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RESEARCH REPORT

VALUE OF PARTICIPATION

Allocating Value to Participatory Dimensions and Strategies by Museum Communities

Date: 30 April 2024

Authors:

Dr. Maria José del Barrio Tellado
Fátima Espinosa Casero
Dr. Jonathan Daniel Gómez Zapata
Dr. Luis César Herrero Prieto
from University of Valladolid

Table of Contents

1. Main purpose and approach	p. 3
2. Defining participatory dimensions and strategies for museums	p. 4
3. Socioeconomic characterisation and cultural profile of the community samples	p. 6
4. Assessing the participatory strategy of museums as a whole	p. 10
5. Benchmarking participatory dimensions and options	p. 17
6. Conclusions and policy implications	p. 23
Bibliography	p. 26
Annex	p. 28

Acknowledgement

We would like to thank the close collaboration of the RECHARGE partners in the elaboration of this study, particularly EUR and FCC in the definition of the participatory dimensions and strategies; and most especially the project museums, for their collaboration in the linguistic revision of the surveys for each country language, the selection of the fieldwork grantees and the assistance in all kinds of facilities for the realisation of the site survey. The responsibility remains on the Authors only.



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1. MAIN PURPOSE AND APPROACH

Main purpose. To measure the value allocated by the community (in a broad sense) to participatory dimensions of cultural heritage institutions and particularly our three reference museums of the RECHARGE project. We would like to build a demand curve of museums specified through / focused towards participatory strategies.

We have therefore defined four dimensions of participation (collaborative co-governance, creative co-production, social co-innovation, and technological co-innovation) ranked by levels of involvement (specific options in terms of engagement intensity) and a complementary dimension which serves as a payment vehicle to express the intensity of preferences on a monetary scale (see Figure A.1 in the annex).

Approach. We apply non-market goods valuation methods, such as contingent valuation to obtain the willingness to pay for the whole participatory strategy carried out by the museums, and choice experiment to estimate the marginal valuation of each of the dimensions and options of said strategy. These methods involve collecting an ample survey among the community of each museum in order to obtain robust and sufficient results from the various bids on the participatory options.

Fieldwork. Three macro-surveys were carried out, one in each city (Limerick, Prato, Tallinn) of the reference project museums (Hunt, Tessuto, and Maritime), in different areas (museum visitors, museum surroundings and different emblematic points of the cities) in order to capture the community interested in the museums, either because they consume them (*direct use*) or because they value them, even if they do not use them (*passive use*). Surveys are conducted face-to-face by randomly selecting participants, trying to balance features such as gender, age, educational attainment, income, occupation, etc. In addition, only respondents who are nationals or foreigners but resident in the countries have been considered. There is only one final questionnaire, although eight randomised versions of the choice sets were applied in order to avoid anchoring bias. Fieldwork was conducted in the period from the last week of October 2023 to the second week of January 2024. The total number of surveys collected and the distribution by cities is shown in Table 1.

Table 1. Number of surveys collected.

	Surveys	
Global	1,259	100%
Limerick	417	33%
Prato	407	32%
Tallinn	435	35%



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2. DEFINING PARTICIPATORY DIMENSION AND STRATEGIES FOR MUSEUMS

Based on partner discussion within RECHARGE and the literature on participatory models for cultural institutions, four specific dimensions of community participation were defined for the analytical purpose of this research, namely: Collaborative co-governance, Creative co-production, social co-innovation and Technological co-innovation. The definition and explanation of each category is provided below. In each of these dimensions, four different levels of involvement were established, starting from a status quo (*options n1*, no changes) and progressing through increasing levels of engagement, as follows: contribution (*options n2*, sporadic participation), co-decision (*options n3*, systematic and regular participation), and empowerment (*options n4*, high level of commitment). For the purposes of the empirical survey exercise, the options were formulated in more conversational language in the form of cards, illustrated in Figure A.1 in the annex, together with visual support of pictures alluding to each option.

DIMENSION 1: Involving collaborative co-governance	
<p>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, programs 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.</p>	Option 1.1. Status quo
	Option 1.2. Annual consultation with participant community on activities of their interest
	Option 1.3. Advisory board with relevant groups (artists, curators, citizens, artisans, etc.)
	Option 1.4. Full multi-stakeholder engagement with the power of decision over policy prioritization and institution accountability
DIMENSION 2: Involving creative co-production	
<p>This dimension involves collaboration between museums and artist, designers and local communities to create collections, exhibitions and educational programs. 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 program-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.</p>	Option 2.1. Status quo
	Option 2.2. Workshop program and content experiences for creatives and local communities
	Option 2.3. Provision of facilities (space, funding, residencies, internships, traineeships) for emerging artists and guest curators.
	Option 2.4. Long-term program contract with schools of arts, art departments, art fairs and creators associations with programming decision-making authority

DIMENSION 3. Involving social co-innovation	
<p>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 organizations, non-profits and volunteers in social and museums 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</p>	Option 3.1. Status quo
	Option 3.2. Voluntary program on social actions and museum activities
	Option 3.3. Social co-creation activities that promote cultural diversity, social inclusion, and civic engagement
	Option 3.4. Long-term engagement program with communities to address social challenges and the impact of well-being over time
DIMENSION 4: Involving technological co-innovation	
<p>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 of new cultural supply for an immersive museum, and engagement of technologists as commercial allies and in managerial improvements.</p>	Option 4.1. Status quo
	Option 4.2. Contributing in crowdsourcing initiatives to make digital material more widely available
	Option 4.3. New digital cultural supply based on sensory experimentation, augmented and virtual reality and other interactive technologies
	Option 4.4. Participatory engagement of creators and technologists in the museum development cycle (programming, accessibility and managerial issues)

3. SOCIOECONOMIC CHARACTERISATION AND CULTURAL PROFILE OF THE COMMUNITY SAMPLES

Figures 1 and 2 describe, respectively, the overall sample and the sub-samples for each city in terms of the main socio-economic variables, based on the basic results contained in Table 2. The main distinctive features are the following:

- More than half of the respondents stated they were female.
- The average age of respondents was 42 years old.
- The most frequent income levels, with approximately 25% of the population each, are the strata of less than 800€, 800€ to 1,600€ and 1,600€ to 2,200€. Incomes in Limerick are slightly higher and more balanced, while in Prato the middle-income level is predominant, and in Tallinn the lower strata.
- We found population to have a medium to high level of education, with about 50% reporting graduate/diploma studies, and 20% having completed master/doctorate studies. The educational level of the respondents is slightly higher in Prato and Tallinn.
- Most of the respondents are either employed (about 50%) or studying (about 18%).
- Most of the respondents have visited the museum at some time, especially in Tallinn, with 87.81% of the sample. However, they have hardly any loyalty to the museum, having visited it only once (Tallinn) or less (Prato) in the last year. However, the community displays a more regular consumption of the Hunt Museum in Limerick, having visited the museum an average of five times over the last year.

To summarise the socioeconomic profile of the respondents in one sentence, we can say that they are mainly women, of adult age, although there is also a significant group of students. They average 42 years old and have completed graduate/diploma studies. They are mostly employed and have an average income of between 1,660 and 2,200 euros. They already know and have visited the museum, but then do not visit it very often (except for Limerick).



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Figure 1. Socio-economic characteristics of the total sample.

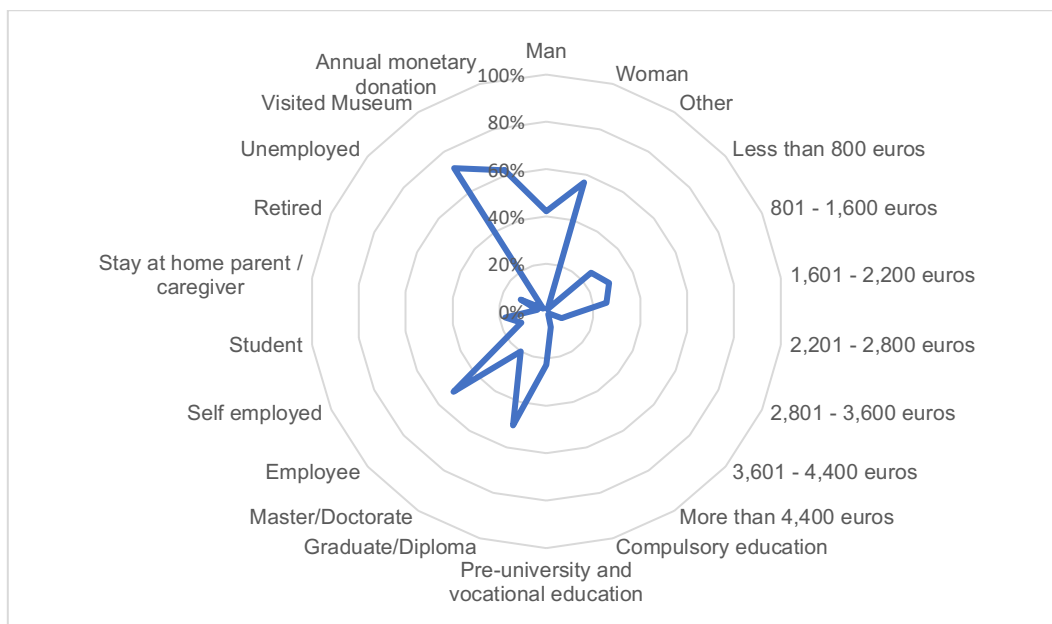


Figure 2. Socio-economic characteristics of the sub-samples: Limerick, Prato and Tallinn.

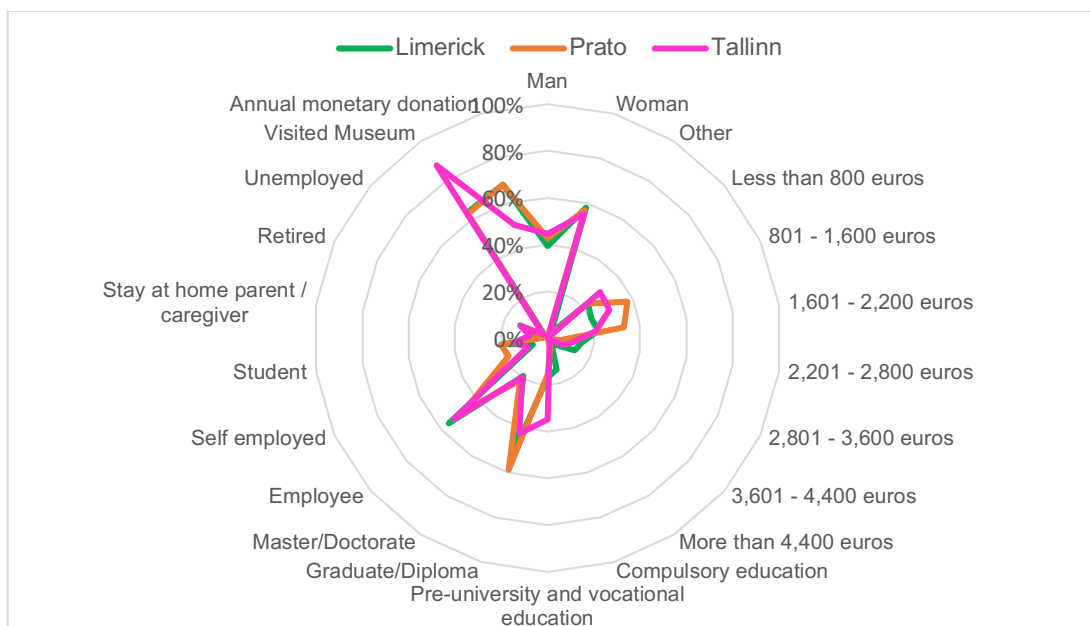


Table 2. Socio-economic characteristics of samples: main results.

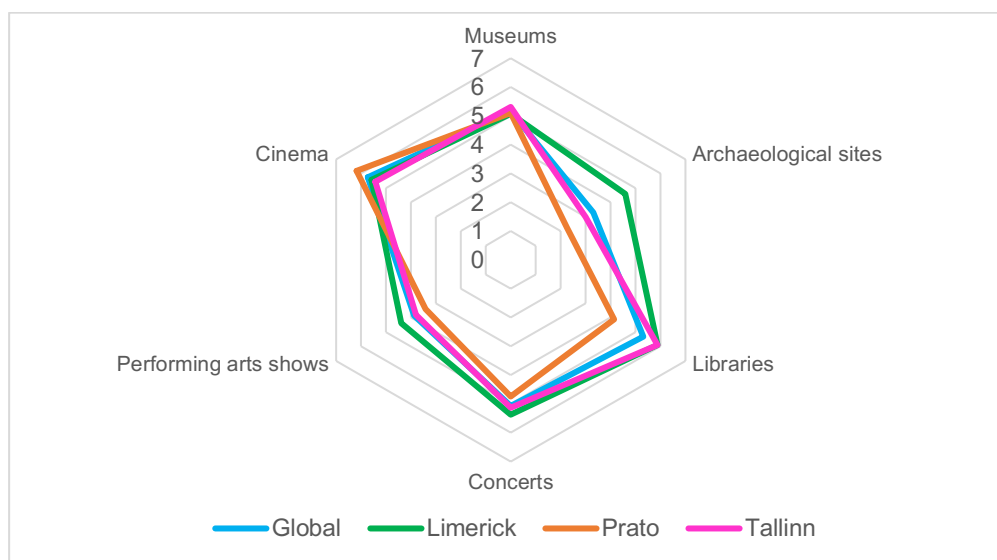
Variable		Global	Limerick	Prato	Tallinn
Sex	Man	42.26%	39.33%	42.75%	44.60%
	Woman	56.79%	58.03%	57.00%	55.40%
	Other	0.95%	2.64%	0.25%	0.00%
Monthly income level	Less than 800 euros	24.91%	22.80%	22.67%	29.91%
	801 - 1,600 euros	29.09%	20.47%	37.53%	29.03%
	1,601 - 2,200 euros	25.53%	22.02%	33.00%	20.82%
	2,201 - 2,800 euros	10.41%	14.77%	5.54%	11.14%
	2,801 - 3,600 euros	6.94%	12.69%	0.76%	7.62%
	3,601 - 4,400 euros	1.69%	4.15%	0.25%	0.59%
	More than 4,400 euros	1.42%	3.11%	0.25%	0.88%
Level of education	Compulsory education	6.91%	14.15%	3.93%	2.76%
	Pre-university and vocational education	22.64%	16.79%	15.72%	34.71%
	Graduate/Diploma	50.20%	49.88%	58.72%	42.53%
	Master/Doctorate	20.25%	19.18%	21.62%	20.00%
Occupation	Employee	51.94%	55.87%	47.17%	52.64%
	Self employed	11.51%	6.95%	18.42%	9.42%
	Student	17.63%	18.46%	20.14%	14.48%
	Stay at home parent / caregiver	3.97%	2.39%	1.71%	7.58%
	Retired	11.91%	12.94%	10.17%	12.64%
	Unemployed	1.74%	0.95%	1.71%	2.52%
Visited Museum	Visited Museum	71.88%	63.78%	63.14%	87.81%
	Average visits last year	2.10	5.07	0.68	1,02
Average age		42.27	42.61	42.16	42.03
Agreeing to people being involved in the museum		3.26	3.57	4.04	2.23
Agreeing on an annual monetary donation		62.11%	68.34%	68.30%	50.34%

As a complementary analysis of this characterisation, the cultural consumption habits of the communities were also studied. Table 3 shows the average number of times per year that respondents participate in arts and cultural activities. In general, respondents reported the highest consumption of visiting museums, going to libraries and going to the cinema (more than five times a year); and the lowest consumption of visiting monuments and archaeological sites, and attending performing arts shows (slightly more than three times a year). Nonetheless, there is some difference between the case studies (Table 3 and Figure 3), with Limerick showing a more balanced structure of cultural consumption, while Prato is more notable for going to the cinema, and Tallinn for library attendance.

Table 3. Cultural consumption (number of visits per year)

Cultural consumption	Global	Limerick	Prato	Tallinn
Visits to museums or exhibitions	5.16	5.07	5.10	5.31
Visits to monuments or archaeological sites	3.30	4.59	2.25	3.00
Going to libraries	5.31	5.88	4.14	5.88
Attending musical performances (concerts)	5.07	5.37	4.74	5.13
Attending performing arts shows (theatre, opera, dance, circus)	3.87	4.38	3.42	3.81
Going to the cinema	5.73	5.58	6.18	5.43

Figure 3. Cultural consumption profile of the total sample and subsamples: Limerick, Prato, and Tallinn.

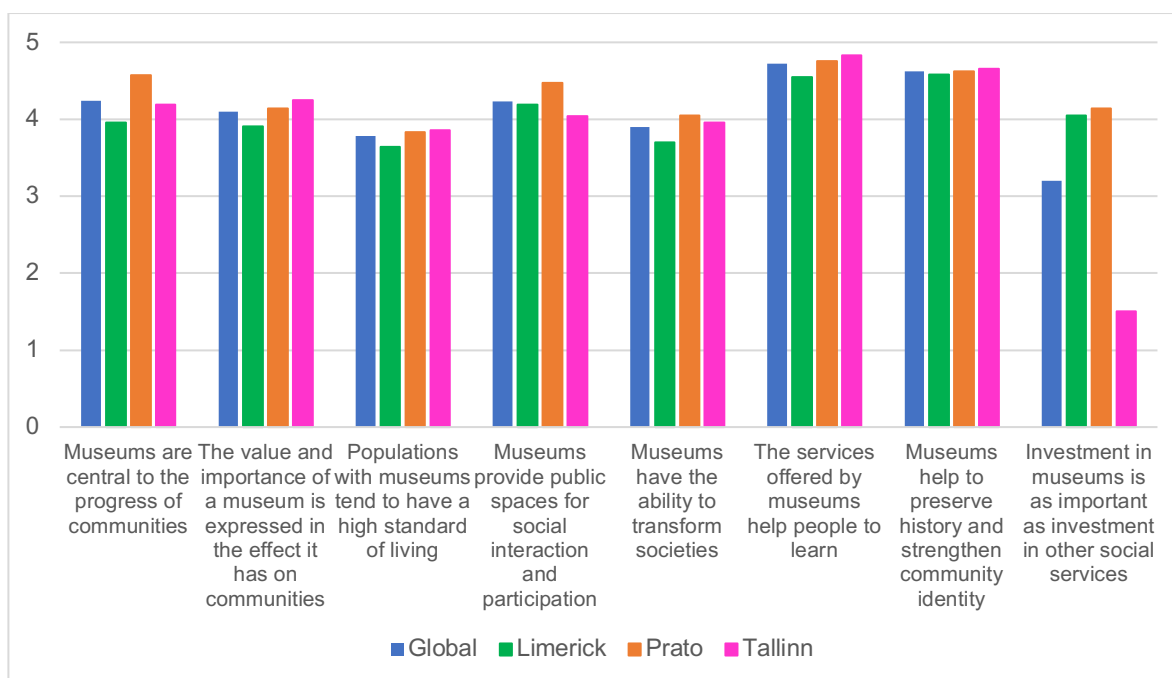


4. ASSESSING THE PARTICIPATORY STRATEGY OF MUSEUMS AS A WHOLE

With regard to the question *To what extent do you agree with the involvement of people in the management processes (decision-making) and in the development of the services offered (mission activities) by museums?*—the results for which are also shown in Table 2—overall they show an intermediate acceptance (mean 3.26 out of 5), which is much higher in the case of Prato (4.04), but significantly lower in Tallinn (2.23), while Limerick offers a result slightly above average.

The rating on a scale of 1 to 5 of the main roles that a museum can play in the community (Figure 4), the classical functions of learning and preservation of history and identity are most often highlighted. The role as a driver of social interaction and community development is also highly valued, especially in Prato and Tallinn. In comparison, the more specific issues of museums as key-drivers of well-being and social investment are relatively less valued.

Figure 4. Rating main museum roles in communities.



However, when we asked about the willingness to donate a voluntary annual quota so that museums can implement a full participatory strategy, involving the community in the decision-making process, we found that approximately 68% of respondents in Limerick and Prato were willing to make this contribution, compared to only 50% in Tallinn who gave an affirmative answer (see Table 2).

We sought to estimate how much of a voluntary annual monetary contribution respondents would be willing to donate for museums to carry out these engagement strategies. At this point, we assess the intensity of community preference of the strategy as a whole or as an integrated process, as we will later assess four specific participatory dimensions for the community. For this analysis, we take the value statements assigned by the interviewees and build survival curves, which work as a type of demand curve for each case: the whole sample and the ones for each city (Figures 5 and 6 respectively). With this information, it is possible to estimate the average willingness to pay (WTP) stated by the respondents, the results of which are shown in Table 4

Figure 5. Survival curve for the whole sample.

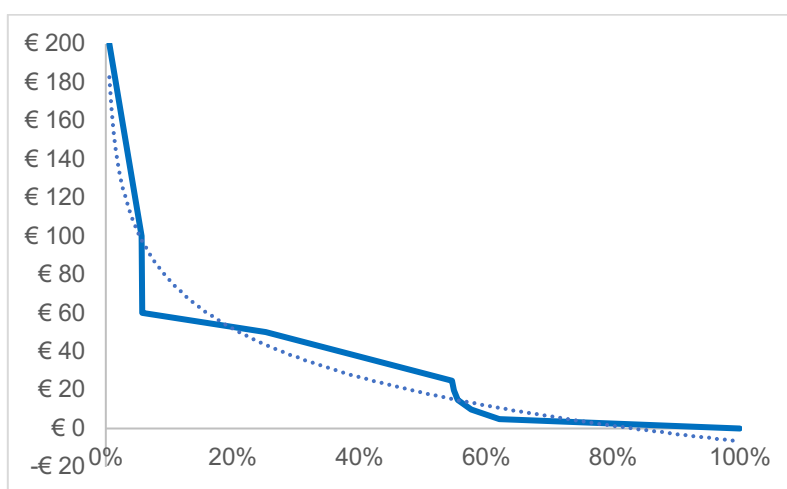


Figure 6. Survival curves for sub-samples: Limerick, Prato, and Tallinn.

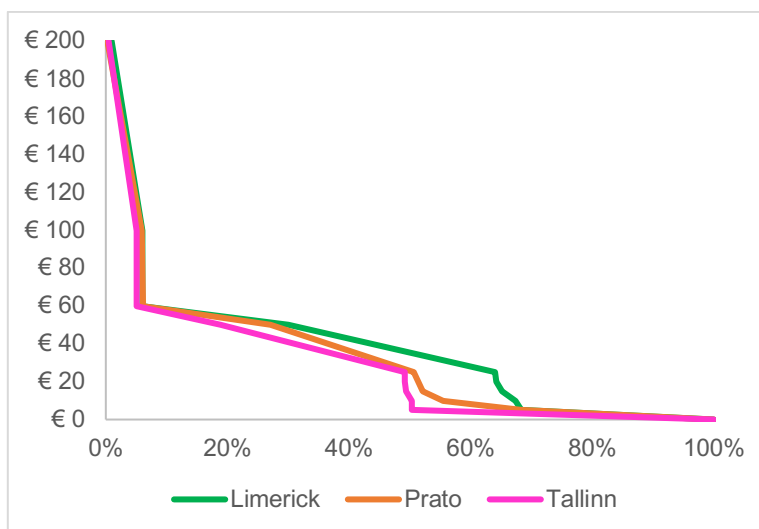


Table 4. Average WTP.

Value	Global	Limerick	Prato	Tallinn
Average WTP	€ 64.59	€ 71.70	€ 63.29	€ 40.15

In general, it can be deduced that communities would be willing to make an average donation of 64.59 euros per year to carry out community participatory models in museums. However, there is somewhat of a difference between our case studies, with the population of Limerick declaring a higher willingness to pay (71.70 euros per year), followed by the population of Prato (average WTP of 63.29 euros per year), while the population of Tallinn reported a lower contribution of 40.15 euros per year. These disparities may be justified by the different income levels between the countries and cities considered, but also by the degree to which the museum is engaged with the community, and how it is considered as a regular cultural or leisure consumer good, which seems to be the case for the Hunt Museum in Limerick.

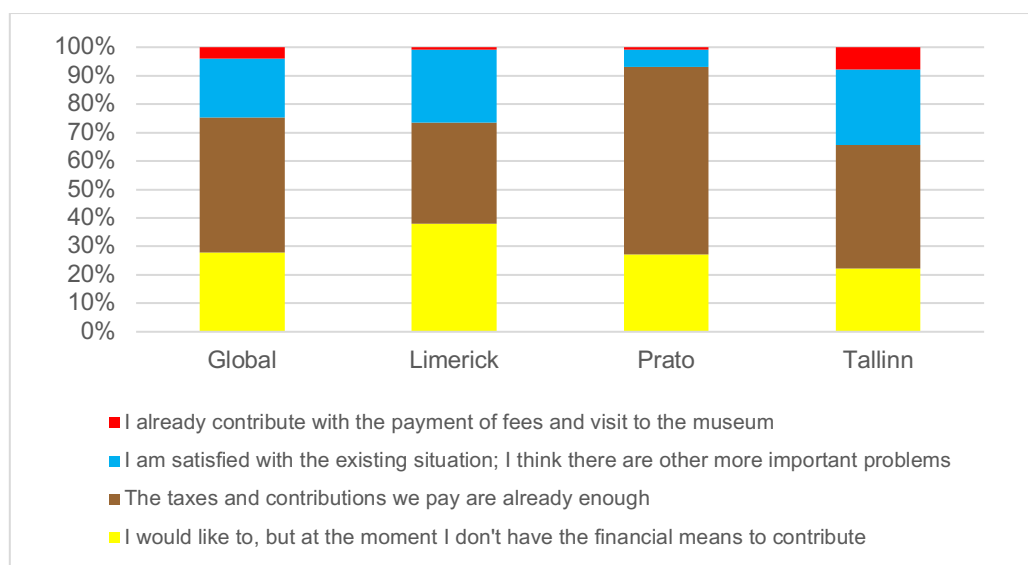
We examined the possible reasons for not willing to contribute to implement a participatory strategy in museums, and grouped the responses into four possible reasons, the results of which are shown in Table 5 and Figure 7. The main argument for declining to contribute is that respondents claim that they already pay enough through their taxes (47% of responses). This motive is more pronounced in the case of Prato (66%) and Tallinn (44%), which points to a notion of museums as public goods provided by the state in these communities. In contrast, in Limerick this consideration is diluted towards collective or civil society support, as the tax argument is weaker (36%), with respondents mainly mentioning that they would like to contribute, but that at the moment they cannot for financial reasons (38%). Finally, it should also be noted that both in Limerick and in Tallinn, there is a large group of people who do not contribute because they agree with the existing situation as regards museums (26%).

These arguments cannot be interpreted as a complete rejection of payment as such, but rather as expressing an indirect WTP to implement the museums' participatory strategy, either by way of a tax contribution or if respondents were to improve their income levels. The latter category can easily refer to the cohort of students, a significant group among the respondents who are quite interested in the museums' activities, but who lack any stable income.

Table 5. Reasons for not contributing with a WTP for a participatory strategy

Why do you disagree with the donation proposal?	Global	Limerick	Prato	Tallinn
I would like to, but at the moment I don't have the financial means to contribute	28%	38%	27%	22%
The taxes and contributions we pay are already enough	47%	36%	66%	44%
I am satisfied with the existing situation; I think there are other more important problems	21%	26%	6%	26%
I already contribute with the payment of fees and visit to the museum	4%	1%	1%	8%

Figure 7. Reasons for not contributing with a WTP for a participatory strategy



To reinforce the analysis, we proposed a complementary study to estimate WTP, splitting the overall sample into three different groups, as follows: goers, non-goers, and fanatics, considering the latter to be those respondents who have visited the museum five or more times in their lifetime. The distribution of these museum preference groups in the three reference cities is shown in Table 6. However, the average WTP of each group has been estimated only for the data of the global sample of respondents and not for each city due to reasons of significance of these sub-samples.

Table 6. Sample distribution by goers, non-goers, and fanatics

	Non-Goers	Goers	Fanatics
Global	28.1% (354)	71.9% (905)	21.2% (267)
Limerick	36.2% (151)	63.8% (266)	25.9% (108)
Prato	36.9% (150)	63.1% (257)	8.8% (36)
Tallinn	12.2% (53)	87.8% (382)	28.3% (123)

Note: Values in brackets are absolute figures.

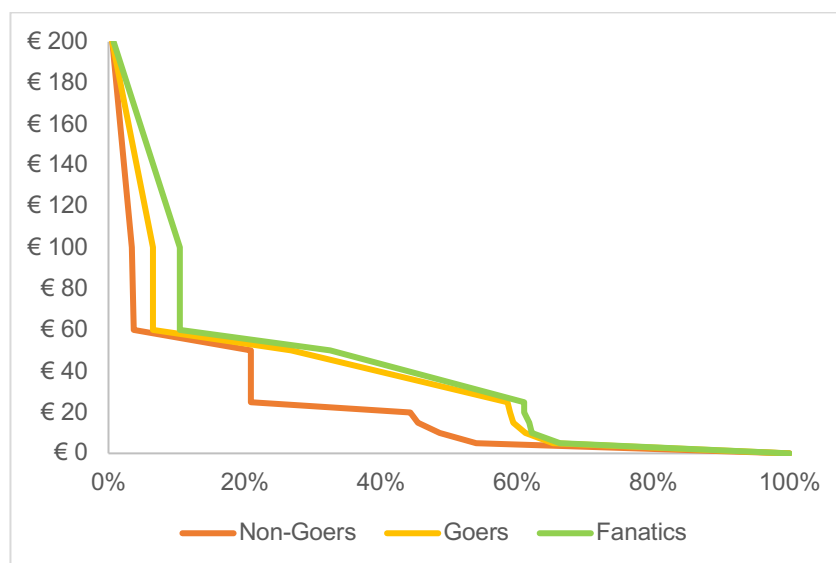
As expected, an increasing trend in stated WTP was found, according to interest groups: the higher the intensity of knowledge and the number of visits to the museum, the higher the stated WTP. Indeed, as shown in Table 7, the WTP for non-goers is €46.65, while that of fanatics is almost double (€80.84). The fee declared by normal visitors (€69.71) is close to the average WTP of the sample. This result emphasises one of the most common arguments in the analysis of cultural consumption, where lived accumulated experiences reinforce the willingness to pay and loyalty to cultural institutions.

Table 7. Average WTP for goers, non-goers and fanatics

Value	Non-Goers	Goers	Fanatics
Average WTP	€ 45.65	€ 69.71	€ 80.84

Figure 8 shows the survival curve for each of these groups in the whole sample, where if we measure the valuation of the good through the consumer surplus, i.e. the area below the demand curve, we can see that the surplus for the curve of the fanatics is higher (above all for those who report high valuations of the museum), while the surplus is lower in the curve of the non-goers. In any case, it is important to highlight that the non-goers, although they do not know the museum, recognise the passive use values of the museum (existence, option and legacy values) and, therefore, show a positive WTP, although this is lower than the average WTP found for the overall sample, which was €64.59.

Figure 8. Survival curve for WTP of goers, non-goers and fanatics



Finally, we estimated a logistic model (Logit) to find which socio-economic variables impact the probability that respondents are willing to pay (WTP) for museums to carry out participatory strategies that involve the community. Table 8 presents the results for the overall sample (the results for the individual museums are relatively similar), and we can conclude the following.

Looking at the statistically significant variables (in bold in Table 8), there is only one variable that has a negative correlation –respondents' age. This means that the older the respondent, the lower the stated contribution, which may lead us to think that older people are reluctant to change and prefer to continue enjoying the museum in the traditional way. We can also understand that young people are the most enthusiastic about these participatory strategies, as we have already identified, and wish to contribute with a relatively higher quota.

Conversely, among the variables that positively determine WTP are level of income, occupation at home, being a regular museum visitor, having a highbrow profile of cultural consumption (focused on museums and performing arts), appreciating the importance of participatory models for museums and believing in their capacities for social change and progress. This provides us with a profile for the propensity to pay that has to do with a high level of cultural consumption, with a certain background of previous experience and loyalty to the museum, and with enthusiasm for the possibilities provided by participatory models in museums.

Table 8. Socioeconomic variables determining WTP

WTP	Global
Sex	0.0107 (0.1429)
Age	-0.0118 (0.0064)*
Level of education	0.0036 (0.0959)
Income level	0.2263 (0.0725)***
Employee	0.3047 (0.6547)
Self employed	0.1117 (0.6829)
Student	-0.1871 (0.6774)
Stay at home parent / caregiver	2.0023 (0.7942)**
Retired	0.1636 (0.6960)
Unemployed	-0.2573 (0.8403)
Goers	0.3931 (0.1577)**
Acceptance level of participatory models	0.4699 (0.0755)***
Visits to museums or exhibitions	0.1679 (0.0944)*
Visits to monuments or archaeological sites	0.0851 (0.0825)
Attendance at libraries	0.0416 (0.0549)
Attendance at musical performances (concerts)	0.1644 (0.0890)*
Attendance at performing arts shows (theatre, opera, dance, circus)	0.0232 (0,0921)
Attendance at cinema	-0.0252 (0.0726)
Museums are central to the progress of communities	-0.1436 (0.1128)
The value and importance of a museum is expressed in the effect it has on communities	0.2789 (0.1034)***
Populations with museums tend to have a high standard of living	-0.0234 (0.0773)
Museums provide public spaces for social interaction and participation	0.2795 (0.1025)***
Museums have the ability to transform societies	-0.0017 (0.0928)
The services offered by museums help people to learn	0.2636 (0.1488)*
Museums help to preserve history and strengthen community identity	-0.1250 (0.1296)
Investment in museums is as important as investment in other social services	0.1007 (0.0594)*
Constant	-4.6311 (1.0274)***

Note: Standard error in parentheses, which indicate the dispersion of the data (standard deviation) for each indicator. *p value<0.1; **p value<0.05; ***p value<0.01

5. BENCHMARKING PARTICIPATORY DIMENSIONS AND OPTIONS

In this section, we focus on estimating the marginal value of each dimension and each option of the strategy to encourage participation in museums. We apply the choice experiment model to calculate the value allocated by the community, i.e. which dimensions it prefers and how much it values them.

For this purpose, four specific dimensions of community participation were defined, namely: *Collaborative co-governance*, *Creative co-production*, *Social co-innovation* and *Technological co-innovation*. In each of these dimensions, four different levels of involvement were established, starting from a status quo and progressing through increasing levels of engagement, as follows: *contribution* (sporadic participation), *co-decision* (systematic and regular participation), and *empowerment* (high level of commitment). A more precise definition of the dimensions of participation and the set of options to choose from can be found in Section 2 and in the Figure A.1 of the Annex.

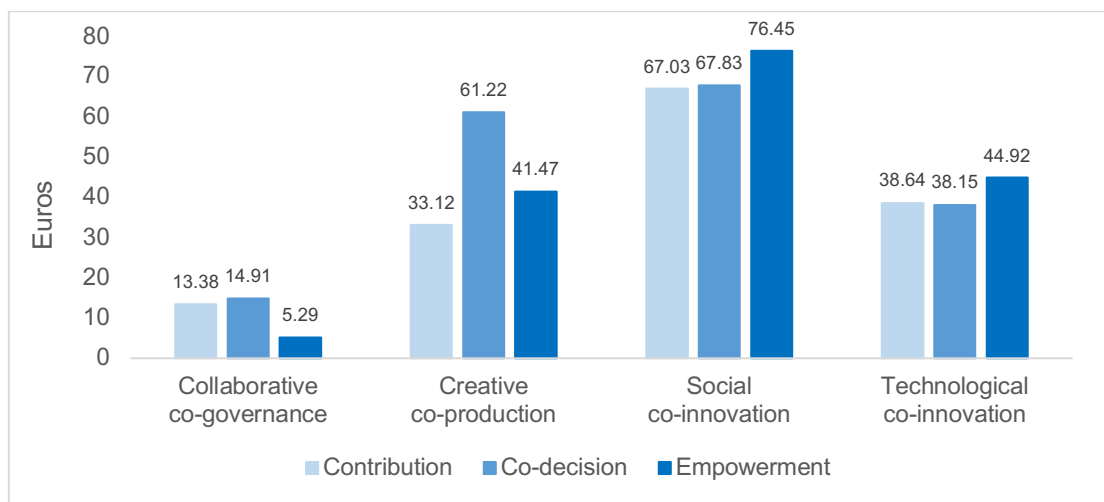
Table 9 presents a summary of the econometric estimates (Logit and Clogit models) of the monetary value (in euros) assigned to the set of options and dimensions, i.e. the marginal willingness to pay stated by respondents for each of the levels of community involvement in museums. Additionally, Figure 9 shows a graphical summary of the overall valuation of the full sample (according to the results of the Clogit model), while Figures 10 and 11 specify the results for each of the cities and museums concerned.

Table 9. WTP estimates for each level of participatory dimensions and different samples (values in Euros)

Dimension	Level	Global		Limerick		Prato		Tallinn	
		Logit	Clogit	Logit	Clogit	Logit	Clogit	Logit	Clogit
Collaborative co-governance	Contribution	14.09	13.38	-7.63	-5.63	24.18	20.85	17.47	14.71
	Co-decision	12.63	14.91	36.67	44.85	-0.51	0.78	12.76	16.35
	Empowerment	-0.78	5.24	-5.87	1.74	-6.11	-0.82	5.08	10.55
Creative co-production	Contribution	41.7	33.12	73.28	68.12	40.97	26.03	25.25	15.46
	Co-decision	61.62	61.22	104.78	103.53	50.01	49.47	47.78	48.67
	Empowerment	43.22	41.47	60.34	57.65	38.62	38.05	36.92	35.29
Social co-innovation	Contribution	73.63	67.03	107.82	96.52	89.17	80.24	43.2	39.72
	Co-decision	73.6	67.83	105.26	95.73	102.23	92.03	33.41	31.06
	Empowerment	82.86	76.45	102.88	95.42	98.37	84.7	59.31	57.21
Technological co-innovation	Contribution	47.13	38.64	77.03	70.68	35.87	19.91	39.92	33.82
	Co-decision	44.03	38.15	71.92	69.22	44.76	27.21	30.34	30.64
	Empowerment	54.2	44.92	86.53	77.65	51.83	38.7	40.28	31.96

Overall, the following can be inferred from these estimates. Firstly, with respect to the full sample, it is worth noting that the most highly valued dimension relates to *social co-innovation*, with a growing value for the options with the highest degree of commitment. The options of the *technological co-innovation* dimension also stand out, again with a growing degree of involvement. Among the *creative co-production* options, the value assigned to the intermediate option, which refers specifically to the provision of resources and facilities for emerging artists, is notable. In contrast, the options of the *collaborative co-governance* dimension are highly undervalued, even when compared to the degree of involvement. At most, the intermediate option referring to participation in an advisory board is slightly more highly valued.

Figure 9. Economic valuation of participatory dimensions and options for museums (whole sample)



With regard to the individual analysis of each city and its corresponding museum, it can be said that in general, the highest ratings come from the Limerick community. This may be partly justified by the higher levels of income reported in the sample, but also by the degree of engagement with their museum. The most highly valued options in Limerick are those in the social dimension, followed by those in the technological area. However, two specific options stand out well above the other museums, and refer to the intermediate options of the cultural co-production and co-governance dimensions, in particular the provision of resources for young and emerging artists, and participation in a museum advisory board.

As far as Prato and the Tessuto Museum are concerned, the most valued options are also those belonging to the participatory social area. In this case –although at some distance– the next most valued dimension is that of cultural co-production, in particular also the intermediate option (emerging artists). It should be highlighted that the technological innovation dimension receives a significant and increasing valuation, which denotes community willingness to engage in this aspect.

Finally, as regards the Maritime Museum, the community of Tallinn expresses a fairly balanced evaluation structure since, although the values are not very high (relative to the other cities), all the dimensions and options are ranked reasonably well. The most committed option in the social area (permanent participation in social programming) and the intermediate option of co-production (support for emerging artists) in particular stand out. The values assigned to the options in the technological area are also important, and it is the only community that significantly values co-governance tasks.



Figure 10. Summary of economic values to participatory dimensions and options (sub-samples)

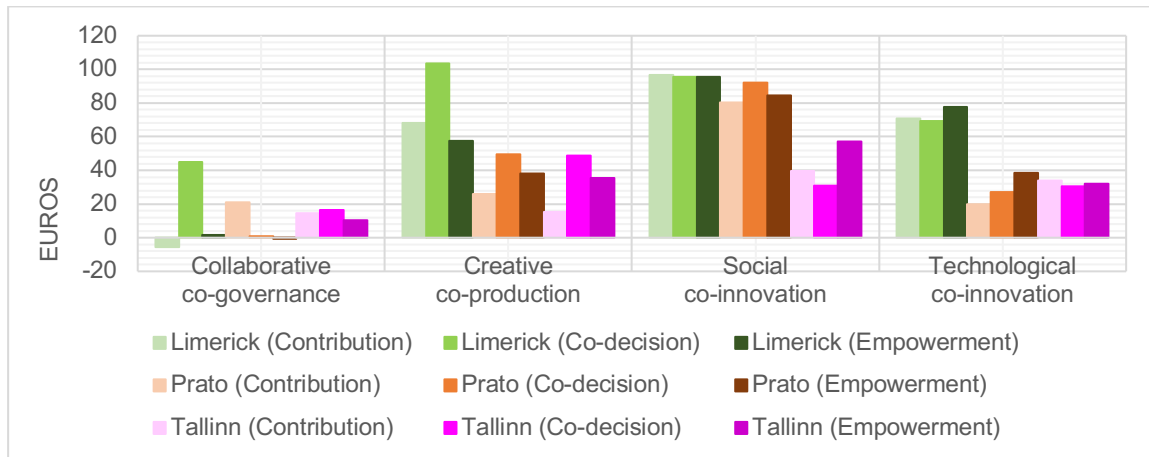
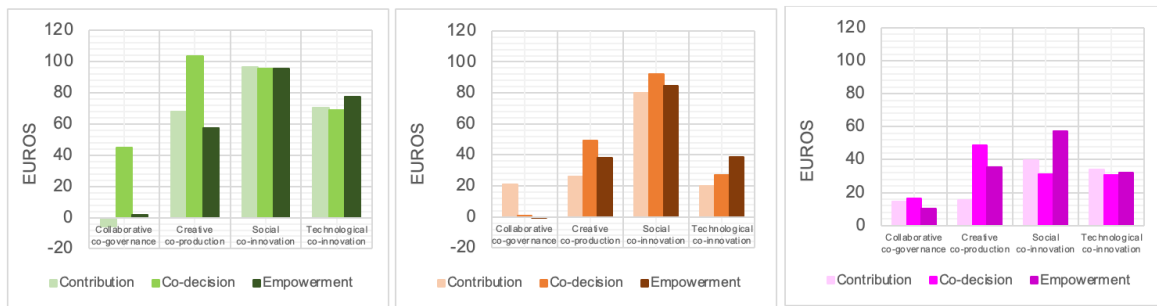


Figure 11. Economic valuation of participatory dimensions and options: Limerick, Prato, and Tallinn



As in the previous section, we finally carry out an assessment analysis of the participatory dimensions and options for the three target groups (goers, non-goers, and fanatics). It should be noted that the estimates are made for the total sample and are not specified for each museum for reasons of sample size; and that the values of the collaborative co-governance dimension are not statistically significant. Nevertheless, the results are presented in full (Table 10) and plotted in graphs (Figure 12) for illustrative purposes.

Table 5. Marginal WTP allocated by goers, non-goers, and fanatics

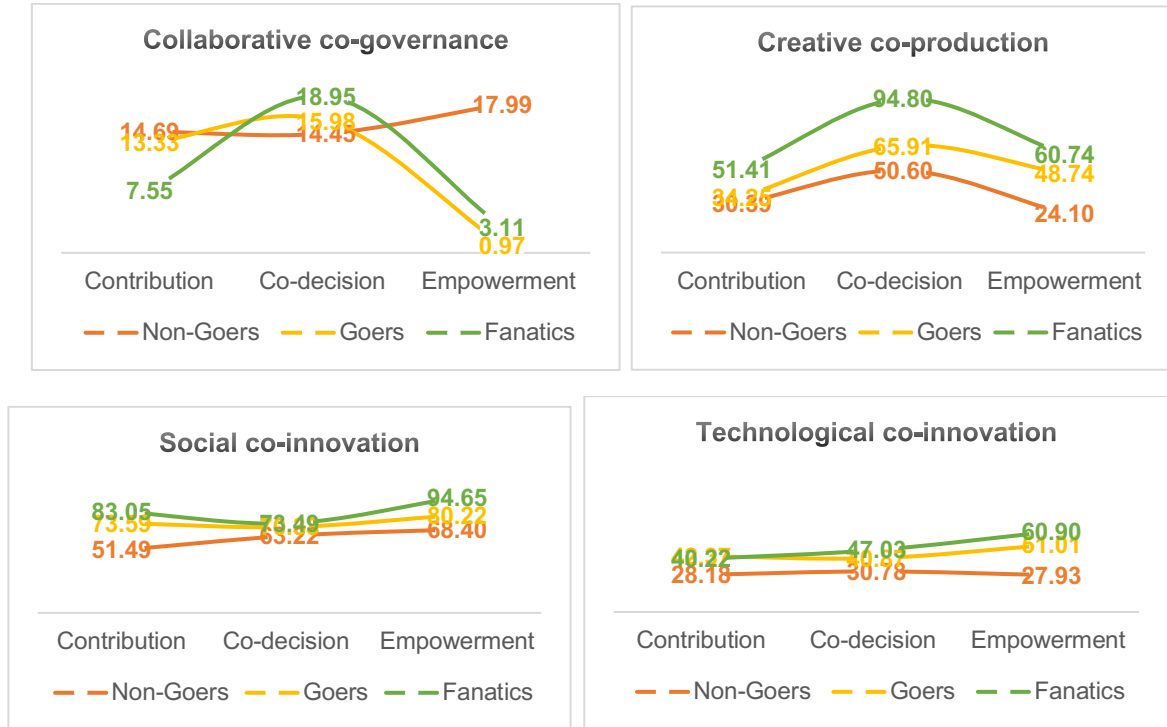
Dimension	Level	Non-Goers		Goers		Fanatics	
		NLogit	Clogit	NLogit	Clogit	NLogit	Clogit
Collaborative co-governance	Contribution (*)	15.89	14.69	14.18	13.33	7.70	7.55
	Co-decision (*)	10.40	14.45	13.77	15.98	13.31	18.95
	Empowerment (*)	11.51	17.99	-5.22	0.97	-5.70	3.11
Creative co-production	Contribution	38.14	30.39	44.05	34.25	64.49	51.41
	Co-decision	48.69	50.60	67.54	65.91	99.94	94.80
	Empowerment	21.87	24.10	52.02	48.74	65.89	60.74
Social co-innovation	Contribution	56.59	51.49	81.07	73.59	93.54	83.05
	Co-decision	66.96	63.22	77.12	70.38	80.58	73.49
	Empowerment	73.10	68.40	87.44	80.22	105.09	94.65
Technological co-innovation	Contribution	35.40	28.18	41.82	42.37	50.75	40.22
	Co-decision	36.57	30.78	46.82	40.87	54.19	47.03
	Empowerment	36.92	27.93	61.07	51.01	74.45	60.90

(*) Results non-statistically significant for any model for any group

The first result to note is that the fanatics' ratings are almost always higher than the rating of goers and, in turn, the value reported by non-goers. This confirms the same finding in the previous section regarding the fact that the knowledge and frequency of attendance in a museum induces a higher valuation of the museum's participation strategies. The highest ratings occur in the area of social options, especially the highest level of participatory engagement (permanent advisory board on social programming). The value assigned to the intermediate option of co-production, referring to the promotion of emerging artists, also stands out. In the technological area, both fanatics and goers register an increasing value the higher the degree of involvement. Finally, only in the dimension of co-governance does any disparity of criteria emerge, since while fans and goers only value the intermediate option (taking part in an advisory board), non-goers are willing to value the higher the degree of involvement. However, these

latter results should be taken with caution as they are not significant, even though it is notable that this dimension is, in general, undervalued.

Figure 12. Valuing participatory dimensions and options by Goers, Non-Goers and Fanatics (Clogit model)



6. CONCLUSIONS AND POLICY IMPLICATIONS

- **DISCLAIMER:** Although the analytical purpose is unique (measuring the value of participation by museum communities), we assess behaviours in three different countries and three different cities, with perhaps diverse cultural idiosyncrasies. In addition, the reference museums are also different in nature: a fine arts museum, an industrial thematic museum, and a science museum. These three scenarios may determine to a certain degree some of the differential results in the analysis although, broadly speaking, common patterns on valuation and behaviour from the three communities are to be found.
- The most notable socio-economic profile of the museum community is the high participation of women, of adult age, with an upper-intermediate level of education and average income. There is also a significant group of students interested in museum activities. In general, the communities know the museum of reference but do not repeat the visit (except in Limerick). This represents a problem vis-à-vis addressing and involving participatory strategies in the community, although, if implemented, they would help foster ties of loyalty and ongoing consumption.
- There is a high profile of cultural consumption (frequency of cultural activities) in the communities, although one of the most commercial consumptions prevails –going to the cinema. However, visits to museums and libraries are also important. Participatory strategies involving a form of entertainment or leisure activity related to cultural heritage may therefore stand a better chance. Limerick offers a more balanced and diverse structure in cultural consumption, which may be an asset for the degree of involvement in participatory museum activities.
- In general, communities are not too keen on participatory strategies. They value the traditional roles of museums in terms of their capacity to promote learning and the preservation of cultural heritage. They also value the role of social interaction and social integration, but they are more sceptical about the possibilities of impacting social change and the well-being of communities.
- However, they express a high propensity to contribute with an annual donation quota to help museums carry out these participation strategies: more than 68% of the community would be willing to contribute in Limerick and Prato, but only 50% in Tallinn. The highest contribution is expressed in Limerick (71.7€), then Prato (63.29€), and at some distance Tallinn (40.15€).
- The reasons for not contributing are mainly concerned with the fact that respondents mention that they already pay taxes, which leads them towards considering the museum to be a public good provided by the state. In Limerick, there is a greater tendency for the



community itself to contribute collectively, which might offer a better chance to implement and fund participatory models.

- Analysis of the overall WTP among fanatics, goers, and non-goers seems conclusive, as the former are willing to contribute twice as much as the latter. However, it is important to point out that the valuation of non-goers is notable, which is also an expression of the passive use value (existence value) assigned by citizens to museums and their activities. Nonetheless, the profile of the most enthusiastic contributors who might fund these museum activities is that of an individual who has a highbrow cultural consumption, has ample previous experiences, who is certainly loyal to the museum, and who believes in the museum's capacity to bring about social change and progress, and who thus believes in participatory strategies.
- Regarding the marginal values of the set of dimensions of the participatory model, the options in the social co-innovation dimension are the most positively ranked in all three cities, followed by the options in the area of technological co-innovation. The least valued options are the co-governance options, and in the cultural co-production dimension, the intermediate option of facilities for emerging artists stands out the most. This implies that citizens still rely more on cultural management and programming led by museum managers, rather than being involved in their design and guidance, although they do appreciate the possibilities of being involved in the dimensions of social actions and technological innovation.
- It seems that citizens place more value on involvement in concrete and targeted proposals, such as participation in various advisory committees or in commitments to social programming or technological innovation, as well as in the provision of resources for emerging artists. In general terms, the intermediate options on the engagement scale also prevail, except in the social and technological dimensions, where they opt for those with a higher degree of involvement.
- In general terms, the highest monetary evaluations correspond to the Limerick city environment, which may be related to the higher incomes declared by its citizens, and also to the higher degree of involvement shown with the museum. In Prato, ratings of the social dimension options are very high, as well as the technological innovation options, which furthermore follow an increasing scale with the degree of engagement. In Tallinn, the ratings are slightly lower but with a more balanced structure, with the more committed option of the social dimension and co-production with emerging artists prevailing. They rely the most on co-governance actions.

- Analysis of the marginal valuation of participatory options and dimensions by groups of intensity over the museum (goers, non-goers, and fanatics) shows the same structure of preferences, with the specificity that fanatics and goers register better results, which again delimits the population base that is most sensitive to participatory strategies.



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ANNEX

Figure A.1. Set of participatory dimensions and options for museums.



Table A.2. Descriptive statistics of the set of variables compiled in the analysis.

Question	Obs.	Mean	Std. Dev.	Min.	Max.
Museums are central to the progress of communities	1,259	4.24	0.83	1	5
The value and importance of a museum is expressed in the effect it has on communities	1,259	4.10	0.84	1	5
Populations with museums tend to have a high standard of living	1,259	3.78	1.07	1	5
Museums provide public spaces for social interaction and participation	1,259	4.23	0.89	1	5
Museums have the ability to transform societies	1,259	3.90	0.97	1	5
The services offered by museums help people to learn	1,259	4.72	0.53	1	5
Museums help to preserve history and strengthen community identity	1,259	4.62	0.62	1	5
Investment in museums is as important as investment in other social services	1,259	3.20	1.53	1	5
Have you visited the Museum?	1,259	0.71	0.44	0	1
In what year was your last visit to the Museum?	896	2,020.27	4.39	1,994	2,023
How many times have you visited the Museum in the last twelve (12) months?	896	2.10	7.92	0	100
How many times have you visited the Museum in your life?	896	10.88	83.19	0	100
How much do you agree with people being involved in the management processes (decision-making) and the development of the services offered (mission activities) by museums?	1,259	3.26	1.29	1	5
would you make an annual monetary donation? The resources collected with this money would only be used by the Museum for community participation activities	1,259	0.62	0.48	0	1
Which of the following values best represents your ability to make your annual donation to the Museum?	746	40.12	27.73	5	200
You identify yourself as?	1,259	0.58	0.51	0	2

RECHARGE Value of Participation: Allocating Value to Participatory Dimensions and Strategies by Museum Communities

Question	Obs.	Mean	Std. Dev.	Min.	Max.
Age	1,254	42.27	17.31	16	103
What is your level of education?	1,259	1.83	0.82	0	3
Employee	1,259	0.51	0.49	0	1
Self employed	1,259	0.11	0.31	0	1
Student	1,259	0.17	0.38	0	1
Stay at home parent / caregiver	1,259	0.03	0.19	0	1
Retired	1,259	0.11	0.32	0	1
Unemployed	1,259	0.01	0.13	0	1
Which category best describes your monthly income?	1,124	1.56	1.36	0	6
Visits to museums or exhibitions	1,259	1.72	0.96	0	4
Visits to monuments or archaeological sites	1,259	1.10	1.06	0	4
Attendance at libraries	1,259	1.77	1.51	0	4
Attendance at musical performances (concerts)	1,259	1.69	1.02	0	4
Attendance at performing arts shows (theatre, opera, dance, circus)	1,259	1.29	1.00	0	4
Attendance at cinema	1,259	1.91	1.14	0	4
Tallinn	1,259	0.34	0.47	0	1
Limerick	1,259	0.33	0.47	0	1
Prato	1,250	0.32	0.46	0	1



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