

**Innovation in Museums:
An analysis to the Portuguese museums**

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Dissertation submitted as a partial requirement to obtain the degree of
MSc on Business Economics and Competition

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“In the Grimm brothers’ version of the Snow White story, after Snow White dies, poisoned by an apple, she is placed in a glass coffin by the seven dwarves. Inside the coffin her appearance does not change: she still looks as she did alive. A passing prince tries to buy her from the dwarves, who refuse to sell her but eventually give her to him. As the coffin is carried away, it is jolted, the poisoned apple becomes dislodged from her throat, and Snow White awakes. The glass cases used in museums, called vitrines, have often been referred to as glass coffins. As the Snow White story suggests, this links the museum with death, and simultaneously with the possibility of awakening the dead. In the glass coffin fantasy, the body encased in the glass is not dead for eternity, but in suspended animation.”

(Henning, 2006: 5)

“A museum is like a lung of a great city; each Sunday the crowd flows like blood into the museum and emerges purified and fresh.”

(Bataille and Michelson, 1986: 24)

“At once you realize that these treasures, recently so remote, so dead it seemed, come again to life.”

(Stewart Culin, cited in Bronner 1989: 232)

Aknowledgments

In this last year while both dedicating to the investigation of innovative practices in museums and writing this dissertation, I stumbled upon the realization that the materiality holds a significant amount of importance in life. The objects are the perfect vessel in which we can preserve memory. Similarly to the way museums keep and preserve our collective memory in the exposed objects, I preserve the memory of the year that has just gone by through this object. This object that seems to be nothing more than a mere pile of sheet, is actually of great symbolic relevance to me.

I would like to thank my supervisors, Professor Sandro Mendonça and Professor Cátia Miriam Costa for assisting me in order to accomplish my goal of breaking new ground and for putting their faith in me. To Professor Nádia Simões that encouraged me throughout this whole process.

To my friends that were open to lend a helping hand, specially to Bárbara Ramalho and to Pedro Dominguez.

To my parents, Maria Helena Simões e Jorge Listopad, for persisting in the effort of bringing to my attention the importance of cultivating myself in the realms of education and instruction, to a personal, academic and cultural degrees.

Finally, I would like to emphasize the importance that my mother had throughout my life being the greatest example I could have ever asked for.

Innovation in Museums

Note: This investigation was written between September 2018 until June 2019. During this period of time, only 1% of the State Budget was dedicated to Culture.

Abstract

Since the first decade of the 21st century, European countries have stopped being primarily concerned with securing funding for museums. In addition, we are currently living in a “fast-paced world” where people are looking for virtual and immediate experiences. Such paradigm contributes to making it increasingly difficult to bring public to museums. How can museums survive in the present context? Any Western society recognizes the importance of culture, however, the policies implemented by the states, mainly by the Portuguese, do not translate this idea.

This dissertation intends to analyze a group that contributes to the Portuguese culture, in this case, the museums. In addition to the latter, this research aims to focus on the themes of innovation (within the museological scope) and the economic sustainability of the above-mentioned institutions. In terms of analysis, the research in question is devoted to the study of innovative practices and conceptions that are present in four case studies. The museums elected are the Communications Museum, the Ílhavo Maritime Museum, the National Press Museum and the Portimão Museum.

This project will conclude that a Museum innovates and its innovative policies contribute to its economic sustainability. This dissertation has the ambition of stimulating a reflection on these themes within the national community, which may arouse the interest of both non-governmental organizations and governmental agents.

Keywords: innovation economics; cultural economics; Portuguese museums

JEL Codes: O30, Z11

Resumo

Desde a primeira década do século XXI que os países europeus não se encontram preocupados em garantir o financiamento de museus. Adicionalmente, vivemos num “mundo acelerado” em que as pessoas procuram experiências virtuais e imediatas. Tal paradigma contribui para que seja cada vez mais difícil levar o público a museus. Como é que os museus conseguem sobreviver no contexto presente? Qualquer sociedade ocidental reconhece a importância da cultura, no entanto, as políticas implementadas pelos Estados, principalmente pelo português, não traduzem essa ideia.

Esta dissertação pretende analisar um núcleo que contribui para a cultura em Portugal, neste caso, os museus. Para além dos últimos, o trabalho em questão pretende focar-se nas temáticas da inovação (em sede do âmbito museológico) e da sustentabilidade económica das instituições acima referidas. Em termos de análise, a investigação em causa é dedicada ao estudo das práticas e conceções inovadoras que se encontram presentes em quatro casos de estudo. Os quatro museus eleitos são o Museu das Comunicações, o Museu Marítimo de Ílhavo, o Museu Nacional da Imprensa e o Museu de Portimão.

Conduzir este projeto e verificar que o Museu inova e que essa contribui para a sustentabilidade económica é também uma forma de impulsionar uma reflexão a propósito destes temas no seio da comunidade nacional, o que poderá despertar o interesse tanto de organizações não-governamentais como de agentes governamentais.

Palavras-chave: economia da inovação; economia da cultura; museus portugueses

Códigos JEL: O30, Z11

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Acronyms

AMI – Press Museum Association

AMMI – Association of Friends of the Ílhavo Maritime Museum

ANACOM – National Communications Authority

APOM – Portuguese Association of Museology

CED – European City of Sport

CFJ – Journalist Training Center

CIEMAR-Ílhavo – Sea Research and Entrepreneurship Center

CIMP – Portimão Museum Founding Committee

CMI – Ílhavo City Council

CMP – Portimão City Council

CPLP – Community of the Portuguese Speaking Countries

EMYA – European Museum Year Award

FECO – Federation of Cartoonists Organization

FPC – Portuguese Communications Foundation

GAMP – Portimão Museum Friend's Group

GDP – Gross Domestic Product

GIC – Cartoon International Gallery

HR – Human Resources

ICMM – International Congress of Maritime Museums

ICOM – International Council of Museums

MC – Communications Museum

MMI – Ílhavo Maritime Museum

MNI – National Press Museum

MP – Portimão Museum

NMSA – Santo André Museum-Ship

RMA – Algarve Museum Network

RPM – Portuguese Museum Network

R&D – Research and Development

UNESCO – United Nations Educational, Scientific and Cultural Organization

UPU – Universal Postal Union

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1. Introduction

In the twentieth century due to several social and economic changes the concept of “innovation” became a subject of study and the Museum’s function changed radically. In Greek mythology, Museum (or mouseion in Greek) — term originated by Mnemósine, the Goddess of Memory — was a space where the nine muses protected the arts. Currently in addition to the cultural and social value that it holds the Museum also has a monetary value as there are economic activities around it (Findlen, 1989). The fact that museums cannot be considered a business as they are non-profit institutions does not necessarily mean that they shouldn’t be operated as companies would. Museums compete in the leisure market not only directly with other museums, monuments or palaces, but also with any entertainment activity such as watching a film or reading a book (Johnson & Thomas, 1998). That is, the Museum evolved from being an institution that only has abstract value to one that is concerned about being economically sustainable. Despite the fact that the Museum is primarily non-profit-making it does not mean that it should not function efficiently (Claro, 2018).

In spite of the richness of the estate held by the museums, those organizations are actually quite poor when one considers their budget. For this reason the entities responsible for the governance and management of museums, when recognizing that they are unlikely to make enough revenue and that they are ever to receive funds to operate their institutions at the level of activity ideally, feel the need to innovate (Feldstein, 1991). This research will assess the innovation applied to museums. That is, the said investigation aims to analyze the innovative practices employed by a specific group of museums in the pursuit of a simultaneously profitable and economically sustainable objective, without prejudicing its cultural and social function in the community where they are inserted. To this end the research questions used as basis for the elaboration of the dissertation are: a) *How does a Museum innovate?* and b) *Is innovation helping a Museum achieve economic sustainability?* Given that the main purpose of the dissertation is to analyze the innovative dimension of the Museum and secondarily to link it to a context of sustainability.

The dissertation at hand is structured as follows. Chapter 2 presents the relevant literature review related with the studied topic focusing on the concept innovation, its evolution and also its application to non-profit organizations such as museums. As a result it is also studied the definition of “museum” and the Portuguese Museum Scene. Last, but not least, it is examined the innovation within Museums. Chapter 3 discusses the methodology used

and the reasons why the four study cases included in this study were picked in the first place. The elected museums are the Museu das Comunicações (Communications Museum) (MC), the Museum Marítimo de Ílhavo (Ílhavo Maritime Museum) (MMI), the Museu Nacional da Imprensa (National Press Museum) (MNI) and the Museu de Portimão (Portimão Museum) (MP). Chapter 4 explores the above-mentioned four institutions on how innovation is important in their philosophy; what is the innovation's origin; what types of innovation are being scrutinized; and how innovation helps to achieve economic sustainability. Chapter 5 focuses on the main conclusions of this analysis. The interviews transcripts held with each Museum's Board Member are attached to this document.

2. Literature Review

2.1. Innovation Economics

It is possible to look at the world economies' development and growth and organize them in two major groups each one reflecting different phases: the first took place before the eighteenth-century Industrial Revolution where growth was extremely slow; and the second took place after the English Revolution in which several machines were introduced causing a substantial increase of the growth rates (Godinho, 2013). It is also essential to realize the globalization effects on the emergence of innovation, since it was in the nineteenth century that the first maritime infrastructures and railways were introduced allowing merchandise trade to cross borders. During the globalization development in the early twentieth century until the 1930s there was an intensification of electricity and steel production that accompanied the emergence of multinational corporations in Europe alongside their extractive industries allowing the national States to invest in research and development (R&D) from a state level. It is in post-World War II, considered by many as the "third industrial revolution", that the emergence of information and communication technology, biotechnology, renewable energies and artificial intelligence occurred. With the signing of the General Agreement on Tariffs and Trade (GATT) which eliminated certain economic barriers such as customs duties companies began to organize themselves into networks (Tunzelmann, 2003). As Godinho (2003) shows, the most developed countries are those that invest the most in R&D and the less developed countries are following policies focused on innovation. In Portugal, there was a delay in the economy industrialization since the nineteenth century, being its dominant structure constituted by first sector activities namely agriculture. It is only in the second half of the twentieth century that the importance of international competition was recognized through firstly, the adoption of the Plans of Development (that were in place from 1953 to 1957) and secondly with the entrance, in 1961, into European Free Trade Association (EFTA). Only in 1986 with the entrance in the European Union, Portugal began to receive funds to invest more significantly in information technologies (Fagerberg & Godinho, 2003).

The concept of innovation is not static, on the contrary it is a subject of discussion by several authors: some authors¹ believe that innovation is something similar to invention,

¹ The authors that defend this position are Barnett (1953), Rogers (2012), Zaltman, et al. (1973), Amabile (1996), among others.

that is the “simple” creation of a new thought or an idea that can be understood as a novelty for the individual in which creativity is an essential component; other authors² argue that innovation is the introduction of something new in the market, through a new method, or a new product/service, a new process or even a new market segment (Santos, 2016). If it is a scientifically/technological investment we call it hard innovation; if it is a non-technology investment more concerned with changes in communication and organization we call it soft innovation (de Jesus and Mendonça, 2018; see also Costa and Mendonça, 2019).³ On one hand it is argued that innovation is an event and on the other that it is a process (Caraça et al., 2009). However due to the innovation’s effects, all agree with the fact that it is essential to current economy. And despite being associated with uncertainty and risks (Rosenberg, 1994) it is undoubtedly an added value that companies constantly seek and ambition for.

According to the Oslo Manual (2018) there are four types of Innovation:

- a) Product innovations – include the entry of new goods/services; the significant change of goods/services; or important improvements in the products/services. Major enhancements or brand-new goods/services are incorporated into existing products. The product’s modifications have to be sufficiently improved to be considered as innovations:
 - a. The product may be new to the market;
 - b. The product may be new to the world;
 - c. The product is capable of causing a disruption;
- b) Process innovations – translate a significant change in the production and distribution methods.
- c) Organizational innovations – correspond to a new organizational methods implementation, namely changes in business practices, in the organization of the workplace or in the external relations of the company.

² The authors that defend this position are Robertson (1967), Aiken & Hage (1971), Rasul, Mohr (1969) and Schumpeter (2003).

³ As it is learned in Political Science and International Relations bachelor studies specifically when studying International Relations Theory there is the distinction between hard and soft power (Nye, 1990). Soft power is the ability to influence the behaviour and shape a preference through appeal and attraction rather than coerce and threats (hard power).

- d) Marketing innovations – refer to the practice of new marketing methods such as changes in product design and packaging, product promotion and marketing, and new pricing measures (rules or standards). Nowadays marketing should be considered as a form of innovation and when this happens it is necessary to take into account the product: design and packaging of the product; the price – the value that was fixed for the good; promotion – strategies to improve brand image; the positioning – how the product is sold.

There are three varieties of innovation activities according to their staying power in an economy (Oslo Manual, 2018): a) successful, for being implemented successfully; b) in progress, that is those that have not yet obtained definitive results; c) abandoned, since they were not implemented.

The innovation importance on consumer services is growing and increasingly recognized academically (Benkenstein et al., 2017; Hauknes, 1998; Howells et al., 2004; Miles, 2005). Given that this sector is vital to Portugal's economic growth⁴ it should be noted bearing in mind it is a continuous process, that it is difficult to identify innovation.

Godinho (2013) introduces two distinct ways in which innovation is measured and accounted for, either referring it to a company or to a country. The first is based on objective measures through quantitative variables such as the number of scientific publications in a specific country, the total number of patents of a company or existent in a country, the financial resources employed in R&D, the number of researchers in permilation of the active population of that country, the national expense in R&D as a percentage of Gross Domestic Product (GDP). Besides attempting on the costs that come with innovation, one should take note of the income provided by said innovation, such as measuring the sales percentage of new or improved products.

The second is based on subjective measures, that is, qualitative data that is not possible to be accounted, namely activities for approaching the consumer, the use of technology and digital resources, marketing activities and the way the company internationalizes.

Technology is transforming the concepts “good” and “service”. In services, innovation usually occurs with an initial investment in process (aiming for greater efficiency in the process and not a cost's reduction, as could happen in the secondary sector) in order to

⁴ The service sector represents 75.4% of Gross Added Value and 68,6% of national employment (AICEP, 2017).

significantly improve the product and not create a new one. In the tertiary sector it may be difficult to distinguish a new service and an improved version of it. Barras (1990) states that with the emergence of the tertiary sector it is important to observe and analyze qualitatively even that it reflects a higher difficulty comparing it with a quantitative analysis. It is also valid and pertinent for the study of innovation in non-profit organizations such as museums.

Although a museum is not a company and therefore does not have the primary purpose of maximizing its profit it is possible to look at these as productive units which in order to achieve certain aims, invest in a transformation or through production technology or of inputs into outputs that will be valued by others (Johnson & Thomas, 1998).

2.2. Museums

The museum is not a closed concept, on the contrary it is in constant evolution and permanent change. The museums initially had the intention of safeguarding and exposing collections and sets of rare objects. Since the birth of Mankind said species developed the taste and the will of collecting artefacts in the Paleolithic age and antiquities in Mesopotamia which were kept by the priests where each work was identified as it is done nowadays (Thomason, 2005).

In ancient Greece temples exhibited collections of objects or paintings that could be visited and the Romans did so in forums or other public spaces. The most well-known museum of these times dates back to the third century BC in Alexandria which brought together philosopher statues, astronomical objects and plants. Later when incorporating a collection of written works it became the celebrated Library of Alexandria (Murray, 2009).

In the Renaissance the aristocracy and the upper bourgeoisie were arts patrons and invested in promising artists since it was a well-seen attitude in society; evidence of greater knowledge about culture in relation to others; and great architecture works and sculpture embellished and glorified the cities. Furthermore, large families created private collections as the Medici family, the most important of Florence. Between the sixteenth and seventeenth centuries the curiosity cabinets were created and man's need to collect objects that had value for themselves was verified (Impey & MacGregor, 1985). That is, there is an importance transfer of the objects that had a direct relation to the society that

was represented for something more individual, specifically for the collector. The cabinets of curiosity were a reflection of the maker. Objects did not necessarily have to tell the world's history (or any event/period history, for that matter) but rather tell the story of the collector (Impey & MacGregor, 1985). Also at that time the palaces galleries were inaugurated as well as several scientific scope institutions. It was in the seventeenth century that the institution of the museum as it is known today settled. The first modern museum to appear refers to the year of 1683 having been created by the University of Oxford. That was the Ashmolean Museum an office of curiosity gathered by the Tradescant family (Swann, 2001).

It is generally thought that cultural goods⁵ are those with both antiquity and a historical sedimentation; however there are contemporary cultural assets that are classified as such. A cultural asset may or may not hold an economic value but more importantly it contains a material and symbolic value. That is, it is attributed a cultural value and an intangible quality to the good. Alexandrino (2011) doesn't use the "value" concept, preferring to use the notion of "interest". It is a cultural materialization that society grants. Currently the museum is no longer a "collection" space, taking an active and essential role in society focusing on its visitors (Henning, 2006). It has the task of creating a national identity and creating awareness with objects of historical value for the country in question. This is also how regional museums are born representing the interests of smaller geographical areas. The museum is no longer meant to contain objects that certain people relate to (Henning, 2006).

According to the International Council of Museums (ICOM) the definition of museum is as follows: "*A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment.*" (ICOM, 2013).

As Hemming (2006) points out in a museum, society which is represented, will feel identified with the cultural assets exposed. That is, museums are not reduced to just a set of objects, documents and representations; these have a function that has been extended,

⁵ Concept that appears after World War II, namely, at the United Nations Educational, Scientific and Cultural Organization (UNESCO) Convention on the Protection of Cultural Property in an event of armed conflict, adopted in 1954.

also due to the modern times with the intention of molding good national citizens. The museum transforms people's view of the goods they exhibit and how they relate to them. The author points out the new relationship that was originated in the heart of the museum between people and things, with a greater emphasis on the experience that the visitor has rather with the object itself. There is a greater effect on interactive exhibits, with activities and realistic reconstructions. From the 20th century onwards the museum tends to resort to the emergence of new technologies, just like any other media object.

In an era in which some authors such as Henning (2006) speak about the process of globalization and cultural uniformity, museums play an important role in promoting local cultures and identities, which are increasingly being diluted due to the aforementioned globalization phenomenon. In addition, we live in a time of rapid consumption and excesses in which the museum has to become fun and attractive to captivate the public. In 2003 the Declaration on the Importance and Value of Universal Museums⁶ was signed bringing these themes to debate (Tythacott & Arvanitis, 2014).

Museum spending is tripartite in nature: operational costs, acquisitions, and construction and maintenance of buildings (Feldstein, 1991).

- a) Operating Costs: includes all costs related to maintenance of the infrastructures, curators, etc ...
- b) Costs with Acquisitions: includes expenses with the acquisition of new works for its permanent exposures but also with the conservation and preservation of existing assets.
- c) Costs with the Building: all museums tend to expand increasing spaces and this fact produces high associated costs. It is also important to mention that the expansion of the museum entails an increase in operating costs taking into account that more employees will be needed to manage the space. To maximize spaces museums will often have to innovate in the way they exhibit and in curatorships.

There are two ways to look at the issue of ticket costs in a museum. Firstly the existence or increase of the ticket price can lead to an improvement in the visitor experience and consequently the number of visitors will increase, which begs the following. The question is: how much can the ticket price rise to translate into a net increase in museum revenue?

⁶ The Declaration on the Importance and Value of Universal Museums can be found at http://icom.museum/leadadmin/user_upload/pdf/ICOM_News/2004-1/ENG/p4_2004-1.pdf.

Secondly, government funds take into account the number of visitors, while private sponsors may not be willing to donate if there is a ticket or if the price of the ticket has risen recently. Some authors, such as Feldstein (1991), argue that the admission to art museums should be free, and its cost should be covered by the State, since the museum is a public good, an additional visitor will not increase the total cost of “production”. In other words, the ticket serves as a barrier for visitors, with the exception of popular exhibitions that are crowded, reducing the benefit the visitor receives. It is important not to forget that the museum market is not only the present but also the future generation. With the technological advances the creation of catalogs or documentation of the exhibition stored in other platforms, could be consumed by those who cannot visit the museum physically, thus increasing its market. Consideration should also be given about donations in which the owner of the works transfers it with the condition that it will be preserved and maintained, raising its cost

In this dissertation, four Portuguese museums are analyzed. In this way it is important to make a brief introduction about the Lusitanian museological panorama.

2.3. Museums in Portugal

During the last decades in the Western world there has also been a paradigm change regarding the museum function due to its macro surroundings transformation, i.e.: the creation of legislation on Portuguese museums (Lei Quadro dos Museus Portugueses n°47/2004);⁷ the integration of Portugal into the European Economic Community (EEC) in 1986; an entrepreneurship wave within the community; a growth of popular art and of everyday life importance, all boosted by the accelerated pace of technological progress. Nowadays the museum is an open space to people’s imagination and responsible for, in an accessible way, offering culture to society.

As it is verified in the Article 7 of Law n°47/2004,⁸ the museum has the functions of studying and investigating its cultural assets, establishing horizontal relations with other museums and incorporating new cultural assets. These have to be inventoried, properly documented and preserved. The institution must also have security conditions and make cultural objects, that are incorporated in the museum, known through exhibitions and

⁷ It is a Portuguese law governing the museums.

⁸ Adopted unanimously on July 9, 2004.

educational/cultural programs, to schools and to different groups of society. All these functions do not presuppose a hierarchy and are essential to the proper functioning of the museum (Claro, 2009). The legal concept of “museum” used in Portugal was inspired by the International Council of Museums (ICOM) Code of Ethics for Museums (Laureano, 2014).

Museums in Portugal and in most countries in the Western world are therefore a place where the cultural heritage is clearly preserved and valued “*making it an element that inspires and gives life to a common cultural identity*”.⁹ And by “cultural heritage”, it means the material and immaterial goods that are part of history gaining value of memory, authenticity and rarity (Miranda, 2012).

According to ICOM and UNESCO, museums can be subdivided into 13 categories, namely: i) art museums; ii) archeology museums; iii) history museums; iv) natural science and natural history museums; v) museums of science and technology; vi) museums of ethnography and anthropology; vii) specialized museums; (viii) regional museums; ix) generic museums; x) other museums; xi) museum monuments; xii) zoological, botanical and aquarium gardens; xiii) reserves or natural parks. Eurostat suggests the use of only three categories: i) art, archeology and history museums; ii) science and technology museums and museums of ethnology; iii) other museums.

According to Neves (2013) in 2010, there were 1223 museums in operation and 416 projects/intentions in Portugal. Its form of guardianship can be secured at a national level through the Central Administration,¹⁰ at a regional level through the Regional Governments (of the Azores and Madeira), at a local level through Local Administration¹¹ or by the private sector.¹² In a survey conducted in 2009 (Neves, 2013) conducted at 626 museums, it was established that 13.1% are supervised by the Central Administration; 3.4% by Regional Governments; 48.6% by Local Administration (which makes up a total

⁹ Article 78º, number 2, item c) of the Constitution of the Portuguese Republic of 1976. Translation can be found at <https://dre.pt/constitution-of-the-portuguese-republic>.

¹⁰ As the Ministry of Culture; the Ministry of Defence; public universities; or other central administrative bodies.

¹¹ As the District Assembly; the City Council; the Parish Council; or municipal companies.

¹² As associations; foundations; Catholic Church; other non-profit bodies; private companies; private individuals.

of 65% of public museums) and 35% by Private parties (of which 28.8% are not profitable and 6.2% are).¹³

It is important to note that regardless of their political-administrative structure, cultural assets in their “symbolic value” are not owned by museums since they are intended to be enjoyed universally, that is, enjoyed by a random and disaggregated group of individuals. For this reason the museum has no right to cultural assets in isolation, but to its legal rights and duties (Alexandrino, 2011). The museum is a space designed for the sole purpose of sharing the community sphere (Barrett, 2011).

Most of the economic sources of museums are either public or private support. In addition, they depend on revenue from ticket office, souvenir shop, restaurant, among others (Feldstein, 1991).

Over the last few years there has been an intensification in the creation of museum networks. The main one is the Rede Portuguesa dos Museus (Portuguese Museum Network) (RPM) which is a structure that promotes the visibility of the museums that integrate it. It functions as a national cluster based on voluntary adhesion so that museums must fulfill certain requirements in order to integrate RPM and enjoy its benefits. This networking helps museums to maintain professional standards. The Rede de Museus do Algarve (Algarve Museum Network) (RMA)¹⁴ established in 2007, was the first regional network in Portuguese History. Then there is the Rede de Museus do Baixo Alentejo (Museum Network of the Baixo Alentejo); the Rede de Museus do Douro (Douro Museums Network); the Rede de Museus Militares e Coleções Visitáveis do Exército (Army Museums Network and VISIBLE Collections); the Roteiro Museus de Energia (Energy Museums Guide); the Rede Regional dos Museus dos Açores (Regional Network of Museums of the Azores); the Rede de Museus de Esposende (Museum Network of Esposende); among many others.

The proof that innovation in museums is a contemporary and important subject is that there is a European award, the European Museum Year Award (EMYA) that rewards innovation and ground-breaking initiatives within museums. The Council of Europe prize was awarded three times to Portuguese museums, the last of which in 2011 to Portimão

¹³ According to the museum definition (C.f. ICOM’s definition and Law nº 47/2004, Article 3º) it is a non-profit entity. This description pertains to the museum’s tutelage, which means that it can be a commercial or a non-commercial organisation. See Law nº 47/2004, Article 5º.

¹⁴ The Portimão Museum is a member.

Museum, one of the study-cases. This award recognizes the museums excellence in their approach to museum work.

After consolidating the concepts of innovation and museums (in Portugal) it is possible to relate them directly and understand how one can innovate in the museum.

2.4. Innovation in Museums

Directly link the arts and culture sector to sustainable development is an increasingly debated theme, even though not everyone agrees with that connection. The concepts of culture and sustainability are comprehensive, complex and interlinked. Culture is both the cause and the consequence of development (Soini & Dessein, 2016). Living sustainably means taking into account the quality of life of future generations and the functioning of the planet; and the role of the museum, although not to consecrate the world's salvation, is to provide tangible and intangible goods for the benefit of the community and future generations (Besterman, 2014). Culture has an intrinsic value which is implied in the communities' heritage and an instrumental value which creates economic, social, and educational development for the members of society. It is a vicious cycle. Museums also have a political dimension that is consistent with the ideology prevailing at the community level or preached by the political powers. In other words, these institutions are closely related to ideological issues, consciously or unconsciously, being affected by the political context in which they are inserted (Gray, 2015). Museums are and always will be political instruments (Tythacott & Arvanitis, 2014). Nowadays, small communities are perceived by the State as potential targets, therefore the number of municipal museums (outside the big cities) enlarged exponentially (such as the Portimão or the Ílhavo Maritime Museums that will be studied and analyzed) and giving a word to these cultural practices (Barrett, 2011).

In the first place museums offer different outputs and they change over time. Secondly, they are not only producing for the present generation but also for the future one, which do not yet have market preferences. Finally, in addition to the functions established by the State, there are also other outputs, mostly services, that the museum offers and which must be taken into account such as the souvenir shops, the rent of open spaces, the restaurant, the museum's publications. It is necessary to analyze how the museum

combines all these elements and what are the implications for their economic sustainability.

An essential aspect of the analysis is to calculate the visitor's utility when visiting the museum. For example, many museums are investing on virtual visits to their spaces through the internet. Although the museum is offering a product that serves as a substitute for the visit of the museum if they are doing it, it means they are getting some return from the policies adopted.

Another aspect that should be considered is the volunteers' contribution in museums. They will benefit from the process itself, in other words, they can be considered as producers and consumers.

Although Museums are not companies¹⁵ they still operate in a competitive environment. Museums are not immune to tastes and fashions consumer's changes and so they have a difficult task to keep the attractiveness of visitors. It is also important for the analysis to verify that the percentage of museums increased by 64% in the year 1985. Although many of them are rather small museums when analyzed in their entirety they represent an important source for competition in the national museum sector. It is not worthy to consider this competition as positive or negative, since it can be both. Maintaining the focus on the subject of competition it is important to mention that there are museums, not only due to their location, but to the status they have already achieved, which have a competitive advantage in the market. Innovation will make them reach more people (new markets), create initiatives (new products, greater diversity) and consequently become more efficient. Museums have been able to respond to the changing demand and supply that the market naturally brings (Johnson & Thomas, 1998). And the truth is that the museum also creates jobs, that is, the more the museum grows, the greater is the GDP and the greater the economic growth will be.

As it will be seen later a museum has functions to fulfill legal diplomas. However, the way these functions are hierarchized may differ between institutions. That is, while a museum can prioritize the conservation of its assets; another can prioritize education to the public which may lead to different implications (Johnson & Thomas, 1998).

¹⁵ Until February 2019, the Museu Nacional de Arte Antiga (National Museum of Ancient Art) did not even have a taxpayer identification number.

The reason museums have been betting on innovation policies can be explained by the following reasons. Firstly, the leisure and the entertainment market are increasingly crowded with a huge supply of activities; in addition, the number of museums has increased exponentially.¹⁶ Which that said competition has not only increased with the same kind of products (museums) but also with different characteristics (other activities). Secondly, museums are looking to be more efficient and offer a wider range of services within the museum.

It is also important to emphasize that innovation is not achieved without cooperation (Godinho, 2013) between museums and visitors, between museums and private investors, between museums and the State, between museums and the community and between museums. As it can be observed innovation depends on the institutions will that influences the market agent's behavior. In conclusion innovation is a political matter and should not be forgotten. Moreover, the innovations implemented by a museum afterwards may be diffused.

¹⁶ In 17 years (from 2000 to 2017) the number of museums grew 117%. Cf. <https://www.pordata.pt/Municipios/Museus+número+-742>.

3. Methodology

3.1. Qualitative Research

The method of analysis used in this dissertation was affected through Study Cases. There are numerous research strategies that could be adapted to the object of the research at hand however to better answer the questions that were raised Study Cases proved to be the most appropriate. It is a field investigation of empiric base on a (or several) real and current phenomena (Robson, 2002).

Yin (2003) stresses that the main concern regarding this investigation method is the direct influence that the investigator has over the whole process in the course of it, leading to the eventual lack of objectivity and rigor. Secondly, if only one case is analyzed (single-case) it might generalize the situation that is why in this dissertation the choice fell into multiple cases more specifically in four, in order to analyze different situations that are sufficiently representative in the Portuguese context. The third frequent criticism is the slowness of the preparation of the Study Cases and the enormous time investment and effort expended by the researcher.

There were four museums chosen for the analysis: the MC; the MMI; the MNI and the MP. The reasons for choosing these institutions are the following: firstly, analyzing only one would not allow to accurately measure nor to make due recognition of innovation in museology. Without mentioning that the conclusions would be a false and erroneous generalization of the current national panorama.

Secondly, with the election of these four museums it was possible to achieve a certain geographical representation of Continental Portugal that is of the North region – National Press Museum, – the Central region – Ílhavo Maritime Museum, – Lisbon Metropolitan Area – Communications Museu, – and lastly the Algarve region – Portimão Museum. Since only the regions of Alentejo and Insular Portugal are not represented. Two municipal museums were picked because each museum's specificities will have direct consequences on the way it is operated, in other words a municipal museum is much closer to its target audience (Gray, 2015).¹⁷

¹⁷ "(...) if the local museum is seen as being the central repository of the material artefacts that contain the history and the stories of the locality then it is in a position of real strength: no other local institution carries the same relationships between the material and the immaterial within it to as large an extent as the museum does." (Gray, 2015: 142).

Thirdly, variations are verified in the tutelage form, that is two museums are managed at a regional level through the Local Administration – the MMI is administrated by the Câmara Municipal de Ílhavo (Ílhavo City Council) (CMI) just as the MP which is administrated by the Câmara Municipal de Portimão (Portimão City Council) (CMP) – and two museums privately administered without lucrative purposes – the Communications Museum – that is run by the Fundação das Comunicações (Portuguese Communications Foundation) (FPC), created by the three following companies, Autoridade Nacional de Comunicações (National Communications Authority) (ANACOM), CTT Correios de Portugal (Portuguese Post Office) and Altice – and the MNI – that is under the wing of the Associação Museu da Imprensa (Press Museum Association) (AMI). In this way it is also possible to analyze the different museum's strategies and politics in agreement with its administration being that only a Central Administration tutelaged museum is not considered.

Fourthly, it exists in the sample a great variety of existent typologies since both the MMI and the MP are multidisciplinary exhibiting territorial, ethnographic and anthropological features. In addition, the MP has acquired the Monumentos Megalíticos de Alcalar (Megalithic Monuments of Alcalar) that are considered as a National Monument. The MNI is specialized in national graphic heritage. Said institution possesses the acclaimed Galeria Internacional do Cartoon (Cartoon International Gallery) (GIC) which allows the museum to also observe an artistic slope. Lastly, the MC belongs to the field of science and technique. Certain museum typologies were left out of this sample as the archeological ones, the ones connected with natural science and history themes as well as zoos, botanical museums and aquariums.

Fifthly, it is necessary to consider the fact that a museum is not just an entity that collects objects. Having said that, besides the material cultural goods that the four museums above mentioned held, it is important to enhance the existence of the immaterial goods that also are present and that are also vital for the identity and collective memory of the Portuguese way of life and of the Portuguese People (Alexandrino 2011).¹⁸ In the MC, the MNI, the MMI, and the MP, there is the existence of immaterial heritage such as traditions, oral expressions, knowledge and traditional technical skills. In other words, it is verified that it has the function described in the Law nº47/2004, having the responsibility of

¹⁸ Difference between “cultural goods-activities” and “cultural goods-object”. The first has a physical support and the second does not (Claro, 2009b).

transmitting Portugal's essence to the present generation and the following ones. In that fashion, feelings are generated from the notions of common belonging, union, identity and a pride in being a Portuguese national (Claro, 2009b). However, if there is negligence in the safeguard and in the promotion of immaterial cultural patrimony this will tend to be forgotten and the tradition we allude to it will be lost forever. It is vital that the intervening actors¹⁹ relive the above-mentioned practices and that they transmit them. This awareness on the part of the nations had origin in the nineteenth and twentieth centuries, times in which there was an increase of the nationalization of the cultural inheritances as a manner of affirming both the national and cultural identities of the great European states (Hobsbawm & Ranger 1983, Diaz-Andreu & Campion 1996, Meskell 1998). On the other hand there are authors, as in Gray (2015), that defend that this safeguard of the immaterial heritage is nothing more than a West's imposition that tends to glorify the past, to reject the present and the cultural and social changes that unavoidably appear. These attitudes on the part of museums can be understood by the community as vile actions.

There were semi-structured interviews; in other words the topics to be addressed were previously defined with a very high response latitude. This structure ensures that certain themes are mentioned and discussed in order to be analyzed later; however at the same time the interviewee was conceded a window for a proper response and to be able to deepen topics that had not previously been directly referenced in the questions but which were found to be important for the study's object (Pole & Lampard, 2002). The interview guide is an orientation and support tool when conducting the interview to ensure that all areas of research are covered (Patton 2002).

Prior to the interview guide's preparation and its implementation a detailed study was carried out by visiting and reading the official museums' websites. In this way it was possible to obtain enough knowledge allowing the interview guide's preparation and the subsequent interviews. After the interviews and its subsequent transcription (Appendix 1.1; Appendix 2.1; Appendix 3.1 and Appendix 4.1), the data obtained was analyzed.

In order to observe the museum's operation and their innovation policies, a visit to each of the institutions was made and an interview was conducted with their directors. All the

¹⁹ "According to 2003 convention are the communities, groups or individual that practice, would live and pass on a cultural experience." (Claro, 2009b:147).

data collection and analysis in non-numerical information (Strauss and Corbin, 1990) will come from the museum's websites, from news or reports, from official documents, from direct observation of the museum and from the interview itself. Given that, firstly, it is not possible to understand the innovation policies of museums without understanding their context and secondarily, there are many variables and many sources of information, the method of Study Cases is confirmed as the most appropriate (Yin, 2003) with the intention of being able to describe the innovation policies that take place in these four museums; in what way they are implemented and; how these policies help the sustainability of the museum institution itself.

On a first visit to the National Press Museum held on November 14th, 2018, which included the museum, the International Cartoon Gallery, and a conversation with the coordinator of MNI, Dr. José Miguel Neves on some of the innovative activities practiced by the institution. The conversation lasted approximately forty-five minutes and it was not recorded, only some notes and photographs were taken.²⁰ The interview with the director of the MNI, Dr. Luís Humberto Marcos, took place in person on the 10th of May of 2019 lasting approximately 90 minutes. The interview was recorded on the cell phone.

On the occasion of Christmas 2018 in the region of Aveiro I went to the Ílhavo Maritime Museum and to the Navio-Museu Santo André (Santo André Ship-Museum) (NMSA), on December 23rd where I made a first visit and only took a few photos. The interview with an administration member, Dr. Paula Ribeiro, occurred in person on the 24th of April of 2019 with an approximate duration of 60 minutes. The interview was recorded on the cell phone.

To the Communications Museum I went on February 25th, 2019 and visited the Museum Reserves on April 3rd, 2019. The interview with the Chairman of the FPC Executive Board, Eng. Teresa Salema, occurred in person on 30th of April of 2019 lasting approximately 70 minutes. The interview was recorded by the cell phone.

Within the subject "Ciência e Economia" ("Science and Technology") of the Instituto Superior de Economia e Gestão (Faculty of Economy of Technique University of Lisbon) Masters in "Economia e Gestão da Ciência, Tecnologia e Inovação" ("Economics and Management of Science, Technology and Innovation") I attended the conference "What is an innovative museum? Observatory, Laboratory, Bridge?" in which the Portimão

²⁰ The notes are available at Appendix 3.2.

Innovation in Museums

Museum's director, Dr. José Gameiro, gave a lecture about this museum. The visit to the MP took place April 17th, 2019 having interviewed the director in person on that same day with an approximate duration of 60 minutes. The interview was recorded on the cell phone.

4. Qualitative Analysis

For the purpose of this dissertation, four museums were chosen – the Communications Museum; the Ílhavo Maritime Museum; the National Press Museum; and the Portimão Museum – which will be described in the section “A Biography” and “Heritage Organization” – and analyzed through a compact frame of reference as it can be seen at Table 1.

Table 1 refers to the hard and soft powers of innovation terminology – hard innovation it is a scientific/technological investment and soft innovation is a social and communication investment – matched against back and front office capabilities (using the terminology of Barras, 1990). Through this double entry table it is possible to fit in the four-types of innovation used by the OECD: process, organizational, product and marketing innovations (Costa and Mendonça, 2019). Process and product innovations require a scientific or technological knowledge investment. The first kind of innovation is more relevant for the producers (back-office routines) and the second kind for the consumers (front-office routines). Following the same reasoning organizational and marketing innovations are based in the communication both internal (organizational) and external (marketing).

Table 1 – Innovation Framework

	Back-Office Innovative Routines	Front-Office Innovative Routines
Hard Powers of Innovation (scientific and technological knowledge)	Process Innovations	Product Innovations
Soft Powers of Innovation (social and relational knowledge)	Organizational Innovations	Marketing Innovations

Source: Costa and Mendonça, 2019

4.1. Communications Museum

“Innovation is a way of evolution, of responding differently and better to the needs of our customers. All museums should innovate.”

(Eng. Teresa Salema, Chairman of the FPC’ Executive Board, Appendix 1.1: 82)

4.1.1. A Biography

In the early 1990s it was understood that along with the separation of the Portuguese Post Office²¹ it would be necessary that the historical and cultural heritage of Communications should remain united.²² It was then decided that Fundação das Comunicações (Communication Foundation) would be constituted. In the first phase, an Installation Commission was appointed where only CTT - Post Office²³ and Portugal Telecom²⁴ were represented. It was later understood that the Foundation would be more complete if the ANACOM²⁵ could also be represented. On October 6, 1997 the FPC was born and so was the MC.

The Foundation is located in the riverside area of the city of Lisbon strongly marked by the historical connection to maritime and industrial activities in a building by the architect João Simões Antunes originally belonging to Instituto Superior Técnico (Higher Technical Institute). In 1944 it was sold to the company H. Vaultier & Company becoming a civil construction factory and a post office. In 1969 the building became the property of the General Administration of Posts, Telegraphs and Telephones, inaugurating a Telex headquarters in 1973. Following the CTT split in 1992 the building was given to Portugal Telecom. The restoration of the building was carried out by a team

²¹ The CTT Company was separated giving rise to Portugal Telecom and to CTT Correios (CTT Post Office).

²² The museological collection was originated in 1878 when the Ministry of Public Works, Trading and Industry promulgated the guidelines for the General Post Office to create the “Postal Museum”. The orientation was accepted by the General Direction that created the Museum, endowing it with its first thirty pieces. Currently, Museological Heritage includes a valuable collection of pieces, ranging from the 16th century to our own day, including an important collection of stamps from Portugal and almost all the countries of the World that are members of the Universal Postal Union (UPU).

²³ They are the largest national postal operator, ensuring the establishment, management and operation of public postal services and the provision of financial services.

²⁴ Nowadays Altice Portugal being a market leader in the communications sector in Portugal is part of the multinational Altice a leading international group in convergence, telecommunications, media and content, advertising and entertainment.

²⁵ It is the regulatory authority for postal and electronic communications and its purpose is the regulation, supervision and representation of the communications sector.

of architects and engineers from Portugal Telecom and the interior works gave rise to ample spaces where a museum was created with rooms for permanent and temporary exhibitions as well as an auditorium, a multipurpose room, training and meeting rooms, a library, a multimedia space, a shop, a cafeteria, and working areas not accessible to visitors. There was a concern to decorate the interior spaces using noble materials creating a place where the past, the present and the future meet and cohabit in harmony.

In this analysis the FPC Museum Reserves are considered as a second pole because they are located in another building in Boa Hora.²⁶

The FPC is an institution of public utility, in other words non-profitable with a scientific-technological typology. Its mission is to promote the study, conservation and dissemination of the historical, scientific and technological heritage of Communications as well as to carry out research, cooperation and promotion activities aimed at disseminating historical developments and new technologies in the sector and demonstrating its contribution to the economic and social development for both the country and the community. It intends to establish itself as a cultural and scientific institution recognized at national and international level for the work carried out in the preservation, study and dissemination of the Communication's heritage, assuming itself as an active participant in the promotion of citizenship, literacy, knowledge and social inclusion.

4.1.2. Heritage Organization

The MC's heritage is divided into three distinct areas. In the "Postcard Collections" are integrated models of buildings of the Post office in Portugal; signs of buildings and services; street furniture found at post offices; bags and suitcases intended for postal transportation; miniatures of mailing transport vehicles; clothing service; and also pieces and equipment, dating from the eighteenth century to the present, which testify the evolution of the systems and techniques used by the Post Office in Portugal. In the "Telecommunications Collections" are integrated equipment of transmission of messages

²⁶ FPC holds part of its museological collection reserves in the Boa Hora area allowing the collections that are outside the exhibition context to be accessible to the visiting public. This site, with maximum security, is equipped with computerized environmental control system for a correct stabilization of the relative temperature and humidity conditions.

in code; terminal equipment for manual, automatic and digital telephony; radiocommunication equipment; switching equipment; telecommunication, sound and image transmission equipment; hardware and software, witnessing the evolution of systems and techniques used by the Portuguese telecommunications from the nineteenth century until the present day. Finally, the “Art and Philately Collection” includes stamps from the Portuguese and foreign former colonies from the UPU member countries; postcards; service stamps; Portuguese medals and national and foreign coins; certified diplomas related to the presence of CTT in national and international philatelic competitions; CTT happy holidays cards, seals and other books; set of works of painting, serigraphy, engraving, lithography, sculpture, tapestry and stained glass, executed by numerous Portuguese and foreign artists, acquired by CTT and the Portuguese Communications Foundation.

The MC presents two permanent exhibitions the first called “Vencer a Distância – Cinco Séculos de Comunicações em Portugal” (“Winning the Distance – Five Centuries of Communications in Portugal”). This exhibition presents the evolution and the techniques improvement that allowed the man to communicate faster and more efficiently and is divided into two distinct paths: one dedicated to the Post Office and another to the Telecommunications. In the course of the post office, inaugurated in 2004, real-scale situations associated to the mail and people transportation between the end of the 18th century and the beginning of the 19th century are recreated such as the days of the stagecoach²⁷ until the hybrid mail. In 2009 as part of World Post Day (October 9th) the exhibition Inbound/Outbound – Através dos Correios (Inbound/Outbound – Through the Post Office) with photographs by Anabela Loureiro became part of the permanent exhibition. In 2014 the celebration of this same day was also marked by an update on the exhibition with the integration of the “Mecanização postal” (“Postal mechanization”) section. In 2016 there was one last renewal for these festivities. In the second path, dedicated to telecommunications, it is presented an evolution from the visual telegraph to the satellite. In 2014 when more than 200 years of telegraphy were celebrated in Portugal a Telegraphy Department: a space dedicated to the genealogy of Telex. This path was renewed and inaugurated in December 2017 marking the FPC 20th anniversary.

²⁷ Mala-Posta (stagecoach) appeared in Portugal as part of the process of extinguishing the Office of Correio-Mor, which for some two centuries was in the possession of the Gomes da Mata family, and was later carried on by the State in 1797.

In 2003 the second permanent exhibition appears: the “Casa do Futuro” (“House of the Future”). It is a housing space where the concept of the future is constantly updated through various partnerships with different institutions linked to the technological innovation sector.²⁸ This brand which is registered with the FPC presents new concepts and solutions in housing with an impact on the well-being of citizens.

In addition the Museum also organizes temporary exhibitions dedicated to the theme of Communications. At the moment (in March 2019) three temporary exhibitions are displayed: “António da Cruz Rodrigues’ Desobjection, Play is a Serious Matter” by Eduarda Rosa; “Pollyanna Freire and Rita Thoma” by Eduarda Rosa; “Pollyanna Freire” by Rita Thoma and “Fill in the Blanks” by Pedro Batista.

The Museum is a member of several institutions such as the ICOM, the International Association of Transport and Communications Museums, the Portuguese Association of Museology (APOM), the RPM, the Association of Museums and Science Centers in Portugal, the Portuguese Business Association with Museum and the Lisbon Tourism Association (ATL).

Next to the Museum there are two paid parks, but there are also numerous public transportations to this area.

4.1.3. Innovation

Through the analysis it is verified that the MC uses the four types of innovation (Oslo Manual, 2008) as different paths that will lead to the same destination which is the pursuit of its mission: preserving, safeguarding and spreading the communications sector heritage (component of the past) and showing the new technologies (present and future component). The biggest challenge for FPC is how to innovate to better fulfill its mission.

The source of innovation comes from the heritage study that is a back-office routine with scientific and technological knowledge.²⁹ From the deepening knowledge about its heritage (process innovation) it is possible to find different forms and different stories to

²⁸ “The Foundation’s mission is on one hand to preserve and disseminate all the communications sector assets but on the other hand, there is also a new axis of the mission that I did not mention previously which relates to the new technologies: we have to highlight the relevance of new technologies and demonstrate its impact on the daily lives of all of us.” (Appendix 1.1: 77).

²⁹ “(...) i) to preserve and to guarantee the best conditions and ii) to study its heritage, ensuring a knowledge deepening and from this second point some innovation is created. (...) For preserving the heritage, we have to study it and study is a source of innovation.” (Idem: 77-78).

tell and surprise visitors (product innovation). New technologies such as the augmented reality app help the various stories to be passed on to visitors which are comprised mostly (80%) of school students.³⁰ Then, partnerships (organizational innovations) and communication and marketing policies (marketing innovations) make it easier for the museum to achieve its goal.³¹ Ultimately the FPC always looks to its mission.

Table 2 – Communications Museum innovation framework

	Back-Office innovative routines	Front-Office innovative routines
Hard Powers of Innovation	Process Innovations	Product Innovation
	<ul style="list-style-type: none"> Understanding and studying the museum’s heritage 	<ul style="list-style-type: none"> Technology: House of Future + App Activities: Guided Tours + Workshops Exhibition’s outside the museum
Soft Powers of Innovation	Organizational Innovations	Marketing Innovations
	<ul style="list-style-type: none"> Technology: productivity tools specific tools related to the museum’s heritage 	<ul style="list-style-type: none"> Social Networks

Color key: light yellow means the innovations’ origin and light blue means museum’s specialization

Source: Adapted from Costa and Mendonça, 2019

As it can be seen in Table 2 the MC innovates in different ways all of them equally important for the object of study although the product is where innovation becomes more visible because of the use of technology (interactivity at exhibitions plus the app) and the proactivity with the final consumer (guided tours; organizing exhibitions outside the museum’s complex through partnerships and workshops). It all starts in process innovation because it is essential to perceive and study the past in order to project the future.³²

The communications sector has always been critical to the development and security of the country. History is fundamental to understanding new contexts and new technologies. Therefore studying history can help the museum find bridges with the present but above all to allow visitors to reflect on certain topics. From some historical incidents they manage to leave visitors intrigued and acquire the ability to have a reading of the future. It is for this reason that there has always been a promotion and dissemination of the

³⁰ See Appendix 1.2.

³¹ “If the museum does not have scientific knowledge about its heritage, it will not be able to communicate.” (Appendix 1.1: 79).

³² “They are all different paths that will have the same destination in the end. (...) This is perhaps one of the biggest challenges we face: how do we innovate to better fulfill our mission and get the message across better?” (Idem: 78).

communication's history through the publication of various works (process innovation). For example since 1998 the "Codex" magazine has been published for the purpose of announcing activities, studies and research works developed by the Foundation and also to serve as a space for prospective analysis of communications. In 2004 the magazine became mainly an instrument for the divulgation of studies on communications, with the purpose of bringing readers closer to the research work carried out today, being published annually until 2010, the year in which it stopped being edited for financial reasons.³³ Other examples are the book "Comunicar na República – 100 Anos de Tecnologia e Inovação" ("Communicating in the Republic - 100 Years of Technology and Innovation")³⁴ within the scope of the Commemorations of the Centennial of the Republic.

All in all, the MC innovation policies start at understanding and studying their heritage (process innovation). With that scientific knowledge they are able to communicate properly (front-office routines). They have to study and find in the past new stories to tell and building new bridges to the future since it is the only way to innovate from the content's point of view. It is only through the in-depth study of the collections that they then establish the partnerships and think of the various ways of telling the stories (product and marketing innovations).

In product innovations, new museum technologies can serve to tell stories differently³⁵ and the application is a different way of presenting information to visitors. With this application developed by IT People Innovation is possible to interact with historical characters in a hologram format as well as visualize objects in 3D that allows interactive recreations of the time. In addition it provides useful information about the space, events and the various exhibitions that exist at any given time. The App is available on APP Store and Google Play making the experience much more real and interactive.

In the Communications Museum's policy it is essential that technologies are also used to communicate with all types of public. There is a huge stake in the interactivity and use of technology in this Museum. In the permanent exhibitions there are several videos with

³³ "And I'm sorry to say that the Codex magazine did not sell, it was not an appetizing product." (Appendix 1.1: 79).

³⁴ The book is available online at:

<https://www.fpc.com/Portals/0/Flipbook/HTML/files/assets/seo/page10.html>.

³⁵ "In the current context in which people live submerged in technology, it is fundamental that technologies are also used to communicate with all our audiences." (Appendix 1.1: 80).

more detailed information, games for the little ones and other objects that interact directly with the visitors. Although about 80% of the public is young and able to use the application, most likely an older visitor will not fit in and so the Museum also has traditional ways to communicate. Therefore, the Museum has several types of media for the diverse public.

The exhibition “House of the Future” is constantly technological updated where innovation is the protagonist. This exhibition which is also a concept, highlights the importance of technologies in bringing greater quality of life to communities. The concept is demonstrated through interaction exercises, in-house or remotely, as users can access features via the internet regardless of their location. In 2017 the “House of the Future” received another update having won a virtual assistant created by the company Amazon: Alexa. In January 2019 the “House of the Future” received new equipment: a robot iRobot Roomba 980. There is also a concern for the environment and the sustainability of the planet that is verified by the use of automatic lighting in the various exhibition halls.

The MC features free guided tours for individual audiences without appointment to the “Winning the Distance” and the “House of the Future” exhibitions on specific days. At other times, the cost of a guided tour is €2 for an exhibition or €3 for both.³⁶ In addition, it also organizes workshops on various topics, namely “Security and Good Use of Information Technologies”. One of FPC’s concerns is that visitors are aware of the impact of new technologies and that they know how to use them.³⁷ The introduction of this course demonstrates the concern that the museum has with the component of digital literacy.

The Communications Museum is constantly in partnerships,³⁸ as these are necessary to tell the various institution “stories” through the organization of exhibitions outside the

³⁶ The Museum is also available to make guided tours for groups with a minimum of ten people (€5 per group) to 20 people groups (€10 per group) or 30 people (€15 per group).

³⁷ “If we look at the age pyramid in Portugal, we immediately stumble upon a challenge: about 30% of people do not know to use the internet and the current most used gadgets, however, the State requires that the entire population delivers the VAT declaration online. This is a serious problem of digital illiteracy that the State has not solved. The younger ones, despite using more technology, do not know how to use it.” (Appendix 1.1: 79)

³⁸ “Communications happen between two parties, by nature (...) We make partnerships with the various cultural agendas of Lisbon, both in the physical guide and online. We also have partnerships with several public entities. We have already made some partnerships with hostels from here. But it's not very consistent. (...) Partnerships are needed to tell the various stories because the communications history is the history of communication between people. It has to be done, necessarily, in partnership, either with a closer entity or with a further entity.” (Idem: 80-81).

compound.³⁹ For this purpose the Museum has a permanent partnership with the Museu dos Coches (National Coach Museum) and the Vila Viçosa Museum where part of the MC's heritage (two stagecoaches) is always deposited there, so that more people can see it. For instance, the National Coach Museum is visited by a million people, a number very far from the Communications Museum's 30'000 visitors. The Museum also celebrated a partnership with the Horta City Museum (Azores) where there is a submarine cable section. At this moment the Communication's Museum has an exhibition made with 95% of its assets at the School of Arts and Design, at Casa do Design (Design House), in Matosinhos on "100 years of Design Communications in Portugal". It is an exhibition with a different perspective: it has a design glance on the Foundation's heritage.⁴⁰

The Foundation develops international cooperation activities with the Portuguese-speaking African Countries⁴¹ organizing internships and seminars in partnership with Agência para o Investimento e Comércio Externo de Portugal (Business Development Agency) as well as sending parts of its collection to international exhibitions.

Regarding organizational innovations, just as technology is applied in the front-office routines these are also used in the back-office ones.⁴² Firstly productivity tools such as facilitating the appointment of meeting rooms were implemented. Secondly the museum is paying more attention to specific tools related to its heritage: namely scanning and creating databases to store heritage information. The museum had three diverse databases – one for documentation, another for telecommunications and one for philately – that are currently being integrated it into a single one. To this end it was necessary to introduce information technologies to ensure a unification from the point of view of computing. In addition at the moment a reorganization of the documentary reserves is being made as well as a work of digitalization and systematization of the reorganized heritage.⁴³

³⁹ "We have to study and scour the past, to tell new stories and to make new bridges to the future, since it is the only way to innovate, from the content point of view. That is, it is only through the in-depth study of the collections that we then carry out the partnerships and think of the various ways of telling the stories." (Idem: 79).

⁴⁰ "This is another way to innovate, that is, to "force" other people to observe our heritage and ultimately putting a new spin on the matter." (Idem: 78).

⁴¹ "Throughout our history we have maintained several contacts and protocols and partnerships with the PALOP." (Idem: 81).

⁴² "In order to face all the challenges, whether monetary or of HR, we have to introduce new technologies to better serve the mission." (Idem: 80).

⁴³ "The technologies are not only for the public, but also internally. There must be a constant and permanent digital transformation not only to the exterior, as it is required by our visitors, but also to the interior, which is the only way to better provide the service." (Ibidem).

The MC doesn't have an independent website being inserted in the FPC website. It is a very updated platform with immense information. On the website there is an Online Catalog⁴⁴ that can be consulted with the inventory of Museological Heritage with information related to each piece and its digitized image. It is also possible to make a virtual visit to the Museum throughout the website. The FPC has a Facebook page with daily updates and information about events. It also has an Instagram page, a YouTube page, a Pinterest page and a Flickr page which confirms the importance of marketing innovations. Through the various social networks and website the Museum manages to reach the target audience that conveys a specific message.⁴⁵

The Foundation's director believes that the innovative policies scrutinized by the institution not only creates economic sustainability but also is a way for the museum to become more efficient. Firstly through constant renovation in the temporary exhibitions and the updates in the "House of the Future" because it is a way to innovate the product.⁴⁶ The workshops are also a key to attract new customers that generate more revenue. And lastly marketing plays an essential role so that it can reach the visitor more easily.

Innovation is always continuous, that is, a process of continuous improvement. The ultimate goal of the Museum is to provide visitors with the best possible experience with a final consumer focus (product innovation). Regarding the origin of innovative practices these may arise by the museum team; at the suggestion of visitors or collaborators; or by benchmarking. The important thing is to keep a constant look in order to better respond to the needs of the customers.

The Foundation director ended the interview by stating that innovation can come from everywhere. It doesn't necessarily come from technology but it can come as a different way the institution is organized or a different way the Museum hosts its visitors. Innovation is a distinct manner of delivering and better fulfilling the mission of the Museum.

⁴⁴ Available at <http://bh1.fpc.pt/nyron/museum/catalog/>.

⁴⁵ "We have to know who we want to reach, what stories we are going to tell and how we are going to tell them. Depending on the content, we have to select and adapt the means to do so." (Appendix 1.1: 80).

⁴⁶ "We'll only have the same visitor stopping by again if we make sure to renew our content. The visitor will not come back here to hear the same story a second time." (Idem: 81).

4.1.4. Economic Sustainability

The MC has several sources of revenue. The entrance to the Museum⁴⁷ and to the activities it organizes normally only charge the running costs. In the store of the Foundation the visitor can find the publications of the FPC, some publications of CTT Portuguese Post Office and several pieces of Portuguese ceramics. In addition they grant a cafeteria and an independent store.⁴⁸ It has always been in the Museum statutes that the revenues could include spaces' rental but nowadays it has gained an extra importance.⁴⁹ Let us not forget that the MC is located in the center of Lisbon in a very sought-after area from the point of view of offices and events and therefore made real estate assets profitable.

At present own revenues represent 1/3 of total revenues. That is, the Museum can generate some revenue although it is not enough to cover the costs it has. In fact the MC receives fewer and fewer contributions from the three founders and due to legal issues, such as the Museum cannot be sponsored by a brand, this makes cultural management even more challenging. However quoting the interviewee (In Appendix 1.1: 81-82): *“The answer is yes: innovation is critical to economic sustainability (...) Innovation is a different way of delivering and achieving our mission better. For this to become a reality, we need to question ourselves and have this research attitude.”*

⁴⁷ The ticket costs €5 for each permanent exhibition but there are numerous discounts.

⁴⁸ The LBP Museum Concept Store is a store that sells clothes, perfumes, candles and other products.

⁴⁹ See Appendix 1.3.

4.2. Ílhavo Maritime Museum

“A museum without a collection is simply an interpretive center. (...) There are no museums without collections.”

(Dra. Paula Ribeiro, Member of the Administration, Appendix 2.1: 89).

4.2.1. A Biography

After the completion of a process of gestation that began in 1922 invigorated by both a group of Friends of the Museum and the diligent organizers of the same institution, Américo Teles and António Gomes da Rocha Madahil (who met in the newspaper office “O Ilhavanense”) MMI was created in 1937 under the management of the CMI.

It is located in the central region of Portugal in the district of Ílhavo being a Maritime Museum that intends to give tribute to the culture and naval identity of the brave Portuguese nation and people. It has a multidisciplinary character since its collections have a local relevance and represent the adjacent communities and cannot be identified by a particular theme. At the start the Museum focused on a more ethnographic and regional dimension, honoring the memory of the region. In 2001 the Museum was enlarged with a new building⁵⁰ and by the acquisition of an old codfish tank. Additionally, the Santo André Ship-Museum was inaugurated. This architectural project marked a new phase of the institution’s life and a programmatic redefinition of the same Museum. In addition, the element of water became visible in all spaces of the compound making the building itself a unifying symbol of the object to be displayed. In the commemoration of the Museum’s 75th anniversary, on March 31, 2012, CIEMar-Ílhavo, a space for research and promotion of entrepreneurship, was inaugurated. In January of 2013, the Museum continued to grow counting on a cod aquarium⁵¹. Currently its mission is to preserve the memory of work at sea and promote the culture and maritime identity of the Portuguese.

The NMSA which was part of the Lusitanian cod fleet since 1948 currently intends to illustrate the trawling arts. As a result of the fishing restrictions policies, dated from the

⁵⁰ The ARX, Lda Portugal project, by the brothers Nuno and José Mateus, was nominated for SECIL 2002 and also for the European Union Prize for Contemporary Architecture 2003/Mies Van Der Rohe. It was also awarded with the AICA/MC 2002 of the International Association of Art Critics of the Ministry of Culture and distinguished with the prize BUILD as the best Public Project in the category of Architecture in 2013.

⁵¹ The aquarium was also designed by the ARX Office, in descending spiral, creating a dynamic between the path that the visitor takes and the aquarium itself. The aquarium is 3.2 meters deep.

1980s, NMSA lost its functionality and in 1997 it was dismantled. It was then when the MMI came up with the idea of transforming the vessel into a Museum ship (becoming a second pole of the MMI) in order to show how cod trawling was and to honor the memory of all its crew. It is possible to do a virtual tour on the Museum's website.⁵²

4.2.2. Heritage Organization

The MMI is the owner of six distinct collections that relate to the very identity nature of the community where the Museum is inserted. The first collection is aimed at cod fishing with a codfish yacht cut at half water by the lower limit of the deck of two masts allowing the visitor to board and touch all its components. In the remaining space are exhibited fishing objects, shipbuilding molds, navigation tools from the nineteenth century to the most modern times and the narrative of a voyage. In 2002 this exhibition went on to express a tribute to Captain Francisco Marques, the last captain of Creole and director of MMI between 1999 and 2001 giving his name to the room renamed "Sala Faina Maior/Cap. Francisco Marques" ("Toil Room").

The second collection focuses on the Aveiro River with its ten typical full-size boats. Some of the vessels are duly documented on shipbuilding and with the identification of the molds and tools used in the performance of that craft. It is in this "Sala da Ria" ("River Room") that the ethnographic character of the MMI is present.

The third collection composed of shells offered by the collector Pierre Delpout in 1965; of seaweed, harvested and treated by Américo Teles; and donations of islander's emigres from exotic and rare places. It is one of the largest collections of malacology in the country with more than four thousand specimens.

The other three are of art namely painting, drawing and ceramics. The MMI has a collection composed of nine hundred copies of porcelain from the Vista Alegre Factory; of drawings by João Carlos Celestino Gomes and Arthur Guimarães, focusing on themes related to the Aveiro River; of oil and watercolour paintings from the mid-20th century by Fausto Sampaio, Sousa Lopes, Cândido Teles, João Carlos Celestino Gomes, Eduardo Malta, Alberto Souza, D. Carlos de Bragança, Palmiro Peixe and António Victorino, also with the theme of the ria of Aveiro and its agro-maritime toil; and of hotfoil prints of the authorship of João Carlos Celestino Gomes (Ilhavense artist). In terms of assets

⁵² Through this link: <http://www.museumaritimo.cm-ilhavo.pt/visitavirtualnaviosantoandre/index.html>.

acquisitions for the art collections it may be considered two distinct phases: firstly, one prior to the foundation that counts on the help of the Ilhavenses or “loans” from its founders - Américo Teles and Rocha Madahil – and secondly after 1938 resulting from the donations and acquisitions of the local authority and the same personal loans. Although the increase of the collection is made essentially by donations the museum resorts not rarely to auction participation. The “policy” of acquisitions has two guidelines: one is to enrich the art collection and the other is to reveal the identity of this fishing community. In addition, there are two rooms for temporary exhibitions.

It is also possible, since 2016, to visit the Ílhavo Maritime Museum Reserves by prior appointment, where the remaining objects are artefacts, works of art and miniatures of boats, that were donated between 1930 and 1936 to what would be the future MMI.

The two poles of the Museum have a free park. The MMI is accessible to all the public with special needs – physical, intellectual or social – and accepts payments in cash, check and ATM. NMSA is not suitable for visitors with reduced mobility and does not allow payments using debit/credit cards.

4.2.3. Innovation

During the interview Dra. Paula Ribeiro made it clear that without collections there are no museums, that is, a museum without a collection is simply an interpretive center. The MMI considers that the most important thing is to be well anchored to material and immaterial heritage, since it is from there that new content is created. Innovation comes from the collection and of its investigation (process and product innovations).⁵³

⁵³ “(...) we are aware that the most important thing is to be well anchored to our heritage.” (Appendix 2.1: 84).

Table 3 – Ílhavo Maritime Museum innovation framework

	Back-Office Innovative Routines	Front-Office Innovative Routines
Hard Powers of Innovation	Process Innovations	Product Innovations
	<ul style="list-style-type: none"> Expository and research projects: CIEMAR-Ílhavo + other activities 	<ul style="list-style-type: none"> Interactivity: NMSA + Aquarium Special event scheduling
Soft Powers of Innovation	Organizational Innovations	Marketing Innovations
	<ul style="list-style-type: none"> HR: the museum’s technical staff + protocols with other entities Partnerships 	<ul style="list-style-type: none"> Social Networks

Color key: light green means both innovation origin and museum’s specialization

Source: Adapted from Costa and Mendonça, 2019

Although the MMI considers the four major types of innovation important (Oslo Manual, 2008) having as much investment in the services comprehended in the Museum structure as in the services that relate directly to the visitor (back and front office innovative routines, respectively).⁵⁴ With that said the vital pillars of innovation are either continuously renewed exhibitions or research projects persecuted by the Museum. Additionally there is a special event scheduling that interestingly is a link from a back-office and a front-office routine (both hard powers of innovation). That is, the MMI has an interdependence between the collection (product innovation) and its research (process innovation) resulting in the “extra” visits (visits outside the museum) and in the Caixa da Memória (Memory Box).

In order to expose the collections and make them available to the public (product innovation) it is necessary to study them in advance (process innovation) confirming the importance of back-office capabilities. The focus on the creation of expository and research projects can be verified by the Centro de Investigação e Empreendedorismo do Mar (Sea Research and Entrepreneurship Center) (CIEMAR-Ílhavo) has the mission of carrying out scientific-cultural research with the objective of feeding and renovating the museum’s cultural project. CIEMar-Ílhavo assumes itself as an active organization in the process of local, regional and national development and as a relevant organization in the process of social valorization of maritime activity. It is divided into four subunits:

⁵⁴ “The most important work when it comes to a Museum is the study of collections and then their availability to the public.” (Ibidem).

- a) The CIEMar is the research unit in the areas of Maritime History, Maritime Anthropology, Maritime Geography and multidisciplinary research on material and immaterial contents and assets represented in the MMI.
- b) The DocMar is an archive and a specialized library of marine thematic⁵⁵ that allows the development of research projects on maritime themes in general and the memory of fisheries in particular. The existing bibliographic collection has about eight thousand monographs and two thousand copies of periodicals.⁵⁶ DocMar is open for free public consultation.
- c) The ForMarÍlhavo (“formar” in Portuguese means instruct) is the unit of informal education capable of socializing major themes of maritime culture and of sharing CIEMar research results in articulation with other agents and institutions.
- d) The Business Incubator of the CMI is one of the entities accredited at national level within the scope of PORTUGAL2020 and Startup Portugal for the provision of incubation services to innovative startups in the area of the economy of the sea.⁵⁷ It provides support to entrepreneurs in the development of their business ideas providing physical spaces and a set of supports⁵⁸ that allow innovative agents to enter a business environment and allow them to transform their projects into business realities. During the 80s/90s the fisheries had a great deal of damage - due to European policies - and significantly reduced the cod fishing fleet. Consequently there were numerous companies that failed to keep running. In response the MMI rescued this heritage that was lost and brought it into it. During the Museum’s remodeling at the beginning of this century the CIEMAR was created linked to the business incubator. In other words, to create content from these investigations and from their heritage and that is why its entrepreneurial theme is the economy of the sea assuming within the scope of IERA – Rede de Incubadoras da Região de Aveiro (Network of Incubators of the Region of Aveiro) - a unique and differentiated presence.

⁵⁵ The bibliographic and archival collection began to take shape even before the museum's inauguration in 1933, through acquisitions, exchanges and donations of literary and scientific production on themes related to the sea and fishing, especially cod.

⁵⁶ In 2014, they incorporated part of the documentary collection of the Viana do Castelo Shipyards.

⁵⁷ “*The idea arose from the need to have companies that based their activity around the theme of the sea.*” (Appendix 2.1: 84).

⁵⁸ In 2016 the museum held the Cycle “Ecosystems of Innovation and Entrepreneurship in the Economy of the Sea”.

In 2006 the Arquivo de Memórias da Pesca do Bacalhau (Cod Fisheries Archive) was launched in which audio testimonies were collected from the main custodians: the men who participated in cod fishing in the seas of Terra Nova and Greenland. The collection focused on all professional categories from fishermen to officers from the north to the south of the country in order to have a vast collection of memories and speeches about Great Fishing.

As a rule research projects result in books⁵⁹ and articles for the scientific-cultural journal “Argos – Revista do MMI” (“Argos – MMI Magazine”) that due to the absence in Portugal of a magazine dedicated to the topics of maritime culture the Museum decided to publish annually.

It was also launched a biannual program of seminars entitled “Desafios do Mar Português” (“Portuguese Sea Challenges”) which aim to be open to all citizens who wish to obtain knowledge in the field of maritime themes that are most current and relevant to Portuguese society. The cycle of conversations “História Trágico-Marítima” (“Tragic-Maritime History”) and the community project “Mar” (“Sea”) by Miguel Torga are other examples in how the Museum invests in scientific knowledge. Accordingly in 2013 the “Culture of the Sea Octávio Lixa Filgueiras Prize” was created: a cash prize of €3’000 to award authors of academic dissertations or research work carried out in the vast field of maritime-river culture in particular in the areas of Maritime History, Maritime Anthropology, Maritime Heritage and Museology. It is also important to refer that in the years 2015 and 2016 the MMI together with the António Pascoal Engineer Foundation supported the research projects called “Dinastias Bacalhoeiras” (“Cod Dynasties”)⁶⁰ and “Homens e Navios do Bacalhau” (“Cod men and vessels”).⁶¹

In conclusion, one of the most important innovations is attained through process innovation focusing on the research carried out by the MMI and promoting research

⁵⁹ In 2015 a book was published focusing on the Port of Bacalhoeiros (Ílhavo) the only port specialized in cod fishing in the country still active and in 2016 joined the e-Primatur for the relaunch of the work “Nos Mares do Fim do Mundo” by Bernardo Santareno and John Mack’s “The Sea: A Cultural History” was translated into Portuguese.

⁶⁰ This project ended up being transformed into a book which had a socio-anthropological character as the family histories were analysed to understand how the events that marked the cod fishing are perceived and supplanted by the various sectors of activity.

⁶¹ Uses the Memories Archive (created in 2006) and the database “Frota Bacalhoeira” (“Cod Fleet”) into a new compiled set of information about Men and ships allowing to relate the new data with those already available. Thus, it was possible to create a portal that preserves the collective memory regarding the Cod Fish industry and affirms the place of the museum as a fundamental actor in the preservation and divulgation of the assets related to the great work. It was introduced in 2016.

outside the institution. Even the Association of Friends of the Ílhavo Maritime Museum (AMMI)⁶² with 700 members has the main objective of collaborating with the Board in enriching the collection, preparing exhibitions, publicizing activities, publishing books/pamphlets/papers and encouraging interest by the island and maritime culture, being absolutely unrelated to any sectarian activity of a political, religious or economic nature. The construction of the new building and the project “De Novo na Terra Nova”⁶³ (“Again at Newfoundland”) were also some of the “Friend’s” causes.

Dra. Paula Ribeiro mentioned the MMI logo – three drops in overlap – symbolizing the CIEMAR-Ílhavo; the collections of both the main Museum and the NMSA; and finally the Aquarium. Therefore in addition to research being essential the entire product is also essential which can be verified by a focus on both special events and on the exhibition’s technology/interactivity.⁶⁴ These product innovations will now be analyzed.

Given that Ílhavo is not a touristic site the MMI together with the municipalities of Peniche and Murtosa have decided to create a special event for the periods when there are fewer visitors. This protocol entitled “Portugal com História” (“Portugal with History”) was created within the scope of Portugal 2020. The program is anchored in gastronomy, namely, at “Cozinha de Bordo” (“Board Kitchen”) Festival. Each municipality promotes its traditional sailor’s food: Peniche provides the fish from the coast and Murtosa the eel. Ílhavo has cod fishing and therefore, in this case, the Museum calls numerous local restaurants, with whom it celebrates protocols, to cook several cod recipes. The Festival takes place at different times, depending on the period when there are fewer visitors and tourists on said municipalities. The application also provides investment for marketing policies to promote it. It is undoubtedly an event that holds a major relevance in the sphere of advertising the Museum’s activities and the truth is that at the end of March 2019 the MMI received more than 8’000 visitors being an unprecedented statistic.⁶⁵

In addition the Museum presents shows in which artists are invited to create performances and other forms of art. In the interviewee’s words these activities are also a very important input. For example the Museum has already worked with a sculptor in which he

⁶² See Appendix 2.2.

⁶³ Idealized and coordinated by the AMMI in collaboration with the Ambassador of Canada Patricia Marsden-Dole and the CMI.

⁶⁴ “*Museums are storytellers.*” (Appendix 2.1: 89).

⁶⁵ “*It is definitely a Festival that helps a lot.*” (Idem: 85).

developed his work at the museum shipyard and at that time the educational service⁶⁶ organized activities that led the children to see his work and accompany his creation. In this situation there is an immediate connection between the front-office and the back-office routines, a topic which will be analyzed later.

In 2017 the Museum created the Festa dos Bacalhoeiros (Codfish Celebration) which is a reunion that brings together fishermen and other sea professionals. As has been said previously the investigations carried out by CIEMAR demonstrate the ambition of the MMI to meet the community it represents. Last year, the event welcomed even more fishermen which came from everywhere.⁶⁷

Apart from these core activities that are fixed to the Museum's own functionality occasionally take place unique activities to a point in time. Some examples that should be mentioned are the "Mar Film Festival" ("Sea Film Festival") (in partnership with CEIS 20); the Workshop on Creative Maritime Writing, directed by Filipa Melo; the Cooking Workshop "Dos 8 aos 80: Bacalhau com Todos" (From 8 to 80s: "Codfish with everything"⁶⁸); the performance "Marés e Marinheiros" ("Tides and Sailors") and the commemorative concert on the 80 years of the Museum with the Philharmonic Orchestra of Beiras.

The Museum had to adapt to the new times. As Dra. Paula Ribeiro stated, it is much easier to captivate the audience and give them content through interactive ways than merely being expository. The Museum has already abandoned the older museums' way of functioning and brought in all the technologies it could use. Whether in MMI or NMSA some technology is used mainly in the presentation of several videos that help the visitor to obtain more detailed information on certain subjects. In short not only has it followed the technological developments but also aims to invest more in the same field. Dra. Paula Ribeiro said that soon will invest in the NMSA with more interactive tools and new technological equipment to equip the Toil Room.

In addition in the MMI the fact there are a codfish aquarium and a codfish yacht to which the visitor can board and touch their components makes the experience more interactive.

⁶⁶ See Appendix 2.3.

⁶⁷ The interviewee remembering the celebration admitted that observing the meeting between the fishermen and the heritage exposed in the museum was and still is moving.

⁶⁸ It is a common Portuguese codfish recipe which consists of boiled codfish, boiled vegetables (such as potato, carrots and cabbage), and boiled egg.

In addition, the second pole of the Museum, the NMSA gives the possibility of entering a real ship making the experience as realistic as possible.⁶⁹

Even in terms of accessibility the Museum is currently awaiting funding from Turismo de Portugal (Portugal Tourism) which aims to create more interaction with the public through a more inclusive language and an easier way to move around the museum. In addition they have a project to make the exhibitions bilingual in order to interact with other audiences.

This Museum was created by the community and for the community. However today it has gained a national and international sphere as the community that is represented in the MMI had a diaspora not only by the whole country but by the whole world. That is why there are many projects where cod fishermen have been and are present namely the Memory Box. It is a set of records of fishermen who, since 1934, have registered in the guild to go fishing for cod. It presents the individual file of each fisherman and the individual file of each authorization of a ship construction. The Museum inherited this⁷⁰ and not only wanted to store it but to work on it, therefore it applied for the “Aveiro Digital” (“Digital Aveiro”) project and was able to digitalize and restore approximately 21’000 records of these fishermen. From there it was created an exhibition the Memory Box: a cube with the faces of all the fishermen who got involved in cod fishing and their respective names. After its inauguration at Ílhavo this cube traveled from north to south of the country (islands included) where in each municipality that it passed, especially on the coasts that also had cod fishers the Museum created an exhibition of these men and the memory of these locations.⁷¹ This exhibition was originated in Ílhavo but quickly became itinerant. The portal won the APOM award in the technological category. The Memory Box is an example of the clear interdependence between process and product innovation routines: it begins by having a heritage, then it is investigated and ends up returning to the community as a new product.

⁶⁹ The fact the visitor is able to visit the Museum Reserves shows the proximity that the museum has to the community.

⁷⁰ It was in the Comissão Reguladora do Comércio do Bacalhau (Regulating Commission of Codfish Commerce) and since the MMI inherited it it became the responsible for the conservation of the collection.

⁷¹ “This whole process is told in the book “*Terra Nova. Terra do Bacalhau*” and this book accompanied and traveled through all the islands that had a connection with the cod fishery, including the Navy Museum, and after that, included another exhibition, called “*The Argus Campaign*” which was a book by Alan Villiers, commissioned by the Estado Novo (a Portuguese dictatorial regime from 1933 until 1974), in which we had a book, photographic report and an article in *National Geographic*, showing the bravery of our fishermen in the 1950s who, until 1974, went sailing to catch codfish on new land through global obstacles and conflicts. These exhibits originate here, but quickly, become itinerant.” (Appendix 2.1: 86).

MMI is also training tourist companies to acquire know-how with regard to guided tours creating “extra” visits (visits outside the Museum). They are companies that dynamize their circuits through the MMI and, besides having better access at the box office, the guide of the company itself will be able to make the visits that the Museum designed in *priori*.⁷² There is first of all a scientific investment and the autonomy of tourist enterprises (process innovation) that consequently bring more public (product innovation).⁷³

Looking now at the soft owners of innovation. On one hand there is a focus on the HR and the partnerships (back-office routines) and on the other the strong use of social networks (front-office routines).

The MMI before the huge 2011 renovation had three to four employees. After the reopening eleven new technicians were called to work for the Museum. And it could only be due to the new size and mission of the improved infrastructure. In 2013 in addition to the huge investment for CIEMAR there was the inauguration of the codfish Aquarium, which consequently led to a new team growth. Currently the MMI has nine senior technicians separated by the areas of management, exhibitions, educational service, collections and research.

The Museum has several protocols⁷⁴ with teaching establishments, such as vocational education⁷⁵ and polytechnic institutes.⁷⁶ In addition, the municipality has a policy of encouraging young people to integrate into the labor market, in which the Museum and the Museum ship are included. They are young people who are asked to perform thirty hours a month, extra-curricular, and the MMI, as a rule, gives them the responsibilities of guarding the exhibitions. During the summer, in July and August, there is another program where for a month young people will have to work 90 hours to collaborate with the institution in the organization of events and also in the surveillance of the exhibitions.

⁷² “We also created with a private partner visits that we design, but that the partner will develop. At the end of three years, we will have companies ready and able to stay with this legacy and with this tourism development from the visit, which are done outside doors, that is, visits anchored in our heritage. For example, tomorrow we will have an afternoon on our port cod that includes a tasting. These visits then bring us public.” (Idem: 85).

⁷³ “For example, we have a company with Russian tourists with this dynamic. In addition, we have two other companies that work with tourists in bulk, namely EcoRia, which makes boat trips in the estuary and that works a lot with schools. These operators expedite with us the visits that contemplate a script including the museum, the NMSA and then the route of the ria.” (Idem: 87).

⁷⁴ At the time of the interview, I realized that the concept of “partnerships” was not in line with museum policy, hence the use of the term “protocols”. “It is very delicate for a municipal museum to select partners (...) The Museum has to be very transparent.” (Idem: 86).

⁷⁵ Currently the museum hosts a student in the area of tourism.

⁷⁶ Currently the museum hosts a trainee, in the area of biology, of the Instituto Politécnico de Peniche.

In addition, the municipality also has scholarships for students of higher education who, in exchange for a monetary value, are required to do a specific number of working hours for the municipality. In these cases, the Museum vocalizes them for other projects.⁷⁷ Finally, the MMI also has a work placement scholarship, where for a year they collaborate with the Museum. Dra. Paula Ribeiro highlighted the fact that some Museum staff members first entered the team as trainees.

With regard to “partnerships” the MMI has made available vouchers so that hotels could offer their visitors and are establishing protocols with private companies linked to tourism⁷⁸ so that there are more attractive conditions to bring visitors.

Regarding marketing innovations MMI has a fully accessible website with an online collection, a digital archive and a website for young people. It also has an extremely active Facebook page with more than seven thousand likes and despite not having an Instagram profile many photographs are shared with the Museum's location or hashtag.

The Museum is situated in a very small town where everyone works together. The HR team is very cohesive and regardless of the origin of the innovative idea will always persecute it so that not only MMI wins but also the city. The Museum is the gateway where more people enter the county.⁷⁹ The museum prompted the development and affirmation of the city with the slogan “Mar por tradição” (“Sea by tradition”). Let us not forget that the MMI is a Municipal Museum and that some innovative policies come from the CMI itself that are implanted to think about the municipality itself. The other ideas come from Professor Álvaro Garrido, the MMI consultant.

It is also important to mention that the Museum was recently visited by an Arab team that intends to build a maritime museum in Dubai and came to Portugal selecting the Portuguese Navy Museum, the MMI and the Cascais Museum as a source of inspiration.

4.2.4. Economic Sustainability

Regarding the correlation between innovative routines and economic sustainability the great goal of the Museum's management is to alleviate the expense that CMI has with both maintenance and investment. The fact that the MMI has an Aquarium and a Ship-

⁷⁷ Currently the museum hosts a student in the area of tourism.

⁷⁸ Such as “Balão Mágico” and “EcoRia”.

⁷⁹ Last year the museum was visited by 87'700 people.

Museum which is anchored in a garden entails a huge cost. The local authority has a consultant who indicates the MMI application possibilities to which they are permanently enrolled. Currently the institution is involved in four already approved programs and the Museum always takes advantage of some applications for restoration and conservation of the ship-Museum itself.⁸⁰

The Museum tries to alleviate expenses through the price of tickets,⁸¹ the rental of spaces (auditorium and cafeteria),⁸² the bookstore⁸³ and the souvenir shop.⁸⁴ And today, in terms of revenue the MMI has doubled the money that was required in order to invest on the exhibition's design. Even though the Museum does not have to finance itself the board has taken the necessary steps to create a considerable revenue that allows the institution to sustain the costs of its exhibition project as well as having a little extra budget to apply to some new activities.

⁸⁰ *“It is much easier to work in a municipal museum that has an identified vision and strategy in which the Museum does not just serve to expose certain content. We get to create impact in the local economy, while preserve its heritage. Basically, we get to move people. We are fortunate to have an autarchy that cares about the Museum. There are municipalities that do not (...) Our city council gives an enormous importance to the study of collections. I am sure that few museums have the conditions that we have created for our collection. That's commendable. I want to make it clear that there are no museums without collections.”* (Appendix 2.1: 88-89).

⁸¹ See Appendix 2.4.

⁸² See Appendix 2.5.

⁸³ It is a thematic bookstore with a well-developed policy of publishing for outside the museum.

⁸⁴ In the MMI there is a souvenir shop with publications, writing materials, ceramics, leisure objects, gastronomic delicacies, porcelains, textiles, handicrafts, among many other things that can also be purchased online. There has been a project to transform the souvenir shop into a Portuguese tourism shop. This project has not yet advanced.

4.3. National Press Museum

“(...) if it is in the mall that people spend most of their time, we had to take the Museum there, so that people who had never been sensitized to art and culture can finally experience those. In the delirium of consumption, they would be forced to look at cultural objects and end up being enchanted and getting a taste of culture.”

(Dr. Luís Humberto Marcos, Museum’s Director, Appendix 3.1: 92).

4.3.1. A Biography

The National Press Museum is based in the city of Oporto and was born in 1997 from the Associação Museu da Imprensa (Press Museum Association) (AMI) will, which sought to create a “living museum” oriented towards the global market in the search for younger audiences. Created on 9 June 1989 on the initiative of the Centro de Formação de Jornalistas (Journalist Training Center) (CFJ). Its founding partners are the CFJ, the Associação Portuguesa das Indústrias Gráficas e Transformadoras de Papel (Portuguese Association of Printing and Papermaking Industries), the Associação da Imprensa Não-Diária (Non-Daily Press Association), o Comércio do Porto (Newspaper “Oporto Trade”), o Diário de Notícias (Newspaper “Daily News”), o Primeiro de Janeiro (Newspaper “First of January”), the Jornal de Notícias (Newspaper “News Journal”), the Fundação Engenheiro António de Almeida (Engineer António de Almeida Foundation) and the Câmara Municipal do Porto (Oporto City Council). Currently, they are also associated with AMI a Açormedia, the Diário de Notícias do Funchal (Newspaper “Funchal Daily News”), the Fólio – Festival Literário Internacional de Óbidos (Óbidos International Literary Festival), the Folha Cultural, C.R.L (Magazine “Cultural Sheet”) and the Gabinete para os Meios de Comunicação para os Meios de Comunicação Social (Media Office for the Media).

It has a typology specialized in the national graphic heritage however since 2002 with the opening of the International Cartoon Gallery started to have an artistic aspect as well.

The MNI has as its mission to inventory, recover and preserve the national graphic heritage; promote the investigation of the history of the press and the graphic arts and identify hypotheses of maintenance and musealization of local ateliers. Perspective to break with traditional paradigm of museums, being a “living museum” and opened every day of the year. It has a decentralized strategy aiming to create a long-term network of

museums of the press spread throughout the national territory; by the circulation of temporary exhibitions and by deepening internationalization through the cartoon.

4.3.2. Heritage Organization

The Museum's collection is divided into five sectors: the "Fundição" ("Foundry"); the "Composição" ("Composition") – that is subdivided into two parts: the manual composition and the mechanics – the "Impressão" ("Printing") – where the visitor has the opportunity to manually print texts and engravings allusive to the Museum's activities – the "Encadernação" ("Binding") – where the visitor has the opportunity to make the carton covers of books; a set of brass irons – and the "Gravura" ("Graving").

The MNI has two permanent exhibitions. The main one in the room Rodrigo Álvares shows a historical route through equipment and parts that can still be used and which is why this exhibition is called "Memórias Vivas da Imprensa" ("Live Memories of the Press"). The Museum also has a permanent exhibition with about 160 typographical miniatures,⁸⁵ showing the evolution of this Gutenberg until the present time.

In 1999, the MNI created the Porto-Cartoon World Festival because cartoon is also a journalistic and important genre in the press quite transversal with numerous benefits associated with it: it is easy and quick to read, effective in its extremely visual message, accessible to everyone in a very universal way. Cartoons⁸⁶ since then have gained enormous importance not only in society but also in companies.⁸⁷ In this sense in 2002 the GIC was created presenting a third permanent exhibition called "O Riso do Mundo" ("The World's Laughter") exhibiting the winners of the editions of Porto-Cartoon World Festival. In the year 2012, a second contest was created specifically aimed at caricature. Two emblematic figures are chosen, one living and one not, one Portuguese and one international. In the year of 2018 the personalities chosen were Amália Rodrigues and Woody Allen. After an evaluation of the jury, sixty caricatures of each identity are

⁸⁵ The pieces were produced by typographer Américo da Silveira.

⁸⁶ Since it appeared in the press at the end of the eighteenth century, the cartoon had always a positive echo within the public. This reception is due to the very simple factor of the cartoon being something of a quick consumption for everyone even the unlettered people who by this printed form understand the phenomena treated through well-known images. The use of cartoons in the written press became popular throughout the nineteenth century constituting itself as a preferential vehicle for passing political ideas for both internal and external consumption.

⁸⁷ More and more cartoons are used in marketing strategies not only because it is something that stays in the memory of the consumer but more easily receive the implied message that is being transmitted.

chosen and presented at the Caricature Festival. This event usually happens on the eve of Saint John's celebrations on June 23rd. The MNI invites the award-winning caricaturists for to get to know the city of Porto at the city's festivities.

Currently the GIC presents three exhibitions in its space: a permanent one, denominated by "The World's Laughter", and the other two are temporary, in relation to the Cartoon Contest and the Caricature Contest. The temporary exhibitions usually had a duration of approximately six months (from July to mid-December) so that other exhibitions may be exhibited in other months. However as a consequence of a substantial verbs decrease the exhibitions started to be extended until the months of March/April.

- a) Permanent Exhibition "The World's Laughter" – the Museum presents the PortoCartoon-World Festival award winners since its creation. Initially this was a temporary exhibition however at the eighth edition in the year 2006 they began to exhibit it permanently. It is an exhibition that relies on an international audience, not only because the work can be of any country in the world but also, as the exhibition is presented in Portuguese, English and Spanish. Although it is a gallery of a fairly reasonable size with 400m² the space becomes scarce with each passing year.⁸⁸ It is the only humor gallery in Portugal and has an intention to value the cartoon and disseminate humorous drawings and caricatures internationally. There is an enormous focus on the cartoon representing a universal language.
- b) Temporary Exposition – the first temporary exhibition displays all the cultural goods that were selected for the PortoCartoon-World Festival contest.⁸⁹ All the selected (and winners) are entitled to receive a catalog. Their presence in the catalog demonstrates the recognition of its work in a contest with a reputation in this sector of the art market even if the artist has not been awarded, it was selected. Unfortunately, due to the minimum budget, the gallery sends the catalogs only to who ensures the cost of the shipment.⁹⁰ Another measure that gallery had to resort

⁸⁸ Each contest means space for three more images to be exposed. There are two possible solutions or increase the space or start to display only the first winner instead of the first three.

⁸⁹ The process is carried out as follows: the participants send their cartoons – which may not be represented in the form of a paper drawing but rather a drawing in a fabric for example – and the jury selects the best ones. The museum then begins to scan the selected ones, print them, prepare the label in Portuguese and English. At the end of March, the exhibition is ready to take shape.

⁹⁰ Those who do not cover this cost which can often be quite high the gallery sends the PDF version.

to minimize costs was to agglomerate the cartoons and caricatures in a single catalog. This year 500 copies of it were edited.

- c) Temporary exhibition - For six years now in addition to the cartoons on a particular theme chosen by the museum there are also two caricature prizes. Besides the caricatures this temporary exhibition carefully provides some information about the chosen personalities.

4.3.3. Innovation

The MNI is a very specific case since its creation it aims to be a “living museum” one that breaks up with the usual ways of making and building museums. In observing all the policies examined by the museum and also by the interview with the Director Luís Humberto Marcos it is verified that of the four types of innovation (Oslo Manual, 2008) the product innovations have more prominence.

Table 4 – National Press Museum innovation framework

	Back-Office Innovative Routines	Front-Office Innovative Routines
Hard Powers of Innovation	Process Innovations	Product Innovations
	<ul style="list-style-type: none"> ● Research for the exhibitions 	<ul style="list-style-type: none"> ● National, international and virtual decentralization ● PortoCartoon World Festival
Soft Powers of Innovation	Organizational Innovations	Marketing Innovations
	<ul style="list-style-type: none"> ● HR divided into “circles” that interact 	<ul style="list-style-type: none"> ● Websites (virtual decentralization) ● Social Networking

Color key: light green means both innovation origin and museum’s specialization
 Source: Adapted from Costa and Mendonça, 2019

Although the Museum innovates in different ways as will be discussed later the most important policies that most determine the MNI philosophy are product innovations.⁹¹

Decentralization is perhaps the word that best describes the museum’s policies.⁹² That is, the action of this particular Museum is not confined to its physical space. On the contrary, art has to pass through several places and therefore the museum should invest in national,

⁹¹ “A museum should always think of the public, always.” (Appendix 3.1: 97).

⁹² “There is another aspect of innovation that is very important to us that has to do with cultural decentralization, which constitutes a strict cultural policy line followed by the Museum. We realize that art has to visit other places, such as the shopping centres. We’ve been doing it since we opened to the public. The Museum already had this perspective, this philosophy in its early days.” (Idem: 92).

international and even virtual decentralization. The only borderline is its thematic, that is, the MNI only exposes something that is related to the press.⁹³

From the national point of view the MNI seeks to make exhibitions out of doors whenever possible. It has already held exhibitions in almost all districts of the country including the Azores and Madeira.⁹⁴

Portugal has a particularity that the other European countries do not which is the non-participation in the 2nd World War and so there was no mass destruction. When the Museum Project was born, an investigation was carried out on the equipment and typographies that existed in Portugal, and for the most part, they were as they had been left two hundred and three hundred years ago. For this reason the MNI has the dream of making Portugal the Gutenberg country. This means that Portugal has equipment and has the conditions to make historical surveys about the typography importance in certain regions. Besides, the Museum will use its soft powers skills to persuade the autarchic power for the creation and valorization of the press in their own territory. In other words, the identity of certain regions requires a press valorization. One of the examples is in Madeira where the Press Museum project was created by the MNI. Another example is the Celorico de Basto Centre that without the Celorico Town Hall acquisition (by MNI persuasion) an old local typography would have disappeared. Other localities that are in preparation to have a centre are the Azores and Arcos de Valdevez.

From an international point of view but still with a connection to Portugal there is the initiative “Museu Sem Fronteiras da Imprensa da Lusofonia” (“Lusophony Press Bordless Museum”).⁹⁵ It is a project that aims to preserve and enhance the typographical heritage of Portuguese-speaking countries. It was considered essential to safeguard the

⁹³ “We only have a border that is not doing activities within the Museum that are not related to this area. That is, we do not exhibit paintings because of the painter, we do exhibitions of painting if they are related to the area of the press, for example, the Mário Botas exhibition. This is a frontier, that is, we have to expose something that is related to the press, with the printed image. Even the humour material, everything is printed, because we are a Press Museum. We could even host other exhibitions, but we do not make it easier, because we do not want to “contaminate” our project.” (Idem: 94).

⁹⁴ “The national decentralization is another of the causes we defend. To that end we have already held exhibitions in practically all districts of the country, including the Azores and Madeira. (...) We made many exhibitions outside the building and some of them didn’t come here (...) because it was too expensive to bring to Oporto, because it had many objects from Lisbon. Although the objects are not from here, the exhibition was totally set up and organized by us.” (Idem: 92).

⁹⁵ “We are not interested in creating warehouses with equipment, it is important to make this equipment instances that promote the development of the populations, their cultural identity, their growth and their valuation in collective terms in the different spaces in which the Portuguese language is the main aggregator element. (...) It is a relation between the museological culture and the Lusitanian language.” (Idem: 96-97)

typographic heritage that still exists in the eight countries with the Portuguese language as a unifying element. In a first phase the pieces existing in each one of the countries were inventoried and only after that it was possible to create a Virtual Museum of the Portuguese Press. In each nation a museological centre is installed and articulate with the others.

The decentralization line is also based on virtual projects being an essential component of the museum's way of being. The MNI was among the first museums that on the same day it inaugurated an online exhibition was launched. In 1997 MNI was ranked as one of the ten best museums in the world in virtual terms. Virtual language is important because not only is the museum's way of exposing things that are not physically made it is also a way of reaching the whole world.⁹⁶

The Museum focuses on the virtual world, having countless virtual exhibitions posted on the website in order to reach anywhere in the world. These are the Virtual Exhibition Rooms of the Gallery: Exhibition Football and Humor; Exhibition Humor and Brilliance; Exhibition Olympic Humor; Exhibition Maomé; Exhibition Obama; Exhibition *Je Suis Charlie*; Exhibition Wolinski; Exhibition Manuela de Azeredo; Exhibition Manuel António Pina; Exhibition Cartoon 9/11; Exhibition of Censorship.⁹⁷

Contrary to the usual museum's rules in the MNI it is possible to touch objects and print paper.⁹⁸ This interactivity in the exhibition, makes the institution also very innovative and unique. In addition, the Museum is open 365 days a year, as it is present in its philosophy to be open to all.⁹⁹

It is also important to realize that the MNI innovates immensely through humor and the fact it has brought the cartoon to the Press Museum is itself an innovative policy. As the interviewee stated: *“(Georges) Wollinski loved our Museum, because it had a*

⁹⁶ “Virtual is a good tool for us to materialize our decentralization policy. We want to be part of the Portuguese cultural landscape, but we also want to leave our mark in the world. (...) We increasingly want to be out there.” (Idem: 93-94).

⁹⁷ See Appendix 3.4.

⁹⁸ “It is very important that people feel our machines, use them to print paper and then have the possibility to take it home. This is a seductive and fascinating thing. Normally, in a museum you cannot touch the pieces. Here we say the opposite: please touch the pieces, feel them, get your hands dirty (...) For this reason, the Museum, as soon as it opened, had not only printing sessions but also paper production. At the inauguration, the President of the Republic “get his hands dirty”, in the sense that he handled some of our old machinery. This is a milestone in our history that is at the heart of the genesis of the Museum itself.” (Appendix 3.1: 93, 97).

⁹⁹ “We are an open instance, because this is the only way that culture, osmotically, goes into people's lives. Hence our slogan is “the pleasure of culture.” (Appendix 3.1: 97).

representation of what was the typographic art but at the same time valued the cartoonists drawing.” (Appendix 3.1:93)

When the museum opened, an exhibition on the “150 years of Caricature in Portugal” was inaugurated and shortly thereafter in 1999 the PortoCartoon World Festival was created.¹⁰⁰ This contest was born with this denomination marked by the city of Oporto but soon escaped itself of the geographic dimension to become a port (“porto” in Portuguese) where anchors the world humor. The GIC promotes seven innovative activities throughout the year in the scope of the cartoons and caricatures, approaching the younger and less literate community:

- i) The Caricature Party takes place every year at São Bento Station where several caricaturists play with the people that pass by.
- ii) The Public Prize has existed for about ten years and is another way to reach citizens. It is possible to vote in the best cartoon and the best cartoon, on the internet or in various places of the city also.¹⁰¹
- iii) The inauguration of a temporary exhibition coming from the Salão Internacional de Humor de Piracicaba at the same time as there is inaugurated an exhibition sent by the GIC. It is one of the strongest partnerships that the Gallery has with an international actor.¹⁰² GIC establishes partnerships with museums and associations of the same scope in Argentina, Germany, Austria, Azerbaijan, Belgium, Brazil, Bulgaria, Egypt, France, Great Britain, Netherlands, Indonesia, Iran, Israel, Italy, Mexico, United States of America, Luxembourg, Poland, Portugal, Romania, Russia, Sweden, Switzerland and Turkey. These partnerships promote inter-help among the various entities involved and share the works, with space for collective usufruct. The biggest partnership established today is with the Salão Internacional de Humor de Piracicaba in which the two galleries “exchange” exhibitions for a month increasing the visibility of the authors, their work and of course the galleries themselves.
- iv) The “Free Theme Exhibition” as the name implies is a set of works that do not follow the theme selected by the GIC. In addition to the various practices that the

¹⁰⁰ See Appendix 3.3.

¹⁰¹ Those who win the prize of the public have the right to present their works the following year in an exhibition dedicated exclusively to their works.

¹⁰² Due to today’s technologies, the works are sent virtually, printed and then displayed for a month.

Gallery proposes it is always available to receive drawings of anyone on any subject. Since 2014 this exhibition is presented at the Casa Branca de Gramido (Gondomar) during the months of July and August. In this exhibition the key word is diversity; that is, the most important is to present the maximum of artists from different countries, choosing only one work from each author.

- v) The sculpture is another initiative in which a Portuguese sculptor is chosen to give life to the drawing that won the previous year. The purpose of the GIC is to present and install the sculpture but not to preserve it.¹⁰³
- vi) It is also important to make reference to another initiative of the Cartoon International Gallery has and that already has twenty editions that is the “Projeto Textos de Amor” (“Love Stories Project”). It is a contest,¹⁰⁴ as the name implies, of poetic texts or prose on the theme of love. It usually takes place in February, with the intention of catching Valentine’s Day. In addition, the Gallery has already organized temporary exhibitions on poetry, literature and other literary subjects.

All these activities (product innovations) are common practices of the Museum’s innovative as they become an active presence both in the city and internationally. Another way for the Museum to reach out more people is to install numerous exhibits outside of their physical space. Each year approximately twenty spaces are chosen where cartoons’ replicas are placed, of which seven/eight are in shopping centers since it constitutes opportunities of enormous promotion. In addition the MNI exhibits in other galleries such as the Península Gallery and the Comercial Gallery. Replicas are also set in shops, bookstores, cafes, but also virtually on the subway’s televisions. Every year a small exhibition is held in the airports arrivals area and also in the panoramic elevator. The cartoons remain in the spaces where they are fixed by the time that the owners find convenient. It is important to note that the GIC was a pioneer in the organization of exhibitions in shopping centers namely at the Colombo Shopping Center in Lisbon in 1998 under the name “Guerra e Amor” (“War and Love”). The GIC understood that it was a way of reaching more visitors more quickly and promoting the artists represented.

¹⁰³ If the sculpture is destroyed for reasons of the artist such as the choice of material or for natural reasons such as heavy rains the GIC won’t recover it on purpose since it recommends the ephemerality of the installation.

¹⁰⁴ The jury usually consists of Manuel António Pina, José Luís Pires Laranjeira and Luís Humberto Marcos, sometimes integrating Ana Sousa Dias and Maria da Glória Padrão.

There is also the care to worry about its surroundings and the national circumstances. For example after the tragedy in Pedrogão Grande an almost free of charge water-themed exhibition was set up. Its reception was so successful that last year the City Council asked the Museum to assemble it again this year.

Continuing in front-office capabilities but now going through the soft innovation routines it is verified that marketing is product-oriented and decentralized. On the internet there are three different websites: one from the Museum itself and two others that were born immediately in the virtual space. They are two autonomous pages; one speaks of the history and the personalities of the press and the other presents the virtual galleries that were previously mentioned. Even on the internet the MNI takes the opportunity to innovate in the product and to widen the range of visitors. Once again the virtual world functions as a tool for decentralization policy. The truth is that the MNI was the first to create a virtual strand in the press area and was one of the first museums in Portugal to have augmented reality. In addition the Museum has a Facebook page with daily updates of information, photos, videos and events; and an Instagram page, where photos and information on upcoming events are shared.

The MNI also invests heavily in advertising on radio and newspapers – which publish ads for exhibitions and initiatives – and with hotels – where they broadcast physical and digital material. These relations exist not only with the city's institutions but also in other places in where it exposes. That is, all the exhibitions that are held don't only work as a way to reach other types of public but also as a marketing policy (marketing innovation).

Looking now at the back-office capabilities more specifically at hard innovation (process innovation) it is verified the museum attaches great importance to the research that is done before setting up an exhibition. Most of the exhibitions are made from scratch with two museology masters in the HR team. As it was said earlier the frontier in the museum is exclusively thematic and so whenever an exhibition is built a thorough investigation is always necessary to find the correct objects for the museum's typology. As the Director stated, the Museum needs to be well anchored from the scientific point of view and focus on the uniqueness.

Let us not forget that the MNI began with a research plan in which a written and photographic record of the heritage existing in Portugal was made. In addition a survey was made of the press museums supply around the world and there was a huge investment in research in order to create a museum with well-designed structure and objectives.

With regard to organizational innovations it is interesting to verify the Museum HR horizontal structure is quite different from what is usually found. HR function in “circles” that interact and are co-responsible with the museum which promotes the feeling the institution is of their own.

This analysis implies the MNI has a wide range of activities and in general these ideas come from the Museum team.¹⁰⁵ Dr. Luís Humberto Marcos repeatedly stated that a museum should think about its heritage and value it from the perspective of the public. That is, a museum is not a set of objects of a single person but is a set of goods to be enjoyed by the people. A statement that definitely demonstrates the product innovation importance. If the MNI had more financial means it would invest more on marketing, on more activities, on more campaigns and it would be in more places not only at the national level but also within the Comunidade dos Países de Língua Portuguesa (Community of the Portuguese-Speaking Countries) (CPLP). Which means that it would be possible to develop the project of Portugal the country of Gutenberg and the “Lusophony Press Bordless Museum”.¹⁰⁶

4.3.4. Economic Sustainability

Ever since it was created the MNI functions as an association that does not aim to maximize its profit as a company would have.¹⁰⁷ Although the Museum receives monetary support from the State these are increasingly scarce so it has been forced to innovate. For example condensing the two catalogs annually published – one dedicated to the cartoon and another to the caricature – into one. For approximately five years by

¹⁰⁵ “*The human creative process is complex, and we are not the result of a single stimulus. Ideas are not born out of nothing; creation always has a livelihood. Dreams do not come out of nowhere. Ideas arise from the pleasure of living. It is difficult for creation to emerge from lack and absence of pleasure. If we had the financial means, this Museum would be very different. Because there is no shortage of ideas.*” (Appendix 3.1: 96).

¹⁰⁶ “*The possibilities are endless. There are projects that begin and that doesn't seem to have an end, because they are in constant change and evolution. This makes part of our spirit too: a restlessness spirit that marks our cultural project. It is the result of restlessness, because culture is the sedimentation of human unrest. This relates to our project and to our philosophy.*” (Idem: 93).

¹⁰⁷ Regarding the GIC it is important to remember that art galleries always have a commercial aspect with the purpose of selling the goods that they exhibit and promoting them in Art Fairs and Biennials. However, the GIC because it is part of the museum cannot nor have it ever been its policy to receive a value for the cartoons it exhibits. The only thing they commercialize are t-shirts and postcards with the winning images in addition to the catalogue. However, it is not because they have never held commercial exhibitions that Gallery has no importance in the contemporary art market. Both the physical space and the virtual museum serve as a promotion for the artists and many of them have had the PortoCartoon World Festival as a fundamental impulse in their career.

Caixa Geral de Depósito¹⁰⁸ sponsored the PortoCartoon World Festival exclusively.¹⁰⁹ In addition the MNI also applies for a number of state and European Union competitions.¹¹⁰

Even so innovation but especially product innovation brings economic sustainability: all outside doors exhibitions are paid and this constitutes a proper income for the Museum.¹¹¹ If the MNI only showed the permanent exhibition the product innovation ratio would be very small: people would visit it a few times and never come back.

With respect to all the Virtual Galleries and the worked information that is available the three websites bring zero return to the institution.¹¹² In this sense the institution is thinking about ways to change this paradigm and guarantee a return for the production of these contents. One of the solutions is to create a subscription system for users who want more detailed information on certain topics.

There is also another aspect that makes the Museum very distinctive that is the artistic residence called Wolinski Artistic Residence.¹¹³ The residence houses an artist in an apartment. At the opening of the exhibition the winner is invited to stay there.¹¹⁴ For the rest of the year the residence is open to artists who may collaborate directly with the MNI with the university or with less-favored neighborhoods.

Last but not least it should be recognized that the Museum Director, Dr. Luís Humberto Marcos, builds to this valuable heritage his value-added mission spirit by taking his function voluntarily *“because I dream about this project”* (Appendix 3.1:).

¹⁰⁸ Is a Portuguese state-owned banking corporation.

¹⁰⁹ At that time, the organization of the GIC had the monetary means to carry out a selection of the exhibition to Lisbon. Nowadays, in order to set up the temporary exhibitions - from printing the drawings, organizing them, setting them up, doing the subtitling in Portuguese and English they use money from the museum's own budget.

¹¹⁰ *“Whenever there is an opportunity, we apply to various competitions. There was a National and European contest of €1M that ensured a reformulation to this building.”* (Appendix 3.1: 96).

¹¹¹ *“We “produce culture” and whoever wants to pay the amount we consider appropriate for us to work for them, will get something out of us. That’s how we work.”* (Ibidem).

¹¹² *“With regard to innovation at the virtual level, what is the feedback we have from people who take our information from websites? None. The real winners are the telecommunications companies which profit from the website traffic. That situation allows them to disregard content. (...) If the production of these contents has value, therefore, it can also provide us with financial returns.”* (Ibidem).

¹¹³ Georges Wolinski (1934-2015) one of the greatest caricaturists of the late twentieth and early twenty-first century, was president of PortoCartoon for ten years between 2004 and 2014. In 2014 he was awarded as the first honorary citizen of Porto-Capital Cartoon. Unfortunately, he was assassinated in the attack on the newspaper Charlie Hebdo in Paris on January 7, 2015. As a way to honour him a virtual exhibition was created, which can be visited on the website of the GIC with a set of drawings authored by Wolinski, together with contributions from other authors. In addition, it was given his name for the artistic residence.

¹¹⁴ The winner if he accepts can hold workshops however is not obliged to do so.

4.4. Portimão Museum

“We went from a cannery to a storytelling factory.”

(Dr. José Gameiro, Museum’s Director, Appendix 4.1: 105).

4.4.1. A Biography

In 1983, the CMP approved a museum project aimed at researching, collecting, documenting and disseminating local heritage, with special emphasis on archaeological, industrial, nautical and underwater perspectives.

The Comissão Instaladora do Museu de Portimão (Portimão Museum Founding Committee) (CIMP) which was then appointed joined forces to create a structure that would safeguard the cultural heritage at risk to sensitize the population to the need to preserve local collective memory, characterizing the main identity traits of the region, having as main objective, the creation of conditions, for the pioneering and effective emergence of a Municipality Museum.¹¹⁵

Due to its geographical location by the river the building which later would eventually house the current Museum has since begun its activity in the transformation and conservation of salt, giving rise in the 20th century to the Feu Hermanos Factory an important fishing and canning industries on the right banks of the Arade River. In 1996 the CMP acquired this cannery aiming at the installation of a future museological unit that was administered locally ever since it was set up. A year later in 1997 the “Divisão de Museus, Património e Arquivo Histórico” (“Division of Museums, Heritage and Historical Archive”) was created and CIMP was extinguished. Two years later in 1999 the Museology Program was developed and was the definer of what would be the future occupation, management and innovation of the Museum. In addition an Architecture Project was launched in order to appoint the bureau which would be in charge of designing the new installations of the Museum. The project ended up being given to the portuguese architects José Cid and Isabel Aires.

¹¹⁵ *“At that time when tourism did not have a very cultural and historical component, we looked at the city and would be able to find things that were in danger of extinction. And at the same time the dredging that took place in the seventies and eighties, and then continued, brought thousands of millennial testimonies to the surface. There was a whole story at the bottom of the river and, at the same time, up here that could be at stake. This was one of the reasons that led us to approach the municipal council (...) The origin of all of this was a movement started by the civil society.”* (Appendix 4.1: 103).

In 2001 the MP is part of the first network of Museums that goes by the name of RPM. On August 27, 2004, a ceremony was held for the assignment and launch of the construction work for the Museum with its opening to the public on May 17, 2008.

This institution located in the city of Portimão (in the Algarve region the southern territorial division of the country) such as the MMI has a multidisciplinary character possessing collections and exhibitions with territorial, ethnographic and anthropological relevance. In this way, having a very close representation, it cannot be identified by a theme in particular.

Its mission is to interpret the origins and evolution of the local and regional community; to disclose the most important aspects of its industrial-maritime history; to preserve the industrial and cultural heritage; to value the relationship between the city of Portimão and the Arade River; documenting material and immaterial testimonies; and fostering the formation of new audiences, developing a quality cultural offer.

4.4.2. Heritage Organization

The Museum is divided into three main parts and they are the museum's own reference exhibitions. The first called "Portimão, Território e Identidade" ("Portimão, Territory and Identity") occupying the industrial complex of the former factory building and distributed over an area of around 1'000 m² representing a historical synthesis of the route designed by the local communities, from prehistory to highlighting the most representative activities of economic, cultural and social life. This exhibition presents the occupation of prehistoric communities in Alcalar; the testimonies of Roman experience and architectural elements found in Portimonense territory; the Islamic presence of the twelfth and thirteenth centuries; traces that emerged from the Arade River, as a place of crossing of cultures and civilizations, witnessing an intense activity fluvio-maritime; the Serra de Monchique, located on the right bank of the mouth of the Arade River; memories and testimonies of the process of shipbuilding in wood and related industries; presentation of the process of transformation of fig (the first great moment of Portimão's economic expansion); and finally the biographical route of Manuel Teixeira Gomes.¹¹⁶

¹¹⁶ Manuel Teixeira Gomes (1860-1941), born in Portimão was a writer, diplomat and President of the Republic (1923-1925).

The second part held in the “Sala do Descabeço” (“Behead Room”) is dedicated to the preservation of canning industry and the historical relationship with the Arade and the Ocean. In this space the role of Men is highlighted in the most important economic activity of Portimão and Algarve before the tourism industry paradigm shift. Departing from the factory space and in particular from the recovered “Behead Room” the visitor is taken from the old wharf of the Portimão quay to the heart of the factories with the original equipment used before its closure. The whole manufacturing process is shown from the workers effort on their journeys from home to work on foot, from the processing of canned fish to the packaging of canned goods to the promotion, sale and product distribution for everyone.

The third part was installed in September 2013 through a partnership with a diving company which created a project to build an artificial reef after the sinking of four ships. In the Museum’s cisterns, at the bottom of the water, where there was an abandoned gallery a “submarine” was constructed with images of what is happening under water. The “Ocean Revival - Underwater Park of Portimão” was not a section that was initially planned. However as a result of a careful observation by the MP it was possible to develop the main exhibition of the institution that, although permanent, is evolutionary.

The Museum has a number of structures which at the outset were thought of: two multipurpose spaces that allow on a temporary basis to host multidisciplinary museological initiatives; an Educational Service; a Documentation Center and Historical Archive; a Conservation and Restoration Laboratory; the Museological Reserves of the Collection; a Restaurant and an Auditorium. In this way the MP is able to maximize the dynamism and diversity of its cultural offer giving rise to a plurality and complementarity in its museological values.

The Museum also has a Centro Interpretativo dos Monumentos Megalíticos in Alcalar (Alcalar Megalithic Monuments Interpretative Centre)¹¹⁷ about 9 km from the city of Portimão. Discovered and exploited since the late 19th century the Megalithic Monuments of Alcalar are classified as National Monument in which the MP has many activities.

¹¹⁷ This prehistoric community from the third millennium, established a village defended by walls, trenches and slopes, where they built houses. Next to them, they built a set of funerary monuments, a settlement of the 3rd millennium BC, which extends over 25 hectares. The vestiges found allow us to approach their way of life, their activities, the way of occupation and use of this place. Their relationship with death is evident in the ways of building the different types of tombs, from collective graves to specially designed for chiefs and their families.

The museum has been widely recognized nationally and internationally winning awards and honorable mentions. In the year of its inauguration (2008) the Museum received an honorable mention in the category “Melhor Museu Português” (“Best Portuguese Museum”) by APOM and the following year by Portuguese Tourism in the “Novo Evento Público” (New Public Event”) category. In 2010 it was internationally honored with the “Council of Europe Museum” award and in 2011 with the “DASA – Mundo do Trabalho 2011” (DASA – Labour World 2011” award. Also in that year the film “À conversa com Manuel Teixeira Gomes” (“A conversation with Manuel Teixeira Gomes”) was awarded at the Festival Tour Film Brazil 2011 held in Florianópolis with the “Arara de Prata - Jovens Talentos” (“Silve Frame – Young Talents). In 2015 it was once again honored by the Portuguese Museology Association with the prize “Inovação e Criatividade” (“Innovation and Creativity”) for the project “A nossa cultura sai à rua” (“Our culture goes out on the street”).

4.4.3. Innovation

To better understand the innovation policies examined by the Museum, the three axes that Director José Gameiro mentioned as the most relevant should be regarded. During the interview the concepts “Observatory. Laboratory. Bridge” were subsequently referred.¹¹⁸ That is, the museum cannot be a showcase of objects but rather a bridge between generations and between the community being aware of its surroundings.

Of the four types of innovation (Oslo Manual, 2008) the vital ones for the MP are Museology Program, HR and partnerships, that are process and organizational innovations respectively. Interestingly, they are both back-office routines.

¹¹⁸ “For me, these three axes are the most important.” (Appendix 4.1: 102).

Table 5 – Portimão Museum innovation framework

	Back-Office Innovative Routines	Front-Office Innovative Routines
Hard Powers of Innovation	Process Innovations	Product Innovations
	<ul style="list-style-type: none"> Museology Program 	<ul style="list-style-type: none"> Activities at Alcalar Megalithic Monuments; “Our culture goes out on the street”; Portimão Photographic Race; etc... Technology: Increased Multimedia Guide
Soft Powers of Innovation	Organizational Innovations	Marketing Innovations
	<ul style="list-style-type: none"> HR Partnerships: at a European level; at a region level and at a city level 	<ul style="list-style-type: none"> Change of opening hours in the month of August Website + Social Networks

Color Key: light green means both innovation origin and museum’s specialization
 Source: Adapted from Costa and Mendonça, 2019

On the side of hard powers of innovation is the whole structure¹¹⁹ which will then be articulated with the HR.¹²⁰ The structure that was constituted in 1999 with the Museology Program predicted:

- a) Two temporary exhibition halls with the purpose of innovating in the various histories and in the production of other types of knowledge beyond the permanent exhibition one giving it continuity.¹²¹
- b) A Restaurant/Cafeteria¹²² and a Documentation Center/Historical Archive¹²³ which despite being connected are autonomous with regard to their operating hours and in their way of functioning.¹²⁴

¹¹⁹ “There are a number of structures here that have to be considered.” (Ibidem).
¹²⁰ “It did not all come together at the same time, but there was a structure that was already designed and articulated with human resources, for a certain type of missions and that are possible because of human resources.” (Ibidem).
¹²¹ “An innovative museum has to have a beginning, a middle and an end. Firstly, you have to look at the museum’s birth, its philosophy and its mission and afterwards, read its program. Our program, which even includes the architecture team, is what defines what will be the future occupation, management and innovation on the part of the Museum. For example, if I had not foreseen two temporary exhibition halls, how could I innovate in the various stories and in the production of other types of knowledge other than the permanent exhibition?” (Ibidem).
¹²² The museum has a cafeteria and restaurant outside the museum facility thus attracting more public. Faina presents a menu that is embedded in the Mediterranean diet using mainly regional products.
¹²³ See Appendix 4.2.
¹²⁴ “The restaurant/cafeteria inside the Museum was something I saw whilst visiting other museums and I immediately thought to myself “what a bad idea that is”. When the Museum closed, everything closed. It does not make any sense. (...) If our Museology Program had not foreseen a certain autonomy for the restaurant, then that area would be included in the Museum’s infra-structure.” (Appendix 4.1: 107).

- c) The Educational Service¹²⁵ aims to sensitize children and young people to the cultural heritage of the municipality.
- d) Spaces to be rented: auditorium; meeting rooms; rehearsal room; and the two temporary exhibition halls.¹²⁶
- e) Museological Reserves of the Collection.
- f) The Conservation and Restoration team which integrates projects for the preservation and recovery of important pieces in the region of Portimão. For example, the most recent intervention, was in the garden 1º de Dezembro (1st December), in the conservation of the tiles of the building that gave rise to the Laboratório Municipal de Análises (Municipal Analysis Laboratory) and later to the Portuguese Red Cross.

Having this structure already thought it is possible to articulate it with the HR and with the partnerships, and that is where the second innovation (organizational) emerges. At the moment the institution has 25 people in the team among historians, anthropologists, conservatives and restorers, archivists, maintenance people and people connected to computer science, among others. In the Director's view it is in the HR that museums should invest more. The Museum teams from twenty/thirty years ago that worked with a certain type of language will not be able to adapt to new realities and for this reason renewal of generations is crucial to Museum innovation.

However it is not only the Museum's technicians who can make all the decisions, the partnerships that established are vital for the functioning of the MP.¹²⁷ The Museum not only observes its own reality but also has to work with it (the idea of "Observatory.Laboratory.Bridge" being always present).¹²⁸

For example the MP was in the founding group of the RMA which rose from the need to share experiences and knowledge among museums. This network emerges as an informal group of museological action. Its form of organization aims at giving priority to horizontal

¹²⁵ See Appendix 4.3.

¹²⁶ See Appendix 4.4.

¹²⁷ "When we refer to the museum laboratory, in addition to observing its own reality, we mean to create an environment in which partnerships are born. We call it the "laboratory of ideas" for joint project partnerships." (Appendix 4.1: 103).

¹²⁸ "That is why I use the concept "observatory". The Museum will have a limited action if only showing its heritage without being aware of who surrounds it, weather is a touristic, a community or a social reality..." (Idem: 102).

cooperation and sharing among its members and to planning activities together. Currently it has twenty institutions. The MP together with the other members of the Coordinating Group 2018-2020¹²⁹ of the RMA published the first “Guia de Museus do Algarve – Um Caminho pelo Conhecimento” (“Algarve Museums Guide – A Knowledge Path”) in an e-book format.¹³⁰ This project is another horizontal partnership between the Algarve region museums with the aim of reaching more public (national and internationally) providing more information on the offer of services, its programs, initiatives and collections and promoting the collective, material and immaterial, from the south of Portugal.

Another innovative activity which is unique in Europe is that the National Defense Day in the Algarve area takes place on the premises of the institution. In this day there are 5’000 young people who make the first contact with the army but also with the defense of the heritage.

In 2019 Portimão was elected as the European City of Sport (CED) and in this way the MP joined the CED program and inaugurated two exhibitions.¹³¹

In total the Museum has 32 partnerships in seven distinct sectors:¹³² travel agencies; cruise tour operators; INATEL Foundation social tourism; rent-a-car service and taxis; catering and hospitality. However not only the institution has to work in approximation within the Algarve area but also apply it to the city of Portimão establishing links with

¹²⁹ The Coordinating Group, besides being constituted by the MP (José Gameiro), is also by the Museu Municipal de Loulé (Loulé Municipal Museum) (Ana Rosa Sousa), by the Museu do Traje de S. Brás de Aplotrel (Costume Museum of S. Brás de Aplotrel) (Emanuel Sancho), by the Museu Municipal de Olhão (Olhão Municipal Museum) (Hugo Oliveira) and by the Museu Municipal de Silves (Silves Municipal Museum) (Maria José Gonçalves).

¹³⁰ Available at https://museudeportimao.pt/livro/Guia_Pt_08-02-2019_high.pdf.

¹³¹ In January, the exhibition “O Desporto na Filatelia Portuguesa” (“The Sports in the Portuguese Philately”), part of the collection of the Museu Nacional do Desporto (National Sport Museum), which covers 120 years of national philatelic emissions under sport, and in March, “Mascotes Olímpicas – De Talismãs a Símbolos de Identidade” (“Olympic Mascots – Amulets and Identity Symbols”, with a collection of 47 figures of varied materials and dimensions, corresponding to the mascots of the Summer and Winter Olympics (from the Winter Games of Grenoble-1968 to Tokyo-2020).

¹³² “(...) we have to connect with associations, collectors, schools, but also researchers, and people who can join us not only as donors but also as part of this “storytelling”.” (Appendix 4.1: 103).

associations, collectors, schools,¹³³ universities,¹³⁴ researchers and all individuals or collective persons¹³⁵ that help the museum to gain scientific and cultural knowledge.¹³⁶

In December 2014 the Museum created a non-profit cultural civic association aimed at enhancing, supporting and promoting its museological mission: the Grupo de Amigos do Museu de Portimão (Portimão Museum Friend's Group) (GAMP). The association with approximately 230 members aims to promote their own initiatives or collaborate with the Museum's direction in the concretization and development of activities; develop among the members social, cultural and defense activities and enhancement of cultural and natural heritage; and to promote the enrichment of the Museum's collection, such as museographic, scientific, didactic, archival, laboratory and bibliographic assets. At this moment they are applying for a Direção Geral do Património Cultural (Cultural Heritage Office of the Director General) for project to boost and enhance the Algarve monuments and for three years now they have been able to finance the Prehistory Day, an activity carried out in the Alcalar Megalithic Monuments. GAMP is another example of dynamism between the museum and its community.¹³⁷

The Museum has won some prizes namely from the European Museum Forum and on July 11, 2018, the CMP signed a collaboration protocol with the EMF. The partnership established aims beyond the installation of the Administrative Secretariat and the General Archive of the EMYA.¹³⁸ In addition to the five different categories of awards,¹³⁹ for the

¹³³ They have protocols with professional schools that carry out internships in the museum.

¹³⁴ Within the framework of the collaboration protocol between the CMP, through the MP, and the Faculty of Social and Human Sciences of the NOVA University of Lisbon during the month of June of 2018, the campaign of underwater archeology took place in the river Arade. The work carried out focused on a Roman and modern shipwreck and anchorage, and among many records and preservations, recovered an amphora. The campaign was attended by archeology students and with the support of several institutions namely GAMP, Fundação para a Ciência e Tecnologia (Foundation for Science and Technology, Clube Naval de Portimão (Portimão Yacht Club), Ondanautica Lda., etc.

¹³⁵ Video Lucem is a Faro Cineclube event, within the scope of 365 Algarve, with the collaboration of Cinemateca Portuguesa-Museu do Cienma, Eating Algarve Food Tours and Museu Zero.

¹³⁶ That is why, annually there are at least two temporary exhibitions of various durations and exhibited both in the museum and its exterior.

¹³⁷ For a minimum annual fee of €20, members gain several benefits and advantages, such as free admission to the museum; discounts on workshops promoted by GAMP and museum; technical support in the conservation and treatment of pieces that members have collected; and, priority in enrolling in guided tours and cultural trips organized by GAMP.

¹³⁸ The European Museum of the Year Award has been organized since 1977 by the European Museum Forum (EMF) and by the Council of Europe.

¹³⁹ EMYA, Council of Europe, Silletto, Kenneth Hudson and Sustainability.

The Silletto Award recognizes excellence in working with the local community and the involvement of volunteers and friends of museums.

The Kenneth Hudson Award recognizes the most unexpected and daring museum or museum that challenges the normal perception of the role of museums in society.

first time the cooperation Project includes the Prémio Museu Portimão (Portimão Museum Prize). The attribution of a new category intends to highlight the Museum that demonstrates and transmits a better more humane and welcoming atmosphere and its visitor's accessibility. This new prize, sponsored by the CMP, intends to be a stimulus in the European museology area for a greater reflection and a contribution to a greater attention on the good practices of welcome and well receiving which in the CMP is stimulated and practice. The trophy will be awarded in May 2019 in the city of Sarajevo Bosnia and Herzegovina on the occasion of the EMYA Awards Ceremony.

The MP can only innovate because it has a physical and HR structure able to create partnerships and observe the community that surrounds it (organizational innovation).¹⁴⁰ It is therefore that back-office routines are so important because it is only with these that the museum will focus on both the product and the marketing.¹⁴¹ Next it will be analyzed the remaining innovation routines (product and marketing) and we will verify that these exist only because there was first a direct observation and attention to the needs of the zone and the community.¹⁴²

In innovative product policies there will be a focus on certain scientific activities and technological products. In the innovative marketing policies we will check changes in the Museum's operating hours and the strong use of social networks.

The MP has a set of activities related to the Alcalar Megalithic Monuments and the prehistory theme. Through the use of scientific/technological knowledge, the museum manages to create interactive activities, namely pottering and milling. Another project is "Our culture goes out on the street" that is an event organized by the CMP, Portimão Museum and the Parish Council of Mexilhoeira Grande which usually takes from one to two days, with various activities and animation that promote the local culture. That is,

¹⁴⁰ "The museum's administration board has to look for someone: an employee within or outside the museum. There are technicians in various industries. Search for links and propose spaces for certain types of audiences (...) The museum cannot freeze in what it has, that is why I say that the three components observatory, laboratory and building bridges are so important." (Appendix 4.1: 108).

¹⁴¹ "All knowledge comes from that society and community that lived and still lives there. Firstly, we have to work alongside the locals in a collaboration regime, and only after that comes the communication per se." (Idem: 104).

¹⁴² "And it's not the museum technicians themselves who decide everything. There is this need to come and stay connected (...) From questions of the genre: "how can I interact with my community?". It is this kind of thinking that the museum should always have. We have to have a social and dynamic reading. For example, if there is a theatre group, why not establish an interaction within the exhibition? Why not creating a performance display? Why not thinking of a way to give other content to the object being displayed and that does not only have an archaeological reading? We have to invoke the outer voices, more or less distant." (Idem: 107-108).

there is a whole world of material and immaterial heritage that the institution explores. Firstly, the MP has to look at the knowledge that comes from society and the community that lived there and still lives and only after that preparation does the communication comes. The museum does not bet on an immediate marketing. As Dr. José Gameiro explained in the interview the MP is the producer of its exhibitions, that is, the main job is not to promote what it is exhibited but rather to give permanent continuity to the main themes.¹⁴³

For example the “Corrida Fotográfica de Portimão” (“Portimão Photography Race”) is another initiative that could resemble any other photographic marathon but being organized by the Museum it aims to look at the heritage and current social involvement in the city of Portimão. This initiative which has been taking place for nineteen years encourages competitors (mainly youngsters) to capture moments that are related to the Museum’s own themes, that is, linked to the heritage of Portimão and Portimão’s society experiences.

In the view of Dr. José Gameiro the institution cannot be exclusively virtual and specifically the MP was not intended for tourism. The work of the Museum first passes through the community and only then the tourists visit it and have the possibility to see how this community was, is and will be.¹⁴⁴ The international visitor does not come for having an international exhibition but because it presents a different way of showing the Portimão’s reality and how exquisite it is. And as the Museum is located in a tourist region it has to be attentive to new languages, investing in the use of technology to make the exhibition more interactive. Specifically, it has an application for smartphone¹⁴⁵ with a guided tour available in five different languages namely Portuguese, Spanish, English, French and German. The increased multimedia guide has audio descriptions, image galleries, augmented reality video and the technical information that is linked to the Museum website and the documentation center. On the way down the stairs to the Museum’s cistern visitors in wheelchairs or with limited mobility have the possibility to view and feel like being inside it from the application or from a virtual reality glasses

¹⁴³ “We have been making numerous exhibitions in which we seek not only the local, the regional, the Algarve, but also the national and the international realities. Just as the preserves shape for the whole world, we also have this vision, but always with interconnection with Portimão.” (Appendix 4.1: 105).

¹⁴⁴ As it can be verified in the interview this approach to the community arises from the very origin of the museum, that is, it arose from a movement that started from civil society and from active and responsible citizenship, which considered that the industrial heritage was at risk of loss.

¹⁴⁵ Alternatively, the visitor can request one of the devices available for the purpose.

ensuring accessibility for all visitors. Using the VR glasses and 360° images it was possible for the first-time people to see and feel like being in the Cistern. At the end of the tour the visitor has the possibility to answer a small survey in which he talks about his visit experience, the ease of the application usage and other relevant information. This project is an extremely innovative tool because it focuses on an inclusive museum.

With regard to marketing innovations it can be verified that the MP does not have superfluous communication. On the contrary projects are treated in advance always establishing a bridge between the institution and the interests of the public. One obvious concern of the Museum is the issue of accessibility.¹⁴⁶ In response to the huge influx of tourists in the Algarve region and specifically in Portimão during the month of August, the opening hours change closing only at 11pm to enter in the nightlife offer.¹⁴⁷ In addition, it presents shows during the eighth month of the year in order to encourage the visit of the tourists. For example in the year 2018 they performed the dance show “Canned Mermaid”. This policy is a way of adapting and becoming more accessible to the schedules of the public during the month of August.¹⁴⁸

It has a website and a Facebook page where it is extremely active with information updates and photos and videos daily shared. On the website it is possible to make online bookings for Educational Service workshops and the Documentation Center and Historical Archive online catalog. On the official Facebook page, it is possible to buy tickets for the Museum’s exhibitions and activities as well as cultural events taking place in the city of Portimão.

In the vision of the Director innovation is made from what you have before, from what you have during and from what can be better predicted for the future. The museum’s HR are attentive to the comments of the Book of Opinions and the practices of other museums both Portuguese and foreign.¹⁴⁹ Dr. José Gameiro was a jury member of the EMYA for

¹⁴⁶ “*The issue of schedules and accessibility is something that concerns us. We have ramps, we have lifts. (...) We always try to improve on these issues.*” (Appendix 4.1: 105).

¹⁴⁷ That is, from September 1 to July 31, it opens at 2:30 p.m. until 6:00 p.m. (on Tuesdays), from 10:00 a.m. to 6:00 p.m. (from Wednesday to Sunday) and closes on Monday. From 1 to 31 August, it opens at 7:30 p.m. and closes at 11:00 p.m. (on Tuesdays), from 3:00 p.m. to 11:00 p.m. (from Wednesday to Sunday) and closes on Monday.

¹⁴⁸ “*The Museum is an observatory and has to make a bridge between the museum and the public’s interest. In the summer, everyone, in the morning, is at the beach and at night go for a walk. In a way we adapt and become more accessible to the schedules of our public during this month of August.*” (Appendix 4.1: 105).

¹⁴⁹ “*We do not live isolated in the world and we realize that there are other museums that offer certain things that, ideally, we would also like to offer. However, we have to adapt to our material reality and the resources we have.*” (Ibidem).

seven years and therefore visited several museums in the Old Continent. Any museum does not live isolated from the world and there must also be an observation of the offer of others, he stated.

4.4.4. Economic Sustainability

Regarding the correlation between innovative routines and economic sustainability the Museum's Director is of the opinion that it is very difficult for a museum to be sustainable and that its main function is to have a social mission.¹⁵⁰ However the use and degree of acceptance of the MP has been increasing as a consequence of innovative policies. Let not forget that the Museum does not have financial autonomy being supervised by the CMP and all the economic values gained through the various activities and of the various poles are directly send to the CMP.¹⁵¹ In addition there is a focus on other types of sustainability namely on energy sustainability.¹⁵²

It is also important to talk about the resurgence of the canning company La Rose. The Museum will create a souvenir shop where canned cans will be available for sale. In addition there was also a revival of a canning factory on the other side of the river Saboreal.¹⁵³

¹⁵⁰ "Museums in the background have a social mission. It's not just about profit." (Idem: 107).

¹⁵¹ "(...) all the monetary values of the rented spaces, of the restaurant, go straight to it. We do not have financial autonomy, in the sense that the money we make does not go to the Museum itself." (Ibidem).

¹⁵² "We are trying to be sustainable according to our resources, but a sustainable museum is not easy. Namely energy matters, including changing lamp bulbs. We have to do it little by little. (...) Another ideal thing we did not get yet: factories are structures that have a huge roof surface and we could have photovoltaics." (Idem: 105-106).

¹⁵³ "This all began with a Belgian visitor who was very intrigued by the industry that once had been very important and that at that moment was disappeared. He then contacted two people, a fisherman's son and a pharmacist and the three became partners. I was very interested and enthusiastic because I found an innovative relationship. The Museum with its own history can motivate someone to think about the rebirth of a canning industry, which is handcrafted in glass jars and which we sell in the museum's restaurant. They are all initiatives that deep down make sense." (Idem: 107).

4.5. Overview

Following the thread of the conducted up to this point, it is possible to construct a overview table that reflects the innovation policies of the four institutions that served as the corner stones of this dissertation.

The following table is especially usufull to draw multiple elations about the four types of inovations (process, organizational, product and marketing innovations) that can be found in the day-to-day back and front office operations of the continuously mentioned museums. The purpose of this academic inquiry is not to establish a hierarchy of museums based on its innovative policies, but to better answer to the very first research question that the present investigation set out to solve: *How does a Museum innovate?*

Table 6 – All museum’s innovation framework

	Back-Office Innovative Routines		Front-Office Innovative Routines	
	Process Innovations		Product Innovations	
Hard Powers of Innovation: scientific and technological knowledge	<u>Communications Museum</u> <ul style="list-style-type: none"> Studying the Museum’s heritage 	<u>National Press Museum</u> <ul style="list-style-type: none"> Studying the Museum’s heritage 	<u>Communications Museum</u> <ul style="list-style-type: none"> Technology: app + House of the Future Activities Indoors: workshops Activities Outdoors: exhibitions 	<u>National Press Museum</u> <ul style="list-style-type: none"> Technology: virtual decentralization Activities Indoors: PortoCartoon World Festival Activities Outdoors: national and international decentralization
	<u>Ílhavo Maritime Museum</u> <ul style="list-style-type: none"> Studying the Museum’s heritage: CIEMAR-Ílhavo 	<u>Portimão Museum</u> <ul style="list-style-type: none"> Museology Program 	<u>Ílhavo Maritime Museum</u> <ul style="list-style-type: none"> Interactivity: NMSA + Aquarium Activities Indoors: Codfish Celebration Activities Outdoors: exhibitions 	<u>Portimão Museum</u> <ul style="list-style-type: none"> Technology: app Activities Indoors: Alcalar Activities Outdoors: “Our culture goes out on the street”

	Organizational Innovations		Marketing Innovations	
	Soft Powers of Innovation: social and relational knowledge	<u>Communications Museum</u> <ul style="list-style-type: none"> Technology: productivity tools + other specific tools 	<u>National Press Museum</u> <ul style="list-style-type: none"> Human Resources 	<u>Communications Museum</u> <ul style="list-style-type: none"> Social Networks
<u>Ílhavo Maritime Museum</u> <ul style="list-style-type: none"> Human Resources 		<u>Portimão Museum</u> <ul style="list-style-type: none"> Human Resources Partnerships 	<u>Ílhavo Maritime Museum</u> <ul style="list-style-type: none"> Social Networks 	<u>Portimão Museum</u> <ul style="list-style-type: none"> Social Networks Change of opening hours in the month of August

Color key: light blue means museum's specialization
 Source: Adapted from Costa and Mendonça, 2019

When analyzing the innovation policies of the four institutions together it is possible to draw multiple elations (Table 6). Firstly, product innovations are the most common innovation type, taking center stage in three museums (Communications Museum, Ílhavo Maritime Museum and National Press Museum), followed by process innovations (most used by two museums: MMI and Portimão Museum), followed by organizational innovations more visible in the MP). Marketing innovations are barely applied by any of the institutions studied. Therefore, there is a focus on hard powers of innovation, that is, in scientific and technological knowledge in both back-office and front-office innovative routines.

Secondly, the policies covered by museums will be largely identical, proving that the region, typology and tutelage are not necessarily characteristics that influence innovation practices.

Observing the process innovations, three of the four museums stated the importance of the research carried out on its heritage, while MMI tends to give a special attention to its research center, CIEMAR-Ílhavo. On the other hand, the MP also privileged this type of innovation, but giving greater importance to the Museology Program, responsible for architecting the institutional structure, from which the museum proceeds to innovate.

Regarding product innovations, it turns out that the four museums will innovate their product through three distinct proceedings: i) through the use of technology or introduction of interactivity – smartphone apps, aquarium installation, virtual galleries; ii) through the promotion of indoor activities, in other words, programs organized exclusively by the Museum – workshops, events in the museum, contests (PortoCartoon World Festival), activities inside the museum; iii) through the promotion of outdoor activities, in other words, programs organized resorting to partnerships – exhibitions and events in other venues. As we can see, the four museums show great concern about innovating the product (which they actually do) and, in the interviews conducted, this type of innovation was the most referenced. The MP also pursues product innovation, however, as analyzed previously, this innovation is barely a result of the one previously made in the back-office innovative routines.

Although the four museums also innovate with respect to social and relational knowledge (soft powers of innovation), these are not the main ways institutions innovate. With the exception of the Portimão Museum that prefers to privilege the organizational innovations.

The investments both in HR and in establishing partnerships are crucial for this organization. The MMI and the MNI also made a brief reference to HR. On the other hand, the Communications Museum referred to the relevance of technology in organizational innovations, observing an enormous use of the latter by this institution.

Last of all, marketing innovations are important in attracting new customers, however, there is a much more significant focus on other forms of innovation. All the museums mentioned the importance of Social Networks. The MP is the only one that has a differentiating marketing policy that is the working hours alteration during the month of August.

To answer the second research question – *Is innovation helping a Museum achieve economic sustainability?* – the notion that there is a relation between the innovation

carried out by the Museum and greater economic sustainability was fully confirmed by the four interviewees. Innovative policies lead to the Museum's growth, as well as an increase in the number of visitors, a greater fulfillment of its mission, and greater economic sustainability.

This investigation led to the conclusion that a museum, despite having a social function, innovates just as much as a company would. In addition, museums belong to the touristic sector and as it can be verified the four museums: i) have concerns with the international visitor; ii) celebrate partnerships with the Regional and with the Portuguese Tourism; iii) and focus on internationalisation. The Communications Museum has several social networks, which are a platform accessible to anyone for sharing experiences (Costa, 2015a). The Ílhavo Maritime Museum and the National Press Museum present their exhibitions both in Portuguese and in English; and the Portimão Museum has an App in five different languages. In other words, there is a concern with the international visitor. The MMI is serving as an example for the creation of a maritime museum in the United Arab Emirates. In this specific case the idea of the museum (museum as an asset) is being exported. As Costa (2015b) would argue, it is an internationalization of knowledge and of technical practices. In addition, the MP won an European award that recognizes the museums' excellence in their approach to museum work. Costa et al. (2017) states that the diplomacy concept has evolved, extending the range of its scope for other areas, such as economic diplomacy, scientific diplomacy and cultural diplomacy. A concrete example of the cultural diplomacy action is in the MNI. This institution has been promoting the Portuguese culture through bilateral protocols (Portugal-Brazil) and multilateral agreements (Portugal-CPLP). Museums are key players for tourism and for diplomatic affairs, and these topics should be investigated in the future.

5. Conclusion

This dissertation aimed to investigate the correlation between innovation and museology. These two concepts have transformed over time which resulted in a convergence. In the past, the aforementioned notions were totally separate. However, there has been a paradigm shift. The investigation had two research questions: a) *How does a Museum innovate?* and b) *Is innovation helping a Museum achieve economic sustainability?* Given that the main purpose of the dissertation was to analyze the innovative dimension of the Museum and, secondarily, to link it to a context of sustainability. A specific group of Portuguese museums were chosen (the MC; the MMI; the MNI and the MP) in order to analyze its innovative practices in the pursuit of a simultaneously profitable and economically sustainable objective without prejudicing its cultural and social function in the community where they are inserted.

Based on the data that I was able to collect throughout this investigation – centered around four selected museums and the interviews I conducted with said institution's officials – I managed to create a table with all the museum's innovation framework. Table 6 in which the results of my dissertation can be observed, demonstrate how those institutions innovate. Beyond that, the four interviewees all reinforced, without any hint of hesitation, that innovation provides economic sustainability.

A museum is not a company and its purpose is not to maximize its profit. However, through this investigation it can be concluded that these institutions recognize the importance of innovation, create ways to innovate (as a company does through process, organizational, product and marketing innovations) and does it in an efficient manner. Not only museums innovate as this innovation helps them to achieve economic sustainability.

In addition, a museum is a key institution for the tourism and for the cultural diplomacy. As it can be verified in this dissertation the four museums express concerns with the national and international visitor; and aim an internationalisation. The internationalisation benefits not only the institution but also the country that it represents. In this sense, the Portuguese museums are institution that represent Portugal in the world (Costa, et al. 2017).

In the course of my investigation I came across some limitations. The first relates to the decision to carry out a qualitative analysis as it is difficult to access and analyze

quantitative data due to museum's definition and management model as a non-profit association.¹⁵⁴

Given the size of the dissertation, the study sample is necessarily reduced to four museums which is also a limitation that was mitigated by a cases selection representative of the national museological panorama: in regional, typological and guardianship terms.

This dissertation represents a preparatory work and an invitation for further investigations carried out by myself or undertaken by new students. “(...) *the museum does not end when it opens; the museum begins at that point.*” (Appendix 4.1: 102) it is a statement that also applies to this investigation.

I hope that this dissertation will pave the way for new innovation research within museums and other cultural bodies, which its non-profit making status shouldn't invalidate its innovative policies that contribute for a financial balance.

In this regard, the Portuguese Governemnt should reconsider its political and cultural policies for the Arts, precisely by encouraging and enhacing innovative policies, through effective and stable investments.

¹⁵⁴ Cf. ICOM's museum definition.

Bibliography

- AICEP. 2017. *Portugal – Ficha País*. Lisboa, Portugal: AICEP.
- Aiken, M. & Hage, J. 1971. The Organic Organization and Innovation. *Sage Journals*, 5(1): 63-82.
- Alexandrino, J. M. 2011. O Conceito de Bem Cultural. In C. A. Gomes & J. L. B. Ramos (Eds.), *Direito da Cultura e do Património Cultural*: 223-244. Lisboa, Portugal: Instituto de Ciências Jurídico-Políticas da Faculdade de Direito de Lisboa.
- Algarve monuments. Access from: <http://www.monumentosdoalgarve.pt/pt/monumentos-do-algarve/monumentos-de-alcalar>. Date of access: 13.03.2019.
- Algarve Museums Guide – A Knowledge Path. Access from: https://museudeportimao.pt/livro/Guia_Pt_08-02-2019_high.pdf. Date of access: 13.03.2019.
- Amabile, T. 1996. *Creativity in Context*. Colorado, USA: Westview Press.
- Barnett, H. G. 1953. *Innovation: the basis of cultural change*. New York, USA: McGraw-Hill.
- Barras, R. 1990. Interactive innovation in financial and business services: The vanguard of the service revolution. *Research Policy*, 19 (3): 215-237.
- Bataille, G., & Michelson, A. 1986. Museum. *October*, 36: 25-24.
- Barret, J. 2011. *Museums and the Public Sphere*. UK: Wiley- Blackwell.
- Benkenstein, M., Bruhn, M., Büttgen, M., Hipp, C., Matzner, M., & Nerdinger, F.W. 2017. Topics for service management research: a European perspective. *Journal of Service Management Research*, 1: 4-21.
- Besterman, T. 2014. Crossing the Line: Restitution and Cultural Equity. In a Tythacott, L., & Arvantis, K (Eds.), *Museums and Restitution: new practices, new approaches*: 19-36. UK: Ashgat.
- Bronner, S. J. 1989. Object lessons: The work of ethnological museums and collections. In S. J. Bronner (Eds.), *Consuming Visions: Accumulation and Display of Goods in America, 1880–1920*: 217-254. New York, USA: W.W. Norton.
- Caraça, J., Lundvall, B.-Å., Mendonça, S., 2009. The changing role of science in the innovation process: From Queen to Cinderella? *Technological Forecasting and Social Change* 76 (6): 861-867.
- Claro, J. M. 2009a. A Lei Quadro dos Museus. *Museologia.pt*, ano III(3): 48-55.
- Claro, J. M. 2009b. Aspectos Jurídicos do Património Cultural Imaterial. *Museus e Património Imaterial*, 2: 139-149.
- Claro, J. M. 2018. *Lei Quadro dos museus portugueses. Breves notas sobre os princípios estruturantes e a sua aplicação desde 2004*. Conference text given on the APOM Museology Awards Ceremony at National Coach Museum, Lisbon.
- Constitution of the Portuguese Republic*, of April 10th, 1976: Article 78º, number 2, item c). Access from: <https://dre.pt/constitution-of-the-portuguese-republic>. Date of access: 05.06.2019.

Correia, A. F. 2009. *A venda de objectos de arte*. Conference text given in the scope about Cultural Heritage, Oeiras.

Costa, C. M. 2015a. O Turismo como Arena de Globalização. *Janus*. Available at: <https://repositorio.iscte-iul.pt/handle/10071/10857>.

Costa, C.M. 2015b. Internacionalização como contexto para novas políticas de ciência e tecnologia. *Parcerias Estratégicas*, 39(19): 34-37.

Costa, C. M., Godinho, M. M., & Varela, C. 2017. Diplomacia científica: do conhecimento académico ao soft power político. *Janus*. Available at: http://repositorio.ual.pt/bitstream/11144/3542/1/1.26_Carolina%20CátiaManuel_Diplo_maciaCientifica.pdf.

Costa, C. M., & Mendonça, S. 2019. Knowledge-intensive consumer services. Understanding KICS in the innovative global health-care sector. *Research Policy*, 48(4): 968-982.

Cultural Patrimony. Access from: http://www.patrimoniocultural.gov.pt/static/data/museus_e_monumentos/estatisticas1/e_v2017.pdf. Date of access: 18.11.018.

Diário da República (Portuguese Official Document), 2nd Series (40), of February 26th, 2018: Article 90^o-96^o. Access from: http://www.museumaritimomcm-ilhavo.pt/uploads/writer_file/document/431/Regulamento_Auditorio_Museu_Maritimo_de_Ilhavo.pdf. Date of access: 01.03.2019

European Museum Forum. Access from: <http://www.europeanmuseumforum.info>. Date of access: 16.02.2019.

European Museum of the Year Awards, Innovation in European Museums. Access from: <https://emya2019.com>. Date of access: 15.03.2019.

Fagerberg, J., & Godinho, M. M. 2003. *Innovation and catching-up*. Working Paper nr.24/2003, University of Oslo.

Feldstein, M. 1991. *The Economics of Art Museums*. USA: University of Chicago Press.

Findlen, P. 1989. The Museum: Its Classical Etymology and Renaissance Genealogy. *Journal of the History of Collections*, 1(1): 59-78.

Fleck, R. 2013. *Das Kunstsystem im 21. Jahrhundert. Museen, Künstler, Sammler, Galerian*. Viena: Passagen Verlag.

FPC, Catalogue. Access from: <http://bh1.fpc.pt/nyron/museum/catalog/>. Date of access: 20.03.2019.

FPC, Identification of governing bodies. Access from: https://www.fpc.pt/wp-content/uploads/2018/05/orgaos_sociais_maio2018.pdf. Date of access: 21.03.2019.

FPC, Regulations. Access from: <https://www.fpc.pt/Portals/0/PDF%20Diversos/Transparencia/Estatutos%20FPC%202015.pdf>. Date of access: 21.03.2019.

Godinho, M. M. 2013. *Inovação em Portugal*. Portugal: Fundação Francisco Manuel dos Santos.

Gray, C. 2015. *The Politics of Museums*. UK: New Directions in Cultural Policy Research.

- Henning, M. 2006. *Museums, Media and Cultural Theory*. UK: Open University Press.
- Hauknes, J. 1998. *Services in Innovation – Innovation in Services*. STEP Report, Norway.
- Howells, J., Tether, B., Gallouj, F., Djellal, F., Blind, K., Edler, J., Hipp, C., Montobbio, F., Corrocher, N., Macpherson, A., & Banach, D. 2004. *Innovation in Services: Issues at Stake and Trends*. Research Report, European Commission.
- ICOM, Museum Definition. Access from: <https://icom.museum/en/activities/standards-guidelines/museum-definition/>. Date of access: 26.09.2018.
- Impey, O., & MacGregor, A. 1985. *The Origins of Museums: The Cabinet of Curiosities in Sixteenth- and Seventeenth-Century Europe*. Oxford: Oxford University Press
- INE, Musealized Monument. Access from: <http://smi.ine.pt/Conceito/Detalhes/4465?modal=1>. Date of access: 14.03.2019.
- de Jesus, A., & Mendonça, S., 2018. Lost in transition? Drivers and barriers in the eco-innovation road to the circular economy. *Ecological Economics*, 145: 75-89.
- Johnson, P., & Thomas, B. 1998. The Economics of Museums: A Research Perspective. *Journal of Cultural Economics*, 22: 75-85.
- Jong, J., Kemp, R., Folkeringa, M., & Wubben, E. 2003. *Innovation and firm performance*. Scales Research Reports, Neetherlands.
- Laureano, A. 2014. A Brief Survey on Some Essentials of Portuguese Museum Law. *Revista Museologia e Património*, 7:3.
- Law n° 47/2004* (Lei Quadro dos Museus Portugueses), of August 19th, 2004.
- Miles, I. 2005. Knowledge intensive business services: prospects and policies. *Foresight*, 7(6): 39-63.
- Miranda, J. 2012. O Património Cultural na Constituição Portuguesa. In A. Menezes Cordeiro (Eds.), *Centenário do Nascimento do Professor Doutor Paulo Cunha – Estudos em Homenagem*: 495-518. Coimbra: Almedina.
- MMI, In Web Junior. Access from: <http://inwebjunior.museumaritimo.cm-ilhavo.pt/ria.aspx?v=i>. Date of access: 08.03.2019
- Mohr, L. B. (1969). Determinants of Innovation in Organizations. *The American Political Science Review*, 63(1): 111-126.
- MP. Access from: <https://museudeportimao.pt/espaco-servicos/aluguer-de-espacos/auditorio>. Date of access: 12.03.2019
- Murray, S. A. 2009. *The Library: An illustrated history*. New York: Skyhorse Publishing.
- National Press Museum. Access from: <http://www.museudaimprensa.pt>. Date of access: 14.10.2018
- Neves, J. S., dos Santos, J. A., & Lima, M. J. 2013. *O Panorama Museológico em Portugal: os Museus e a Rede Portuguesa de Museus na Primeira Década do Século XXI*. Lisboa: Direção-Geral do Património Cultural.
- NMSA. Access from: <http://www.museumaritimo.cm-ilhavo.pt/visitavirtualnaviosantoandre/index.html>. Date of access: 09.03.2019
- Nye Jr., J.S., 1990. Soft power. *Foreign Policy*, 80:153-171.

OECD, Defining innovation. Access from: <https://www.oecd.org/site/innovationstrategy/defininginnovation.htm>. Date of access: 18.11.2018.

OECD. 2018. *Oslo Manual – Guidelines for collecting and Interpreting Innovation* (4th ed.). OCDE: Paris/EUROSTAT, Luxembourg

Patton, M. Q. 2002. *Qualitative Research & Evaluation Methods*. Thousand Oaks, London, New Delhi: Sage Publications, Inc.

Perreault Jr., W., & McCarthy, E. J. 2004. *Applications in Basic Marketing* (16th ed.). USA: McGraw/Irwin

Pole, C. & Lampard, R. 2002. *Practical Social Investigation – Qualitative and Quantitative Methods in Social Research*. Harlow: Pearson Education.

PORDATA, Museums. Access from: <https://www.pordata.pt/Municipios/Museus+número+-742>. Date of access: 19.11.2019.

PORDATA, Museums, palaces and monumentos of the Cultrual Heritage Office: visitors. Access from: <https://www.pordata.pt/Portugal/Museus++palácios+e+monumentos+da+Direcção+Geral+do+Património+Cultural+visitantes-388>. Date of access: 26.09.2018.

Portimão 2019, European City of Sports. Access from: https://www.cm-portimao.pt/portimaodesporto2019/index.php?option=com_content&view=article&id=9&Itemid=133&lang=pt. Date of access: 14.03.2019.

Quemin, A. 2018. How International is “International” Contemporary Art? An Empirical Survey of the Globalization of High Culture. In J. A. Halley & D. E. Sonolet (Eds.), *Bourdieu in Question, New Directions in French Sociology of Art*: 295-322. Leiden: Koninklijke Brill NV.

Report CIEMar-Ílhavo 1. Access from: http://www.museumaritimo.cm-ilhavo.pt/uploads/writer_file/document/184/Boletim_01.pdf. Date of access: 06.03.2019.

Report CIEMar-Ílhavo 2. Access from: http://www.museumaritimo.cm-ilhavo.pt/uploads/writer_file/document/218/Boletim_02.pdf. Date of access: 06.03.2019.

Report CIEMar-Ílhavo 3. Access from: http://www.museumaritimo.cm-ilhavo.pt/uploads/writer_file/document/270/Boletim_03.pdf. Date of access: 06.03.2019.

Report CIEMar-Ílhavo 4. Access from: http://www.museumaritimo.cm-ilhavo.pt/uploads/writer_file/document/327/Boletim_04.pdf. Date of access: 07.03.2019.

Report CIEMar-Ílhavo 5. Access from: http://www.museumaritimo.cm-ilhavo.pt/uploads/writer_file/document/357/Boletim_05.pdf. Date of access: 07.03.2019.

Robertson, T. S. 1967. The Process of Innovation and the Diffusion of Innovation. *Journal of Marketing*, 31(1): 14-19.

Robson, C. 2002. *Real World Research: A Resource for Social Scientists and Practitioner-Researchers* (2nd ed.). Oxford: Blackwell Publishers Ltd.

Rogers, E. M. 1983. *Diffusion of Innovations* (3rd ed.). New York: The Free Press.

Rosenberg, N. 1994. *Exploring the Black Box: Technology, Economics and History*. UK: Cambridge University Press.

Santos, A. B. 2016. *Política Pública Orientada para a Inovação Aberta: as condições teóricas, contextuais e programáticas para o seu desenho e implementação, no caso português*. PhD thesis, ISCTE-IUL, Lisbon.

Schubert, K. 2009. *The Curator's Egg: The evolution of the museum concept from French Revolution to the present day* (3rd ed.). London: Ridinghouse.

Schumpeter, J. 2003. *Economic Doctrine and Method - An Historical Sketch*. USA: Routledge.

Soini, K., & Dessen, J. 2016. Culture-Sustainability Relation: Towards a Conceptual Framework. *Sustainability*, 8(2), 167.

Strauss, A., & Corbin, J. M. 1990. *Basics of qualitative research: Grounded theory procedures and techniques*. Thousand Oaks, CA, USA: Sage Publications, Inc.

Swann, M. 2001. *Curiosities and Texts: The Culture of Collecting in Early Modern England*. Philadelphia: University of Pennsylvania Press

Thomason, A. K. 2005. *Luxury and Legitimation: Royal Collecting in Ancient Mesopotamia*. Hampshire: Ashgate Publishing Limited.

Tunzelmann, N. V. 2003. Historical coevolution of governance and technology in the industrial revolutions. *Structural Change and Economic Dynamic*, 14: 365-384.

Tythacott, L., & Arvantis, K. 2014. Museums and Restitution: An Introduction. In a Tythacott, L., & Arvantis, K (Eds.), *Museums and Restitution: new practices, new approaches*: 1-18. UK: Ashgate.

Shrivastava, P. & Valenzuela, D. *Interview as a Method for Qualitative Research*. Access from: <https://www.public.asu.edu/~kroel/www500/Interview%20Fri.pdf>. Date of access: 20.02.2019.

Virtual Press Museum. Access from: <http://www.museudaimprensa.pt/museuvirtpress/port/ami.html>. Date of access: 17.10.2018.

Yin, R. 2009. *Case Study Research: Design and Method*, (4th ed.). London: Sage Publications.

Zaltman, G., Duncan, R. & Holbrek, J. 1973. *Innovations and organizations*. New York: John Wiley and Sons.

Appendices

Appendix 1 – Communications Museum

Appendix 1.1 – Interview Transcript

Eng^a Teresa Salema (TS): A prior framework to ensure we have a common ground. We are a foundation that was born in 1997, 22 years ago by governmental initiative with the aim of conserving and divulging all the communications heritage in Portugal. The communications sector in Portugal at the time was being privatized, namely the post office and telecommunications. And, therefore, before the privatization, it was decided to bring together these two companies, together with a public entity, the regulator of public communications: the ANACOM. That is how the foundation was born. Annually the founders have to give enough resources so that the foundation can survive. And now I ask: how does a foundation survive? Usually, foundations have their own assets, however the Communications Foundation doesn't have enough to generate income to support itself. The Foundation economic sustainability comes from contributions of the three institutes who created it, both financially and HR wise. There is no government model like this. However, the communications industry has changed a lot since 1997 and so did the foundation's mission. The Foundation's mission is on one hand to preserve and disseminate all the communications sector assets but on the other hand, there is also a new axis of the mission that I did not mention previously which relates to the new technologies: we have to highlight the relevance of new technologies and demonstrate its impact on the daily lives of all of us. These two axes constitute the mission of the foundation, however, this second one has changed a lot in the last 22 years. The industry has also changed, and it is still difficult to reconstruct the history of this period. Twenty-two years ago, there were no smartphones, there were two mobile operators and mobile phones only made calls. And so, there is a very important technological challenge here.

The foundation's governance model has two governing bodies; has a board of directors, where the presidents of the Foundation's three founding institutions sit; and an executive council where these three are also represented.

As a rule, museums are ruled by a Director, whose purpose is to organize exhibitions, among others. The Communications Museum has a different way of organizing itself. We have curators for the three types of heritage and instead of having a traditional Museum's Director, we created the figure of the Museum Dynamizer, who is the organizer of the activities related to the educational service, workshops, conferences, etc. The Communications Museum three curators have specific roles to play: i) to preserve and to guarantee the best conditions and ii) to study its heritage, ensuring a knowledge deepening and from this second point some innovation is created. The before above knowledge allows us to go deeper into our heritage, which facilitates the discovery of different forms of innovation and permits the creation of different stories to tell and surprise our visitors with. There lies one of the sources of innovation. But there are more ways to innovate.

Francisca Listopad (FL): Regarding all the museum's policies, would you say they are currently focused on: a) creating the necessary conditions for the museum to be able to carry out its mission (process innovation); b) establishing partnerships and creating new forms of

work (organizational innovations); c) improving the visitor experience (product innovations); d) to promote the image of the museum (marketing innovations)?

TS: They are all different paths that will have the same destination in the end. Our mission is to preserve and disseminate the communication's sector (past component) and to present new technologies (present and future component). We do it in a very special context where more than 80% of our visitors are school children. It is a young public, that uses technologies every day (so-called digital natives) and we are showing them an analogue museum, necessarily, because the story we are telling them originates from five centuries ago. And right here we have a challenge of how to communicate and how to transmit and share our story to these public. This is perhaps one of the biggest challenges we face: how do we innovate to better fulfill our mission and get the message across better? Everything you said is a way to get the message across. Partnerships are ways of achieving our mission; communication and marketing helps us to that as well; new technologies such as the augmented reality app help us pass these stories to our visitor. Ultimately, we have to look at the mission. For preserving the heritage, we have to study it and study is a source of innovation and innovation will bring new stories (another way to innovate). We can innovate through the different ways of presenting information. We want to do it by bringing our product closer to our visitors, that is why we developed the app. The museum's new technologies can serve to tell stories differently and make our visitors think about them. Ultimately what we need is visitors who know how to take advantage of this whole background and who can help us design the future. But the past is fundamental. We have to know what it took to get here. We have to know all the difficulties that were surpassed so that today we are able to have smartphones. When we narrate the troubles that the countries had, in the nineteenth century, to launch a submarine cable that crosses the Atlantic Ocean, most visitors are left astonished. They have no idea that there are currently hundreds of thousands of kilometers of underwater cables and that it is the only way for mobile phones to have the features they actually have. All the difficulties that have arisen to build this network and all the way we go, are essential to understand the current context, while making people reflect about the subject. The communications sector has always been critical to the development and security of the country. History is key to understanding new contexts and new technologies. Studying history can help us find bridges to the present. But especially for our visitors the important thing is to make them think, as I mentioned prior. From some historical incidents, such as the interception of Axis messages by the allies, in the Second World War, we managed to leave our visitors intrigued. That is, at least they reason about the vulnerabilities of the communications networks or systems. We have many links here and basically our main objective is to tell the stories of the communications sector, but above all, to make our visitors think about what we show them here, which hopefully will urge them to think about the future.

FL: Given that 80% of visitors come from schools, would the Museum like to invest in order to attract other audiences?

TS: We have as mission to reach more people and for this we have several ways of doing it. We can think of communication strategies, but there are others, such as exhibitions outside the museum. For example, at the moment we have one in Escola Superior de Artes e Design (School of Arts and Design) (ESAD), in the Casa do Design (Design House), in Matosinhos about "100 anos de Design das Comunicações em Portugal" ("100 years of Design Communications in Portugal)". So, it is an exhibition made with 95% of our heritage, but with whole different look. This exhibition has a design perspective on our heritage. This is another way to innovate, that is, to "force" other people to observe our heritage and ultimately putting a new spin on the matter.

FL: Does the Communications Museum invest more in technological/scientific knowledge or invest more in communication/marketing?

TS: Both are necessary. If the museum does not have scientific knowledge about its heritage, it will not be able to communicate. That is, it will just focus on “usual stories”. And the “usual stories”, although renewed every year because we always have new students, they end up being exhausting. We have to study and scour the past, to tell new stories and to make new bridges to the future, since it is the only way to innovate, from the content point of view. That is, it is only through the in-depth study of the collections that we then carry out the partnerships and think of the various ways of telling the stories. That is where our material, immaterial and digital heritage resides.

FL: The Museum offers two introductory courses for video and Photoshop. How did these activities come about and how do they work?

TS: One of our concerns is with the whole area of new technologies. It is important for our visitors to be aware of the impact of new technologies and to use them. If we look at the age pyramid in Portugal, we immediately stumble upon a challenge: about 30% of people do not know to use the internet and the current most used gadgets, however, the State requires that the entire population delivers the VAT declaration online. This is a serious problem of digital illiteracy that the State has not solved. The younger ones, despite using more technology, do not know how to use it. We introduce courses related to security and good use of information technologies, because the digital literacy component is something that worries us. It is important that there is good use of technology.

In addition, we also have courses related to Photoshop in partnership with an association of seniors. It has been found that older people have an enormous taste for photography and video, probably because they record memories.

FL: Why did the Museum stopped editing the magazine “Códice” (“Codex”) in 2010?

TS: For financial reasons, for sustainability. That is, the magazine was a way to physically vessel to disseminate all the information. At the moment, all the publications we produce go online. Several publications are available on the website after 2010. It was only a matter of budget. If we look at the evolution of our contributions, it turns out that the situation at the moment is complicated. Which means we have to generate our own revenues. And I'm sorry to say that the Codex magazine did not sell, it was not an appetizing product.

FL: How does the museum create its own recipes?

TS: The museum has several revenue resources. There are, of course, the museum entrance ticket fees and people have to pay to engage in our activities, which usually only cost the running costs. And we have this building with spaces available for rental. We rent the auditorium for conferences, but we also have a concession of a cafeteria. We are in the center of Lisbon, in a very sought-after area from the offices' point of view and, therefore, we monetize real estate assets. It has always been in the statutes of the Museum that the revenues could include space rentals. Maybe in other times it was not so valued, but nowadays, it is. A lot.

Currently, our own recipes represent 1/3 of our total revenues. We can generate wealth, but not enough to cover all the costs we have.

FL: How did the Museum get the idea of having an ATM?

TS: It doesn't generate revenue but brings people around. The museum found that there was such a lack of supply in the neighborhood.

FL: The museum has an augmented reality application and other ways to make the experience more interactive and rea. Do you consider the exhibition's interactivity important?

TS: In the current context in which people live submerged in technology, it is fundamental that technologies are also used to communicate with all our audiences. Maybe with our younger audience the app works. However, with an older visitor it may be more appropriate to use the more traditional forms. It is, therefore, that in the museum, we have several types of media for the diverse public.

FL: The museum has adapted to the new technologies, in other words, it invests on policies that are directly related to the visitors. Do you think it is important to follow these changes internally? For example, in HR, partnerships, other forms of research. The adaptations that we refer to are related to the public, they are front-office routines. Is there also an adaptation to the back-office routines?

TS: Introducing technologies in work processes and conservation processes. In order to face all the challenges, whether monetary or of HR, we have to introduce new technologies to better serve the mission. We are talking about, first and foremost, productivity tools, such as facilitating the appointment of meeting rooms. Secondly, specific tools related to our heritage: namely, a focus on scans and the creation of databases to keep information about our assets. We had to do an integration of three databases that we had scattered, each one respectively on one theme. That is, we had one for documentation, another for telecommunications and one for philately; lacking an integrated vision of all our heritage. To this end, it was necessary to introduce information technologies to ensure unification from the point of view of computing. In addition, at the moment, we are doing a reorganization of the documentary reserves and there all a work of digitalization and systematization of the reorganization of the heritage. The technologies are not only for the public, but also internally. There must be a constant and permanent digital transformation not only to the exterior, as it is required by our visitors, but also to the interior, which is the only way to better provide the service.

FL: The Museum has a Facebook page, as well as Instagram, Pinterest, YouTube and Flickr ones. Are these important means to promote the Museum and reach new markets?

TS: They are all very important. Naturally, they should be used according to the target audience and according to the concrete purpose. We have to know who we want to reach, what stories we are going to tell and how we are going to tell them. Depending on the content, we have to select and adapt the means to do so.

FL: Does the Museum appear on any cultural agenda or tourist spot? Does the Museum established partnerships with any hotel, travel agency or company?

TS: We make partnerships with the various cultural agendas of Lisbon, both in the physical guide and online. We also have partnerships with several public entities. We have already made some partnerships with hostels from here. But it's not very consistent.

FL: How would you rate the Museum foreign policy? Do you think it is important for the Museum to partner with other entities/National Museums/International Museums? How do partnerships help the Museum innovate?

TS: The Museum is constantly in partnership. Partnerships are needed to tell the various stories because the communications history is the history of communication between people. It has to be done, necessarily, in partnership, either with a closer entity or with a further entity.

We are always in partnerships. For example, we have a permanent partnership with the National Coach Museum and the Museum of Vila Viçosa, where we have two stage-coaches displayed. Therefore, a part of our heritage is always there. Those pieces are ours, but they're deposited there, so that more people can see them. The National Coach Museum is visited by a million people, a very distant number compared to our 30'000. This policy of deposit and exchange of heritage is very common.

Communications happen between two parties, by nature. The Museum has some international partnerships. Our submarine cable exposure has received contributions from France. In addition, we belong to the International Network of Museums and to the Portuguese Museums Network, which are fundamental for telling the stories of communications. For example, in the Azores, we celebrate a partnership with the Garden City Museum that has a submarine cable core.

FL: On the website, it is stated that it intends to be a nationally and internationally recognized institution. How does the Museum want to achieve this goal?

TS: Due to Portugal's history, it is important to have all the connection with Portuguese-speaking communities around the world. There have been timely contacts and partnerships with various entities with these countries. Throughout our history we have maintained several contacts and protocols and partnerships with the PALOP, specifically with museums and some entities to set up some stories. Our heritage is always traveling.

FL: Do you think innovation policies also help the Museum to become more economically sustainable and thus efficient? Do you think the museum grew as a result of innovative practices?

TS: The answer is yes, and I will explain why. We'll only have the same visitor stopping by again if we make sure to renew our content. The visitor will not come back here to hear the same story a second time. We must have new stories to be told and that is the reason why temporary exhibitions and the House of the Future are so important. They are the only way to maintain this innovation. For example, the workshops are key to attract new customers who generate more revenue. In addition, there needs also to be a new way to reach the visitor, through the means that the visitor usually uses. That is, there must also be an innovation in this component, to attract new customers and visitors. The answer is yes: innovation is critical to economic sustainability. However, I would like the museum to grow more, still. We are ambitious, we always want to reach more people.

FL: Does the Museum apply for a state/public contest? Does the Museum receive private donations?

TS: In addition to the three contributions from the institutes, we did not receive any more public funds. Donations, yes, it does happen, but they are residual.

FL: What sponsors does the Museum have?

TS: We have partners who contribute from time to time, but we cannot call them sponsors or patrons. We cannot have sponsors; we cannot have brands here. It is challenging from the legal point of view.

FL: How is the innovation process done? Does this follow certain practices undertaken by other museums? Does the suggestion of visitors contribute to the adoption of innovative processes by the Museum? Or does it originate from the museum team itself?

TS: Innovation is always continuous. It is always a process of continuous improvement. What we always want is to provide visitors with the best possible experience. And this can happen by benchmarking, by our employees, by our partners, even by our visitors. There is a constant look.

FL: Do you think that all museums should increasingly look to innovation and invest in it?

TS: Innovation is a way of evolution, of responding differently and better to the needs of our customers. All museums should innovate. But we have to look at the specific contexts of each museum and focus on its mission. Innovation does not necessarily come from technology, it can come from a different way of organizing ourselves, or from a different way of welcoming people. Innovation can come from everywhere. Innovation is a different way of delivering and achieving our mission better. For this to become a reality, we need to question ourselves and have this research attitude.

Appendix 1.2 – Educational Service

In this sense, the Museum has an Educational Service in which it presents various activities in the context of nursery and kindergarten; preschool education; first, second and third cycle; and secondary – with a maximum of 25 participants (prices between €3.5 and €5). In addition, there are also workshops during the school holidays of Carnival, Easter, Summer and Christmas. The sessions are in the morning and afternoon, giving total flexibility to parents to choose only one session (€7), one full day (€10), one session per day for one week (€30), or whole week (€60). It is also possible to hold birthday parties at the Museum from one-year-old to young ones of 14. For groups of up to 15 children, the cost is €150; from 15 children, the value is €10 per child. The price includes the rental of space and a pedagogical workshop of 1h30. It also includes free admission to the Museum exhibitions for parents of adult birthdays and companions. However, the snack is not included.

Appendix 1.3 –Spaces to rent

There are four spaces for rental purposes:

- a) House of the Future Atrium – Space available for various purposes, namely, conferences, cocktails or exhibitions and product launches. With a capacity for 120 people in the audience or 90 people sitting in round tables, the room offers the possibility of presenting different layouts.
- b) Auditorium - It presents a technological infrastructure for conferences, seminars, lectures and presentations, providing a régie and two simultaneous translation booths (without equipment). The space can hold up to 165 people, being able to present two different layouts (complete and half-room).
- c) Training Room – Used for work groups, training or parallel activities. It has audiovisual equipment with capacity for 40 people in the audience or 30 people in U.
- d) Tile Room, which includes a Patio – It is decorated with panels of tiles, by Rosário Silva, from the former CTT Museum. It is a room that functions as event support that gives access to an outdoor patio. The room has a capacity for 60 people seated and 100 in buffet flyer.

Appendix 2 – Ílhavo Maritime Museum

Appendix 2.1 – Interview Transcript

Francisca Listopad (FL): According to Article 7 of the Law nº47/2004, a Museum pursues the following functions: a) study and investigation; b) incorporation; c) inventory and documentation; d) conservation; e) security; f) interpretation and exhibition g) education. Which of these is a priority for the MMI?

Dra. Paula Ribeiro (PR): There are no Museums without collections, so the collection is the starting point. And to show the collections we have to know them. The most important work when it comes to a Museum is the study of collections and then their availability to the public.

FL: Of all the Museum's possible policies, in what area do you think the focus should be on: a) creating the necessary conditions for the Museum to be able to carry out its mission (process innovation); b) establishing partnerships and creating new forms of work (organizational innovations); c) improving the visitor experience (product innovations); d) to promote the image of the museum (marketing innovations)?

PR: At the end of the day, the Museum does not benefit one of its fronts in deterioration of the other. For us the collection investigation service is as important as the educational service; such as the exhibitions themselves. We do not construct hierarchy. However, we are aware that the most important thing is to be well anchored to our heritage. And it all comes from our collections. We have numerous services that carry out various services; and for us the anchorage always goes to the collection and to the material and immaterial heritage. And from there we design exhibition and research projects. Even at the level of investment, we have so much investment for the services that are in the structure of the museum as for the services that go directly to the visitor; the most honorable part being the programming, is the storage of the collections themselves.

FL: How did the Business Incubator rose?

PR: The idea arose from the need to have companies that based their activity around the theme of the sea. This is part of a municipal policy that created this museum with this dimension and with this theme. In one hand, there was the 1937 Museum, which had undergone several renovations, and in the other hand, it was a period a significant slaughter in the cod fishing because of the European policies. There were many companies that did not managed to keep it running and the Museum, at that time, in the 1980s and 1990s, rescued this heritage that was to be lost and brought it into its culture. In 1998, when this executive who created this great museum took up the idea of a museum enlargement, what he did was to thematize it with the maritime part mainly linked to cod fishing, which is what our collection and Museum breathes, and also with (we have two large identity halls, although one prevails over the other, which is that of the largest fishing related to cod fishing and that of the estuary linked to the traditional vessels that moved the economy of the lagoon zone). The museum was reborn in 2001, after the need to extend the institution's concept: creating a connection with the business and the economic branch. The idea of creating a research center linked to a business incubator that basically makes research and from these investigations, creates new content. It is an incubator that also has training related to the maritime theme.

We are a complex composed by a Museum, an aquarium and a ship-museum. Our own logo has a drop divided into three parts: the museum collections; the museum research; and the aquarium museum.

FL: Do you consider the exhibition's interactivity an important feature of the Museum's life?

PR: Increasingly ICOM has been discussing the museum's definition these days. The museums had to adapt to the new times. It is much easier to captivate our audience and give them content through that interaction than merely expository. The museums have already abandoned the old ways and have brought in all the technologies we can use. The Museum has been following technological developments and we want to invest more in this field. Even in terms of accessibility, in terms of language, we are waiting for a funding from Portugal Tourism, which aims to create more interaction with the public through a more inclusive language through more relevant paths as well. The aim is to create other tools that interact with other audiences.

FL: Does the museum usually apply for some funding programs?

PR: All the time. It is not easy for an autarchy to have a museum of this size, with a codfish aquarium. The council also has a consultant who tells us the possibilities of applications and I can tell you that we are currently involved in four of those already approved: the first contemplates the accessibility and the second contemplates the structuring of the nautical heritage, in which we will invest a lot in the NMSA and in more interactive tools. Do not forget that the maintenance of the ship is also not easy and therefore we take advantage of some funding programs to do the restoration and conservation of the ship itself. The third is related to our heritage and is made with France, Ireland, England and Spain.

Finally, we have "Portugal with History", within the framework of Portugal 2020, together with the municipalities of Peniche and Mortosa, coastal towns. The intention is to create a schedule for the periods in which these three cities are more "dead". And the truth is that at the end of March we received more than 8'000 visitors and it was the first time that this happened. The program is anchored in the gastronomy and then the three municipalities in question have created a gastronomy festival called "Board Kitchen", in other words, in each municipality has as a tradition of food on board. Peniche has the fish from the coast and Murtoosa has the eel. Ílhavo has cod fishing, so in our festival we call restaurants with whom we have protocols to cook several cod recipes. The Festival takes place at different times, depending on the period when there are fewer visitors and tourists to their boards. The application also provides investment for communication. It is definitely a Festival that helps a lot.

We also created with a private partner visits that we design, but that the partner will develop. At the end of three years, we will have companies ready and able to stay with this legacy and with this tourism development from the visits, which are done outside doors, that is, visits anchored in our heritage. For example, tomorrow we will have an afternoon on our port cod that includes a tasting. These visits then bring us public. They are recyclable visits, by the way, to companies of processing of cod, to companies of fishing of cod.

Then we held shows organized by the part of the educational service in which we invite artists to create performances and other creations. This has also been a very important input. We have already worked with a sculptor in which he developed his work in the museum yard, so we took schools to see him work and to accompany his creation, which is nowadays situated in one of the roundabouts of the city.

FL: Is it important for the MMI, besides the funding programs applications, to establish partnerships with other entities?

PR: It is very delicate for a municipal museum to select partners. The budget that the Museum has for programming comes almost exclusively from the municipality. The Museum has to be very transparent. We may not have an entity as a partner but sometimes we do invite guests to work with the Museum.

FL: Is it more important for the MMI to approach the local community or to attract international audiences?

PR: This Museum was created by the community and for the community. However, today it has conquered a national as well as an international sphere. We belong to the ICMM, which is the only organization that brings together thematic museums and, in addition, we have many activities abroad, because the Ílhavo citizens, that is, the community we work with, have had a diaspora not only throughout the country but also around the world. That is why we have many projects where our cod fishermen have been and are present. Our municipality, through the museum, often has joint projects. For example, for some years now, we created the Memory Box.

The Memory Box came from our collection, from what we have, which are the records of many fishermen who from 1934 on enrolled to go fishing for cod. It presents the individual file of each fisherman and the individual file of each ship building permit. Everything that was the corporate state and everything in the Regulatory Commission of the Commerce of Cod (CRCB), was inherited and since then we have conserved this heritage. We are the only museum that has this documentation and we work as follows. We applied to “Digital Aveiro” project and managed to digitize and restore approximately 21’000 records of these fishermen. From there, we created an exhibition, the “Memory Box”, which was a cube with the faces of all the fishermen who got involved in fishing for cod and their respected names. After being exposed here, this cube traveled from north to south of the country and islands and for each municipality that passed, especially on the coasts that also had cod fishers, the museum created an exhibition of these men and the memory of these places. This whole process is told in the book “Terra Nova. Terra do Bacalhau”, and this book accompanied and traveled through all the islands that had a connection with the cod fishery, including the Navy Museum, and after that, included another exhibition, called “The Argus Campaign”, which was a book by Alan Villiers, commissioned by the Estado Novo (a Portuguese dictatorial regime from 1933 until 1974), in which we had a book, photographic report and an article in National Geographic, showing the bravery of our fishermen in the 1950s who, until 1974, went sailing to catch codfish on new land through global obstacles and conflicts. These exhibits originate here, but quickly, become itinerant. We already had our exhibitions in the USA, Germany, Newfoundland, Canada. We are currently looking at an exhibition in France.

The portal won the APOM award in the technological category.

The museum was recently visited by an Arab team who intend to build a maritime museum in Dubai and have come to Portugal and selected the Navy Museum, the Ílhavo Maritime Museum and the Museu de Cascais as a source of inspiration.

FL: Do you consider that the Museum has adapted internally to the changes? The museum has invested on policies that are directly related to visitors, whether they are national or international (front-office innovative routines). Do you think it is important to follow these changes in an internal way (back-office innovative routines)?

PR: The Museum and the autarchy invest equally in both. Just to get an idea, the museum before the huge renovation in 2001, had three/four employees. After the reopening, eleven new technicians were called to the Museum's employees board. And it could only be given the size of the new museum and given what was intended of it. And over the years it has always been investing. In 2013, in addition to the investment in the research and incubator center, we opened the cod aquarium and our team grew. Currently we are nine senior technicians, separated by the areas of management, exhibitions, educational service, collections and research.

FL: Does the Museum appear on any cultural agenda or tourist spot? Has the Museum any partnership with any hotel, travel agency or company?

PR: The Museum is the main reason people come to town. Last year we ended the year with 87'700 visitors. In terms of municipal policy there is also an investment in HR and what we are doing together with our City Tourism is to publicize the municipality's activities. There has even been a project to transform our museum shop into a tourist shop. This project has not yet advanced. But we work closely with the Ílhavo tourism office and with the Portugal Tourism, in order to include a visit to the museum on various tourist circuits.

In addition, we have also created vouchers so that our local hotels can offer their guests and we are creating a series of partnerships with private companies linked to tourism so that there are better conditions to bring visitors. For example, we invite the company "Magic Balloon" to make our visits out outdoors. We are training this company and once this period is over, it will have the know-how to continue with the project. We also work with purely tourist companies that dynamize their circuits through our museum. Normally, we make protocols with these companies to have better ticket access and receive training so that the company has an autonomous guide. For example, we have a company with Russian tourists with this dynamic. In addition, we have two other companies that work with tourists in bulk, namely EcoRia, which makes boat trips in the estuary and that works a lot with schools. These operators expedite with us the visits that contemplate a script including the museum, the NMSA and then the route of the ria. In these cases, the guide is from the Museum.

FL: Do you think innovation policies also help the Museum to become more economically sustainable and thus efficient?

PR: Our main goal, as the Museum's board direction, was to mitigate the costs. We know how much we cost. Apart from the Museum itself, we have an aquarium and a ship-museum, which is anchored in a garden. Before the planting of said garden, the space used to be a land of beaten earth and the autarchy as soon as it had availability made the total arrangement of that garden. Every year, in August, the garden hosts the Bacalhau Festival ("Cod Festival") and is hosted by the NMSA. We do know how much we cost the city, but in return we are also aware that our efforts and activities provided the development and affirmation of the municipality. To that end with came up with the slogan "sea by tradition".

The great concern of this Museum over the years was to alleviate the expense that we know the municipality has with maintenance and investment. We are fortunate to have an executive who cares and who enjoys the Museum and who knows importance it has. Our main goal has been to ease our financial weight through ticket revenue, rental space (auditorium and cafeteria) and

bookstore revenue. We have created a thematic bookstore, with a well-developed policy of publishing outside the Museum. And today, in terms of revenue, we duplicate the sum invested in the Museum's exhibition design. We do not self-finance ourselves I personally find that to be an impossibility, but we can say that the Museum manages to create the necessary revenue both to sustain its exhibition and develop our project in order to take them a little further.

FL: Does the Museum work with volunteer programs?

PR: No. However, the municipality has partnerships with the Employment Center and with several schools. Recently, we celebrated a protocol with the Polytechnic Institute of Peniche, which allowed to bring an intern into the Museum to work in Biology related programs. We have protocols with several schools that have professional courses and we welcome some of their students: we have now finished an internship of one student, and we will receive another in May in the area of tourism. The municipality has a policy of encouraging young people (aged 14 to 22) to join the labor market. Namely, a scholarship was created with the objective of engaging some students in extracurricular activities, such as collaborating with the Museum. They are young people who are asked to perform thirty hours a month of the aforementioned extracurricular activities and the Museum, as a rule, gives them the responsibilities of guarding and supervising the exhibitions, especially at weekends. Then during the summer, in the months of July and August, we have another program, which is more comprehensive, exclusively dedicated to people from 16 to 30 years. Those youngsters stay employed for a month, during which they must work 90 hours. In this case, the young people collaborate with the Museum in the organization of events and, also, in the surveillance of the exhibitions. In addition, the municipality also has scholarships for students of higher education that in exchange for a monetary value, are required to do a specific number of working hours for the municipality. Additionally, the Museum also has vocation for other projects. For example, we now have a student assisting us in inserting fisherman cards into the portal. Lastly, we have a job-oriented program, that comprises of a one-year internship. I can tell you that many of them have joined the museum employees board after the internship is finished. For example, the codfish keeper, who started with us at the age of 14 is now our superior technician for the part of the aquarium. We have another girl who joined the Museum staff when she was still a student and she is currently a superior technician who coordinates the educational service. In this sense, the municipality is of great utility as it arranges for this kind of policies to encourage that originate employment and even instill responsibility in these young people.

FL: How is the innovation process done? Does this follow certain practices undertaken by other museums? Does the suggestions made by visitors contribute to the adoption of innovative processes on the part of the Museum? Or does innovation originate from the ideas/methods undertaken by Museum's team itself?

PR: We are a very small municipality and we all work together. Many of the ideas come from the own municipal council for its own spaces. We are a cohesive team that works together and, therefore, the other ideas, come from here but we work in collaboration and in partnership logics. The remaining ideas come mostly from our consultant, Professor Álvaro Garrido. We always try to fit that input in the funding program. In addition, we establish a work team and through their work, we innovate.

FL: Do you think that all museums should increasingly look to innovation and invest in it?

PR: Yes, I think so. Worst of all are the financial constraints that national museums are going through today, and this is a known fact. It is much easier to work in a municipal museum that has

an identified vision and strategy in which the Museum does not just serve to expose certain content. We get to create impact in the local economy, while preserve its heritage. Basically, we get to move people. We are fortunate to have an autarchy that cares about the Museum. There are municipalities that do not ... it depends on the political cycles. Our city council gives an enormous importance to the study of collections. I am sure that few museums have the conditions that we have created for our collection. That's commendable. I want to make it clear that there are no museums without collections. We are involved in a project of Lusophone countries in which we discuss what is the concept of a museum of discoveries. A museum without a collection is simply an interpretive center. The museum's greatest concern should be its collection because it is the starting point. The content is designed around the collection. Scientific research is very important too. We pay close attention to that aspect. The research projects we develop are later turned into books. We are among the few museums that have a scientific journal, *Argos*, published annually. We also have a concern for our HR. The goal is to equip the museum with capable people, since they will be the ones developing the various aspects of the Museum, there is the concern to prepare, to treat our collections, there is the concern to create more and more attractiveness in what the public regards, in what we have created outwardly. For example, we are waiting for new technological equipment to equip the “Faina Maior” room. And we know that we have projects to move forward with our bilingual project, which is a flaw we have. We are working with a private company that is using us as a case study for the implementation of audio guides (which is still a very expensive resource nowadays) to make our visitor stand alone. We are one of the Portuguese museums that conduct more guided tours and do not extra charge money for them, throughout the year. Museums are storytellers.

Appendix 2.2 – Association of Friends of the Ílhavo Maritime Museum

Although there is a Group of Friends who were part of the museum origin it is only in 1941 that the “Group of Friends of the Museum” is formally established which however would only be officialized with new statutes and public deed in 1994 under the designation of the AMMI. The members are from many parts of the country, from diverse backgrounds and socio-economic interests. Currently the minimum annual fee is €12 (Above this value is at the discretion of each member) and in addition to free admission to the Museum and temporary exhibitions, they receive a discount of 10% to 20% in publications supported by AMMI.

Appendix 2.3 – Educational Service

The CMI Educational Service is in operation since the academic year 2012/2013, which focuses on an innovative education policy and which involves, in an articulated and integrated manner, the various municipal spaces, including MMI and NMSA. The Educational Service of the Maritime Museum of Ílhavo aims to promote marine, tangible and intangible heritage, local history and maritime cultures, make known the fishing memory of cod and agro-maritime toil and raise awareness of related environmental issues with the preservation of the oceans and the biodiversity of the Ria. The schools explore the collections of the Museum, as well as the Santo André Museum Ship, which allows them to experience life aboard a classic cod fishing trawler. The activities of the educational service run during school holidays (Christmas, Carnival and Easter) lasting one or three days, with a cost of €5 or €12, respectively, and is intended for children aged from 5 to 12 years. There is also a website for children,

<http://inwebjunior.museumaritimo.cm-ilhavo.pt/ria.aspx?v=i>, where you can find fun and explanatory games and videos about these matters.

Appendix 2.4 – Price tickets, discounts and open days

The individual ticket for the MMI is priced at €6 (€3 if it is discounted) and for the NMSA €3.5 (€2 with discount). Discounts are for young people between six and seventeen years of age; for young card holders or student cards; and for seniors over sixty-five years of age.

It is also possible to purchase an integrated ticket, which is valid for 10 days, contemplating a visit to the two museums, at a cost of €8 (€ 3.5 with discount).

There are:

- a) Reductions – for groups from twenty visitors; CMI employees and CentroCard's Tourism Center members;
- b) Exemptions – for members of the Association of Friends of the Museu de Ílhavo, of ICOM or of International Congress of Maritime Museums; children up to 5 years of age; public or private educational institutions of the Municipality of Ílhavo; users from the IPSS of the Municipality of Ílhavo; teachers and education professionals when in service and accompanied by school groups of any educational level. One teacher for every 10 students, except when it comes to students with “Necessidades Educativas Especiais” “Special Educational Needs”) who require individual accompaniment of education professionals; Instituições Particulares de Solidariedade Social (Social Solidarity Institutions) professionals in support of persons with disabilities; and seniors, when in service and accompanied by the groups of the respective institutions. One professional per 10 users, except when it comes to people, who due to their physical and mental condition, need constant monitoring of a professional; and researchers, journalists and tourism professionals, in the performance of their duties and properly identified;
- c) Open Days where entry is free – open days occur on the second Sunday of each month; in Celebration of the International Day of Museums (May 18); on the Commemorative Date of the Museum Foundation, excluding free access to the NMSA (August 8); on the Commemorative Date of the Opening of the Santo André Museum Ship, excluding free access to the Museum (August 23); on the Commemorative Date of the Expansion and Requalification of the MMI, excluding free access to the NMSA (October 21).

Appendix 2.5 – Spaces to rent

The MMI has a cafeteria and also a conference room for cultural meetings, colloquiums, congresses and other civic and cultural events promoted by the Museum or the CMI. It may also be used by other entities in actions that, by their content or mode of execution, do not contradict the Museum nor of the CMI policies. The payment is made to the treasury of the CMI and the rates are as follows:

- i) Auditorium: €150 from Monday to Friday and €230 at the weekend and public holidays, plus VAT 23%. A period of three and a half hours (morning, afternoon and evening);
- ii) Exterior Deck: €150, plus VAT 23%;
- iii) Meeting Room (Former BMMI): €150, plus VAT 23%;
- iv) Services: €30 per assistant and €50 per technician for a period of three and a half hours (morning, afternoon and evening);

Appendix 3 – National Press Museum

Appendix 3.1 – Interview Transcript

Francisca Listopad (FL): According to the website, the Museum has general aims, such as inventorying the national graphic heritage; identify the hypotheses of maintenance and musealization of local workshops; promote research in the history of the press and the graphic arts; organize and promote temporary exhibitions and other cultural activities, in a decentralized manner, on themes of the Press and the Graphic Arts. And it has a specific objective that is to create, in the long term, a network of museological press centers, spread throughout the national territory and animated by the permanent circulation of temporary exhibitions. Do you consider any of these aspects worth mentioning? And if so, which one?

Dr. Luís Humberto Marcos (LHM): The creation of the Lusophony Press Bordless Museum and the idea of creating Portugal as the country of Gutenberg are all aspects that mark the way we position ourselves in the world. There is another aspect of innovation that is very important to us that has to do with cultural decentralization, which constitutes a strict cultural policy line followed by the Museum. We realize that art has to visit other places, such as the shopping centres. We've been doing it since we opened to the public. The Museum already had this perspective, this philosophy in its early days. At that time, it was not very well seen, but if it is in the mall that people spend most of their time, we had to take the Museum there, so that people who had never been sensitized to art and culture can finally experience those. In the delirium of consumption, they would be forced to look at cultural objects and end up being enchanted and getting a taste of culture.

Another aspect is that of internationalization, which is a fundamental aspect of our project in order to have more international products. The national decentralization is another of the causes we defend. To that end we have already held exhibitions in practically all districts of the country, including the Azores and Madeira. There was a time when the Museum was threatened with a project, because this structure had to go down and there was a serious conflict with the autarchy. Consequently, there was a need to get out, to expand. We made many exhibitions outside the building and some of them didn't come here, on the account of the censorship and the April 25 Revolution. That exhibition was placed at the Foz Palace, inaugurated by then President of the Republic, Jorge Sampaio, and never came to our city because it was too expensive to bring to Oporto, because it had many objects from Lisbon. Although the objects are not from here, the exhibition was totally set up and organized by us. In this regard, we seek to make exhibitions outdoors whenever possible. The decentralization line is also based on virtual projects and this is another area we put our efforts on. We were the first virtual museum. I would also like to stress that on the same day we inaugurated the exhibition, we inaugurated an online exhibition too. In 1997, the Museum was considered one of the ten best in the world when it comes to virtual content. Internationally, we started with virtual space that is an essential component of our way of being and innovation.

And the Cartoon Virtual Museum has three languages: Portuguese, English and Esperanto. It was the first museum in Portugal to have Esperanto.

FL: To what extent does this Museum think its innovation?

LHM: From the beginning it tended to distance itself from the traditional ways of making and building museums. We created the first living museum, in fact, we broke with a certain type of

paradigm looking for a greater interaction between the visitors and our pieces. Hence the reason for the denomination “living museum”, but also to give concrete meaning to our philosophy and our perspective. For this reason, the Museum, as soon as it opened, had not only printing sessions but also paper production. At the inauguration, the President of the Republic “get his hands dirty”, in the sense that he handled some of our old machinery. This is a milestone in our history that is at the heart of the genesis of the Museum itself.

FL: Does the Museum have a research center?

LHM: This Museum did not begin with the architectural structure nor with the machines we gathered, but with research. We had a team that walked around the country to make a record of what existed in terms of graphics machinery. We made technical datasheets and photographs and so the idea of the Museum began there.

We do research internally. We have two masters in museology and a good part of our exhibitions result from an internal investigation. Most of the exhibits are made by us from scratch. However, sometimes we have external consulting. We have also done common projects for the European community and we have also had partnerships with institutions from several countries, but always more focused on humor.

FL: Would you consider that innovation takes a bigger place through the GIC than through the Museum itself?

LHM: The cartoon object is a factor of innovation and that is why Wollinski loved our Museum, because it had a representation of what was the typographic art but at the same time valued the cartoonists drawing. And this immediately constitutes a factor of innovation. As soon as the Museum opened, an exhibition of the cartoon about the 150 years of the caricature in Portugal was inaugurated. And only in the following year the PortoCartoon World Festival began.

The Wollinski House is also a peculiarity, it is something that distinguishes us. It is the only artistic residence that is open to cartoonists. We bring artists here to do workshops and works as a tribute to Wollinski.

In our line of international and national decentralization we make exhibitions out outdoors whenever possible. And these exhibitions are mostly humor related. Although the characteristic of the great diversity of our exhibitions relies much more on humor than on documentary exhibitions, sometimes we focus on other themes. For example, we made a great exhibition about the Portuguese Republic.

The Virtual Museum needs a restyling but has a lot of information already. The Virtual Museum is for the whole world. For example, it has a list with all the museums dedicated to humor that exist, but there is much more. The possibilities are endless. There are projects that begin and that doesn't seem to have an end, because they are in constant change and evolution. This makes part of our spirit too: a restlessness spirit that marks our cultural project. It is the result of restlessness, because culture is the sedimentation of human unrest. This relates to our project and to our philosophy.

FL: Is it more important for the MNI to approach the local community or to attract international audiences?

LHM: Both are related. There is no distinction. We increasingly want to be out there. When the Museum was born, we had knowledge of every single museum of the same type, there was an awareness and therefore we knew what we could do. The project is born following an investigation that was done on the equipment and the typographies that existed in Portugal. Then

some of the printers were disappearing, some material we were able to bring it here, others, of course, were lost. And many would be lost if it were not for the Museum as we were collecting and gathering. We have warehouses full of machines and we have this philosophy of collecting, preserving and then musealizing. And this dimension leads us to that given amount of equipment in Portugal, because we have a particularity that the other countries do not have that is the Portuguese neutrality during the II World War. We did not participate and so there was no mass destruction. The typographies were as they had been left two hundred and three hundred years ago. We got equipment and many of them were still working, something that did not happen in most of Europe. In the rest of Europe there was replacement of all machinery destroyed by new machines. That's why we have better equipment here than the Gutenberg Museum itself in Mainz. On the other hand, we have been collecting a lot of equipment and this gave us the conditions to develop other projects in other areas of the country and therefore we have the dream of making Portugal the country of Gutenberg. This means that we have equipment, we have the conditions to make historical surveys about the importance of typography in certain regions and we try to immobilize the living forces, the autarchic instances for the creation and valorization of the press in their own territory. Therefore, making a relation between the valuation of the identity of certain regions through the press. We have several territories with history, equipment to discover and other equipment that we can borrow. This has already happened in Madeira, where there is a Press Museum, whose project was made by us. There is a nucleus in Celorico de Bastos that was also made by us. And there is a third one that is being developed in Lousada on account of the discovery of a very beautiful and interesting piece of machinery. We made the survey of this machine and built a project around it with the intention of valuing Lousada as a center of the National Press Museum.

FL: Does the MNI invest more in technological/scientific knowledge or invest more in communication/marketing knowledge?

LHM: They are different arrangements, and both are important but inseparable. They work on different agendas and communicate and articulate. That is, if I find a district or a town that appreciates this study area and receives an exhibition of ours and we discover that there is a possibility there that triggers the chance of creating a center. Why not? We only have a border that is not doing activities within the Museum that are not related to this area. That is, we do not exhibit paintings because of the painter, we do exhibitions of painting if they are related to the area of the press, for example, the Mário Botas exhibition. This is a frontier, that is, we have to expose something that is related to the press, with the printed image. Even the humor material, everything is printed, because we are a Press Museum. We could even host other exhibitions, but we do not make it easier, because we do not want to “contaminate” our project.

We have very old technology, some of our items date back to the time of Gutenberg, but we are also on the internet in order to keep up to date. There has been a huge evolution and we cannot be left behind. Our strategy contemplates the use of the most modern channels of communication. The internet is a very valuable instrument and we use it.

We have virtual exhibitions that widen the range of visitors, so that we can give culture a more attractive spin. Culture is the basis of citizenship. In the future, cities will function around cultural bodies. The virtual language is important and sometimes we do things that are not physically made, for example, we have digital profiles / documentary exhibits that allow us to see numerous documents about some people. Virtual is a good tool for us to materialize our decentralization policy. We want to be part of the Portuguese cultural landscape, but we also want to leave our mark in the world.

For example, the PortoCartoon World Festival is not in Oporto, but rather a port (“porto” in Portuguese) where it anchors the humour world. This space is the anchor of what is best done in the world on certain topics. This contest was born with this denomination, marked by the city of Porto, but soon it was freed of the geographic dimension to become a port where we received, but also where we spread. Every year we do exhibitions abroad, for example in Brazil, but we do in other places. Last year we took the streets of PortoCartoon to Brazil, similar to what we do here.

FL: Are the national and international partnerships also a way to innovate?

LHM: Naturally. Networks, which are exponentiated by technologies and the internet, are fundamental from a human point of view. The network is, at heart, that which is based on humanity.

FL: Do you consider that the Museum has adapted internally to the changes? The Museum has invested on policies that are directly related to visitors, whether they are local or foreigners (front-office innovative routines). Do you think it is important to implement these changes internally (back-office innovative routines)?

LHM: There isn't an established hierarchy; the Museum doesn't have barriers. There is a very strong sense of co-responsibility, we work very much as a team, we discuss all aspects and options together, as a cohesive unit. We operate in circles of responsibility that interact, with a typology of horizontality. We like to communicate between ourselves, normally everyone in the organization knows our plan. The response that the Museum must give has to be always satisfactory from the visitors'/clients' stand point, regardless of whether the tasks are the responsibility of one person or several. The sense of co-responsibility is implemented and disseminated top-down. There are degrees of responsibility, but everyone has to be attentive to what may not be so good, even if it is not their responsibility *per se*. This space and this institution feel like home to us; the Museum is our team's safe haven. It is a philosophy that was implemented by the HR management.

FL: Does the Museum appear on any cultural agenda or tourist spot? Has the Museum any partnership with any hotel, travel agency or company?

LHM: We really bet on publicity. We do exhibitions at subway points. All of the exhibitions held outdoors, are not only a way to reach other types of public as it is also a marketing policy. We establish partnerships with the radios and the newspapers to publish ads of our initiatives. We also give physical and digital materials to hotels so that they can “spread the word”. For intendance, we have already done exhibitions in hotels.

We are registered on Facebook and on Instagram to promote the work we've been doing in the Museum. We launched the first virtual museum in this area, and we were one of the first museums to have launched in the internet in Portugal, so it is clear that we contemplate social networks. On the internet we have three different websites. A first instance of the museum as a platform to do our core business. Secondly, we have an autonomous page about the Virtual Press Museum that emerged in 1997, launched by the Jorge Sampaio, then President of the Portuguese Republic about the history of the press, personalities and many other useful information. The structure of this page, which was very innovative in the year 1997 needs an aesthetic reformulation. It was thought not as a virtualization of the physical, but as an instance that is born in virtual space. Thirdly, the International Cartoon Gallery was created, which is not born of physical reproduction, but of its own identity.

It was the first museum in Portugal to have virtual reality.

FL: Does the Museum apply for a state/public contest? Does the Museum receive private donations?

LHM: Whenever there is an opportunity, we apply to various competitions. There was a National and European contest of €1M that ensured a reformulation to this building.

FL: Do you think innovation policies also help the Museum to become more economically sustainable and thus efficient? Do you think the museum grew as a result of innovative practices?

LHM: Evidently, innovation brings economic sustainability. Every time we inaugurate an exhibition on a specific space, this constitutes an income for the museum. All the exhibitions we hold outside doors are paid for. We “produce culture” and whoever wants to pay the amount we consider appropriate for us to work for them, will get something out of us. That’s how we work. If we had a museum alone with the permanent exhibition, people would come here once or twice and never come back. It would be a very limited museum, because its degree of innovation would be very small. I would only do a basic demonstration of what a museum is. We have always refused to be an antique warehouse.

With regard to innovation at the virtual level, what is the feedback we have from people who take our information from websites? None. The real winners are the telecommunications companies which profit from the website traffic. That situation allows them to disregard content. When we put information on the internet the best return we can hope to get is an hypothetical visit. But we are thinking on changing this situation and we want to move in the subscriptions direction. If the production of these contents has value, therefore, it can also provide us with financial returns.

FL: How is the innovation process done? Does this follow certain practices undertaken by other museums? Does the suggestion of visitors contribute to the adoption of innovative processes by the Museum? Or does it originate from the museum team itself?

LHM: Overall, the ideas come from the inside of the Museum, from our team. I do not know any museum with the diversity of projects we have. We have one thing that is unique in the world that is the “Roteiro do Humor” (“Script of Humor x”), which we inaugurated in 2008, with a piece of the Architect Siza Vieira. And every year we install a new sculptural piece we invite an artist to reinterpret the winning design of the PortoCartoon World Festival, so that the winner has a materialization of their design.

The human creative process is complex, and we are not the result of a single stimulus. Ideas are not born out of nothing; creation always has a livelihood. Dreams do not come out of nowhere. Ideas arise from the pleasure of living. It is difficult for creation to emerge from lack and absence of pleasure. If we had the financial means, this Museum would be very different. Because there is no shortage of ideas. We would do more activities, more marketing, more campaigns, we would be in many more places and we would have already developed not only the Gutenberg country project, but also the Lusophony Press Bordless Museum project. It is very difficult to maintain such an institution. If we had money... For example, despite my role as a director, I’m a volunteer because I dream about this project.

The project Lusophony Press Bordless Museum aims to preserve the memory of the peoples related to the Portuguese language and give cultural meaning to this same memory. We are not interested in creating warehouses with equipment, it is important to make this equipment instances that promote the development of the populations, their cultural identity, their growth and their valuation in collective terms in the different spaces in which the Portuguese language is the main

aggregator element. We already celebrated a protocol with all the former colonies in order to develop this project. It is a difficult project and requires tremendous perseverance. It has already been presented to the CPLP. It is an international project, but it is limited to the Portuguese-speaking countries and it has in its matrix the following: to have two spaces, the first dedicated to the memory of the press in each territory and a second space that stimulates the relationship with other countries. Have a space for a permanent exhibition and a second space for exhibitions about the other countries. It is a relation between the museological culture and the Lusitanian language.

FL: How important is the fact that people can touch the machines?

LHM: It is very important that people feel our machines, use them to print paper and then have the possibility to take it home. This is a seductive and fascinating thing. Normally, in a museum you cannot touch the pieces. Here we say the opposite: please touch the pieces, feel them, get your hands dirty.

FL: Do you think that all museums should increasingly look to innovation and invest in it?

LHM: My definition of museum is exactly that. A museum must think about what its heritage is, valuing it in the perspective of the enjoyment of the public. A museum should always think of the public, always. In other words, a museum has to preserve the heritage, to enrich it, because a museum is not an individual exhibition. This is not about individual collecting; on the contrary, it is for the people's enjoyment. Culture is the essence of Democracy, and therefore as an instance it has to function precisely to value the cultural dimension and the people's quality of cultural life. One of the main lines of Democracy is culture, although it does not yet have 1% of the state budget. It is unacceptable, it is a completely distorted view of what is the importance of culture in development and quality of life. As an idea and as a perspective, as a philosophy, we must invest in cultural instances and these spaces should always be available. This Museum is open 365 days a year because we know that people often have no chance of coming to museums on the working days. So, we make sure that our doors always stay opened, even on the weekends. We are an open instance, because this is the only way that culture, osmotically, goes into people's lives. Hence our slogan is "the pleasure of culture".

Appendix 3.2 – Notes taken during a conversation with the MNI coordinator

The MNI coordinator is Dr. José Miguel Neves:

- A theme is chosen for the cartoon prize and a Portuguese and an international character one dead and one alive are chosen for the caricature prize.
- Caricature Exhibition: Choose 60 cartoons + information + other objects for framing.
- Exhibitions that last for 6 months until December.
- Porto Cartoon's exhibition is extended until March/April
- PortoCartoon activities: i) Caricature Celebration at São Bento: We take caricaturists to a previous chosen street to draw the people that pass by and then we display the drawings in shop windows; ii) Prize of the public; iii) Exhibitions in malls; iv) Partnership with the Piraciaba Hall (São Paulo): they send an exhibition (through internet) that we put in a mall for 3/4 weeks and we send another one back; v) Sculpture in the street based on the drawing that won the year before (Portuguese sculptor), there is an installation but it does

not have to necessarily last; vi) Free theme: any caricaturist or cartoonist can send any work, from four years ago we present this at Casa do Gramido during July and August; the important thing is to diversify the source of origin and choose one work per author.

- Admission is free. The jury meets once a year in March meet 2/3 days and select everything. Composed by our Director + AMI president + former director of the Museum of Humor in Galicia) + other members that may vary (representative of fine arts, illustrator, graphic designer). Each year the jury receives 2'600 cartoons. End of March we start to prepare the exhibition.
- There is no typology limit, even a scarf can be sen
- Sometimes we chose the theme according to the theme proposed that year by UNESCO
- Who wins the public prize the following year, we organize an exhibition about the cartoonist
- Implicações do museu. É um orçamento mínimo e tem sido cada vez mais difícil. Obrigatoriedade de imprimir catálogo 500 exemplares (colocar tudo no mesmo catálogo foi uma solução). Os caricaturistas recebiam o catálogo. É obrigatório fazer o catálogo porque está regulamentado. Quem recebe uma menção honrosa recebe um catálogo; atendendo o preço de envio dos catálogos enviamos link para ser descarregada versão pdf do catálogo
- The PortoCartoon World Festival has a minimal budget and has been getting harder and harder. Requirement to print 500 copies catalog (putting everything in the same catalog was a solution). The caricaturists received the catalog. It is mandatory to make the catalog because it is regulated. Whoever receives an honorable mention receives a catalog; attending to its the shipping price, sometimes we send a pdf version of the catalog
- The artist wants to appear in the catalog. They want proof of how they were selected

Appendix 3.3 – PortoCartoon-World Festival

It is a worldwide competition organized by the Museum since 1999 and it is free to access it and to enter the competition. Each year a specific theme is chosen on which participants present their work in the form of cartoon. The first competition took place in 1999 and has not failed since then. In the year of 2018, the 20th edition was presented with the theme “Cleaning th Planet”. Cartoonists, from more than eighty countries, submitted more than 2500 works. After the artists submit their drawing(s), they are evaluated by a jury of five members, namely the Director of the Museum, the former director of the Museum of Humor in Galicia and two other guests, who may be Portuguese or foreigners and with various professional experiences. The jury will meet for three days and select the best works, those who will receive an honorable mention or a prize. The next day, the winners are announced; the temporary exhibition with the selected drawings starts to be set up; and the winner drawings are placed in the exhibition “The World’s Laughter”. The winners of the contest win a monetary prize and a wine bottle, such as Sanderman. However, what competitors actually aim for is to be included in the catalog, because it validates their work. The exhibitions, either physical or virtual, and the contests are ways of promoting artists, publicizing their job. The PortoCartoon World Festival and the GIC legitimize the artistic journey where networking takes place. That is, the artists begin to be followed more closely not only by the cartoon market but also by individuals who are interested in buying some of their work. As it

was said previously, the gallery does not sell any good exposed. However, it makes postcards of the winning works, which are available for sale at the souvenir shop. It is important to mention that the winning works become the property of the museum. However, it is not made any control over that right. That is, the Gallery does not check if the cartoonist use the winning work or not. PortoCartoon came, in that sense, to put Portugal, but mainly the city of Oporto in the global cartoon art world, because it is the largest international caricature festival held in the Iberian Peninsula and, according to the international classification given by the Federation of Cartoonists Organizations, is one of the three most important world contests of humor. Hundreds of cartoonists are taking part in this contest that is already well-known and worldwide recognized, taking works on current issues such as war, pollution, human rights, hunger, consumption, water shortage, power abuse, globalization, among many others.

Table 7 – Porto-Cartoon World Festival themes and the winner’s origin country

	Theme	1st prize	2nd prize	3rd prize
1st Edition: 1999	Discoveries and Oceans	Bulgaria	Russia	Spain
2nd Edition: 2000	Change of the Century / Millennium	Cuba	Ukraine	Russia
3rd Edition: 2001	The bridges	Moldavia	Russia	Ukraine
4th Edition: 2002	Eco-Tourism	Brasil	Ukraine	Cuba
5th Edition: 2003	The water	Turkey	Poland	Israel
6th Edition: 2004	Sports and Society	Poland	Serbia and Montenegro	Italy and Greece
7th Edition: 2005	Humor and Society	Russia	Spain	Russia
8th Edition: 2006	Desertification and Land Degradation	Turkey	Slovenia	Belgium
9th Edition: 2007	Globalization	Poland	Italy and Brasil	China
10th Edition: 2008	The Human Rights	Portugal	Turkey	Brasil and South Korea
11th Edition: 2009	The crises	Romania	Portugal	Poland
12th Edition: 2010	Aircraft and Flying Machines	Poland	Iran	Belgium
13th Edition: 2011	Communication and Technologies	Poland	France	Portugal
14th Edition: 2012	Rich, Poor, Outraged	Italy	USA	Colombia and Ukraine
15th Edition: 2013	Liberty, equality and fraternity	Serbia	Mexico	Netherlands
16th Edition: 2014	Living Water/Land Water	Canada	Belgium	Turkey and Poland
17th Edition: 2015	The light	Italy	Poland	Russia
18th Edition: 2016	The Global Understanding	Iran	Turkey	France and Romania
19th Edition: 2017	Tourism	Belgium	Indonesia	Mexico
20th Edition: 2018	Cleaning the Planet	Croatia	Italy	Brasil and Iran

Source: Made by author

In Table 7 it can be verified the contest themes and winners' origin country are available since its creation, showing PortoCartoon has played an important role, as over the last twenty editions of this contest, receiving more than forty thousand drawings from participants from around the world. In these last twenty editions there were fifteen winners from Asia continent and the subcontinent South America, making PortoCartoon a space for reflection on current issues with a critical and challenging look. The proof of the gallery and its contest importance in the Art Market is also verified by the constant increase in the number of participants in the existing activities. And, in fact, as the numbers do not lie, the Museum has decided to create a new contest for the younger generation.

Appendix 3.4 – Virtual Galleries

The Museum focuses on the virtual world, having countless virtual exhibitions posted on the website in order to reach anywhere in the world. These are the Virtual Exhibition Rooms of the Gallery:

- a) Exhibition Football and Humor – Exhibition created for the 2006 FIFA World Cup, which took place in Germany. Firstly, it was presented in the organizing city and then it was opened to the world, in a virtual way. With contributions from 37 countries, a set of cartoons is presented to satirize some of the world's footballing moments and of renowned footballers' caricatures.
- b) Exhibition Humor and Brilliance – It is a gallery, also open to the public in a virtual way, since 2006, which honors the most important figures of the nineteenth century. In this century, with the Industrial Revolution, the press and the art of the caricature took place. Due to lithography development and the engraving technique, it was possible to massify the cartoons. Many of the designs depicted here are among the main authors of the time.
- c) Exhibition Olympic Humor – Driven by the 2008 Olympic Games, this exhibition was created with works from 13 countries.
- d) Exhibition Maomé – In 2006, in a Danish newspaper, twelve humorous drawings of religious figures of Prophet Muhammad were published. Although the Koran prohibits the display of images of the Prophet Muhammad, the Danish newspaper disobeyed this rule. The Executive Committee of the Association of Cartoonists of Turkey was outraged by the satirization made and considered the drawings as a provocative attack without any good intention. Being aware of this situation, the Federation of Cartoonists Organizations (FECO) asked all members of their organization to draw a cartoon on the subject of religion. The drawings were placed on the website of FECO and other institutions such as the GIC. In this conflict, between the right to freedom of the press and religion, in this case more specifically to the myth of Mohammed, this exhibition showed once again the importance and strength of the cartoon in a politically correct society.
- e) Exhibition Obama Barak Obama has run for the presidency of the United States of America in the 2008 elections. Due to his presidential campaign, promising the end of the war in Iraq and the universalization of health services, in the image of change and hope he brought to the country, but also because of its origins, by destroying the racial barriers, was elected by the Americans. He became, thus, the first Afro-American president, the 44th of the USA. It created a giant expectation around the figure of Obama and the changes that would bring both to the US and the World, considering that in that

year, we still lived in an unipolar world. The exhibition was organized in 2009 with the object of countless cartoons and drawings by Obama.

- f) Exhibition *Je Suis Charlie* This exhibition, opened in 2015, was a way to pay homage to Charlie Hebdo and his work.
- g) Exhibition Wolinski – As mentioned in the paper, Georges Wolinski (1934-2015), president of PortoCartoon for ten years and renowned caricaturist, was assassinated in the attack in Paris. The MNI and the GIC created this exhibition where they collected Wolinski's drawings and invited some artists to contribute to the exhibition.
- h) Exhibition Manuela de Azeredo – Exhibition intended to honor the journalist and writer Manuela de Azevedo.
- i) Exhibition Manuel António Pina – Exhibition created after the death of Manuel Antonio Pino. Journalist, poet, writer, chronicler, winner of the Camões Prize 2001 and jury of the Love Stories contest (2001-2009) organized by the Museum.
- j) Exhibition Cartoon 9/11 – After the 9/11 event, cartoonists from around the world drew on this landmark event in contemporary history.
- k) Exhibition of Censorship – Exhibition with documents, photographs and information about the period of the dictatorship that was in force in Portugal between 1926 and 1974.

Appendix 4 – Portimão Museum

Appendix 4.1 – Interview Transcript

Francisca Listopad (FL): According to the website, the Portimão Museum’s mission is to: Interpret the origins and evolution of the local and regional community; to divulge the most important aspects of its maritime-industrial history; to preserve the industrial and cultural heritage, to value the relationship between the city of Portimão and the Arade River; to document material and immaterial testimonies and; to foster the formation of new audiences, developing a quality cultural offer. Do you consider any of these aspects worth mentioning? And if so, which one?

Dr. José Gameiro (JG): The Museum is an observatory, a laboratory, that makes bridges. For me, these three axes are the most important. An innovative museum has to have a beginning, a middle and an end. Firstly, you have to look at the museum’s birth, its philosophy and its mission and afterwards, read its program. Our program, which even includes the architecture team, is what defines what will be the future occupation, management and innovation on the part of the Museum. For example, if I had not foreseen two temporary exhibition halls, how could I innovate in the various stories and in the production of other types of knowledge other than the permanent exhibition? If I had not foreseen the interconnected auditorium, the relationship between spaces, the conservation and restoration team, the reserves, etc. If I had not foreseen the Documentation Center how could I give the same importance to the document as to the piece; if I had not foreseen a restaurant outside the museum, it would rely on the museum's opening hours. This is also innovative and brings people together. There are a number of structures here that have to be considered. And then there are human resources. For example, I have an anthropologist, there are museums that do not have anthropologists... but the social function of the museum, the continuity of a relationship with the community, a continuity that is not only materialized in the collection of testimonies and life stories, but also of a possible innovation in matters that were not foreseen at the outset. If the mission is to protect or take into account the heritage collections, we have the visitors, but if we do not connect with the community, there is an empty gap. The Museum cannot be a sample, a showcase of objects, it has to be a bridge between generations and between the community and the visitors, and it has to be accessible. And if we are in a tourist area, we must, for example, eliminate language barriers, which is why we have created a smartphone application available with five languages. All these were things that came later but were initially thought of. It did not all come together at the same time, but there was a structure that was already designed and articulated with human resources, for a certain type of missions and that are possible because of human resources. At the moment we have 25 people in the Museum’s staff, including historians, anthropologists, conservators and restaurateurs, archivists, maintenance people and IT people. Human resources are what the museums should invest and, currently, it is a serious problem in the national panorama. These are getting old without a renovation: it is a generational problem. The innovation is made from what you have before, during and can better predict the future. To wit, there are these three moments and the museum does not end when it opens; the museum begins at that point, in my consideration. Again, its mission is in constant renovation. The moment a museum finally opens to the public, establishing a relationship with the community. That is why I use the concept “observatory”. The Museum will have a limited action if only showing its heritage without being aware of who surrounds it, whether is a touristic, a community or a social reality...

We were never intended to be a touristic oriented Museum. We had this problem: the Museum was inaugurated in the 1980s when a wave of mass tourism began to arrive to the region and we ran the risk of losing all our memory, our heritage. Our canning factories, which were our main industries before tourism took over, were closing. We have tried to maintain and recover the evolution of the territory until the birth of the canning industry. It was not only a specific moment in our history, it was a whole set of particulars that kept the people here in the zone, not only because of the climate but also because of the geographical area settled between the sea and the mountains; and then the occupations that we had of the various peoples and the interactions that we established. At that time when tourism did not have a very cultural and historical component, we looked at the city and would be able to find things that were in danger of extinction. And at the same time the dredging that took place in the seventies and eighties, and then continued, brought thousands of millennial testimonies to the surface. There was a whole story at the bottom of the river and, at the same time, up here that could be at stake. This was one of the reasons that led us to approach the municipal council. I went to the mayor and explained that we were losing an industrial heritage, which at that time -- 1980s -- was not appreciated in the context of the museological panorama.

It was in the 80's that a movement to promote industrial heritage began thanks to the actions of José Custódio, with whom helped us organize an exhibition in Central Tejo ("Electricity Museum"). So, it is from here that we have the perception that something would have to be done. In this aspect it was innovative because there was no museum, there was no structure, we didn't have anything. And from there we began, obviously, to show the project and the Museum's theme to the city, both in fairs and festivals. When we bought the factory, which was closed and abandoned, we allowed an improvement of the urban road. There was a benefit of the Operational Program of Culture at the end of 1999/2000. The origin of all of this was a movement started by the civil society. My formation in fine arts, at the national culture center, the integration of heritage associations, led me to this. Besides that, the April 25 Revolution, transformed our national vision to a more regional/local one which favors our museological perspective.

FL: Does the Museum invest more in technological/scientific knowledge or invest more in communication/marketing knowledge?

JG: The important thing is not relying on superfluous promotion or communication with no meaning. All jobs are prepared in advance. When we refer to the museum laboratory, in addition to observing its own reality, we mean to create an environment in which partnerships are born. We call it the "laboratory of ideas" for joint project partnerships. For example, we are part of the founding group of the Algarve Museum Network, an organization that supports the building of partnerships. We were isolated: beyond Évora there was no national museum and, here in the Algarve we were doubly far away. Each municipality had few resources and therefore we had the idea to create a network between professionals. Nowadays, the museology's professionals located on Algarve connect, meet, establish and promote activities in partnership. And this principle can applied to Portimão as well: we have to connect with associations, collectors, schools, but also researchers, and people who can join us not only as donors but also as part of this "storytelling". That is why we have an annual program of at least two temporary exhibitions of various durations and exhibited both in the Museum and abroad. In should also be metioned that we have arranged for cultural activities at the Megalithic Monuments of Alcalar, which are a national monument. On May 4th, we will hold the Prehistory Day, an event that we celebrate every year with thousands of people. We also have another project in our hands called "The Culture Goes to the Street" in which every year, during the European Heritage Days, we go out to a rural parish. That is, there is this world that we are trying to show and that is important from the point

of view of material and immaterial heritage. All knowledge comes from that society and community that lived and still lives there. Firstly, we have to work alongside the locals in a collaboration regime, and only after that comes the communication *per se*. But we do not think of an immediate marketing. We have a deeper project than just that. The real issue here is that we are the producers of our own exhibitions. We are not limited to having space, renting it and promoting what comes from the outside. Most of the temporary exhibitions that we carry out continue the permanent exhibition and show us who we are until today.

The “Photographic Race of Portimão” is another initiative that may resemble to any other photographic marathon, but in fact, as it is organized by the Museum, this will allow us to look at our heritage today and the social involvement we currently have in Portimão. We have been doing this initiative for the last nineteen years which enables us to show that group of competitors, young people, what Portimão has to offer, along with the city’s activities, heritage and culture.

FL: To what extent, is the exhibition’s interactivity important?

JG: Personally, I think that museums cannot be just virtual. The museum has every obligation to keep an eye out for new languages. Just as we have the multi-language application, we also have to accept that there are new languages. Our Museum's exhibition focuses, essentially, on materials, parts, and stories that contain several sections. In three distinct sections: one shows the origins of the community, the other shows the Portimão’s industrial life, and the third shows the bottom of the waters.

We are also attentive to what is happening around us. Four/Five years ago, we heard that there would be an artificial reef construction. If we are to be Museum that is also linked to the maritime component, we have to pursue a pedagogical aspect here. This kind of events must be showcased by the institution we run. We contacted the dive company that created this project and in the Museum’s cisterns, at the bottom of the water, where we happened to have an abandoned gallery, we built a “submarine” and in each hatch we highlight parts of this history: the cleaning of the ships; the sinking of the ship; the appearance of maritime life, occupying the entire surface of the ship; and divers inside the boats. In other words, it is a story, which, after all, was not foreseen, but if we were inattentive to this observation (which has to be constant), we could go unnoticed, and that is pedagogical importance as well. We have to be aware of what is around us and that is why, despite our exposure, regardless of being permanent, it is evolutionary. It is adapting to the determined parts to what is going on our archaeological, historical and scientific investigation; the restoration team also points out some kind of problems; the files provide us with new elements. We have here a mounted structure that is now bearing fruit.

FL: Does the Museum integrate a library?

JG: It is called the Documentation Center and Historical Archive. It has a thematic library -- we do not replace the Municipal Library -- which is used not only for our research as for the exterior; and then we have the archives. We have originals from Teixeira Gomes, for example. We have collaborated with other entities, such as the Calouste Gulbenkian Foundation, in order to enrich our academic production. There was a proposal to create a traveling library, with our curatorship. We made this connection with Teixeira Gomes and Calouste Gulbenkian. That is, we have here a way to connect. Now we are going to make two exhibitions on the anniversary that we will inaugurate on the 18th.

We also have the Educational Service with various activities. For example, the “Holidays at the Museum” are now taking place and, in the context of the temporary exhibition on the Olympic mascots. For this we had kids designing a mascot for the Museum.

FL: Is it more important for the Museum to approach the local community or to attract international audiences?

JG: We went from a cannery to a storytelling factory. We are not thinking much about the tourists. I have to know that this area has some particularities and singularities. This is what we want to show and are able to do it firstly thanks to the community and secondly thanks to the tourists. We do prefer to concentrate our work on the locals interest, nevertheless we don't forget to accomodate the tourists that come to observe how this community was, in the past, is, in the present, and will be, in the future. Not only looking at the historical roots but also to events that have taken place. For example, we organized an exhibition on the Algarve Regional Congress that took place in 1915; we organized an exhibition – “Todos somos Portimão” (“We are all from Portimão”) - with the theme of immigration. We have been making numerous exhibitions in which we seek not only the local, the regional, the Algarve, but also the national and the international realities. Just as the preserves shape for the whole world, we also have this vision, but always with interconnection with Portimão. We also received exhibitions from outside, but the museum is not a center for modern art. The Portimão Museum is a museum that seeks to bring here aspects that may be interconnected with our universe.

Obviously, we want to aspire to be an inclusive museum and that is why we have the app with five languages and the subtitles of the exhibitions in Portuguese and in English. Therefore, we are waiting for this type of visitors. They may not come to the Museum because we have an international exhibition, but because we have here a different way of showing the history and this reality and what distinguishes us. In the meantime, we have won some awards, notably from the Council of Europe, and today we are the home of the European Museum Forum. The museum became the place where the secretariat of this contest is done. In this year's edition, the Museum will deliver, for the first time, the “Portimão Museum” Prize for the most welcoming museum in Europe. The Museum will also install their archive, for a total of forty-two years, coming from Liverpool, Milan and Berlin.

FL: Regarding the timetable change in August, since when does the Museum have this policy? How did this idea arise?

JG: The Museum is an observatory and has to make a bridge between the museum and the public's interest. In the summer, everyone, in the morning, is at the beach and at night go for a walk. In a way we adapt and become more accessible to the schedules of our public during this month of August. I think this policy has worked for three/four years.

The issue of schedules and accessibility is something that concerns us. We have ramps, we have lifts. Of course, we are not 100% accessible to people with visual difficulties; but from 0 to 3, we are at level 1.5. We received a distinction for accessibility. We always try to improve on these issues.

FL: How is the innovation process done? Does this follow certain practices undertaken by other museums? Does the suggestion of visitors contribute to the adoption of innovative processes by the Museum? Or does it originate from the Museum team itself?

JG: We are attentive to the Book of Opinions and to the practices of other museums, both Portuguese and foreign. I was a member of the jury for seven years and visited many museums in Europe. We do not live isolated in the world and we realize that there are other museums that offer certain things that, ideally, we would also like to offer. However, we have to adapt to our material reality and the resources we have. We are trying to be sustainable according to our resources, but a sustainable museum is not easy. Namely energy matters, including changing lamp

bulbs. We have to do it little by little. And in that sense, perhaps it does not say innovate, but we continue to adapt to reality.

Another ideal thing we did not get yet: factories are structures that have a huge roof surface and we could have photovoltaics.

FL: Does the Museum appear on any cultural agenda or tourist spot? Has the Museum any partnership with any hotel, travel agency or company?

JG: Currently, we have 32 partnerships in seven distinct sectors: travel agencies; cruise tour operators; social tourism of the INATEL; rent-a-car service and taxis; catering and hospitality. Now we are considering the possibility of a partnership in which, through the authorization to park the boat here, they bring 400 people daily, starting this year. In addition, we have another innovative thing that is unique in Europe, which happens for three/four years. In the Algarve, the National Defense Day happens here in the Museum. There are 5'000 young people who have the first contact with the army in the auditoriums and then visit our spaces. The first contact with the army is made, but also with the defense of the heritage. We were contacted three or four years ago, through the Town Hall, asking if there were conditions required for such task and if we could make the visits and the Museum had the capacity to start organizing this.

FL: Do you think innovation policies also help the Museum to become more economically sustainable and thus efficient?

JG: From the economic point of view, it is very difficult for a museum to be sustainable. At national level this is what happens. The Documentation and Historical Archives Center, which has 70'000 to 80'000 annual visitors, is not profitable; the library either, etc. They both produce knowledge and any person has the possibility of accessing it. It is a research site, not for the visitor, but for schools, teachers, researchers. There is free wi-fi.

FL: Could you tell me about the Museum's Group of Friends. How many members do you have?

We have the 230-member Friends of the Museum Group and are currently applying for a public contest to promote the monuments of the Algarve's DGPC. In addition, for three years we have been able to arrange funding for the Prehistory Day. The Group of Friends of the Museum are very attached to this. The group has this initiative and autonomy to submit applications, travel to other museums, contact other groups, organize seminars and gatherings. And it is also a link between the Museum and the partners. It's more of a dynamic thing.

FL: Do you think the Museum grew as a result of innovative practices?

Yes of course. The utility has been increasing. The degree of acceptance by the visitors is high. But for example, we are thinking of creating a museum store. There is a possibility in the Group of Friends to keep a bag of the Group of Friends in exchange for a donation and we have several books, but it is not a structured thing at all. However, it is something that will be created this year, with canned fish also for sale.

FL: Could you talk about the rebirth of the canning company?

Here is another innovative aspect: the resurgence of the La Rose brand. Its release took place at the Museum. One thing we are going to do is to sell at the store a small box with two fish and a notebook. And as you can see, on the packaging it says: "Visit the Portimão Museum, where La Rosa was born!". (See Appendix 4.5)

The other aspect was the rebirth of a cannery on the other side of the river: Saboreal. This all began with a Belgian visitor who was very intrigued by the industry that once had been very important and that at that moment was disappeared. He then contacted two people, a fisherman's son and a pharmacist and the three became partners. I was very interested and enthusiastic because I found an innovative relationship. The Museum with its own history can motivate someone to think about the rebirth of a canning industry, which is handcrafted in glass jars and which we sell in the museum's restaurant. They are all initiatives that deep down make sense.

FL: Does the Museum work with volunteer programs?

We have volunteers, but in southern Europe it's a bit complicated. But we have protocols with professional schools that do internships here. We have more internships than volunteer programs.

FL: Is the restaurant independent from the Museum?

The restaurant/caffeteria inside the Museum was something I saw whilst visiting other museums and I immediately thought to myself "what a bad idea that is". When the Museum closed, everything closed. It does not make any sense. When we did the initial Museology Program the idea was that the spaces were separate, continuous, interconnected, but autonomous. We don't manage the restaurant, we rent the space, but with some conditions in which it should respect the Mediterranean gastronomy tradition, only using regional products. If our Museology Program had not foreseen a certain autonomy for the restaurant, then that area would be included in the Museum's infra-structure.

FL: Tell me about the economic sustainability of the Museum?

The Museum is supervised by the Municipality Council and, consequently, all the monetary values of the rented spaces, of the restaurant, go straight to it. We do not have financial autonomy, in the sense that the money we make does not go to the Museum itself. This works in a similar fashion as in all municipal museums. Naturally, the City Council pays for everything. I believe that it spends more money than it gets in return. Museums in the background have a social mission. It's not just about profit.

FL: Do you think that all museums should increasingly look to innovation and invest in it?

JG: Naturally. This has a lot to do with the kind of direction and human resources that we gather around our Museum. Sometimes museums have only two to three people. It consists specially on the human resources. The teams that comprised the museums twenty or thirty years ago should no longer be the same as today. We have capacities, different languages and therefore if the current generation does not feel attracted by what we have to offer, maybe it is time for a change in the personal. We have to make sure that we have a team capable of advertising our product. And secondly, if the Museum does not have the task of observing; of working in partnership and of being a bridge - that is, working towards inclusion, accessibility and realizing what priority themes that year for your community will be worked on. What is the community of a national museum? It's not just Lisbon nor Oporto, but there are engagements and ways to capture and create co-curatorships; co-productions with other entities and other associations. And it's not the museum technicians themselves who decide everything. There is this need to come and stay connected. There has to be an approximation, whether with universities, associations, or groups of students. There are museums that have made certain kinds of very interesting experiences with physical, mental, health programs. There is a lot of different ways to think about a project, depending on the mission of the museum but also starting from the collections themselves and giving them an idea. Sometimes it is more important to show an idea than the collection itself.

From questions of the genre: “how can I interact with my community?”. It is this kind of thinking that the museum should always have. We have to have a social and dynamic reading. For example, if there is a theater group, why not establish an interaction within the exhibition? Why not creating a performance display? Why not thinking of a way to give other content to the object being displayed and that does not only have an archaeological reading? We have to invoke the outer voices, more or less distant. For example, there are museums, I do not know if in Portugal, that organize visits to very specific groups with problems of insertion or with specific diseases. A museum has to always be rethinking in such links and accessibility. And who should be the one with this task: is it the archeologist; the science/educational employee; the anthropologist? The museum’s administration board has to look for someone: an employee within or outside the museum. There are technicians in various industries. Search for links and propose spaces for certain types of audiences. It is also difficult for the museum to have its own human resources. The museum cannot freeze in what it has, that is why I say that the three components observatory, laboratory and building bridges are so important.

Appendix 4.2 – Documentation Center and Historical Archive

The Documentation Center and Historical Archive guarantees the same attention to the documents as to the objects exhibited. It is a public service of the CMP, integrated in the Museum building, whose mission is to safeguard, organize and disseminate information that allows the global and chronological apprehension of historical themes and political, economic, social and cultural realities of Portimão and the Algarve. Assuming itself as a final destination structure for the documentary memory and historical identity of the CMP, it complements the collection and research work of the Museum, namely personal funds, companies, industries, commerce and local associations, as well as the Arquivo Definitivo da Autarquia. The Center has reading and research rooms with wi-fi connection, access points for searching in the computerized database, microfilm reader and reproduction and printing service. Besides that, on the Website you can find the online catalog of the Documentation Center and Historical Archive.

Appendix 4.3 – Educational Service

There are fifteen different programs for pre-school; first, second and third cycle; secondary and university education; and, to groups. In the case of groups, a minimum of 10 members and a maximum of 25 are required, with a price of €2 per person. Among the various works that have already been developed during these Workshops, the museum highlights the animated short film “À conversa com Manuel Teixeira Gomes”, which won the “Arara de Prata” trophy in the Young Talents category, awarded by the jury of Tourfilm Brazil. There are also leisure time programs such as "Holidays at the Museum", where the child participates in activities for five working days (morning and afternoon) during the Easter or summer holidays. Registration costs €20 and is intended for the age group between 7 and 14 years.

Appendix 4.4 – Spaces to rent

The spaces to be rented can be checked at <https://museudeportimao.pt/espaco-servicos/aluguer-de-espacos/auditorio> and are:

- a) Auditorium – It is a room with stage and chairs with folding tops. This space of 200m² with a maximum capacity of 171 seats and 4 more for reduced mobility, is dedicated to numerous uses, such as conferences, concerts, theater shows and cinema sessions, having a vast video and sound technical equipment.
- b) Meeting rooms – It is a venue for meetings, presentations and formations, with possibility of division and individualization of the room in one, two or three modules (60m², 40m² or 20m²). It has technical equipment.
- c) Rehearsal room
- d) Two temporary exhibition halls – One with 230m² and the other with 210m², having the advantage of being polyvalent, depending on the installation.

Appendix 4 – Image 1

“Visit the Museum of Portimão, where La Rose was born!”



Source: Photo taken by author