Cultural Policy Evaluation: Benchmarking Stakeholders' Preferences Using The Analytic Hierarchy Process Technique

Participatory management models of cultural institutions are gaining increasing interest but have so far been subject to little evaluation. The aim of this paper is to estimate the value allocated to the participatory policies of a sample of museums from the institutional perspective (managers and stakeholders) through benchmarking dimensions and options proposed in the cultural strategy. We apply the analytic hierarchy process method, which allows us to obtain a robust hierarchical ranking of alternatives according to stakeholder preference intensity. Results show a priority for social and technological innovation strategies and less interest in co-governance actions. This research represents a proposal for an efficient evaluation of cultural policies and the performance of cultural institutions.

Los modelos de gestión participativa de las instituciones culturales están ganando cada vez más interés, pero hasta ahora han sido poco evaluados. El objetivo de este trabajo es estimar el valor asignado a las políticas participativas de una muestra de museos desde el punto de vista institucional (gestores y agentes involucrados) mediante la jerarquización de las dimensiones y opciones planteadas en la estrategia cultural. Aplicamos el método del Proceso Analítico Jerárquico (AHP), que nos permite obtener un ranking jerárquico robusto de alternativas según la intensidad de preferencias. Los resultados muestran la priorización por estrategias de innovación social y tecnológica y menor interés por las acciones de co-gobernanza. Esta investigación se presenta como una propuesta de evaluación eficiente de políticas culturales y del desempeño de las instituciones culturales.

Kultura-erakundeen partaidetzazko kudeaketa-ereduak gero eta interes handiagoa hartzen ari dira, baina orain arte gutxi ebaluatu dira. Lan honen helburua da museo-lagin baten partaidetza-politikei esleitutako balioa balioestea, ikuspegi instituzionaletik (kudeatzaileak eta inplikatutako eragileak), kultura-estrategian planteatutako dimentsioak eta aukerak hierarkizatuz. Prozesu Analitiko Hierarkikoaren (AHP) metodoa aplikatzen dugu, eta, horri esker, aukeren ranking hierarkiko sendoa lor dezakegu, lehentasunen intentsitatearen arabera. Emaitzek erakusten dute berrikuntza sozial eta teknologikoko estrategiak lehenetsi direla eta baterako gobernantzako ekintzekiko interes txikiagoa dagoela. Ikerketa hau kultura-politikak eta kultura-erakundeen jarduna eraginkortasunez ebaluatzeko proposamen gisa aurkezten da.

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1. INTRODUCTION

Together with other policies aimed at providing different public services, cultural policy development has focused on the concept of co-production and co-participation. It has broadened its scope beyond the required concurrence of citizens for

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the provision of these services by incorporating the communities and agents involved in decision-making and other activities –an area previously confined to public entity professionals (Bovaird, 2007; Bovaird *et al.*, 2015; Denhardt and Denhardt, 2015; Nabatchi *et al.*, 2017; Bonet and Négrier, 2018; Sorrentino *et al.*, 2018). While co-production activities can be carried out in many different ways, Kershaw *et al.* (2018) specifically identify for museums a range of activities of varying degrees that depend on the influence transferred to communities, from the first levels where consultation and communication activities are proposed –keeping decision-making away from society– to more advanced forms of co-production where communities collaborate in decisions and in actually delivering public services (Bovaird, 2007; Alford, 2013). We also consider another more general possibility of collaboration, which could be carried out through giving money and/or time to support the management of the public cultural institution (Ateca-Amestoy and Gorostiaga, 2022).

Some authors point to the difficulties involved in more advanced forms of co-production for public sector entities, where professionals may be reluctant to yield control of the activity for the benefit of communities (Bovaird, 2007; Ryan, 2012; Verschuere *et al.*, 2012). This is particularly relevant for museums, where the pursuit of excellence (Arnaboldi and Díaz, 2021), and the very nature of the activities entrusted –related to the custody and preservation of heritage assets– might advise prudent behaviour vis-à-vis maintaining trust in professional authority (Kershaw *et al.*, 2018; Brenton and Bouckaert, 2021). Nonetheless, museums have taken up the notion of participatory policies. This has been driven from the demand side by attracting increasing numbers of visitors (Brenton and Bouckaert, 2021), and from the management perspective by the pursuit of accreditation based on the creation of public value (Bryson *et al.*, 2014). Participation programmes in museums have thus been oriented towards value creation through service co-design (Osborne *et al.*, 2016), seeking to improve performance via active user and stakeholder involvement in the planning, design or delivery of the service. On the other hand, participatory activities have been oriented towards innovation processes, driven by users and by collaboration with other entities around them (Søndergaard and Veirum, 2012; Maggio *et al.*, 2024).

Although some studies do address the implementation of participatory models in cultural institutions (Minkiewicz *et al.*, 2016; Négrier and Dupin-Meynard, 2020), and specifically for museums (Knudsen, 2016; Thyne and Hede, 2016; Agostino and Anaboldi, 2021), the literature assessing the effects of these policies is more limited. This is linked to the difficulties posed by evaluation processes in the field of culture in general (Throsby, 2010), arising from the need to rely on subjective assessments of improvements in well-being when ex-post evaluations are carried out. Some studies focus on measuring the effects of implementing participation programmes in museums (Brenton and Bouckaert, 2021; Moreno-Mendoza, *et al.*, 2020; Arnaboldi and Diaz; 2021; Gómez-Zapata *et al.*, 2024). Moreover, the efficient

use of resources requires a prior evaluation of the objectives and expected benefits of any programme (De la Fuente and Novales, 2023), as well as a monitoring process which ensures that the actions undertaken align with the initially proposed objectives (Valiño-Castro, 2023), especially in a sector such as museums where there are certain difficulties in transferring autonomy for the benefit of the community and the agents involved. The diverse activities and varying degrees to which power may be ceded in terms of participatory actions make ex-ante evaluations of cultural policy implementation –or its monitoring– advisable in order to confirm the consistency and alignment between the actions planned and those actually implemented.

Our work proposes a method to evaluate a programme aimed at encouraging participation in a group of museums. This is done not from the more usual perspective of service users but from an approach to the supply side, consisting of the professionals involved in providing the service, from within the institution (managers and policy-makers), as well as other stakeholders outside the organisation such as creators, technology professionals, commercial partners and educational agents in order to test the consistency between objectives and actions. We took three museums that are applying participatory business models under a living labs strategy as our subject matter: the Hunt Museum in Limerick (Ireland), a fine arts museum oriented towards social responsibility measures; the Tessuto Museum in Prato (Italy), which focuses on partnerships with local creators and providers; and the Maritime Museum in Tallinn (Estonia), which emphasises cultural and technological interaction. Under this analytical interest, we apply an analytic hierarchy process method based on the judgements of the different expert groups in order to obtain priority scales for those social participation strategies which are most preferred and/or of greatest interest and on which a preference rank is thus marked.

This research thereby offers a proposal for an efficient evaluation of cultural policies and, in particular, of participatory strategies applied to museums and/or any other type of public service or cultural institution, from a supply-side perspective, i.e. formulating and implementing these programmes. This constitutes a novel approach that contributes to the comparative literature on cultural policy evaluation, where such studies remain scarce. The results are therefore useful for managers and policymakers insofar as they recognise their preferences for action and compare them with social demands, thus shaping a better value structure and social impact when implementing strategies. The results also offer an evaluation of the preferences of the different stakeholders for each of the participation strategies in relation to the resources invested in carrying them out. This therefore leads to a certain internal cost-effectiveness analysis that provides input for better decision making and that guarantees the sustainability of the cultural project. This is especially relevant if we compare the value allocated by stakeholders with the structure of preferences revealed from the demand side (museum communities) and with the distribution of expenditure actually made by museums in their participatory strategy. Our paper is

organised in five sections as follows: this introduction is followed by a brief literature review on the evaluation processes of social engagement strategies implemented by cultural institutions, with particular focus on the case of museums. Section 3 presents the methodology, case study and data collection, while section 4 develops the empirical application and analysis of the results. Finally, section 5 concludes.

2. LITERATURE REVIEW

Previous work on the evaluation of cultural policies and institutions has followed different orientations in line with the different objectives pursued by their implementation. Throsby (2010) points out that cultural policy actions can incorporate two types of objectives: on the one hand, economic objectives, linked to issues such as efficiency and equity, and on the other hand, those linked to the social and cultural well-being of society. Promoted by the new public management paradigm, the evaluation of economic objectives is materialised by calculating efficiency indicators for the different types of institutions involved in the field of culture. Within this category, some works have applied parametric methods to evaluate the performance of museums (Bishop and Brand, 2003; Taniguchi, 2021), public theatres (Last and Wetzel, 2010; Fernández *et al.*, 2019), or libraries (Hemmeter, 2006). Other works have turned to non-parametric techniques such as data envelopment analysis (DEA) or free disposal hull (FDH), which are more adaptable to cultural activities as they do not require the production function to be specified. These works include Basso and Funari (2004), Taheri and Ansari, (2013), Basso *et al.* (2018), and del Barrio-Tellado and Herrero-Prieto (2019) for museums, De Witte and Geys (2011), Guccio *et al.* (2018), and del Barrio-Tellado *et al.* (2021) for public libraries, and Marco-Serrano (2006) and del Barrio-Tellado and Herrero-Prieto (2021) for the performing arts.

Within the works aimed at evaluating the extent to which economic objectives are achieved, another group uses the social return on investment (SROI) method to compare the cost of an action with the benefits obtained by the citizens in terms of costs not incurred. Works include those of Broad *et al.* (2019), and Gómez-Zapata and del Barrio-Tellado (2023) for a public library system, and that of Viganó and Lombardo (2019) for a group of museums in Florence.

The introduction of the new public governance paradigm has led to a change in evaluation processes from measuring outputs that provide the basis for efficiency ratios towards outcome measures that are indicative of changes in social and cultural well-being, and which are based on objective criteria but which also require other subjective indicators. In this area, contingent valuation models make it possible to estimate changes in welfare according to individuals' preferences, incorporating a subjective component in the evaluation. Using this method, a hypothetical situation is presented regarding an action affecting a non-market good, and the respondent is asked to state their maximum willingness to pay in monetary terms. The monetary

value represents a direct measure of changes in the individual's welfare. Some works in this area include those of Sanz *et al.* (2003) for museums, or Fujiwara *et al.* (2019) for libraries.

Another way of estimating welfare impact is through welfare valuation techniques. In this case, subjective assessments of individuals are taken into account to determine how consumption and participation in a cultural activity influences people's quality of life (Ateca-Amestoy *et al.*, 2014; 2016; 2021). However, some authors point out the limitation of these techniques in the field of cultural activities due to a possible lack of sensitivity to limited changes in well-being, such as those derived from occasional visits to museums or libraries (Bakhshi *et al.*, 2015), or when evaluating a change in the governance of museums, which is our case study.

In a more specific area –focused on the implementation of participation programmes– Moreno-Mendoza *et al.* (2020) study visitor perception of the relationship between conservation and use and management mechanisms in a museum on the island of Gran Canaria, using confirmatory factor analysis. They conclude that visitors perceive possibilities for improvement in management actions aimed at participation. Our work proposes an application of the analytic hierarchy process (AHP) method to test the alignment of objectives and actions in participation programmes in museums from the perspective of the managers and stakeholders involved in the institution's cultural policy. This method has been used to include stakeholder preferences in strategic decision-making (Saaty, 2008; Saaty and Vargas, 2012), for example in regional and urban planning policy (Kwatra *et al.*, 2021; Awad and Jung, 2022), agricultural and forestry resource allocation (Ananda and Herath, 2003; De Marinis and Sali, 2020), and cultural heritage resource management (Naziris *et al.*, 2016; Ma *et al.*, 2018; Haroun *et al.*, 2019; Guerriero *et al.*, 2022). It has also been applied in multi-criteria evaluation processes, and allows for a close fit to our case study, where different options for participation are available, with varying degrees of ceding control by the museums involved in our case study. Some previous works involving museums have applied it in this way for different purposes, such as evaluating museum websites (Kabassi, 2019) or selecting weights to evaluate efficiency in a set of museums (Basso and Funari, 2020; Baldin *et al.*, 2024). However, to the best of our knowledge, the literature review shows few instances of participation models having been evaluated in cultural institutions from a supply-side approach, which is precisely one of the main contributions of this paper. Finally, in contrast to the evaluation processes described above that are implemented ex-post, our work proposes an ex-ante evaluation of cultural policy so as to ensure the final effectiveness of the programme's implementation.

3. METHODOLOGICAL APPROACH AND DATA COLLECTION

For the initial stage of our methodological approach, we first define the most relevant dimensions of participatory models for museums and the different levels of

engagement of the agents in each. The choice of these dimensions is made on the basis of the different classifications provided in the literature. Osborne *et al.* (2016) propose a typology of co-production consisting of three categories: consumer co-production, focused on the operational level, where the experience and outcomes of the service are negotiated between users and museum professionals; participatory co-production, related to strategic planning and service design; and enhanced co-production, oriented towards innovation in service provision. Pestoff (2012) suggests a classification of co-production activities according to the phase of the service delivery process in which they take place: co-production, co-management, and co-governance. Similarly, Bovaird (2007) proposes four categories for participation: co-design, co-management, co-delivery, and co-assessment.

As regards our research –and based on the above– four specific dimensions of community participation were defined for the analytical purpose of this research. These were Collaborative co-governance, Creative co-production, Social co-innovation, and Technological co-innovation. The definition and explanation of each category is provided below (Table 1). Each of these dimensions were detailed in specific actions on a scale of growing participatory involvement: namely, three levels as follows; contribution (options n1, sporadic participation), co-decision (options n2, systematic and regular participation), and empowerment (options n3, high level of commitment). For the purposes of this research, the status quo option has not been considered, as it might have been in the case of estimating the preferences of the community –who could decide to maintain the situation as it was (Gómez-Zapata *et al.*, 2024). In fact, it is understood that the institutional side (managers, policy-makers and, by extension, the rest of the stakeholders) are in favour of implementing a participatory model, although perhaps to varying degrees. Our purpose is thus to estimate the preference structure from this institutional side.

Table 1. **PARTICIPATORY STRATEGY: DIMENSIONS AND OPTIONS**

DIMENSION 1: Involving collaborative co-governance	
This strategy encourages active collaboration and shared responsibility between different stakeholders including local communities, artists, educators and the museum itself (managers, curators, etc.) in developing policies, programmes and other museum activities. This stakeholder participation ranges from contributing with their ideas and perspectives to involvement in the decision-making process and to even engaging in the governance structure, establishing mechanisms for evaluation or policy prioritization so as to ensure that decisions align with the museum's mission and serve the interest of the broader community.	**Option 1.1.** Annual consultation with participant community on activities of their interest
	Option 1.2. Advisory board with relevant groups (artists, curators, citizens, artisans, etc.)
	Option 1.3. Full multi-stakeholder engagement with the power of decision over policy prioritization and institutional accountability

DIMENSION 2: Involving creative co-production	
This dimension involves collaboration between museums and artists, designers and local communities to create collections, exhibitions, and educational programmes. This process provides for community members to actively participate in the production of knowledge as well as in creative content and cultural programming. Actions range from creating workshops on creative skills and content experiences for communities to booking spaces and programming for emerging artists and guest curators or establishing long-term plans and programme-contracts with creators' associations, art fairs and schools of arts and designing with power and decision-making authority to intervene in museum practices and cultural programming.	**Option 2.1.** Workshop programme and content experiences for creatives and local communities
	Option 2.2. Provision of facilities (space, funding, residencies, internships, traineeships) for emerging artists and guest curators
	Option 2.3. Long-term programme contract with schools of arts, art departments, art fairs and creators' associations with programming decision-making authority
DIMENSION 3. Involving social co-innovation	
In this approach, museums actively engage with their local communities and other stakeholders to address social challenges, foster inclusivity, promote social change, and contribute to societal well-being. Actions consider collaborative partnerships with organisations, non-profits and volunteers in social and museum activities: co-ideation of specific initiatives dealing with social equity, inclusion and diversity; and mandatory engagement on empowering communities, giving them decision-making authority and objectively measuring the well-being impact of museum policies	**Option 3.1.** Voluntary programme on social actions and museum activities
	Option 3.2. Social co-creation activities that promote cultural diversity, social inclusion, and civic engagement
	Option 3.3. Long-term engagement programme with communities to address social challenges and the impact of well-being over time
DIMENSION 4: Involving technological co-innovation	
This strategy refers to a participatory process in which museums collaborate with technology experts, innovators, and researchers to explore and develop new technological solutions, tools, and approaches that enhance the museum experience, increase cultural supply and improve managerial tasks. It involves leveraging technology to drive innovation, creativity, and engagement within the museum environment. Actions range from collaborating in the digital accessibility of cultural contents, to creating new cultural supply for an immersive museum, and engagement of technologists as commercial allies and in managerial improvements.	**Option 4.1.** Contributing in crowdsourcing initiatives to make digital material more widely available
	Option 4.2. New digital cultural supply based on sensory experimentation, augmented and virtual reality and other interactive technologies
	Option 4.3. Participatory engagement of creators and technologists in the museum development cycle (programming, accessibility and managerial issues)

Source: own elaboration.

Under this interest, we turn to the works of Saaty (1990; 2008) and Saaty and Vargas (2012) who develop the AHP as a method that allows the decisions stated by individuals to be analysed from among a group of options chosen based on a series of criteria and variables that are generally in conflict or in equilibrium in the Pareto sense (Aznar and

Estruch, 2014). This then enables an order (or hierarchy) to be obtained of their full preferences from which an optimal choice is derived. It is therefore a tool that helps people to organise their judgments so that they can generate the best results in the decision-making process. Individuals are assumed to have declared their choices logically and rationally. Individual and collective outcomes thus provide key input for strategic decision-making in any project, policy and/or institution –in our case, implementing a participatory cultural policy for museums. Saaty (1990) and Vaidya and Kumar (2006) indicate several cases in which applying this technique is appropriate. These include ranking alternatives from the most to the least desirable and comparing processes between organisations (benchmarking), which are some of the interests of our study.

AHP starts from the pairwise comparison of options. Following Nguyen (2014), the comparison and decision process leads to the construction of a paired comparison matrix for n elements: $A_{n\times n} = [a_{ij}]$, where a_{ij} represents the importance of element *i* with respect to element *j*, at which:

(i) $a_{ij} > 0$ for $i = 1, 2, \ldots, n$

(ii) $a_{ij} = \dfrac{1}{a_{ji}}$ for $i, j = 1, 2, \ldots, n$

(iii) $a_{ii} = 1$ for $i = 1, 2, \ldots, n$

(iv) $a_{ik} = a_{ij}a_{jk}$ for $i, j, k = 1, 2, \ldots, n$

The above conditions define some important characteristics of paired comparison matrices: (i) it indicates that matrix A must be a positive matrix; (ii) it indicates that A satisfies the condition of being a reciprocal matrix, i.e. its lower diagonal is the inverse of its upper diagonal; and (iii) it implies that the diagonal of the matrix is equal to 1. In other words, when comparing an element with itself, the result must be of equal importance. Finally, (iv) defines the consistency condition of matrix A. Considering the above, w_i (con $w_i > 0$ is defined as the valuation given by the individual to element *i*. Entry $a_{ij}$of A for a consistent individual is thus defined as:

$$a_{ij} = \frac{w_i}{w_j}$$

The paired comparison matrix for a consistent individual is thus expressed as:

$$A = [a_{ij}] = \begin{bmatrix} w_1/w_1 & w_1/w_2 \cdots & w_1/w_n \\ w_2/w_1 & w_2/w_2 \cdots & w_2/w_n \\ \vdots & \vdots & \\ w_n/w_1 & w_n/w_2 \cdots & w_n/w_n \end{bmatrix}$$

From the above, we seek to find the preference vector ($\omega = [\omega_i] = [\omega_1 \ \omega_2 \dots \omega_n]^T$) for each individual, corresponding to the eigenvector of matrix A with its corresponding eigenvalue $\lambda = n$, defined as follows:

$$A\,\boldsymbol{\omega} = \begin{bmatrix} w_1/w_1 & w_1/w_2 \cdots & w_1/w_n \\ w_2/w_1 & w_2/w_2 \cdots & w_2/w_n \\ \vdots & \vdots & \\ w_n/w_1 & w_n/w_2 \cdots & w_n/w_n \end{bmatrix} \begin{bmatrix} \omega_1 \\ \omega_2 \\ \dots \\ \omega_n \end{bmatrix} = \begin{bmatrix} n\omega_1 \\ n\omega_2 \\ \dots \\ n\omega_n \end{bmatrix} = n \begin{bmatrix} \omega_1 \\ \omega_2 \\ \dots \\ \omega_n \end{bmatrix} = n\,\boldsymbol{\omega}$$

To fill out this matrix, weights are used by means of Likert scales that allow the quantitative representation of a nominal expression such as satisfaction or importance (Saaty, 1990; 2008). In our case study, we use a Likert scale from 0 to 5, rather than 9, since when there are many comparisons it is better to use fewer rating scales so as to avoid fatigue or anchoring biases on the part of respondents (Londoño-Agudelo, 2020). When we assume that option versus is compared, a value of 1 in the matrix entry corresponds to a decision of equal importance or indifference between the two options. A value of 5 indicates the highest preference for option *i*, and a value of 1/5 means that option *j* is the most favoured. Once these results have been obtained, it must be verified that the square matrix where the ratings are found meets three properties: reciprocity, homogeneity, and consistency (Aznar and Estruch, 2014), which will allow the rank preference given by individuals to be obtained with the least possible bias. Once these properties have been verified on the matrix that reflects each agent's responses, we calculate their respective eigenvector, which reveals the relative importance of each of the attributes or alternatives compared by individuals (Bhushan and Rai, 2004), which in turn is a reflection of their preferences for these elements. The individual weights must be aggregated in order to obtain a group consensus (Ossadnik *et al.*, 2016) that will reflect society's preferences or, in this case, how stakeholders are involved in a museum's cultural policy vis-à-vis participatory management models. Aggregation of sample preferences is usually done by means of geometric mean techniques that allow the deviations between answers to be controlled and, therefore, a more consistent vector of global preferences to be obtained.

In our case, a sample was set up of agents that are representative of the institutional side. It therefore needed to include a selection of stakeholders directly or indirectly involved in the running and implementation of museum activities and, particularly, in applying participatory strategies. Stakeholder groups were therefore selected to obtain a representation of all the areas concerned with running the museum, from the formulation and funding of cultural policy and internal decision-making –both strategic and operational (governance)– to the creation, program-

ming and modernisation of content (production stage), and the support, education and outreach services provided by these institutions (museum services). Table 2 shows the detailed composition of each of the clusters, all disaggregated into two subgroups in order to better identify the types of stakeholders involved. For reasons of significance, however, analyses have been carried out at the main cluster level (governance, production, and museum services).

Table 2. **COMPOSITION OF STAKEHOLDER CLUSTERS**

Cluster	Composition of the cluster
Governance	Management staff (in a broad sense: managers, curators, preservation, security, documentation, etc.)
	Policy-makers (government entities that regulate, support or fund museum activities, including donors and sponsorships)
Production	Cultural creators and programmers (artists, creatives, curators, guest collaborators, other supporting cultural institutions, etc.)
	Technologists (professionals who use technology and innovation to enhance various aspects of museum operations (management, security systems, digitalization, preservation, new cultural-digital supply, website and on-line presence, etc.)
Museum services	Commercial allies (providers, artisans, advertisers, publishers, media, transport, etc.)
	Education and disseminators (people involved in educational and training programmes, research projects and activities as well as dissemination tasks)

Source: own elaboration.

It should be noted that the AHP method does not require statistically significant representative samples, but consistent choice criteria from the set of stakeholders (Aznar *et al.*, 2014). These criteria involve conforming a group of experts that display a certain homogeneity in terms of academic training, professional experience, and participation in decision-making. The focus is rather on having a mature and well-trained technical focus group whose opinions are extrapolable to any context. As a result, a great effort was made in the preparation and selection of the experts included in the study, by first providing museums with a detailed classification of stakeholders (Table 2) to serve as a reference to determine the number of actors selected for the survey, according to a balanced proportion between the different types and divisions. This was carried out with the key support of the different museums involved in the research: the Hunt Museum (Limerick), the Tessuto Museum (Prato), and the Maritime Museum (Tallinn). A uniform representation is thus obtained on the institutional side without being conditioned to a specific sample size (Table 3).

Table 3. **NUMBER OF SAMPLE RESPONDENTS (DISTRIBUTION BY MUSEUM AND STAKEHOLDER)**

	Hunt (Limerick)	Tessuto (Prato)	Maritime (Tallinn)	Total by stake-holder
Governance	11	15	13	39
Production	10	8	7	25
Museum Services	11	11	10	32
Total by museum	32	34	30	96

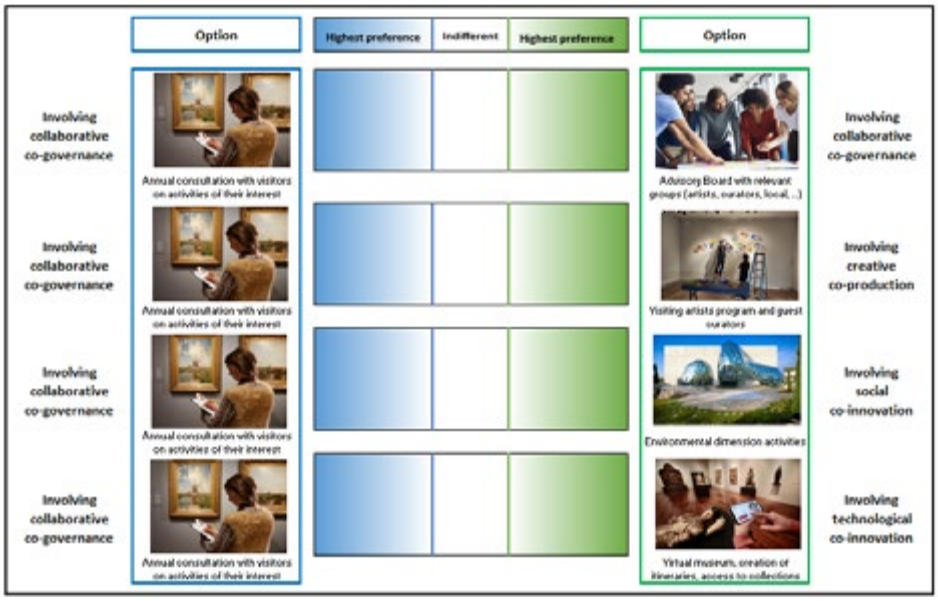
Source: own elaboration.

With regard to applying the methodological design, the institutional evaluation survey was conducted anonymously but was channelled through the museums, who sent an explanatory message and a link to the online survey to the list of stakeholders selected by each museum. Fieldwork was carried out between March and May 2024, and resulted in a total sample of 96 people, with a balanced proportion of responses, both among the museums and the stakeholder groups, as shown in Table 3.

Surveys were applied with the Google Forms format, which was translated for each museum according to the official language (English, Italian, and Estonian). The survey consisted of 14 questions divided into four thematic sections as follows: perception and level of satisfaction with the participatory strategies; socio-demographic characteristics of the respondent with special attention to their education and work experience; questions on the profile and relationship with the museum and, finally, a group of questions addressing the hierarchy of preferences for the participatory strategies. In this last block of questions –and following the AHP method– each respondent had to choose between two options of participatory strategies, or else be indifferent. In total, each respondent was faced with 66 choices, resulting from the pairwise comparison of the 12 participation options (three Collaborative co-governance, three Creative co-production, three Social co-innovation, and three Technological co-innovation).

This set of choices was divided into three blocks (each with 22 choices) placed throughout the questionnaire in order to avoid fatigue bias. In an effort to avoid anchoring bias, three types of survey (A, B and C) were conducted with inverted orders in the presentation of the choice sets, which were randomly and evenly distributed by each type of stakeholder. Figure 1 presents an example of choice with comparisons by dimension. The exercise is similar to a Likert scale assessment: the respondent prefers the alternative on the left, or the alternative on the right, or is indifferent and chooses the alternative in between.

Figure 1. **ILLUSTRATIVE EXAMPLE FOR CHOICE QUESTIONS**



The composition of the sample by museum and stakeholder cluster is shown in Table 4. To sum up respondents' socio-economic profile in one sentence, stakeholders are mainly women, of middle age and with an intermediate level of income, with higher income in the governance group, but lower income for stakeholders related to production and museum services. Respondents have a very high level of studies in subjects related to heritage, humanities, and social sciences. They have a long-standing relationship with the museum as well as a long professional career and they hold job positions mainly as experts in the field of study.

4. EVALUATION RESULTS: VALUE ALLOCATED TO PARTICIPATORY STRATEGIES FROM THE INSTITUTIONAL SIDE

Once the information from each respondent's answers concerning their preferences for the levels of social participation in museums had been systematised, we constructed the decision matrices and estimated the eigenvector associated with respondents' preferences using matrix algebra techniques in order to subsequently calculate the normalised vector of representative values of the preferences declared by the three groups of agents identified. Compliance with the expected properties of the decision matrices was tested as explained in the methodology section. Bhushan and Rai (2004), Saaty (2008) and Saaty and Vargas (2012) indicate that a matrix is perfectly consistent when its Consistency Index (CI) is equal to zero. However, when the number of comparisons is relatively high (in our case 66 pairs) this indica-

Table 4. **SOCIO-ECONOMIC CHARACTERISTICS OF STAKEHOLDER SAMPLES: MAIN RESULTS**

Variable		Global	Gover-nance	Produc-tion	Museum Services	Hunt	Tessuto	Maritime
Sex	Man	31.25%	33.33%	32.00%	28.13%	37.50%	23.53%	33.33%
	Woman	66.67%	66.67%	60.00%	71.88%	56.25%	76.47%	66.67%
	Other	2.08%	0.00%	8.00%	0.00%	6.25%	0.00%	0.00%
Monthly income level	Less than 800 euros	5.68%	0.00%	13.04%	7.41%	10.00%	2.94%	4.17%
	801 - 1,600 euros	19.32%	7.89%	21.74%	33.33%	6.67%	38.24%	8.33%
	1,601 - 2,200 euros	23.86%	23.68%	30.43%	18.52%	16.67%	29.41%	25.00%
	2,201 - 2,800 euros	12.50%	21.05%	4.35%	7.41%	10.00%	14.71%	12.50%
	2,801 - 3,600 euros	20.45%	28.95%	21.74%	7.41%	30.00%	5.88%	29.17%
	3,601 - 4,400 euros	7.95%	13.16%	0.00%	7.41%	6.67%	5.88%	12.50%
	More than 4,400 euros	10.23%	5.26%	0.00%	18.52%	20.00%	2.49%	8.33%
Years of relationship with museum	Less than 1 year	9.38%	12.82%	8.00%	6.25%	6.25%	8.82%	13.33%
	Between 1 and 3 years	34.38%	23.08%	32.00%	50.00%	53.13%	23.53%	26.67%
	Between 3 and 6 years	12.50%	10.26%	16.00%	12.50%	18.75%	2.94%	16.67%
	Between 6 and 10 years	12.50%	20.51%	8.00%	6.25%	9.38%	11.76%	16.67%
	More than 10 years	31.25%	33.33%	36.00%	25.00%	12.50%	52.94%	26.67%
Level of education	Compulsory educa-tion	4.17%	0.00%	12.00%	3.13%	0.00%	8.82%	3.33%
	Pre-university and vocational educa-tion	3.13%	5.13%	4.00%	0.00%	3.13%	5.88%	0.00%
	Graduate/Diploma	33.33%	23.08%	44.00%	37.50%	40.63%	26.47%	33.33%
	Master/Doctorate	59.38%	71.79%	40.00%	59.38%	56.25%	58.82%	63.33%
Field of education	Heritage	17.28%	18.75%	14.28%	17.85%	17.24%	26.08%	10.34%
	Arts	9.87%	9.37%	14.28%	7.14%	13.79%	13.04%	3.44%
	Creative industries	9.87%	3.12%	19.04%	10.71%	10.34%	13.04%	6.89%
	Humanities	28.39%	18.75%	28.57%	39.28%	31.03%	26.08%	27.58%
	Social Sciences	25.92%	37.50%	14.28%	21.42%	24.13%	17.39%	34.48%
	Science and Engi-neering	8.64%	12.50%	9.52%	3.57%	3.44%	4.34%	17.24%
Average age		46.51	50.76	44.48	43.06	45.67	50.35	43.03
Years since the last academic degree was obtained		18.35	20.46	21.66	13.12	16.00	23.87	14.65

Source: own elaboration.

tor usually does not work (our value for the overall sample was 0.17). In this case, we propose estimating the Consistency Ratio (CR) alternatively, as follows:

$$\mathrm{CR} = \frac{\mathrm{CI}}{\mathrm{IA}}$$

where IA is the Random Consistency Index that depends directly on the number of items being compared. Among others, Saaty (2008), Ho and Ma (2018) suggest the following equation for calculating the IA:

$$\mathrm{IA} = \frac{1.98(n-2)}{n}$$

The CR is thus designed in such a way that values exceeding 0.10 are a sign of inconsistent statements and, therefore, require a revision and/or reconsideration of some of the answers stated by the agents surveyed. However, in our study, when estimating this indicator for the overall sample of the three museums under analysis, the result was 0.0885 (= 0.17/1.92), which shows a reasonable level of consistency in paired comparisons. This is how we have verified the properties of the matrix, and it was not necessary to reject and/or exclude responses from any of the participants, since no major inconsistencies were reported. On the contrary, we found the matrix to be valid and, therefore, the estimates and findings presented in the manuscript also to be so.

Table 5 shows the structure of values obtained considering the sample as a whole, i.e. taking the three museums at the same time and discriminating between the different groups of agents involved (governance, production, and museum services) as well as the same structure of results for each of the three museums. We thus obtain a ranking of the value assigned to the different participation strategies from the institutional point of view, from the stakeholders in general, and in particular for each museum.

4.1. Results by stakeholders

In general, and as shown in Figure 2, museum stakeholders display a greater preference for the options related to the social co-innovation dimension, in contrast to the levels of the collaborative co-governance dimension, which are the least valued by all the groups and which do not exceed 7%. The most valued option relates to actions that promote diversity, inclusiveness, and civic engagement. To a certain degree, this indicates rational behaviour, as it shows that stakeholders tend to assume their management and decision-making tasks without wishing to delegate them to the public, although they do consider including and addressing the preferences of communities when programming and delivering services. This result is consistent with the findings of Bovaird (2007) and Ateca-Amestoy and Villarroya (2021) who show how communities are willing to engage with public cultural institutions

Table 5. **EIGENVECTOR OF PREFERENCES FROM STAKEHOLDERS ON PARTICIPATORY OPTIONS FOR THE WHOLE SAMPLE**

Actions / Level (*)	All sample				Hunt (Limerick)				Tessuto (Prato)				Maritime (Tallinn)			
	Global	Governance	Production	Museum Services	Global	Governance	Production	Museum Services	Global	Governance	Production	Museum Services	Global	Governance	Production	Museum Services
O1.1. Consulting people on activities of their interest	5.91%	5.64%	5.99%	6.37%	6.06%	4.83%	6.49%	7.16%	6.17%	5.53%	7.77%	5.98%	5.16%	5.84%	3.31%	5.69%
O1.2. Advisory board with relevant groups (artists, curators, citizens, etc.).	6.50%	5.87%	6.50%	7.50%	7.73%	6.17%	10.07%	8.32%	6.99%	7.55%	6.03%	7.23%	4.67%	4.05%	3.47%	6.58%
O1.3. Multi-stakeholder engagement with decision-making power on policies and accountability	5.99%	5.81%	6.43%	5.79%	4.88%	3.61%	6.81%	4.62%	6.60%	8.60%	6.48%	5.23%	6.27%	5.55%	5.25%	7.93%
O2.1. Creative experiences for local community	8.97%	8.53%	9.65%	8.85%	9.45%	8.58%	9.74%	10.15%	9.19%	8.96%	10.25%	8.05%	7.77%	7.25%	7.84%	8.06%
O2.2. Facilities for emerging artists and guest curators	7.92%	8.72%	7.77%	7.72%	9.67%	7.78%	11.27%	10.58%	5.72%	7.17%	5.77%	5.18%	8.71%	10.11%	6.27%	8.58%
O2.3. Permanent advisory board with creative sector agents and institutions.	5.91%	6.09%	5.89%	6.03%	4.92%	4.12%	6.53%	4.53%	7.23%	10.19%	6.09%	6.70%	5.38%	4.88%	4.36%	6.74%
O3.1. Voluntary programme of social and community actions	7.80%	8.23%	7.47%	7.22%	8.94%	9.88%	7.72%	8.22%	6.14%	6.43%	5.83%	5.57%	8.33%	7.72%	9.11%	8.21%

Actions / Level (*)	All sample				Hunt (Limerick)				Tessuto (Prato)				Maritime (Tallinn)			
	Global	Gover-nance	Pro-duction	Mu-seum Servi-ces	Global	Gover-nance	Pro-duction	Mu-seum Servi-ces	Global	Gover-nance	Pro-duction	Mu-seum Servi-ces	Global	Gover-nance	Pro-duction	Mu-seum Servi-ces
O3.2. Collective co-creation on promoting diversity, inclusion and civil engagement	11.91%	10.10%	12.05%	13.37%	13.79%	14.03%	12.29%	13.65%	12.77%	10.34%	12.13%	14.67%	8.84%	6.67%	10.39%	10.84%
O3.3. Long-term social action programme addressing social challenges and well-being impact	10.83%	10.29%	10.15%	11.60%	12.83%	16.71%	8.16%	13.90%	11.75%	10.00%	11.73%	12.40%	7.76%	6.23%	10.12%	8.16%
O4.1. Crowdsourcing initiatives to make the museum's digital material available	9.51%	9.42%	10.04%	8.81%	7.21%	6.24%	7.58%	6.83%	8.78%	7.56%	9.67%	9.00%	13.16%	14.34%	14.16%	10.64%
O4.2. New digital cultural supply based on sensory experimentation and AI services	10.07%	11.54%	10.05%	8.82%	7.33%	9.58%	7.50%	5.17%	9.02%	7.07%	8.55%	11.83%	15.05%	18.22%	17.26%	10.15%
O4.3. Permanent participatory committee on technology and innovation engagement	8.69%	9.77%	7.99%	7.93%	7.19%	8.47%	5.86%	6.87%	9.65%	10.61%	9.70%	8.15%	8.89%	9.14%	8.47%	8.42%

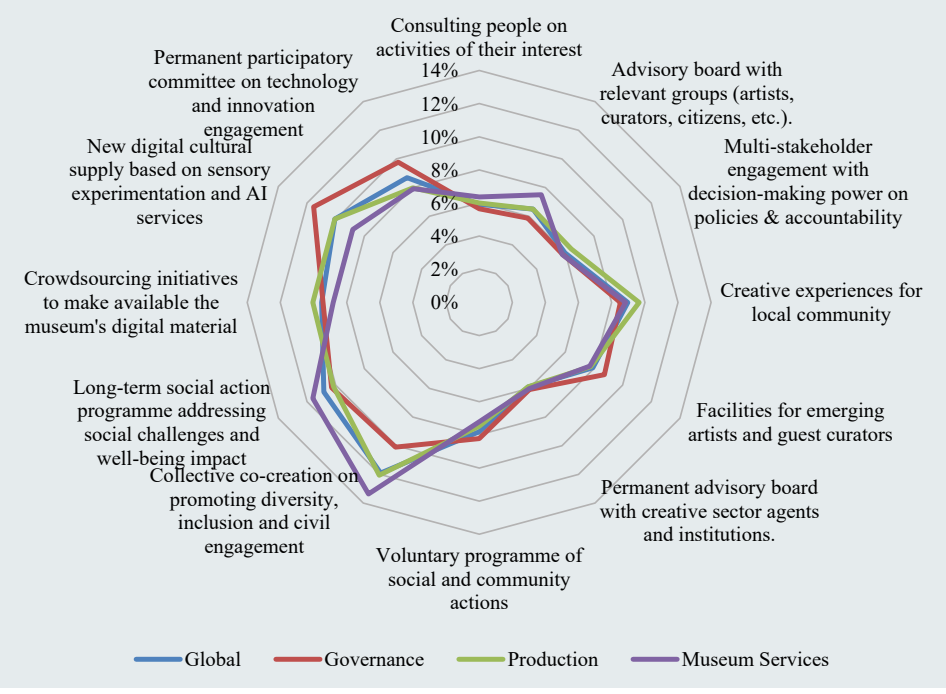
(*) Options levels of participatory dimensions following Table 1

Source: own elaboration.

mainly by donating money and/or time but not by taking on managerial roles. Likewise, this stakeholder preference for not delegating decisions is in line with the preferences of citizens who, as shown in the study by Gómez-Zapata *et al.* (2024), value co-governance actions less highly than their strong desire to engage in actions that have a social and technological impact.

Secondly, the options of the technological co-innovation dimension are highly valued –in particular, new digital supply based on sensory experimentation and AI services. Also highly valued are the creative co-production options, especially the creative experiences for the local community and facilities for emerging artists and guest curators. This is also in line with the current trend and the need to offer more and more services and experiences that use ICT (Kabassi, 2019; Arnaboldi and Díaz, 2021; Maggio *et al.*, 2024). It is notable that stakeholders always state a greater preference for the intermediate level options, i.e. those associated with a strategy of sporadic co-decision, but not so much empowerment. This is interesting, because although stakeholders recognise the importance of involving communities in museum development, they feel that their involvement should focus on formulating and assisting in participatory actions, but less on stable collaboration in permanent programming and decision-making bodies, as previously discussed.

Figure 2. **OVERALL PREFERENCE STRUCTURE BY STAKEHOLDERS**



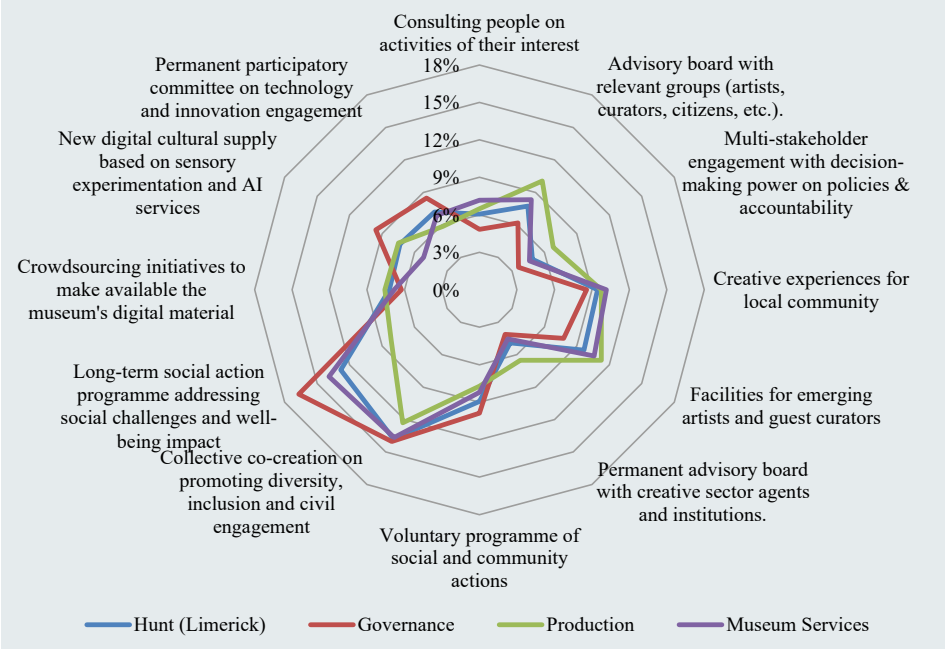
Source: own elaboration.

Analysing these results by stakeholder group, it should be highlighted that although they follow the trend of the overall results, there are some significant differences. In the case of the governance group, their main preferences favour technological options (new digital cultural supply based on sensory experimentation and AI services, 11.54%), and social options (long-term social action programme addressing social challenges and well-being impact, 10.29%). This evidences the alignment with recent trends of implementing and using new technologies and of seeing the museum as a social driver (del Barrio-Tellado and Herrero-Prieto, 2019; Gómez-Zapata and del Barrio-Tellado, 2023). The production stakeholder group offers a fairly balanced preference structure, valuing governance less and preferring social and technological options. The museum services group strongly favours social and technological options and –unlike the others– values the governance option of creating an advisory board with the integration of artists and community members. To some extent, this hierarchical ranking also reveals stakeholder preferences regarding their interests and the direction they would like the museum to take.

4.2. Results by museums

Similar to the overall sample, an eigenvector was estimated to rank the preferences declared by the stakeholders in each of the three museums studied: the Hunt (Limerick), the Tessuto (Prato), and the Maritime (Tallinn). The final results can be seen in Table 5. We now present an analysis for each of these museums, understanding that their nature and typology as well as the context in which they are located

Figure 3. **PREFERENCE STRUCTURE FOR THE HUNT MUSEUM (LIMERICK)**



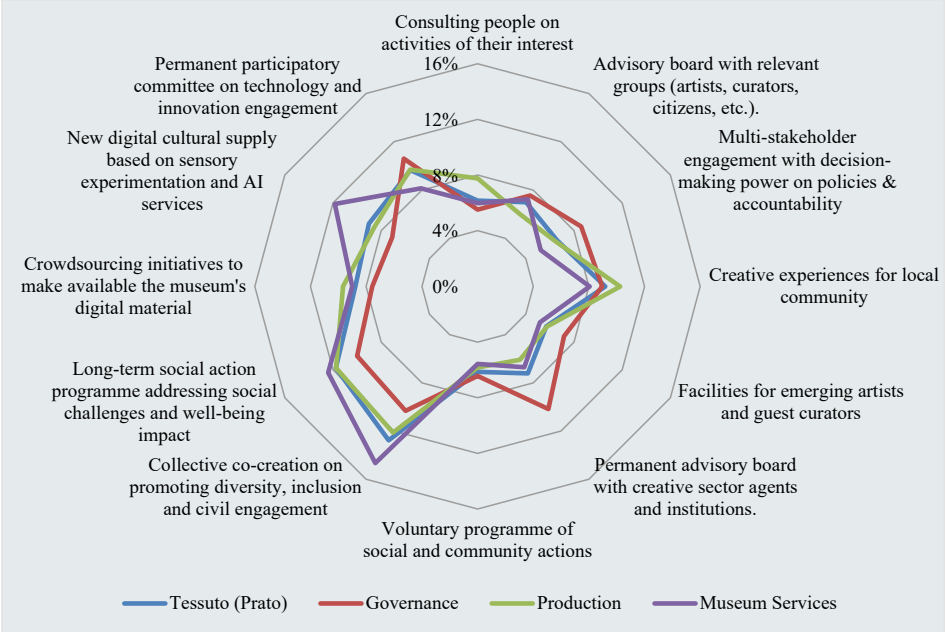
Source: own elaboration.

are also determining factors vis-à-vis statements of preferences and evaluations of participatory models from the supply side.

In the case of the Hunt Museum (Limerick) –and pursuant to the results of the eigenvector of preferences represented in Figure 3– the following particularities may be noted. The ranking of their preferences indicates that the strategies associated with social co-innovation are clearly the most preferred, with a maximum weighting of 16.71%. The governance and museum services groups are seen to be the ones that most value this dimension, in particular the option of greater commitment to the long-term social action programme addressing social challenges and well-being impact. This is interesting as it aligns with the strategy implemented by the Hunt Museum, which displays a strong orientation towards its customers and the surrounding communities. The next dimension in the ranking is creative co-production with a maximum weighting of 11.27%, specifically for the action facilities for emerging artists and guest curators. This statement is given by the production group and is consistent as it is an aspect in which the agents are directly involved. In conclusion, the preference structure of the Hunt Museum stakeholders is mainly oriented towards the social and creative dimensions, with less intensity being shown towards the technological and co-governance dimension options.

With regard to the stakeholder preferences of the Tessuto Museum (Prato) –as shown in Figure 4– a balanced structure can be seen where the social com-

Figure 4. **PREFERENCE STRUCTURE FOR THE TESSUTO MUSEUM (PRATO)**

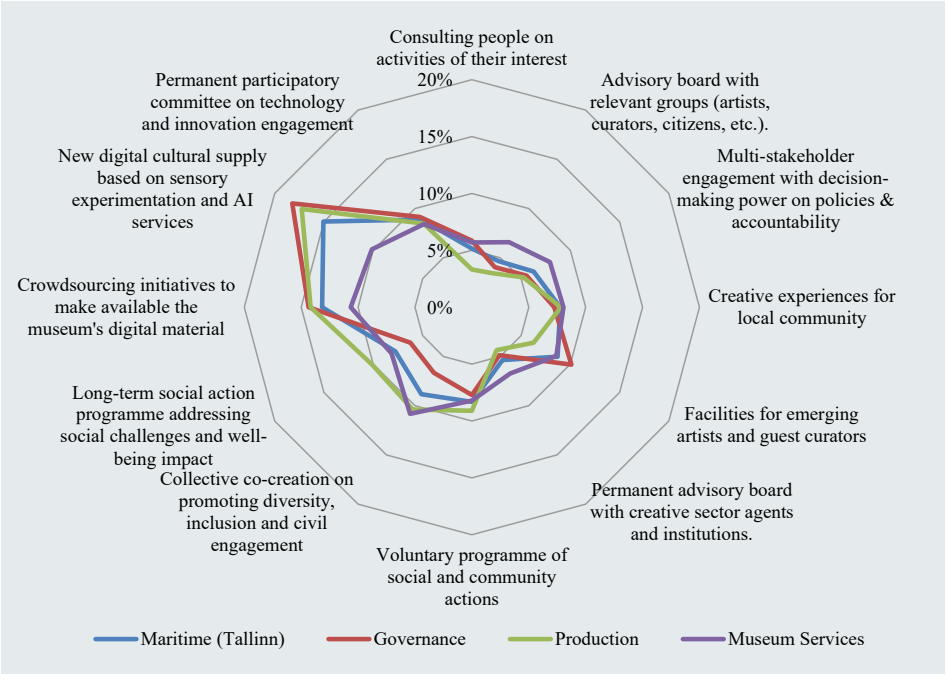


Source: own elaboration.

mitment options prevail, although technological options and some from the co-production dimension are also worthy of note. While museum services and production groups of stakeholders in the museum are more inclined towards the social and technological dimensions, governance stakeholders value more the co-creation actions and, particularly, any option involving a permanent advisory board. In general, this preference structure seems to align with the character and orientation of the Tessuto Museum towards strengthening an alliance with creators and providers.

As for the Maritime Museum (see Figure 5), the structure of stakeholder preferences is very much aligned with the mission and typology of the museum, i.e. there is majority interest in strategies related to technological and social dimensions. Specifically, most stakeholders allocate the highest value to new digital cultural supply based on sensory experimentation and AI services. These scores are generally the highest when compared to the other options and to the other two museums. While social actions are also appreciated, actions in the creative dimension are rated relatively higher. This is consistent with the fact that technological strategies are directly related to creative production. These results reveal that the choices declared by the stakeholders of the Maritime Museum are consistent in terms of pointing towards the vision and category of this museum as a museum of science and technology.

Figure 5. **PREFERENCE STRUCTURE FOR THE MARITIME MUSEUM (TALLINN)**



Source: own elaboration.

To sum up, although there are specificities between the preference structure in each of these three museums, some common trends are found, such as the higher score for actions related to the social dimension and at most the production and technological ones, but lower interest for co-governance strategies. These results are generally consistent with the findings of studies by Osborne *et al.* (2016), Thyne *et al.* (2016), Kershaw *et al.* (2018), and Sorrentino *et al.* (2018) who demonstrate how co-creation and co-production actions generate greater public value in the services of cultural institutions. In this way, we can affirm that stakeholders prefer and prioritise actions that involve the community in formulating and carrying out museum activities. They thus secure greater legitimacy and impact and, therefore, devote less effort to strategies that involve citizens in boards or strategic decision-making bodies. These findings are also a way of revealing the interests of each of the museums under study and of self-assessing their performance when implementing the participatory strategy (Bakhshi *et al.*, 2015; Basso *et al.*, 2018; Agostino and Arnaboldi, 2021). In addition, our methodology might provide an approach towards ex-ante assessment of similar cultural policies for other museums or concerning other issues.

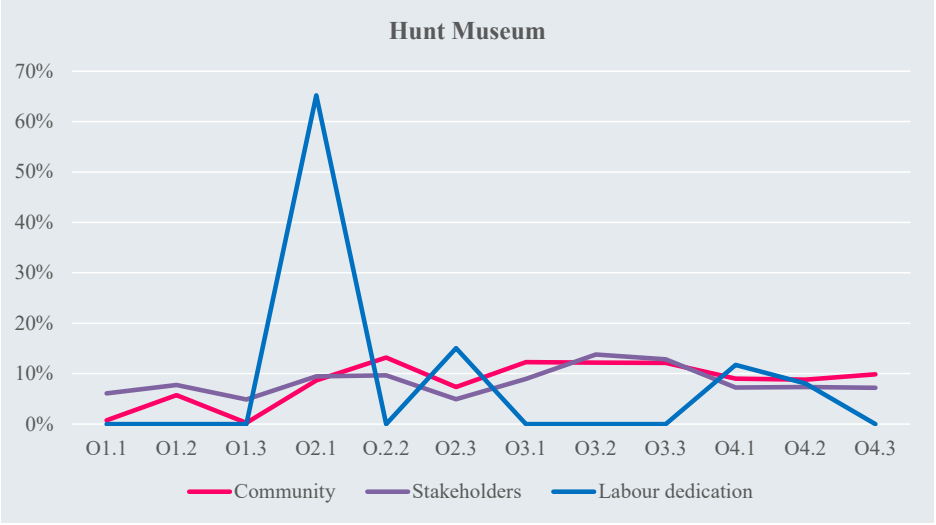
4.3. Compared results: current efforts and supply and demand preferences

It might be interesting to compare the results of this work with the preferences revealed on the demand side –and with current efforts being made by museums when implementing participatory strategies– in order to observe whether preferences and practices are in line or prove to be disparate. To do so, we refer to the main results of Gómez-Zapata *et al.* (2024) who evaluate this same participatory model and case study from the demand side, i.e. estimating the value allocated by the museum communities in each city, using the Choice Experiment method, which can estimate the marginal value assigned to each option and dimension of the participatory model. To measure current museum performance in this strategy, we consider the work effort expressed in work weeks (full-time, part-time, and voluntary) dedicated to each of the dimensions and options of the participatory model. Data come from a survey of the RECHARGE project referring to the institutional effort of the three reference museums in 2023 and 2024 (del Barrio-Tellado *et al.*, 2025).

In order to be able to compare variables for each museum and between the three institutions, we convert all the variables (community preferences, stakeholder preferences, and effective institutional effort) into index numbers in ranges from 0% to 100%, considering their minimum and maximum behaviour in each museum as a basis for standardisation. In this way, proportional performance measures are taken, thereby avoiding problems of scale and comparability between institutions and countries.

Regarding the results, the preference structure of the community (demand) and stakeholders (supply) very much align in the case of the Hunt Museum (Figure 6), showing relatively more interest for options in the social and creative dimensions and less with co-governance. However, institutional efforts run in the opposite direction, as they are mainly inclined towards creative (about 80%) and technological (about 20%) strategies, and in particular towards the option with the lowest degree of engagement, such as the realisation of creative experiences for the local community. The preference structures of the Tessuto Museum (Figure 7) also appear to be relatively aligned. However, the community is more strongly inclined towards the social dimension options and less towards governance, while stakeholders offer a more balanced structure –with social and technological aspects taking precedence. When compared to institutional efforts, we find that the majority of energy is dedicated to governance (almost 60%) followed by technological actions (approximately 20%). Finally, Figure 8 represents the preference structure of the Maritime Museum. Here, community and stakeholder assessments diverge, with the former focusing more on co-creation and social options, and the latter clearly inclining towards technological options –in line with the museum's orientation. All in all, institutional efforts focus on governance and in part on social, but much less on technology options.

Figure 6. **PREFERENCE STRUCTURE OF PARTICIPATORY OPTIONS (SUPPLY AND DEMAND) AND CURRENT EFFORTS: THE HUNT MUSEUM**



(*) Options levels of participatory dimensions following Table 1

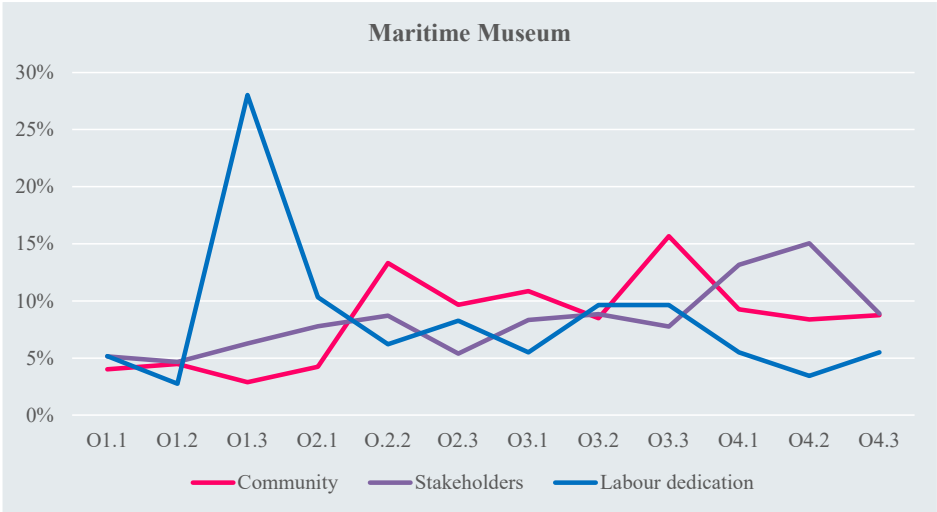
Source: del Barrio-Tellado *et al.*, 2025

Figure 7. **PREFERENCE STRUCTURE OF PARTICIPATORY OPTIONS (SUPPLY AND DEMAND) AND CURRENT EFFORTS: THE TESSUTO MUSEUM (*)**

(*) Options levels of participatory dimensions following Table 1

Source: del Barrio-Tellado *et al.*, 2025

Figure 8. **PREFERENCE STRUCTURE OF PARTICIPATORY OPTIONS (SUPPLY AND DEMAND) AND CURRENT EFFORTS: THE MARITIME MUSEUM**



(*) Options levels of participatory dimensions following Table 1

Source: del Barrio-Tellado *et al.*, 2025

This is an important result as it shows that the preference structures on the supply and demand side are quite aligned but that the effective dedication of museums (measured in work effort devoted) is polarised, and particularly towards the governance activities, which is quite far away from the predilection of communities and stakeholders. This opens up further avenues of research as regards cost-effectiveness analysis of participatory model implementation. Another important result is that the ranking of values assigned by the supply- and demand-side is consistent with the orientation and specialisation of each museum: the Hunt focuses on the social, the Tessuto on creation, and the Maritime on the technological dimension. This is an achievement in the strategic approach of each museum, as it is generally recognised by the public and stakeholders involved in these institutions.

5. CONCLUSIONS

In contrast to traditional models of unidirectional management, new strategies for the governance of cultural institutions based on participatory models have been gaining importance in recent years. These strategies are based on actively involving multiple actors in management, programming, production, and innovation. On this premise, this paper seeks to evaluate participatory cultural policies in museums, incorporating the value assigned to different strategies by three groups of agents involved: managers and policy-makers on the cultural programming side; creators and technologists involved in the cultural production stage; and final suppliers and educators who have a greater impact when configuring final goods and services. We look at three museums that are developing participatory business models. These are the Hunt Museum in Limerick, Ireland, the Maritime Museum in Tallinn, Estonia, and the Tessuto Museum in Prato, Italy, all of whom were involved in the RECHARGE project of the European HORIZON 2.2, for which four dimensions of participatory strategies are defined (co-governance, artistic co-production, social co-innovation, and technological co-innovation), and which in turn are divided into three specific options or strategies ranked from highest to lowest degree of stakeholder involvement based on a status quo situation.

The analytic hierarchy process matrix analysis technique is applied to the results of a survey on the selection of participatory strategies and options to a representative sample of 96 stakeholders from the three clusters mentioned above in order to obtain an optimal preference scale of the value assigned to the participatory models on the institutional side. Respondents therefore form a group of experts whose answers are representative in terms of their socio-demographic profile. The stakeholder sample stands out for having a particularly high level of education, with almost 60% reporting master's or doctorate studies. In addition, we found a large presence of graduates in fields related to heritage and humanities. A segmented analysis by cluster shows that the fields of study are thematically aligned with the cluster profiles. The governance cluster reflects studies in social sciences, while in the produc-

tion cluster there is a greater presence of studies in the arts and creative fields. Together with the long professional career of the stakeholders (over 18 years since their last academic degree was obtained) and the long relationship reported with the reference museum, these characteristics confirm that the sample has sufficient knowledge and experience for the selected methodology to be applied.

As regards the analysis of the evaluations of the options for implementing models of participation and social involvement in museums, stakeholders were generally found to display a lower preference for the collaborative co-governance options and a higher preference for the options associated with the social co-innovation dimension, while creative co-production and technological co-innovation have intermediate ratings. There is a greater preference for intermediate level options associated with co-decision. Diversity, equity, and inclusion actions, creative experiences, digitalization and sensorial offerings stand out among the strategies. In addition, museums display a preference structure that chiefly aligns with their specialization; Hunt-Social, Tessuto-Creative, and Maritime-Technological. There are some differences in the analysis segmented by stakeholder group. The manager and policymaker cluster shows an alignment with global governance trends and a preference for options associated with the implementation and use of new technologies and long-term social programmes. The production and museum services clusters attach greater value to the social dimension, and especially to promoting diversity and inclusion. Overall, the value allocated by museum stakeholders shows a similar preference structure to that of the community (social and technology options are more highly valued than governance involvement) (Gómez-Zapata *et al.*, 2024), while museums' effective engagement (work effort devoted) is polarised and fundamentally geared towards governance options (del Barrio-Tellado *et al.*, 2025). This indicates that, although there is a clear recognition of the importance and need to implement participatory models in museums, museums are still adapting and accommodating their resources and efforts in order to be effective in developing these strategies. It seems that in the early stages, museums need to allocate more efforts to co-governance actions than to the social dimension, co-creation and technological adaptation. Communities and stakeholders may be clear about engaging in participatory actions but may be finding that the most effective way to achieve this remains under discussion; hence, the greatest dedication is to consultation and strategic decision-making processes.

Finally, this research offers a methodological proposal to evaluate a participatory strategy for museums. It provides input for strategic decision-making, both for the results of the hierarchical ranking of the options for citizen participation and, therefore, of the actions to be applied. It also offers the possibility of self-evaluation and recognition by managers and promoters of the efficiency of the participatory models they are implementing. We thus show the usefulness of the analytic hierarchical process as a method for evaluating different public policies and the perfor-

mance of cultural institutions and its application as a relevant planning tool to consolidate new public management approaches. The findings of our study also indicate the importance of well-aligned and related assessments and preferences on the demand and supply side of participation models, as this ensures institutional legitimacy and maximisation of citizens' perceived social welfare. The findings of this study thus provide a reference for future work in other contexts and/or cultural institutions who are interested in carrying out an ex-ante evaluation of a cultural policy from a supply-side approach.

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