

Infrastructure, safety and security

2019–2022

Table of contents

i Methodology

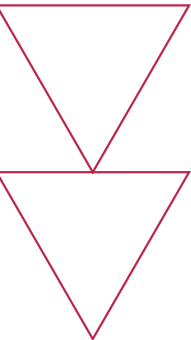
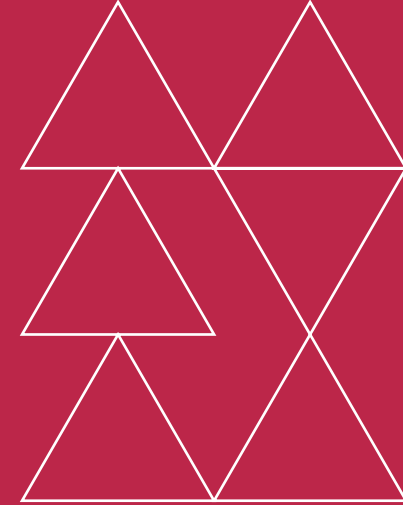
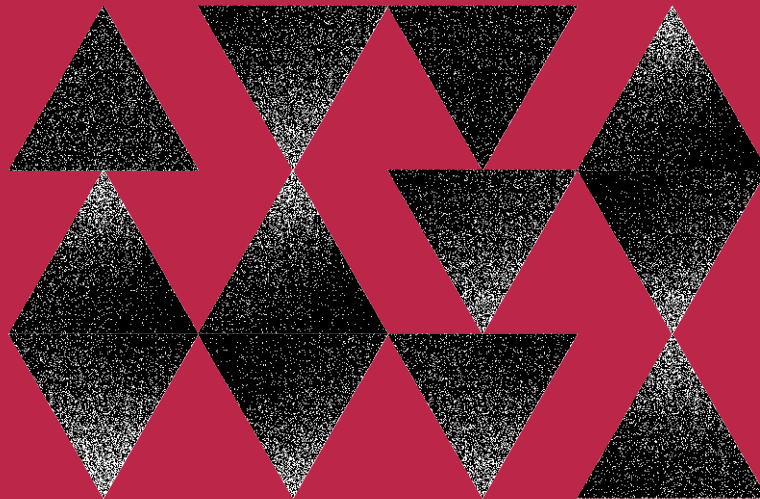
- 1. Project premise
- 2. Study population
- 3. Research areas
- 4. Research tools
- 5. Study sample

ii Museums listed as cultural institutions

- 1. Results
 - 1.1. Museum safety and security
 - 1.1.1. Main conclusions
 - 1.1.1.1. Museum storage and collection security
 - 1.1.1.2. Fire protection
 - 1.1.1.3. Technical security
 - 1.1.1.4. Emergency protocols
 - 1.2. Architectural accessibility
 - 1.2.1. Main conclusions
 - 1.2.1.1. Volume and functionality of the building(s)
 - 1.2.1.2. Architectural accessibility
 - 1.3. Energy efficiency and environmental impact

3	1.3.1. Main conclusions	38
4	1.4. ICT infrastructure and cybersecurity	42
5	1.4.1. Main conclusions	42
9	iii Museums without the status of a cultural institution	
10		46
11	1. Results	47
	1.1. Museum safety and security	47
	1.1.1. Main conclusions	47
17	1.1.1.1. Museum storage and collection security	48
18	1.1.1.2. Fire protection	51
18	1.1.1.3. Technical security	54
19	1.1.1.4. Emergency protocols	56
22	1.2. Architectural accessibility	59
25	1.2.1. Main conclusions	59
27	1.2.1.1. Volume and functionality of the building(s)	60
31	1.2.1.2. Architectural accessibility	62
31	1.3. Energy efficiency and environmental impact	66
32	1.3.1. Main conclusions	66
34	1.4. ICT infrastructure and cybersecurity	70
38	1.4.1. Main conclusions	70

I Methodology

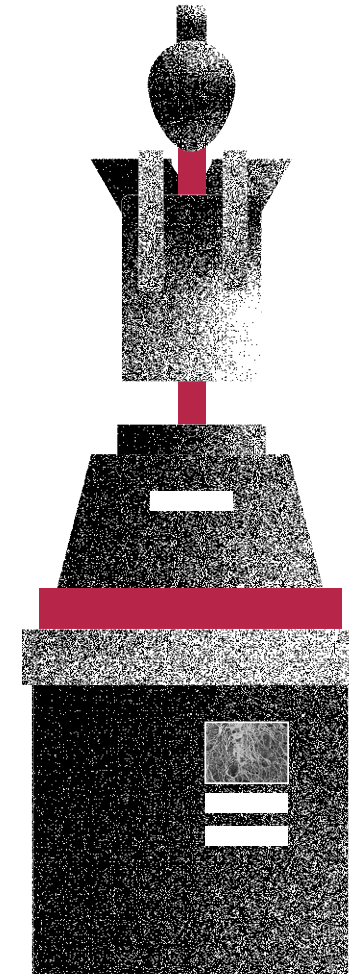


1. Project premise

Implemented annually since 2014 by the National Institute for Museums (in Polish: *Narodowy Instytut Muzeów*, NIM; formerly: NIMOZ), with the support of the Ministry of Culture and National Heritage, the *Museum Statistics* project is intended to collect up-to-date information on the statutory activities of museums. It focuses on the statutory tasks of museums such as:

- » exhibition, publishing, research and educational activities;
- » information about collections, including the cataloguing, movement, digitisation, conservation and loss of museum objects;
- » infrastructure, safety and security data;
- » information on visitor attendance, employees, budget, promotional and marketing activities.

Since 2022 the NIM surveys have become part of the Polish system of official statistics coordinated by Statistics Poland. The *Museum Statistics* questionnaires are addressed exclusively to museums that have their statutes or rules and regulations approved by the Ministry of Culture and National Heritage (and are listed either as cultural institutions or museums without the status of a cultural institution).



2. Study population

Our survey is addressed to museums that have their statutes or rules and regulations approved by the Ministry of Culture and National Heritage.

This report presents the respective data for:

- » museums listed as cultural institutions, i.e. state and local government museums (managed by ministries or local governments);
- » museums without the status of a cultural institution (managed by natural persons, business entities, foundations, associations, church or religious bodies, higher education institutions, etc.).

As of late 2022, the List of Museums by the Ministry of Culture and National Heritage included 997 museums (1,291, including branches), of which 384 were listed as cultural institutions.

The figures below present information on all museums (as defined in the Act on Museums), divided into cultural institutions and museums without the status of a cultural institution.

Figure 1. Sources of funding and the number of managing authorities (as of 31 December 2022)

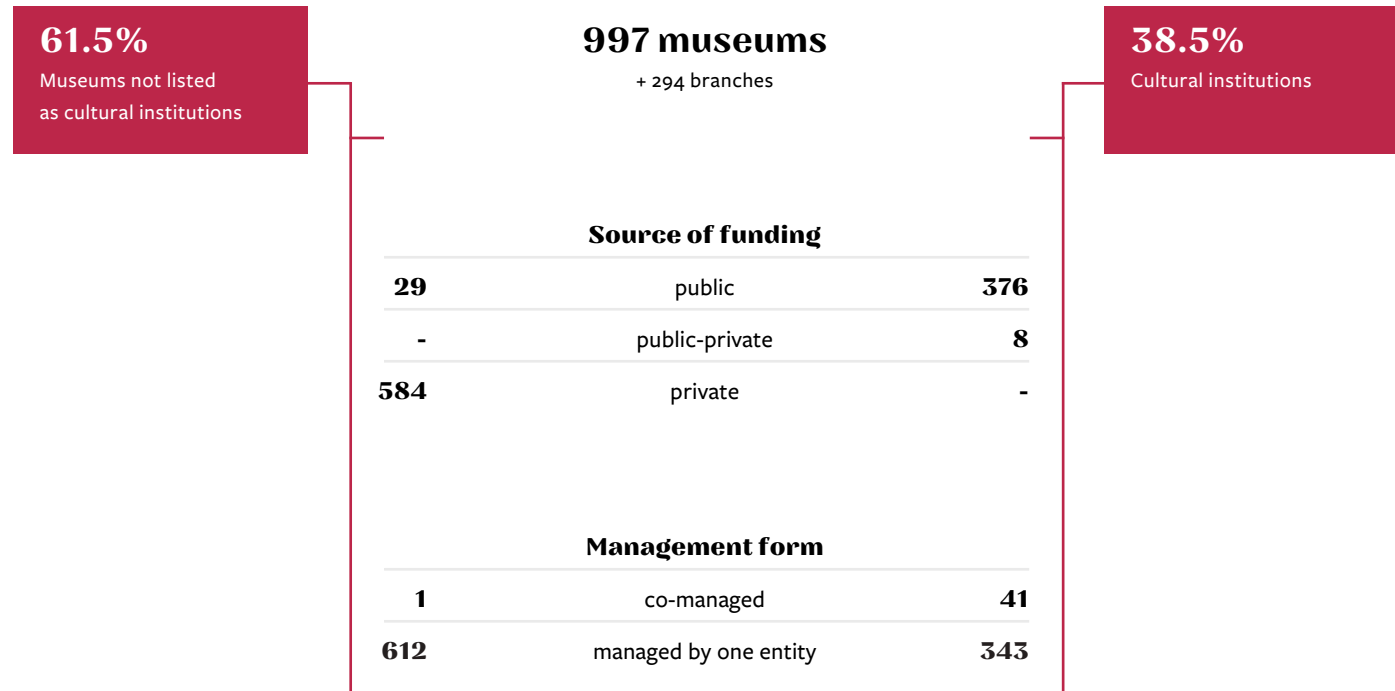


Figure 2. Cultural institutions and museums not listed as cultural institutions (including branches) – by voivodeship (as of 31 December 2022)

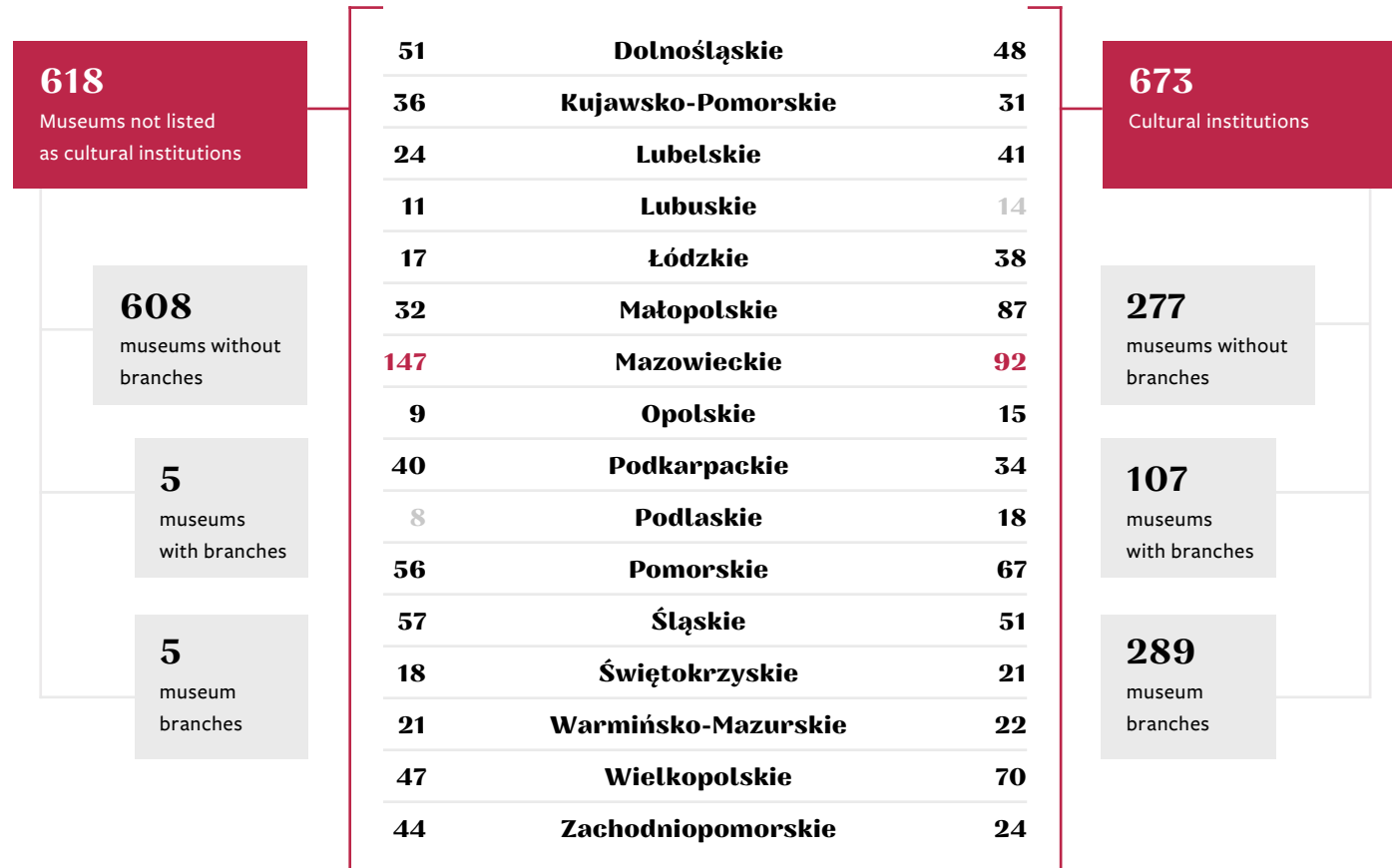
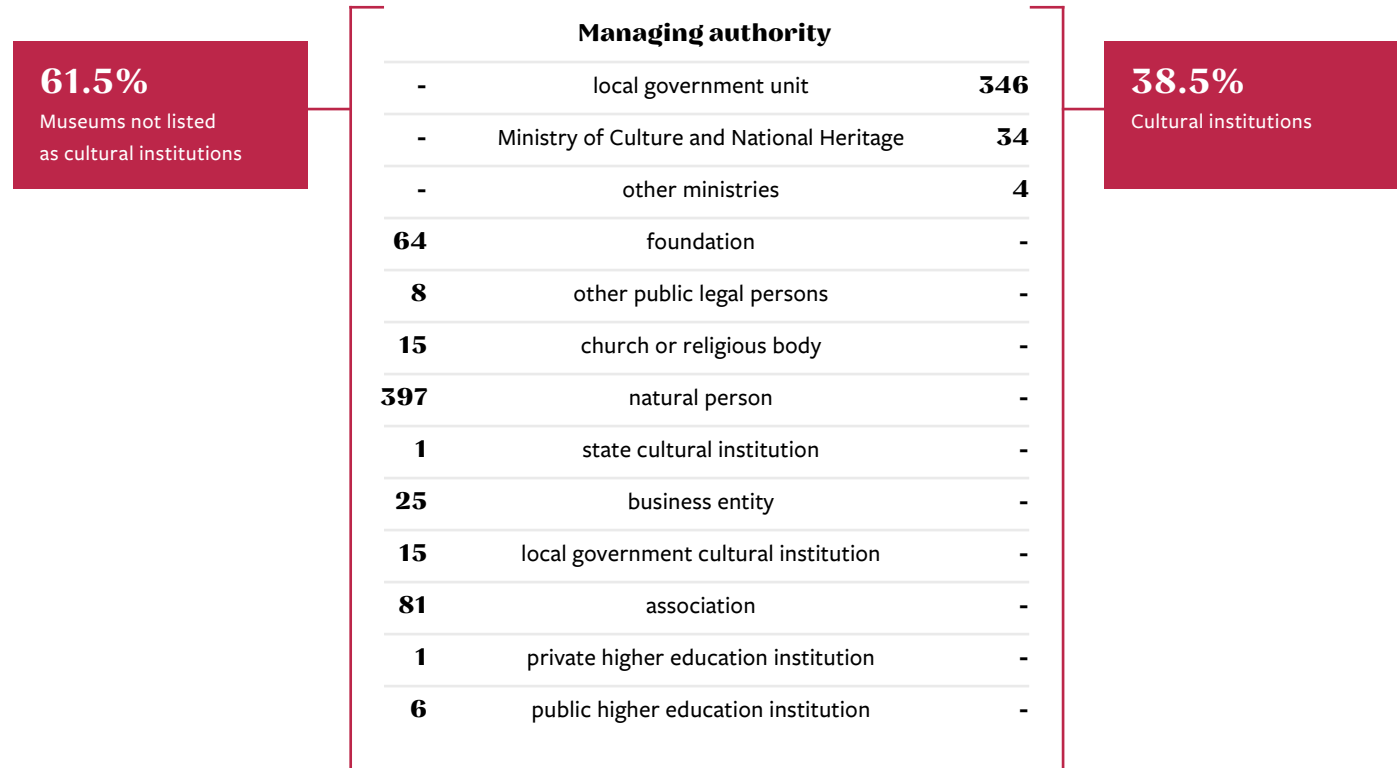


Figure 3. Managing authorities for cultural institutions and museums not listed as cultural institutions (excluding branches) (as of 31 December 2022)



3. Research areas

The questionnaires and their thematic scope were based on the Polish and international guidelines for museum statistics such as:

- » K-02 Questionnaire Form of Statistics Poland ('Report on the activities of museums and institutions related to museums');
- » Questionnaire by the European Group on Museum Statistics (EGMUS);
- » ISO standards for museum statistics.

Since 2022 museums have been requested to complete one of four cyclic surveys (conducted in a four-year cycle) as part of the *Museum Statistics* project. The cyclic survey is intended to analyse in greater detail the issues covered in the K-02 form. Where necessary, forms are to be completed by museums and their branches. The survey topics include:

- » Infrastructure, safety and security
- » Museum organisation and management
- » Collection management
- » Dissemination activities

4. Research tools

The survey is conducted using Computer Assisted Web Interviewing (CAWI) and a dedicated statistical system with the database of museums. Questionnaires are available online after logging in to the system and are completed individually by museum representatives appointed for this task.

The questionnaires consist mainly of closed-ended questions, which makes it easier for users to complete the survey and for researchers to compare the results.

The 2022 survey was conducted between 20 February and 15 March 2023.

The area studied in detail in the thematic survey for 2022 was ‘Infrastructure, safety and security.’

The aim of the study was to identify the condition of the infrastructure available to museums and analyse issues related to the safety and security of museum collections and people. The survey will be repeated every four years to regularly monitor the status of the issues in question.

5. Study sample

A total of 466 museums (747, including branches), of which 329 were listed as cultural institutions (606, including branches), participated in the 'Infrastructure, safety and security' survey covering the period from 2019 to 2022.

The group of cultural institutions included 229 museums without branches and 100 museums featuring a complex organisational structure and operating a total of 277 branches. Over 13% of the studied cultural institutions operated in the Małopolskie voivodeship, nearly 13% in the Mazowieckie voivodeship and over 10% in the Pomorskie and Wielkopolskie voivodeships. The vast majority of museums were based in urban areas, and nearly 12% operated as open-air museums. Almost half of the cultural institutions and their branches described their collection profile as interdisciplinary. Among those with a homogeneous profile, history museums were the largest group (over 37%) and were followed by art museums (14.1%), ethnography and anthropology museums (11.9%) and museums not assigned to any category (11.6%).

Museums listed as cultural institutions are managed by ministries or local governments. Out of 329 museums participating in the survey, 293 were managed by local governments, 32 by the Ministry of Culture and National Heritage and four by other ministries. Nearly 37% of the studied cultural institutions were entered in the State Register of Museums (in Polish: *Państwowy Rejestr Muzeów*, PRM). Pursuant to the Act on Museums of 21 November 1996, this status is granted to institutions offering high-quality museum activities and collections of great significance for national heritage.

Among the museums not listed as cultural institutions which participated in the survey, only four featured a complex organisational structure and operated a total of four branches. The groups of museums without the status of a cultural institution were the largest in the Mazowieckie (27), Podkarpackie (13) and Śląskie (12) voivodeships. Nearly half of the respondents in this category were located in administrative areas with the population of up to 10,000 people; however, approximately 70% operated in urban areas. Almost 64% described their collection profile as homogeneous, with history museums prevailing also in this group (37.1%).

Approximately half of the museums not listed as cultural institutions were managed by natural persons, one quarter by associations and foundations, while nearly 8% were managed by local government cultural institutions.

The figures below present information on museums (as defined in the Act on Museums) that participated in the survey, divided into cultural institutions and museums without the status of a cultural institution.

Figure 4. Geographical distribution of museums

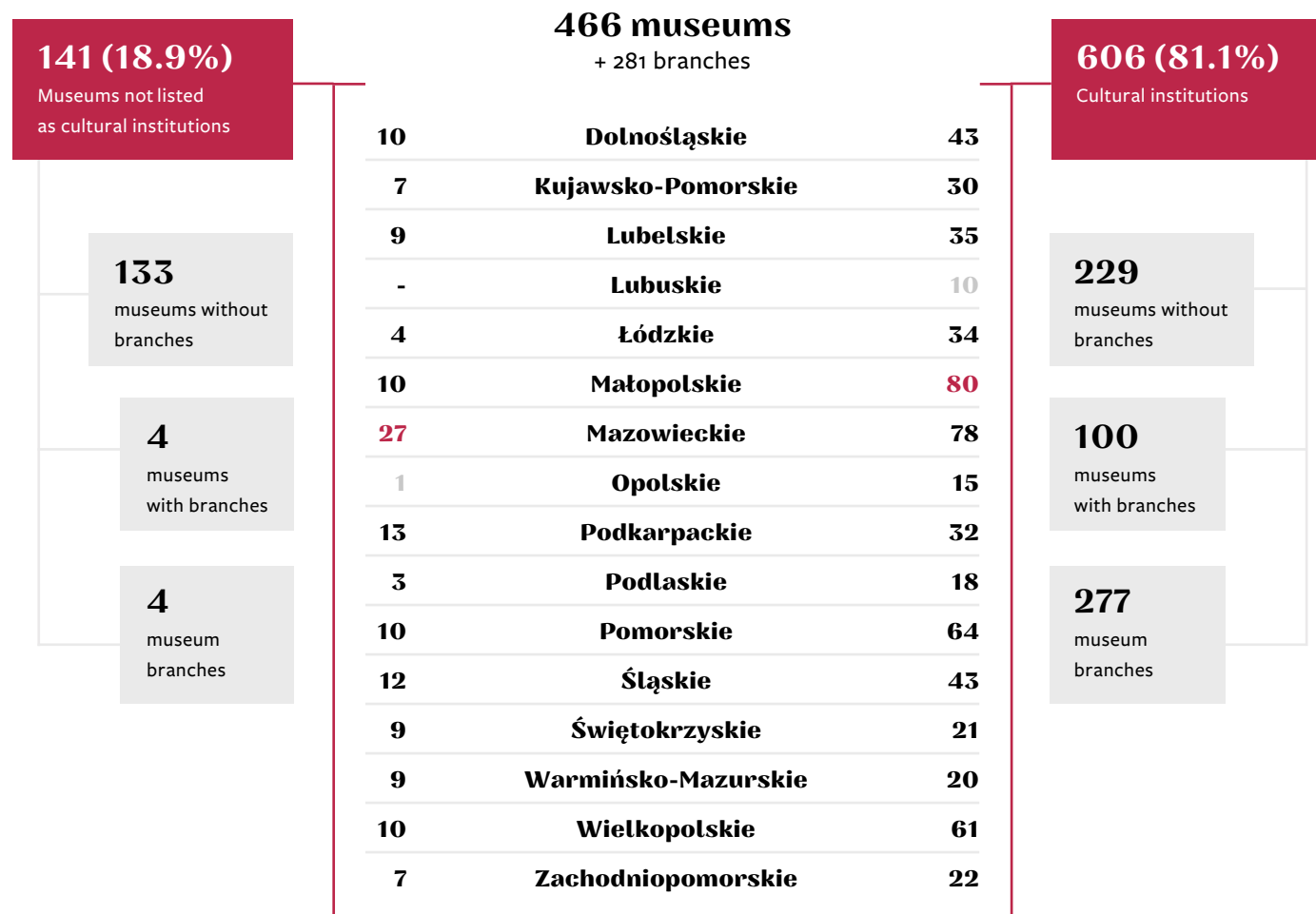


Figure 5. Size of the administrative area (by population) where the museum operates

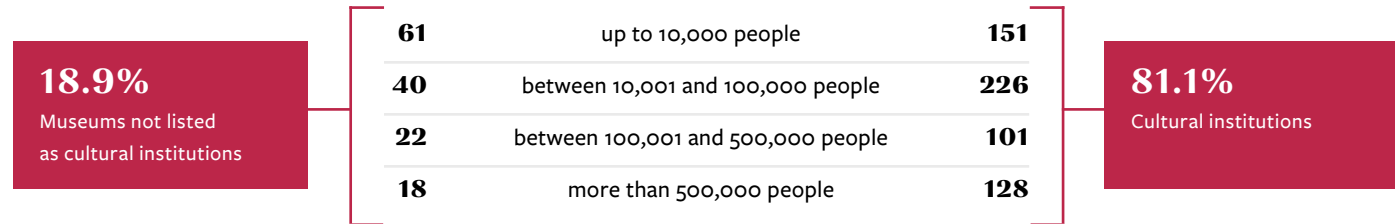


Figure 6. Type of the administrative area where the museum operates



Figure 7. Open-air museums

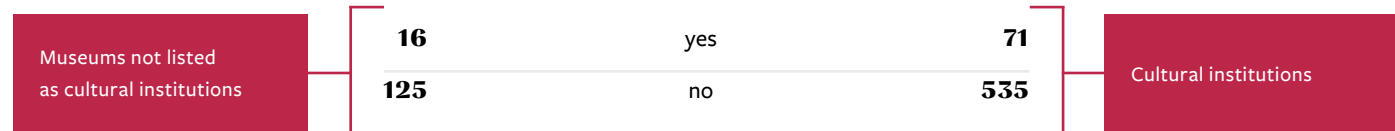


Figure 8. Museums by collection type

Museums not listed as cultural institutions	90	homogeneous	312	Cultural institutions
	51	interdisciplinary	294	

Figure 9. Specialisation of museums with homogeneous types of collections

Museums not listed as cultural institutions	0%	archaeology	5.7%	Cultural institutions
	1.1%	ethnography and anthropology	11.9%	
	2.2%	natural history	1.3%	
	35.6%	history	36.9%	
	25.5%	other	11.9%	
	0%	martyrology	6.1%	
	17.8%	specialised	6.4%	
	2.2%	art	14.1%	
	15.6%	science and technology	5.7%	

Figure 10. Sources of funding and the number of managing authorities (without museum branches)



Figure 11. Organisational and legal form of museums (without museum branches)

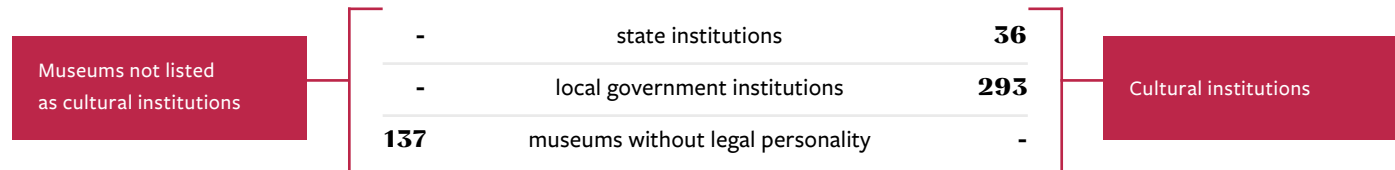


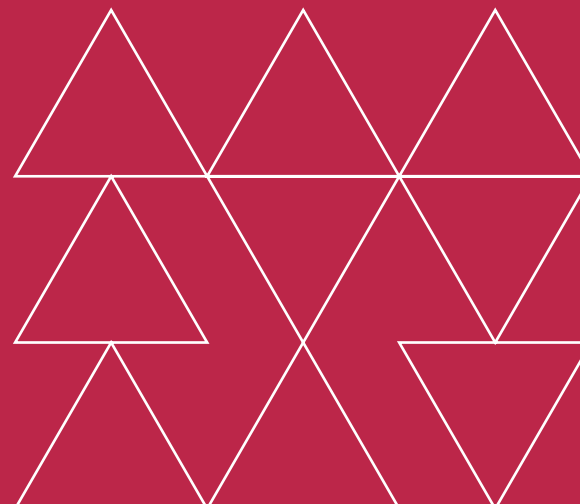
Figure 12. Type of organising authority (without museum branches)

Museums not listed as cultural institutions	-	local government unit	293	Cultural institutions
	-	Ministry of Culture and National Heritage	32	
	-	other ministries	4	
	14	foundation	-	
	1	other public legal persons	-	
	7	church or religious body	-	
	66	natural person	-	
	1	state cultural institution	-	
	8	business entity	-	
	11	local government cultural institution	-	
	23	association	-	
	1	private higher education institution	-	
	5	public higher education institution	-	

Figure 13. Museums entered in the State Register of Museums (without museum branches)

Museums not listed as cultural institutions	1	yes	121	Cultural institutions
	136	no	208	

II Museums listed as cultural institutions



1. Results

1.1. Museum safety and security

1.1.1. Main conclusions

The vast majority of museums listed as cultural institutions which participated in the survey had collection storage rooms (95.1%, N = 326). Nearly 43% described their storage space as sufficient for the current number of objects (N = 310). Those that reported it as insufficient to ensure appropriate conditions for storing collections estimated their storage space shortage at an average of 98% (N = 177).

The environmental storage conditions were monitored in all storage rooms by 65.5% or partially controlled by 26.1% of the museums (N = 310). The most frequently monitored parameters included temperature (88.4%), relative humidity (86.5%) and pest infestation (insects, rodents, etc.) (61.9%; N = 284).

The museums also controlled the environmental conditions either in all exhibition spaces (58.3% of the institutions) or in part of them (28.8%; N = 326). Similar to storage rooms, the most frequently monitored parameters included temperature (88.7%), relative humidity (85.5%) and pest infestation (insects, rodents, etc.) (56.3%; N = 318).

Fire safety instructions were implemented in 95.4% of the studied museums and museum branches, as many as 88.7% featured a fire alarm system and in 71.4% the system alerted the fire department automatically (N = 584).

In terms of security, 84.6% of the studied museums and their branches had a security plan. The CCTV system operated in the entire building in 20% and in selected rooms in 51.7% of the institutions (N = 584).

A total of 75.8% of the museums and museum branches had a document specifying emergency procedures (N = 326). Sound alarm (71.1%), the identification of emergency staircases (30.3%) and fire zones (25.3%; N = 584) were listed most frequently as technical solutions in case of evacuation.

1.1.1.1. Museum storage and collection security

N	326
<i>of which</i>	
museums without branches	226
museums with branches	100

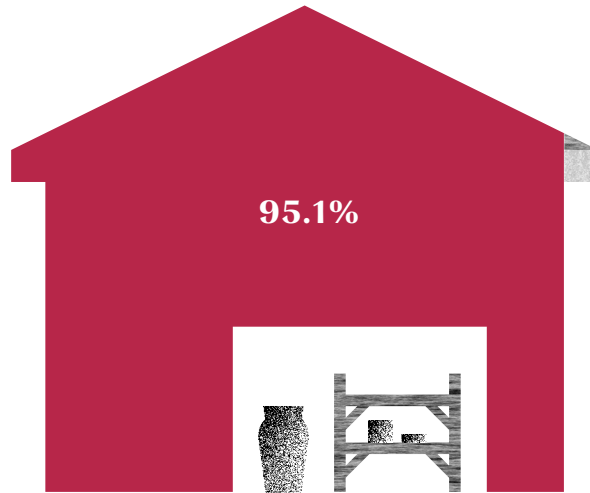


Figure 14. Museums featuring collection storage rooms

N	288
<i>of which</i>	
museums without branches	195
museums with branches	93

Figure 15. Number of multi-function buildings that housed museum storage rooms

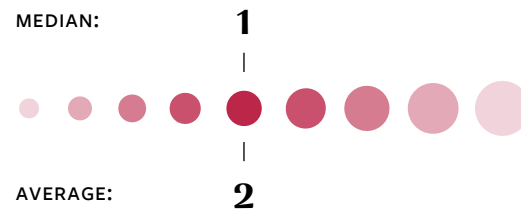


Figure 16. Museums reporting a sufficient storage space for the current number of objects

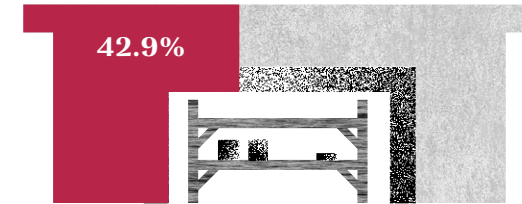


Figure 17. Average ratio of storage space to the total area of buildings used by museums

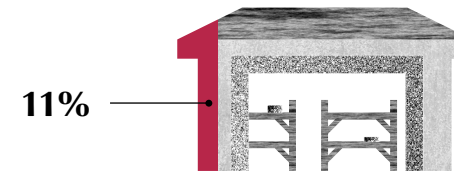
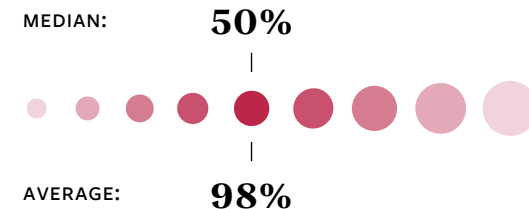


Figure 18. Percentage by which the current storage space should be increased to ensure appropriate conditions for storing objects



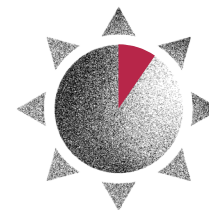
N	310
<i>of which</i>	
museums without branches	213
museums with branches	97

N	582
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	256

N	177
<i>of which</i>	
museums without branches	118
museums with branches	59

N	310
<i>of which</i>	
museums without branches	213
museums with branches	96

Figure 19. Museums monitoring environmental conditions in collection storage



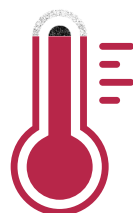
10.3%
UV radiation intensity



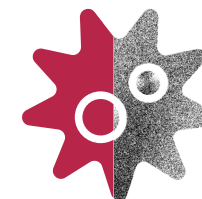
10.3%
air quality

Figure 20. Parameters monitored in collection storage (multiple choice)

N	284
<i>of which</i>	
museums without branches	194
museums with branches	90

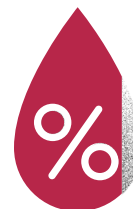


88.4%
temperature

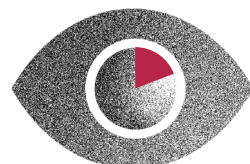
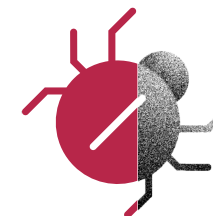


49.0%
presence of microorganisms
(mould, fungi, parasites, etc.)

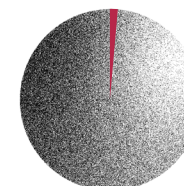
86.5%
relative humidity



61.9%
pest infestation
(insects, rodents, etc.)



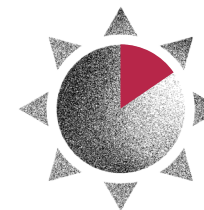
21.9%
visible light intensity



1.6%
other, e.g. dew point

N	326
<i>of which</i>	
museums without branches	226
museums with branches	100

Figure 21. Museums monitoring environmental conditions in exhibition spaces



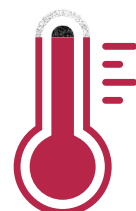
18.6%
UV radiation intensity

10.4%
air quality

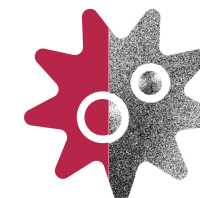


Figure 22. Parameters monitored in exhibition spaces (multiple choice)

N	318
<i>of which</i>	
museums without branches	220
museums with branches	98



88.7%
temperature



44.3%
presence of microorganisms
(mould, fungi, parasites, etc.)

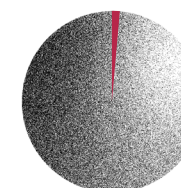
85.5%
relative humidity



56.3%
pest infestation
(insects, rodents, etc.)



35.8%
visible light intensity



2.2%
other, e.g. dew point

1.1.1.2. Fire protection

N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258

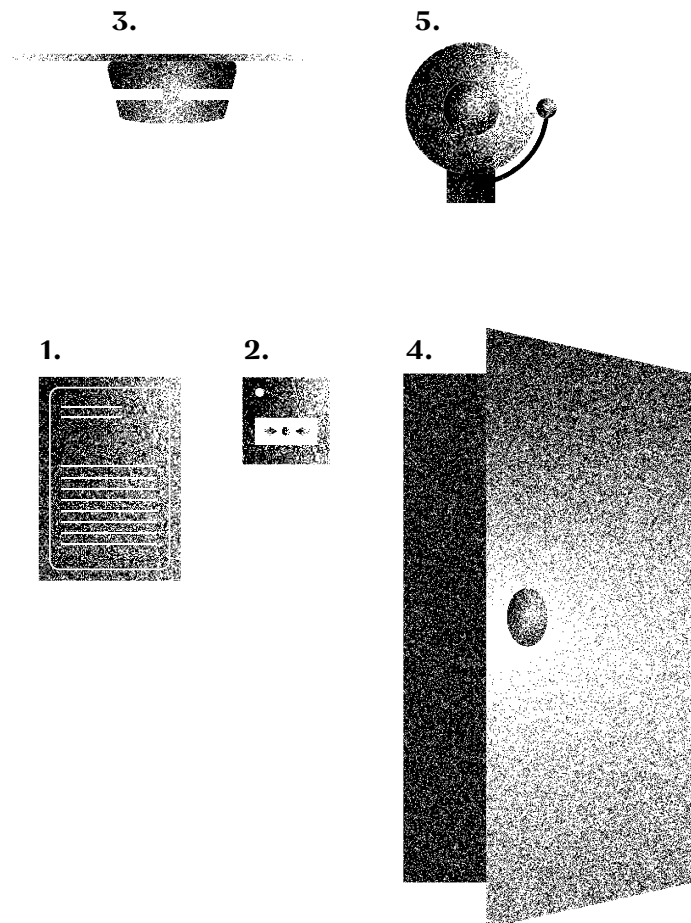
¹ Described in detail in § 3, section 2 of the Regulation of the Minister of Culture and National Heritage of 2 September 2014 on protecting museum collections against fire, theft or other danger that might result in their damage or loss (Journal of Laws 2014, item 1240).

² A fire alarm system (detectors, fire alarm control panel, etc.) for automatic fire detection and fire alert, described in detail in § 28, section 1 of the Regulation of the Minister of the Interior and Administration of 7 June 2010 on fire protection in buildings, other structures and areas (Journal of Laws 2010, No. 109, item 719, as amended).

³ Smoke prevention or smoke removal devices, described in detail in § 245 of the Regulation of the Minister of Infrastructure of 12 April 2002 on the technical conditions to be met by buildings and their location (Journal of Laws 2002, No. 75, item 690).

⁴ A system (speakers, a control panel) for the automatic broadcast of audible warning signals and voice messages to ensure the safety of people in the building, described in detail in § 29 of the Regulation of the Minister of the Interior and Administration of 7 June 2010 on fire protection of buildings, other structures and areas (Journal of Laws 2010, No. 109, item 719, as amended).

Figure 23. Museums that had fire protection documentation, systems and solutions



1. Fire safety instructions¹

yes	95.4%
in preparation	1.7%

2. Fire alarm system²

yes	88.7%
under implementation	1.2%

3. Fire alarm system that automatically alerts the fire department

yes	71.4%
under construction	1.7%

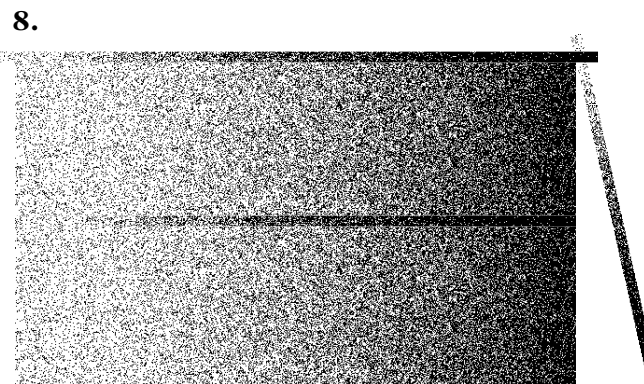
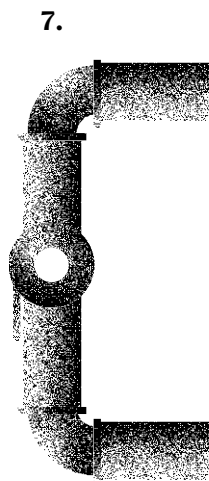
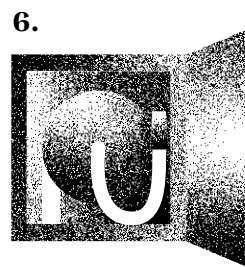
4. Smoke extraction system³

yes	36.3%
under implementation	1.7%

5. Acoustic warning system⁴

yes	62.7%
under implementation	0.8%

N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258



6. Fire-fighting water supply installation with internal hydrants 25 or 52 or valves 52

yes	72.4%
under construction	1.2%

7. Fire-fighting pumping station⁵

yes	13.2%
under construction	0.7%

8. Fire-fighting water tank⁶

yes	8.1%
under construction	0.7%

9. Fixed fire extinguishing/suppression system⁷ (multiple choice)

yes, in the entire building (in all buildings)	9.8%
yes, in storage rooms	3.9%
yes, in exhibition spaces	3.9%
yes, in the server room	1.9%
under construction	0.9%

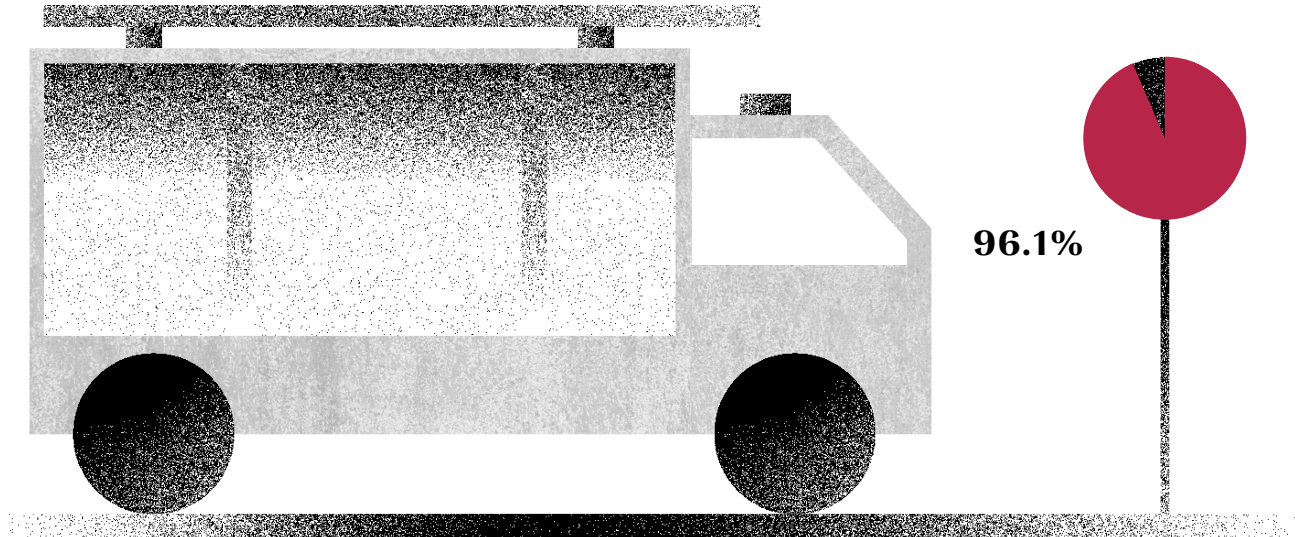
⁵ A room containing pumps and other devices to supply water to fire-fighting installations, described in detail in § 26 of the Regulation of the Minister of the Interior and Administration of 7 June 2010 on fire protection of buildings, other structures and areas (Journal of Laws 2010, No. 109, item 719, as amended).

⁶ A tank designed to store water for fire protection purposes, described in detail in § 24 of the Regulation of the Minister of the Interior and Administration of 7 June 2010 on fire protection of buildings, other structures and areas (Journal of Laws 2010, No. 109, item 719, as amended) and § 5 of the Regulation of the Minister of the Interior and Administration of 24 July 2009 on fire-fighting water supply and fire department access roads (Journal of Laws 2009, No. 124, item 1030).

⁷ A fire-fighting fixture in the building ensuring a reserve of the extinguishing agent that is activated automatically in the initial phase of fire development.

Figure 24. Museums with fire department access roads⁸

N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258



⁸ A paved road ensuring access for fire-fighting vehicles in all conditions, described in detail in § 12, section 1 of the Regulation of the Minister of the Interior and Administration of 24 July 2009 on fire-fighting water supply and fire department access roads (Journal of Laws 2009, No. 124, item 1030).

⁹ Described in detail in § 13, section 4 of the Regulation of the Minister of the Interior and Administration of 24 July 2009 on fire-fighting water supply and fire department access roads (Journal of Laws 2009, No. 124, item 1030).

N	23
<i>of which</i>	
museums without branches	8
museums with branches	6
branches	9

Figure 25. Museums granted an exception by the head of the regional fire department and featuring an alternative solution due to non-compliance with access road requirements⁹



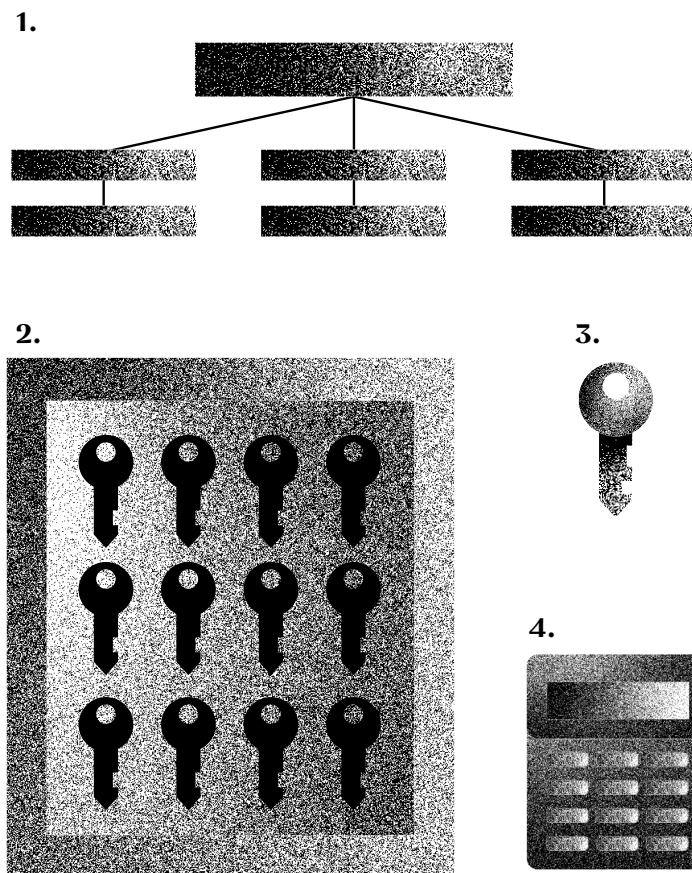
1.1.1.3. Technical security

N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258

¹⁰ Described in detail in § 27 of the Regulation of the Minister of Culture and National Heritage of 2 September 2014 on protecting museum collections against fire, theft or other danger that might result in their damage or loss (Journal of Laws 2014, item 1240).

¹¹ Defined as the physical presence of the burglary and intrusion alarm devices (control panel, detectors, keypads) whose task is to protect the entire building or selected zones as indicated in the security plan and § 7 of the Regulation of the Minister of Culture and National Heritage of 2 September 2014 on protecting museum collections against fire, theft or other danger that might result in their damage or loss (Journal of Laws 2014, item 1240).

Figure 26. Museums that had security documentation, systems and solutions



1. Museum security plan¹⁰

yes	84.6%
in preparation	6.8%

2. Electromechanical key depository

yes, for all rooms	8.4%
yes, for selected rooms	8.9%
under construction	1.2%

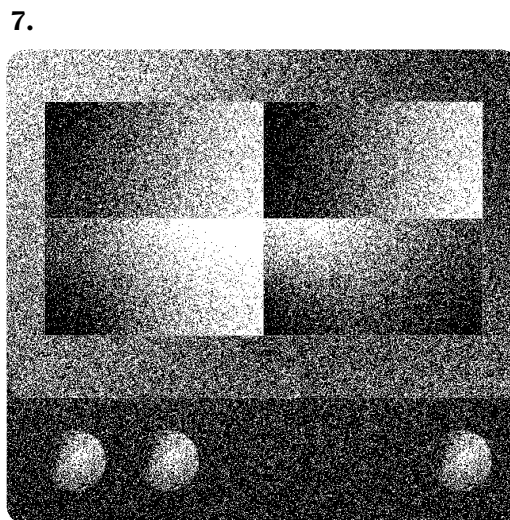
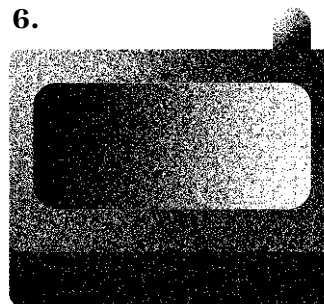
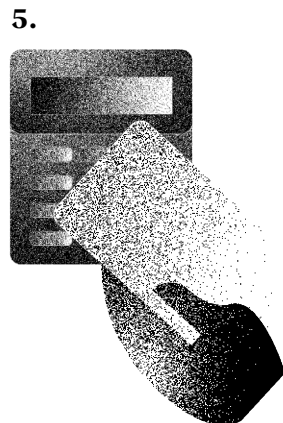
3. Central key system

yes, for all rooms	4.4%
yes, for selected rooms	9.4%
under construction	0.9%

4. Burglary and intrusion alarm system¹¹

yes	18.3%
under implementation	0.7%

N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258



¹² Defined as the physical presence of a system composed of access control devices (control panel, card readers, elements used to restrict access), whose task is to control selected or all passageways in the building.

¹³ Defined as the physical presence of a system composed of devices (control panel, linear point detectors, mats), whose task is to signal water leaks in selected rooms.

¹⁴ Defined as the physical presence of a surveillance system composed of the CCTV devices (a recorder/video server, cameras, screens, etc.), whose task is to monitor and store footage from the building.

5. Access control (AC) system (does not apply to electronic locks without event memory)¹²

yes, in the entire building (in all buildings, i.e. all rooms are secured)	10.3%
yes, in selected buildings/rooms (selected critical passageways are secured)	28.1%
under implementation	1.7%

6. Leak detection system¹³

yes, in the entire building (in all buildings)	1.0%
yes, in selected rooms	11.0%
under implementation	0.7%

**7. CCTV system¹⁴
(multiple choice)**

yes, in the entire building (in all buildings, i.e. all rooms are monitored)	20.0%
yes, in selected buildings/rooms	51.7%
yes, the exterior of the building	38.0%
under implementation	1.2%

1.1.1.4. Emergency protocols

N	326
<i>of which</i>	
museums without branches	226
museums with branches	100

Figure 27. Museums that had a document specifying emergency procedures

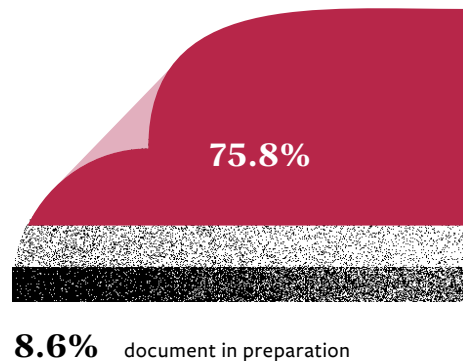


Figure 28. Museums that hired a specialised company to provide first aid training (beyond the scope of regular health and safety at work) to selected employees

N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258

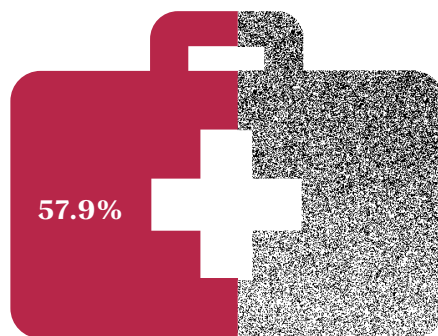


Figure 29. Museums that organised evacuation drills

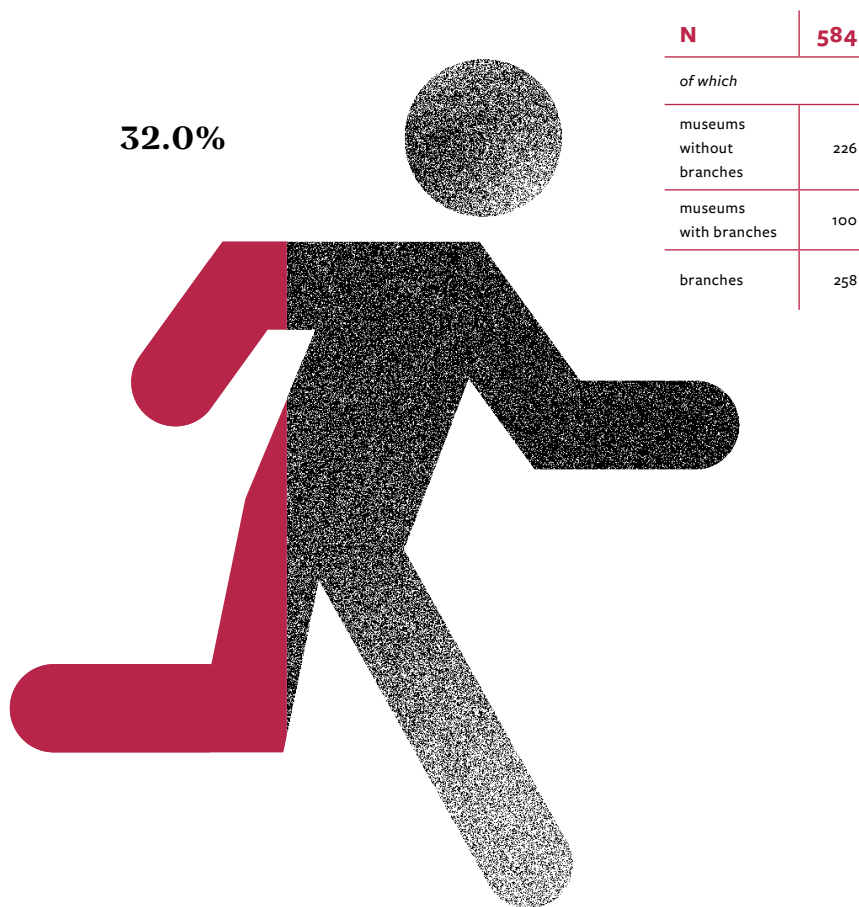


Figure 30. Implementation of evacuation drills
(multiple choice)

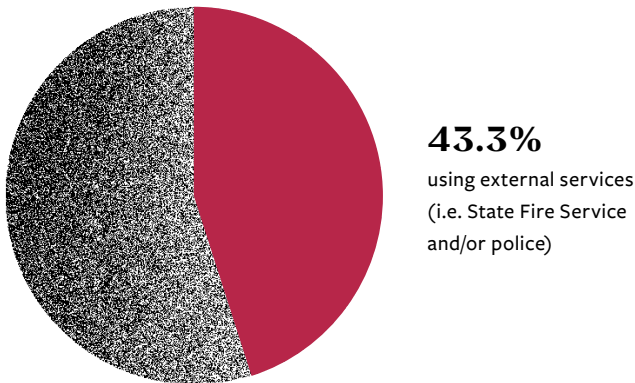
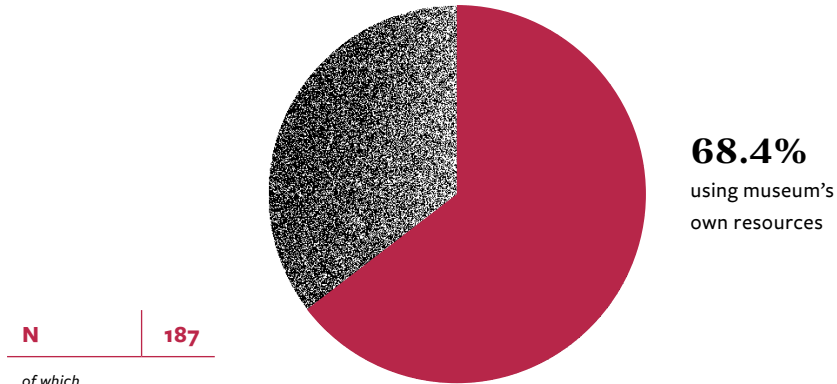
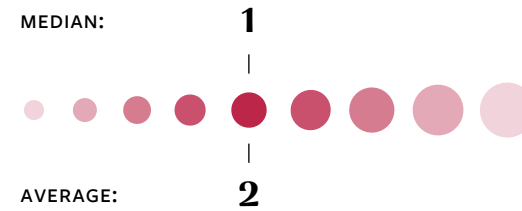
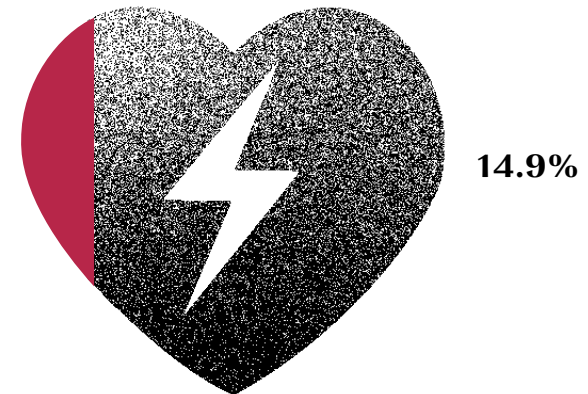


Figure 31. Number of drills organised in the reporting period



N	187
<i>of which</i>	
museums without branches	84
museums with branches	37
branches	66

Figure 32. Museums equipped with an AED (automated external defibrillator)



N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258

Figure 33. Emergency evacuation solutions used in museums (multiple choice)

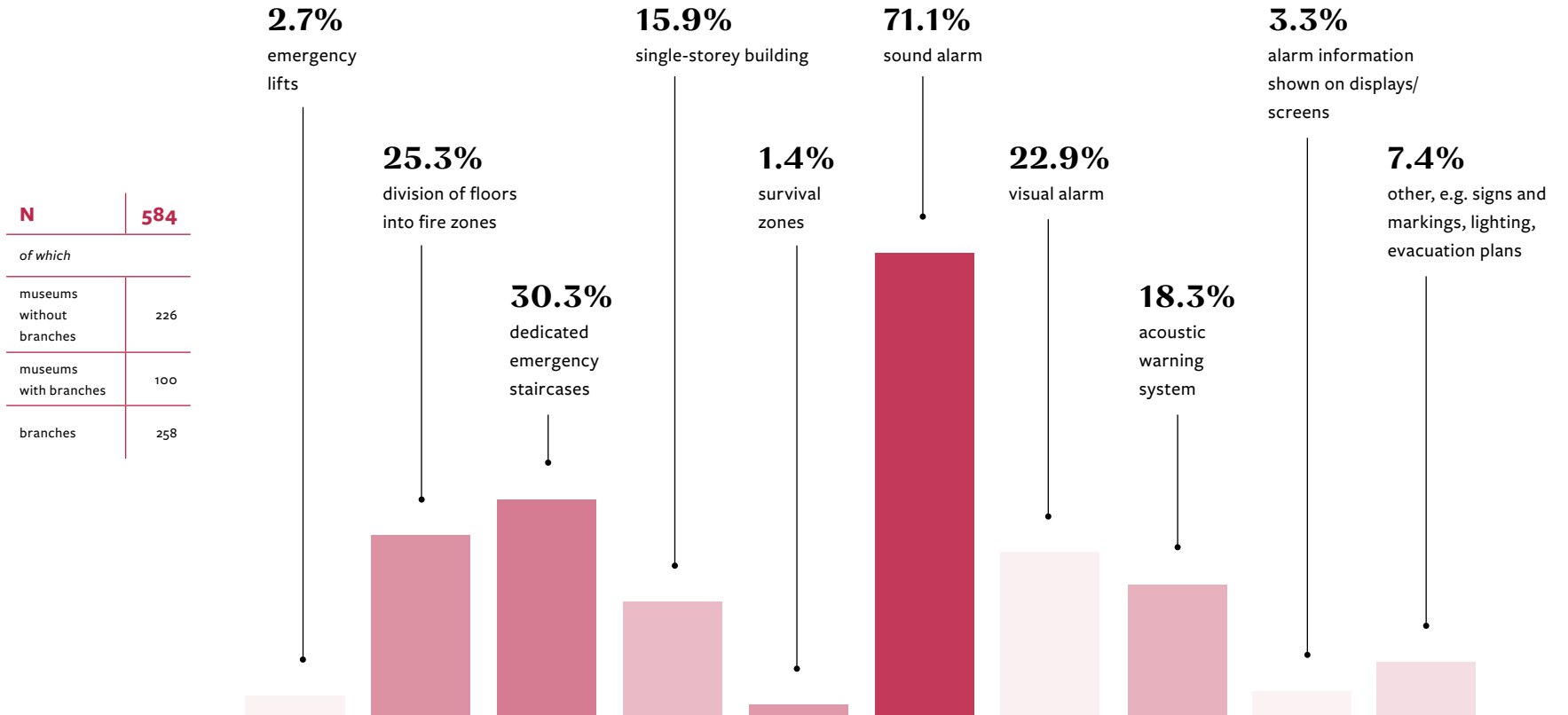
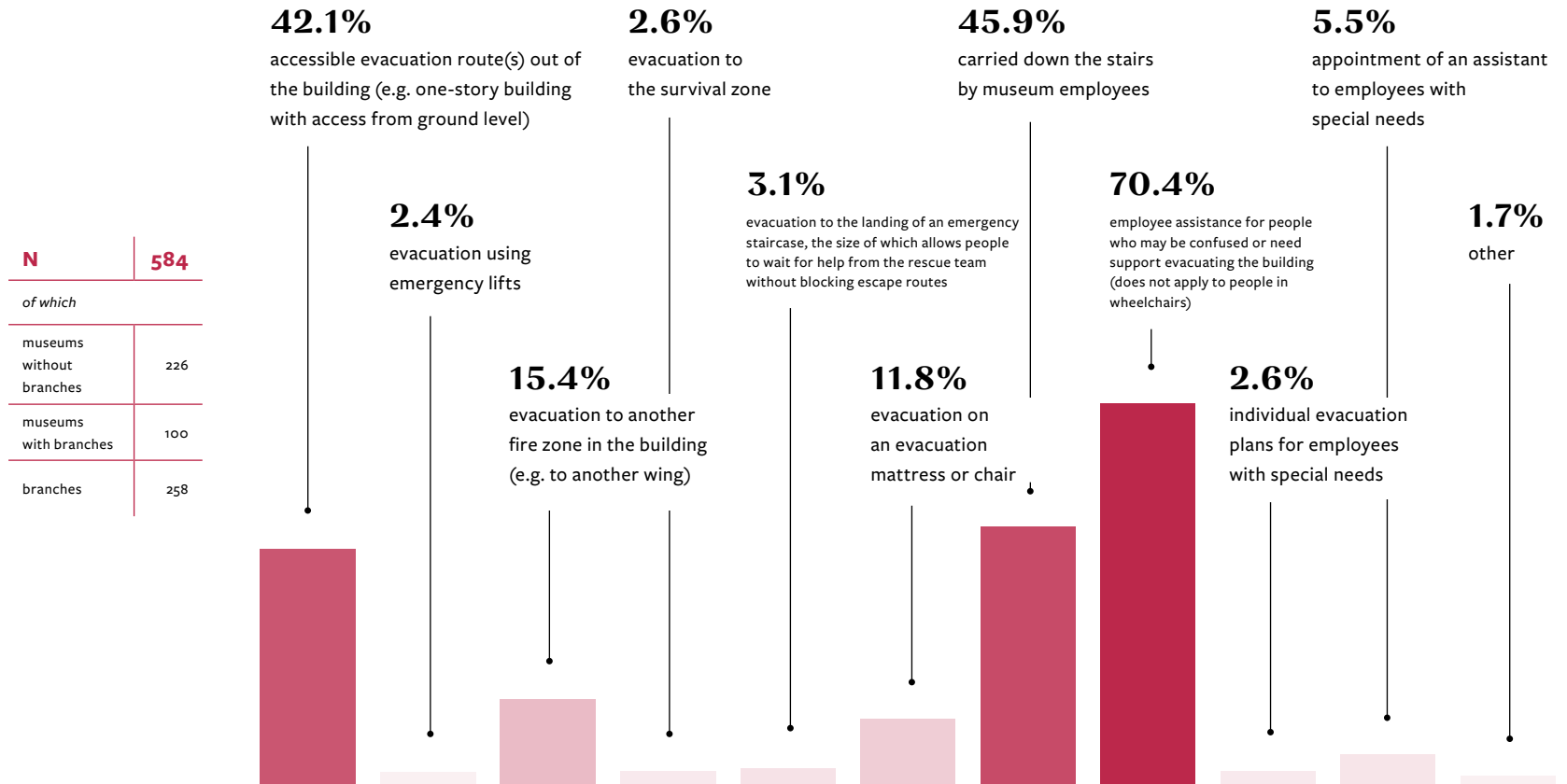


Figure 34. Emergency evacuation solutions dedicated to people with special needs (multiple choice)



1.2. Architectural accessibility

1.2.1. Main conclusions

The museums and museum branches listed as cultural institutions whose building(s) or location area(s) were entered in the register of immovable monuments accounted for 77.7%. A total of 31.8% of the studied institutions were entered in the local inventories of monuments, and 3.4% were listed as UNESCO World Heritage Sites (N = 584).

In terms of additional accommodations and facilities on the premises, toilets for people with disabilities were available in 58.7%, libraries in 43.2%, retail and service points in 34.8% and rooms for parents with children in only 6% of the studied museums and museum branches.

Solutions used most frequently to ensure the horizontal and vertical accessibility included stairs (78.6%), lifts (36.3%) and inclined planes (33.4%). The respondents reported the following architectural barriers: a high threshold/step at the entrance (37%), the lack of toilets for people with disabilities (35.8%) and difficult access to the building(s) due to, for example, the poor condition of the paving, the lack of dropped kerbs, underpasses and overground passages accessible only by stairs (34.1%, N = 584).

The following solutions were used to facilitate navigation around the museums: information provided by museum employees (89.2%), visual signage and directions to the relevant rooms (39.4%) and visual information at doorways (38%).

Solutions dedicated to the deaf and hard of hearing included induction loops at reception desks/ticket office, etc. (9.4%) and induction loops in other parts of the building (5.8%). Only 1.5% of the respondents employed a person who knew sign language and was constantly available at the reception/ticket office. Assistance dogs were allowed in 93.5% of the studied institutions (N = 584).

1.2.1.1. Volume and functionality of the building(s)

N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258

Figure 35. Museum building(s) or the area in which it was (they were) located (multiple choice)

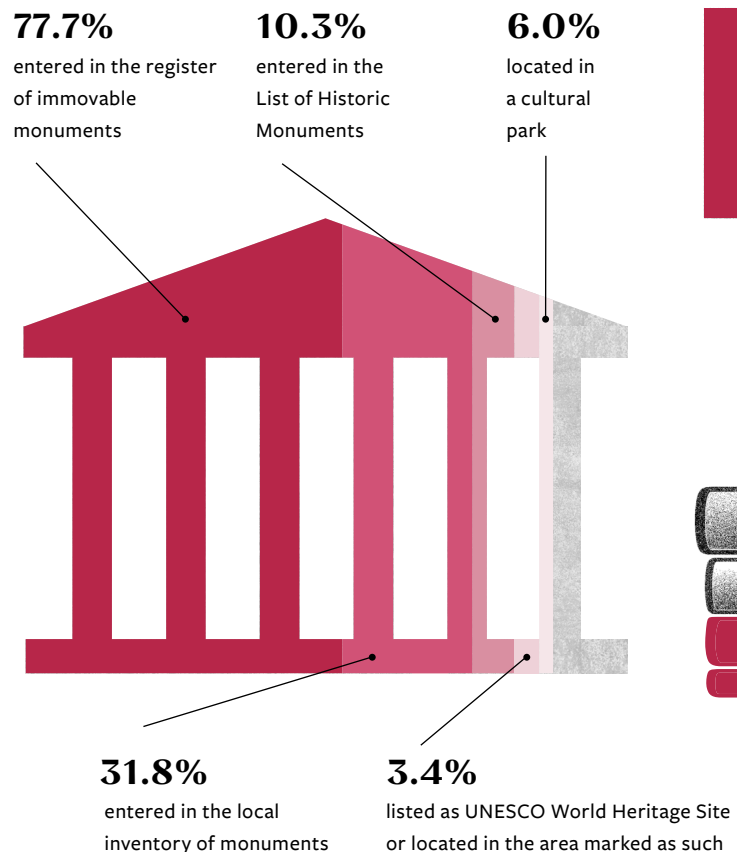
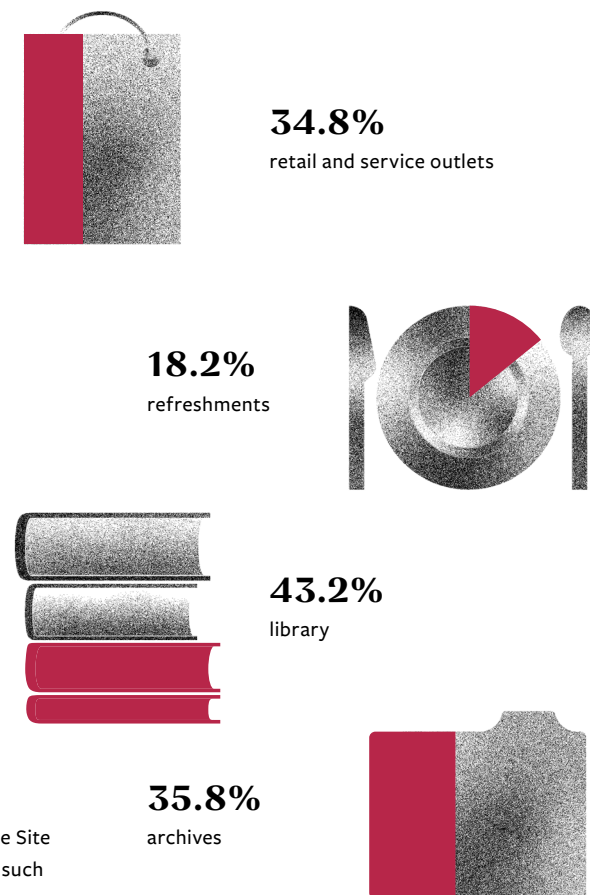
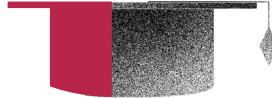


Figure 36. Additional facilities/accommodations on the premises (multiple choice)



N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258

N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258



36.3%
rooms intended exclusively for educational purposes



6.0%
rooms for parents with children

15.1%
guest rooms



35.3%
car park for visitors

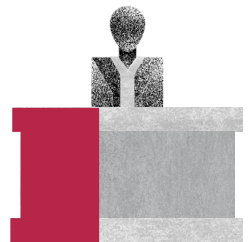


36.3%
designated rest areas (e.g. seats in museum rooms)



48.1%
car park for employees

32.9%
conference rooms



58.7%
toilets for people with disabilities



1.2.1.2. Architectural accessibility

N	584
<i>of which</i>	
museums without branches	226
museums with branches	100
branches	258

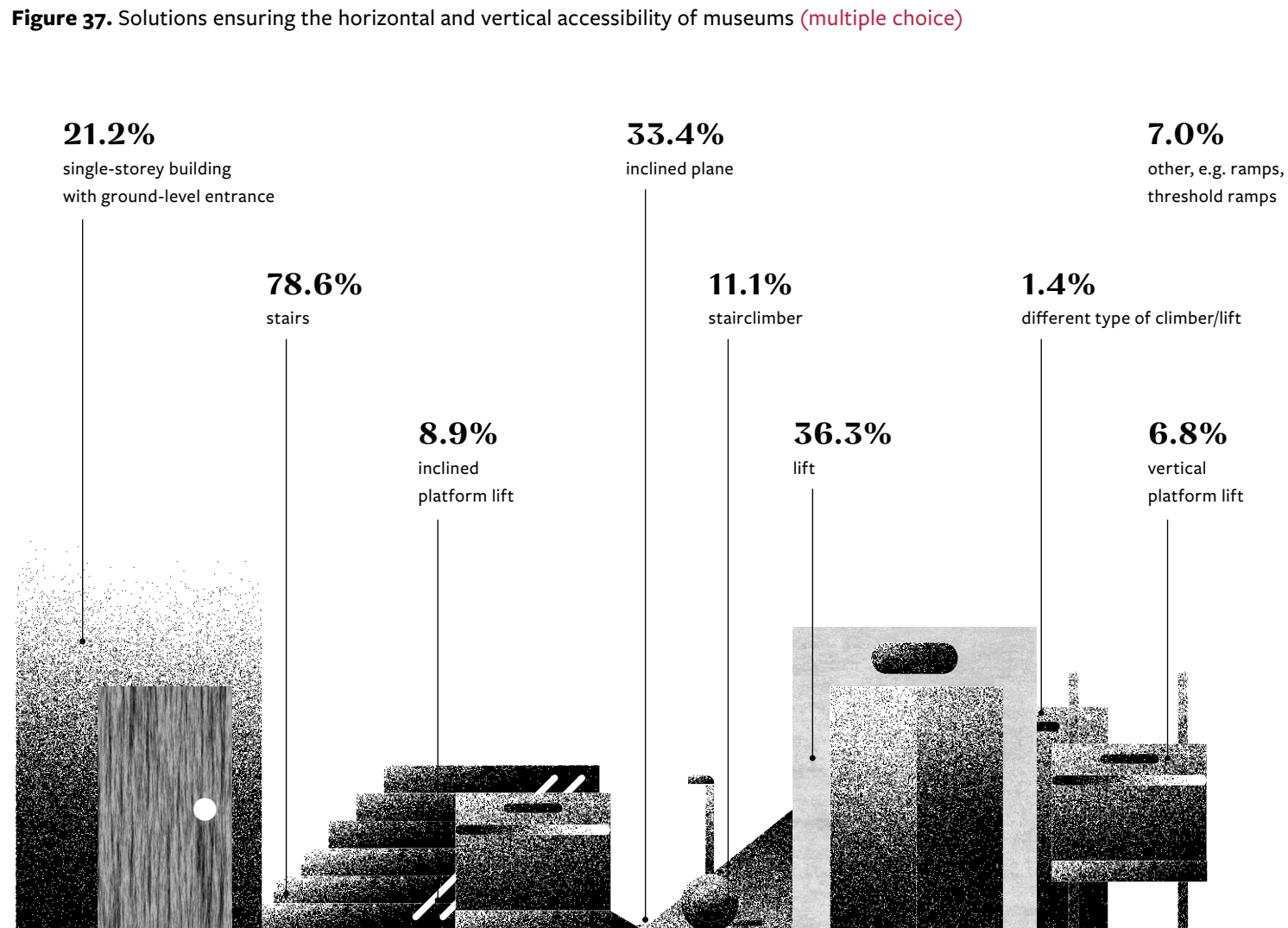


Figure 38. Architectural barriers in museums (multiple choice)

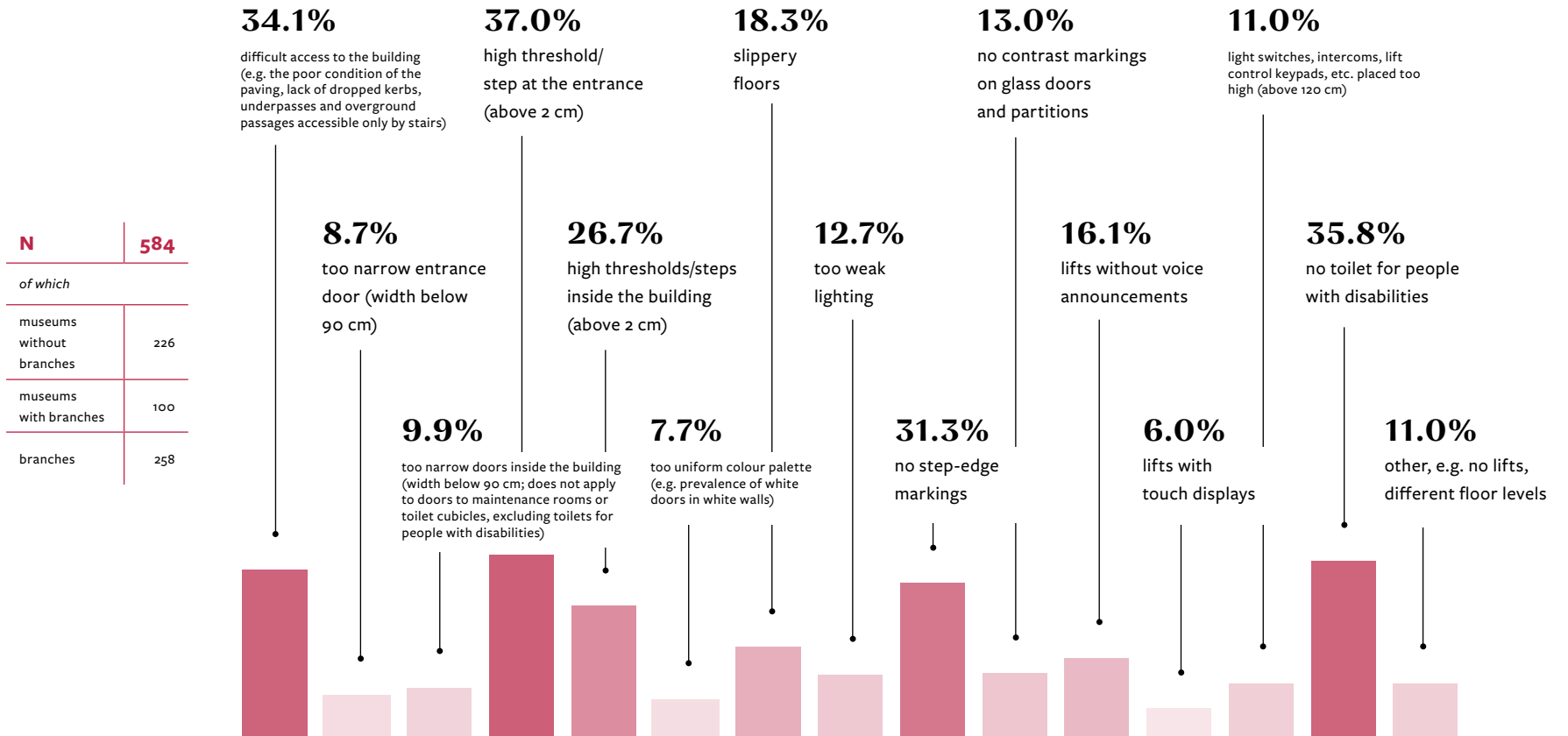


Figure 39. Solutions implemented to facilitate navigation around museums (multiple choice)

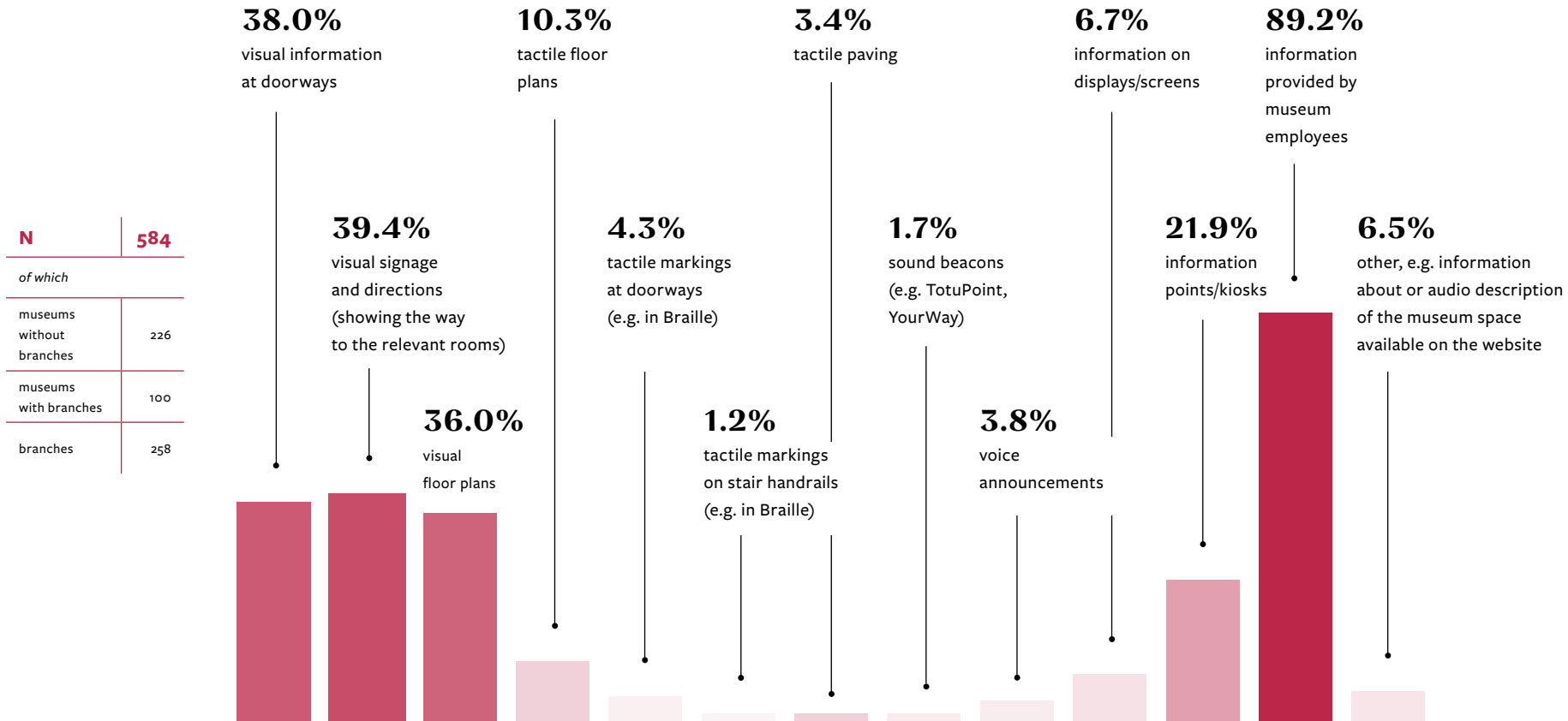


Figure 40. Solutions implemented to facilitate museum visits for the deaf and hard of hearing (multiple choice)

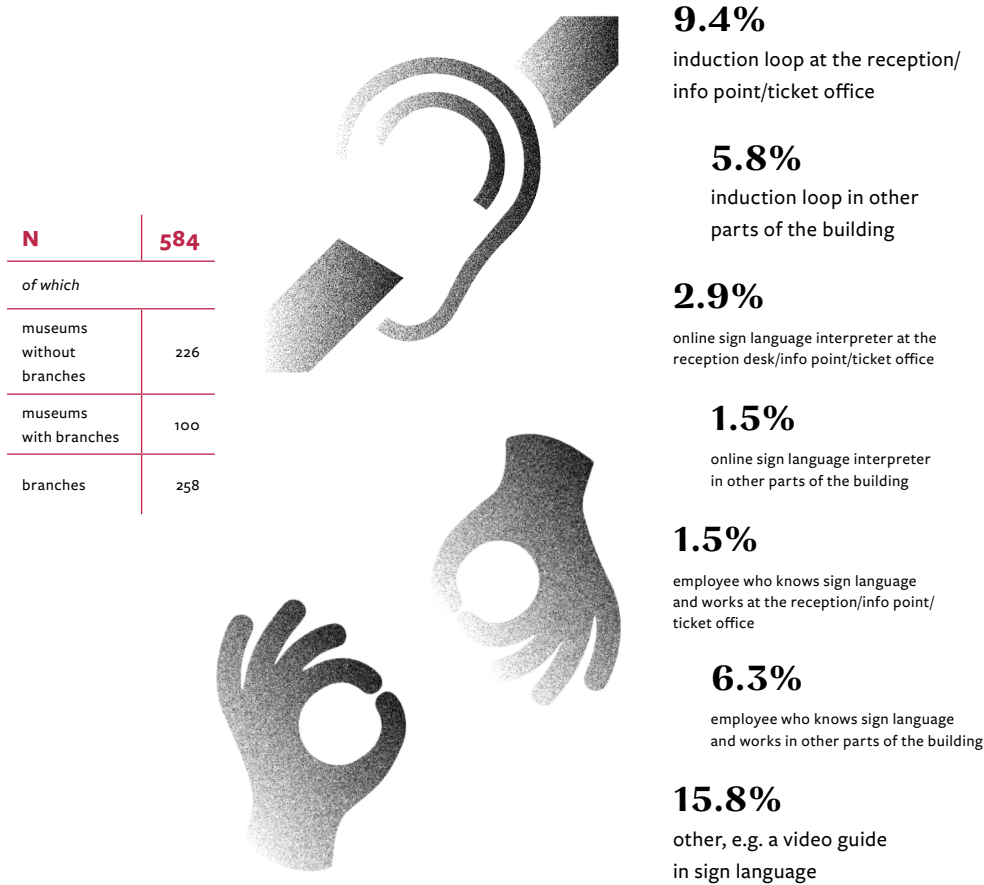
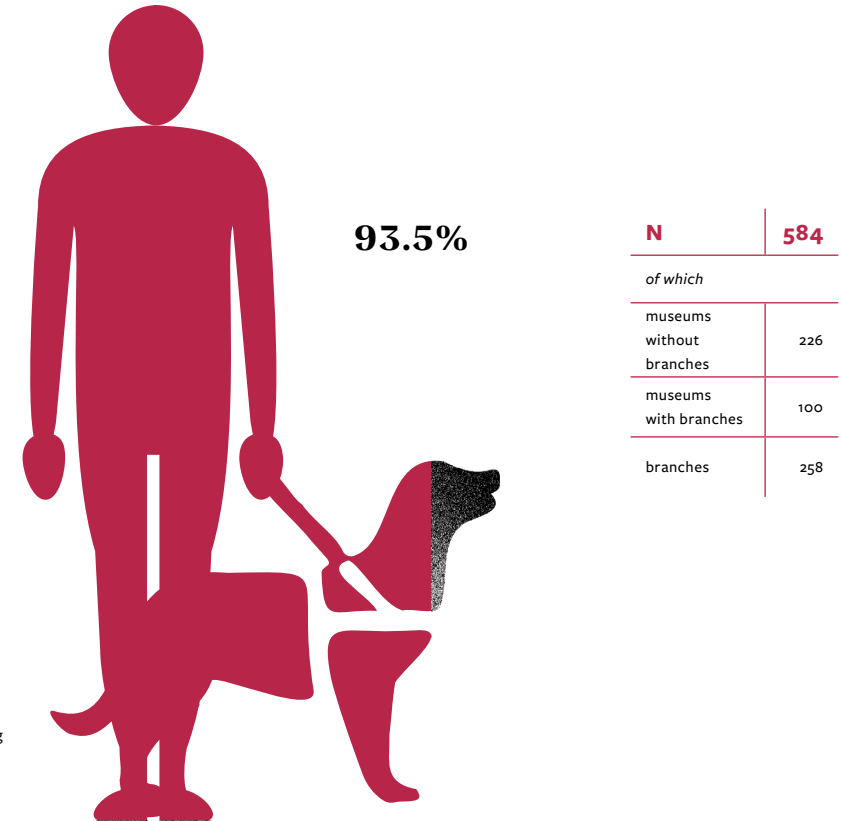


Figure 41. Museums allowing assistance dogs



1.3. Energy efficiency and environmental impact

1.3.1. Main conclusions

The annual electricity consumption was monitored by 66.3%, the annual water consumption by 52.8% and the carbon footprint by only 2.5% of the studied museums listed as cultural institutions. Only 4.6% of the respondents reported having a document on environmental impact minimisation. The museums used the following methods to reduce the negative impact of their activities on the environment: energy-saving LED lighting (89.9%), turning off all devices and appliances from the stand-by mode after finishing work (61.3%) and dual flush toilets (57.7%). The use of hydropower and biomass energy was reported by 0.6% and 0.9% of the respondents, respectively (N = 326).

Figure 42. Scope of environmental impact analyses conducted by museums (multiple choice)

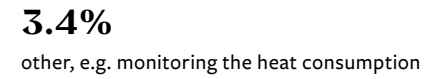
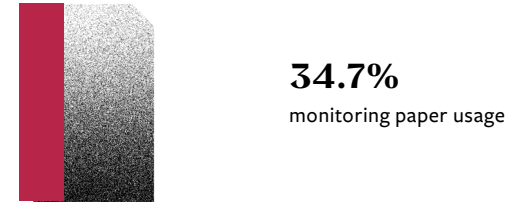
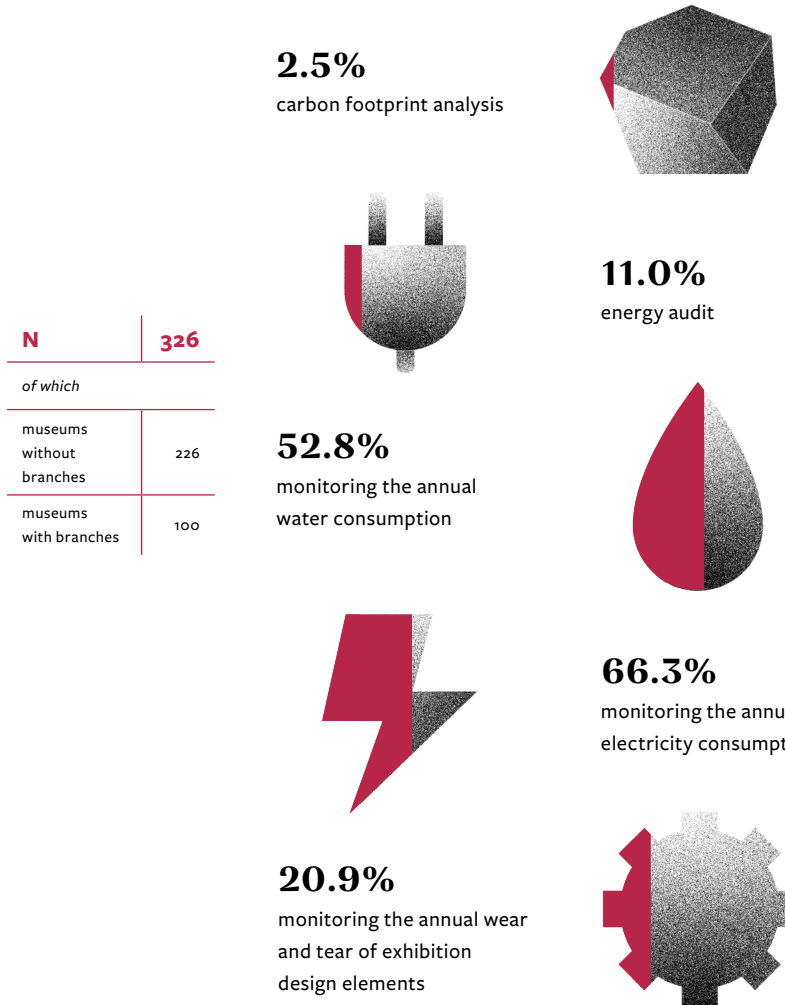
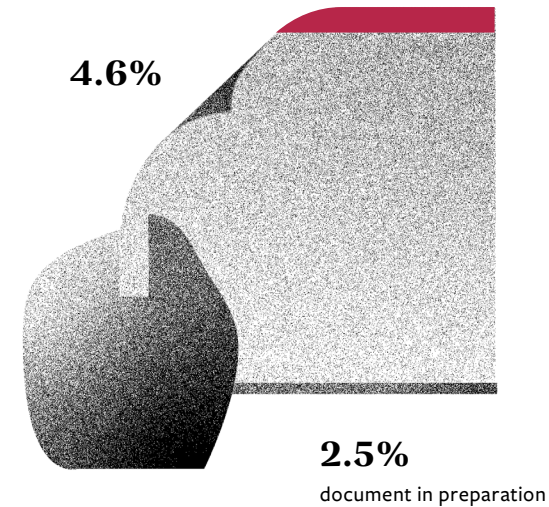
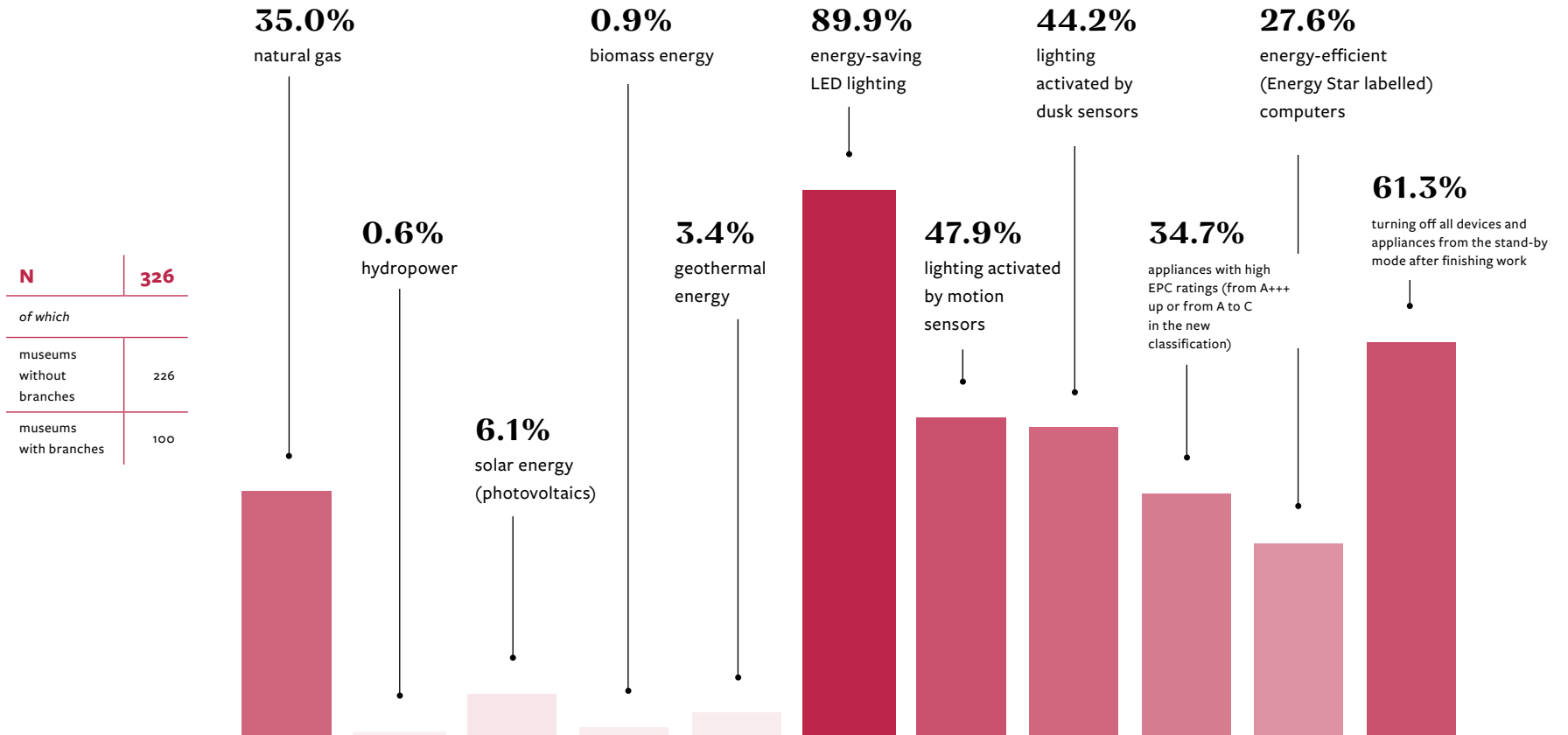


Figure 43. Museums that had a document on environmental impact minimisation (Green Strategy) at the end of the reporting period

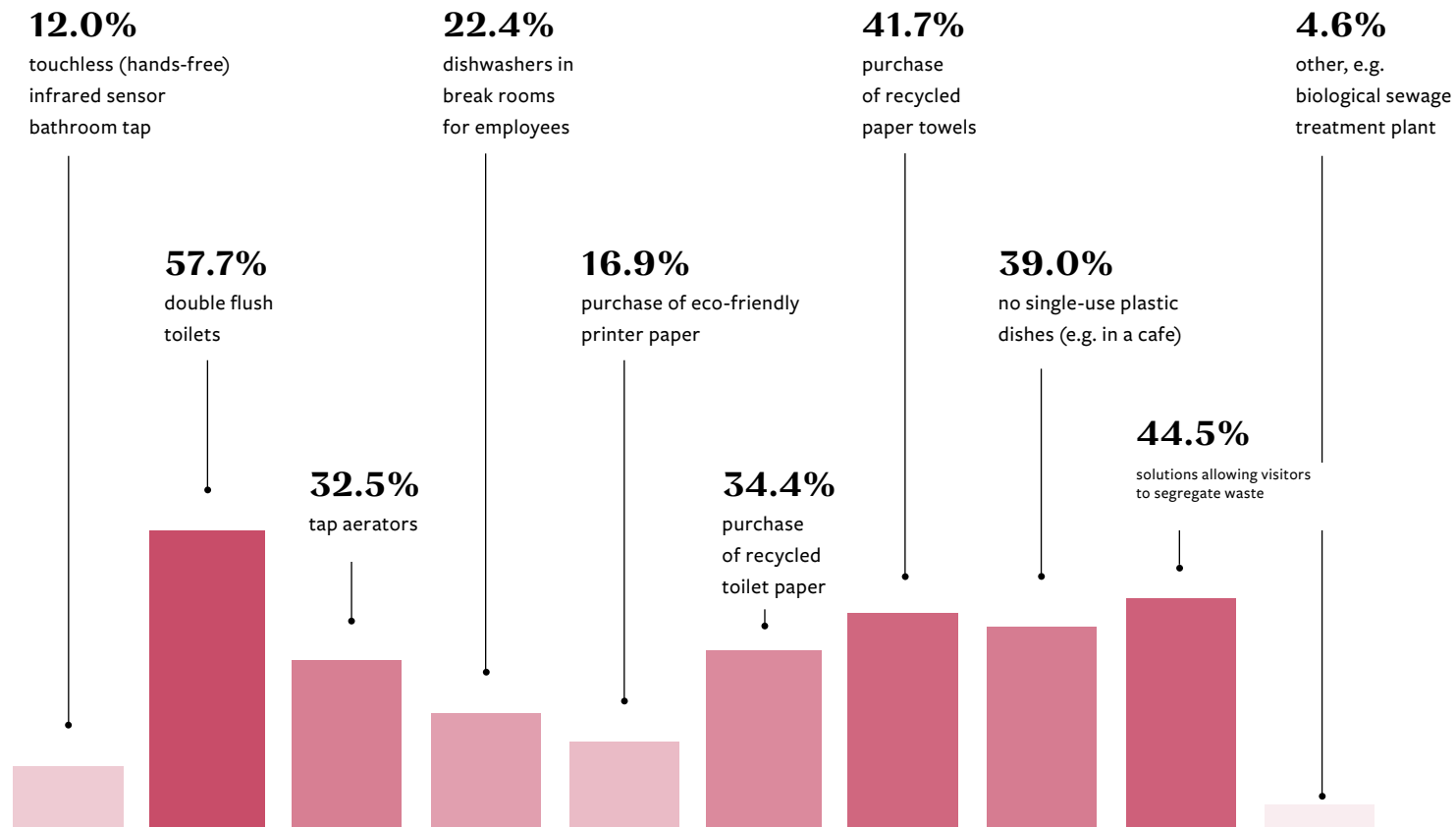


N	326
<i>of which</i>	
museums without branches	226
museums with branches	100

Figure 44. Methods implemented to reduce negative environmental impact (multiple choice)



N	326
<i>of which</i>	
museums without branches	226
museums with branches	100



1.4. ICT infrastructure and cybersecurity

1.4.1. Main conclusions

A total of 54.3% of the studied museums listed as cultural institutions had their own server rooms which they used, for example, for data archiving (N = 326). The average total capacity of the archival storage devices in their server rooms was 47 TB (N = 176). More than 85% of the institutions made backup copies of their IT systems and data, with 44.2% doing it more often than once a week and 19.1% less often than once a month (N = 278). The internet connection speed between 51 and 300 Mb/s was reported by 51.8%, below 50 Mb/s by 30.4% and over 300 Mb/s only by 17.5% of the respondents. In less than half of the museums (45.7%), employees had remote access to the institution's resources and systems using VPN. A total of 66% of the museums provided the ICT equipment to employees to facilitate remote work. The ICT security solutions most frequently applied by the museums included a basic firewall (75.8%) and antispam system (63.2%, N = 326).

N	326
<i>of which</i>	
museums without branches	226
museums with branches	100

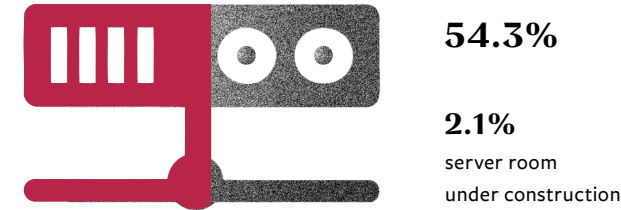


Figure 45. Museums that had their own server rooms, e.g. for data archiving

N	176
<i>of which</i>	
museums without branches	106
museums with branches	70

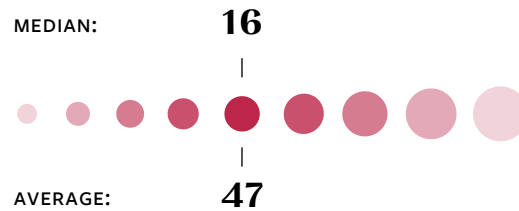


Figure 46. Total capacity (in TB) of the archival storage devices in the server room

N	177
<i>of which</i>	
museums without branches	107
museums with branches	70

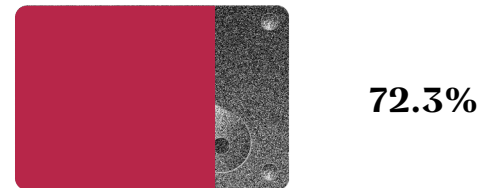
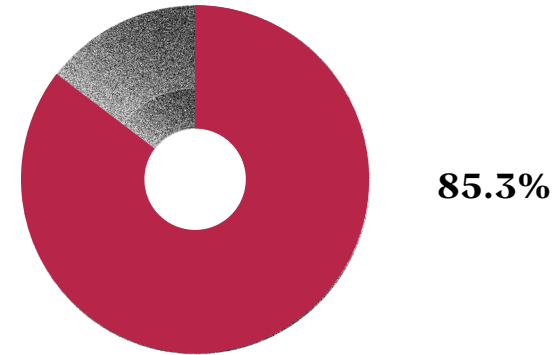


Figure 47. Museums whose server rooms met minimum standards¹⁵

¹⁵ Minimum server room standards:
 > a technical room used exclusively for the server room purposes, free of any potential sources and risks of flooding and window fires (or featuring properly secured windows), without radiators or any other water installations.

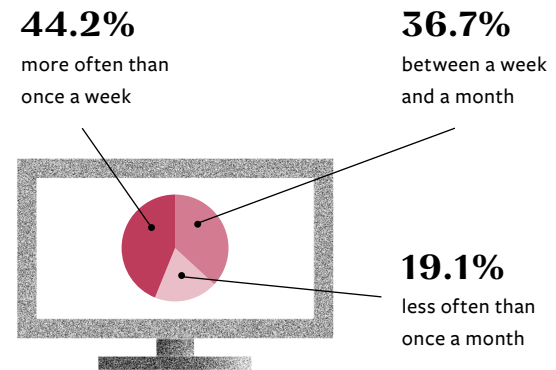
Minimum specifications:
 > air conditioning system (minimum one device; optimally device redundancy);
 > fire protection system (minimum fire detection; optimally a fixed fire extinguishing/suppression system);
 > emergency power system;
 > electronic access control system;
 > server racks and cabinets for IT equipment.

Figure 48. Museums that had their own server rooms, e.g. for data archiving



N	326
<i>of which</i>	
museums without branches	226
museums with branches	100

Figure 49. Frequency of making backup copies of IT systems and data



N	278
<i>of which</i>	
museums without branches	190
museums with branches	88

N	278
<i>of which</i>	
museums without branches	190
museums with branches	88

Figure 50. Museums that verified the possibility of system and data recovery from backup copies



Figure 51. Museums that implemented business continuity and ICT security procedures

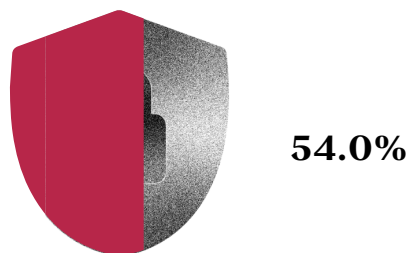


Figure 52. Internet connection speeds available to museums¹⁶



N	326
<i>of which</i>	
museums without branches	226
museums with branches	100

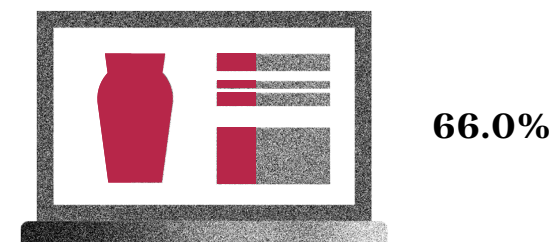
¹⁶ 1. Museums with branches/operating in multiple locations were asked to report the internet connection speed for the location of the server and/or digitisation rooms.
2. For asymmetric connections (with unequal download and upload speeds), museums were asked to report the lower values – typically the upload speed.

¹⁷ Refers to remote or hybrid work, if applicable. If the remote/hybrid work option was not used, the museum was asked to define its technological capacity to switch to this mode of work rather than its organisational abilities.

Figure 53. Museums where employees had remote access to the institution’s resources and systems (using VPN)



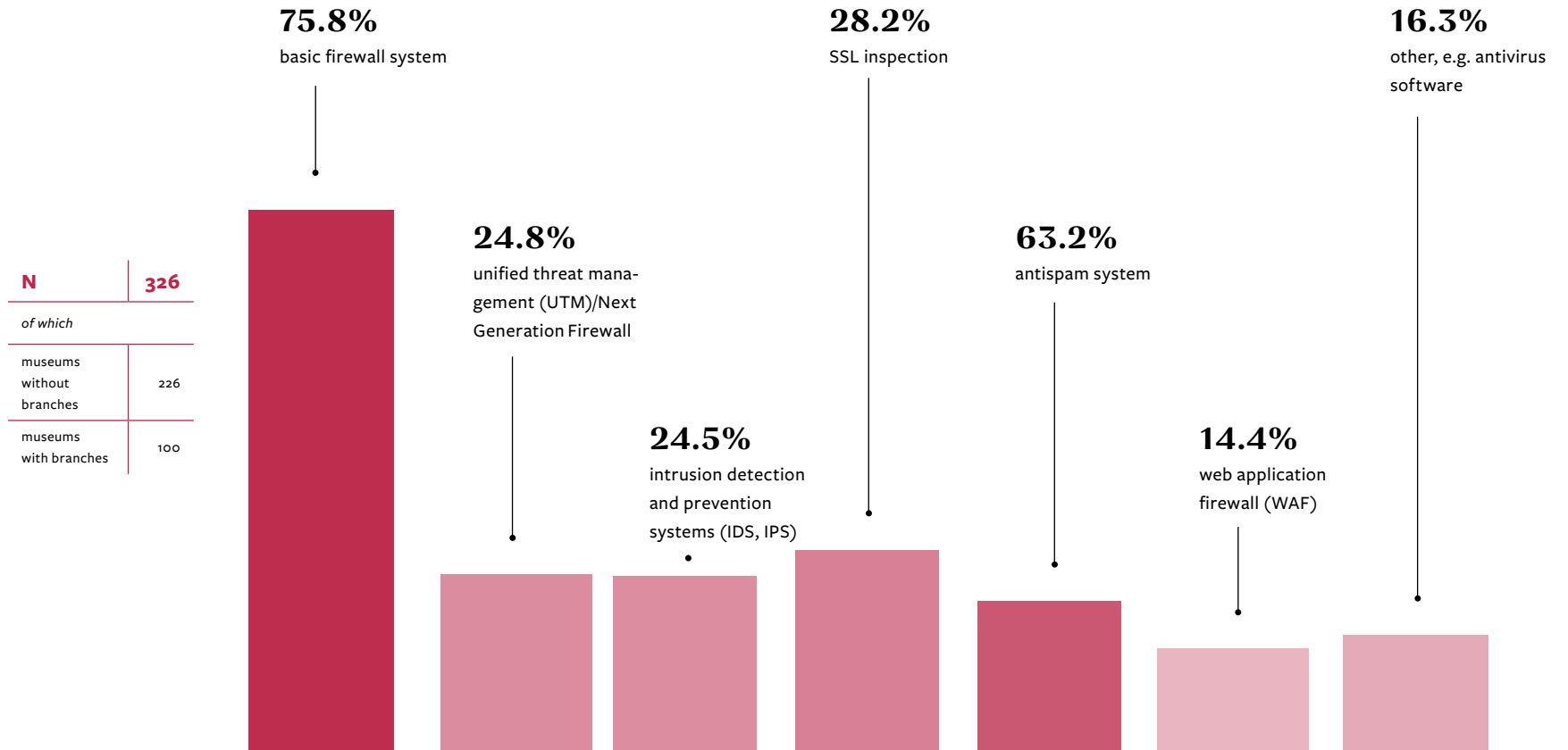
Figure 54. Museums that met the technical conditions and provided ICT equipment to employees to facilitate remote work¹⁷



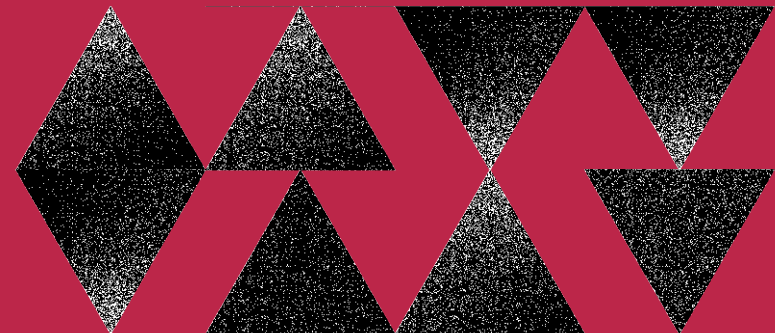
N	326
<i>of which</i>	
museums without branches	226
museums with branches	100

N	326
<i>of which</i>	
museums without branches	226
museums with branches	100

Figure 55. ICT security technology used by museums (multiple choice)



III Museums without the status of a cultural institution



1. Results

1.1. Museum safety and security

1.1.1. Main conclusions

Over half (58.5%) of museums not listed as cultural institutions which participated in the survey had collection storage rooms (N = 82). In 25% of the museums the storage space was described as sufficient for the current number of objects (N = 48).

Compared to cultural institutions, the percentage of the respondents that monitored the environmental conditions in all storage rooms in this group was lower (65.5% and 43.7%, respectively). The most frequently monitored parameters included: temperature (52.1%), relative humidity (47.9%) and pest infestation (insects, rodents, etc.) (39.6%).

The museums also controlled the environmental conditions in the exhibitions spaces (compared to cultural institutions, the percentages in this group were also lower): either in all exhibition spaces (29.3%) or in part of them (only 12.2%; N = 82). Similar to storage rooms, the most frequently monitored parameters were temperature (44.4%), relative humidity (43.1%) and pest infestation (insects, rodents, etc.) (22.2%, N = 72).

Fire safety instructions were implemented in 67.5% of the museums and museum branches in this group (compared to 95.4% of cultural institutions), half featured a fire alarm system and in 33.7% the system alerted the fire department automatically (N = 86).

In terms of security, 30.2% of the studied museums and their branches had a security plan. The CCTV system operated in the entire building in 18.6% and in selected rooms in 37.2% of the museums (N = 86).

A total of 22% of the respondents in this group had a document specifying emergency procedures. Sound alarm (39.5%), single-storey building (31.4%) and the identification of fire zones (19.8%, N = 86) were listed most frequently as technical solutions in case of evacuation.

1.1.1.1. Museum storage and collection security

N	82
<i>of which</i>	
museums without branches	78
museums with branches	4

Figure 56. Museums featuring collection storage rooms

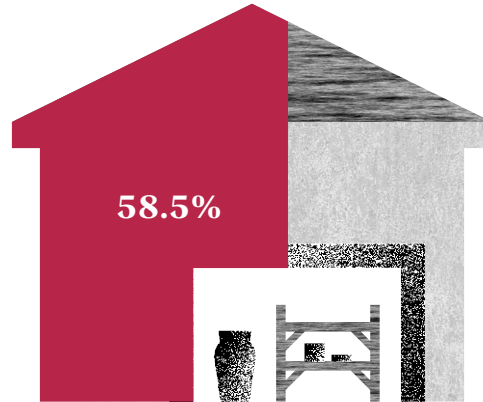
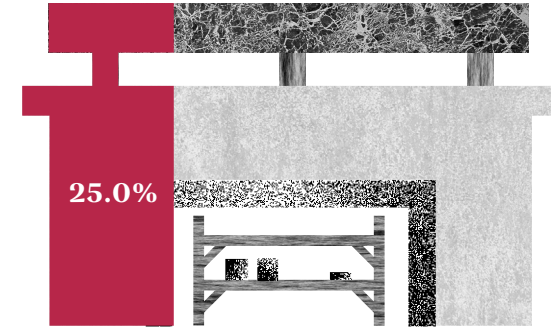


Figure 58. Museums reporting a sufficient storage space for the current number of objects



N	48
<i>of which</i>	
museums without branches	45
museums with branches	3

Figure 57. Number of multi-function buildings that housed museum storage rooms

N	35
<i>of which</i>	
museums without branches	32
museums with branches	3

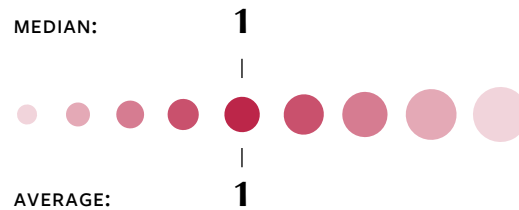
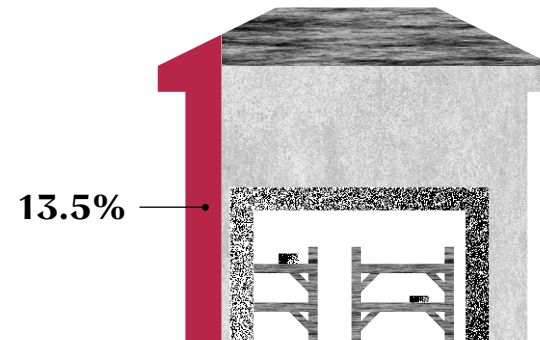


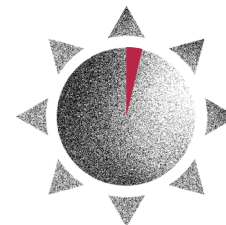
Figure 59. Average ratio of storage space to the total area of buildings used by museums



N	85
<i>of which</i>	
museums without branches	77
museums with branches	4
branches	4

N	48
<i>of which</i>	
museums without branches	45
museums with branches	3

Figure 60. Museums monitoring environmental conditions in collection storage



4.2%
UV radiation intensity

Figure 61. Parameters monitored in collection storage (multiple choice)

N	48
<i>of which</i>	
museums without branches	45
museums with branches	3



52.1%
temperature

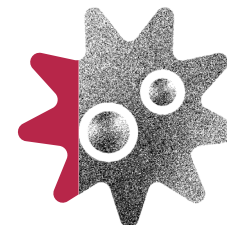
47.9%
relative humidity



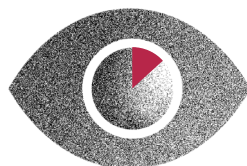
6.3%
air quality



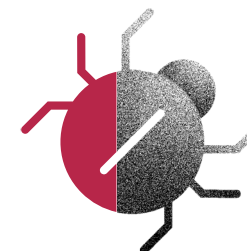
29.2%
presence of microorganisms
(mould, fungi, parasites, etc.)



14.6%
visible light intensity

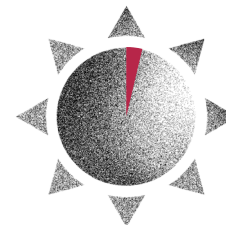


39.6%
pest infestation
(insects, rodents, etc.)



N	82
<i>of which</i>	
museums without branches	78
museums with branches	4

Figure 62. Museums monitoring environmental conditions in exhibition spaces



4.2%
UV radiation intensity

Figure 63. Parameters monitored in exhibition spaces (multiple choice)

N	72
<i>of which</i>	
museums without branches	68
museums with branches	4

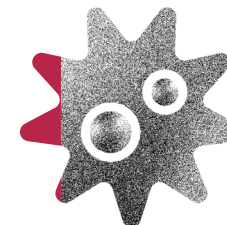


44.4%
temperature

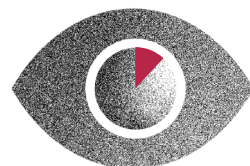


2.8%
air quality

43.1%
relative humidity

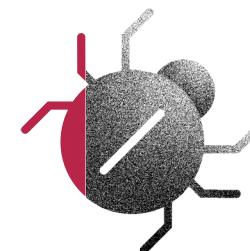


16.7%
presence of microorganisms
(mould, fungi, parasites, etc.)



13.9%
visible light intensity

22.2%
pest infestation
(insects, rodents, etc.)



1.1.1.2. Fire protection

N	86
of which	
museums without branches	78
museums with branches	4
branches	4

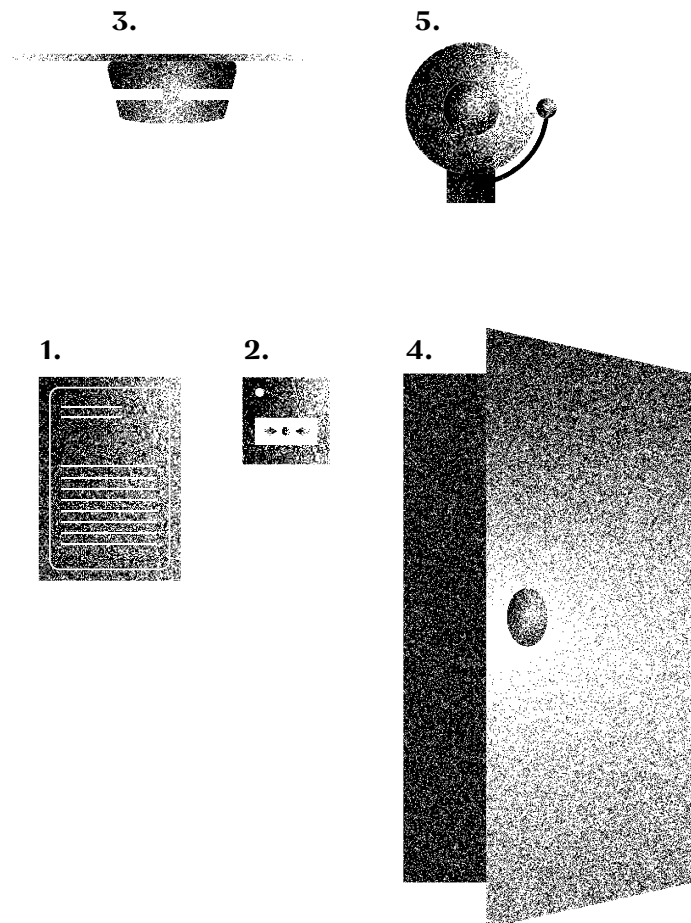
¹⁸ Described in detail in § 3, section 2 of the Regulation of the Minister of Culture and National Heritage of 2 September 2014 on protecting museum collections against fire, theft or other danger that might result in their damage or loss (Journal of Laws 2014, item 1240).

¹⁹ A fire alarm system (detectors, fire alarm control panel, etc.) for automatic fire detection and fire alert, described in detail in § 28, section 1 of the Regulation of the Minister of the Interior and Administration of 7 June 2010 on fire protection in buildings, other structures and areas (Journal of Laws 2010, No. 109, item 719, as amended).

²⁰ Smoke prevention or smoke removal devices, described in detail in § 245 of the Regulation of the Minister of Infrastructure of 12 April 2002 on the technical conditions to be met by buildings and their location (Journal of Laws 2019, No. 1065, item 690).

²¹ A system (speakers, a control panel) for the automatic broadcast of audible warning signals and voice messages to ensure the safety of people in the building, described in detail in § 29 of the Regulation of the Minister of the Interior and Administration of 7 June 2010 on fire protection of buildings, other structures and areas (Journal of Laws 2010, No. 109, item 719, as amended).

Figure 64. Museums that had fire protection documentation, systems and solutions



1. Fire safety instructions¹⁸

yes	67.5%
in preparation	11.6%

2. Fire alarm system¹⁹

yes	50.0%
under implementation	2.3%

3. Fire alarm system that automatically alerts the fire department

yes	33.7%
under construction	1.2%

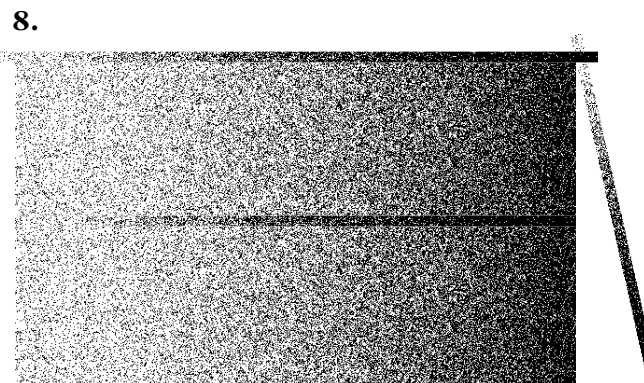
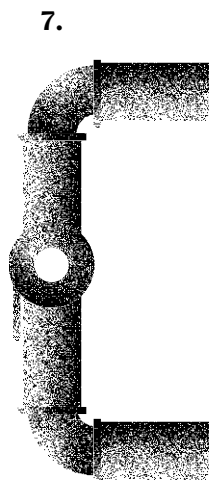
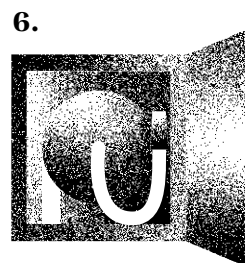
4. Smoke extraction system²⁰

yes	23.3%
under implementation	2.3%

5. Acoustic warning system²¹

yes	46.5%
under implementation	3.5%

N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4



6. Fire-fighting water supply installation with internal hydrants 25 or 52 or valves 52

yes	43.0%
under construction	1.2%

7. Fire-fighting pumping station²²

yes	10.5%
under construction	0.0%

8. Fire-fighting water tank²³

yes	11.6%
under construction	1.2%

9. Fixed fire extinguishing/suppression system²⁴ (multiple choice)

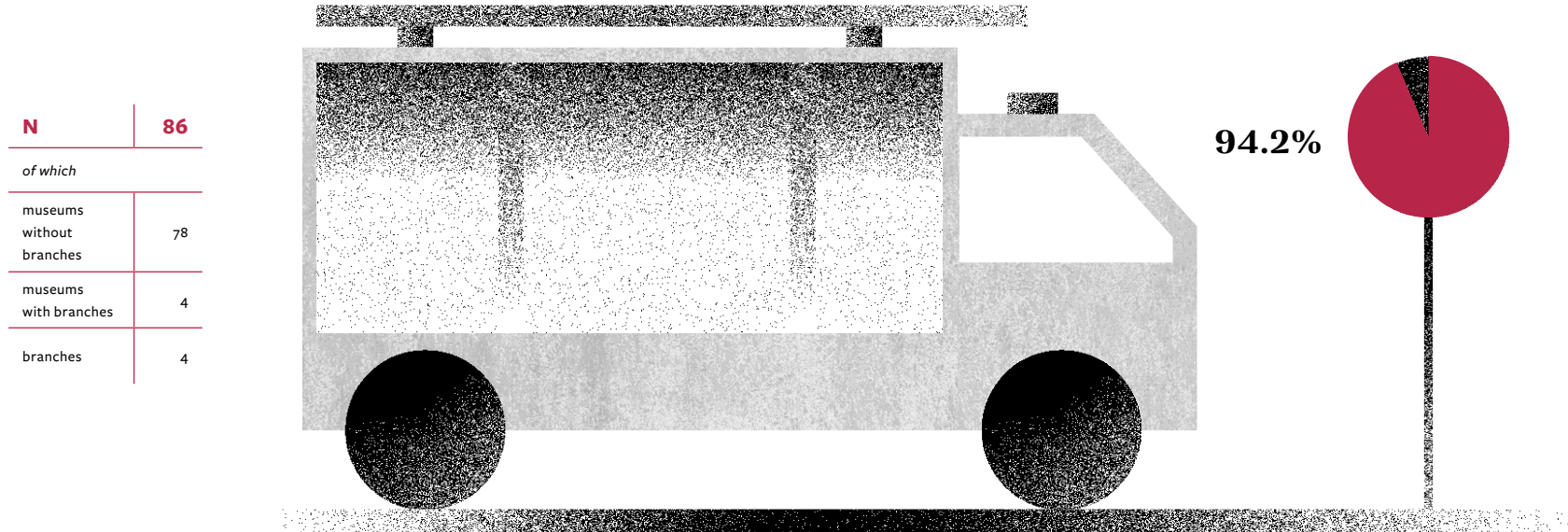
yes, in the entire building (in all buildings)	15.1%
yes, in storage rooms	4.7%
yes, in exhibition spaces	5.8%
yes, in the server room	2.3%
under construction	3.5%

²² A room containing pumps and other devices to supply water to fire-fighting installations, described in detail in § 26 of the Regulation of the Minister of the Interior and Administration of 7 June 2010 on fire protection of buildings, other structures and areas (Journal of Laws 2010, No. 109, item 719, as amended).

²³ A tank designed to store water for fire protection purposes, described in detail in § 24 of the Regulation of the Minister of the Interior and Administration of 7 June 2010 on fire protection of buildings, other structures and areas (Journal of Laws 2010, No. 109, item 719, as amended) and § 5 of the Regulation of the Minister of the Interior and Administration of 24 July 2009 on fire-fighting water supply and fire department access roads (Journal of Laws 2009, No. 124, item 1030).

²⁴ A fire-fighting fixture in the building ensuring a reserve of the extinguishing agent that is activated automatically in the initial phase of fire development.

Figure 65. Museums with fire department access roads²⁵



²⁵ A paved road ensuring access for fire-fighting vehicles in all conditions, described in detail in § 12, section 1 of the Regulation of the Minister of the Interior and Administration of 24 July 2009 on fire-fighting water supply and fire department access roads (Journal of Laws 2009, No. 124, item 1030).

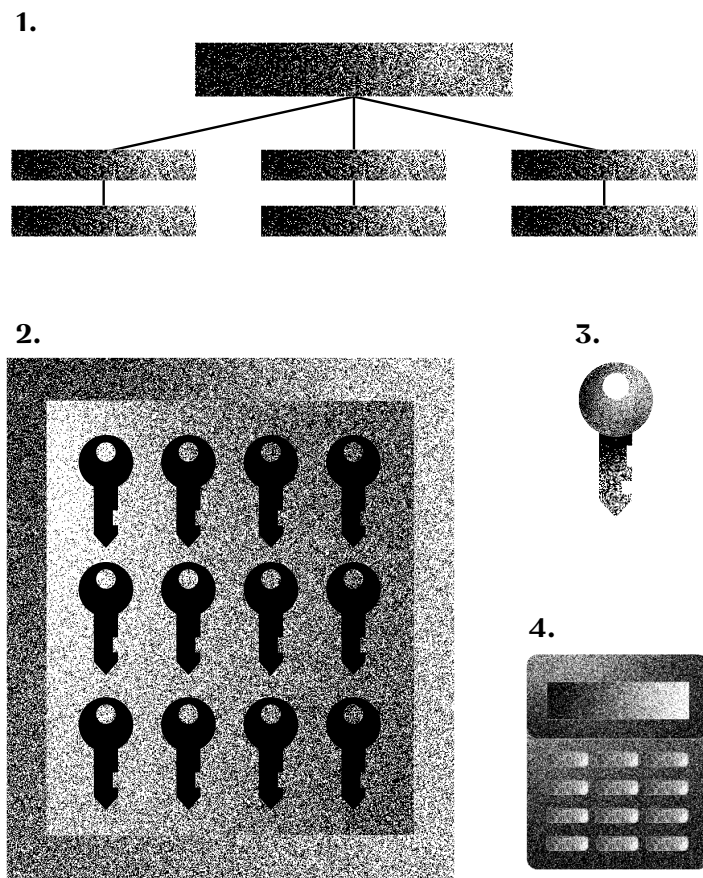
1.1.1.3. Technical security

N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4

²⁶ Described in detail in § 27 of the Regulation of the Minister of Culture and National Heritage of 2 September 2014 on protecting museum collections against fire, theft or other danger that might result in their damage or loss (Journal of Laws 2014, item 1240).

²⁷ Defined as the physical presence of the burglary and intrusion alarm devices (control panel, detectors, keypads) whose task is to protect the entire building or selected zones as indicated in the security plan and § 7 of the Regulation of the Minister of Culture and National Heritage of 2 September 2014 on protecting museum collections against fire, theft or other danger that might result in their damage or loss (Journal of Laws 2014, item 1240).

Figure 66. Museums that had security documentation, systems and solutions



1. Museum security plan²⁶

yes	30.2%
in preparation	11.6%

2. Electromechanical key depository

yes, for all rooms	2.3%
yes, for selected rooms	3.5%

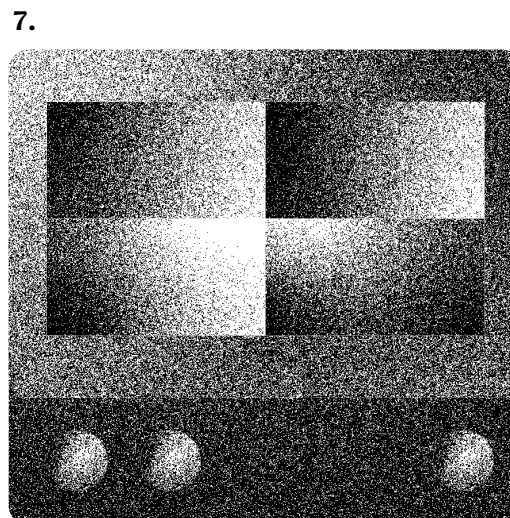
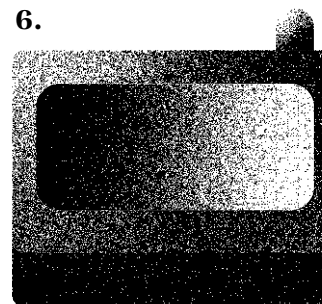
3. Central key system

yes, for all rooms	4.6%
yes, for selected rooms	7.0%
under construction	1.2%

4. Burglary and intrusion alarm system²⁷

yes, in the entire building (in all buildings, i.e. all rooms are secured)	38.4%
yes, in selected buildings/rooms (selected critical rooms or zones are secured)	23.3%
under implementation	1.2%

N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4



²⁸ Defined as the physical presence of a system composed of access control devices (control panel, card readers, elements used to restrict access), whose task is to control selected or all passageways in the building.

²⁹ Defined as the physical presence of a system composed of devices (control panel, linear point detectors, mats), whose task is to signal water leaks in selected rooms.

³⁰ Defined as the physical presence of a surveillance system composed of the CCTV devices (a recorder/video server, cameras, screens, etc.), whose task is to monitor and store footage from the building.

5. Access control (AC) system (does not apply to electronic locks without event memory)²⁸

yes, in the entire building (in all buildings, i.e. all rooms are secured)	8.1%
yes, in selected buildings/rooms (selected critical passageways are secured)	14.0%
under implementation	1.2%

6. Leak detection system²⁹

yes, in the entire building (in all buildings)	4.7%
yes, in selected rooms	2.3%
under implementation	1.2%

**7. CCTV system³⁰
(multiple choice)**

yes, in the entire building (in all buildings, i.e. all rooms are monitored)	18.6%
yes, in selected buildings/rooms	37.2%
yes, the exterior of the building	20.9%
under implementation	3.5%

1.1.1.4. Emergency protocols

N	82
<i>of which</i>	
museums without branches	78
museums with branches	4

Figure 67. Museums that had a document specifying emergency procedures

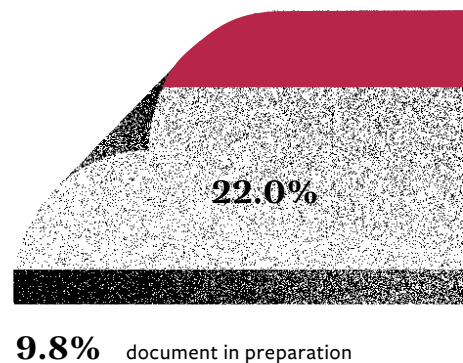


Figure 68. Museums that hired a specialised company to provide first aid training (beyond the scope of a regular health and safety training) to selected employees

N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4

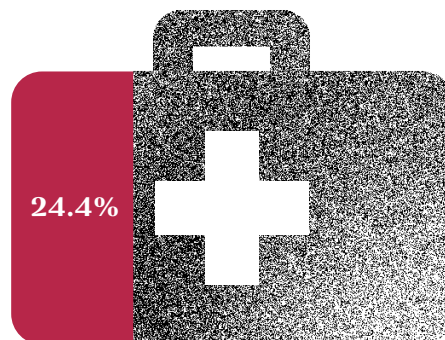


Figure 69. Museums that organised evacuation drills



Figure 70. Museums equipped with an AED (automated external defibrillator)



N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4

N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4

Figure 71. Emergency evacuation solutions used in museums (multiple choice)

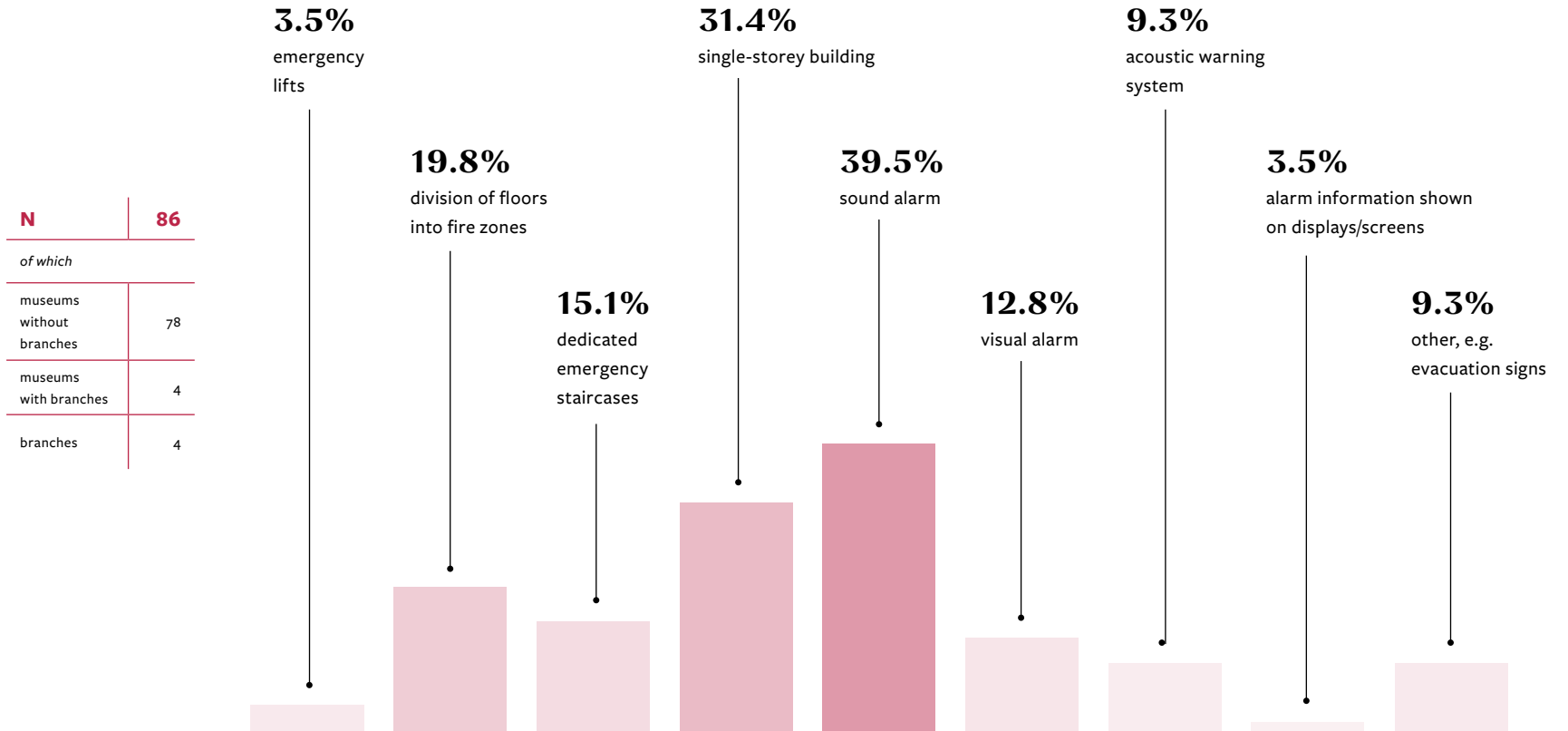
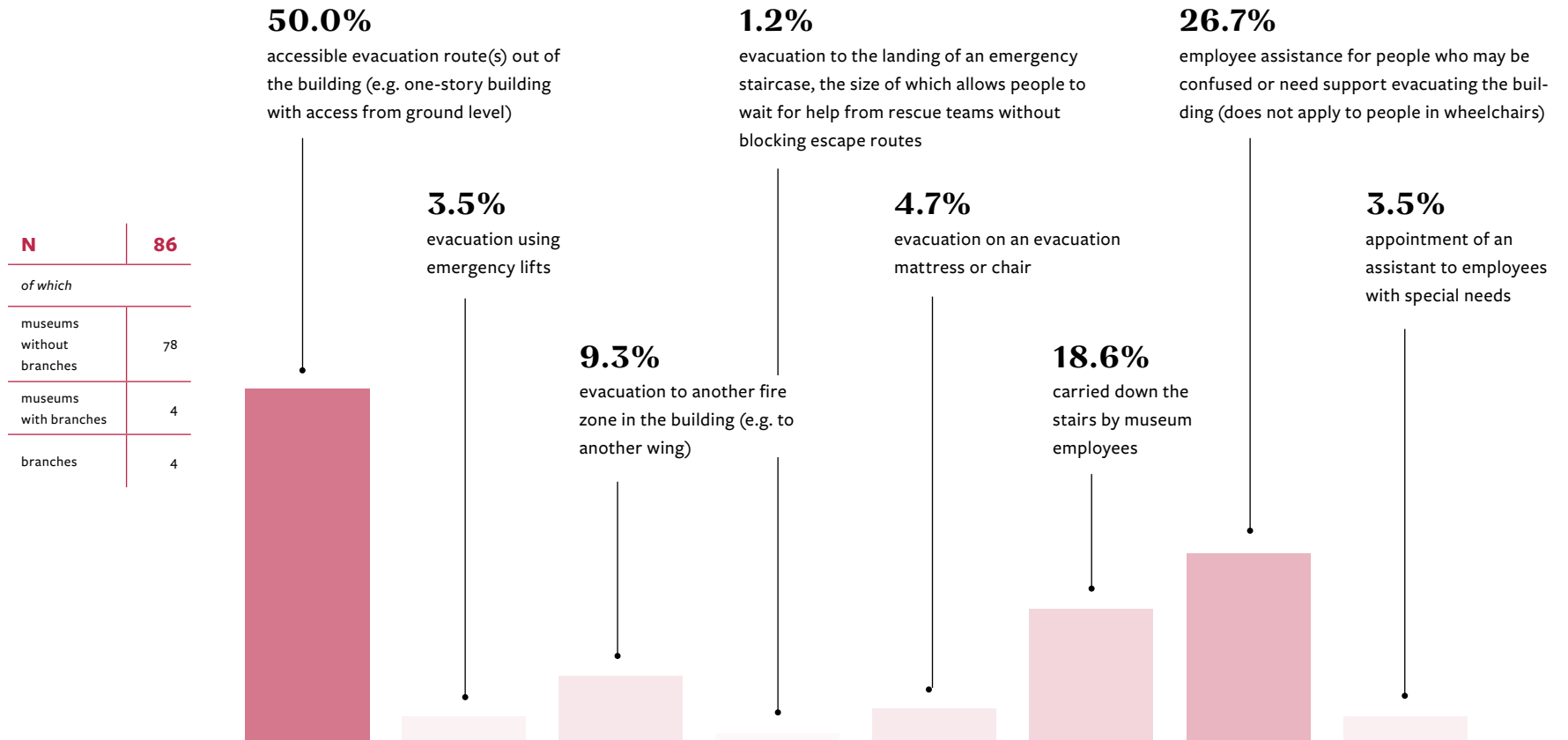


Figure 72. Emergency evacuation solutions dedicated to people with special needs (multiple choice)



1.2. Architectural accessibility

1.2.1. Main conclusions

The museums and museum branches not listed as cultural institutions whose building(s) or location area(s) were entered in the register of immovable monuments accounted for 37.2%. Of all respondents in this category, 26.7% were entered in the local inventories of monuments. None was listed as UNESCO World Heritage Site (N = 86).

In terms of additional accommodations and facilities on the premises, toilets for people with disabilities were available in 38.4%, car parks for visitors in 32.6% and designated rest areas for visitors in 24.4% of the studied museums and museum branches (N = 86).

Solutions used most frequently to ensure the horizontal and vertical accessibility included stairs (55.8%) and the location of exhibitions in single-storey buildings with ground-level entrances (39.5%, N = 86).

The respondents reported the following architectural barriers: the lack of toilets for people with disabilities (32.6%), a high threshold/step at the entrance (23.3%) and high thresholds/steps inside the buildings (19.8%, N = 86).

The following solutions were used to facilitate navigation around the museums: information provided by museum employees (47.7% compared to nearly 90% in museums listed as cultural institutions), visual information at doorways (39.5%) and visual signage and directions (37.2%).

Solutions dedicated to the deaf and hard of hearing included induction loops at reception desks/ticket office, etc. (2.3%) and induction loops in other parts of the buildings (1.2%). Of all museums in this category, 2.3% employed a person that knew sign language who worked in parts of the building other than the reception desk/ticket office. Assistance dogs were allowed in 87.2% of the studied entities (N = 86).

1.2.1.1. Volume and functionality of the building(s)

N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4

Figure 73. Museum building(s) or the area in which it was (they were) located (multiple choice)

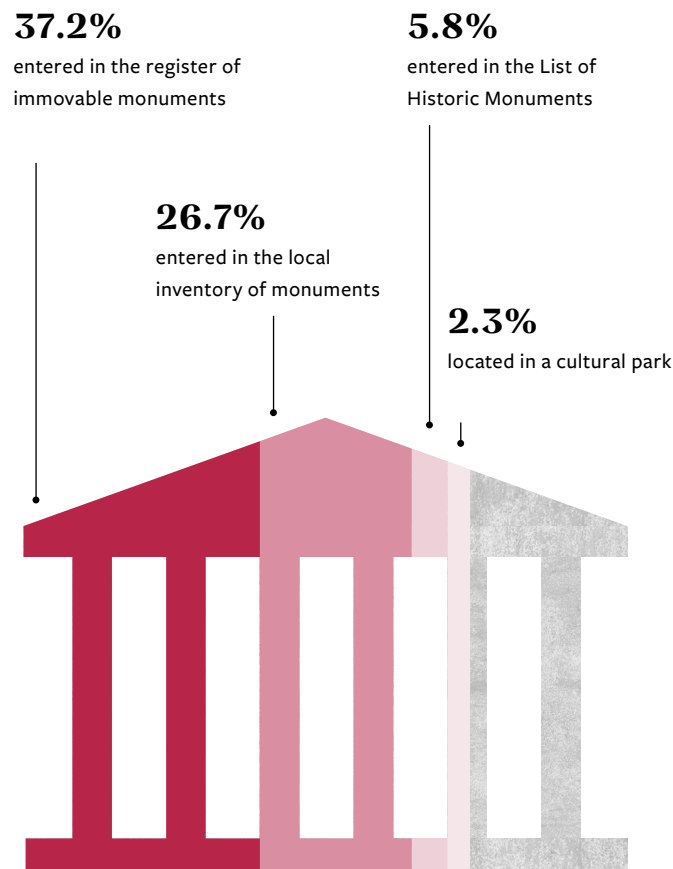
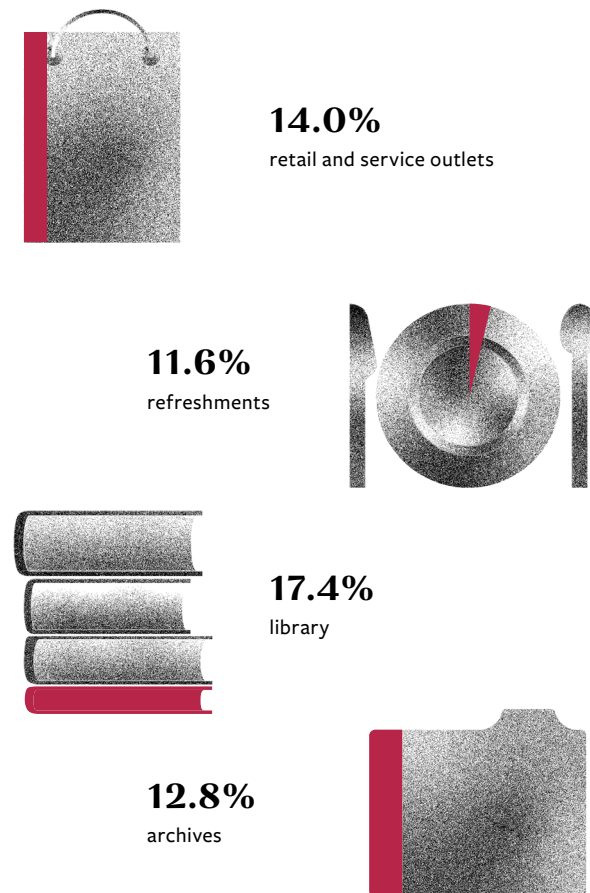


Figure 74. Additional facilities/accommodations on the premises (multiple choice)



N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4



22.1%
rooms intended exclusively
for educational purposes



4.7%
rooms for parents
with children

N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4

8.1%
guest rooms



32.6%
car park
for visitors



24.4%
designated rest areas
(e.g. seats in museum rooms)



24.4%
car park
for employees

20.9%
conference rooms



38.4%
toilets for people
with disabilities



1.2.1.2. Architectural accessibility

N	86
<i>of which</i>	
museums without branches	78
museums with branches	4
branches	4

Figure 75. Solutions ensuring the horizontal and vertical accessibility of museums (multiple choice)

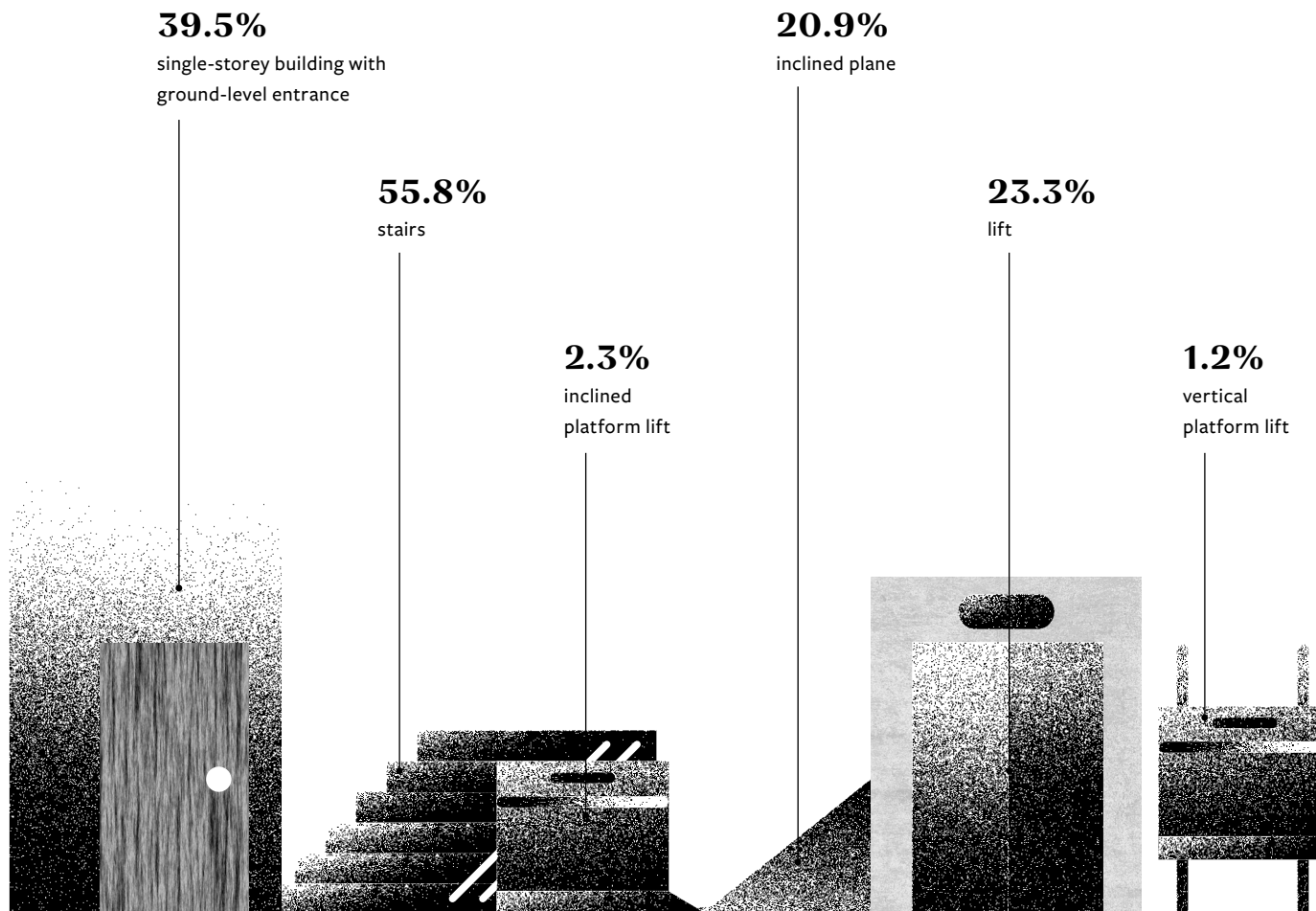


Figure 76. Architectural barriers in museums (multiple choice)

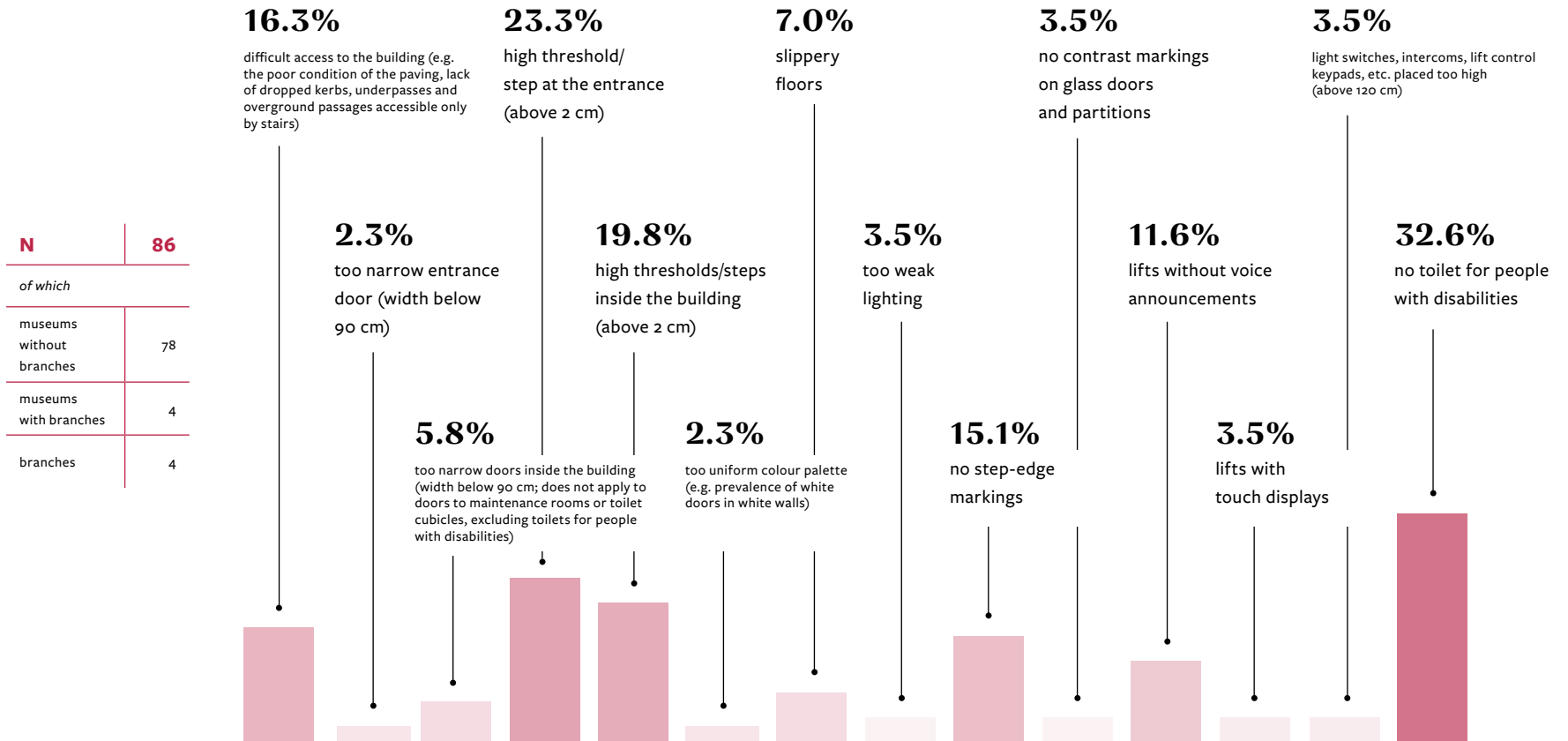


Figure 77. Solutions implemented to facilitate navigation around museums (multiple choice)

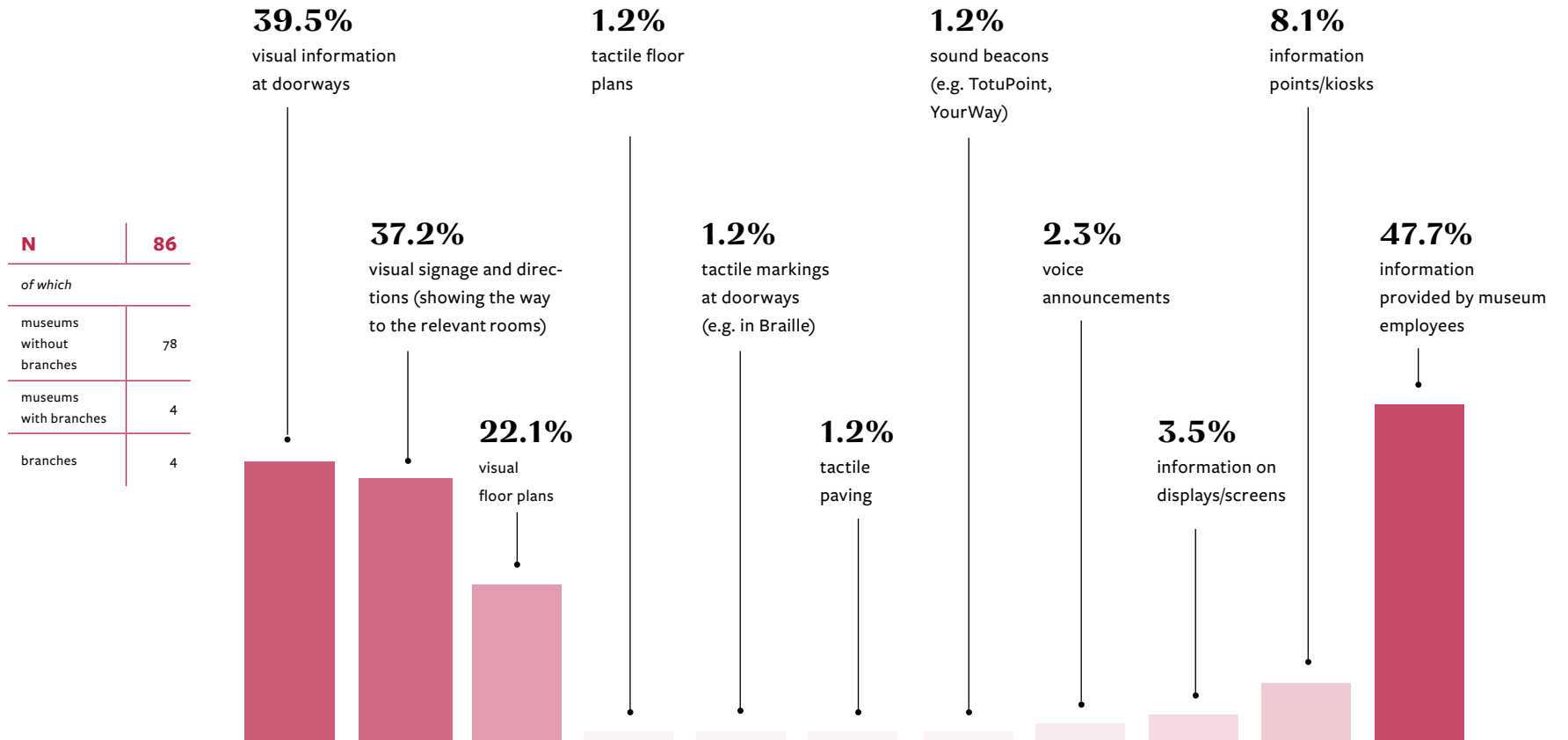


Figure 78. Solutions implemented to facilitate museum visits for the deaf and hard of hearing (multiple choice)

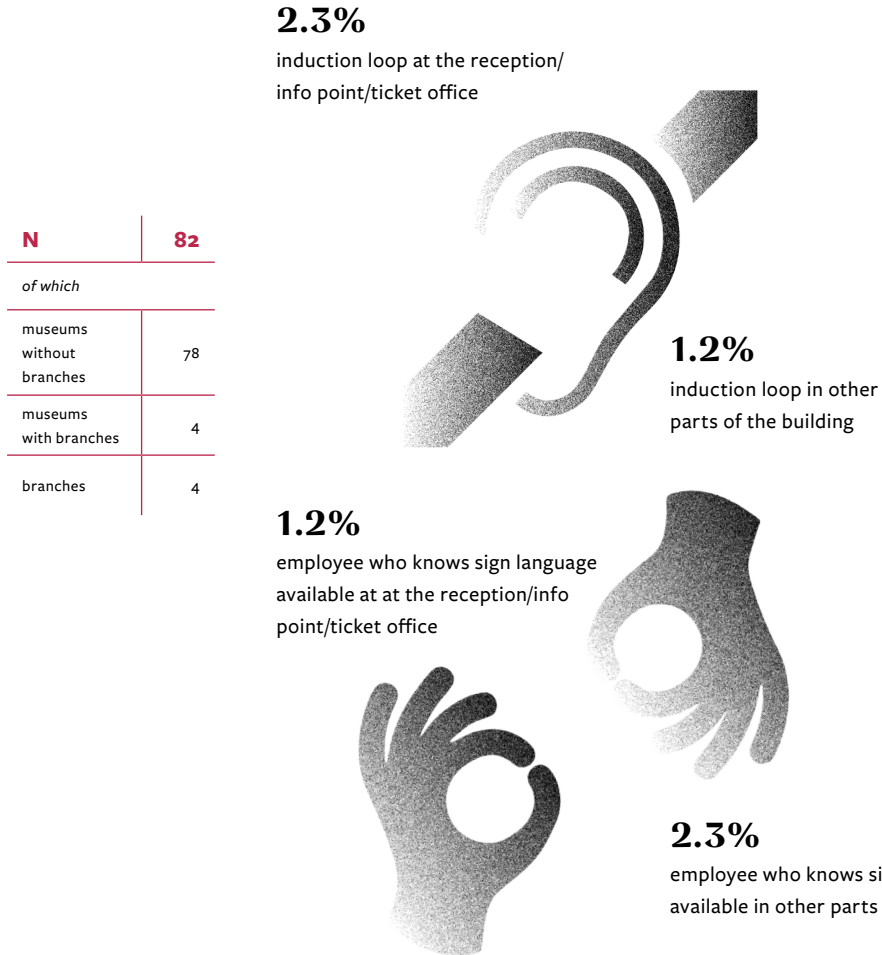
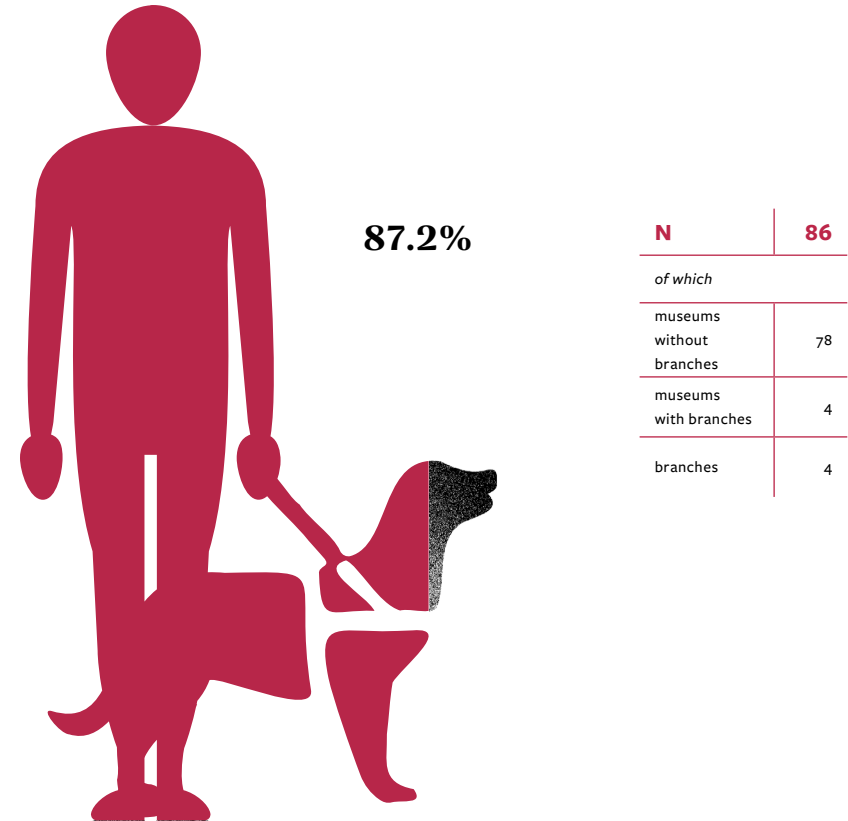


Figure 79. Museums allowing assistance dogs



1.3. Energy efficiency and environmental impact

1.3.1. Main conclusions

The annual electricity consumption was monitored by only 17.1% and the annual water consumption by 15.9% of museums not listed as cultural institutions which answered these questions (compared to 66.3% and over 50%, respectively, among those listed as cultural institutions). Only 2.5% of the respondents in this group reported having a document on environmental impact minimisation (N = 82).

The museums used the following methods to reduce the negative impact of their activities on the environment: energy-saving LED lighting (57.3%), turning off all devices and appliances from the stand-by mode after finishing work (30.5%) and solutions enabling visitors to segregate waste (also 30.5%). The use of hydropower and geothermal energy was reported by only 1.2% of the museums in this group (N = 82).

Figure 80. Scope of environmental impact analyses conducted by museums (multiple choice)

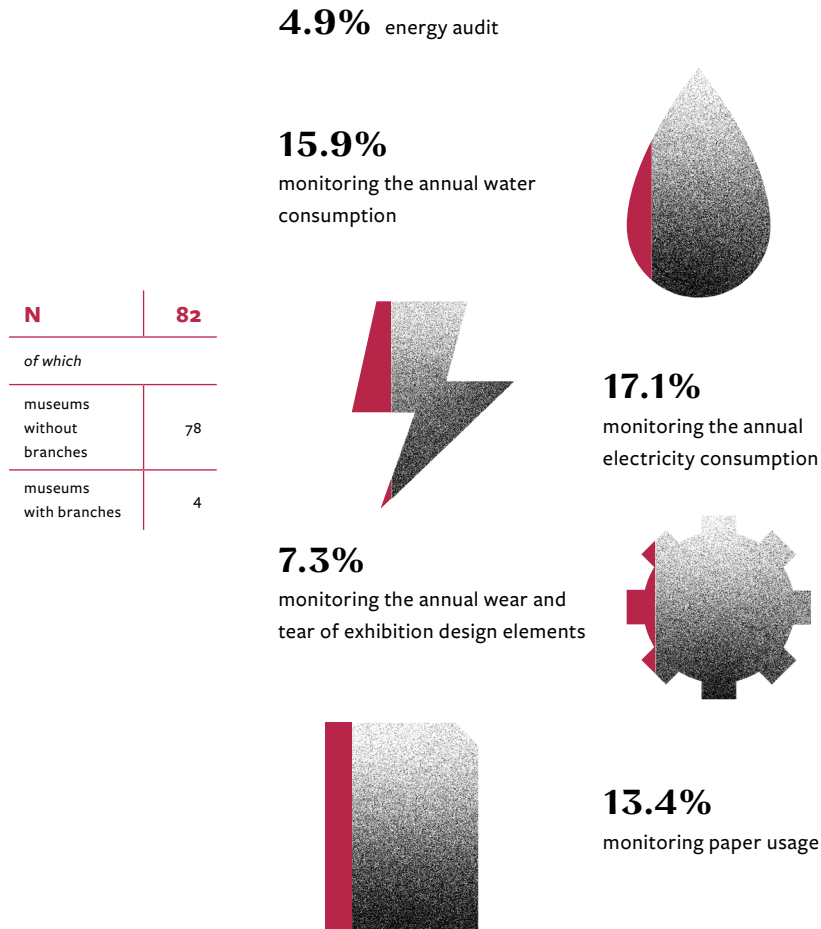


Figure 81. Museums that had a document on environmental impact minimisation (Green Strategy) at the end of the reporting period

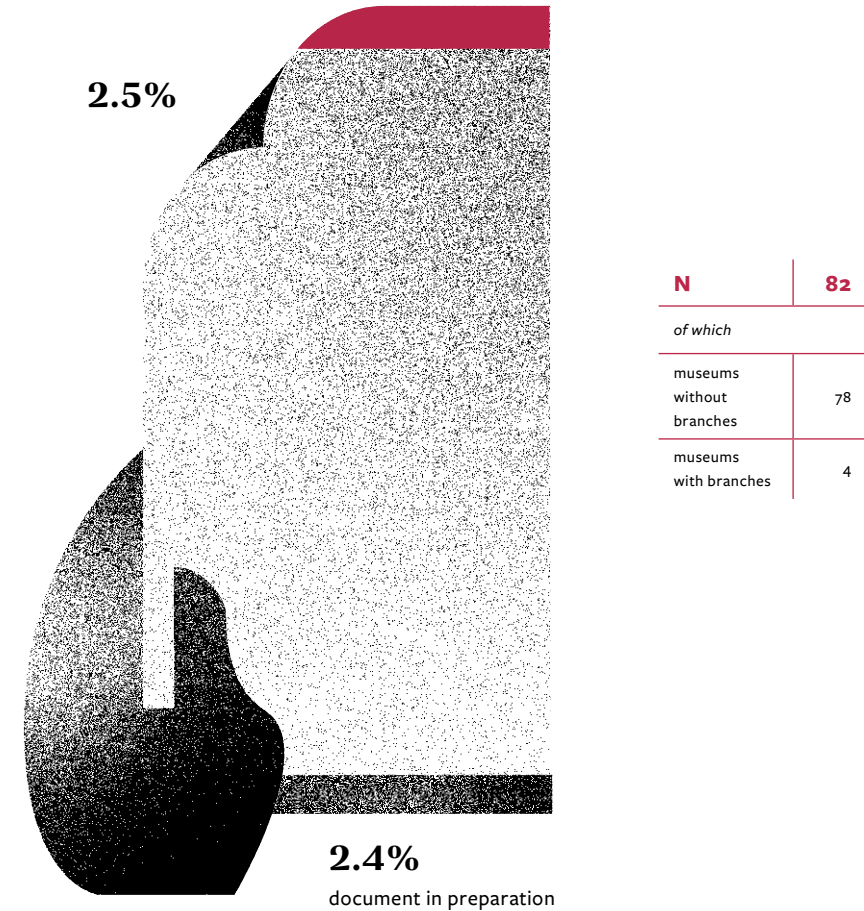
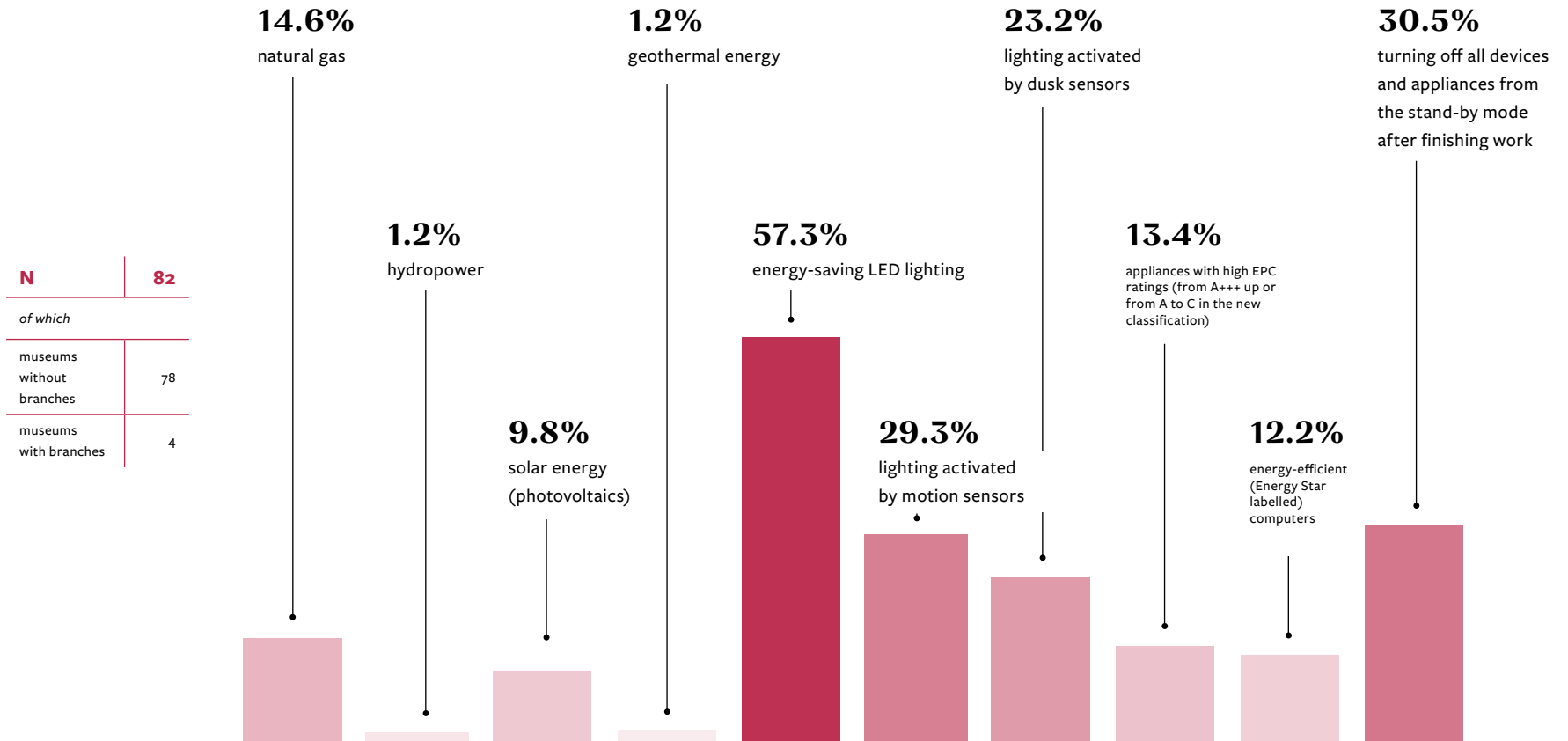
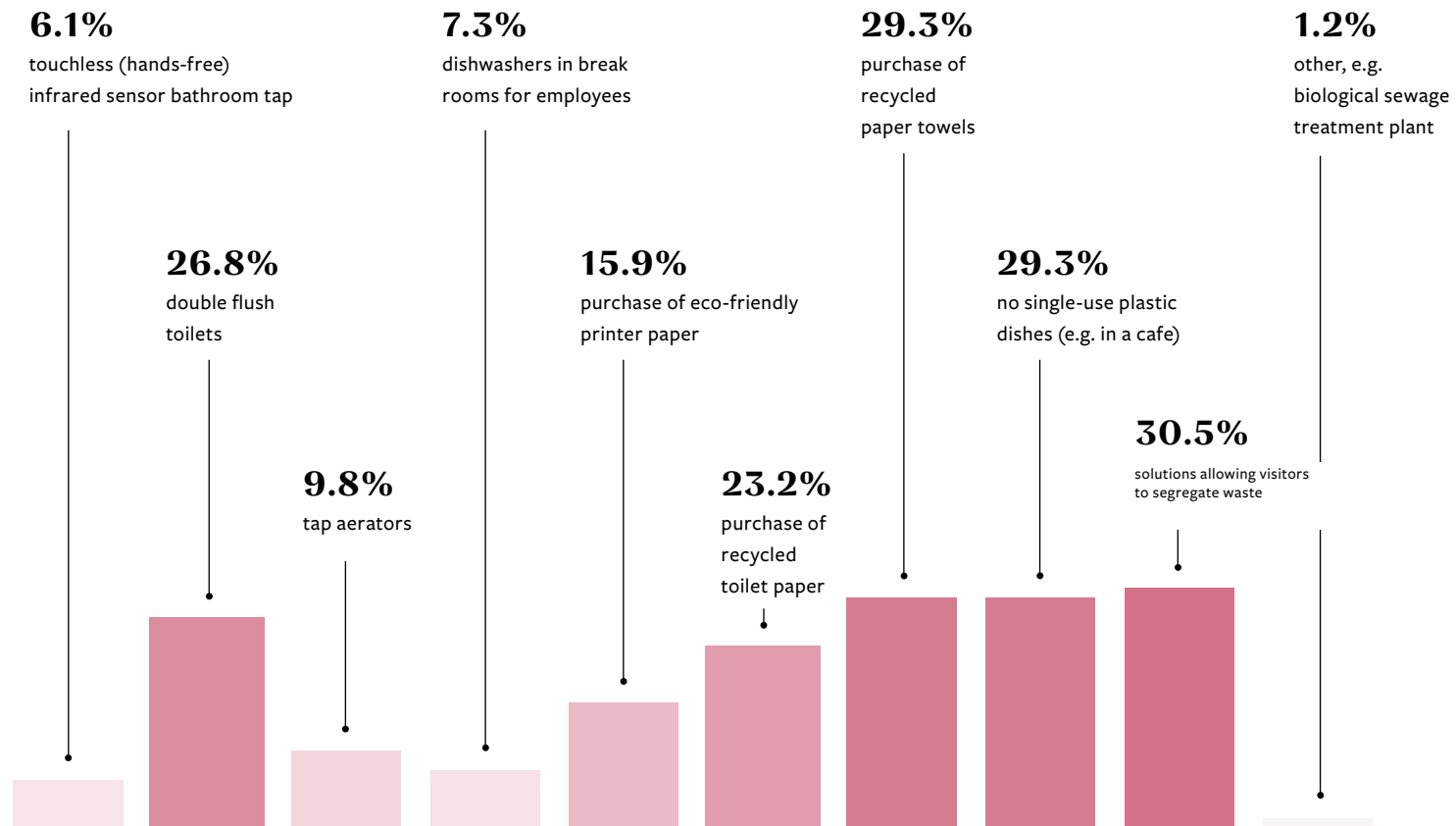


Figure 82. Methods implemented to reduce negative environmental impact (multiple choice)



N	82
<i>of which</i>	
museums without branches	78
museums with branches	4



1.4. ICT infrastructure and cybersecurity

1.4.1. Main conclusions

A total of 14.6% of the studied museums not listed as cultural institutions had their own server rooms which they used, for example, for data archiving (N = 82). This figure was four times lower than in the group of cultural institutions (54.3%).

Over 31% of the respondents made backup copies of their IT systems and data (N = 82), with half doing it between once a week and once a month and nearly 27% less often than once a month (N = 26).

The internet connection speed between 51 and 300 Mb/s was reported by 29.3%, below 50 Mb/s by 20.7% and over 300 Mb/s only by 14.6% of the respondents (N = 82).

Employees had remote access to the institution's resources and systems using VPN only in 20.7% of the museums in this group (compared to 45.7% of cultural institutions; N = 82).

The ICT security solutions most frequently applied by the museums included a basic firewall (31.7%) and antispam system (23.2%, N = 82).

Figure 83. Museums that had their own server rooms used, for example, for data archiving

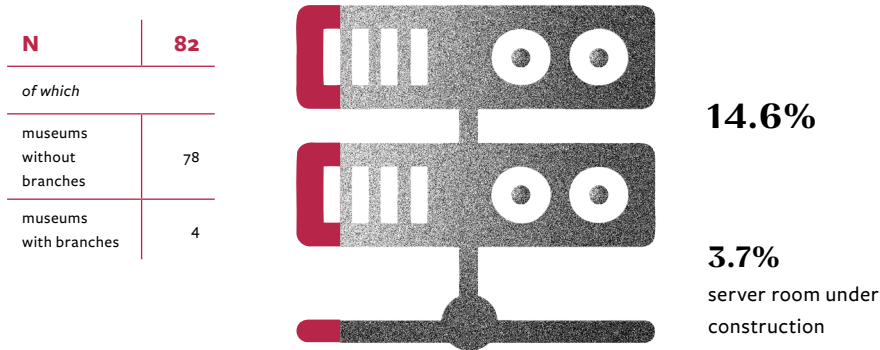


Figure 84. Museums that made regular backup copies of their IT systems and data

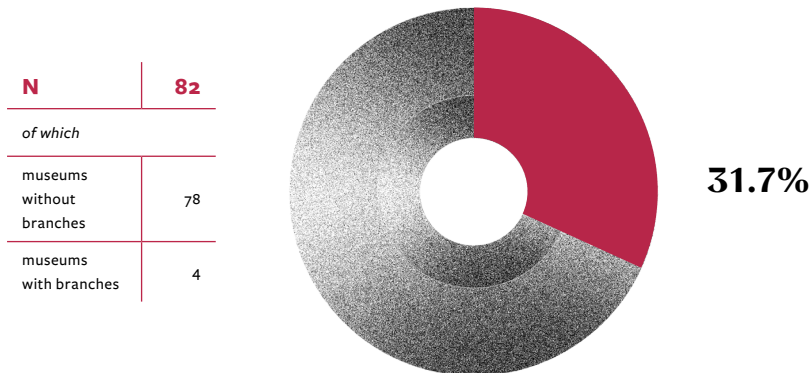


Figure 85. Frequency of making backup copies of IT systems and data

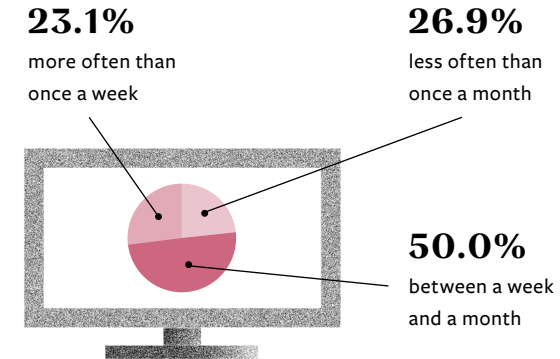


Figure 86. Museums that verified the possibility of system and data recovery from backup copies

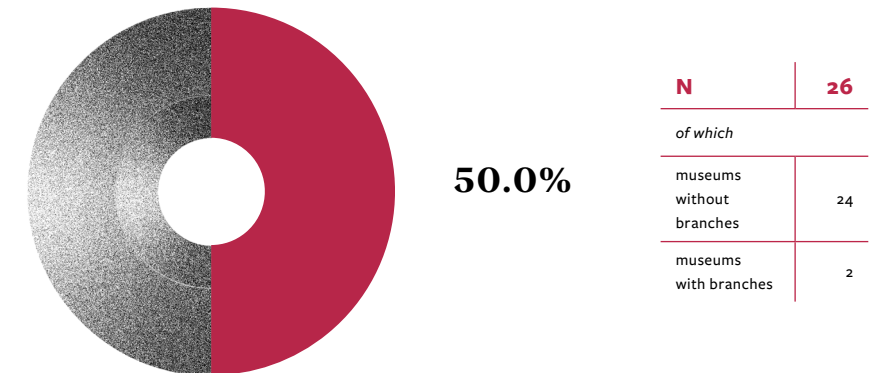


Figure 87. Museums that implemented business continuity and ICT security procedures

N	82
<i>of which</i>	
museums without branches	78
museums with branches	4



17.1%

Figure 88. Internet connection speeds available to museums

N	82
<i>of which</i>	
museums without branches	78
museums with branches	4



20.7%
up to 50 Mb/s

29.3%
51–300 Mb/s

14.6%
over 300 Mb/s

Figure 89. Museums where employees had remote access to the institution's resources and systems (using VPN)

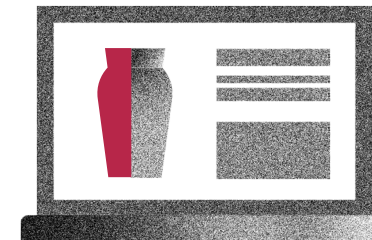
N	82
<i>of which</i>	
museums without branches	78
museums with branches	4



20.7%

Figure 90. Museums that met the technical conditions and provided ICT equipment to employees to facilitate remote work³¹

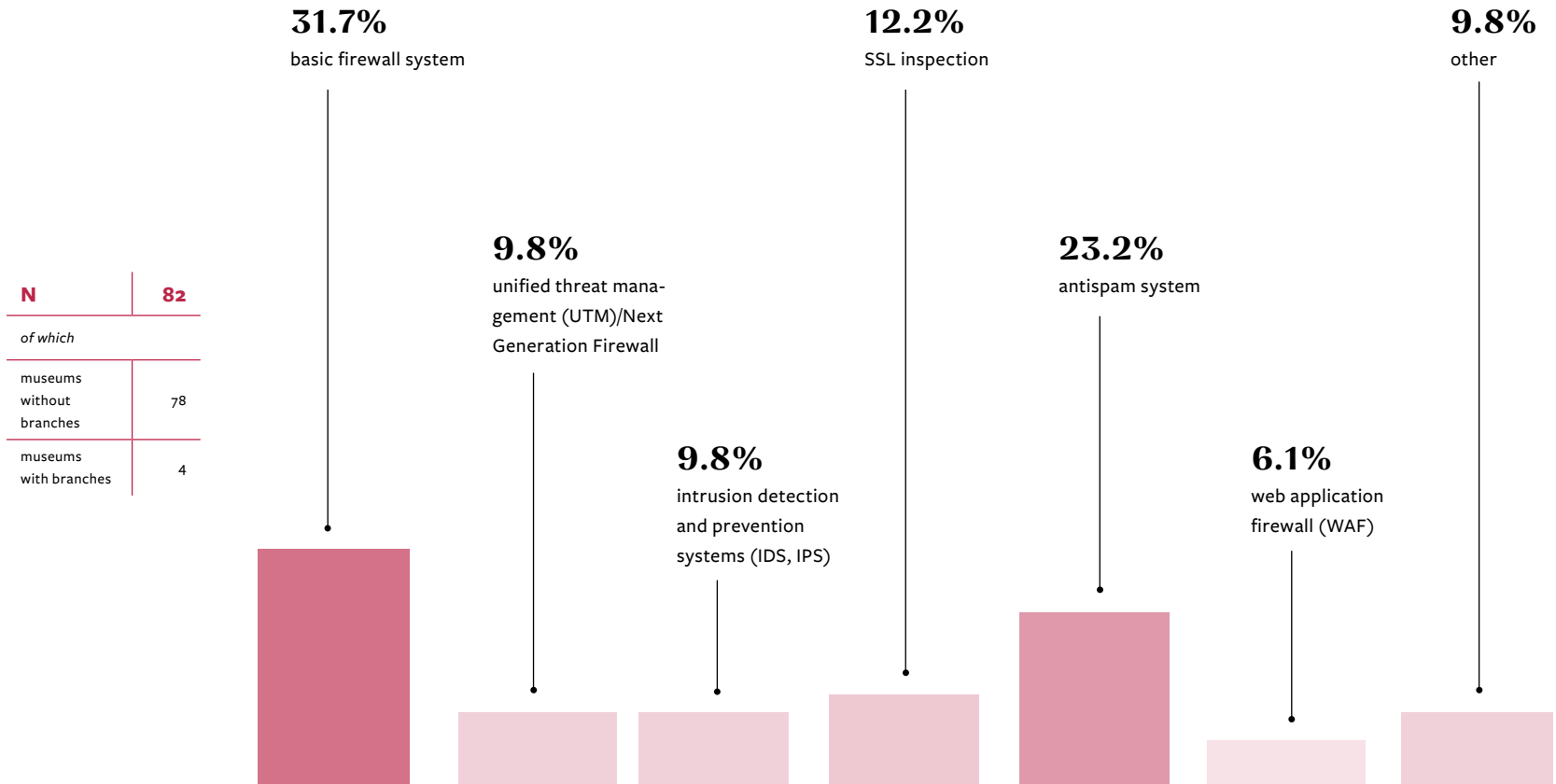
N	82
<i>of which</i>	
museums without branches	78
museums with branches	4

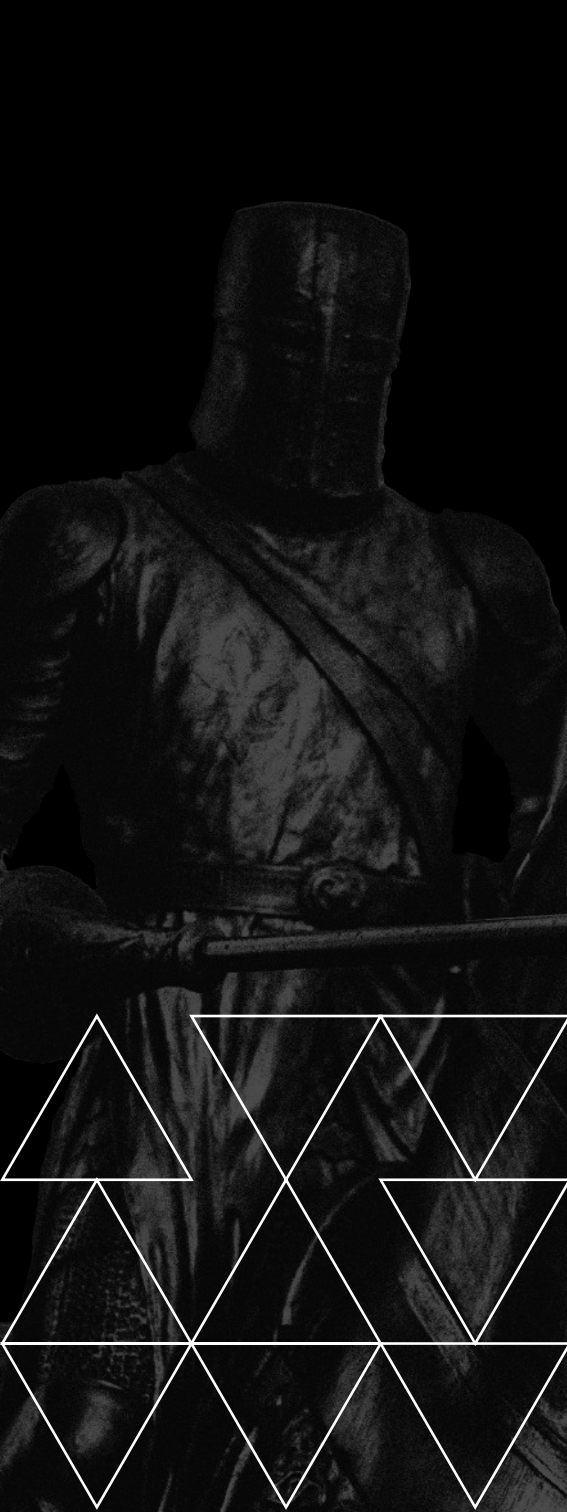


29.3%

³¹ Refers to remote or hybrid work, if applicable. If the remote/hybrid work option was not used, the museum was asked to define its technological capacity to switch to this mode of work rather than its organisational abilities.

Figure 91. ICT security technology used by museums (multiple choice)





TEXT AND DATA:

Antonina Hejwowska | NIM
Magdalena Lewicka | NIM
Anna Zabiegałowska-Sitek | NIM
Katarzyna Żmijewska | NIM

GRAPHIC DESIGN:

Key Visual: Anna Nowokuńska | NOWOKUŃSKA STUDIO
Graphic Design: Jakub Dmuchowski | NOWOKUŃSKA STUDIO

TRANSLATION INTO ENGLISH:

Małgorzata Sobczak | WORDLAB SOLUTIONS

**EDITING AND PROOF-READING
OF THE POLISH VERSION:**

Ewa Bazyl

If you are interested in using data from
the *Museum Statistics* project in your research
or business analysis, please contact us at:

statystyka@nim.gov.pl



National
Institute
for Museums

National Institute for Museums

ul. Topiel 12
00-342 Warsaw, Poland

WWW.NIM.GOV.PL



ISBN: 978-83-64889-62-2

WWW.STATYSTYKAMUZEOW.PL

