supported by two techniques. In the first place, a compendium of secondary sources is offered to elaborate a state of the issue that collects the theories about corporate communication and Public Relations in museum institutions. Likewise, information regarding the 2030 Agenda is presented from the relevant institutions and public bodies.

Secondly, a collection of primary data is exposed as information about reality has been collected "directly by the person conducting the research" (Berganza and Ruíz, 2005, p.78). The procedure for obtaining this information has been the structured open-response interview by providing all recipients with a list of questions in the same sequence and with the same formulation.

The questions have been developed based on the variables of the study: the perception of museum professionals about the 2030 Agenda/SDG in the management of the institution and their opinion on the contribution of communication in this regard. For this reason, the battery of questions has been addressed to the museum institutions of the national territory registered in the Directory of Museums and Collections of Spain, "a tool that allows knowing and getting closer to the more than 1,500 existing museums and museum collections in Spain, being a living representation of the rich current museum scene" (Ministry of Culture and Sports, n.d.). The list of questions has been sent to each of the museums in the national territory, regardless of their size, theme, ownership, or management. The universe to be studied has been made up of the set of 1,161 museums registered in the Directory of Museums and Collections of Spain: 165 museums in Andalusia, 60 museums in Aragon, 62 museums in the Canary Islands, 10 museums in Cantabria, 147 museums in Castile and León, 96 museums in Castilla-La Mancha, 114 museums in Catalonia, 3 museums in the city of Ceuta, 3 museums in the city of Melilla, 100 museums in the Community of Madrid, 7 museums in the Provincial Community of Navarra, 135 museums in the Valencian Community, 30 museums in Extremadura, 66 museums in Galicia, 37 museums in the Balearic Islands, 11 museums in La Rioja, 62 museums in the Basque Country, 20 museums in the Principality of Asturias, and 33 museums in the Region of Murcia.

The interviewees have been able to answer in their own words and to the desired length. Therefore, the interviews have provided a qualitative perspective by allowing the study of "shared meanings intersubjectively expressed in language" (Berganza and Ruíz, 2005, p.31). Thus, to analyze the provided answers, an interpretive methodology has been followed.

The execution of the questions has been carried out electronically, both because it is a scattered sample and because it is considered that, through this system, the interviewees could exercise greater reflection when submitting their answers. It is worth mentioning that the study objectives have been formulated in the previous body of the message, as well as the guarantee of confidentiality and anonymity of the participant who requested it. It has been favored that the addressee of the questions in museum institutions was either the communication area or the institution's

management. However, on some occasions, due to the nature of the museum, the institution has been contacted by means of a general email address so that, through internal management, it could be estimated who could be the most appropriate person for the development of the responses.

The questions posed were the following:

1. Do you know the 2030 Agenda and the SDGs?
2. To what extent do you think culture is a relevant factor in achieving sustainable development?
3. Do you think that museums are currently working in this line? How?
4. Do you consider that the communication of museums is aimed at making their role in Sustainable Development known?
5. Do you think that museums use all possible resources of digital communication to contribute to Sustainable Development?

In the Annex, section you can find the table (See Table 1²) where the sample of national museum institutions that have collaborated with the study appears. The order in which these data are presented is alphabetical based on: first, the autonomous community in which the museum institution is located; second, the province in which the museum institution is located; and third, the name of the museum institution itself. Likewise, a synthetic compilation of the obtained data may be observed (See Tables 2³ and 3⁴).

4. DISCUSSION

4.1. Communication from the traditional museum model to the socio-digital model

“From closed to open, from a few to a few more the better, from elitist to populist, from quiet to talkative” (Mateos, 2012, p.11).

In the 20th century, museums became public institutions with a universal vocation. This factor, together with the emergence of a worldview based on the end of meta-stories, allowed the development of new museum models characterized by their didactic nature. The Traditional Museum was replaced by the Social Museum, configured on the basis of heritage principles (tangible and intangible) of renewal and interaction between the territory, the population, and the collection. In this way, it is possible to decode the heritage to facilitate its understanding by the whole society, the interpretive dimension of the museum is enhanced, and a museum vision based on multiculturalism and protected by inclusive principles is configured in the face of the material, corporal, or symbolic diversity (Hernández, 2018). The communicative and educational dimension of the museum has not always been aimed at interacting with its public. But since museology surpassed the interest in objects to reach other spaces beyond those covered by collecting and conservation, not only could a conceptual and methodological change of the term be achieved, but museum institutions improved their strategies to relate to the public and disseminate heritage knowledge to citizens

² Table 1. Museums that have been part of the study.

³ Table 2. Summary of responses from national museums.

⁴ Table 3. Participating museums in the national territory that are unaware of the 2030 Agenda and the SDGs.

for didactic and educational purposes. Later, with the incorporation of technologies in museography, the notion of the Digital Social Museum originated. ICTs⁵ allow communication and dialogue with the museum to no longer only take place within its physical space (Moreno, 2005), while TCLs⁶ enable learning, access to heritage, and the development of museum education in any place in the world thanks to virtual spaces (Rivero, 2010). Similarly, museum communication acquires a playful and delightful purpose since the cultural consumer is inscribed in a context of hyperconnectivity and globalization where the museum no longer considers the public a constituent element of the museum process but rather the objective of its activity.

Table 4. Evolutionary comparison of museum archetypes

Traditional Museum	Social Museum	Social Digital Museum
Space for some people.	Space for all people.	Space for all people.
The teacher transmits.	The teacher mediates.	The teacher energizes.
The public is a receiver.	The public is a builder of knowledge.	The public is a consumer of experiences.
Learning is deterministic.	Learning is constructivist.	Learning is personalized.
One-way communication.	Bidirectional communication.	Multidirectional communication.

Source: Self-made based on Llerena (2015) and Mas Iglesias (2018)

4.2. 2030 Agenda and sdg 4 to configure csr of museum institutions

The communicative work of museum institutions is part of the set of actions that make up Public Relations. In this way, the production of intangibles with which to generate an identity of the institution is achieved (Viñarás, 2016), and mutual understanding with the public is reached (Viñarás, 2005) thanks to the managerial nature of Public Relations that, although persuasive, are alien “to the commercial and economic objectives of marketing, with which they are sometimes mistakenly confused” (García-Nieto, Viñarás-Abad, and Cabezuelo-Lorenzo, 2020, p.9).

At present, the use of "techniques of communication, negotiation, and establishment of skillful and time-tested relationships" is imposed (Johnston, 2018, p.25) so that the museum configures its engagement, reaches new audiences, manifests the services and tasks it has, projects an image that transmits its corporate identity, and favors its reputation. It should be said that museums need a social license to operate since the CSR⁷ of an institution responds to the expectations and vision that society has about what it means to be a socially responsible organization at a specific time (Hurst and Ihlen, 2018, pp. 135-138).

Depending on whether an analysis based on the public image of the museum institution is carried out or if a study based on manifestos from international organizations, such as ICOM or UNESCO, is undertaken, the educational role of museums can be perceived from complementary perspectives. On the one hand, as part of its nature and its mission, both the official definition of the museum and the evolution of the social

⁵ ICT (Information and Communication Technologies).

⁶ TCL (Technologies for continuous learning).

⁷ CSR (Corporate Social Responsibility).

role assumed by the institution are taken into account. On the other hand, as part of its strategy, it does favor the generation of intangibles that develop a positive institutional image and corporate behavior that satisfies its stakeholders. In any case, museums play a substantial role in promoting the educational plan of the 2030 Agenda, which contributes to the achievement of SDG 4, in particular, and the SDGs, in general, by education being related to the other goals.

The cultural dimension of development and the educational plan of the 2030 Agenda is manifested in target 4.7. So, taking into account that museums are places “where the link between culture and sustainable development is perfectly reflected” (UNESCO, 2015, p.24), it is assumed that museum institutions are actors capable of accelerating the implementation of Sustainable Development. by promoting culture as a transformative element. The 2030 Agenda needs museums, not only for their functions, their capacities, and their potential but because only through the cooperation of all social actors can Sustainable Development be achieved.

Objetivo 1	La educación es crucial para salir de la pobreza.	Objetivo 10	La igualdad de oportunidades en el acceso a la educación ha demostrado su eficacia contra la desigualdad social y económica.
Objetivo 2	La educación es fundamental para avanzar hacia unos métodos agrícolas más sostenibles y adquirir conocimientos sobre nutrición.	Objetivo 11	La educación puede aportar las competencias necesarias para contribuir a configurar y mantener unas ciudades más sostenibles y alcanzar la resiliencia en situaciones de desastre.
Objetivo 3	La educación puede aportar una contribución decisiva para muchas cuestiones relativas a la salud, como la mortalidad prematura, la salud reproductiva, la difusión de las enfermedades, el bienestar y los estilos de vida saludables.	Objetivo 12	La educación puede influir decisivamente en los patrones de producción (p. ej., respecto a la economía circular) y en la información de los consumidores sobre la producción de bienes más sostenibles y la limitación de los desechos.
Objetivo 5	La educación de las mujeres y las niñas es particularmente importante para lograr la alfabetización básica, desarrollar las competencias y capacidades participativas y mejorar las oportunidades vitales.	Objetivo 13	La educación es clave para la comprensión de los efectos del cambio climático por el público en general, así como para la adaptación y la mitigación, especialmente en el plano local.
Objetivo 6	La educación y la formación aumentan las competencias y la capacidad para usar los recursos naturales de forma más sostenible y pueden contribuir a promover la higiene.	Objetivo 14	La educación es importante para concienciar sobre el entorno marino y fomentar un consenso proactivo respecto a su uso racional y sostenible.
Objetivo 7	Los programas educativos, especialmente los no formales y los informales, pueden promover una mejora en la conservación de la energía y el uso de fuentes de energía renovables.	Objetivo 15	La educación y la formación desarrollan las competencias y la capacidad para garantizar medios de subsistencia sostenibles y conservar los recursos naturales y la biodiversidad, especialmente en entornos amenazados.
Objetivo 8	Hay una relación directa entre la vitalidad económica, la iniciativa empresarial, las competencias para el mercado laboral y el nivel educativo.	Objetivo 16	El aprendizaje social es vital para propiciar y promover unas sociedades participativas, inclusivas y justas, así como la coherencia social.
Objetivo 9	La educación es necesaria para desarrollar las competencias que permiten construir unas infraestructuras más resilientes y lograr una industrialización más sostenible.	Objetivo 17	El aprendizaje permanente desarrolla la capacidad para entender y promover las políticas y prácticas de desarrollo sostenible.

Figure 1. Education's relationship with the other Sustainable Development Goals.
Source: UNESCO (2017).

McGhie (2019) declares that museums need the SDGs. First, because they enable museums to generate impact by directing “their activities to an external, real-world agenda, in support of local and global well-being” (p.35). And second, because they provide them with “objectives for stakeholders to work together” (p.35). Likewise, ICOM (2020a) reaffirms the need for the SDGs not only because they allow museums to connect with other sectors and make their multiple resources available to a good cause, but also because the SDGs “offer them an ambitious global agenda that can help them demonstrate their relevance and impact”.

Therefore, taking into account the connection between the museum and the needs noted in the action plan of the 2030 Agenda, what should be the role of museums in the current context is manifested as they are social and cultural actors deeply linked to some of the aspirations developed in the SDGs. Mainly to those linked to the generation of learning opportunities, either through the museum dialogues established in the museum, the promotion of TCL, or the development of educational practices in the formal, non-formal, informal sphere or through lifelong learning.

4.3. The digital museum dimension for museological and museum reformulation

The museum reality characterized both by the exercise of cyber-museography in the Digital Social Museum, and by the generation of communication processes that achieve engagement with its stakeholders, can be exemplified through the situation that arose from the COVID-19 outbreak, having developed a communicative, educational, and leisure task where online activity has become one of the strongest tools of museum institutions. In this way, added to the scenario of the 2030 Agenda, COVID-19 has meant a paradigm shift both in the notion of museums and in the expectations directed towards ICOM. For this reason, the Council presented in December 2020 (ICOM 2020b) a new and ambitious methodology with which to define a renewed meaning of the museum that manages to describe both its current situation and its declaration of intentions.

However, regarding the use of technology, in the webinar *New challenges for culture and tourism. Museums and cities in the face of the digital revolution of the post-covid era* (CM Málaga, 2020) Teresa Reyes Bellmunt, president of ICOM Spain, declared that "the true digital revolution has not yet occurred [...], but rather it has been a digital evolution" because most of the museums were born before the digital age "and now, basically, they are working in digital with an analog concept". Furthermore, in reference to this digitized reality, it is worth noting that "half of humanity does not have access to digital technologies" (UNESCO, 2020), which means that the technological gap leaves a part of the population unassisted and on the sidelines of the universal conversation of 2020.

4.4. Structured open-response interviews

Based on the described context, and to develop descriptive and analytical research on the stated objectives, the answers provided by the museum institutions of the national territory registered in the Directory of Museums and Collections of Spain are presented. From the lists of questions issued, a total of 114 museums in the national territory have contributed their answers to the study on Museums and Sustainable Development. That is almost 10 percent of the total number of museums in the Spanish territory. The origin of the responses is distributed among the management staff (59 people), the communication staff (20 people), and other sections of the museum (35 people). The information provided by the professionals of the museum organizations during the interviews is presented below, which allows generating a discussion around the object of study.

4.4.1. Museums' knowledge about the 2030 agenda and the sdgs

Of the 114 responses obtained, 28 museums state that they do not know the 2030 Agenda, or the SDGs, either in a broad or brief way. Of these, 8 are privately owned museums and 20 are publicly owned, with 17 being attached to the Local Administration, 1 to the Administration of the Autonomous Communities, and 2 to the General State Administration (See Table 3). Even so, not all the affirmative answers represent a homogeneous knowledge of the SDGs and the 2030 Agenda, since some institutions declare that they know these elements "in general lines", "superficially",

“little”, “vaguely”, “not in detail”, or “not in-depth”. It has also been recorded that some museums claim to know the SDGs but not the 2030 Agenda. And there have even been responses that claimed to know the Sustainable Development Goals but not their acronym SDGs.

On the other hand, among the ways in which museums claim to have known the 2030 Agenda and the SDGs, the media, specialized publications, or training activities such as those organized by the Ibero-Macaronesian Association of Botanical Gardens or the I Conference on Culture and Sustainable Development organized by the Spanish Network for Sustainable Development, stand out. Among the museums that claim to be aware of the SDGs and the 2030 Agenda, the statement of the National Museum of Anthropology that claims to be familiar with the 2030 Agenda and the Sustainable Development Goals as a “state public institution”, that of the Picasso Museum Malaga, which hopes that these objectives will be achieved “especially to increase the quality of education”, or that of the Museum of Gavà, which claims to know its existence but not to work taking its contents into account, stands out.

Taking into account that for the 2030 Agenda to generate public value, it is necessary to have “a multisectoral and multilevel context, which goes beyond the government” (Canel, 2018, p.85), the relevance of museum institutions integrating Sustainable Development into their strategic planning and being committed to it can generate favorable collaborative alliances with the Administration, as well as contribute to strengthening ties with its audience, connecting with its stakeholders, or unleashing a positive social, cultural, economic, and environmental impact.

The fact that there are still museums that state that they are completely unaware of the 2030 Agenda and the SDGs reflects a pending work on the part of institutions such as ICOM. Now, if of all museum institutions, those of a public nature are unaware of these principles, it is revealed that, despite the progress made, it is necessary to improve the efforts of the Administration. The collaboration that museums can bring to the government's efforts to advance the SDGs should not be underestimated. In 2019, the Ministry of Foreign Affairs, European Union, and Cooperation recognized the relationship that exists between culture and human development, but museums are cultural actors that participate in the achievement of Sustainable Development, and the Administration must use their full potential.

The incorporation of the SDGs in institutions must not only be taken into account for ethical reasons but also because the organization could enjoy competitive advantages that would imply access to tangible assets, such as economic rewards, through intangible assets (Canel and Luoma-aho, 2017, p.39). For example, museums would not only reduce costs derived from energy savings but would also attract visitors who support institutions committed to sustainability. For its part, the assimilation of Sustainable Development in the public sector aims both to serve as a mirror where citizens and companies can look at each other and receive a long-term benefit for citizens and their stakeholders as museums, specifically, are.

4.4.2. The role of culture and education in the museum

The interviewed people recognize that culture is essential to assimilate education as a way to achieve social development. Therefore, the role of museums in achieving the SDGs is essential even if more resources are needed to reach their full potential. In other words, "culture can be considered as an engine that helps to achieve Sustainable Development" (Sephardic Museum) since it "actively participates in education, raising awareness, and the dissemination of the SDGs to all society" (Santa Cruz Museum).

From the perspective of Sustainable Development, culture is not only identified with progress or economic growth, but with a human perspective. That is to say, "that which, from an integral vision of the human being, supposes and means taking into account all the dimensions of the person" (Altarpiece Museum). In this sense, the Ethnographic Museum of Talavera de la Reina indicates that "the culture of a country plays a determining role in the development of human beings", either at a behavioral, social, or economic level, since these factors influence the time for "people to reach a prosperous standard of living." In this way, the Madrid Film Museum believes that it is essential not to appeal to culture "subjectively, impregnating it with political or economic interests."

Regarding the link between culture and Sustainable Development, the Valencian Museum of Ethnology states that the fact that culture does not have its own epigraph in the SDGs denotes the little importance that is given to the cultural sector despite having a "fundamental role both in the dissemination of the values of the SDGs and in their application in the development of cultural activity". Culture is, therefore, a central element of development policies as the only means to achieve inclusive and equitable management. There is no sustainable development without cultural factors and, therefore, the museum appeals to public awareness to provide solutions that advocate for inclusion and the eradication of inequality.

Culture is not only an instrument to "become aware of the realities that we feel, live, experience" (Museum of Navarra), but rather "it is a didactic tool" (Municipal Museum of Cutlery) that acts as a facilitator to achieve the traditional notion of social development, or the current objective of Sustainable Development (Science Museum of Valencia). A fundamental pillar that drives individual and collective actions, so it is more important to adjust the culture with the SDGs than to prioritize only on issues of different strategic matters (Museum of the University of Navarra).

Sustainable Development has been defined for many years based on environmental, economic, and social variables. But without the cultural dimension, it is not possible to achieve complete sustainable development. Culture is not a luxury. We cannot transform our life and coexistence framework at an international level without taking into account the culture or cultures that are greatly influencing our global problems. Culture is the most powerful instrument to spread and channel the message of sustainability (National Museum of Decorative Arts).

The answers provided by the interviewees show how it is not internalized that culture is the way to achieve Sustainable Development. Thus, there is a need to better publicize what the SDGs are, disseminate how and with what actions culture can play

“the relevant role that it has” (Museum of Natural Sciences of Barcelona), and “contribute to achieving a change of mentality in institutions, companies, and citizens” through an “integration work of the need for sustainability” (ICO Museum). According to what has been stated, the Queen Sofia National Museum Art Centre states that the cultural dimension of Sustainable Development is not sufficiently recognized, so its “presence in reports and statements is limited”. The institution also adds:

The potential of citizen participation in cultural life and cultural collaborations at local, national, and international levels is not sufficiently exploited [...] References to culture in the SDGs are scarce and do not sufficiently recognize the many ways in which cultural aspects influence and contribute to Sustainable Development.

If culture favors the dissemination, awareness, and education of people, it also promotes the achievement of Sustainable Development with which “culture and education are, not relevant, but fundamental to achieve Sustainable Development. They are “the best way to raise awareness among the population” (Estremadura González Santana Ethnographic Museum), to guide “the way to develop our cities and our territory”, and to recognize the history “of other peoples that are in danger due to unsustainable development that has been carried out so far” (Iberian Museum).

But the simple fact of making the culture-education binomial public does not guarantee the achievement of the 2030 Agenda since they are “insufficient factors if they are not accompanied by firm measures from the governments” (Children's Pedagogical Museum), sustainable management by institutions (Cerralbo Museum), or other agents such as “guidelines from the authorities, budgets, etc.” (Diocesan Museum of Tarragona).

Culture and education are the basic pillars on which any project to improve the lives of the citizens of a country must be based, in the understanding that only conviction and training can achieve that we all voluntarily contribute to the achievement of a better world, for all its inhabitants, and for everything that exists on our planet (Museum of Aeronautics and Astrophysics).

4.4.3. Museums as accelerators of sustainable development

For the most part, the interviewees have expressed the responsibility that museums have as catalysts for development, especially in the communities where they are located. If today's world demands a more conscious and sustainable development, museums can and should contribute to its achievement. In fact, exhibitions and educational programs reveal, to a greater extent, the values that should serve as a model for the society we aspire to be (Guggenheim Museum Bilbao).

Sustainable Development is a fundamental and global objective (Museum of Footwear), so organizations dedicated to cultural dissemination must also transmit values related to the SDGs (Ekainberri). For this reason, “all activities that are directly or indirectly linked to museums must take into account Sustainable Development” (Apel les Fenosa Foundation). Along these lines, the National Museum of Anthropology affirms that museum institutions are interlocutors that transmit essential values such as, for example, sustainability. For this reason, where there is a museum, a change can be experienced in the “social environment, both in the economy, the

education of its people, or the social behaviors of its inhabitants” (Pecharromán Foundation Museum).

In relation to this, the TOPIC states that museum institutions should not be entities on the fringes of the world: with pieces of great value but not much relationship with society. Museums can no longer be fossils of the past, but actors who dialogue with the present because, today, the museum "has the firm vocation of being a living space inserted in the community in which it is located" (National Museum of Roman Art) having adapted to society and "to the circumstances of each moment in history" (Sephardic Museum). For all these reasons, obtaining Sustainable Development "is an objective and a reason for being of this type of institution in the 21st century" (Picasso Museum Malaga). The responsibility that museums have on Sustainable Development is "that which any institution at the service of the society that sustains it must have" (Museum of the Galician People). For this reason, museums tend to be increasingly sensitive to highlighting and vindicating their role in changes in the model of society (Guggenheim Museum Bilbao).

However, and despite the above, several of the consulted professionals have clarified how the notoriety of the institution influences when it comes to addressing sustainability strategies given that "there is no line of work shared among all museums to address the SDGs" (Museum of the Valltorta). Thus, among the observations made by museum institutions, there is the need to undertake stronger sustainable initiatives or, at least, some common working guidelines (Saffron Museum). Along these lines, the Frederic Marès Museum does not consider that the exercise of most museums encourages Sustainable Development, even less so in "the smallest and those that depend on public bodies and funds, since they do not have the necessary resources."

Those of us who work in small and medium-sized museums face many challenges that have to do with the sheer survival of our institutions. Another thing is the large museums, which, supposedly having their needs covered, can bet on actions such as those described (Diocesan Museum of Tarragona).

Based on the obtained responses, it is perceived that, despite what is desired, the 2030 Agenda is not homogeneously articulated in Spanish museums since institutions are conditioned "by their public or private nature, by their management modality, their access to their own budget, and their legal capacity to act" (Cerralbo Museum). Therefore, "depending on the size, the resources, even the ownership" (Museum of the Galician People) there will be museums more linked than others to the SDGs.

Regarding the integration of sustainable exercises in the museum field, the Museum of Natural Sciences of Barcelona adds that many European museums already have them incorporated into their discourse, while "most of the national museums have yet to discover them." Sustaining this idea, from the Vilamuseu dissemination area it is stated that the 2030 Agenda is a topic that in Spain is being heard more and more in the world of museums, but less than in other European countries.

Additionally, not all the museums with the greatest number of resources deal with the 2030 Agenda with the same depth, since in some they deal with "specific topics on which to mount exhibitions, activities, or exhibition lines", while in others it involves "all the museum's policies, its projects, and its way of working as an entity" (Botanical

Garden of the University of Valencia). Regarding this dissimilarity in procedures, the *Museo del Pastor de Córdoba* considers that museums, if they are public, schedule their activities "following political guidelines, and if they are private, following particular guidelines based on their collections and economic interests." In turn, the Museum of Gavà judges that the initiatives undertaken by the museums do not imply "real and sufficient structural changes". Regarding the decision-making capacity of small museums in matters related to sustainability, the Municipal Museum of Ronda declares:

We depend on rulers who in 99.9% of cases are not up for the task of doing something that does not involve votes. We are at the risk of political decisions, not technical ones, to address these issues in terms that do not exceed four years.

As the REDS report (2020) explains, the museums of the 21st century represent the link between culture and education because they are the space where the concerns of society are reflected, literacy is stimulated, citizen participation is encouraged, and community is generated through different forms of communication. If this fact is assimilated, the cohesion of both aspects, culture and education, can generate a particular cultural trend around the SDGs by disseminating specific knowledge and establishing a way of perceiving the world.

Some institutions have identified the relevance of education as: a cultural manifestation integrated into the nature of the museum, a means to bring the SDGs closer to the population, or an end of the 2030 Agenda achievable through management and planning strategies. The Laboratorium Museum reflects on how "museums have a greater sensitivity than other cultural agents towards Sustainable Development" since a fundamental part of their activity "is directed to didactics and not to pure entertainment or the sale of a lifestyle that implies mass consumption". But, in view of the links that the museum has with the 2030 Agenda, it should be said that the educational resources of the museum institution can not only serve as a means of disseminating the SDGs in general but also as a particular purpose since museums are "a fundamental pillar in Education for Sustainable Development and cultural diffusion" (Municipal Museum of Antequera).

Lifelong learning is essential in this exercise, a notion that the Valladolid Science Museum addresses to explain how museum institutions carry out "an essential non-formal education task". From this point of view, among the educational activities of this museum, "the specific activities on the SDGs stand out thanks to the fact that its programming is aimed at disseminating Sustainable Development as an important social and cultural element". That is, they develop their content to support "sustainable education and cultural participation."

Museums can implement different measures related to the SDGs and, consequently, notify their collaboration in Sustainable Development. Obviously, if an organization develops practices linked to the SDGs, it will favor Sustainable Development, but the institution cannot be considered to work in line with Sustainable Development if it does not stimulate and promote it from those dimensions that the institution treasures by its own nature. Of course, good management of resources in an organization is essential. But above that, museums are favorable spaces to establish educational models of

action that favor human and community development. Therefore, the direction of their actions should go along that line. This research has identified how museums consider the value of their institution to obtain Sustainable Development based on the performance of social, environmental, or economic strategies. But, in general, it is not assimilated that the Museum is, per se, an actor with the capacity to promote Sustainable Development. And, without any doubt, this issue is directly linked to the fact that culture is invisible in the 2030 Agenda.

4.4.4. The communicational scenario in museums

In the first place, from the information collected in the research, it is found that some museum institutions have not yet internalized the importance of telling their public what they are like and what they do. Along these lines, the Museum of Nerja expresses that its focus of work is not so much in its communication as in its programming, even though it is oriented towards Sustainable Development. Thus, it declares that “the progress of the world must be based on action rather than communication, although this is very important to move consciences. First act and then communicate by example”.

Large museums can surely dedicate part of their resources to communicating that they are doing their job, for us small ones, we try to do our job and communicate that we are here [...] I am not in favor of communicating that I am doing my job, we simply do it (Museum of Footwear).

In this context, it is commented that the dissemination of the link that exists between the museum and Sustainable Development is not a main objective of communication, regardless of whether it is more or less present in the institution's communication strategy (Queen Sofia National Museum Art Centre). Sustainable Development can be “one of the aims of museums, but it is not one of the main ones. Therefore, it does not receive a large amount of visibility when it comes to communicating” (Cerralbo Museum). The reasons why institutions reject the existence of optimal communication development in museums are varied.

The Jerónimo Molina Municipal Museum believes that “the exhibition discourse of museums and their activities are assembled with 20th-century criteria” and the Museum of the University of Navarra indicates that the museum business model still only focuses on achieving “its own survival”. In this way, in many museums “the 2030 Agenda is not within their discourse” (Museum of Natural Sciences of Barcelona) even when in some cases it is present in their practical approaches since they are not aware of the role they have in obtaining the SDGs, they are not “aware of this specific approach” (Municipal Museum of Antequera).

It is clear that Sustainable Development is an issue that cannot be avoided when publicizing the modernizations, extensions, and novelties of museums. But the objective of communication does not focus on that, but on opening its doors to a greater number of people through accessibility (Gaudí's Palace).

Moreover, some museums, even though they are aware of the link between the institution and the 2030 Agenda, perceive it as something secondary. Therefore, they do not “include the Sustainable Development Goals in their communication policies” (Provincial Archaeological Museum of Alicante) and maintain as a priority “the

communication of many other issues" (National Art Museum of Catalonia) related to their funds, their activity, or their social contribution from a perspective that, although hackneyed, manages to attract the widest possible audience.

The scope "of the SDGs in museum communication should be more relevant" (Museum of Santa Cruz). However, given that "the communication of an organization must take into account the institutional objectives of each moment to be coherent with them" (Joan Miró Foundation), it is understandable that only those museums with an active and specific program on these matters (Vilamuseu) try to "progressively convey to public opinion, in each communication, the role that the institution plays in the field of Sustainable Development" (Queen Sofia National Museum Art Centre).

Even so, the information provided by the institutions shows that some museums communicate which of their tasks are linked to the 2030 Agenda, although they do not do so "in a development key, which is a key already prepared, but from pure information" (Altarpiece Museum). Therefore, they only indicate that "some of their actions take into account some of these objectives, which somehow associates the image of the museum with the values of the SDGs" (Valencian Museum of Ethnology). In other words, it is indicated for "specific events and with certain sustainable practices" (Evaristo Valle Museum).

Based on the above, the Picasso Museum of Barcelona states that "it would be necessary to involve the directors and managers and that the issue be dealt with in the strategic plan of each institution" to involve all the departments. For its part, the Canarian Museum indicates that there is still "a space to discover for museums to take advantage of the added value generated by effective communication of their contribution to Sustainable Development." Likewise, the ICO Museum states that perhaps museums could disseminate and act more in this line if the public powers promoted these practices as they have done with other strategic lines, as has happened with accessibility.

Furthermore, through the interviews, the existence of heterogeneous behaviors in the national museum scene due to the dissimilarity of resources between the institutions is revealed. On the one hand, large museums with "sufficient means and funding" (Museum of Finestrat) develop a "communication oriented towards it" (TOPIC), while dissemination on the link between museums and Sustainable Development is scarcer in museums "which are limited in different ways" (Historical Museum of Belmez and the Mining Territory).

Perhaps this line of work has not yet been adopted by museums in a generalized way, but, to a greater or lesser extent, the large museums are at it. [...] Not only because it is important to us, but because it is socially important and we have a pedagogical responsibility. In general, museums are not paying this communication the attention it deserves (Thyssen-Bornemisza National Museum).

It is essential to integrate our programs with the policies around Sustainable Development of UNESCO, ICOM, and ICOMOS as well as the Council of Europe or the European Commission. It is necessary to campaign through museums to publicize the 2030 Agenda and the SDGs and specify in a clear and direct way which are the general and particular initiatives of the museums

in this line. These initiatives must be articulated in plans, programs, and concrete projects in the short, medium, and long term (Museum of Santa Cruz).

4.4.5. Digital communication in the museums of the national territory

Although digital tools contribute to the dissemination of the Sustainable Development Goals, not all museum institutions on the national scene have these tools, nor do they all establish in their programming a strategy for compliance with the SDGs, nor do they all link their digital communication to the value of sustainability even though this is a strategic transversal line.

External communication, the Museum of the Galician People states, is one of the weakest aspects of museum management although social networks and the Internet have provided other dissemination tools such as photogrammetry and 3D reconstructions; virtual visits; positioning in the itineraries; etc. Moreover, the “difficulties to know what, how, and when to communicate” continue because “the incorporation of specialized and media professionals” is slow (*Museo de la Carolina*). And it is that not all museums use the possible resources of digital communication, neither to disseminate everything they do nor to disclose how they contribute to Sustainable Development (Alpuente Paleontological Museum).

First, because “there is still a long way to go to integrate the SDGs into the communication strategies of museums in general” (DOMUS) as they mainly address the dissemination of the museum itself and the activities or contents of its exhibitions. Second, because many museums have as a pending subject “digital communication in all areas” (Municipal Museum of Ciutadella), taking into account that some centers lack tools such as “updated web pages, apps, virtual visits, etc.” (Botanical Garden of the University of Valencia). Not all museums “have access to the same digital channels” (Tiriez Ethnological Museum), either for reasons related to the size and significance of the institution or “the precariousness of both jobs and resources, whether educational or financial” (El Greco Museum). In this way, the Extremadura González Santana Ethnographic Museum says:

It depends a lot on the direction of the museum, on the training of its staff, on the objectives set for one or more years. Currently, museums like ours have to fight, with scarce financial resources, to renew technological equipment and to be present on social networks. All this is based on a superhuman effort, since we lack specialized computer personnel, restorer, conservator, etc. Even so, our presence in social networks is continuous because we know that it is the best way to attract the public.

From the Museum of Modern and Contemporary Art of Santander and Cantabria, it is added that, in general, “the dedication and commitment of the personnel who work in these peripheral museums is almost always very high, even heroic, often with titanic dedication.” Smaller museums tend to be “institutions with insufficient, precarious, and unspecialized equipment. So, they have communication deficiencies in general” (Gavá Museum). Similarly, the Pusol School Museum declares that “when most of the small museums in this country have the means, even minimal, to carry out an active work to disseminate the 2030 Agenda, we will be satisfied.”

In other words, small museums do not use digital communication resources as they should "due to the shortage of personnel and, consequently, time" (TOPIC), the precariousness of grant funds, the scarce collaboration and complicity of collaborating companies, or because of the dependence on municipal and regional resources that make it difficult for them to be up to date or hire resources with which to develop a solid digital communication. With which, the museums with resources, that assume their role in obtaining Sustainable Development and that also have "a clear and planned line of work", should also have dissemination practices based on Sustainable Development (Alpuente Paleontological Museum).

The 'smaller' or not state-run, or even private but not 'famous' museums have more problems using digital communication, due to the lack of professionalization in the field of digital cultural communication. There are museums that do not have a communication person who can work with digital tools, and others do not have full-time staff who can dedicate themselves to it, because digital communication, contrary to what many people believe, takes time (Gaudí's Palace).

In the Information Society, digital resources have a multifaceted character that "adds new and enormous capabilities to human intelligence and constitutes a resource that changes the way we work and live together" (European Commission, 1993, p.10) due to the alteration produced on economic or social aspects, the result of progressive development, as well as the application of ICTs and TCLs. Based on the interviews carried out, the general feeling is perceived that only some of the great Spanish museums can cover, in a correct and efficient way, organizational communication, digital resources, and the 2030 Agenda. The reasons that motivate these opinions are the deficient conditions that many of the national museums must face: absence of digital tools and channels, few collaborators, dependence on resources, precarious funds, slow incorporation of professionals, and waste of social networks as they allow them to decline their use of paid media.

However, the fact that the communication of a museum addresses Sustainable Development does not depend so much on whether it has financial resources and personnel, as it does on if this dimension is included in its planning lines or the natural relationship that exists between the museum and the 2030 Agenda is assumed. Certainly, the more resources there are, the better the final result will be, both for economic investment and for time. But the fact that Sustainable Development is not taken into account at all or that only the museum is linked to particular lines of action of the 2030 Agenda, indicates the urgent need for Public Administration institutions or official bodies such as ICOM to take action. That is to say, not only that they generally urge museums to promote issues related to Sustainable Development, but also that a plan of awareness and action be drawn up from the top ranks.

On the other hand, even though digital communication encompasses much more than social networks and media, throughout this research it has been shown how the occurrence of the COVID-19 pandemic has encouraged both the use of new digital mechanisms and the use of digital communication in museums. In this way, it has been proven that the development of large-scale digital communication requires planning, staff, and time. Elements that until now many of the great museums had not taken so much into account when neglecting virtual diffusion and digital spaces. Perhaps, if the

situation caused by COVID-19 continues, museums will be able to further develop these practices. Possibly at different levels, but somehow all museums would improve their digital communication by creating a setting that would enhance the professional of museum communication, in general, and dignify the work of the digital communicator in particular.

5. CONCLUSIONS

The multiple allusions that link the action of the museum with the educational aspect of the 2030 Agenda encourage us to study the deep relationship between these and the didactic task, making clear the capacity of museum institutions to contribute to the achievement of the SDGs. But, is culture understood as a tool to achieve Sustainable Development? Do museums know that they are a relevant factor in achieving the goals of the 2030 Agenda? Do museum institutions have specific lines of work on Sustainable Development? Do museum communication strategies incorporate the 2030 Agenda in their discourse? If so, do they have an informative or informative purpose? With this research, the following conclusions could be reached.

FIRST

The systematization of Cultural Management involves both internalizing that the cultural field houses an educational function with an aim to generate cohesion and social development, and assuming that decision-making in organizations has to be complementary to the control and communication system to generate quality action instruments.

Over the years and the different international government conversations have shown that culture is a driver and a tool to achieve Sustainable Development. However, this issue is not apparent in the 2030 Agenda. The fact that the importance of culture, in general, is not made visible, as well as the role of cultural industries or the mission of cultural institutions, in particular, is not only manifested negatively in the field of sustainability but in sensitive moments such as the economic recession of 2008 or the COVID-19 crisis.

The promotion of the cultural dimension of the 2030 Agenda can contribute to highlighting the relevance of culture for humanity and for the planet to generate engagement with all its stakeholders, establish political decisions, and ensure that citizen actions that safeguard culture in all its forms are undertaken. Therefore, it must be disclosed to the public how museum institutions can promote Sustainable Development, and it must be assimilated that museums have a long-term mission directly related to sustainability and quality education.

SECOND

The Administration as a whole requires more efficient external communication in the area of the 2030 Agenda, both to generate an impact on citizens and for its stakeholders to support these objectives. In fact, some of the surveyed institutions demand specific guidelines or slogans on the subject since a message has not been developed in an appropriate tone and style that makes each institution participate in

its role in obtaining Sustainable Development. Taking into account that there is extensive legislation related to Cultural Management, it is necessary: first, that institutional power recognizes the power of institutions and cultural industries to carry out initiatives that favor Sustainable Development; and second, that said cultural entities internalize the role they play in Sustainable Development, not only to abandon their lagging position compared to the social, economic, or environmental dimension of the 2030 Agenda but to incorporate the corresponding practices and spread their place in society.

THIRD

Museums naturally develop many initiatives that could be contextualized within the framework of sustainability, but since they have not internalized the attributes of the 2030 Agenda, they do not disseminate their action and, therefore, it does not reach the stakeholders. The main reason why many museums do not disclose their role in the SDGs is due: first, to the ignorance that these institutions have about the space they occupy in the 2030 Agenda; and second, that museums do not assume the performance of the 2030 Agenda as one more part of their functions. Consequently, the relationship between the museum and Sustainable Development does not occupy a central place in institutional communication, but rather occasionally manifests itself.

FOURTH

The Achilles heel of museum entities continues to be their organizational communication. To date, not all museums place communication within their organization chart nor do they consider it necessary to transmit their philosophy and praxis, when the communicational transfer between the public and an institution must be able to argue both its identity and its performance. The relevance of this is that the public wants to be part of the museum institution and that the public, in general, or the museum's stakeholders, in particular, want to participate in the achievement of Sustainable Development.

Likewise, and although UNESCO (2015) has indicated that museums' communication is crucial to promote their social action, it is detected that many of the museum entities assume that communicating only implies informing, that personnel is required to nurture and develop the Communication Departments of the museums, and that the professionalization of the communicative activity in the museum institutions is still required so that the responsible persons have sufficient preparation and can be linked to senior management positions.

FIFTH

On the national scene coexist:

- Museums that do not have a solid communication strategy, either due to precarious resources and personnel or because this dimension is not yet considered relevant in the institution.
- Museums that do have a communication strategy but not in the digital field, either for reasons similar to the previous aspect or because the museum considers that these practices are reduced to the use of social networks or web

spaces without referring to technologies for continuous learning, capable of helping citizens to integrate the 2030 Agenda through a multitude of online strategies.

- Museums that do have a solid communication strategy, including its digital dimension, but that do not include Sustainable Development within their programming, either because they do not take into account the 2030 Agenda within their functions or because they consider it as a tangential issue.
- Museums that integrate communication policies, a digital communication strategy, and a link between their functions and Sustainable Development.

SIXTH

It is considered relevant to be able to study fait accompli if the case of COVID-19 has managed to promote the external digital communication of museums in Spain, both from a corporate and cultural diffusion perspective, and to know if their hypermedia and transmedia narrative favor Education for Sustainable Development.

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7. ANNEX

Table 1. Museums that have been part of the study

ANDALUSIA	
Almeria	1. Municipal Historical Museum of Terque
Cordova	2. House-Museum of Popular Arts and Customs of Castil de Campos
	3. Archaeological and Ethnological Museum of Lucena
	4. Museum of Local History of Villanueva de Córdoba
	5. Museum of the Pastor of Villaralto
	6. Historical Museum of Belmez and the Mining Territory
	7. Municipal Historical Museum of Cañete de las Torres
	8. Living Museum of Al-Andalus Torre de la Calahorra
Granada	9. José Guerrero Art Center
Jaen	10. <i>Museo de la Carolina Capital de las Nuevas Poblaciones</i>
	11. Iberian Museum
Malaga	12. Museum of Nerja
	13. Municipal Museum of Antequera
	14. Municipal Museum of Ronda
	15. Picasso Museum Malaga
ARAGON	
Huesca	16. Julio Gavin-Castillo de Larrés Drawing Museum
Teruel	17. Aragonese Museum of Paleontology
	18. Museum-Permanent Monographic Exhibition of Saffron
Saragossa	19. Museum of Fire and Firefighters
CANARY ISLANDS	
Las Palmas	20. The Canarian Museum
CANTABRIA	
	21. Nature Museum of Cantabria
	22. Museum of Modern and Contemporary Art of Santander and Cantabria
CASTILE AND LEÓN	
Burgos	23. Museum of Human Evolution
	24. Altarpiece Museum
León	25. Gaudí's Palace - Museum of the Roads
Salamanca	26. Museum of Salamanca
Segovia	27. Antonio Machado House Museum
Valladolid	28. Valladolid Science Museum
	29. Museum of the Monastery of San Joaquín and Santa Ana
CASTILLA-LA MANCHA	
Albacete	30. Tiriez Ethnological Museum
	31. Municipal Museum of Cutlery
	32. Pedagogical and Children's Museum
Cuenca	33. Museum of Cuenca
Toledo	34. El Greco Museum
	35. Ethnographic Museum of Talavera de la Reina
	36. La Celestina Museum
	37. Sephardic Museum
	38. Museum of Santa Cruz
CATALONIA	

MUSEUMS AND SUSTAINABLE DEVELOPMENT. MUSEUM MANAGEMENT
AND DIGITAL COMMUNICATION TO ACHIEVE THE SDG

Barcelona	39. Victor Balaguer Museum Library 40. Joan Miró Foundation 41. Museum of Natural Sciences of Barcelona 42. Museum of Gavà 43. Castellbisbal Rural Museum 44. Frederic Marès Museum 45. Geological Museum of the Seminary of Barcelona 46. Maritime Museum of Barcelona 47. National Art Museum of Catalonia 48. Picasso Museum 49. Can Papiol Romantic Museum
Tarragona	50. Apel les Fenosa Foundation 51. Diocesan Museum of Tarragona
COMMUNITY OF MADRID	
Madrid	52. Cerralbo Museum 53. Museum of Aeronautics and Astronautics 54. Firefighters Museum 55. Madrid History Museum 56. Open Air Stonework Museum 57. Hispanic Pharmacy Museum 58. Film Museum 59. Costume Museum. CIPE 60. ICO Museum 61. Queen Sofia National Museum Art Centre 62. National Museum of Anthropology 63. National Museum of Decorative Arts 64. Thyssen-Bornemisza National Museum 65. Naval Museum 66. Pedagogical Museum of Children's Art 67. Typhological Museum
PROVINCIAL COMMUNITY OF NAVARRA	
Pamplona	68. Museum of Navarra 69. Museum of Tudela 70. Museum of the University of Navarra
VALENCIAN COMMUNITY	
Alicante	71. Traditional Culture Center School Museum of Pusol 72. La Alcudia Foundation 73. Archaeological Museum of Elda 74. Provincial Archaeological Museum of Alicante 75. Museum of Finestrat 76. Museum of Footwear 77. Nueva Tabarca Museum 78. Vilamuseu
Castellón	79. Museum of the Valltorta
Valencia	80. Botanical Garden of the University of Valencia 81. Museum of Fine Arts of Valencia 82. Science Museum 83. Ethnological Museum Cacharrería de Ángel Domínguez 84. Albaida International Puppet Museum 85. Municipal Museum of History and Archeology of Cullera 86. Alpuente Paleontological Museum 87. Valencian Museum of Ethnology
ESTREMADURA	

Cáceres	88. Cheese Museum 89. Pecharrómán Foundation Museum
Badajoz	90. Extremadura González Santana Ethnographic Museum Consortium 91. Provincial Archaeological Museum 92. Extremadura and Ibero-American Museum of Contemporary Art 93. National Museum of Roman Art
GALICIA	
A Coruña	94. DOMUS, Science Museums of A Coruña 95. Museum of the Galician People 96. Granell Museum
Ourense	97. Ethnological Museum of Ribadavia
Pontevedra	98. Provincial Museum of Pontevedra
BALEARIC ISLANDS	
Minorca	99. Municipal Museum of Ciutadella
LA RIOJA	
La Rioja	100. Najerillense Archaeological Historical Museum Foundation
BASQUE COUNTRY	
Guipúzcoa	101. Caserío Igartubeiti Museum 102. Ekainberri 103. Eureka! Science Museum 104. Ibarraundi Museum 105. Laboratorium Museum 106. TOPIC, Toulouse International Puppet Center
Biscay	107. Hontza Museum 108. Museum of Sacred Art 109. Guggenheim Museum Bilbao
PRINCIPALITY OF ASTURIAS	
Asturias	110. Barjola Museum 111. Evaristo Valle Museum 112. Maritime Museum of Asturias
MURCIA REGION	
Murcia	113. Municipal Archaeological Museum of Cehegín 114. Jerónimo Molina Municipal Museum

Source: Self-made based on the provided answers

Tabla 2. Summary of responses from national museums

Institution	1	2	3	4	5
Municipal Historical Museum of Terque	No	Yes	Yes	Yes	Yes
House-Museum of Popular Arts and Customs of Castil de Campos	No	Yes	Yes	Yes	Yes
Archaeological and Ethnological Museum of Lucena	No	Yes	Yes	No	No
Museum of Local History of Villanueva de Córdoba	Yes	Yes	Yes	No	No
Museum of the Pastor of Villarlto	No	No	No	No	No
Historical Museum of Belmez and the Mining Territory	No	Yes	No	Yes	No
Municipal Historical Museum of Cañete de las Torres	No	Yes	Yes	No	No
Living Museum of Al-Andalus Torre de la Calahorra	Yes	Yes	Yes	No	No
José Guerrero Art Center	Yes	Yes	Yes	No	No
<i>Museo de la Carolina Capital de las Nuevas Poblaciones</i>	No	Yes	Yes	No	Yes
Iberian Museum	Yes	Yes	Yes	No	No
Museum of Nerja	Yes	Yes	Yes	No	No
Municipal Museum of Antequera	Yes	Yes	Yes	No	No
Municipal Museum of Ronda	Yes	Yes	No	No	No
Picasso Museum Malaga	Yes	Yes	Yes	No	Yes
Julio Gavin-Castillo de Larrés Drawing Museum	Yes	Yes	Yes	No	No
Aragonese Museum of Paleontology	Yes	Yes	Yes	Yes	No
Museum-Permanent Monographic Exhibition of Saffron	Yes	Yes	No	No	No
Museum of Fire and Firefighters	Yes	Yes	No	No	No
The Canarian Museum	Yes	Yes	Yes	No	No
Nature Museum of Cantabria	Yes	Yes	Yes	No	No
Museum of Modern and Contemporary Art of Santander and Cantabria	Yes	Yes	Yes	Yes	Yes
Museum of Human Evolution	Yes	Yes	Yes	No	No
Altarpiece Museum	Yes	Yes	Yes	No	No
Gaudi's Palace - Museum of the Roads	Yes	Yes	Yes	No	No
Museum of Salamanca	No	Does not know	No	No	No
Antonio Machado House Museum	Yes	Yes	Yes	No	No
Valladolid Science Museum	Yes	Yes	Yes	No	Yes
Museum of the Monastery of San Joaquín and Santa Ana	Yes	Yes	Yes	Yes	Yes
Tiriez Ethnological Museum	Yes	Yes	Yes	Yes	No
Municipal Museum of Cutlery	Yes	Yes	No	No	No
Pedagogical and Children's Museum	Yes	Yes	Yes	No	Yes
Museum of Cuenca	No	Yes	No	Yes	No
El Greco Museum	Yes	Yes	Yes	No	Yes

Ethnographic Museum of Talavera de la Reina	Yes	Yes	Yes	Yes	Yes
La Celestina Museum	Yes	Yes	Yes	Yes	Yes
Sephardic Museum	Yes	Yes	Yes	Yes	Yes
Museum of Santa Cruz	Yes	Yes	Yes	Yes	No
Victor Balaguer Museum Library	No	Yes	Yes	Yes	No
Joan Miró Foundation	Yes	Yes	Yes	Yes	Yes
Museum of Natural Sciences of Barcelona	Yes	Yes	Yes	No	No
Museum of Gavà	Yes	Yes	Yes	No	No
Castellbisbal Rural Museum	No	Yes	No	No	No
Frederic Marès Museum	Yes	Yes	No	Yes	Yes
Geological Museum of the Seminary of Barcelona	No	Yes	Yes	No	Yes
Maritime Museum of Barcelona	Yes	Yes	Yes	Yes	No
National Art Museum of Catalonia	Yes	Yes	Yes	No	No
Picasso Museum	Yes	Yes	Yes	No	No
Can Papiol Romantic Museum	No	Yes	Yes	Yes	No
Apel les Fenosa Foundation	Yes	Yes	Yes	Yes	No
Diocesan Museum of Tarragona	No	Yes	No	No	No
Cerralbo Museum	Yes	Yes	Yes	Yes	Yes
Museum of Aeronautics and Astronautics	Yes	Yes	Yes	Yes	Yes
Firefighters Museum	Yes	Yes	Yes	No	No
Madrid History Museum	Yes	Yes	Yes	No	No
Open Air Stonework Museum	Yes	Yes	Yes	Yes	Yes
Hispanic Pharmacy Museum	No	Yes	No	No	No
Film Museum	No	Yes	No	No	No
Costume Museum. CIPE	Yes	Yes	Yes	No	No
ICO Museum	Yes	Yes	Yes	Yes	Yes
Queen Sofia National Museum Art Centre	Yes	Yes	Yes	Yes	Yes
National Museum of Anthropology	Yes	Yes	Yes	Yes	Yes
National Museum of Decorative Arts	Yes	Yes	Yes	Yes	No
Thyssen-Bornemisza National Museum	Yes	Yes	Yes	Yes	Yes
Naval Museum	Yes	Yes	Yes	Yes	Yes
Pedagogical Museum of Children's Art	Yes	Yes	Yes	No	Yes
Typhological Museum	Yes	Yes	Yes	Does not know	Yes
Museum of Navarra	Yes	Yes	Yes	No	No
Museum of Tudela	Yes	Yes	Yes	No	No
Museum of the University of Navarra	Yes	Yes	Yes	No	No
Traditional Culture Center School Museum of Pusol	Yes	Yes	Yes	Yes	Yes
La Alcudia Foundation	Yes	Yes	No	No	No
Archaeological Museum of Elda	No	Yes	No	No	No
Provincial Archaeological Museum of Alicante	Yes	Yes	Yes	No	Yes
Museum of Finestrat	No	Yes	Yes	Yes	No
Museum of Footwear	Yes	Yes	Yes	Yes	Yes
Nueva Tabarca Museum	Yes	Yes	Yes	Yes	Yes

**MUSEUMS AND SUSTAINABLE DEVELOPMENT. MUSEUM MANAGEMENT
AND DIGITAL COMMUNICATION TO ACHIEVE THE SDG**

Vilamuseu	Yes	Yes	No	Yes	No
Museum of the Valltorta	No	Yes	No	No	No
Botanical Garden of the University of Valencia	Yes	Yes	No	No	Yes
Museum of Fine Arts of Valencia	Yes	Yes	Yes	Yes	Yes
Science Museum	Yes	Yes	Yes	Yes	Yes
Ethnological Museum Cacharrería de Ángel Domínguez	Yes	No	Yes	No	No
Albaida International Puppet Museum	Yes	Yes	Yes	Yes	No
Municipal Museum of History and Archeology of Cullera	Yes	Yes	Yes	Yes	Yes
Alpuente Paleontological Museum	Yes	Yes	No	Yes	Yes
Valencian Museum of Ethnology	Yes	Yes	Yes	No	No
Cheese Museum of Casar de Cáceres	Yes	Yes	Yes	Yes	No
Pecharromán Foundation Museum	Yes	Yes	Yes	Yes	Yes
Estremadura González Santana Ethnographic Museum Consortium	Yes	Yes	Yes	No	No
Provincial Archaeological Museum of Badajoz	Yes	Yes	No	No	No
Estremadura and Ibero-American Museum of Contemporary Art	Yes	Yes	No	No	No
National Museum of Roman Art	Yes	Yes	Yes	Yes	No
DOMUS	Yes	Yes	Yes	Yes	No
Museum of the Galician People	Yes	Yes	Yes	No	No
Granell Museum	Yes	Yes	Yes	No	No
Ethnological Museum of Ribadavia	Yes	Yes	Yes	No	No
Provincial Museum of Pontevedra	Yes	Yes	Yes	No	Yes
Municipal Museum of Ciutadella	No	Yes	Yes	No	No
Najerillense Archaeological Historical Museum Foundation	No	Yes	Yes	No	No
Caserío Igartubeiti Museum	No	Yes	No	Yes	No
Ekainberri	Yes	Yes	Yes	Yes	Yes
Eureka! Science Museum	No	Yes	Yes	Yes	Yes
Ibarraundi Museum	No	Yes	Yes	Does not know	No
Laboratorium Museum	No	Yes	Yes	No	No
TOPIC	Yes	Yes	Yes	Yes	No
Hontza Museum	Yes	Yes	Yes	Yes	No
Museum of Sacred Art	No	No	Yes	No	No
Guggenheim Museum Bilbao	Yes	Yes	Yes	Yes	Yes
Barjola Museum	Yes	Yes	No	Yes	No
Evaristo Valle Museum	Yes	Yes	No	No	No
Maritime Museum of Asturias	No	Yes	Yes	No	No
Municipal Archaeological Museum of Cehegín	Yes	Yes	Yes	Yes	No
Jerónimo Molina Municipal Museum	No	Yes	No	No	No

Source: Self-made based on the provided answers

Table 3. Participating museums in the national territory that are unaware of the 2030 Agenda and the SDGs

Institution	Ownership	Management
Municipal Historical Museum of Terque	Public - Town Hall	Public - Town Hall
House-Museum of Popular Arts and Customs of Castil de Campos	Private - Cultural Association of Castil de Campos	Private - Cultural Association of Castil de Campos
Archaeological and Ethnological Museum of Lucena	Public - Town Hall	Public - Town Hall
Museum of the Pastor of Villaralto	Public - Town Hall	Public - Town Hall
Historical Museum of Belmez and the Mining Territory	Public - Town Hall	Public - Town Hall
Municipal Historical Museum of Cañete de las Torres	Public - Town Hall	Public - Town Hall
<i>Museo de la Carolina Capital de las Nuevas Poblaciones</i>	Public - Town Hall	Public - Town Hall
Museum of Salamanca	Public - Ministry of Culture and Sports	Public - Ministry or Department of Culture
Museum of Cuenca	Public - Ministry of Culture and Sports	Public - Ministry or Department of Culture
Victor Balaguer Museum Library	Public - Town Hall	Public - Town Hall
Castellbisbal Rural Museum	Public - Town Hall	Public - Town Hall
Geological Museum of the Seminary of Barcelona	Private - Religious Institutions	Private - Religious Institutions
Can Papiol Romantic Museum	Public - Town Hall	Public - Town Hall
Diocesan Museum of Tarragona	Private - Religious Institutions	Private - Religious Institutions
Hispanic Pharmacy Museum	Public - University	Public - University
Film Museum	Private - Individual	Private - Individual
Archaeological Museum of Elda	Public - Town Hall	Public - Town Hall
Museum of Finestrat	Public - Town Hall	Public - Town Hall
Museum of the Valltorta	Public - Ministry or Department of Culture	Public - Ministry or Department of Culture
Municipal Museum of Ciutadella	Public - Town Hall	Public - Town Hall
Najerillense Archaeological Historical Museum Foundation	Private - Legal person (Foundation)	Shared / Shared - Several public and private organizations
Caserío Igartubeiti Museum	Public - Provincial Council of Gipuzkoa	Private - Legal person (K6 Cultural Management Company)
Eureka! Science Museum	Private - Other	Private - Other

MUSEUMS AND SUSTAINABLE DEVELOPMENT. MUSEUM MANAGEMENT
AND DIGITAL COMMUNICATION TO ACHIEVE THE SDG

Ibarraundi Museum	public - Town Hall	public - Town Hall
Laboratorium Museum	private - Other	private - Other
Museum of Sacred Art of Biscay	private - Religious Institutions (Bishopric of Bilbao)	private - Religious Institutions (Bishopric of Bilbao)
Maritime Museum of Asturias	public - Town Hall	private - Legal person (Foundation)
Jerónimo Molina Municipal Museum	public - Town Hall	public - Town Hall

Source: Self-made based on the provided answers