



MUSEUM PROFESSIONALS IN THE DIGITAL ERA

Agents of change
and innovation

MUSEUM PROFESSIONALS IN THE DIGITAL ERA

**Agents of change
and innovation**

MUSEUM PROFESSIONALS IN THE DIGITAL ERA

Agents of change and innovation

This document, part of the Mu.SA - MUuseum Sector Alliance project, has been funded with support from the European Commission. The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Funding Programme: Erasmus+ (European Commission)

Key Action: Cooperation for innovation and the exchange of good practices

Action Type: Sector Skills Alliances for design and delivery of VET

Project number: 575907-EEP-1-2016-1-EL-EPPKA2-SSA

Starting date: 1 November 2016

Ending date: 31 October 2019

www.project-musa.eu



Co-funded by the
Erasmus+ Programme
of the European Union



Printed by
Centro Stampa Regione Emilia-Romagna
Viale Aldo Moro 34
Bologna – Italy

ISBN 9788897281641



FOREWORD

The cultural value of museums in times of transition

Elisabetta Falchetti,
ECCOM. Idee per la cultura

Museums are vital organisations for building and safeguarding our cultural values. They have contributed towards nurturing, guiding, and inspiring human culture, while continually re-inventing themselves and diversifying to keep in step with historical change and to harmonize with their local contexts. Today, as in the past, the relevance and social impact of museums corresponds to their ability to identify needs and promptly provide services and benefits for the community.

A number of profound and rapid cultural, social and environmental transformations are currently under way. Communities are constantly evolving, due to massive movements of people, products, ideas and economies, and various new forms of communication are emerging, sometimes characterised by opposition and

conflict. Many museums are therefore now questioning their roles, in the attempt to affect and accommodate the transition towards a new society and new cultural manifestations. Their objective is to be more harmonious and aware of issues such as equality and respect for the rights of minority groups, as well as more sustainable.

The role of museums, summarised by the three factors of Conservation, Research and Communication, as well as their intrinsic value as educational institutions and custodians of cultural human heritage, is now very well established. Lifelong learning and education, in all forms and contents – including active citizenship – has been recognised as one of the primary functions of museums, as it promotes and enriches their values and objectives.





Museums also carry out activities of conservation, research and communication, as regards our tangible as well as intangible heritage. These activities help us to reinterpret the past in order to elaborate new identities for present and future generations, while also encouraging social cohesion, dialogue and understanding.

Currently there are numerous definitions and declarations of purpose, supported by UNESCO

and ICOM, such as: Museums for Social Harmony, Museums for Sustainable Society, Museums for Changing Lives, Museums for Social Inclusion and Museums for Human Rights. The diffusion of culture is a right, a value and a resource both for the individual and all humanity and it should constitute a shared goal, as well as providing education in order to ensure justice, freedom and peace, and to encourage solidarity between populations.



Museums are democratic institutions, open to people from all walks of life, of all ages, genders, backgrounds and cultures. They can nurture new ways of thinking and encourage cross-cultural and intergenerational exchanges, in addition to playing an important role in preserving and enhancing cultural diversity, while making a valuable contribution towards resolving various oppositions and conflicts.

The museums of the twenty-first century are open to various new approaches, and new forms of research, expression and communication. They explore, appreciate and foster new narratives and new interpretations. They are multidisciplinary, and can break down the formal barriers erected between different academic areas. Museums are now willing and able to have a meaningful impact on our quality of life, by stimulating learning, inspiration, creativity and varied interests. They can also affect our social relationships by offering programmes and services with spiritual and material benefits and by providing gratifying cognitive, emotional and aesthetic experiences.

They are thus places of knowledge that are

also able to develop and promote individual personalities, competences, attitudes, and values, so as to encourage civil responsibility and participation. They can contribute to the growth of communities, building a sense of belonging and social confidence by cultivating an awareness of our collective responsibility towards a shared heritage. They can also overcome social discrimination by promoting accessibility and the inclusion of disadvantaged people.

Modern museums are places in which it is possible to discover the diversity of our global cultural heritage, in which to elaborate new forms of knowledge and new ideas. They are places of peace, of welcome and of dialogue that foster and encourage social encounters. The increasing level of interest in the techniques and practices of audience development clearly indicates a comprehensive attitude that can ensure a more socially inclusive and democratic society. Museums are now at the forefront of the struggle to promote and protect some basic human rights, notably the right of all people to education and cultural participation.



TABLE OF CONTENTS

Mu.SA – MUuseum Sector Alliance in a nutshell	12
Why Mu.SA? A brief introduction	14
1. International context: digital skills and museums	16
2. Key findings: professional needs in Greece, Italy and Portugal	24
3. Key findings: training provisions in Greece, Italy and Portugal	32
4. Emerging job profiles	40
5. Conclusions	50
Partner organisations	56
Authors	60
Contributors	62
Acknowledgments	68
References	70
Credits	72

Mu.SA

MUseum Sector Alliance in a nutshell

Mu.SA - MUseum Sector Alliance is a 3-year European project funded by the Erasmus Plus Programme - Sector Skills Alliances (November 2016 – October 2019) - that directly addresses the shortage of digital and transferable skills that have been identified in the museum sector, and that supports the on-going professional development of museum professionals in Greece, Italy and Portugal.

The project aims to address the increasing disconnection between formal education and training and the world of work. Due to the increasing use of ICT (Information and Communication Technology) in the museum sector new job roles are now emerging. Based on the research findings a MOOC (Massive Open Online Course), a work-based learning phase and a specialization training course including e-learning and face-to-face lectures will be developed in order to acquire digital and transferable competences according to the role-profiles identified by the Mu.SA: **Digital**

Strategy Manager, Digital Collections Curator, Online Community Manager, Digital Interactive Experience Developer.

The Mu.SA consortium is made up of a mix of higher education institutions, independent and national research centres, cultural and social associations and organisations, in addition to a major European network.

The consortium is led by the Hellenic Open University (EL). The project partners are as follows: Melting Pro Learning (IT), ICOM Portugal (PT), Link Campus University (IT), National Organisation for the Certification of Qualifications & Vocational Guidance (EL), Symbola - Fondazione per le Qualità Italiane (IT), Universidade do Porto (PT), IEK AKMI, Institute of Vocational Training (EL), Istituto Beni Artistici Culturali Naturali Emilia-Romagna (IT), ICOM Hellenic National Committee (EL), Culture Action Europe (BE), Mapa das Ideias (PT).



www.project-musa.eu

**Mu.SA Project
Kick-off Meeting
23-24 November 2016
Athens, Greece**

Coordinator
HELLENIC
OPEN
UNIVERSITY

Partners

Culture
Action
Europe

ICOM

Symbola

MAPA

Beni Artistici Culturali Naturali Emilia-Romagna

LINK Campus

bc

U.PORTO

AKMI

ED-PEP

ICOM



Co-funded by the
Erasmus+ Programme
of the European Union

575907-EEP-1-2016-1-EL-EPPKA2-SSA

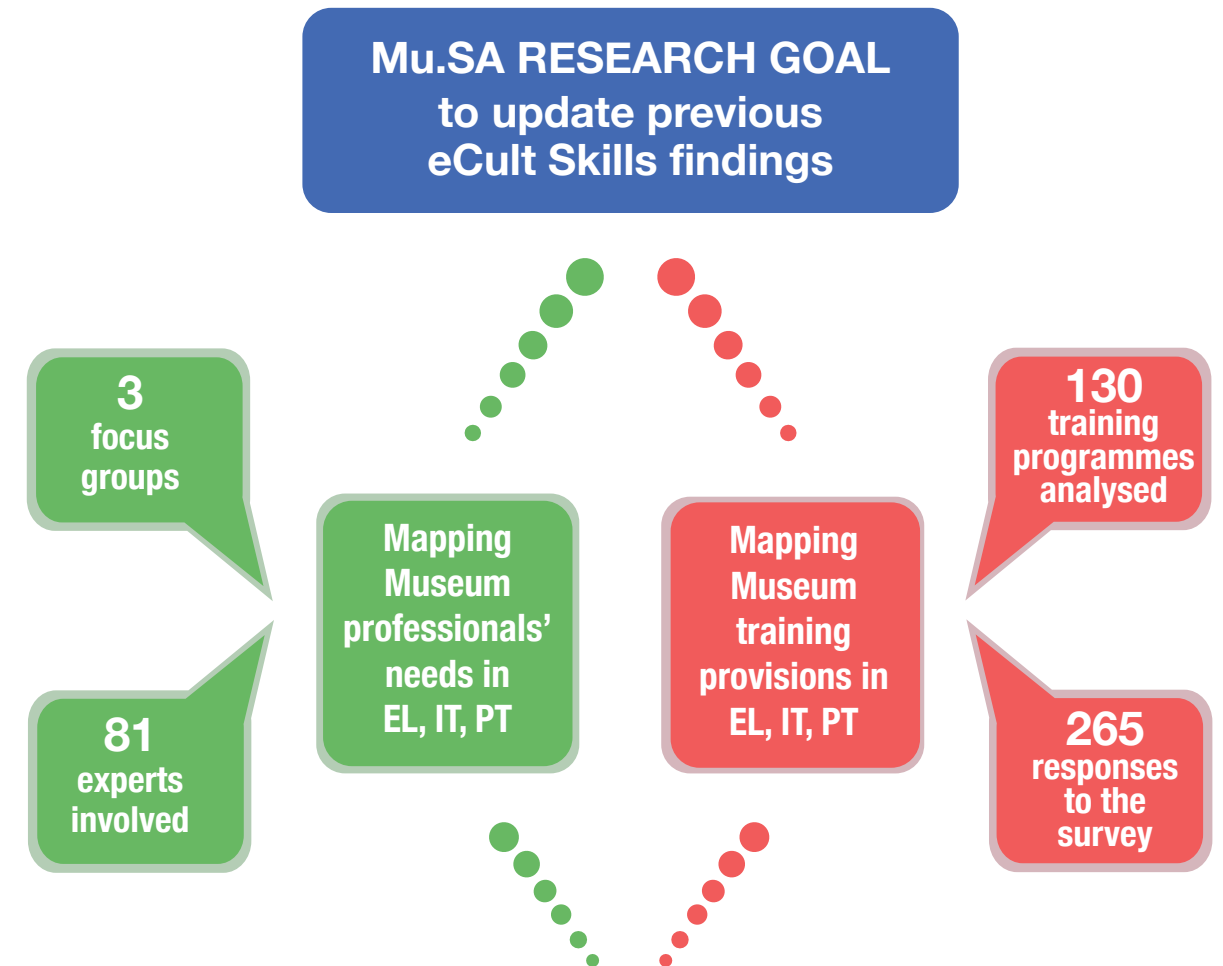
Why Mu.SA? A brief introduction

As Anne Krebs, the head of research at the Louvre Museum in Paris, has stated *“It’s very difficult to predict what the future holds for museums over the next ten years”*. Museums are no longer the closed systems that they were in the twentieth-century, but elements within a wider system of scientific, cultural and territorial relationships. Moreover technology and society are changing at a very fast pace. Although it is difficult to make predictions as to what the future holds for museums, further digital and social innovations are undoubtedly in store for them. Regardless of the resources available, all museums can become agents of change. They need to acquire an awareness of their potential together with adequate on-going professional training, and be equipped with the appropriate skill-sets for responding to the ever-changing needs of society. The digital shift is already a reality that cannot be ignored by the museum community, even by the most hesitant of its members, and it demands appropriate competences and knowledge. Digital innovation provides an infrastructure that can multiply opportunities for exchange, accessibility and participation.

In the report “Staff and Training in Regional Museums” ICOM observed that being familiar with modern technology has become a prioritized skill and it noted that museums are becoming increasingly aware that they must hire staff with ICT backgrounds in order to reach new audiences and deliver new services.

Mu.SA stems from the need to support museums in providing staff with the right digital and transferable skill-set to thrive in their roles all over Europe. It aims to assist them in this phase, with the ultimate goal of helping them to strike a balance between social, cultural and economic priorities, while ensuring that these have the right impact.

Linda Volkers, the Marketing Manager at the Rijksmuseum in Amsterdam, argues that we can’t make any predictions but that: *“What I do see is that museums need to change their behaviour. They should be able to share their collections more and with less restrictions. Of course we are custodians of our collections, but we need to bring them to the audience.”*



**Digital and transferable skills and competences
needs in the museum sector in Greece, Italy and Portugal**

NEW EMERGING JOB PROFILES

INTERNATIONAL CONTEXT: DIGITAL SKILLS AND MUSEUMS



Museums are facing a number of challenges due to profound and rapid cultural, social and environmental transformations. Currently the digital challenge is recognised as a priority in many sectors ranging from that of education to that of politics.

Two questions that needed to be asked before addressing these issues are: "What are the appropriate skills and know-how for supporting museum professionals in the process of digital transformation of their sector?" and "Are there any emerging job role profiles that would support museums to thrive in the digital environment?"

This questions were posed to 81 experts from all over Europe during the research phase of the project Mu.SA undertaken between December 2016 to March 2017, in Greece, Portugal and Italy.

The Mu.SA consortium investigated which digital and transferable competences are fundamental in order to support museum professionals and to help them in their efforts to make museums thrive in a digital environment, capitalising on and revising the results of the eCult Skills project.



Technologies are undervalued because the communication role of museums is undervalued. Before creating a digital culture, we need to create a communication culture.

Maurizio Felicori, Reggia di Caserta, IT



The results of the research will inform the development of training programmes in the second stage of the Mu.SA project. The training will have different formats such as MOOC (Massive Open Online Course), e-learning, face-to-face and workplace learning, in line with the specific needs of the museum sector. The research included also a mapping of training provisions, by means of desk research and an online survey. Up to 130 formal training programmes were analysed, as well as informal and non-formal programmes related to digital competences and transferable competences in the museum sector. The online survey collected 265 complete responses across the three countries.

Moreover, in order to gain an international overview of the digital competences needed in the museum sector, Symbola and Melting Pro carried out ten interviews with experts in the museum sector. These are included in the report "The Museum of the Future: Insights and

reflections from 10 international museums". On the basis of the previous eCult Skills results, four emerging role-profiles have been identified: Digital Strategy Manager, Digital Collections Curator, Online Community Manager, Digital Interactive Experience Developer.

This publication intends to summarise the key findings of the research activities carried out by the partners. Given the scope of the research, a qualitative approach was seen as the most appropriate. It provides useful insights into which role-profiles and related digital and transferable competences need to be developed for museum professionals in order to help them face the current challenges. Throughout the research the consulted experts highlighted some important factors that need to be taken into consideration within the Mu.SA project.

In Portugal, Greece and Italy the general context of the museum sector has many



characteristics in common. Museums are mainly managed by the state, and national, regional or local authorities are in charge of their management. One of the peculiarities of the museum scenario is that there are many local museums, which are directly linked to local authorities. In these three countries privately owned museums are the minority. The research highlighted that across the three countries a fragmented experience of the digital shift is evident, due to the different contexts, governance, competences and resources invested.

A museum is more likely to include digital aspects in its overall strategy if it has a

clearly established vision, political options and priorities, as well as the availability of the necessary resources and conditions for investment - financial, logistical, and human.

Moreover it is important to underline that the present levels of investment in infrastructure and resources are inadequate, which represents a tangible limitation.

A national digital strategy for museums should be developed, having a shared perspective of networking that emphasises resources held in common, favouring the conservation and digitization of collections and the development of professional digital

skills, while also leaving space for small-scale local initiatives. Not only should museums be technologically equipped, but they should also be encouraged to build bridges and establish meaningful relationships, in the context of a shared vision, which moves them towards a common goal.

Ongoing professional training for museum professionals in all areas is perceived as a necessity. Technologies evolve much faster than most museums can cope with. This problems needs to be addressed, especially since many museum professionals are now required to undertake a number of different tasks, also because they are more likely to work in small teams. This data is reflected also by the DESI (Digital Economy and Society Index), a European report that keeps track of the progress made in digitalisation. The report states that greatest challenge in

- the three countries included in the Mu.SA project is that of raising the bar of the levels of digital skills of their populations.
- The low level of digital skills in these three countries is a consequence of the general lack of infrastructures and national resources. Therefore it is imperative that upper management levels should start to envision a digital approach as vital for developing meaningful relationships with new and existing audiences, in line with the museum's present mission.



“

One of the biggest challenges of the sector is seeing digital as an integral way of working.

Janice Lane, National Museum of Wales, UK

”

KEY FINDINGS: PROFESSIONAL NEEDS IN GREECE ITALY AND PORTUGAL

2

Key findings from the research activities of the mapping of professional needs in Portugal, Greece and Italy respectively carried out by ICOM Portugal and Mapa das Ideias, ICOM Greece, Melting Pro Learning and Symbola – Fondazione per le Qualità Italiane shows data related to the current scenario of the museum sector regarding the specific skills requirement, both digital and transferable, of museum professionals across the three countries.

Within Mu.SA competences are identified and categorized under two macro categories:

- Digital or e-competence (e-CF) (ICT competences);
- Transferable skills (hard and soft skills that relate to many occupations, i.e., proficiency with MS Office Suite applications, or the ability to manage time using Outlook, etc.).

One important element identified is the belief to develop useful skills in order to reach a greater number of museum visitors and in a more meaningful way, while enhancing digital skills with this aim (and not just for their own sake). The research highlighted digital and transferable competences that are common to the four role-profiles, i.e., Digital Strategy Manager, Digital Collections Curator, Online Community Manager,

Digital Interactive Experience Developer and other skills that are more specific. The crosscutting competences are:

- Strategic and business planning;
- Users needs analysis offline and online;
- Communication (as well as basic and advanced use of social media);
- Storytelling;
- Audience development;
- Audience engagement which includes all aspects of the visitor experience (before – after – during);
- Creativity and leadership;
- Team working;
- Innovation (looking at innovative solutions).

The skillset must be based on a strong common knowledge of ICT terminology and existing digital tools for museums linked to «behind-the-scenes» which includes all aspects around management, research, collections, infrastructure etc., as well as a strong knowledge of the museum context (museum and tourism museum policies and role and purposes of museums today, museum management, copyright and intellectual rights). This will help museums to identify opportunities, and ensure they are economically and professionally viable.





The analysis highlighted some common trends that can be summarized as follow:

- It is necessary to build up what can be defined as “digital cultural awareness” and “digital confidence”. This means developing digital skills for the whole staff of a museum, regardless of their role, from the most basic to the upper levels according to their specific functions and tasks;
- It is necessary to foster a mental shift/cultural change in terms of the planning and visioning of services, so that the digital element can become an integral part of the thinking and planning process from the outset;
- It is necessary to rethink the role of the museum and its functions in relation to audiences and society at large in a digital environment;
- It is necessary to develop leadership, strategic and business planning skills as well as specific digital skills;
- It is necessary to understand users’ needs for implementing meaningful experiences;
- It is imperative to support on-going professional development regarding new technology;



- It is important to support digitization and digital management of museum collections and archives, basic requirement for the creation of content to be communicated;
- It is necessary to develop a safe space to experiment and fail through a trial and error process;
- It is necessary to improve internal collaborations within museum departments and external collaborations also with ICT enterprises;
- It is necessary to understand the growing role of audiences.

The kind of experience that museums can offer its visitors, on-site and on-line, can thus become the core of their cultural services. Technologies should enhance visitors’ experiences and not be a barrier. Leadership at an institutional and political level must take every opportunity to invest in digital infrastructures.

“

The digitization of our archive opened up new horizons for us that we have always wanted to explore.

Angelos Moretis, The George Zongolopoulos Foundation, EL

”



KEY FINDINGS

TRAINING

PROVISIONS IN

GREECE

ITALY AND

PORTUGAL

Key findings, gathered from the desk research and the online survey, as regards to the mapping of training provisions for museum professionals in the three countries has been carried out by Open Hellenic University and AKMI in Greece, Link Campus University in Italy and University of Porto in Portugal.

This mapping aimed at understanding the present situation concerning the approach to and the rate of diffusion of training programmes (formal, informal and non-formal) relating to digital competences and transferable competences in the museum sector.

Most university courses for preparing personnel for the museum sector are focused on archaeology, the history of art, fine arts, curatorial studies, social anthropology, cultural heritage management, museology, communication strategies,

cultural informatics, multimedia studies and marketing. In the three countries the majority of staff working in state museums holds a subject-focused degree in archaeology, art history, conservation, architecture, etc.

The majority of university courses for the museum sector are now taking on an ever more interdisciplinary character, incorporating teachers and researchers from different scientific areas, departments and faculties, in an attempt to combine and bring together a range of different, complementary and innovative perspectives. In all three countries it is seen as important to continue the first basic cycle of studies and over the last few years it has become increasingly common for students to take their studies to the master level and then go on to specialise in an interdisciplinary field.

Specialisation in cultural and heritage



management, museology, digital informatics, communication management and IT (innovation technology) is thus now also appearing in the cultural and museum sector. However, when it comes to museology or cultural heritage programmes, hard skills like digital skills tend not to be sufficiently valued, especially in Portugal and Italy.

The results of the mapping provisions for museum training offer some interesting proposals and important ideas that should not be neglected in the design of the training course, specifically:

- Mixing interdisciplinary knowledge from the humanities with more scientific/technical subjects, in all formats appropriate either for the MOOC and specialized training programmes;
- Including an initial assessment of the digital competences that the course participants already possess;
- Including a mix of local and international guest speakers, who would be able to contribute to the courses with relevant case studies, share their expert insights, offer one-to-one sessions with participants and give feedback when projects are presented;
- Including a work-oriented methodology that would be useful for learning how to design and develop a communication project and/or product to be implemented in collaboration with local authorities and/or associations and/or companies. In this way learners would be able to evaluate the impact that their projects have on the local community;
- Covering non-conventional topics such as gamification, on-line audience analysis, SEO and SEM that would be useful for gaining a broader perspective about digital skills and tools for analysing and evaluating any kind of audience, even online;



“

We need to invest in everything, but above all in human resources, educating people not only in digital skills, but in education as a capital value.

Fiorenzo Galli, National Museum of Science and Technology, IT

”

- Fostering an agile process and user experiences approach, by designing the specialised training programme in a hackathon format or as an intensive residential course;
- Fostering peer learning and the exchange of case-studies;
- Developing high quality content for the MOOC to get participants more engaged.

The training approach in Mu.SA recognises both the importance of digital and transferable skills, looking into how to encourage participants to learn in an experiential way that is drawn from their own experiences and those of fellows. It should allow flexibility as well as working on practical experiences.

In general these elements should be considered either in building the MOOC and either in developing the European specialisation course based on face-to-face classes, e-learning and work based learning.



EMERGING JOB PROFILES

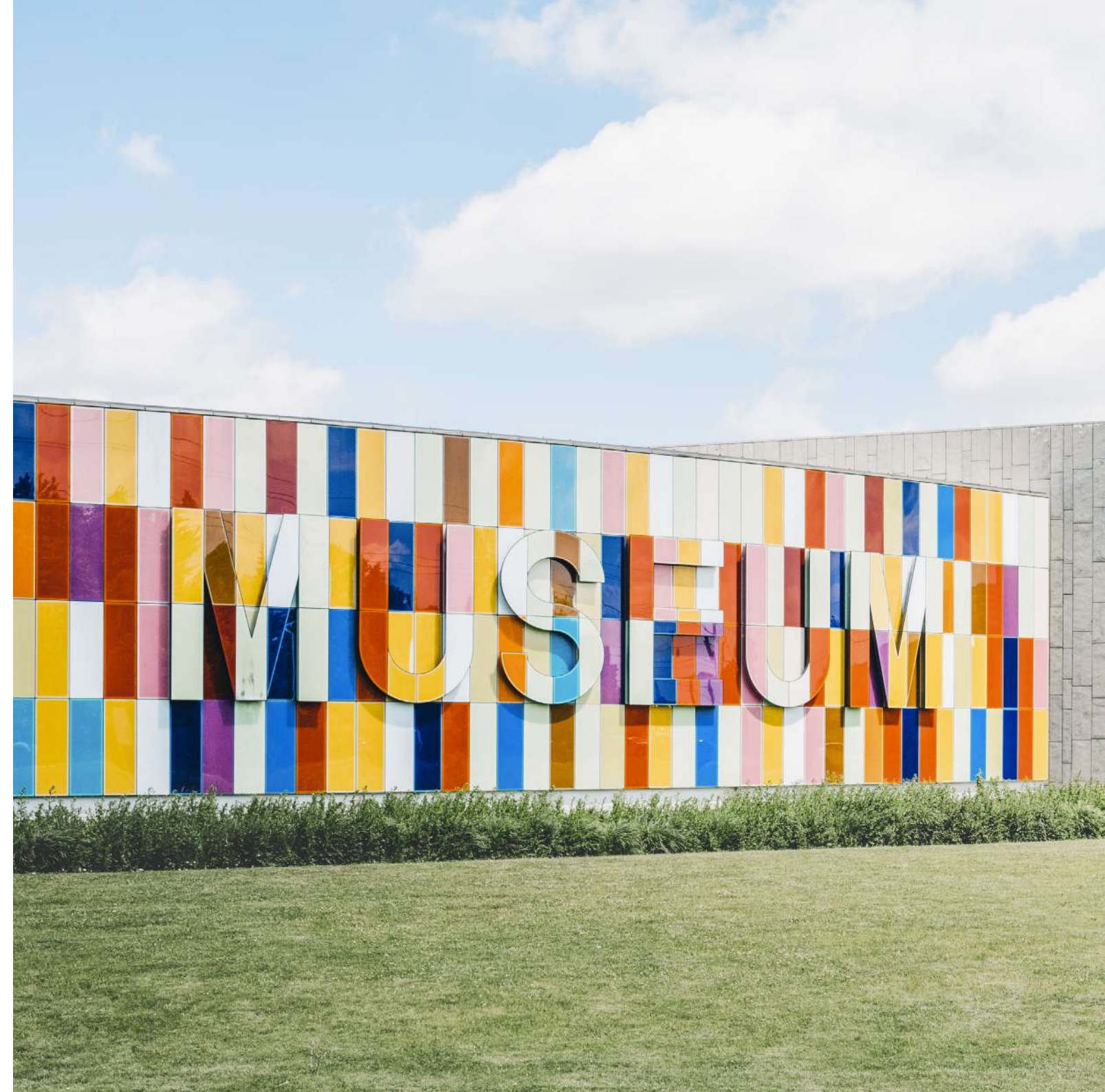
4

One of the goals of the Mu.SA research was to identify new emerging job profiles in the museum sector by capitalising on the findings of the eCult Skills project. In order of priority, the majority of respondents argued that the most important role-profiles that museums should invest in when up-skilling their staff are:

1. Digital Strategy Manager
2. Digital Collection Curator
3. Digital Interactive Experience Developer
4. Online Community Manager

The role profiles initiated interesting debates. Some experts asked where a Digital Strategy Manager/ICT consultant would fit in a museum's organisational chart, whether this figure should be internal or external, whether s/he should be employed by the Ministry and what specific tasks s/he should undertake. This role-profile is supposed to be responsible for leading and guiding a museum's digital strategy, but this task usually belongs to the director, who has the responsibility of delineating a strategy, also including the digital strategy. According to some of the respondents, some skills such as programming, software development or infrastructure installation, were identified as external skills with no consequences to the digital strategy. Currently these roles, especially those of Digital

Strategy Manager/ICT consultant and Digital Interactive Experience Developer, are often carried out by external collaborators, who nevertheless belong to the museum sector. It should also be borne in mind that in Greece, Italy and Portugal only the biggest museums can afford to appoint a person in charge of digital strategy, as a part of their museum's internal organization or organogram. Whereas the role-profile of Online Community Manager is becoming increasingly present in museums, yet one of the major problems lies in the fact that this figure is usually not fully integrated into the structure. All of the above role-profiles were considered as important and useful, although it was felt that their tasks and the necessity for their functions needed to be further clarified. As was the case for other professional role-profiles in the past, it was felt that their importance would be gradually acknowledged. The majority of respondents pointed out that all of the professional role-profiles analysed should also have a good knowledge of how a museum works. A general sense of discouragement among the respondents was detected, as much more investment in digital skills training is required at a policy level. These role-profiles should be seen as providing valuable opportunities to which the entire museum sector needs to aspire.



“

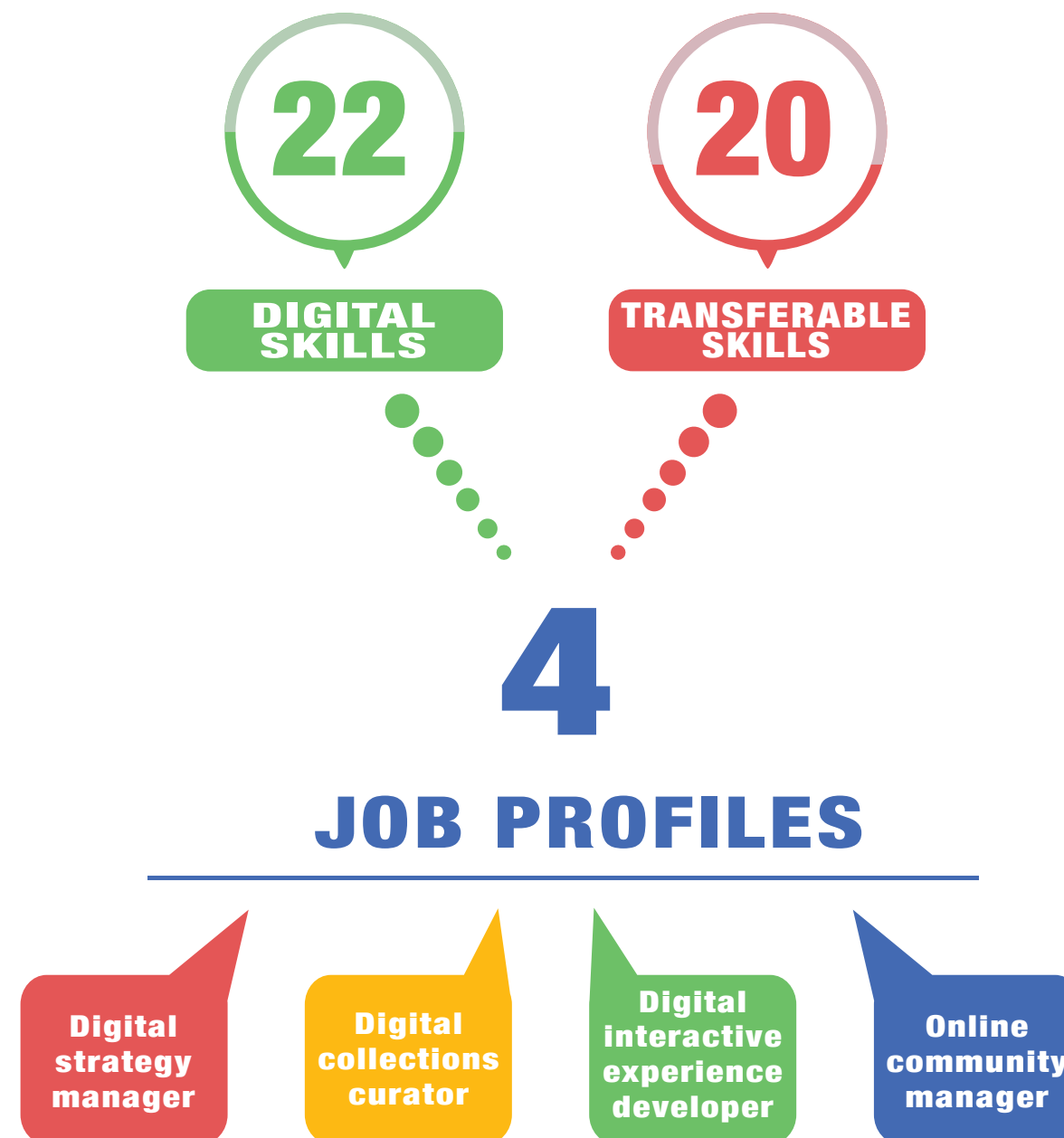
You should have or develop all these transferable competences and for all role profiles in order to survive as a professional.

Erato Koutsoudaki, Museologist and Exhibition designer, EL

The Interactive Experience Designer is a strategic figure, able to generate content from art work and to combine it with the most appropriate digital means.

Pedro Gadanho, Director of MAAT, Lisbon, PT

”



DIGITAL STRATEGY MANAGER ★

A strategic role for all the museums that aim at thriving in a digital environment in line with the overall museum strategy



Main tasks

- To support a museum’s technological and digital innovation and helps museums to thrive in a digital environment

- To play a mediating role between the internal museum departments and external stakeholder

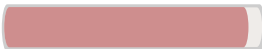
- To play a mediating role between the internal museum departments and external stakeholder

- To have a good knowledge of how a museum works and provides them with updated information about digital products



E - Competences

Business planning



Information System and Organisational Strategy Alignment



Innovating



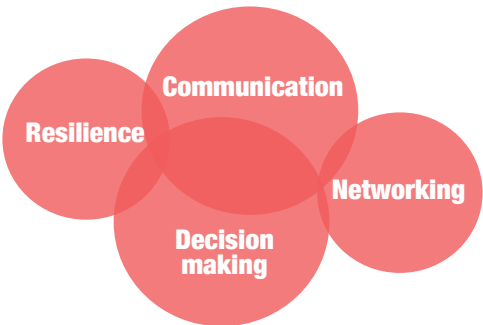
Needs identification



★ see full profile in the “Consolidate Report”



Transferable Competences



DIGITAL COLLECTIONS CURATOR ★

This role is specialised in preserving and managing digital materials. S/he develops online and offline exhibitions and content for other departments



Main tasks

- To improve the museum’s digital preservation, management and exploitation plan for all born-digital or digitized cultural contents

- To produce metadata according to recognised international standards

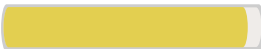
- To provide information on copyright and protection of digital cultural property according to international standards

- To supervise the implementation of cataloguing/archiving standards



E - Competences

Business Plan Development



Technology Trend Monitoring



Innovating



Product/Service Planning



★ see full profile in the “Consolidate Report”



Transferable Competences



DIGITAL INTERACTIVE EXPERIENCE DEVELOPER★

This role is specialised in designing, developing and implementing innovative and interactive experiences for all types of visitors



Main tasks

- To designs and prototype interactive and innovative installations
- providing meaningful experiences for all types of audiences

- To carry out audience research and observation analysis

- To facilitates communication flow between museum teams and external high tech companies

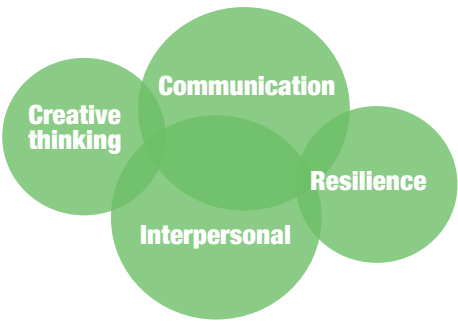
- To develop accessibility tools for all types of visitors



E - Competences



Transferable Competences



★ see full profile in the “Consolidate Report”

ONLINE COMMUNITY MANAGER★

This role profile is vital for all museums aiming to invest in developing and engaging diverse audiences online and should be fully integrated into the institutional structure



Main tasks

- To design and implement an online audience development plan in line with the museum's overall strategic communication plan

- To engage, monitor and to manage online audiences

- To liaise effectively with the other departments within the organisation in order to produce both content and meaningful online experiences

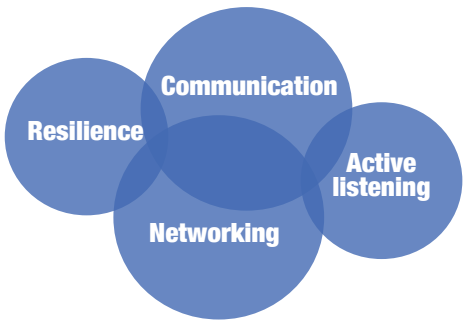
- To assess and evaluate the effectiveness and efficiency of online activities



E - Competences



Transferable Competences



★ see full profile in the “Consolidate Report”

CONCLUSIONS

Technology and society are changing at a very fast pace. Although it's difficult to predict exactly what the future holds for museums, we can be sure that they will concentrate on digital and social innovation. Regardless of their dimensions and the resources available to them, all museums can become agents of change. In order to do this they need to acquire an awareness of their potential thanks to on-going professional training that can equip them with the appropriate skill-set for dealing with the new needs of society.

The Mu.SA partners carried out a mapping of professional competences, with the involvement of eighty-one experts in Europe, ranging from museum directors to policy makers, researchers, freelancers, etc. A mapping of training provisions was also carried out by means of desk research and an online survey.



Despite the fact that the research results are contextualized to the specific contexts of the three different countries analysed, some general considerations may be applied to the whole museum sector in Europe. It is however important to be aware of the fact that the technologies involved and the needs of the audience are changing so quickly that new training needs are constantly emerging.

In general, it is possible to argue that it is necessary to develop useful skills in order to reach a greater number of museum visitors, while enhancing digital skills in this direction (and not just for their own sake).

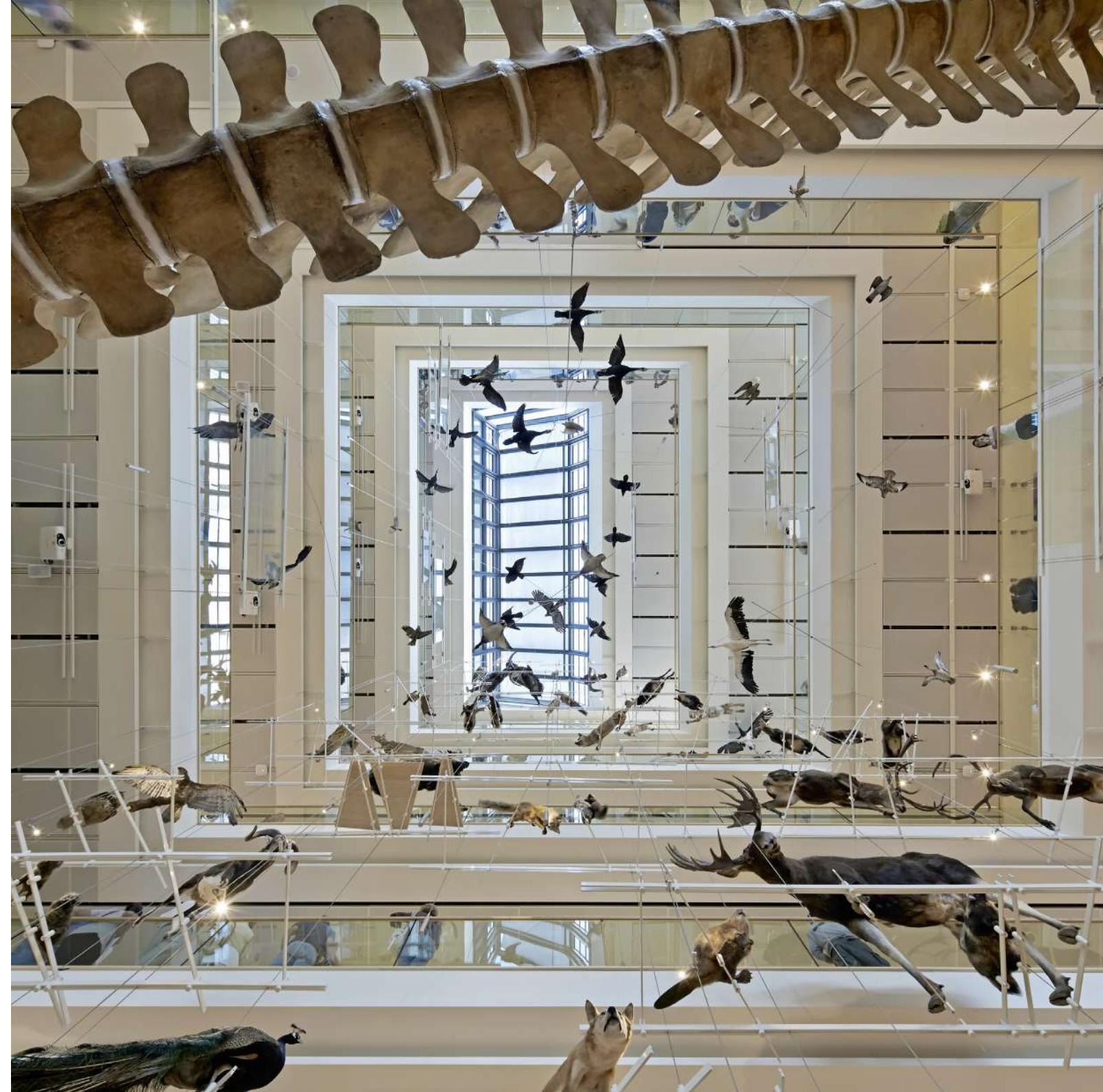
Based on the previous eCult Skills role-profiles, four emerging role-profiles have been identified: Digital Collections Curator, Online Community

Manager, Digital Interactive Experience Developer.

These roles are vitally important to help museums thrive in a digital environment.

Adequate investment should therefore be sought for on-going up skilling and reskilling as regards new technology for all museum staff, in accordance with their existing roles and tasks.

Our research reveals the importance of a mental shift and a cultural change in terms of planning and visioning, so that the digital element can become an integral part of the approach from the outset. An awareness of digital culture and a confidence with digital approaches should be developed across the whole organisation. In other words, the existing processes need to be reconstructed in a way that is relevant in a digital world.





Training programmes should develop both digital and transferable competences, such as strategic and business planning, user needs analysis, audience development, communication, storytelling, creativity and leadership with the aim of creating a network between museums.

Mu.SAim is to support museums in providing staff who are equipped with the right skills, rethinking the opportunities offered by digital technology means developing meaningful relationships with new and existing audiences with the ultimate goal of striking a balance between social, cultural and economic priorities, while ensuring that these have the right impact.

Some role-profiles have been considered at present too advanced or projected into the future. Nevertheless, their importance will eventually be recognised, as Samuela Caliori and Davide Dalpiaz of the Muse museum in Italy, are suggesting, *“In the context of a future strategy, it might be reasonable to introduce a specific profile that deals with software updating. Twenty years ago, even an audio-video section was unthinkable, simply because we didn’t feel the need”*.



The Mu.SA consortium is a rich mix of higher education institutions, independent and national research centres, cultural and social associations and one of the most important European networks.

GREECE

A **KMI Anonymous Educational Organisation** is a leading niche consultancy specialised in human resources development, education and lifelong learning, labour markets and public administration reform. It is a private management consulting firm providing advisory services and conducting studies in the public and private sectors with more than 20 years presence in Greece and abroad. www.iek-akmi.edu.gr

H **ellenic Open University**, project leader, it is the only Greek state University that offers distance learning study programs in Social Sciences, Applied Arts, Science and Technology and Humanities. The DAISy (Dynamic Ambient Intelligent Social Systems) Research Group contributes to the realization of an advanced humane society by inventing technology that adapts to human needs. www.daissy.eap.gr

ICOM - The Hellenic National Committee of ICOM was established in 1983 with the aims to offer to the Greek museum community an opportunity to meet and learn from each other by organising events, activities, conferences and by publishing books, to encourage networking and collaboration of Greek museum professionals with colleagues from abroad. www.network.icom.museum/icom-greece

N **ational Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP)** is a statutory executive body in the National Network for Lifelong Learning responsible for certifying the “outputs” of non-formal education and informal learning, as well as providing scientific support for counseling and career guidance services in Greece. www.eoppep.gr

ITALY

Istituto per i Beni Artistici Culturali e Naturali della Regione Emilia was founded in 1974 to support and advise the Regional Government in policy making and act as an advisory body to local authorities in the field of cultural heritage, including museums, libraries, archives, natural and built heritage. www.ibc.regione.emilia-romagna.it

Link Campus University is a private University in Rome that operates since 1999 as the Italian filiation of the University of Malta. It leads many professional courses, MAs, MBA in the field of Cultural Heritage, Arts, Digital Fabrication, Management, Economics, Law, Mobility, Drones and Sports. www.linkinternational.eu

Melting Pro Learning is a cultural organisation that operates in the field of arts and culture to promote innovative projects and approaches. MeP is inspired by the understanding that culture plays a major role in contributing to a more cohesive society and the wellbeing of people. www.meltingpro.org

Symbola Foundation for Italian Qualities is a not for profit networking organisation connecting personalities and associations belonging to the economic, cultural, institutional sectors and civil society, aiming at promoting a new quality-oriented model of development: the soft economy. www.symbola.net

PORTUGAL

ICOM Portugal is a professional association and national committee of ICOM since the 50's. We represent more than 500 museum professionals or specialists, students, professors and museums in Portugal and we aim to be an active voice promoting museums and their professionals everywhere. www.icom-portugal.org/

Mapa das Ideias is a Portuguese company dedicated to the relationship between museums, audiences and communities, since 1999. Its expertise in museum and cultural communication has led to the creation and development of mediation tools and projects, as well as training programmes for museum mediators. www.mapadasideias.pt

Universidade do Porto was founded in 1911 and is a benchmark institution for Higher Education and Scientific Research in Portugal. Besides hundreds of courses, FLUP offers programmes in Information and Communication Sciences and in Digital platforms, and postgraduate programmes in Museology, accredited and considered pioneering educational projects. www.sigarra.up.pt

BELGIUM

Culture Action Europe is a European network of membership organisations, cultural organisations and individuals. We connect those that strive to put culture at the heart of the public debate and decision-making. www.cultureactioneurope.org

Greek Research Team

Achilles Kameas, Panagiota Polymeropoulou

Hellenic Open University

Ilektra Simitsi, Effie Gkriela

Institute of Vocational Training AKMI

Alexandra Bounia, Artemis Stamatelou

ICOM Greece

Italian Research Team

Antonia Silvaggi, Federica Pesce

Melting Pro

Romina Surace, Domenico Sturabotti, Sabina Rosso

Symbola - Foundation for Italian Qualities

Claudia Matera, Valentina Re

Link Campus University

Portuguese Research Team

Alexandre Matos, Ana Carvalho, Manuel Sarmento Pizarro

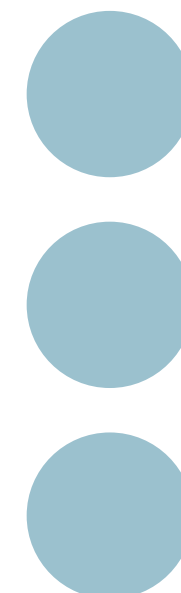
ICOM Portugal

Ivo Oosterbeek

Mapa das Ideas

Paula Menino Homem, Patrícia Remelgado, Susana Medina

Oporto University



Greece Interviewees

Alexandra Nikiforidou, Museologist, Postscriptum S.A

Esther Solomon, Assistant Professor in Museum Studies, School of Fine Arts, University of Ioannina

Giorgos Marakis, Conservator-Museologist, Head of the Conservation Dept., Archaeological Museum of Heraklion-Crete, Hellenic Ministry of Culture & Sports

Iphigenia Vogiatzi, Archaeologist-Museologist, Curator of the permanent exhibition & programmes, National Historical Museum, Athens

Kalliope Fotiadi, Archaeologist, Ephorate of Antiquities of East Attica, Hellenic Ministry of Culture & Sports

Maria Alexaki, Archaeologist-Museologist, Freelance museum expert

Panagiota Dalakoura, Archaeologist-Museologist, Ephorate of Antiquities of Rhodope, Hellenic Ministry of Culture & Sports

Panagiotis Vosnidis, Archaeologist, Byzantine and Christian Museum, Athens, Hellenic Ministry of Culture & Sports

Polyxeni Veleni, Archaeologist, Director, Archaeological Museum of Thessaloniki, Hellenic Ministry of Culture & Sports

Thouli Misirloglou, Art Historian, Director, Macedonian Museum of Contemporary Art, Thessaloniki

Yannis Koukmas, Social anthropologist, Ethnological Museum of Thrace, Alexandroupolis

Focus group contributors

Alexandra Bounia, ICOM Greece

Alexandra Nikiforidou, Museologist, Postscriptum S.A.

Angelos Moretis, General Director, George Zongolopoulos Foundation, Athens

Artemis Stamatelou, ICOM Greece

Despina Catapoti, Assistant Professor in Cultural Theory & Digital Culture, University of the Aegean

Despina Kalessopoulou, Archaeologist-Museologist, National Archaeological Museum, Athens, Hellenic Ministry of Culture & Sports

Eirini Charitaki, Archaeologist, Ephorate of Antiquities of East Attica, Hellenic Ministry of Culture & Sports

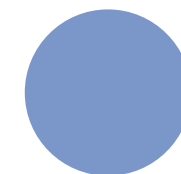
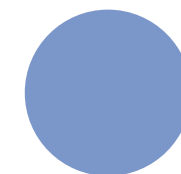
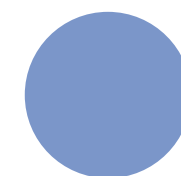
Erato Koutsoudaki, Museologist-Exhibition designer, Freelance

Ifigenia Dionissiadou, Head of the IT department, Benaki Museum, Athens

Katerina Petrou, Archaeologist, Ephorate of Antiquities of East Attica, Hellenic Ministry of Culture & Sports

Pari Kalamara, Archaeologist, Director, Ephorate of Antiquities of Euboea, Hellenic Ministry of Culture & Sports

Philippos Mazarakis-Ainian, Senior curator, National Historical Museum, Athens



Italy

Interviewees

Anna Maria Marras, ICOM Italy - Wikimedia Italia

Carlotta Margarone, Digital Media Curator, Communities Manager, Documentation and Communication Services, Madama Palace, Turin

Fiorenzo Galli, General Director and Director of the Cultural Offer, National Museum of Science and Technology, Milan

Francesca Gottardo, Funder of the Blog and Community “#svegliamuseo”

Gabriel Zuchtriegel, Director of the Archeological Park of Paestum

Giuseppe Ariano, Communication Consultant MiBACT

Lucrezia Ungaro, Scientific and Technological Coordination, Trajan's Markets, Rome

Margit Oberrauch, Administrative Director, Museion – Modern and Contemporary Art Museum of Bolzen

Maria Elena Colombo, Digital Media Curator, Freelance

Massimiliano Franceschetti, Researcher, Inapp ex Isfol

Maurizio Felicori, Director Royal Palace of Caserta

Rene Capovin, Project Manager, Musil – Industry and Labour Museum – Brescia

Valentina Zucchi, Responsible Customer Care, Mus.e Association – Civic Museums of Florence

Vitalba Morelli, Vice President, Tuo Museo Association

Focus group contributors

Alessandro Bollo, Director of Polo del '900, Founder of Fitzcarraldo Foundation, Turin

Anna Maria Visser, Ferrara University, Co-Director of the Master Musec

Annalisa Cicerchia, Senior Researcher, Istat; Professor of Management of the Cultural Industries, Tor Vergata University of Rome

Beatrice Boatto, Communications and Digital Media, Prada Foundation, Milan

Cristina Da Milano, Director, ECCOM. Ideas for Culture, Rome

Francesca Lambertini, Project Manager, BAM!, Bologna

Gian Paolo Manzella, Regional Council Member, Latium

Giovanna Barni, President, Coopculture

Marcello Carrozzino, PERCRO - Sant'Anna School of Advanced Studies of Pisa

Massimo Negri, Museum and Industrial Archeology Consultant, Kriterion

Michela Perrotta, Educational Department, Grassi Palace, Venice

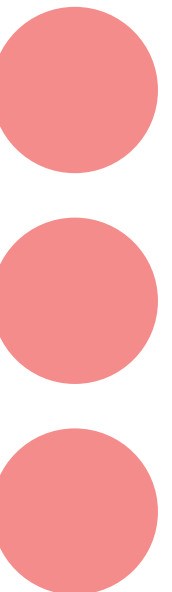
Nicolette Mandarano, La Sapienza University of Rome

Paola Guarnera, Digital Communication, National Gallery of Modern Art, Rome

Pippo Ciorra, Professor, Camerino University and Architecture Senior Curator, MAXXI, Rome

Prisca Cupellini, Online Communications and Digital Projects Curator, MAXXI, Rome

Simona Caraceni, Artribune, steering Mu.SA Focus Group



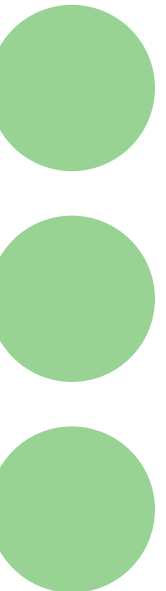
Portugal

Interviewees

Ana Rita Costa, University of Coimbra
Clara Vaz Pinto, Director - National Museum of Costume, Lisbon
Cláudia Camacho, Curator - Antiframe, Porto/Lisbon
Fernando Cabral, Director - Sistemas do Futuro, Porto
Isabel Tissot, Conservation specialist - Archeofactu, Lisbon
Joana Sousa Monteiro, Director - Lisbon Museum
Jorge Raposo, Municipal Ecomuseum of Seixal
Maria José Santos, Director, Penafiel Museum
Maria Vlachou, Executive Director, Acesso Cultura, Lisbon
Paulo Monteiro, Director, Glorybox, Viseu
Rita Canavarro, Money Museum, Lisbon
Rui Raposo, Director, Department of Communication and Arts of the University of Aveiro
Sara Barriga, Money Museum, Lisbon

Focus group contributors

Ana Carvalho, ICOM-Portugal
Ana Rita Canavarro, Money Museum
Ana Rita Costa, Phd Student, University of Coimbra
André Avelans Coelho, Realizasom
Alexandre Matos, ICOM-Portugal
Clara Vaz Pinto, National Costume Museum
Cristina Reboredo, Mapa das Ideias
Inês Câmara, Mapa das Ideias
Inês Fialho Brandão, Museum professional, Cascais Municipality
Jorge Santos, Researcher, ISCTE - Instituto Universitário de Lisboa
Manuel Pizarro, ICOM-Portugal
Rui Pedro Costa, National Costume Museum



ACKNOWLEDGMENTS

Our thanks go to all the people interviewed and focus group participants that have been involved in the Mu.SA research and all the suggestions we had from outside the consortium.

It has not been an easy task to summarise all the interesting suggestions, this is why the full report and other interesting materials are published on the Mu.SA website which is regularly updated.

www.project-musa.eu



bibliography

Keene S.,(2004), The Future of the Museum in the Digital Age, Icom News, n° 3, Paris

Legget J., (2011) Staff and Training in Regional Museums ICOM-ICR, ICOM-ICTOP, Paris

Nicholls A., Pereira M., Sung J., (2013), Technology and the public. Evaluation of ICT in museums, Eds. Cap Sciences and TEC-Lab, Università della Svizzera italiana

Ruge A., (2008) Museum Professions. A European Frame of Reference, ICOM-ICTOP, Paris

websites

aam-us.org/about-us/media-room/2017/trendswatch-2017-report-helps-museums-prepare-for-change-in-us-and-worldwide TrendsWatch 2017: Report Helps Museums Prepare for Change in US and Worldwide, American Alliance of Museums (Downloaded May 2017)

adesteproject.eu/about
ADESTE, Audience DEveloper: Skills and Training in Europe (Downloaded April 2017)

e-jobs-observatory.eu/sites/e-jobs-observatory.eu/files/eCultSkills_Role_profiles_EN.pdf e-Jobs Observatory,
e-Cult Skills Role Profiles, (Downloaded April 2017)

e-jobs-observatory.eu/sites/e-jobs-observatory.eu/files/eCultSkills_Training_Guidelines_EN.pdf
e-Jobs Observatory, eCult Skills Training Guidelines (Downloaded April 2017)

ec.europa.eu/ploteus/en/content/descriptors-page
Descriptors defining levels in the European Qualifications Framework (EQF) (Downloaded April 2017)

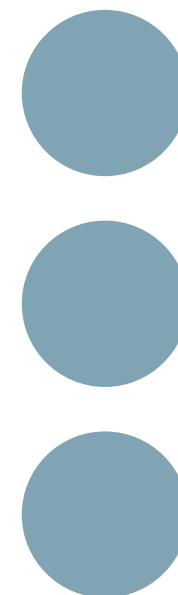
ecompetences.eu
European framework for ICT competences (e- CF) (Downloaded May 2017)

engageaudiences.eu/materials/nc0116644enn_002
Study on Audience Development - How to place audiences at the centre of cultural organisations, European Commission (Downloaded May 2017)

icom.museum/fileadmin/user_upload/pdf/Codes/code_ethics2013_eng.pdf
ICOM Code of Ethics for Museums (2013) (Downloaded May 2017)

icom.museum/fileadmin/user_upload/pdf/professions/frame_of_reference_2008.pdf,
ICTOP Guidelines for Museum Professional Development (2001) (Downloaded May 2017)

voicesofculture.eu/audience-development-via-digital-means
Voices of culture report: Audience Development through digital means (Downloaded May 2017)



Editors: Antonia Silvaggi, Federica Pesce (Melting Pro)

Graphic Design: Laura Bove (Melting Pro), Danilo Palmisano

Illustrations: Laura Bove

Photo Credits: © Laura Bove (10, 27, 37, 68-69); MAAT, © Fernando Guerra - Courtesy EDP Foundation (20-21); ©National Historical Museum, Athens-Greece, EL (28 photo 1); MAAT © EDP Foundation (28 photo 2); MUSE, © Hufton+Crow (28 photo 3, 53); © Museion Bozen/Bolzano, Augustin Ochsenreiter (35)

Photos not mentioned in the credits have either been taken by project partners or are images from Creative Commons.

Reproduction and/or total or partial distribution of the information contained in this volume is permitted provided that the source is mentioned: "Melting Pro - MUSEUM PROFESSIONALS IN THE DIGITAL ERA. Agents of change and innovation, Mu.SA Project"



mg meltingPro

Via Visconte Maggiolo, 4
00176 Roma
www.meltingpro.org

