

**CASE STUDY //**

**HERIWELL - Cultural Heritage as a  
Source of Societal Well-being in  
European Regions**

MANN Case study (Italy)

Annex VII // June 2022

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**Coordination**

Manuela Samek Lodovici (Project manager), Istituto per la Ricerca Sociale (IT)

Cristina Vasilescu (Deputy project manager), Istituto per la Ricerca Sociale (IT)

**Author**

Erica Melloni (IRS), Ludovico Solima (AEC)

**Advisory group**

Project Support Team: Christin W. Krohn – Institute of Transport Economics (NO); Irene Hadjisavva-Adam – Ministry of Interior (CY); Paul Mahringer – Federal Monuments Authority of Austria (AT); Maciej Hofman – DG CULTURE, European Commission

Terje Nypan – ESPON Scientific Advisory Panel; Christine Vanhoutte – Flanders Heritage Agency (BE), external observer

**ESPON EGTC:** Zintis Hermansons (project expert), Caroline Clause (financial expert)

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Co-financed by the European Regional Development Fund

Inspire Policy Making with Territorial Evidence

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## Abbreviations

AT	Austria
BE	Belgium
BG	Bulgaria
CBA	Cost and Benefit Analysis
CCI	Cultural and Creative Industries
CCS	Cultural and Creative Sectors
CH	Cultural Heritage
CoE	Council of Europe
CPA	Cluster Principal Component Analysis
CY	Cyprus
CZ	Czechia
DCH	Digital cultural heritage
DE	Germany
DG EAC	Directorate-General for Education and Culture
DK	Denmark
EAFRD	European Agricultural and Rural Development Fund
EC	European Commission
ECoC	European Capitals of Culture
EE	Estonia
EGMUS	European group on museum statistics
ERDF	European Regional Development Fund
ESF	European Social Fund
ESIF	European Structural and Investment Funds
ESPON	European Territorial Observatory Network
ESPON	ESPON European Grouping of Territorial Cooperation
EGTC	
EU	European Union
ES	Spain
EU-SILC	European Union Statistics on Income and Living Conditions
ETC	European Territorial Cooperation
FI	Finland
FR	France
GDP	Gross domestic product
GR	Greece
HERIWELL	Short name for the ESPON project 'Cultural Heritage as a Source of Societal Well-being in European Regions'
HR	Croatia
HU	Hungary
ICH	Intangible Cultural Heritage
ICT	Information, Communication and Technology
IE	Ireland
IS	Iceland
IT	Italy
JPI	Joint Programming Initiative
LGBTQ	Lesbian, Gay, Bisexual, Transgender and Questioning (or queer)
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
LV	Latvia
MANN	National Archaeological Museum of Naples
MCH	Material Cultural Heritage
MS	Member States
MT	Malta
NEET	Not in Education, Employment or Training
NL	Netherlands
NO	Norway
NUTS	Nomenclature of Territorial Units for Statistics
OECD	Organisation for Economic Co-operation and Development
OP	Operational Programme
PL	Poland
PT	Portugal
RO	Romania
SDGs	Sustainable Development Goals

SE	Sweden
SI	Slovenia
SK	Slovakia
SWB	Societal Well-Being
TCH	Tangible Cultural Heritage
TO	Thematic Objective
ToC	Theory of Change
UCH	UNESCO Cultural Heritage
UIS	UNESCO Institute for Statistics
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UOE	UNESCO OECD Eurostat

## Executive Summary

The MANN case study focuses in particular on the outcomes of the strategy of digitisation of the Museum and its impact on societal wellbeing. Digital accessibility, together with physical, economic and cognitive accessibility is one of the goals of the first strategic plan 2016-19 of the Museum, yearly monitored, and recently updated (Mann's second strategic plan 2020-23). The MANN's mission outlines the expected contribution of the museum in terms of societal well-being: '*The mission of the museum therefore has the ultimate goal of **stimulating civic awareness** (...) making it **an active instrument for the society***'.

The Museum annual reports list the activities implemented, and the progresses towards a stronger accessibility. The available data refer mainly to the activities implemented and their outputs. Mann's data showcase the enlargement of the Museum's audience, both in terms of on-site visitors (at least, before the 2020 pandemic) and on-line followers. The broadening of the audience resulted into the grow of the ANN's reputation, measured by the increase in the Tripadvisor reviews, and rating.

Unfortunately, the Museum does not collect accurate information on its visitors, e.g. in terms of origin, gender, age or level of education; nor has it analyses the impact of its manifold initiatives, even though, many of them aim at leveraging social outcomes. The Museum undertaken a number of collaborations with both international and local partners, including local businesses, institutions and associations; it also promoted several initiatives targeting specific audiences, such as pupils; deaf or blind people. These collaboration turned into a densification of the MANN's network and, probably, into a strengthened recognition of the Museum's role, in terms of territorial development and community engagement.

The digital tools allows for a step further in the knowledge of Mann's virtual visitors and impact on social well-being. Social networks insights, and in particular the information provided by Facebook and Instagram, offer a more complete picture of the online Mann's followers, in particular in terms of gender, origin, and age, and the evolution of the audience in the years. Data provided by the Google Arts & Culture platform, where Mann is present since May 2020, consent to grasp the most visualised items from the online viewers.

Further insights about the effects of interacting with the Museum collections are possible thanks to the analysis of the reviews of the video-game 'Father and Son', issued in 2016 and downloaded by 4.5 millions people. The clusterisation of the texts of a group of reviews (in Italian and English languages) permit to identify different forms of impact on societal well-being: in terms of education (the gamers know more about the past), in terms of awareness about our common roots (thanks to the emotions aroused by the game), and in terms of appreciation and proud about Naples, the Museum and their historical treasures.

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<sup>1</sup> Museo Archeologico di Napoli, Piano strategico 2016-2019, author's translation.



## Introduction

The National Archaeological Museum of Naples (MANN – Museo Archeologico Nazionale di Napoli) is one of the 500 Italian national museums. Located in Naples, the city capital of the Campania Region in southern Italy, MANN is one of the world's oldest and most important archaeological museums. It is known for the richness and uniqueness of its heritage, and for its contribution to the European cultural panorama. The MANN is owned by the Ministry for Cultural Heritage and Activities, which has entrusted it with special autonomy since 2014. The museum hosts collections of Roman artefacts (Farnese collection), finds of the Vesuvian area (Pompeii collection), and an Egyptian collection. The entire collection consists of 250 000 finds and works, of which about 16 000 (including 700 statues, 550 frescoes, and 100 mosaics) are on display in the rooms of the museum open to the public. Two historical gardens are also been reopened to the public in 2016.

The museum hosts collections of Roman artefacts (Farnese collection), finds of the Vesuvian area (Pompeii collection), and an Egyptian collection. The entire collection consists of 250 000 finds and works, of which about 16 000 (including 700 statues, 550 frescoes and 100 mosaics) are on display in the rooms of the museum open to the public. Two historical gardens reopened to the public in 2016.

Starting from its first strategic plan (2016)<sup>2</sup>, the MANN started a policy aimed at disseminating knowledge from both local and global perspectives. The aim is to stimulate debate and civic awareness around our common roots, starting from the Egyptian history. This goal has been pursued with different streams of activities that included restoration works, networking and partnerships, and a strengthened accessibility with special attention to digitisation.

In detail, the MANN has aimed at strengthening the relationship with the local and global stakeholders. This involves the community surrounding the museum – places often characterised by situations of great social uneasiness – and minorities or vulnerable audiences, through special projects. The museum has a specific policy promoting the full accessibility of its collections, firstly for the residents but also for the wider community. The accessibility policy of MANN refers to:

- physical accessibility enhanced through specific interventions of restoration of the building and renovation of the exhibits, funded by the EU and other public institutions;
- economic accessibility strengthened through specific policies (e.g. free entrance on certain days, opening at night, and special passes);
- cognitive accessibility, activated through the social and institutional relations of the museum and bottom-up participation to monitor and develop the MANN's activities according to the community and users' needs.

Moreover, the digitisation strategy allowed MANN to engage one of the largest social network audiences in Italy among cultural institutions, and fostered innovative projects. One such project is a video game published by the museum, downloaded 4.5 million times in seven languages.

The paragraphs below detail the MANN strategy and its preliminary results.

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<sup>2</sup> Museo Archeologico di Napoli, [Piano strategico 2016-2019](#).

# 1 The context: territorial, societal and cultural heritage features

The MANN is located in Naples, the capital city of Campania, a Southern Italian region of 5.7 million inhabitants. The socio-economic conditions of the Campania Region, as well as the Nuts 3 area where the museum is located, are often troublesome. The related EUROSTAT indicators lie far below the Italian and EU-28 average. The municipal area, and even more the Region, are characterised by low levels of GDP per capita: 19,500 € at the local level, compared to 29,700 at the Italian level. The people at risks of poverty or social exclusion in the region are the 49.7%, almost the double of the Italian percentage (25.6%) and well above EU-28 percentage (21.4%). The percentage of severely materially deprived people at regional level is 16.6%, three times more the EU-28 average (5.5%). Other particularly worrying indicators are: the high percentage of early leavers from education and training (17.3% at regional level, compared to 13.1% at the Italian and 10.3% at EU-28 level), the low employment rate (40.9% at regional level, compared to 58.1% at the Italian and 69.2% at EU-28 level) coupled with a very relevant gender employment gap (24.6 at regional level compared to 18.3 at Italian level and 10 at the EU level), and a peak among the youth (the rate of NEETs aged 15-29 equals to 34.5% at regional level, compared to 23.3% at the Italian and 12.5% at EU-28 level).

**Table 1.1. Main socio-economic indicators of the local and regional area, compared with the National (Italian) and EU-28 data**

	Local		Regional		National		EU-28	
	2020	Δ% 2014	2020	Δ% 2014	2020	Δ% 2014	2020	Δ% 2014
Total population	3,034,410	-3.0	5,712,143	-2.7	59,641,488	-1.9	513,093,556	1.2
Early leavers from education and training (%)	n.a.	n.a.	17.3	-2.4	13.1	-1.9	10.3	-0.7
Tertiary educational enrolment (number of students)	n.a.	n.a.	227,318	14.4	1,937,761	4.5	18,438,720	n.a.
Adult (25-64) participation rate in education and training (%)	n.a.	n.a.	5.3	-0.5	7.2	-0.9	11.3	0.5
Net migration rate (per 1 000 persons)	-4.3	-0.6	-3.7	-2.4	0.7	-1.1	3.2	1.1
Gross domestic product (GDP) at current market prices	19,500	8,9	18,900	9,2	29,700	10,8	31,200*	17,3
Employment rate (%)	n.a.	n.a.	40.9	1.7	58.1	2.4	69.2	4.4
Unemployment rate (%)	n.a.	n.a.	18.3	-3.7	9.4	-3.5	6.4	-4.0
Young people neither in employment nor in education and training (age 15-29) - NEET rate (%)	n.a.	n.a.	34.5	-1.8	23.3	-2.9	12.5	-2.9
Gender employment gap (M-F)	n.a.	n.a.	24.6	0.9	18.2	0.3	10.3	-0.2
People at risk of poverty or social exclusion (%)	n.a.	n.a.	49.7	0.7	25.6	-2.7	21.4	-3.0
Severely materially deprived people (%)	n.a.	n.a.	16.6	-2.1	7.4	-4.2	5.5	-3.4
Life expectancy at birth (years)	n.a.	n.a.	82.1	+0.6y	82.4	-0.8y	81.0	+0.1y
Subjective health status (good + very good)	n.a.	n.a.	74.8	n.a.	72.9	4.9	69.3	1.8
Volunteering	n.a.	n.a.	13.1	n.a.	16.3	n.a.	34.1*	n.a.
Burdensome cost of housing	n.a.	n.a.	60,4	n.a.	38,4	-21,7	28,2	-8,5
Overcrowding	n.a.	n.a.	35,3	n.a.	28,3	1,1	15,6	-1,1
Crime level	n.a.	n.a.	19,8	n.a.	9,4	-8,6	12,5	-1,5
Internet at home	n.a.	n.a.	85	19	88	15	90	9

Source: Elaboration on EUROSTAT data. NUTS3 level: ITF33 – Napoli. NUTS2 level: ITF3 - Campania \* EU-27. Cells in yellow: last available data 2019. Cells in orange: last available data 2018.

The EU regional policy includes the Campania Region of 5.7 million inhabitants, among the group of less developed regions, i.e. those with a GDP per capita below 75 % of the EU-27 average (in Italy together with Basilicata, Calabria, Sicily and Puglia).

The negative socio-economic picture is balanced by the Region's cultural and natural heritage of exceptional value. The region hosts 10 UNESCO World Heritage Sites, including the historic centre of the capital city, Naples. According to the motivation for including the historic centre of Naples in the World heritage list, 'the city's setting on the Bay of Naples gives it an Outstanding Universal Value which has had a profound influence in many parts of Europe and beyond'<sup>3</sup>. The city hosts one of the world's most ancient universities, the Federico II founded in 1224, and beautiful buildings and churches, museums and traditions. Among Naples' main features, the food culture is also worth mentioning. The 'Art of Pizzaiuolo' has been inscribed in 2017 among the UNESCO Representative List of the Intangible Cultural Heritage of Humanity<sup>4</sup>.

The EU regional policy includes the Campania Region of 5.7 million inhabitants among the group of less developed regions. These include regions with a GDP per capita below 75 % of the EU-27 average (in Italy: Basilicata, Calabria, Sicily and Puglia). The region is the beneficiary of significant amounts of EU funding, which includes interventions dedicated to the restoration and valorisation of its cultural heritage. Several major projects have been implemented or are currently ongoing: among those projects is the restoration and valorisation of the MANN exhibits, funded by the Cohesion Fund 2014–20 and amounting to EUR 19 million. The intervention is expected to end in 2023.

**Table 1.2. EU funding and projects in the cultural sector, Campania Region, periods 2007–13 and 2014–20**

2007–13		2014–20		Total	
EU funding (total €)	Projects (No)	EU funding (total €)	Projects (No)	EU funding (total €)	Projects (No)
526 634 989.8	1 658	267 022 697.3	388	793 657 687.2	2 046

Source: Open Cohesion

**Table 1.3. MANN's projects co-funded by the EU**

Projects	Programme	Public funding*
Restoration of the new branch in VIA SANTA TERESA DEGLI SCALZI, 2 Naples and new services	ERDF 2014/2020	3 026 423.78
Restoration and finalisation of the 'new branch' of the museum	ESIF programming period 2014/2020 (ERDF)	4 413 625.5
Works for renovating the exhibits: ground floor, west area	ESIF programming period 2014/2020 (ERDF)	5 342 957.87
Restoration of the MANN roofs	ESIF programming period 2014/2020 (ERDF)	2 528 850.58
Works for the building's energy efficiency	Action Plan Cohesion 2014/2020	3 297 417.98
Restoration and valorisation of the exhibit areas	Development and Cohesion Fund (National fund) 2014/2020	19 750 000.00
Valorisation of the 'Medagliere'	ESIF programming period 2014/2020 (ERDF)	1 500 000.00
<b>Total public funding</b>		<b>39 859 275.71</b>

Source: Open Cohesion. \*EU and other national/regional/municipal funding.

As for digitisation, the museum also implemented two main projects for innovating visitors' accessibility experience, and for the digitisation of its archives. The funding was mainly derived from the national operative programme 'Culture and Development' – co-funded by the ERDF – and amounted to EUR 4 million.

<sup>3</sup> [Historic Centre of Naples - UNESCO World Heritage Centre](#)

<sup>4</sup> [Art of Neapolitan 'Pizzaiuolo' - intangible heritage - Culture Sector - UNESCO](#)

The digitisation policy of the museum is also based on other, overarching policies set by the Italian government. Digitisation is the mandate of the Italian Agency for Digitisation (AGID), which prompts the periodic plans and guidelines for the digitisation of the Public Administration<sup>5</sup>. The AGID strategy is also at the core of the 2021–27 Italian National Recovery and Resilience Plan (PNRR)<sup>6</sup>. This is devoting EUR 9.75 billion to digitisation and security of public administration, and EUR 6.68 billion to the topic of 'tourism and culture 4.0'. From this, 1.1 is dedicated to 'cultural heritage for the next generations' and 0.46 to the cultural and creative industry 4.0.

With specific reference to the cultural goods sector, the Ministry for Cultural Heritage and Activities is undertaking<sup>7</sup> a national plan for the digitisation of cultural heritage. This includes a census of the digitisation of cultural goods<sup>8</sup>. The ministry also updates, every three years, a plan<sup>9</sup> for the digitisation and innovation of the museums; the current plan states several goals, among them the following. Firstly, to improve the capacity of all museums belonging to the National Museum System to manage their assets, by increasing both the effectiveness and efficiency of the protection processes. Also, in the promotion of new digital modes to represent the good and facilitate access to and distribution of the cultural goods. Secondly, to improve the ability of museums to propose cultural heritage to their interlocutors in terms of exhibition and narration of the works, and in terms of marketing of related or additional services. Thirdly, having museums create open spaces for sharing with visitors, scholars, and other national and international museums, enabling new forms of exchange and communication.

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<sup>5</sup> Agenzia Italia Digitale, [Piano triennale per l'informatica nella Pubblica Amministrazione](#) 2020–22.

<sup>6</sup> Governo Italiano, [Piano nazionale ripresa e resilienza](#), May 2021.

<sup>7</sup> According to the Ministry decree 17 January 2017.

<sup>8</sup> [Il censimento | pnd.beniculturali.it](#).

<sup>9</sup> [Piano-Triennale-per-la-Digitalizzazione-e-l'Innovazione-dei-Musei.pdf \(beniculturali.it\)](#)

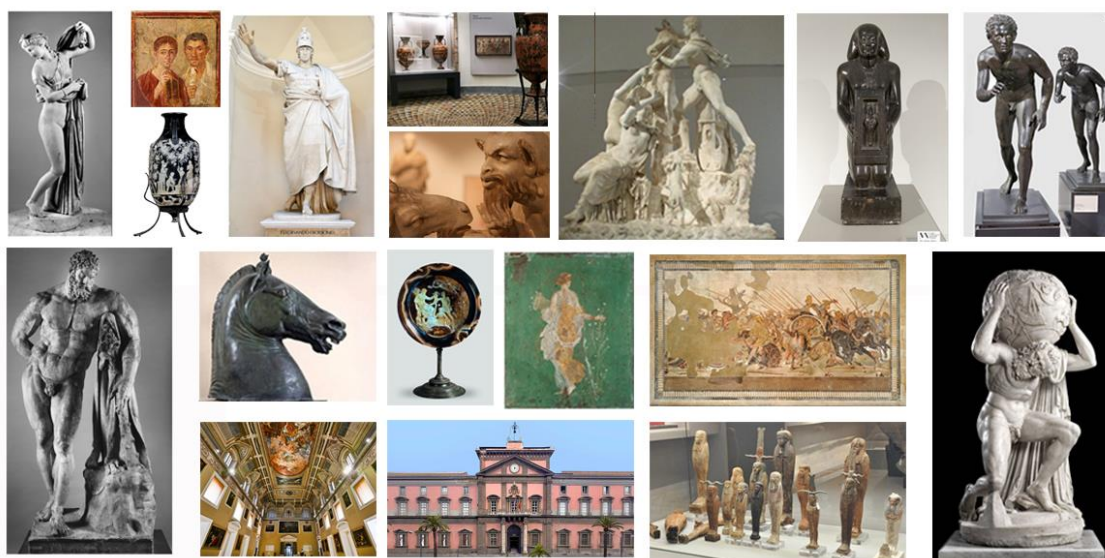
## 2 The analysed case: characteristics and policy features

### 2.1 The MANN's history

The origin and formation of the collections intertwines with the history of Italy, starting with the figure of Charles III of Bourbon, on the throne of the Kingdom of Naples from 1734, and to his cultural policy. The king promoted the exploration of the Vesuvian cities<sup>10</sup> buried by the eruption of the volcano in AD 79. He oversaw the construction of a Farnesian museum in the city, transferring part of the rich collection inherited from his mother Elisabetta Farnese from the residences of Rome and Parma. Ferdinando IV, Charles III's son, reunited the two collections (the Farnese Collection and the Vesuvian) in the *Palazzo degli Studi*, the building that still hosts the museum today. From 1777 the building underwent a long phase of renovation and extension, and in the decade of French domination (1806–1815) the first exhibits were made available. The museum assumed the name Real Bourbon Museum with the return of the Bourbons to Naples in 1816.

The museum was entrusted with the 'national' label in 1861, the same year of the reunification of Italy in a sole nation. During its long history, the museum hosted different types of collections (including the Capodimonte ceramic collection), plus various institutes and laboratories, that have been progressively relocated. The museum gained its current appearance as an archaeological museum at the end of the 1950s. Other than the archaeological collection, the MANN hosts a restoration laboratory, a library and the historical archives. In 2005, a new Metro station – Museo – was opened below the MANN, exhibiting the archaeological finds found during the excavations of the underground, and has become part of the museum's heritage.

Figure 2.1. Pictures from the MANN collection



Source: MANN website

### 2.2 Policy features

The MANN has 15 978 m<sup>2</sup> of exhibits open to the public and over 250 000 cultural objects and works. According to the Report of Activity 2019<sup>11</sup>, in the same year the museum welcomed over 670 000 visitors, nearly double over four years (visitors numbers were 370 000 in 2015). The overall financial resources of

<sup>10</sup> The exploration began in 1738 in Herculaneum, and in 1748 in Pompeii.

<sup>11</sup> Museo Archeologico di Napoli, [Rapporto annuale 2019](#).

the museum amounted to EUR 11 million, mostly derived from the state and the Campania Region. The financial resources from the selling of tickets in 2019 amounted to EUR 4.8 million.

The organisation of the museum is headed by a director (since 2016, Paolo Giulierini), a board of directors and a scientific committee. The structure comprises 147 employees, split into two branches: scientific staff and management. Several offices directly report to the director: the internal and external press office, the international relations office, the marketing and fundraising office, the trade union relations office and the public relations office.

Since 2016, the MANN has undertaken a profound revision of its strategy, outlined in the **first strategic plan of the museum** dated 2016. The goal is to fulfil its **renewed local and global vision**: 'local, with the goal of strengthening its role as an actor of the cultural life of the city and of opening to its inhabitants; and global, with the goal of making the history of its collection and of Naples known to the world'.

The MANN's mission outlines the expected contribution of the museum in terms of societal well-being. According to MANN:

*The purpose of the National Archaeological Museum of Naples is to **develop and disseminate knowledge of history and of people's cultures through custody, study, interpretation and enhancement of this exceptional collection. For this reason, the museum caters [for] visitors and users of all ages, income and backgrounds, designing **visiting experiences and innovative methods of fulfilment that stimulate the understanding of our origins and the awareness of our common roots.** The mission of the museum therefore has the ultimate goal of **stimulating civic awareness** by promoting the MANN not only as a place of conservation, but also as a space for meeting, debate and of reflection on contemporaneity, through the masterful comparison of history, making it **an active instrument for the society.** All this considering, not cultural assets, but man, as the heritage's central element, in constant dialogue with the context<sup>12</sup>.***

The strategic plan 2020–23, issued during the Covid-19 pandemic, renews the commitment to openness of the museum. It states that the MANN image and role has to change, from an 'ivory tower to the square of the future ... **the new agora of the dialogue**<sup>13</sup>.

The fulfilment of MANN's vision and mission is based on six fundamental **values**: accessibility, observation, listening, connectivity, transparency and sustainability. With specific regard to the first of them, accessibility is interpreted as physical, economic, cognitive and digital.

**Physical accessibility** has been enhanced through a range of interventions of restoration of the building and renovation of the exhibits. Funded by the EU and other public institutions (see Table 2.3), these projects have more than doubled the exhibits area. According to the 2020–23 strategic plan, the MANN aims to make parts of its spaces more accessible to the citizens' use and open to socialisation. Such spaces include the gardens, the atrium, the cafeteria and the restaurant, and other spaces to be adapted to this end, to allow the people to consider the museum as a common good.

**Economic accessibility** includes free entrance on specific days (one Sunday each month, according to a national initiative promoted by the ministry, and on other days) and openings at night (the museum is open until 11 p.m. on specific days, with special events and reduced prices). The full ticket price is about €10; special ticketing is available to tourists through the Campania regional 'Artecard' (a pass to visit 80 cultural sites in the region). In 2018 the museum launched a special yearly pass, the OpenMANN card (€12), dedicated to the people living in the surroundings of the museum. Free ticketing accounts for 50 % of the total visitors. The museum also promoted the quality label 'MANN's friend' awarded to the shops guaranteeing high standards and mutual promotion, to ensure an integrated offer for the growing numbers of visitors to the museum.

<sup>12</sup> Museo Archeologico di Napoli, Piano strategico 2016-2019, author's translation.

<sup>13</sup> Museo Archeologico di Napoli, [Piano strategico 2020-23](#), p. 8, author's translation.



Figure 2.2. How MANN defines the concept of accessibility



Source: HERIWELL Consortium based on MANN Strategic Plan

**Cognitive accessibility** aims at strengthening the social and institutional relations of the museum, and the bottom-up participation. This allows the monitoring and developing of the MANN's activities according to the community and users' needs. Attention is paid to the *extra moenia* social impact of the museum, with particular regard to the MANN's neighbourhoods such as Forcella and Sanità. These areas are characterised by social uneasiness, so this fosters occasions of socialisation and economic relief for their inhabitants to access culture, and support to people with disabilities<sup>14</sup>.

The education office of MANN has launched various projects targeting specific audiences. Among them, in 2018 it promoted the project '*Discover Naples from the Museum*', targeting 700 students at risk of social exclusion. In 2019 it started the triennial project '*Caterina*' (acronym for *Costruire e Animare i Territori Educativi*) to fight the problem of *educational poverty*, thanks to a range of integrated actions promoted by the public and private institutions. It was dedicated to 170 children and youngsters suffering economic and social vulnerability. The 'MANN4Kids' initiative organises 'laboratories for babies' (3–4 years) and for children (5–12 years) and their families. It has also developed educational videos for YouTube, and co-produced comics centred on the archaeological works, such as in partnership with the Italian Mickey Mouse magazine ('Topolino'). The project '*The Accessible Museum*', funded by the National Operational Programme Culture, has been implemented<sup>15</sup>. In 2019 the project focused on people with visual challenges through the production of 3D copies of the museum's artworks, and explanations in braille language.

**Digitisation** is a pivotal strategy for increasing the MANN's accessibility. Even though the digitisation strategy is quite recent in the museum's history, it is considered a way of contributing to the spread of knowledge for visitors and users. The MANN has strengthened the Wi-Fi connectivity available to the museum's visitors and developed a range of different tools. These include a revised website, a new strategy of presence on social media and more innovative tools. The museum is present on Facebook, Instagram, Twitter and YouTube. For YouTube, MANN has its own channel – 'MANNTV' – with 265 videos posted and

<sup>14</sup> Museo Archeologico di Napoli, [Piano strategico 2020-23](#), p. 11, author's translation.

<sup>15</sup> The project entailed several actions, such as 'SoStare al MANN', created by the FoQus Foundation, for the development of mediation supports for people with autism spectrum disorders; 'Through the eyes of others', curated by Progetto Museo for the creation of mediation supports specifically designed for the Chinese community, together with members of the same (pupils of some classes and students of the Academy of Fine Arts in Naples); 'Antico Presente', a cycle of five short films focusing on five works by MANN, in five languages, winner of the Aquileia Archaeological Film Festival (2020); theatrical transposition of the video game 'Father and Son', set in the halls of the museum and created by Teatri in Gestazione; tactile tour of the museum with modeling and printing of about 50 museum exhibits, for visually impaired and blind visitors as well as for use in educational workshops for children, managed by the Museum's Educational Section; explanatory films of the Alexander Mosaic, with holographic narration through a 3D screen; comic book set in the museum, with inserts in Augmented Reality (the only project still being completed).

51 000 views in 2018. In 2017, the museum, in cooperation with the association Tuomuseo<sup>16</sup>, developed an app called 'Father and Son'. This is a video game available in 10 languages, including Chinese and the Neapolitan dialect, which has so far achieved 4.5 million downloads and over 30 000 reviews. The geography of downloads also shows how this tool broadened the audience of the museum, as it has been downloaded in 90 countries around the world. Within the current strategic plan (2020–23), the MANN is also undertaking a strategy of digitisation of its own collections, in line with the national plans for digitisation. The MANN also participated in the launch of the platform Google Arts and Culture, sharing more than 800 images from its collections with explanatory captions, twelve stories and seven virtual exhibits<sup>17</sup>. Over 45 000 people viewed this in the period May 2020–April 2021. Another important digitisation project is Obvia (Out of Boundaries Viral Art Dissemination), developed since 2016 in partnership with the University Federico II of Naples. The first phase of the project entailed the production of contents to be disseminated in the major digital and physical vectors, such as the national railway, the Metro and the harbour. The second phase aimed at promoting and managing a network, with the actors managing the cultural goods in a bottom-up exercise. The network created is called ExtraMANN, and includes 30 businesses with whom the museum promotes various initiatives and offers discounts. The third project line aims at analysing the impact of the communication strategy undertaken.

According to the 2020–23 strategic plan, **the MANN's dream is to become a completely accessible place, an ecological institute offering opportunities and cultural references to the people**, in particular for the youngsters, a place for technologically advanced research and, only at the end, a 'cultural cathedral'.

Figure 2.3. Facts and figures of the MANN in the period 2016–19



Source: MANN data

<sup>16</sup> [Associazione Culturale Tuo Museo](#)

<sup>17</sup> [Museo Archeologico Nazionale di Napoli, Napoli, Italia — Google Arts & Culture](#)



## 3 Results achieved: the contribution to societal well-being

### 3.1 The growth of MANN's visitors and followers, and reputation

According to the MANN 2019 Report of Activity<sup>18</sup>, various results have been achieved since the start of the first strategic plan. First of all, the exhibition area more than doubled, passing from 6 500 m<sup>2</sup> open to the public in 2016, to 15 978 in 2019.

**Table 3.1. The growth of MANN's exhibits area**

Exhibits area	2016	2019
Square metres open to the public	6 500	15 978

Source: Museo Archeologico Nazionale di Napoli, Activity Report 2019.

The audience of the MANN has grown, both in terms of physical visitors and social media engagement (Table 2.3).

Before Covid-19, the MANN registered a peak of 670 000 visitors – 200 000 more than in 2014. The revenues from ticketing also increased, from EUR 2 million in 2016 to EUR 4.8 million in 2019. About 50 % of the total visitors in 2019 benefited from discounted tariffs (91%) or entered free of charge (9%).

According to a survey prompted by the museum, Italian visitors are one-third of the MANN's total visitors, followed by those from France (27 %), the USA (14 %), the UK (12 %) and Germany (13 %). Half of the Italian visitors come from the province of Naples (44 %), followed by tourists from Rome (25 %), Milan (18 %) and Turin (9%).

**Table 3.2. The growth of MANN's visitor numbers and ticketing revenues**

	2016	2017	2018	2019
Ticketing revenues (euro)	1 973 180	2 965 940	3 451 053	4 789 692
Visitors	452 431	529 799	616 878	670 594*

\* 50 % entered with discounted tickets, or free of charge. Source: Museo Archeologico Nazionale di Napoli, Activity Report 2019.

An analysis on the online activity of museums was prompted by the Italian Ministry of Cultural Goods and undertaken by the Politecnico di Milano. According to this, MANN is one of the top performing museums in terms of online engagement.

The social network audience grew dramatically (Table 2.3 below). The number of followers on MANN's Facebook page passed from 10 000 in 2016 to 62 000 in 2021; Instagram reached 76 000 followers and the reviews on Google passed from 2 600 to 18 000. The reviews of the museum also increased, passing from 2600 in 2016 to 18 000 on Google, and from 3400 to 9000 on TripAdvisor. The reputation of the museum also increased: the growing reputation is demonstrated by the increase in the percentage of five-star reviews on the total, which passed from 18 % to 61 %.

**Table 3.3. The growth of MANN's visitors and web audience**

	Platform	2016	2019	2021
	Visitors	452 000	670 594	-
	Website (visits)	31 830	392 000	N.A.
Social media	Facebook (followers)	10 000	46 000	62 130**
	Twitter (followers)	2000	8761	9752**
	Instagram (followers)	9000	63 000	76 000**
	YouTube (views)	N.A.	12 891	N.A.

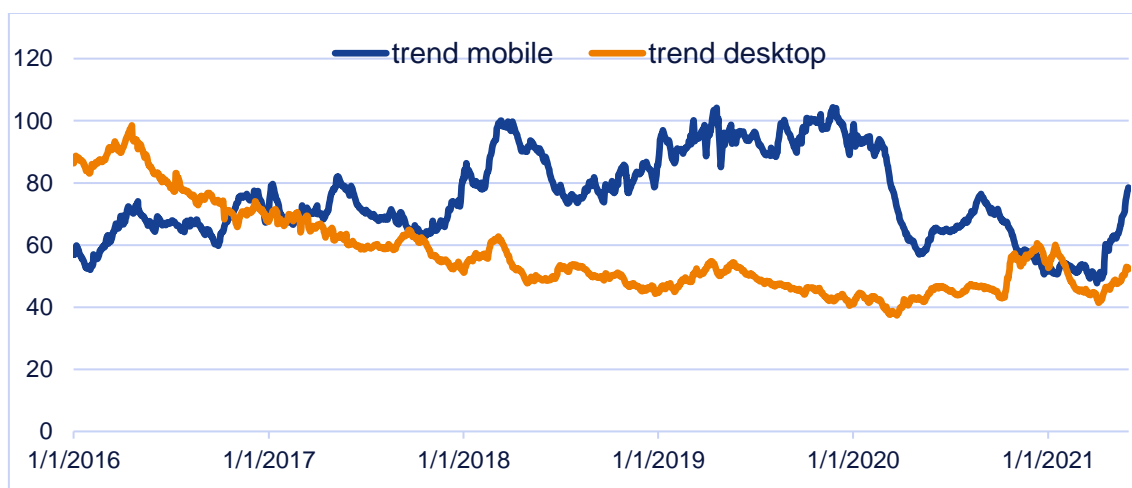
<sup>18</sup> Museo Archeologico Nazionale di Napoli, [Rapporto di attività 2019](#).

	Platform	2016	2019	2021
	Google (reviews)	2656	17 836	18 515**
	TripAdvisor reviews (Five-star reviews)	3400 (613–18 %)	8879 (5,436–61 %)	8925 (5,472–61.3 %)

Source: Museo Archeologico Nazionale di Napoli, Rapporto di attività 2019. \*\* April 2021.

Further information can be derived by the analysis of the volume of daily hits on the Italian Wikipedia page<sup>19</sup> about the MANN. According to data, the number of hits on the Wikipedia page via mobile phones decreased severely during periods of restrictions due to Covid-19 (end of February 2020, autumn 2020). This figure grew again once the restrictions were ended. The Wikipedia mobile trends allow us to grasp the opportunity to use these data as a proxy of the accessibility to cultural heritage resources, when primary data are lacking.

**Figure 3.1. Daily access to the MANN's page on Wikipedia: desktop and mobile trends, 2016–19**



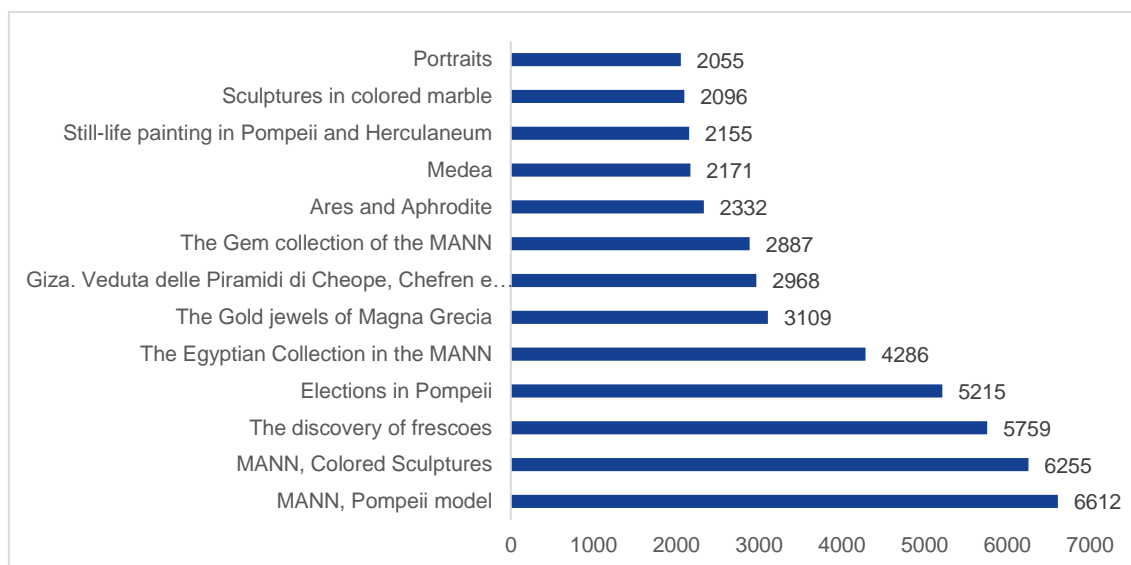
Source: Author's elaboration<sup>20</sup> on Wikipedia data on the period 2016–2021. Seasonally adjusted data.

Thanks to the cooperation with the Google Cultural Institute, starting from May 2020 the MANN made available more than 700 high-resolution images on the Google Arts & Culture platform. So far, there have been 45 657 viewers of the MANN's resources, coming from 161 countries. Five of the top ten countries of the viewers are located in North America (USA and Canada) or South America (Brazil and Mexico).

In the same period, the total views have been 252 053, with an average of 21 000 views per month. The most viewed works (> 2000 views in the period) are represented in the following figure. The Google Arts & Culture data thus provide new detailed information on the cultural heritage works that catch more interest from visitors. This could be used as a proxy for the educational impact of the works made available through the digital resources (i.e. **the digital resources enhance the opportunity for people, all around the world, to improve their knowledge about the past**).

<sup>19</sup> <https://it.wikipedia.org/wiki/MANN>

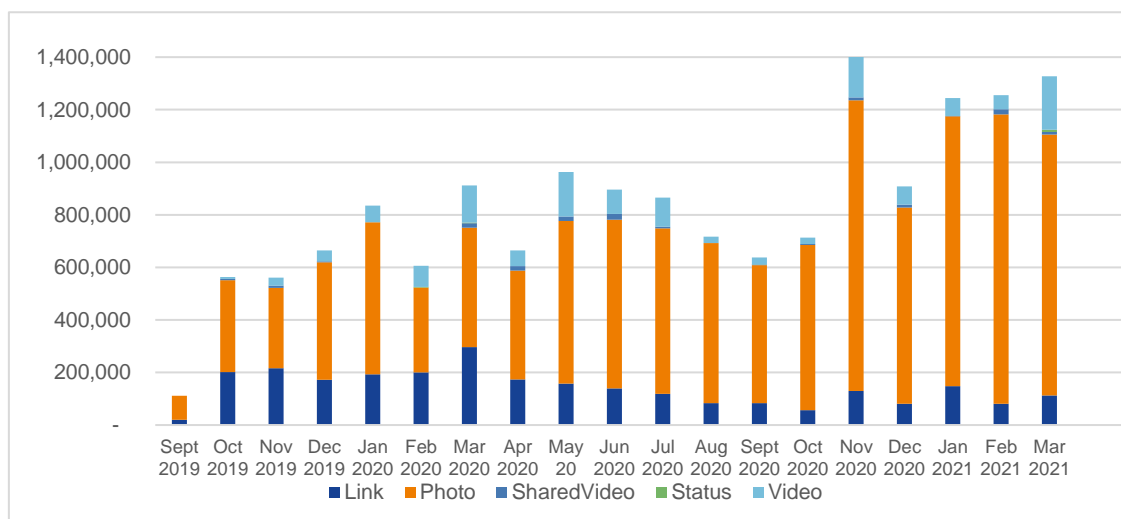
<sup>20</sup> Elaborations carried out by Roberto Iannacone.

**Figure 3.2. Most viewed MANN's resources on Google Arts & Culture**

Source: Author's elaboration on Google Arts&Culture data

### 3.2 Gender, origin and age of the MANN's audience: results from the analysis of the social networks insights

Facebook provides for different information about the number, gender and origin of the followers<sup>21</sup>. The 2 700 posts on MANN's Facebook page in the period September 2019–March 2021<sup>22</sup> engaged over 16 billion people<sup>23</sup>; 2.5 million in the first two months of the first Italian lockdown (3 March–9 May 2020).

**Figure 3.3. Lifetime organic reach (unique users), per type of posts and month. MANN's Facebook page, 2019–2021**

Source: Author's elaboration on Facebook Insights data on the period 2019–2021.

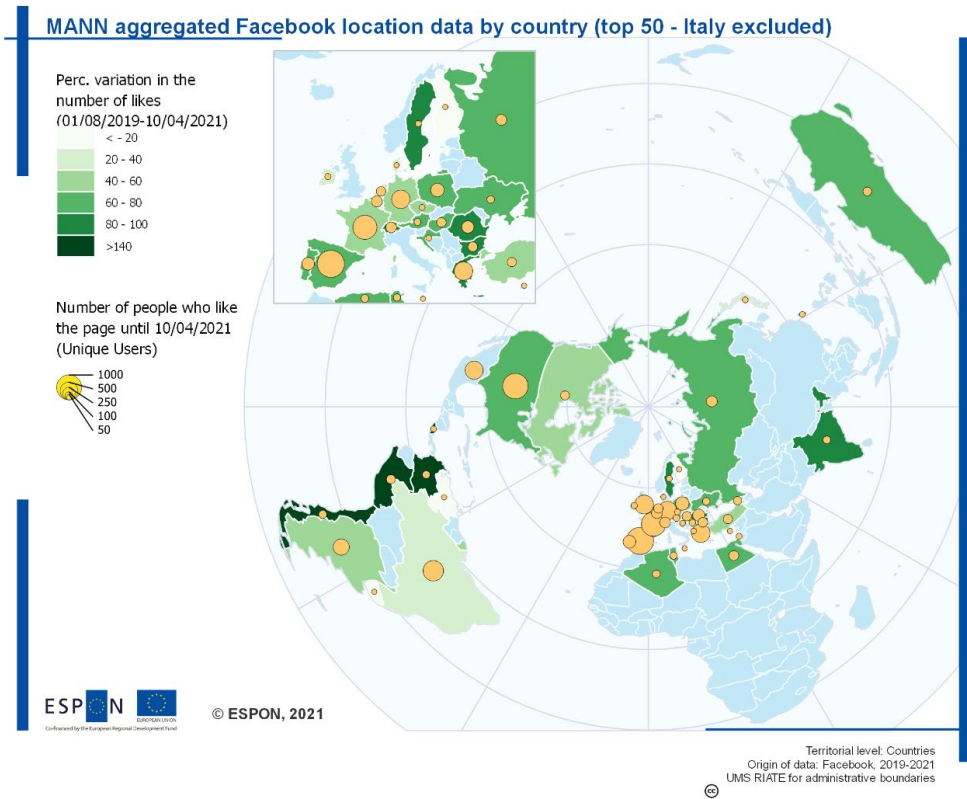
<sup>21</sup> Facebook Insights.

<sup>22</sup> Period of availability of Facebook data for the MANN's Page.

<sup>23</sup> The number of people who had the MANN's posts enter their screen through unpaid distribution, Unique users. Source: Facebook Insights on the MANN's Facebook Page.

**The audience covered people from 48 different countries**, despite part of the social network activity (i.e. Facebook) being only in the Italian language. **We can assume that in many cases the MANN's 'foreign' followers are Italian speakers, and perhaps Italians living abroad.**

**Map 3.1. MANN's Facebook activity. Data lifetime likes: aggregated Facebook location data, sorted by country (top 50, unique users) – Italy excluded**



Source: Author's elaboration on Facebook Insights data, April 2021

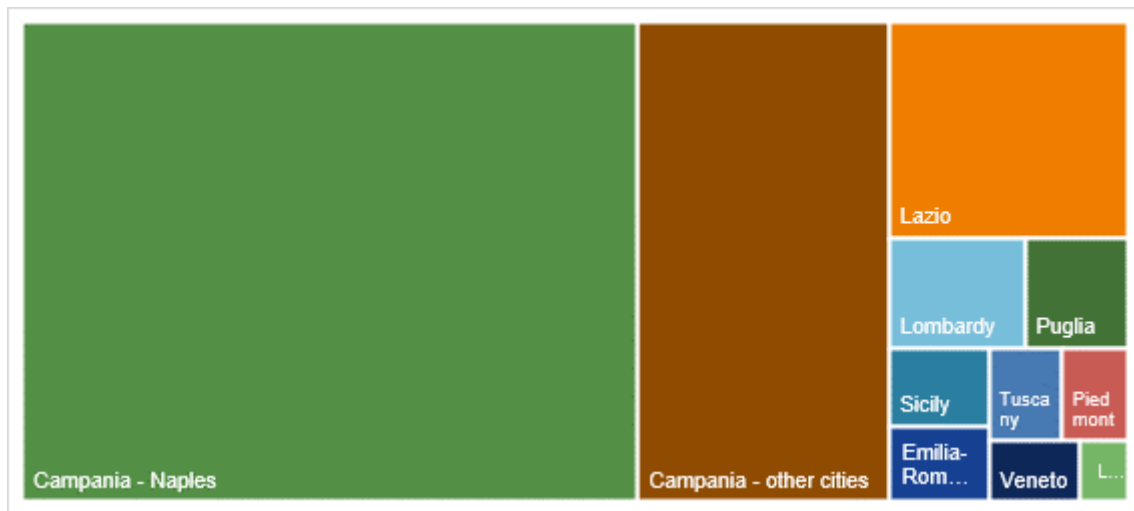
Facebook provides some further information on the cities where the followers live. According to these data<sup>24</sup>, **the museum maintains strong local roots**: the Campania region, where MANN is located, accounts for two-thirds of the followers of the Facebook page<sup>25</sup>. The capital city, Naples, hosts 18 000 followers. Also relevant is the audience in the Lazio region, mostly coming from Rome (more than 3 000 followers).

According to the Instagram data, the followers live in Naples (10%), Rome (5%) and Milan (1.8%).

<sup>24</sup> The data on the users' location are available on Facebook only since 2019 and depends on the information provided by the people registered on the platform. The information is not available for all the Facebook followers, so the number of followers per city is lower than the overall number of followers.

<sup>25</sup> Source: Author's elaboration on Facebook Insights.

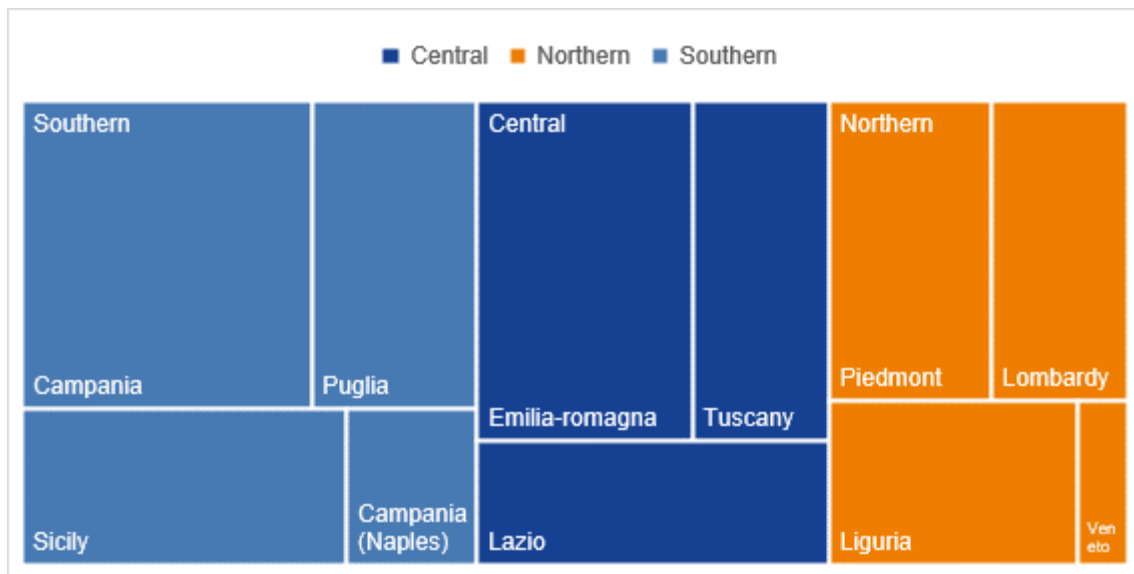
**Figure 3.4. Where the Italian followers live – MANN’s Facebook Page**



Source: Author’s elaboration on Facebook Insights data. Data at April 2021. Lifetime likes per city of the user are considered, grouped per region, Naples excluded. Only the most popular regions are included.

Between 2019 and 2021, the growth of followers was higher in southern Italy than in the rest of Italy: Campania, Sicily and Puglia. Based on the Facebook data, the growth in Naples has been lower (+17 % between 2019<sup>26</sup> and 2021) than in Campania’s other, surrounding cities, where they increased by +75 %.

**Figure 3.5. The growth of MANN’s Facebook followers between 2019 and 2021, per Italian regions and geographical area**



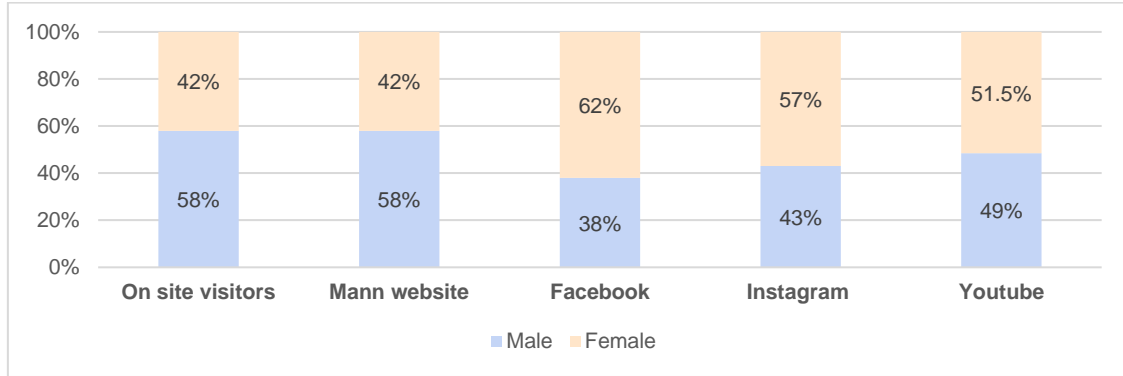
Source: Author’s elaboration on Facebook Insights data. Data at April 2021. Lifetime likes per city of the user are considered, grouped per region, Naples excluded. Only the most popular regions are included.

Moreover, the information collected so far shows that the digitisation strategy seems to have had an impact on **equal opportunities**, which could be connected to the SWB impact ‘integration of minorities’. According to the MANN’s onsite surveys, among the physical visitors the majority were male (58 % were men of the

<sup>26</sup> First year of availability of Facebook’s detailed data on the city of the users.

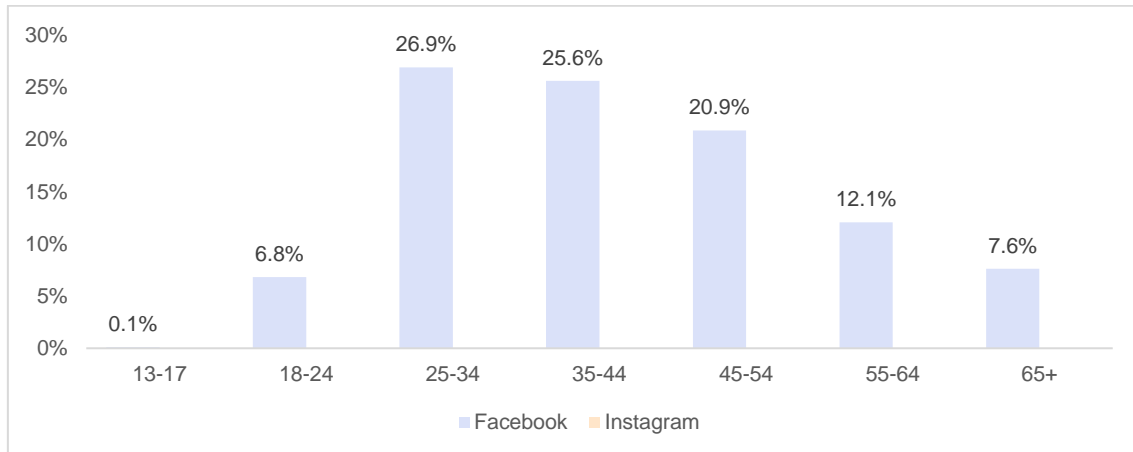
total visitors). The website also engages more men than women (58% were men on the total website visitors). **The situation reverses when it comes to the social network audiences:** the social network channels engage more women than men (62 % were women on Facebook; 57 % on Instagram; 51.5% on YouTube). **This trend seems to support the hypothesis that digital tools, and in particular the social networks, improve the gender balance in the access to cultural resources.**

**Figure 3.6. Gender composition of the MANN’s onsite visitors and social network users**



Source: Author’s elaboration on social media data. Data at April 2021.

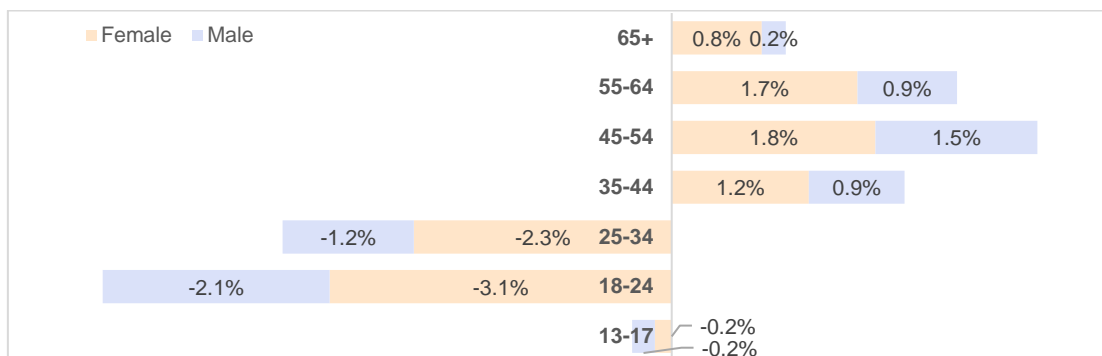
**Figure 3.7. Age of the Facebook and Instagram followers**



Source: Author’s elaboration on Facebook Insights data. Data at April 2021.

Both Facebook and Instagram provide information on **the age of the followers**. Data shows that over half of the MANN’s followers at April 2021 are aged between 25 and 44 years. There are fewer followers under 24 years than in the older cohort (+55 years old), with a higher proportion of young followers among the Instagram followers. Facebook also provides detailed data on the composition of followers in the period 2019–21. Compared to 2019, in 2021 the proportion of the total followers aged over 35 years increased, with a particular growth among the 45–54 years old group. On the contrary, all the classes of age under 34 years decreased. **In other words, the Facebook audience of MANN has aged in the last two years.** These results can arise from a decreased attractiveness of the museum towards the younger people, and/or to the medium itself: Facebook is generally more used by older people.

**Figure 3.8. Change in the composition of the Facebook followers by gender and age; comparison between August 2019 and April 2021**



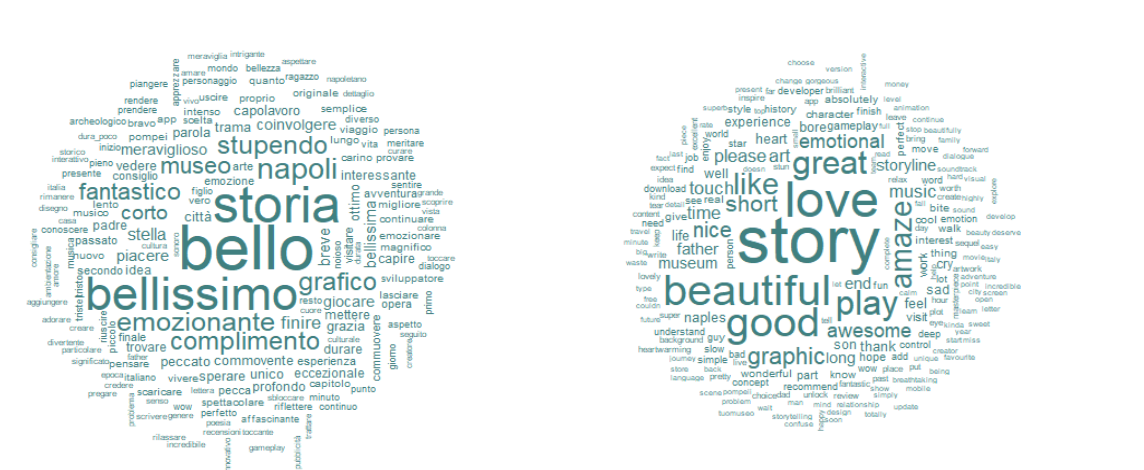
Source: Author's elaboration on Facebook Insights data. Data at August 2019 and April 2021.

### 3.3 The discourse about the past: analysis of the reviews on the 'Father and Son' video game

Another perspective of analysis deals with the effects for people of being exposed to cultural heritage resources. In order to explore this complex domain, we analysed<sup>27</sup> the reviews to the 'Father and Son' video game, which was prompted by MANN in 2016. It has been downloaded by 4.5 million people and received 30 000 reviews so far.

The analysis focused on 1 215 reviews in the Italian language and 7 500 reviews in the English language written between 2016 and April 2021. The content of the reviews has been analysed through a free text analysis software, Iramuteq (GNU GPL licence), based on the R software and Python language. The analysis initially required the normalisation of the texts of the reviews (e.g. orthographic correction of misspellings) and the preparation of the text *corpora* (e.g. ID assignment, data of the comment) to be processed by Iramuteq. The statistical analysis made available by the software produces: the representation of *word clouds* of the most used lemmas; *clusters* of the main semantic areas; and *graphs* representing the linkages among the lemmas within each cluster.

**Figure 3.9. Word cloud of the reviews in Italian (on the left) and English on the 'Father and Son' video game**



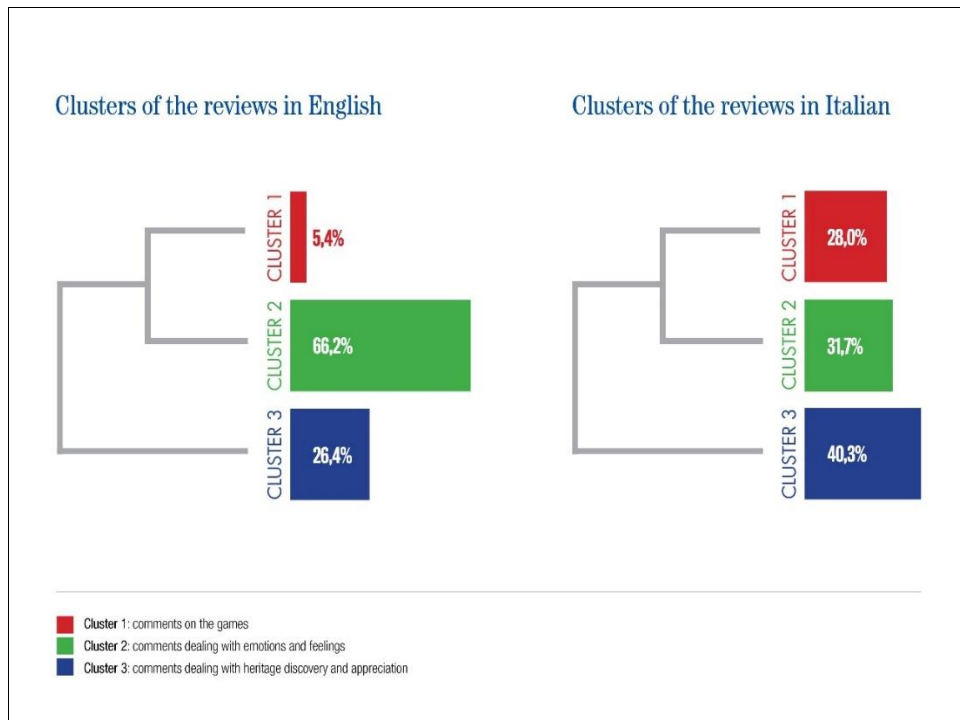
Source: Author's elaboration on the 'Father and Son' reviews in English and Italian languages, using the software Iramuteq.

<sup>27</sup> The text analysis has been realised by Monica Ibba.



The text analysis elaborated three main clusters, gathering the reviews' comments ('forms') according to their topic<sup>28</sup>.

**Figure 3.10. Clusters of the reviews in English and Italian on the 'Father and Son' video game**



Source: Author's elaboration on the Father and Son reviews in English and Italian language, using the software Iramuteq.

**A first cluster collects comments on the game** (e.g., the game is beautiful, too short, or too long and boring); this cluster is the least important one, however more relevant among the Italian comments (28 %) than among the English ones (5.4 %). The cluster includes mainly positive feedbacks and suggestions to improve the video game. Examples are given below.

**Box 3.1. Exemplary comments included in cluster 1: 'comments on the game'**

*'veramente bello i disegni sono incredibili e la musica è stupenda l'unica pecca è la durata troppo corto purtroppo in ogni caso lo consiglio vivamente lo giocherò di nuovo dato che ho letto che ha multipli finali' [really beautiful, the designs are incredible and the music is wonderful; the only flaw is the duration is too short unfortunately. In any case, I highly recommend it and I will play it again since I have read that it has multiple endings] (Italian review #944, year 2018)*

\*\*\*

*'It is a just an awesome game with a heart-touching story; it could have been better if it was longer, its a pretty short game but except for that it is a very good game' (English review #364, year 2017).*

Source: Father and Son reviews

**A second cluster gathers comments related to the emotional sphere and reflections stimulated by the game's story.** This cluster is more relevant among the English comments (66 %) than among the Italian ones (31 %). The comments included in this cluster mainly refer to the emotions generated by the touching family history narrated by the game. This evolves in the same place during three different historical eras (the Egypt era, the year AD 79 when Vesuvius erupted over Pompeii, and the present) and to the reflections about 'the meaning of history'. Comments referred to the music of the video game also fall into this cluster.

<sup>28</sup> For the elaboration of the graphs, only the forms with a significance index lower than 0.05 were selected. When the significance index is less than 0.05, the word has a low probability of being found in other classes. In cluster 3 'culture and knowledge' in particular, the analysis of similarities was performed by selecting, among the forms with a significance index of less than 0.05, only those with a frequency greater than 10.



### Box 3.2. Exemplary comments included in cluster 2: 'comments dealing with emotions and feelings'

'Bellissimo gioco mi ha fatto davvero commuovere trama bellissima e musica di sottofondo stupenda ti fa riflettere assai davvero bello' [*Beautiful game, really moved me; beautiful plot and wonderful background music makes you think very, really beautiful*] (Italian review #861, year 2017)

\*\*\*

'Magico. Il finale va digerito con pazienza perché tocca temi universali di indubbia importanza' [*Magical. The ending must be absorbed with patience because it touches universal themes of undoubted importance*] (Italian review #2263, year 2019)

\*\*\*

'E' il gioco più bello e più profondo che avessi mai fatto le storie ti colpiscono e ti rimangono dentro avete fatto davvero un bel capolavoro bravissimi aspetto con ansia il secondo capitolo' [*It is the most beautiful and deepest game I have ever played, the stories hit you and stay inside; you have done a really nice masterpiece very good. I look forward to the second chapter*] (Italian review #1026, year 2019)

\*\*\*

'Very beautiful game and story, no words, it really touches your heart, good job' (English review #2419, year 2017)

\*\*\*

'Graphics great, emotional plot, it will make you softies cry – oh, and for the people who are saying the game is boring you must have a short attention span and apparently can't be focused for at least 30 minutes or more; the game is good as it is, it could be just a tad longer' (English review #4474, year 2018)

\*\*\*

'Lovely atmospheric game that makes you think about your own relationships. I loved learning about the character and seeing the similarities among the different relationships and time periods, well done' (English review #3752, year 2018)

\*\*\*

'This game is amazing. I loved it, the art style, the sound, the music, everything. It was sad at some times and looking at the different exhibits in the archaeological museum was nice. I especially loved going to different times in history, such as seeing Pompeii minutes before the volcanic eruption. (This was very emotional as the character played in this scene sent his wife and daughter to the ferry to escape and he died to save them. Especially sad when he fell to his knees while everyone was panicking and he sat there and the volcano erupted) And going to Ancient Egypt and taking control of a sculptor was good. And when Michael wrote a letter to his father then visited his grave. Loved the ending. This game is truly an expertly crafted masterpiece. Well done.' (English review #495, year 2017)

\*\*\*

'Truly a beautiful game. From the music to the scenery, and just overall everything. It truly brings out emotions and helps you relate to all the characters by letting you choose your path. I constantly switched time periods to see the beauty of each and the similarities it shared. Especially in the Pompeii scene, I felt very emotional making the choices and looking at the ruins of the once elaborate city. Please continue making more apps like this. It was very very beautiful app.' (English review #2752, year 2017)

\*\*\*

'It's cool idea about moving between the ages. It shows us the meaning of history' (English review #6306, year 2017)

\*\*\*

'I was unaware of the fact that it was a story-driven game about art and its history, through your museum. Once I knew that it was, I was so amazed about the history of how these sculptures became to be, through the 'time-travel' sequence this game offers. Though the play time is an hour and a half or more, the story this game displays is extravagant and amazing, I have learned so much from only that short time. I couldn't forget the graphics. The artistic style made me think of Naples in a different way, in a sort of artistic way where it could almost be classified as a painting, frozen in time, so beautiful, never changing. This game pushed me to go to Italy to see the museum for myself, as I aspire to be an artist, just like Michael.' (English review #6408, year 2017)

\*\*\*

'This is a fairly short and linear experience but it's beautifully realised. At its root it is about how we situate ourselves in relation to history – the history of the world, the history of our families, our personal histories. Art objects have a unique role in this, and the Naples National Archaeological Museum deserves credit for exploring this in an innovative format. The writing is excellent (though occasionally the English translation is imperfect) and many of the scenes are deeply touching.'

(English review #14884, year 2020)

Source: Father and Son reviews

**A third cluster gathers comments referring to the capacity of the game in enhancing the knowledge about the museum's history and heritage, and more generally about the city of Naples.** This cluster gathers 26.4 % of the reviews in English and 40.3 % of those in the Italian language. A first stream of comments deals with the beauties of Naples, and the desire to return or visit it. This also refers to the capacity of the game in exploring the streets of the city in the different historical eras. A second stream refers to the video game as an interesting marketing strategy prompted by the MANN, which encourages visits to both the city of Naples and the museum itself. Finally, the discourse is oriented towards the themes of knowledge of history, culture and art.

### Box 3.3. Exemplary comments included in cluster 3: 'comments dealing with heritage discovery and appreciation'

'Why can't there be another star tbh this game cannot be held within the limit of a few stars the beauty of this game is eternal this is not a game even it is a story a beautiful story that upholds love and the bond between the past and the present I have found myself floating across time and the storyline; it's amazing, it almost brought tears to my eyes in one word; it's beautiful, absolutely beautiful, I really hope I can visit that museum one day' (English review #4104, year 2018)

\*\*\*  
Nice story ... game finished within one hour and I found out there's such a nice city and also learned a lot of knowledge about the history; hope the stories could be extended more than now, will pay a visit to such a nice place when (I've) got a chance' (English review #7428, year 2020)

\*\*\*  
'Ambientazioni stupende, gioco dinamico, storia intrigante e dialoghi originali. Mettici anche il fatto che puoi esplorare il Museo Archeologico Nazionale di Napoli e imparare nuove cose sull'arte. È un vero Capolavoro. E poi chi avrebbe pensato che un gioco fosse un grado di provocare tali emozioni. Complimenti davvero.' [*Stunning environments, dynamic gameplay, intriguing story and original dialogue. Also include the fact that you can explore the National Archaeological Museum of Naples and learn new things about art. It is a true masterpiece. And then who would have thought that a game was capable of causing such emotions .. Congratulations indeed*] (Italian review year 2020)

\*\*\*  
'Mi ha fatto sentire orgogliosa di essere napoletana, grazie.' [*It made me feel proud to be from Naples, thank you*] (Italian review #1029, year 2017)

\*\*\*  
'Fiero di essere nato nella culla della cultura. Napoli patria del mondo.' [*Proud to have been born in the cradle of culture. Naples home of the world*] (Italian review #1275, year 2017)

\*\*\*  
'Una bellissima esperienza, un tuffo nel passato, un viaggio tra i ricordi della stupenda città di Napoli e delle rovine di Pompei. Obiettivo raggiunto. Mi è venuta voglia di tornare a Napoli!' [*A beautiful experience, a dip in the past, a journey through the memories of the beautiful city of Naples and the ruins of Pompeii. Goal achieved. It made me want to go back to Naples*] (Italian review #1993, year 2018)

\*\*\*  
'Short but fun and interesting/moving story that brings history to an accessible medium. I'm thankful for this game and appreciate all it stands for.' (English review #6262, year 2017)

Source: Father and Son reviews

## 4 Conclusions: SWB results and mechanisms of the MANN's digitisation strategy

The results account for the effectiveness of the accessibility strategy of the museum, prompted by the 2016–19 Strategic Plan, with special attention to the **digitisation policy**. The digitisation policy of MANN is framed in the national policy framework fostering digitisation in the cultural goods domain. More generally, in the public administration it is a way of meeting the present and future challenges. These topics are core features in the recently delivered National Recovery and Resilience Plan.

Several projects have been carried out to implement the MANN's strategic plan, thanks to the relevant funding made available by the national and EU funding, especially ERDF. The clear strategy towards the increase of the MANN's resources and public interest has sustained the museum's capacity to gather extra funds. This has been possible within the framework of opportunity made available by the EU programming period 2014–20.

Even though very dynamic, the digitisation strategy of the MANN is quite recent. Available data show the increase of the MANN's online followers, users and online popularity, reflected in increases (pre-Covid) in the number of visitors and ticket revenues. However, new reflection and analysis has been required to appreciate if and how the digitisation policy has contributed to other outcome dimensions of societal well-being.

According to the preliminary Theory of Change in the HERIWELL inception report, the type of societal well-being outcomes impacted by the MANN's digitisations strategy are the following:

- (societal level): enhanced integration and inclusion; strengthened place identity and symbolic representation;
- (individual level): improvement in education level and digital skills.

The social network and digital tools data allows enriched information about the characteristics and type of online users, in particularly their gender, age and residence. The analysis shows that in the case of MANN, the digital tools used until now have involved more women and middle-aged people. However, these are not able to engage young people, for which different approaches are required.

Data shows that the online visitors live mainly in Naples and the city's surroundings. Part of the MANN online users and followers are spread around the world, thanks to the new digital resources. As the MANN digital communication is still mainly in the Italian language, we can conclude that digitisation helps to keep connections with Italians abroad. It also gives the opportunity, to all people interested, to be informed on the museum's initiatives and to consult its collections). These findings account for the contribution of digitisation to enhance equal opportunities and inclusion. The Director of the museum, Paolo Giulierini, confirms the role of the museum in keeping relationships with the Italian communities abroad. Other initiatives are organised (such as tours, expositions) but the digitisation strategy as a truly international perspective is just beginning and has to be further developed.

Regarding users' behaviours, the analysis of Wikipedia mobile consultation trends shows that people consult the MANN's Wikipedia page when they are planning an onsite visit. This also shows the possibility of using the indicator 'number of mobile visits to Wikipedia pages in a specific period', as a proxy of actual visits, when primary data are lacking.

Other findings come from the experimental text analysis of the reviews of the Father and Son video game, developed from the archaeological collections of the museum. The analysis clustered the comments into three main types (comments on the video game; emotions and reflections; heritage discovery and appreciation). Apart from the comments on the quality of the video game, there were other findings that show reactions to this innovative form of communicating the archaeological heritage. It stimulated the gamers' reflections about what we could summarise as the archetypes of the human history, thanks to the **emotions** provoked by the story narrated. Secondly, comments refer to the capacity of the game to stimulate a **new learning experience** (i.e. learning about the past in a different way). Finally, the game stimulated the foreigners' **desire to visit** the museum and Naples, and/or the pride in belonging to Naples or Italy.

The results of the analysis are in line with the purposes of the MANN's strategy of 'narrating the ancient', as the MANN's director pointed out in the interview. The idea is to make the ancient history available to people, thanks to the emotions and empathy. To stimulate critical thinking, the museum aspires to making available 'tensions and sentimental projections that are deducible even if not demonstrable and that make ancient man close to contemporary man'. In this sense digital tools can help people, starting from those who are less accustomed to a museum environment, to be more engaged and facilitated in the knowledge experience. This can be through entertainment, or with the help of augmented reality or other ICT tools.

Some **mechanisms** seem to favour the contribution of the different streams of the MANN's digitisation strategy to the identified SWB results. The main mechanisms refer to:

- the *appreciation* of the MANN's heritage;
- the *pride* of belonging to the same '*cradle of history*';
- the entertainment and amusement of the new communication strategy (the game);
- the *emotions* that cultural heritage can arouse, when communicated with special attention to this aspect, most of all.

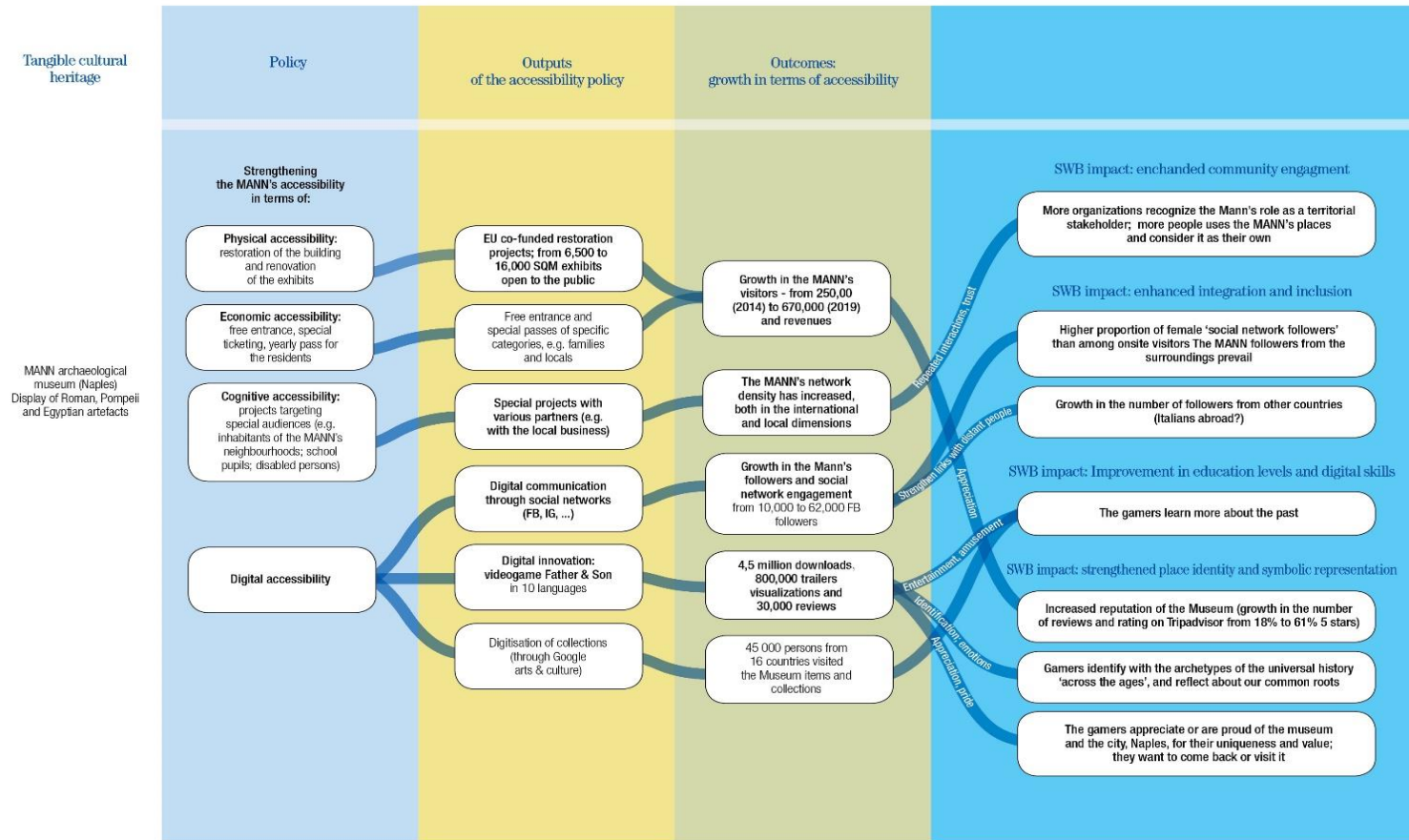
It is worth noting that these outcomes and mechanisms do not depend only on the digital tools themselves. They also depend on the conservation, care and development of the museum's heritage, through many other different policies. The MANN's strategic plan aims at achieving – and probably has already achieved – other types of societal outcomes, not fully accounted for in this case study. One example is the restoration, expansion and communication of the collections, which increased visitor numbers and ticket revenues. Also, the 'enhanced community engagement' is expected to result from the intense strategy of cooperation with local actors. Further initiatives to present the museum and its gardens as a resource open to the city and its inhabitants have also contributed to this. The latter cooperation should also benefit the economic chain of the museum, thanks to the various marketing initiatives that have been promoted.

Some preliminary recommendations stem from the analysis.

- The first relates to digital tools, which can contribute to specific societal well-being outcomes, when they are embedded in a broader strategy of the institutions dealing with heritage. However, digitisation policies have to be planned and periodically revised to develop and fine-tune the strategy and tools towards the achievement of the most important goals. Moreover, the development of a clear strategy allows the institutions to better meet the requirements of the EU/national funding, strengthening the possibility and capacity of implementation.
- The second is about digital data. The analysis has shown how digital tools, already largely available among CH institutions, can provide useful data regarding the characteristics and behaviours of cultural heritage users. These data can be used to learn more about the CH digital audience and provide useful insights on how to better analyse the characteristics and behaviour of onsite visitors. As there is a lack of data in this respect, policies and actions can be revised and updated thanks to the information collected.
- Third, the analysis provides suggestions on how to reduce the gap in cultural accessibility. Digitisation makes new communication available and interpretation of languages affordable by people of different levels of education. The case of MANN has shown the potentiality of heritage in stimulating critical thinking, by working with feelings that are *based* on historical facts and goods, not simply on their 'existence'. These strategies can be dedicated to both onsite visitors and online visitors, to engage them and improve their experience, and reasonment.
- Finally, data has shown the potentiality of digital tools to stimulate the interest and the desire to visit a place, with interesting implications in terms of CH marketing.

The findings of the case studies allow for a more fine-grained representation of the Theory of Change and the areas of SWB impacted by MANN's strategic plan, with particular reference to the digitisation strategy. The ToC is presented in the next figure.

Figure 4.1. The theory of change of the MANN's digitisation strategy



Source: Author's elaboration

## 5 References

### Interviews

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ESPON EGTC  
11 Avenue John F. Kennedy  
L-1855 Luxembourg  
Grand Duchy of Luxembourg  
Phone: +352 20 600 280  
Email: [info@espon.eu](mailto:info@espon.eu)  
[www.espon.eu](http://www.espon.eu)

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