Developing Sustainable Port-City Relationships in Europe

An Institutionalist Analysis of Waterfront Projects Governance in Lisbon

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Abstract

In Lisbon, the location of the port in the urban waterfront has generated controversy and debate, particularly since the late 1980s. New waterfront projects have reignited the discussion, raising awareness to an urban and regional planning issue: the port-city relationship in cities in which the port remains within the urban fabric. This issue is visible in more port cities around the globe. The port-city relationship has been studied from different perspectives, often following the rationale of port relocation. However, it has been demonstrated that in many cases port and cities remain in contact. Hence, the quest for sustainable port-city relationships remains a conundrum in which conflicting interests are at play.

In this research, we follow the recent conceptualization of the port as a community of actors operating together for shared interests, emphasizing the issue of governance, the relations between the actors and the rules that guide them. For this reason, our main goal is to identify and determine which are the main rules governing the port-city relationship, particularly the role of the port authority as key actor, and if these rules allow an effective quest for long term sustainability. We address this goal in our main research questions:

What rules and actions govern waterfront projects in European port cities?

and

To what extent do these projects (re)produce sustainable port-city relationships?

To answer these questions, we structured the research in three main stages. In all stages of the research we relied on the field literature, on legal and planning documents, and on interviews with international experts and local actors, particularly in the case studies. We initially analyse the existing theoretical explanations of the port-city relation based on the territory to later focus on the most recent conceptualizations focalized on the actors. This epistemological change prompted us to adopt institutional theory and actor-centered institutionalism as theoretical approach to analyse the port-city relationship in Europe. In this theoretical approach, institutions are considered the written and unwritten rules that guide social interactions.

In a second stage we focus on six European port cities to understand the different approaches to waterfront projects and the role port authorities played in them. We emphasize the contrast between path following cases and those that innovate and look for new hybrid approaches. In these innovative approaches, the port authority must go beyond the traditional interpretation of the legal boundaries and social expectations.

In the third stage we concentrate on the main case study, Lisbon, analysing three waterfront projects in depth. In these three focus projects we can see the effect of institutions in detail, study the social expectations for the waterfront and confirm how the laws prioritize economic results over other dimensions of sustainable development

In the conclusion of the research we confirm that two institutions affect the quest for sustainable port-city relationship, supported by laws and social expectations: the conservative

conception of the scope of the port authority, exclusively focused on economic and logistic results, and the "post-modern waterfront imaginary". Finally, we reflect on the research findings and provide practical recommendations to improve the relationship between ports and cities.

Zusammenfassung

In Lissabon hat die Lage des Hafens in der innenstädtischen Ufergegend insbesondere seit den späten 1980er Jahren zu zahlreichen Kontroversen und Diskussionen geführt. Neue Projekte an der Wasserkante haben diese Diskussion neu entfacht und das Bewusstsein für ein Problem der Stadt- und Regionalplanung geschärft, das über den lokalen Kontext der portugiesischen Hauptstadt hinausgeht: die Hafen-Stadt-Beziehung in Städten, in denen der Hafen im urbanen Stadtgefüge verbleibt. In bisherigen Studien wurde zumeist von einer künftigen Verlagerung des Hafens in die Randbezirke ausgegangen. Jedoch kann man an vielen Fallbeispielen sehen, dass Häfen und Städte auch nach einer Verlagerung des Hafens oftmals dennoch verbunden bleiben. Daher ist die Suche nach nachhaltigen Hafen-Stadt-Beziehungen nach wie vor ein Anliegen, bei dem widerstreitende Interessen eine Rolle spielen.

In dieser Studie verfolgen wir die jüngste Konzeptualisierung des Hafens als eine Gemeinschaft von Akteuren, welche zusammen für vereinte Interessen wirken, befassen uns mit dem Problem der Steuerung, den Beziehungen der Akteure untereinander und den Regeln, die sie lenken. Unser Hauptziel besteht darin, die wichtigsten Regeln für die Beziehung zwischen Hafen und Stadt zu ermitteln. Der Fokus liegt dabei insbesondere auf der Rolle der Hafenbehörde als Schlüsselfigur, sowie auf der Frage, ob die ermittelten Regeln tatsächlich eine wirksame Umsetzung des Strebens nach Nachhaltigkeit ermöglichen. Auf dieses Ziel richten wir unsere Hauptforschungsfragen:

Welche Regeln und Maßnahmen steuern Wasserfront-Projekte in europäischen Hafenstädten?

und

In welchem Umfang führen diese Projekte zu nachhaltigen Hafen-Stadt-Beziehungen?

Um diese Fragen beantworten zu können, haben wir die Untersuchung in drei Hauptphasen gegliedert. In allen Phasen der Untersuchung stützen wir uns auf empirische Literatur, Rechts- und Planungsdokumente, sowie, insbesondere in den Fallstudien, auf Interviews mit internationalen Experten und lokalen Akteuren. Wir analysieren zunächst die vorhandenen theoretischen Erklärungen der Hafen-Stadt-Beziehung anhand des Territoriums, um uns später auf jüngste Konzeptualisierungen zu konzentrieren, welche die Akteure im Fokus haben. Dieser epistemologische Wandel veranlasste uns dazu, die institutionelle Theorie und den akteurzentrierten Institutionalismus als theoretischen Ansatz für die Analyse der Hafen-Stadt-Beziehung in Europa heranzuziehen. In diesem theoretischen Ansatz werden Institutionen als geschriebene und ungeschriebene Regeln betrachtet, welche die sozialen Interaktionen lenken.

In einem zweiten Schritt konzentrieren wir uns auf sechs europäische Hafenstädte, um die unterschiedlichen Herangehensweisen für Projekte an der Wasserkante und die Rolle, die die Hafenbehörde dabei gespielt hat, zu verstehen. Wir arbeiten den Kontrast zwischen

Ansätzen mit klassischer und denen mit innovativer Herangehensweise heraus und erforschen, inwieweit man diese zu einem hybriden Ansatz vereinigen könnte. Solch innovative Ansätze erfordern eine weiter gefasste, weniger strikte Auslegung der Gesetze, sowie ein Überschreiten konservativer sozialer Erwartungen durch die Behörde.

In der dritten Phase konzentrieren wir uns auf die Hauptfallstudie Lissabon, in welcher drei Wasserprojekte ausführlich analysiert werden. In diesen drei Analyseeinheiten können wir die Auswirkungen von Institutionen im Detail veranschaulichen, die sozialen Erwartungen für die Ufergegend untersuchen und nachweisen, wie Gesetze wirtschaftlichen Ergebnissen Vorrang vor anderen Dimensionen nachhaltiger Entwicklung gewähren.

Im Fazit der Untersuchung bestätigen wir, dass zwei Institutionen das Streben nach einer nachhaltigen Hafen-Stadt-Beziehung beeinflussen: Die konservative Konzeption des Geltungsbereichs der Hafenbehörde, die sich ausschließlich auf wirtschaftliche und logistische Ergebnisse konzentriert und die postmoderne Wasserfront-Imaginäre, welche durch Gesetze und soziale Erwartungen gestützt wird. Abschließend reflektieren wir diese Forschungsergebnisse und geben praktische Empfehlungen zur Verbesserung der Beziehung zwischen Häfen und Städten.

Acknowledgements

From my experience, the PhD is a rather lonely path. However, when I look back to the travelled road I must acknowledge that I was supported by many and was lucky enough to meet kind people.

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I must thank all the interviewees who were kind enough to give me a couple of hours of their time and share their thoughts, experiences and concerns about the port-city relationship, their contribution became one of the main sources of this research. At the same time, I also want to thank the help from the team in the documentation centre from Lisbon's port authority. I am especially grateful to Rui Alexandre, also from Lisbon's port authority, with whom I met many times formally and informally, and provided me key inputs for the research.

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Figure 1. Photographs of billboard in front of the APL headquarters. Taken two weeks apart. The original message said: "View of Lisbon in 2021 – Approved by the socialist party". In the second picture, the message is "they (the containers) create wealth". Author: José M P Sánchez

In the afternoon of December 28th of 2017, I was going to take the boat and cross the Tagus to meet with my girlfriend. Heading to the ferry station, we drive past the headquarters of the port authority of Lisbon, a former maritime station of the 1940s, today mostly disused. At that time, I noticed there was a strange looking billboard right in front of the building. Getting closer I can see that it is a provocative message from the opposition party in Lisbon's municipal assembly against the expansion of the container terminal in Alcântara, next to the building. The billboard suggests that containers will block the view over the river and the south side, Almada, where the famous Christ statue stands. Besides being false—since the view of the statue will not be blocked—the political party chooses to ignore that the company responsible for the terminal intends to improve its capacity without expanding the land of the terminal, increasing its efficiency with new machinery.

Fast forward a couple of weeks, in January 9th, 2018 I went back to the port authority's headquarters to do interviews for my research. The provocative billboard still was there, but it had been vandalized with a new message. This was not just some graffiti artist, but the work of individuals, port workers perhaps, that have felt their bread and butter attacked. The new message is that containers create wealth, showing another perspective on the same issue. This is not the first time there is a strong debate about this terminal in Lisbon. In 2008, an expansion project was also proposed here and generated much discussion, including public petitions in favour and against the terminal.

This billboard is a perfect metaphor of the complex relationship between ports and cities in Europe today. On the one hand, the economic impact of these infrastructures remains relevant, often being one of the key elements of the urban or regional economy. On the other, they affect one of the most valued areas of these cities, the waterfront, and are the source of pollution or disrupt the contact with the water. These issues are at the core of a global debate of sustainable development, touching upon the values that somehow need to be reconciled in society—i.e. economic, social and environmental values—that are explicitly visible in port cities. The port authority is a central actor in this debate. In practice, it is often pressed with the responsibility of reconciling these values while attending many other tasks. Are port authorities capable of taking on this responsibility?

Chapter 1. Introduction

1.1. Motivation: Lisbon's port-city relationship

The urban waterfront is often described as the area where water and land meet, acting both as a territorial border and as a welt of two worlds. During my master's in architecture, back in 2011, I soon discovered that this section of the city sprouted energy for its frontier character and the palimpsest of urban and port activities that had taken place there. Lisbon is a city that has historically developed and endured due to its relationship with the river Tagus and the Atlantic Ocean, generating an explicit maritime identity. Lisbon's riverfront has been an endless source of inspiration for planners and architects, but also for poets and painters. At the same time, politicians saw it as showcase to leave their mark, while real estate companies could make significant money. However, during the last stage of my master's project I noticed that the new museums or public spaces were not the most fascinating aspect, but the fact that heavy port activities remained in the riverfront, occupying central locations (see Pagés Sánchez, 2011). Hence, the real issue was the coexistence between port and city in such a coveted location, desired by many, with a strong identity. This issue got stuck in my mind, and analysing it became the main motivation for the present research.

The relationship between port and city has been a controversial issue in Lisbon's urban planning, particularly since the late 1980s, when the social pressure to gain access to the river increased. Recent projects, such as the new cruise and container terminals or new public spaces, have reignited the discussion about the urban presence of the port, how it relates to the city, and the planning of the waterfront. Lisbon's port authority (APL) has been a crucial actor for the configuration of the waterfront, but its planning capacity is today questioned[1].

Figure 2: View of Lisbon from the south side. The port still occupies 11 km of the urban waterfront. In the centre of the image is the main container terminal, in Alcântara. Author: José M Pagés Sánchez

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1   Several politicians, intellectuals and citizens movements have questioned port projects and the decisions of Lisbon's port authority, both in the past decade and more recently as we could see in the opening anecdote. See for example https://www.dn.pt/arquivo/2008/interior/miguel-sousa-tavares-admite-accao-popular-1133691.html and https://expresso.sapo.pt/opiniao/opiniao_miguel_sousa_tavares/tejo-e-tudo-o-que-resta=f516370 (visited on January 25th 2019).

The port-city relationship is also a relevant academic topic, broadly studied since the 1960s mostly by geographers, economists and planners. This topic has inspired research from different fields as well as the creation of specific organizations which we will discuss at length. Today, the port-city relationship must be framed in a broader debate about sustainable development, including the efficient use of limited resources such as land, water or energy, in an attempt to reduce our footprint on the planet. In port cities we can observe the major challenge that is integrating crucial infrastructures in the urban environment. However, the port has a considerable influence in the urban identity, besides its economic and environmental impact. Hence, achieving sustainable port-city relationships is a Gordian knot that requires creative thinking and understanding the rules governing the actions of the key actors in the relationship.

In this first chapter, we initially present the problem and the state of the research on port cities to identify the knowledge gap that we will try to fill. Then, we introduce the main research questions and sub-questions. We will subsequently present our theoretical approach: actor-centered institutionalism. Finally, we explain the methodology and the structure of the dissertation.

1.2.   Problem: ports that remain in cities

The situation we described about Lisbon can also be found in several European port cities. According to Eurostat (2017: 207), the "vast majority" of EU international freight is transported by sea. This freight arrives by ship and passes through ports, which have thus become crucial nodes of global supply chains[2] linking production centres to consumers. At the same time, there is a global urbanization phenomenon, particularly visible in coastal areas. The world's urban population is growing, reaching 50% in 2014 according to recent studies by the United Nations (UN, 2014). Studies have shown that coastal regions bear the greatest demographic pressure and this population will suffer the most from the consequences of climate change (Creel, 2003; Sengupta et al., 2018)[3]. The UN has also been the main advocate for the sustainable development agenda since the 1980s. This agenda emphasizes compact built environments to reduce human impact on the planet and reducing the wasteful use of limited resources, particularly in industry, mobility and transport (WCED, 1987 see also OECD, 2012). These issues reveal that the tension between conflicting interests around port cities with an active port is likely to increase in the coming years.

Discussions about the relation between ports and cities are not new, with references dating back over 2,000 years, e.g. Aristotle Book 7 part 6 (Gaspar, 1999: 148). However, during

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2   Rodrigue et al. (2013:369) in his transport geography glossary define supply (commodity) chain as "a functionally integrated network of production, trade and service activities that covers all the stages in a supply chain, from the transformation of raw materials, through intermediate manufacturing stages, to the delivery of a finished good to a market."

3   The most recent report on climate impacts in Europe from the EU, indicates that one third of the European population lives within 50 km of the coast (Ciscar et al., 2018: 25).

the second half of the 20th century this issue has been studied in more detail, mostly by urban and economic geographers first, and by urban and regional planners later. In the 1960s, Bird (1963) presented his Anyport development scheme that heavily influenced the posterior research in the field. Later, Hoyle (1988) introduced his seminal five-stages model structuring the evolution of the port-city relationship. This model, along with the definition provided by Hayuth (1982) of the port-city interface, would become the foundation for most contributions to the field (see for example Meyer, 1999; Schubert, 2008). The main idea of this stream of port-city research is that ports are constantly expanding, distancing themselves from the city. Their claims are founded on the technological changes account-ed during the second half of the 20th century, particularly the containerization of mari-time cargo and the requirement of new, larger terminals. The second key idea of Hoyle's model is that port relocation outside the central urban waterfront is (inevitably) followed by brownfield regenerations for new non-port uses. This transformation was considered part of a larger social change, in which cities in first world countries became places of consumption rather than productive or industrial centres (Harvey, 1984). The waterfront plans developed since the 1960s emphasized the post-modern character of a post-industrial urban society (see fig. 3). Architects and planners focused on the waterfront regenerations and considered these reconversions success stories (Breen and Rigby, 1996). This "port-out-city-in" evolution (Wiegmans and Louw, 2011) spread among planners and politicians, often perceiving it as an inevitable process.

Figure 3 Baltimore Inner Harbour, one of the first waterfront regeneration plans from the 1960s. This plan greatly influenced future projects. Author: Patrick Gillespie Source: https://commons.wikimedia.org/wiki/File:Baltimore-sunset-pano.jpg

However, recently, several researchers have remarked that the aforementioned "port-out-city-in" rationale is no longer correct, at least for some cases (Wiegmans and Louw, 2011) (see fig. 4). Even more, the core concept of Hoyle's approach, the (inevitable) relocation of the port outside the urban area has been disputed by Hall and Jacobs (2012) in their article

"Why are maritime ports (still) urban, and why should policy-makers care?". This question appropriately expresses the issue faced today in many port-cities. In their paper, these geographers compare data from major seaports and large urban agglomerations, observing that many ports remain urban, against what previous theoretical models predicted. Cities offer a set of advantages that outweigh those brought by relocating ports far from urban cores. As the authors explain, the conditions for innovation necessary for the development of the future sustainable port occur in diversified urban economies (Hall and Jacobs, 2012:202). At the same time, port development in green or blue fields[4] implies a significant impact on ecosystems, a process against which social, legal and political resistance has grown significantly since the 1960s. For this reason, using port brownfields and retrofitting existing port territory is increasingly considered the most sustainable alternative to expand port activities[5]. Hence, competitive, environmental and geographical factors motivate the port to remain in cities and urban regions, implying discussion, negotiation and occasional conflict among the involved actors.

Figure 4 View of Genoa, where port and city stay close together and must coexist. Although the historic waterfront was refurbished, port terminals and dockyards, remain close to the urban tissue. Author: José M Pagés Sánchez.

4   Green field and Blue field port expansions are the most usual approaches to gain new land for port activities. "Green field" refers to expansion on firm land, artificializing the soil to host new terminals. "Blue field" implies landfills modifying the coastline. It is usual to see both approaches combined.

5   See European project and guide of good practice "Plan the city with the port" (2007). A more concrete example can be found in Genoa. The new port plan concentrates its development in inner growth and retrofitting the existing port territory without an expansion of its boundaries. (Piano del Porto, Autorità portuale Genova, 2015)

Although the work of Hoyle has been widely used and reproduced by other scholars, and in 2000 he added a new phase to his model including a port-city reconnection. Academics from geography, planning and ethnography have criticized it for several reasons. As most generic models, and an intrinsic quality of an abstract scheme, the singularities of each port city are forgotten or neglected (van den Berghe, 2015), while some cases may have not reached all the stages explained (Kokot, 2008). However, the most important change is the emergence of new conceptualizations of contemporary ports — and therefore of port-city relationships — that have stronger explanatory power than Hoyle's model (Olivier and Slack, 2006). In the new conceptualization, Olivier and Slack (2006) consider the port a community of actors, focusing on the relationship between the actors and their behaviour instead of the territorial evolution of the port. In their papers, Jacobs and Hall (2007) and Daamen and Vries (2013) follow this new approach, focusing on the relations between actors operating in the port-city interface, how these are governed, following which rules. These (written and unwritten) rules are considered institutions, borrowing the concept from sociology. This new approach, focusing on the actors, their relations, governance, and the institutions, can provide new insights to the port-city relationship and its long-term sustainability.

The new approach has recently also been explored by authors such as Hesse (2017), but more work remains to be done in understanding the contemporary evolution of port cities in terms of institutions governing the relationship between key actors in a port city community. In this research, we intend to contribute to this quest, following the work of the aforementioned authors and novel conceptualizations of the port and the port-city relationship. It is then necessary to investigate what is the capacity of the main actor, its priorities and the main rules that structure its mission. Only with an in-depth knowledge of the institutions that govern the port authority's behaviour it will be possible to understand if it can strive for a long-term sustainable port-city relationship.

In finding new explanations for the port-city relationship, we will take into account the work done by international organization such as, ESPO, AIVP, OECD[6] or RETE. For over 30 years, these organizations have published policy recommendations and good practices for sustainable port-city relationships. However, it can be argued that they have predominantly focused on the symptoms, rather than curing the disease. These organisations have been mostly concerned with reducing the negative externalities of ports, rather than reflecting on the role of the actors and its actual capacity to strive for sustainability. Although this relationship involves several actors, the work of these organizations emphasizes the role of port authorities as main actors. If ports will remain urban as the research points out, then port authorities must lead the quest for a sustainable port-city relationship. Therefore, it is necessary to bridge between new academic approaches to the port-city relationship and the praxis of port-city governance to understand the role of the port authority in this quest.

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6   ESPO stands for European Sea Ports Organization. OECD is the acronym of Organization for Economic Co-operation and Development. AIVP means Association Internationale Ville et Ports. The role of these organizations will be analyzed in detail in chapter two.

1.3. Research questions: Understanding the rules for port-city relationships

In order to fill the gap in the knowledge of port-city relationships and to further explore the potential of institutionalism as a lens through which we can look at complex governance processes and outcomes, we formulate the two following questions that structure this research:

1. What rules and actions govern waterfront projects in European port cities?

and

2. To what extent do these projects (re)produce sustainable port-city relationships?

The two main research questions here presented reveal the geographical scope (Europe), theoretical approach (institutionalism) and the focus projects to study institutions. However, it is also necessary to formulate sub-questions that will help us structure the research:

How can sustainable port-city relationships be defined and evaluated?

What roles do port authorities play in waterfront projects in European port cities and what rules govern these roles?

How are port authorities trying to develop a sustainable port-city relationship in Europe?

What institutions are apparent in the process and outcome of concrete waterfront projects in Lisbon, and to what extent are they reproduced or challenged?

To answer the first research question, we will need to define *sustainable port-city relationships*. In this research we build on the seminal work of the UN-WCED (1987), and their definition of sustainable development, based on three main pillars (economy, environment and society) and their intergenerational conception of sustainability. We also build on the work of Campbell (1996) and Connelly (2007), who developed a practical approach, considering sustainable development an inspiring ideal rather than a concrete goal. The more concrete meaning of this concept is given through the measures that have been gathered in the policy documents from international organizations.

In the second and third questions, we focus on the role of port authorities as these are widely considered key actors concerned with the relationship between city and port. As we will argue throughout the dissertation, these organizations have a normative responsibility that makes it in their best interest to strive for long-term sustainable interactions with the city. At the same time, several authors have questioned the influence of port authorities in the development of ports, and hence in port-city relationships, given the most recent reforms in port governance. Additionally, there are relevant differences between North and South-European port authorities that we will explain in the theory and the case studies. Despite the active quest of these organizations for sustainability, we will carefully assess the

contribution of their actions in improving the port-city relationship.

The fourth question refers to institutionalism as the theoretical choice to analyse the governance of waterfront projects that will impact port-city relationships, both in terms of process and outcome. Institutionalism is the appropriate theoretical approach because it is a branch from sociological and political sciences that acknowledges the existence of rules that guide the behaviour of the actors. This main question is inspired by the words of Hall and Taylor (1996:939) regarding the central question of any institutional analysis: "how do institutions affect the behaviour of individuals?" In our case we first want to identify which are these institutions and then how do they affect the behaviour of the main actor in the waterfront projects. However, we are also interested in knowing if port authorities are defying the institutional mandate or if on the other hand, they are complying with it, preserving the status quo.

1.4. Research framework and methodology: actors and institutions

We build on the work of Olivier and Slack (2006), Hall and Jacobs (2012) and Daamen and Vries (2013), defining the port-city relationship as both the process and outcome of rules and actions (re)produced by the actors involved in developing waterfront projects within a port city. To understand these rules and actions we must borrow theoretical concepts from sociological institutionalism, as so have done the afore-mentioned authors. More specifically, in this research we follow actor-centered institutionalism because it will allow us to better understand the main actor, the port authority, the institutions governing the port-city relationship and the interaction between them in waterfront projects. This theory, created by political scientist Scharpf (1997), combines concepts from two major frameworks: institutional theory and rational choice. Although this author recognizes the importance of institutions, he also emphasizes that the actors operate not only based on their mandate, but also following their own best interest. Scharpf's (1997) explanation of the interaction between institutions and the actors relates to the work of Healy (1997), and later Daamen and Vries (2013), in which the actors have the capacity of influencing the institutional frameworks through innovative governance actions, mostly in the municipal scale.

There are different notions of the importance of these institutions. Some authors like North (1991) and Williamson (1998) indicate that they exist to allow efficient economic operations. Instead, we acknowledge that they can be more powerful, affecting the actor's interpretation of reality, and how they perceive their role in society as Scott (2014) explains. Hence, it is necessary to identify which are the institutions that govern the behaviour of the port authority.

Following the work of Scott (2014), in which he defined the three pillars (regulatory, normative and cultural-cognitive) that sustain the institutional frameworks, we must focus on the different elements that form these pillars. For that reason, it is crucial to analyse how the law defines the port authority and its role, acting as the legal element supporting the

traditional port governance approaches that have generated the current unsustainable relationship. We must also assess the social expectations towards port authorities and their role, and how they are aligned, or not, with the legal definition and normative demands. At the same time, it is also necessary to assess the cultural influence of the dominant waterfront imaginary, and the expectations that it has generated among key actors and local inhabitants. This imaginary emerges from a cumulative process of international experiences occurred during the second half of the 20th century, and it has been gradually assumed as "natural or logical", influencing the decision-making process.

The definition of the port-city interface has evolved since Hayuth's (1982) paper to become a complex multi-layer entity extending beyond the immediate physical boundary (Merk, 2013). However, we consider urban waterfronts the crucial area where we can see the interaction between actors with rivalling development agendas. This is particularly explicit in waterfront projects, from port terminals to urban redevelopments, where actors must negotiate and defend their interests, exposing their priorities. These are our focus projects, where we can find the units of analysis (such as key actors, rules or resources). In these focus projects, we can see more explicitly how institutions influence the behaviour of the actors, but also how the actors may innovate, potentially leading to new institutions or institutional change.

As said before, the issue of port-city relationship is not exclusive from Lisbon, but it has a global dimension, visible in most port cities. To understand how this relationship works and to apply the theory explained, we structured the research in three main parts (see table 1). The first stage focuses on general literature review, both from academic and praxis sources, and preparing an analytical framework, following institutionalism. Geographers and planners have studied port cities for decades, generating a broad literature to which we will contribute. The publications from international organizations and port plans provide as well relevant inputs for a first approach to the main research issue.

The second stage is a comparative analysis of six European cases in Oslo, Helsinki, Rotterdam, Hamburg, Marseilles and Genoa. We decided to limit the sample of case studies to Europe for methodological and practical reasons. Although these port cities differ in size of urban agglomeration and port, as well as national planning culture, they are related. These cases share a common regulative framework (namely EU regulations), the actors operating in them compete for the same market and funding, and often have overlapping hinterlands. However, these ports also represent diverse approaches to governance, mainly two dominant traditions. While in north Europe the *Hanseatic* port governance model grants a closer relationship with the municipality, in the south, the *Latin* model separates port governance and decision making from the local context. It is relevant to confirm how the different models affect the port-city relationship. At the same time, in most European port cities, we can find waterfront regeneration projects with different approaches. In these projects, port authorities have different roles. These cases also represent different conceptualizations of the waterfront, from "business as usual", following the pre-conceived imaginary influenced by previous experiences, to "innovative", challenging existing ideas and institutions. In

these port cities, we got in contact with the relevant actors for semi-structured interviews, to confirm their presumably different perspective on the same problem. Analysing the port-city relationship in different port cities also gives us insights about the main areas where the conflict may emerge, and what are the behaviour patterns of the main actor.

In the third stage, we analyse the port-city relationship in Lisbon, and three focus projects in more detail. In these projects, the relationship and the rules that govern the roles and interactions of the actors are currently being challenged. The focus is on the governance process around three waterfront projects: the urban waterfront regeneration plan, the new cruise terminal and the new container terminal. In them we can observe the power games that occur during negotiation, how institutions affect the actions of the actors and analyse its outcomes. In these projects, there are different actors, but we detected that the municipalities (Lisbon and Barreiro) often counter-balance the port authority. However, we also

Table 1. Synthesis of the research stages.

Chapter	Research step/component	Topic	Research Stage
1	Introduction		1
2	Problem Statement	Port-City relations	1
		Sustainable Development	
		Port Authorities	
3	Literature review	Institutionalist theory	
4	Comparative Case Study Europe	Oslo	2
		Helsinki	
		Rotterdam	
		Hamburg	
		Marseille	
		Genoa	
5	In-Depth Case Study - Lisbon	Urban Waterfront	3
		Cruise Terminal	
		Container Terminal	
6	Conclusion		C

discuss the role of private actors, since their goals frequently are not aligned with those of the municipality or the port authority. Finally, the role of local citizens is also relevant, since they may have other priorities. Today, thanks to new communication technologies, local associations have more power than before to pressure public organizations and influence the decision-making process.

1.5. Structure of the dissertation: from theory to practice

This dissertation is organized in six chapters. In the following chapter (2), we explain the main research problem, understanding port-city relationships in Europe as they take place in practice, relative to the normative outcome defined in the thesis: a (more) sustainable port-city relationship. We first make a literature review to understand the current state of research in this issue. Port-city relationships have been studied by geographers since the 1960s (e.g. Bird, 1963), but this explanation has evolved from focusing on the territory to the actors (Olivier and Slack, 2006). We reflect on this epistemological change that also defines our approach to the problem. In this review we focus particularly on two concepts, the *port-city interface* and the *post-modern urban waterfront*. Both concepts are interlinked and have evolved in the last decades. For this research, we consider the post-modern urban waterfront an imaginary capable of influencing planning decision-making processes. Hence, it becomes a cultural-cognitive rule affecting the long-term sustainability of the port-city relationship, eventually conditioning the adoption of hybrid solutions. For this reason, we also briefly explore urban studies literature. In the first part of the chapter, we analyze guides of good practice and recommendations published by international organizations that can influence the port-city relationship. In the second part of the chapter, we define *sustainable port-city relationships*, taking sustainability from a holistic perspective influenced particularly by the work Campbell (1996) and Connelly (2007). We define a sustainable port-city relationships framework and provide examples of the different actions that can support the three pillars of sustainable development (economy, environment and society). This theoretical definition of sustainable port-city relationships will provide us with a normative standard to compare port-city relationships as they occur in the different cases. Additionally, we also investigate if port authorities are today prepared to lead the quest for sustainable port-city relationships as we define them in this investigation. This issue will be studied in the cases in the following chapters. We conclude chapter two detailing the gap that we will try to fill with this research.

After introducing the problem in chapter two, in the third chapter we explain the theoretical approach and the research framework we will use to analyse the different cases. We first introduce the different possible theoretical approaches to port-city relationships and explain why we chose actor-centred institutionalism. We build on the work of several authors from institutional economics (North, 1991; Williamson, 1998), political theory (Scharpf, 1997), sociology (Scott, 2014), public administration (Koppenjan and Klijn, 2004) or spatial planning (Healey, 1997) among others. The work of these authors helps us to build a theoretical framework to analyse the governance process around waterfront projects in which actors and institutions interact and generate feedback loops between them. In this section

we explain the main characteristics of institutionalist theories, following the synthesis provided by Sorensen (2018). We build on the work from Scott (2014) and his definition of three pillars (regulative, normative and cultural-cognitive) of institutions, understood as rules that govern the behaviour actors that influence the port-city relationship.

In the fourth chapter, we analyse the port-city relationship and the role of the port authority in six European port cities. We will first explain the European context and the differences between north and south, i.e. between the Hanseatic and Latin port governance model. We will comment the different national legal framework, in which some cities control the port authority while in others the national government has the power. The actors in these six cases have followed different approaches regarding the port image, waterfront planning, the governance of the port-city interface and the policies for port-city relationships. In these cases, we focus on the key issues that are relevant to the current investigation, such as the legal framework and definition of the port authority, or the waterfront imaginary and projects. The chosen sample represents the diverse port-city relationships in Europe in the late 20th century and beginning of the 21st. We analyse cases from Nordic countries, the Mediterranean Sea and the central range. In this sample, we can find some of the main European ports (in terms of traffic), but also cases in which their port is relevant for the national and regional context. We will see scenarios that continue with what we could call a "business as usual model", while others introduce innovative governance that defy the existing institutional framework (Daamen and Vries, 2013). These cases help us to understand if the approach of the port authority in the waterfront projects in Lisbon has been innovative or not.

In chapter five, we address the main case study of Lisbon. We first give a brief overview of the development of this port city, focusing on the last thirty years because the port-city conceptualization has changed in this period as local residents started to demand better access to the river Tagus. To understand the case, we will also review the major plans affecting the riverfront in the mentioned time span. Although not all plans were finally applied, they reveal the motivations of the actors relevant for the port-city relationship. These documents also show how the waterfront imaginary has changed, as well as the social expectations for the port authority. In these plans we can also see the evolution of the interaction between the port authority and the municipality, from cooperation, to conflict and finally collaboration. After a general introduction, we analyse the law determining the port authority capabilities and the use of the waterfront. We connect these formal institutions with the effects of the informal ones, that have been observed during the interviews. We look at the most recent waterfront projects through the lens of actor-centered institutionalism. In these projects, we focus on the actors forming the network, particularly the port authority, and on the institutions that govern the interactions.

In the sixth and final chapter, we present the conclusions by answering our main research questions. We will also provide policy makers in port cities with specific recommendations to develop (more) sustainable port-city relationships, and conclude with a reflection on our research outcomes, including future research avenues.

Chapter 2. Studying port-city relationships (in Europe)

2.1. Introduction

In this chapter, we will explain how we have come to understand port-city relations in Europe and give a more in-depth overview of the academic literature on which our theoretical approach builds upon. After this introduction we will explore the existing port city literature from planning, geography, economy and history. Our first task was to review the state of the research about port-city relationships in these disciplines and in the praxis, before deciding our theoretical approach. We will see that in the last decade geographers and planners have introduced new conceptualizations of ports and port-city relationships, allowing new ways to analyse them.

Geographers, planners, historians, sociologists, economists and architects among many others, have written about port cities and the evolution of the port-city relationship for several decades. Although we build on these "traditional" references, including also the work from French, Spanish, Italian and Portuguese authors, we also introduce new ideas challenging well established beliefs, such as the migration of ports outside cities and question the balance between positive and negative effects of ports in port cities. In this literature we can find two key concepts, the *port-city interface* and *post-modern waterfront (regeneration) projects*. We shall see that both concepts have evolved since they were originally coined, and that they have influenced policy-making. At the same time, scholars today are questioning the long-term sustainability of the port-city relationship as it exists today, opening the debate for a new approach. For this reason, we will also explore the work developed by international organizations, working mainly at the European level, that have presented different initiatives to foster sustainable port-city relationships.

In the third section of this chapter we will see that the main actors involved in this interaction have recently expressed their preoccupation to find a sustainable model. Port authorities are aware that if port activities intend to remain urban, they must find a balanced development model, including other values than just economics ones. To understand the implications of developing sustainable port-city relationships, we make a brief literature review of sustainable development, focusing on the main concepts given by the United Nations (UN), and how they reflect on the port-city relationship.

In the fourth section, we present a normative research framework for investigating governance and outcomes in port cities, based on the three pillars of sustainable development (economy, environment and society). The new framework implies tensions between these three key pillars that are visible in the governance around concrete waterfront projects in port cities throughout Europe. Since we focus on the role of port authorities, we explain in the fifth section how port authorities can be the leading stakeholder steering towards

sustainable port-city relationships, building on the tensions inherent in governing towards (more) sustainable port-city relations. We conclude by explaining the knowledge gap we will contribute to fill with this research and introduce our theoretical approach to the empirical problem developed in this chapter.

2.1. Defining port-city relationships: from territory to actors

Most models explaining the port-city relationship build on Bird's seminal work (1963), emphasizing a historical process in which port and city have gradually increased their physical distance, mostly due to technological changes (see fig. 5). Historically, ports and cities have been economically, geographically and socially connected, with clear synergies between both. Most geographers (Bird, 1963; Hoyle 1988)[7], when explaining the port-city relationship agree that there have been several key rupture moments, mostly motivated by technological changes combined with economic cycles[8]. For example, the industrial revolution in the 19th century changed the production methods in European cities, demanding new logistic infrastructure. This meant new harbours and piers, often built on landfills, altering the waterfront and changing the relationship with the water. Later, another example was the implementation of the container in a global scale from the 1960s onwards, once again changing the logistics, accelerating the cargo loading process. This technology also meant new scales in the port and a new relationship with the city. Further on, changes in the maritime sector, such as horizontal and vertical integration of companies and processes in the global supply chains, have resulted in a new stage of port regionalization (Notteboom and Rodrigue, 2005).

The dominant idea for most part of the 20th century was that ports would relocate far from city centres, followed by the consequent urban waterfront regeneration plans (see Hoyle 1988; Meyer, 1999), with few authors like Charlier (1992) claiming differently [9]. However, as explained by Hall and Jacobs (2012), most major ports remain in contact with cities in the metropolitan scale, despite the evolution of maritime technology, and the rational transport choice for logistic chain efficiency that would indicate relocating ports far from urban locations. Since, in order to grow, port companies require innovative contexts that can only be found in cities (Hall and Jacobs, 2012), the benefits this innovation provides compensates the urban constraints. At the same time, in port cities, other stakeholders pressure to innovate and reduce the externalities of port activities, such as pollution. This innovation increases the efficiency of port activities and technology, bringing benefits for the port company and a competitive advantage. For example, the social and governmental

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7   For a detailed review of the different geographic and economic models explaining the evolutions of the port-city relationship see the work of French geographer Ducruet (2007, 2011).

8   The work of Bird (1963) for example is based on the theory of economic cycles or long-wave of Kondratieff (1926) (See also Schubert and Harms, 1993; Lieber, 2018; Schubert, 2018).

9   Unlike the predominant current of thought, Charlier (1992) argued that port redevelopment was also possible as an alternative to the urban regeneration of waterfronts. His claiming was based on observation of two major port cities in Europe, Rotterdam and Antwerp, but, as pointed out by Daamen (2010), those cases can be considered exceptional.
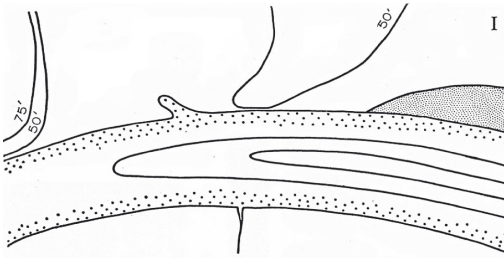
FIG. 2 The Site of *Anyport*

A left bank tributary of an estuary has caused an embayment, largely dry at low tide (coarse stipple in the estuary) and flanked by slightly higher land, before estuarine marshes begin downstream (fine stipple on the right of the diagram). North points, scales, and diagram borders have been omitted on purpose from the illustrations in this chapter of the hypothetical *Anyport*.

FIG. 4 *Anyport* at the End of Four Eras of Development

I–III as Fig. 3.
IV—*Dock Elaboration*.
DD—Dry dock associated with later docks; Q, Continuing *marginal quay extension*, T and W, Transit sheds and warehouses.

FIG. 3 *Anyport* After Three Eras of Development

I—The *Primitive Port*.
II—*Marginal Quay Extension*.
III—*Marginal Quay Elaboration*.
W—Warehouses; Quayside buildings, warehouses or transit sheds; Semi-circular town wall, with stronghold where the wall meets the estuary downstream.
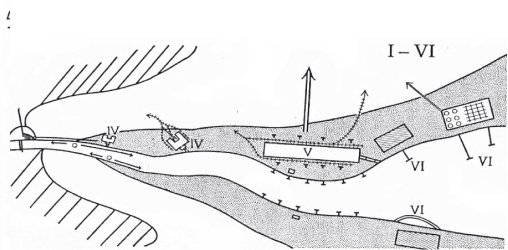
FIG. 5 *Anyport* Complete

I–IV as Fig. 4.
V—*Simple Lineal Quayage*, over 1,500 feet uninterrupted in one line, 26 feet of water L.W.O.S.T. alongside, with, if necessary, an entrance lock 750 feet long.
VI—*Specialized Quayage*, notable at T-head jetties and at large wharves in the river.
Q—Continuing *marginal quay extension*.
T—Transit sheds, or, in the river, jetties serving a continuous frontage of industry.

Figure 5 Bird's "Anyport" model (1963), with the phases of port-city relationships. Adapted from Daamen (2010). The author emphasizes the increasing separation between port and city, due to the growing scale of maritime infrastructure.

pressure to reduce toxic emissions of sea-going vessels or port machinery translates into new, more efficient ships and cranes, that at the same time consume less fuel, producing economic advantages (Banawan et al., 2010; Moon and Woo, 2014). Another example is the electrification of docks, allowing ships to save fuel on port, while at the same time, reducing acoustic and air pollution (Carletti et al., 2011).

Before Hall and Jacobs (2012) explained why ports and cities remained in contact, authors such as Meyer (1999) (see fig. 6) and Hoyle (2000) already recognized the presence of ports in the metropolitan area. In 2000, Hoyle had to include a sixth phase in his model, in which port and city reconnected (see fig. 7). Although this model has been broadly used to explain the physical evolution of the port-city relationship, several authors have criticized it for neglecting geographical, economic and political differences between cases (see Kokot, 2008; Wang, 2014)[10].

10   In his original paper, Hoyle (1988), indicated that his abstraction of the phases of port-city development should not be considered universally valid. However, his scheme has been used by many authors in publications and conferences too often without emphasizing its limitations. This rather "reckless" use of Hoyle's work was motivated by its simplicity, that facilitated the explanation of a complex phenomenon.
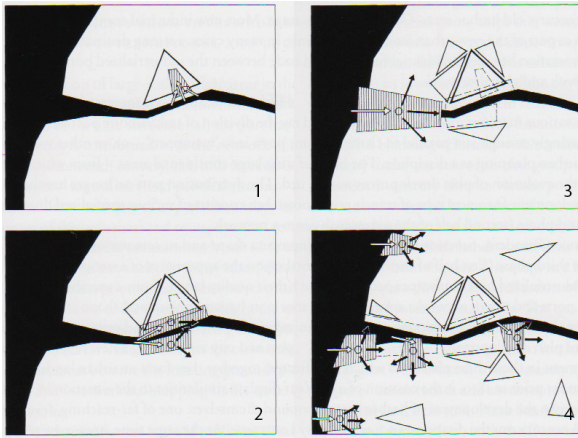
Figure 6. Meyer model explaining the structure of the port city. In the fourth phase the port and the city rediscover each other. Meyer (1999:23).

The most relevant critic comes from Olivier and Slack (2006), who indicate that the classical explanation of the port-city relationship given by Bird, (1963) and Hoyle (1989), following a linear chronologic evolution of the territorial configuration is no longer enough. The emergence of global supply chains, the power of transnational corporations (TNC) in the different logistic steps, and the landlord port governance model has changed the traditional role of the port authorities, from "gatekeepers" to "pawns in the game" (Olivier and Slack, 2006 on Slack, 1993: 580, 582). In this new scenario, Olivier and Slack (2006) defend that terminals are the relevant analysis units, and that ports are no longer just physical spaces, but places of connections, of which TNCs decide their fate (Olivier and Slack, 2006; Hall, 2007).

Olivier and Slack (2006), also explained that the shipping market can be controlled by a few logistic TNCs becoming an oligopoly. This economic phenomenon emerging in the 1990s, was already established when Olivier and Slack wrote their seminal paper and has gradually intensified. For example, in 2016, the top four carriers controlled almost 50% of the global container traffic (Merk, 2018)[11], and three companies controlled more than 80% of the cruise market in 2014 (Pallis, 2015). At the same time, these companies control the different levels of the logistic chain, since their conglomerates include carriers, terminal operators, logistic centres or tug companies[12]. The companies controlling the concentrated market, can lever ports to compete against each other for traffic, securing low port fees, reducing the port profitability and forcing governments to invest in new terminals (Olivier and Slack, 2006; Hall, 2003, 2007).

Following the concept of ports as places of connections (Olivier and Slack, 2006), the focus on port studies has shifted from the physical evolution of the port, to the relationships between the different actors and the way these interactions are governed. At the same time,

11   In 2018 the OECD – ITF published the report "The Impact of Alliances in Container Shipping", in which Merk explains that in certain routes (e.g. east-west trade lanes) the three major global alliances of container shipping companies control up to 95% of the total ship capacity (Merk, 2018).

12   The top 10 shippers control over 80% of the container market (https://alphaliner. axsmarine.com/PublicTop100/ visited on June 26th, 2018). For example, the group Maersk has a market share of 18,3%, after acquiring in November 2017 the German rival Hamburg Sud, but at the same time controls the terminals company APM, the supply chain management Damco and the tugs company Svitzer group.

STAGE	SYMBOL ○ City ● Port	PERIOD	CHARACTERISTICS
I Primitive port/city		Ancient/medieval to 19th century	Close spatial and functional association between city and port.
II Expanding port/city		19th–early 20th century	Rapid commercial/industrial growth forces port to develop beyond city confines, with linear quays and break-bulk industries.
III Modern industrial port/city		Mid–20th century	Industrial growth (especially oil refining) and introduction of containers/ro-ro (roll-on, roll-off) require separation/space.
IV Retreat from the waterfront		1960s–1980s	Changes in maritime technology induce growth of separate maritime industrial development areas.
V Redevelopment of waterfront		1970s–1990s	Large-scale modern port consumes large areas of land/water space; urban renewal of original core.
VI Renewal of port/city links		1980s–2000+	Globalization and intermodalism transform port roles; port-city associations renewed; urban redevelopment enhances port-city integration.

Figure 7. Hoyle new version of his own model, including a sixth phase where port and city reconnect. Other authors such as Schubert (2011) also reflected on the matter. Source: Hoyle (2000:405).

ports have become unbalanced power boards, in which the interests of TNCs dominate over those of local actors (van der Voorde and Vanelslander, 2008). The implementation of the landlord port governance model and the corporatization of port authorities after the reforms occurred since the early 1990s, prioritizing economic results over other indicators have resulted in a disconnected port-city development. Today, the correlation between positive and negative externalities between port and city is unbalanced. The positive effects of the port spread over a broader territory, while the negative externalities remain in the city hosting it (Hesse, 2017; Merk, 2013). The investment ports require to remain competitive no longer generates enough positive effects to compensate the negative ones, namely in environmental and social terms (Hall, 2007; Grossmann, 2008). For port cities, ports no longer provide a competitive advantage against non-port cities, since urban development is increasingly independent from port development (Zhao et al., 2017), associated with a diversified economic model (De Langen, 2006). Hence, one of biggest challenge for port authorities is to develop sustainable port-city relationships, building on the tensions among the involved actors. These conflicts and tensions are most clearly visible in the port-city interface, particularly in the urban waterfront, that has become an arena where actors must engage and negotiate to defend their interests.

The port-city interface: an evolving concept

Hayuth (1982) was one of the first to investigate the port-urban interface, concerned with the increasing disconnection between ports and cities. He looked at this part of the port city as an area of transition, not just between port and urban, but also in itself, as an area where the ongoing maritime changes were visible. His reflection on the concept focused on the spatial and ecological system, including the social aspect. However, based on his work, the definition of the port-city interface as remained for decades linked to the physical location where the contact between the urban and port activities occurs. Hoyle (1988, 2000) building on this spatial approach developed his famous scheme (fig.8) to explain the evolution of the port-city interface. As we said previously, several authors have criti-

cized this model, considering it outdated (van den Berghe et al.,2018: 55,56)[13]. Besides the new conceptualization of the port, the work from Olivier and Slack (2006) also influenced new definitions of the port-city interface. Today, the port-city interface can be defined as a multi-layer entity, beyond the physical element, where port actors interact with urban ones (Hesse, 2017, quoting Merk, 2014). Hesse (2017), explains that the interface could be considered a geographic category on its own, also visible in other infrastructures such as airports[14].

The new definition of the port-city interface, understood as the place where strategic coupling[15] between port and city actors happens (Hesse, 2017), relates to the new focus on governance issues (Olivier and Slack, 2006). At the same time, the interface has reflected the unbalanced "playing field" ports have become, where the priorities of TNCs have dominated local interests. The port-city interface has become the scenario where we can see the port-city tensions, particularly in waterfront projects, either for the regeneration of port areas or new infrastructure. Daamen and Vries (2013) and Wiegmans and Louw (2011) researched the evolution of the port-city interface in the European and Dutch context, emphasizing the connection between the port-city relationship, the interface and waterfront regeneration projects. The latter has become a research field and urban planning concept on its own worth explaining.

The urban waterfront: becoming an urban imaginary

Although the port-city relationship started to be researched from the 1960s onwards, mainly by geographers, scholars from planning and architecture mostly started to discuss the issue when waterfront redevelopment plans became a global phenomenon, in the 1980s and 1990s (see Hoyle et al., 1988; Schubert and Harms, 1993; Bruttomesso, 1992, 1993; Breen and Rigby 1994, 1996, Meyer,1999)[16]. The famous interventions in north American cities in the 1960s became the new planning standard, applied by development companies and planners in port cities around the globe (Ward, 2011). In these projects, the goal was to regenerate the central waterfront that had become brownfields after the port relocated outside the city centre.

According to Schubert (2011), most waterfront operations followed a similar process, from dereliction and abandonment of central port areas to planning and redevelopment, i.e. port out – city in operations (fig. 8). Since the first operations in Baltimore and Boston in

13   Recently, as van den Berghe et al., (2018: 55,56) explain, geographers have criticized the original definition of the port-city interface for several reasons. These reasons include that the interface has scaled up to the metropolitan or regional scale, accompanying the evolution of the port, or that the complex relationships that occur between port and urban stakeholders is not limited to the physical context of the waterfront.

14   For an example of interfaces between airports and cities see the work of Johann (2015).

15   Economic and maritime geographers Hall and Jacobs (2010:1106), building on Coe et al. (2004), define strategic coupling as: "… the capacity of local actors to match critical regional assets with extra-local actors operating in global supply chains."

16   For a review see Wang (2014) or Charlier (1992).

the 1960s several generations of waterfront plans have been carried out[17], each with paradigmatic cases (e.g. London in the 1980s, Rotterdam, Barcelona and Genoa in the early 1990s, Bilbao later in the same decade, or Hamburg and Marseille more recently). They have been classified based on the predominant function (culture, housing, offices, public spaces or mixed use) or on the approach (market-led or public-led; see Schubert, 2011). The dominant logic in
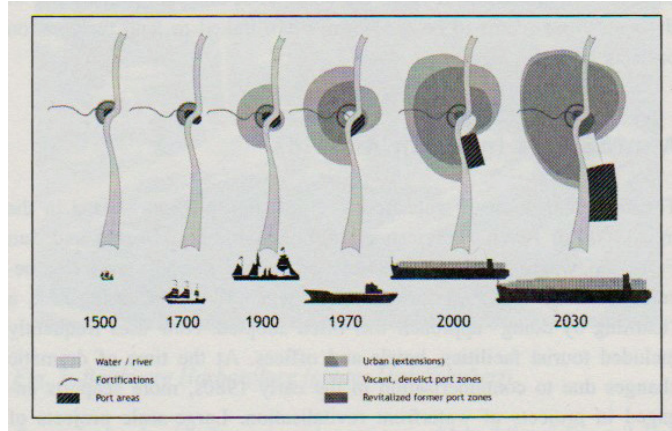
Figure 8. Schubert's explanation of the stages of waterfront transformations. This author emphasizes the connection between port migration, size of the vessels and waterfront redevelopment. (Schubert, 2008:33).

these operations has been regenerating former port areas to introduce urban programs. Different geographers have entitled this approach as post-modern waterfront, in which former productive areas on the waterfront are re-interpreted as a place of consumption and to look for new identities (Norcliffe et al., 1996). This rationale has led to port-free waterfronts, resulting from pre-cast urban operations[18], that Charlier (1992) entitled as the *Docklands Syndrome*[19], and Schubert (2008) as a process of *Rousification*[20].

While waterfronts provided an ideal scenario for *stararchitects* to show their craft with new landmark buildings by the water, politicians and real estate companies saw them as an opportunity to implement their agenda. For politicians, this was a way to improve the waterfront's (and often personal) public image or to attract international corporations and investment to compete with other cities (see Desfor and Jørgensen, 2004; Gordon, 1997). For real estate companies it was a profitable business (See Boland et al., 2017), given the increasing land values attributed to the water's edge, to implement high-end, gentrifying projects (Hein, 2016). The waterfront became the place to look to the future economic model of the city, based on clean public spaces, white collar jobs and a consumer-oriented, service-based society.

In the 1990s several authors emphasized waterfront regenerations as a "global success story" (Breen and Rigby, 1996). However, other scholars have also criticized these operations for their lack of diversity, gentrification and artificialization of the water edge (Marshall,

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17   For example, Shaw (2001) indicates four generations. However, his contribution is from 2001, since then there have been several waterfront redevelopments with different approach that could be consider a new generation. In chapter four we will see some of these new approaches.

18   See also Porfyriou and Sepe (2016).

19   See also Ducruet (2011).

20   See also Williams (2004: 115).

Figure 9. Examples of waterfront regeneration projects, emphasizing the similarities and déjà-vu sensation. From left corner, clockwise, Hamburg Hafencity project, Melbourne Dockland City, Oslo Aker Brygge and Auckland. Sources: HafenCity Hamburg GmbH by T. Kraus (https://www.brazilian-architects.com/pt/projects/); Bernard Spragg (https://commons.wikimedia.org/wiki/File:Docklands_City_of_Melbourne._(21403286029).jpg); www.visitoslo.com; http://www.freenzphotos.com/

2001). In some cases, these operations emphasize a *déjà-vu* feeling when visiting these areas (Diedrich,2013) (fig. 9), and are blamed for increasing the separation from the sea (Porfyriou and Sepe, 2016). Nevertheless, other scholars such as Brownill (2013) explain that this influence is not necessarily negative and that waterfront operations are a case of urban assemblage between global ideas and local specificities.

Despite this academic debate, more than fifty years of waterfront regenerations plans following the same rationale has influenced society and decision makers expectations for this part of the city. These operations were associated with an image of success, future economy and "cleanliness" as opposed to the image of pollution and the rough, industrial past of ports. We can consider this kind of operation as part of a new urban imaginary, the *post-modern waterfront imaginary*[21]. As Larkin (2010:416) explains, "urban imaginaries transform and are transformed by global and local encounters with capitalism, modernity, power, and globalization". In the case of waterfronts, this imaginary remains influenced by the post-modern ideal where no traditional productive activities happen on the waterfront, where the port will (and must) leave space for urban programmes.

The concept of urban imaginary is complex and sometimes controversial. It has been ex-

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21   The concept of urban imaginary has been previously linked with urban waterfront regeneration projects in cases such as Toronto (Cooper, 1994) or Beirut (Larkin 2010).

plored mostly in urban sociology (Lindner, 2006), geography (Soja, 2000), anthropology, urban history (Hein, 2015) and urban studies (Lynch, 1960). The definitions of these authors often refer to individual or collective images of the city based on their personal experiences (Bloomfield, 2006), mental constructs of the city (Bianchini, 2006) or how a city is represented in the media and the arts. However, we are more interested on the effect that urban imaginaries can have on planning and urban policies, since they represent the imagined or even desired future for the city (Linder, 2006) embedded in governance processes that, in our case, take place around waterfront projects. The influence of urban imaginaries in urban policy has been studied in other policy issues (e.g. migration, by Hoekstra, 2018). Although some authors (Bloomfield, 2006) indicate that urban imaginaries can be complementary to dominant narratives, in the case of the post-modern waterfront regeneration, we conceive it as the dominant approach to comply with the expectations grounded on global images of success and new economy, taken for granted as the "natural" step for this part of the city.

Daamen and Vries (2013) explain how the traditional approach to waterfront development (i.e. port out – city in) can damage the port-city relationship, diminishing innovative approaches. Furthermore, Wiegmans and Louw (2011) have noticed how the planning stages for waterfront redevelopment have changed, shifting from *port out – city in*, to *city in – port out* (see fig. 10). Nowadays, the port is often under pressure from the municipality, society and the real estate market to abandon the waterfront and leave space for new urban development. The urban waterfront imaginary, based on the redevelopment of these areas for non-port uses, has become institutionalised, influencing the decision-making process

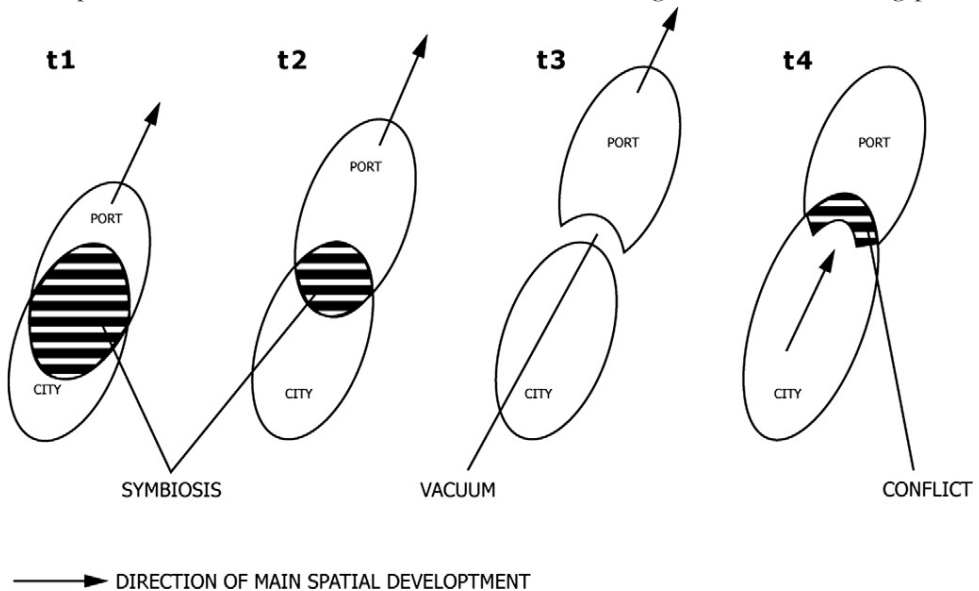Figure 10.Wiegmans and Louw (2011) proposal for the port-city interface, building on Norcliffe et al. (1996). In this figure the authors explain from an initial stage (t1) to the most recent on (t4) how the port no longer is expanding far from the city centre, while the city is expanding towards the port, causing a conflict for the possible takeover and redevelopment of active port areas. From Wiegmans and Louw (2011: 582).

and the governance of the port-city interface (Wiegmans and Louw, 2011; Daamen and Vries, 2013). These authors integrated the waterfront in the broader concept of the port-city interface, not only the central areas that no longer host port activities. Daamen and Vries (2013) and Merk (2013), go further and consider the waterfront areas controlled by the port authority as a key asset to establish a sustainable port-city relationship, particularly implementing hybrid solutions combining different functions.

Port city networks: recommendations for action

The EU has funded several urban policy research projects[22], fostering the collaboration between universities, municipalities, port authorities and international organizations. These projects have resulted in guides of good practices and recommendations to reduce the nuances of port activities. Several organizations in the port and maritime sector have also published policy documents with the underlying goal of sustainable port-city relationships (see table 2). For example, Ecoports[23] and Greenport[24] have platforms to share positive environmental practices. The European Sea Port Organization (ESPO) has published guides of good practices for social integration of ports (2010), environmental policies (2014), and for the cruise sector (2016)[25]. At the same time, ESPO (2018), has also published yearly reports with the environmental priorities of ports. AIVP (Association Internationale Villes et Ports)[26], dedicated to enhancing port-city relationships, published a guide of good practice (2015), showing positive examples for planning, environmental and social policies in port

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22   The EU has funded several projects in the past 15 years, in which port cities, port authorities and international organizations have collaborated providing policy indications. Projects such as SUDEST (2005-2007), Waterfront Communities project (2007-2010) or CTUR (2009-2011), focused on cruise traffic and urban regeneration.

23   Ecoports is one of the most relevant environmental initiatives in the European Union. Although it started as an initiative from several ports, it was integrated in ESPO in 2011 (https://www.ecoports.com/ visited on June 25th, 2018).

24   Greenport is an online platform sharing good environmental practices in the maritime world (http://www.greenport.com/ visited on June 25th, 2018).

25   ESPO is the European Sea Port Organization, the main European lobby of the sector. It has existed since 1993, and besides the guides of good practices, it sponsors an annual award to port initiatives and project that foster sustainable relationship with the community and environment (https://www.espo.be/ visited on June 25th, 2018).

26   The AIVP is the main organization focused on developing sustainable port-city relationships. Besides the guides of good practice, they organize a biannual congress on port-city interaction, including topics from waterfront redevelopment to environmental and economic issues. (http://www.aivp.org/ visited on June 25th, 2018). The author of this research has collaborated occasionally with AIVP since 2016. This collaboration did not influence the research since during we took the necessary precautions, by attending other scientific meetings, gathering different perspective on the role of these organizations, and interviewed actors in different contexts, also presenting different points of view.

cities and territories. The OECD (Merk, 2013)[27] expressed in their program focused on port cities the same concerns regarding sustainable development, focusing on the economic dimension, but also providing examples to diminish port's negative externalities. In 2008 the International Association of Ports and Harbors (IAPH)[28] presented the World Ports Climate Initiative[29] in which 55 port authorities expressed their commitment to reduce the greenhouse gases. More recently, in 2017, the same organization presented the World Ports Sustainability Program (IAPH, 2017)[30], supported by other organizations here mentioned (ESPO and AIVP) to foster cooperation among ports on sustainability measures, inspired by the SDGs set by the UN. Finally, from 2015 until 2020 the European project Portis, framed in the Civitas program from the EU is also researching the port-city relationship, and testing solutions, mainly focused on urban mobility[31].

The initiatives from these organizations have focused predominantly on compensating or reducing the negative effects of the "business as usual" approach to port development, i.e. dealing with the symptoms, and not curing the disease. Compensatory measures are necessary, but do not guarantee the long-term sustainability of the port-city relationship. The problem is repeating the same approach, and only increasing the expenditure on compensatory measures. The port-city relationship needs to be reconceptualized, based on the three pillars of sustainable development, implementing a new governance approach questioning the role of the actors and their capacity to act. In chapters four and five we will see how applying the business as usual approach resulted in failure, and a new approach was necessary to include other concerns than just economic ones.

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27   The OECD created in 2010 the port cities programme, conducting a series of case studies, mainly European, but also including cases in China or Chile, analysing the port-city relationship, mostly from an economic perspective. (http://www.oecd.org/regional/oecdport-citiesprogramme.htm visited on June 26th, 2018).

28   The IAPH is an international organization created in 1955, to foster dialogue between ports on common issues and seek for solutions with specialized technical committees. (https://www.iaphworldports.org visited on June 25th, 2018).

29   For more information see the website http://wpci.iaphworldports.org/ (visited on June 26th, 2018)

30   For more information see the website http://www.iaphworldports.org/ (visited on June 26th, 2018)

31   http://civitas.eu/portis (visited on November, 28th 2018).

Table 2. Examples of the guides of good practice or recommendations published in the last fifteen years in Europe about port-city relationships

Program	Org.	Topic	Partners	Conc. Year
SUDEST - UR-BACT	EU	Sustainable Development of Sea towns	Municipalities of Naples (L), Le Havre, Livorno, Matosinhos, Siracusa, Istanbul, Zarzis. Universities of Naples Federico II, Chieti-Pescara and Porto. Society Porto Vivo	2007
Waterfront Communities Project	EU	Waterfront redevelopment	Cities of Edinburgh (L), Hamburg, Oslo, Aalborg, Schiedam, Hull, Göteborg, Odense and Gateshead. Heriot-Watt University	2007
CTUR - URBACT	EU	Cruise Traffic and Urban Regeneration	Municipalities of Naples (L), Alicante, Dublin, Helsinki, Matosinhos, Rhodes, Rostock, Trieste and Varna. Port Authorities of Douro and Leixões, and Naples. Regional authority of Valencia. AIVP.	2011
Plan the City with the Port	EU/AIVP	General port-city relationship	Municipalities of Le Havre (L), Delfzijl, and Gdansk. Port authorities of Amsterdam and Riga. BIS and BEAN from Bremerhaven.	2007
Plan the City with the Port II	AIVP	General port-city relationship	Port Authorities of Brussels, HAROPA and Marseille-Fos. French Ministry of development and ecology and Ministry of the territory.	2014
ESPO Code of Practice on Societal Integration of Ports	ESPO	Social integration, SLO, Soft-Values	ESPO	2010
ESPO Green Guide; Towards Excellence in Port Environmental Management and Sustainability	ESPO	Environment	ESPO	2014
Code of Good Practices for Cruise and Ferry Ports	ESPO	Cruises and ferries	ESPO	2016
OECD Port-Cities Programme	OECD	General port-city relationship. Economic aspects	OECD	2013
Port City Innovations. Towards integrated Port City Projects	France's National Federation of Town Planning Agencies (FNAU)	General port-city relationship.	FNAU, Town planning Agencies of Bordeaux, Boulogne-sur-Mer, Brest, Dunkerque, Le Havre, Lorient, Marseille, Saint Nazaire and Toulon. Port Authorities of Dunkerque, Le Havre and Marseille. AIVP, Pierre Gras and Michele Collin	2011

2.3. Sustainable development: the importance of governance and the three pillars

In 1983, the UN created the World Commission on Environment and Development (WCED) to study sustainability and development [32]. Their main discoveries were presented in the report *Our common future* (WCED, 1987) - also known as the *Brundtland Report*[33]. This commission took a holistic approach to sustainable development, balancing social and environmental goals (Redclift, 2005), defining it as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987:8 and 43), emphasizing the intergenerational aspect. The report also introduced the three pillars for sustainable development: economy, environment and society, later also known as people, planet and profit. Today, the sustainable development agenda is still based on this key definition and three pillars that entail considerable complexity (Redclift, 2005; Griggs et al., 2013).

Since the publication of the Brundtland report, the UN has expanded the sustainable development agenda, publishing new documents and organizing world summits[34]. In the new documents and events, one of the main challenges was merging the interests of different countries and stakeholders, emphasizing the importance of governance. Since 1987, the UN has introduced goals and indicators to implement the sustainable development agenda, acknowledging the relevance of the institutional context (Spangenberg et al., 2002; Griggs et al., 2013; Redclift 2005). Although this agenda has evolved, broadening its scope[35], the three pillars identified in the Bruntland report remain the main influence and guideline for policy and planning documents, influencing the port-city relationships.

Barkemeyer et al. (2014), analysing the role of business in the sustainable development agenda, point out that the corporate world appropriated itself of this concept, imposing a technocratic perspective, prioritizing environmental concerns and downplaying the importance of social development. The concept of sustainability has been too often manipulated with "green washing" strategies to achieve a positive image and the Social License to

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32   UN Resolution 38/161 of 19 December 1983

33   The research group was led by Gro Harlan Brundtland, hence the name "The Brundtland report" (Williams & Millington, 2004).

34   Since 1987s the UN has organized several global events around the topic of sustainable development. In 1992, the Earth Summit took place in Rio de Janeiro, Brazil. The conference increased the awareness of SD, resulting in the development of the Agenda 21 document. This document built on the Brundtland report, with a stronger emphasis on the institutional dimension. In the year 2000 the UN celebrated the Millennium Summit in New York, USA. In this conference the Millennium Development Goals (MDGs) were presented, more focused on social issues, but also environmental problems and governance for SD. In 2015 the UN presented the Sustainable Development Goals, replacing the previous ones. These 17 new goals have a time frame extended until 2030. The document also includes 169 targets and 303 indicators.

35   For a review on different approaches to SD see the work of Williams and Millington (2004) and Hopwood et al. (2005)

Operate (SLO)[36] (Barkemeyer et al., 2014). The same authors commented that evaluation systems of sustainable development policies and practices have been distorted and manipulated to legitimise practices that may not be sustainable. Although Barkemeyer et al., (2014) criticize the role key economic actors have played in the last decades, they also acknowledge that the economy remains one of the three fundamental pillars and must be taken into consideration. These authors also explain that TNCs, such as large logistic or shipping companies, have an important role on the quest for sustainable development, particularly for their capacity to influence policy-making and governance that made them socially accountable (Barkemeyer et al., 2014). The increasing entanglement between different actors in planning settings, such as urban environments or ports have motivated several authors (e.g. Griggs et. al, 2013) to emphasize the importance of governance for sustainable development. Although traditionally public organizations have been considered responsible for sustainable development, since it relates to the common good, it has gradually shifted to a broader societal problem, also embedded in the corporate world (Crouch, 2012; Barkemeyer et al.,2014).

Although some authors have criticized the three pillars model (e.g. Holden et al., 2017), in port cities it remains crucial to structure sustainable port-city relationships. Port authorities have gradually developed plans and policies incorporating these pillars, trying to find a balance with the dominant economic goals. More specifically, port actors are gradually shifting to a new conception of the port-city relationship, incorporating the goals and concerns of all port-city actors, in economic, social and environmental pillars. This new relationship can be summarized in a new governance framework.

2.4.   Sustainable port-city relationships: a difficult balance

As we have seen, the dominant approach to sustainable development has been based on technocratic quantifiable goals. Having measurable goals implies considering sustainable development a concrete end that can be achieved. Since this approach has proven insufficient for port-city relationships, we build on the theoretical holistic conceptualization of sustainable development, defended by planners such as Campbell (1996) and Connelly (2007). Campbell (1996) introduced the well-known planners triangle, in which the three pillars (economy, society and environment) (see figure 11), occupy the three vertexes and sustainable development is an undefined area in the centre. According to Campbell (1996), conflict is inherent to the quest of sustainable development, since the goals are contradicto-

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36   The concept of Social License to Operate, or License to Operate (LTO), has been studied in management and law sciences, particularly related to large and/or heavy industrial activities, and companies and its relation with the local stakeholder and surrounding civil society. Gunningham et al., (2004:308) define SLO as "as the demands on and expectations for a business enterprise that emerge from neighborhoods, environmental groups, community members, and other elements of the surrounding civil society". Dooms (2014), building on Post et al., (2002), studied SLO in ports, explaining that port actors need to go beyond creating wealth (economic value) to gain social legitimacy, including more subjective perceptions to grant the acceptance of their activities in the local context.

ry between themselves. However, the planner can find complementarities between the pillars and build on them to solve the conflicts, and find a balance that is sustainable development. Campbell (1996) considers sustainable development a blurry concept that works as general aim or aspiration, that can never be fully achieved and only indirectly approached.
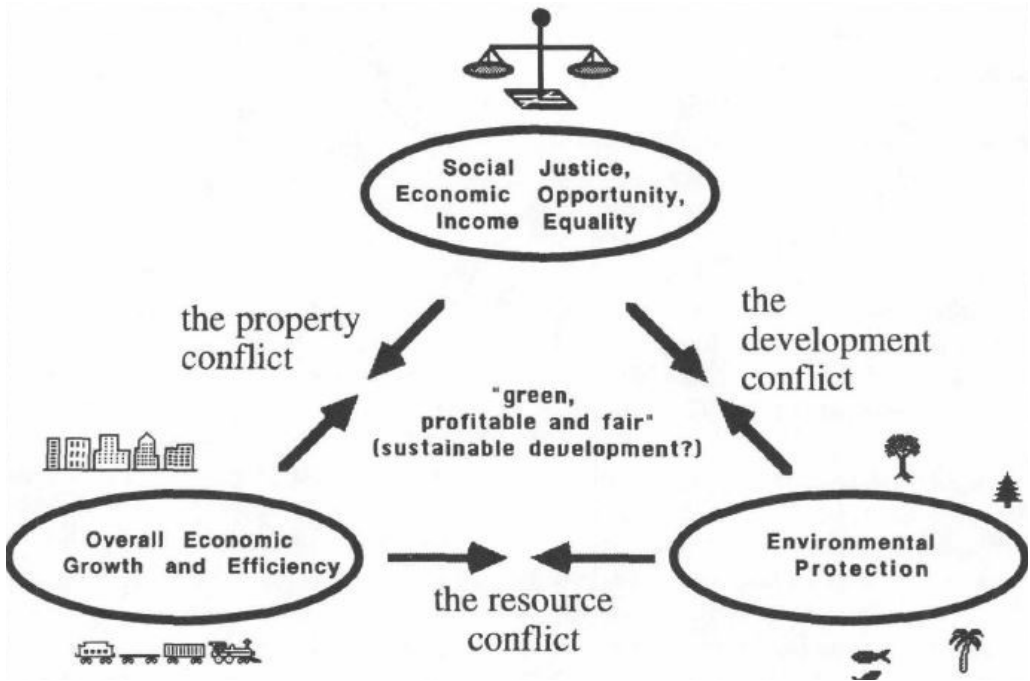
Figure 11. Campbell's "planner's triangle". These are the planning conflicts when aiming at Sustainable Development (Campbell, 1996:298). Campbell follows the original definition of SD based on three fundamental pillars, introduced by the WCED (1989).

Connelly (2007) building on Campbell (1996), explains that sustainable development is not an "either/or" concept, that can be defined in absolute terms, but a normative principle for planners that strive for the centre of the triangle. Further on, Connelly (2007: 262), building on Haughton & Counsell, (2004), instead of focusing on a closed definition of sustainable development, considers more relevant to accept it as a disputed concept and focus on "how ideals of 'sustainable development' are put into practice, and thus how the term is given concrete meaning". This practical approach intends to clarify what is sustainable development following concrete examples of what has been done to achieve it. This approach implies other issues concerning time, the dominant actors in concrete situations and the local characteristics, since these factors will influence the actions taken for sustainable development. The three pillars may not be equally supported, but one may be more dominant than other. In some cities, powerful actors may support specific actions in one pillar such as in environmental terms. For example, in the port of Helsinki, the new terminal was developed next to a Natura 2000 reserve, hence, local actors pressured for actions framed in the environmental pillar.

Depending on concrete examples to give more concrete meaning to sustainable development implies accepting that we will only get a temporary snapshot of this concept. Our knowledge on the effects of human activity on the planet is constantly updated, inspiring new regulations and initiatives that seek for a new definition of sustainability. Hence, following the practical approach defended by Connelly (2007), we must constantly assess what are the main social and environmental hazards and what are the most innovative solutions to seek for sustainable development. This process is also visible in the UN policy documents, that are constantly updated with new time frameworks and specific goals. Nevertheless, the measures that help us to give concrete meaning to sustainable development rely on the three fundamental pillars, the role of the planner remains the same, and conflict is an inevitable part of the tense relationships between the different goals.

For the new framework for sustainable port-city relationships we adapt Campbell's triangle. Sustainable port-city relationship is placed in the centre the triangle, between the three classic pillars of sustainable development. In the pillars we can identify goals for a port-city relationship. Sustainable port-city relationships are also considered a blurry normative concept that orients the actions of the port authority. The port authority plays the role of the planner, building on the conflicts and tensions between rivalling goals. Following the definition of sustainability given by Campbell (1996:304), as "the long-term ability of a system to reproduce", in port-city relationships, sustainability is then the long-term ability of the relationship to endure in time and adapt to the changing conditions and actors. To give a concrete meaning of sustainable port-city relationships, we followed the practical approach recommended by Connelly (2007), i.e. observing what actions do the relevant actors do to reach the ideal of sustainable port-city relationships. This definition is based on the preliminary analysis of policy documents from international organizations and European projects previously presented, and from European cases, where we could observe numerous examples of concrete actions to foster sustainable relationships.

The analysed documents also revealed that a new governance model embracing all sustainable development pillars is necessary. Key actors involved in the port-city relationship are already developing actions to improve it. However, the business as usual approach is characterized by a strategic coupling benefiting port companies. This model prioritizes the economic pillar and the goals of international corporations over the other two pillars, society and environment, which are often left out or rhetorically incorporated.

The new framework normatively assumes strategic couplings between the different actors in the port-city interface, with goals from all three pillars. The process implies continuous dialogue with local partners and environmental groups, conceding influence over the decision-making process. Despite the common problems in the port-city relationship, local characteristics (topography, formal and informal institutional frameworks, national governance model, or power balances between port and urban actors) make each port-city relationship unique. Hence, the conceptual framework here proposed, must be adapted to different contexts. At the same time, technological innovations allow different solutions, and the negative effects of port activities are better known, hence the framework will also

have to be updated in future research or policy documents. Although sustainable port-city relationships may never be completely achieved, but constantly quested, it remains an ideal guiding the actions of port authorities to look for the centre of the triangle (see fig. 12).

With this framework we answer one of the research sub-questions presented on chapter one, concerning the definition of sustainable port-city relationships. At the same time, the framework could also potentially be a "tool" to evaluate these relationships. Instead of developing a score or grading system, attributing points for each action developed to achieve sustainable port-city relationships, we propose the framework as theoretical ideal standard to evaluate the different cases. The selected cases can be compared with this sustainable port-city relationship framework and assess how far have they come. To make a full assessment of the port-city relationship it would be required to perform an in-depth survey of all actions that could influence the port-city relationship and compare them with those that compose the three pillars of the sustainable port-city relationship framework. As we indicated, this ideal remains a theoretical model that we are aware cannot be achieved but can guide the actions of the port authority. Port-city relationships in "real world" situations are far more complex, since other factors condition the behaviour of the key actor (e.g. available budget, political power struggles, hidden interests, macroeconomic phenomena, etc).

Economic
Fostering long-term prosperity through innovation
Employment, Value Added

Sustainable port-city relationships: processes and outcomes

Socio-Cultural
Developing an identity and sense of belonging through place-making
Celebrating History, Re-Using Heritage

Environmental
Creating healthier and permeable landscapes through adaptation
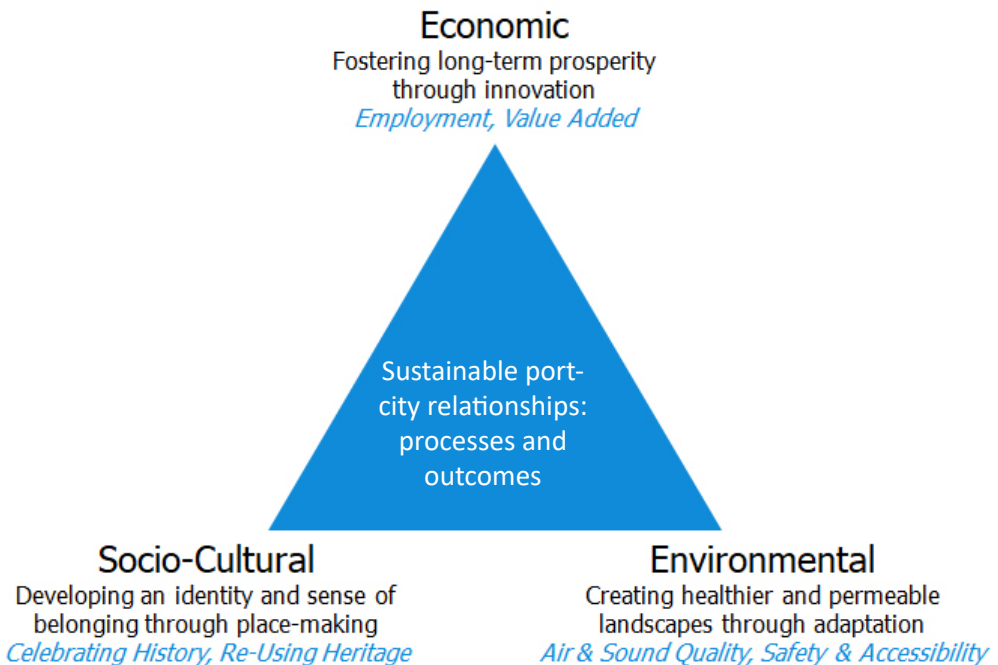*Air & Sound Quality, Safety & Accessibility*

Figure 12. Conceptual framework of sustainable port-city relationships.

Economic pillar

In the new framework, the economic pillar aims at long-term development through innovation, creating employment and added value. Although traditional port operations no longer demand the work force they used to, added valued services can generate jobs, complementing cargo movement and the classic logistic activities such as port knowledge-based industries or circular economy based companies. At the same time, the physical port-city interface has spaces suitable for start-ups linked to the port and maritime sector. These spaces also provide facilities for new companies not directly related to the port, but that benefit from other characteristics, such as lower rents or the presence of the maritime cluster, with broader connections (Witte et al., 2017).

Social Pillar

The social pillar is focused on developing an identity and sense of belonging through place-making and citizen engagement. In the past, the local port city identity was a by-product of economic and logistic activities (Mah, 2014; Warsewa, 2011). The increasing automatization of logistic processes, physical separation and new security rules[37],among others, broke this natural socio-cultural "spill over". However, today, port authorities consider this pillar to grant political support, crucial for port development, and to preserve or achieve the SLO. Although port social initiatives have grown during the second half of the 20th century (e.g. Hafengeburtstag festival in Hamburg), most ports have only recently adopted these practices, based on exploiting their soft-values. van Hooydonk (2007) defined this concept (Soft-Values of Seaports) as the non-socioeconomic values including historical, sociological, artistic and cultural sub-functions that form the soft-function of seaports. Traditionally, port authorities have used soft-values in public relations campaigns to foster a friendlier port image, for example in port-visits, artistic collaborations, or in port heritage refurbishment for new functions.

Today, port social actions go beyond the image and identity, and include port development discussion and education initiatives. Some port authorities are creating Port Centers to explain and discuss the port (see box 1). For example, in Livorno, the Port Center was an important tool for the *Dibatitto in Porto* (debate in the port) to discuss two port projects (Morucci and Bicocchi, 2016; Morucci, 2017; Marini and Pagés Sánchez, 2016). Another example is the port of Barcelona that created a program linking the nautical cluster and several high schools, in which teenagers could learn a profession while continuing with their studies[38].

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37   For example, the ISPS (International Ship and Port Facility Security) Code regulating the access and security to port areas, operative since 2001, limits the casual interaction between the population and the port.

38   https://agora.xtec.cat/ins-nauticabcn/ (visited on November 28th 2018).

Box nº 1

Port Centers

Port Centers are a tool created by port city stakeholders to explain and discuss the port with the public, usually but not only, including a physical space with exhibition material following an edutainment approach. Marini and Pagés Sánchez (2016) identified two generations of port centers. This concept was firstly implemented in the port of Antwerp in 1988 and in Rotterdam, in 1994 (see fig. 13). The second generation emerged during the first decade of the 21st century. Different actors, from port authorities and municipalities to business associations, have sponsored and supported port centers in port cities around world, including for example Genoa, Le Havre, Bilbao, Vancouver or Melbourne. Although the initial goal was to develop a tool to explain the port to a broader audience, mostly focusing on younger generations, the concept has evolved to agglomerate other functions such as citizen participation in public debates, disclosing the cultural initiatives related to the port and supporting the soft-value agenda. Port centers are gradually becoming a forum where citizens can take a more active role in port planning, before there is confrontation caused by port projects, possibly climbing Arnstein's public participation ladder (1969), from tokenism to active partnerships and participation. In this sense, the new interpretations of port centers could relate to another urban planning concept, *living labs*. Living labs provide innovative ways in which stakeholders, experts and users can interact to develop solution for urban problems (Steen and van Bueren, 2017). One example of the broader approach to the concept of port center and public participation is Livorno, where the Port Center was useful for the *Dibatitto in Porto* (debate in the port) to discuss two port projects (Morucci and Bicocchi, 2016; Marini and Pagés Sánchez, 2016). Morucci (2017) explores in her PhD the case of the Port Center of Livorno, how can the concept be developed and the impact it can have in the relationship between the port and city combined with a social agenda.

The AIVP created in 2011 the Port Center Network along with other partners (PAs of Genoa and Antwerp) to exchange good practices and increase the implementation of the concept in more port cities. Among its members, we can find the Port Centers of Antwerp, Rotterdam, Genoa, Livorno.

From a theoretical point of view, port centers could also be considered a strategy from port (city) actors to avoid neglecting the citizens in the planning process. As Koppenjan and Klijn (2004) indicate, neglected actors in the initial phases of a planning or policy processes may later join the discussion already from an antagonistic position, more violent, not just because they could feel that their interests have not been respected, but also for the disrespect in itself. Appropriately using port centers could avoid these situations, working as a tool for port city co-creation.

Figure 13. EIC Port Center in Rotterdam. This facility is mainly sponsored by Deltalinqs, the association of companies of the port of Rotterdam. The port authority is another sponsor. EIC organizes port visits and has an exhibition area prepared for school where they can learn about the port. One of the main motivations of this initiative was presenting the port as an attractive place to pursue a professional career and tackle the lack of qualified staff in port companies. Source: AIVP.

Environmental Pillar

The environmental pillar has gathered more attention in port governance over the last decades (see Lam and Notteboom, 2014). Social and political pressure have forced port authorities and port companies to develop green policies, to obtain or keep the SLO. In this pillar, the goal is to create healthier and permeable landscapes adapting port functions to the environmental requirements. Besides logical environmental issues, such as air or acoustic pollution, the traffic congestions, or creating green energy, this pillar also includes other problems such as ensuring the safety of the inhabitants, preserving local biodiversity, or visual permeability to the water and waterfront accessibility.

The actions reinforcing the environmental and social pillars here described take place on the general policy level. However, the main decoupling occurs in the key waterfront projects (e.g. container and cruise terminals, new landfills or roads and railways), where the tension between the local fixities and global flows is explicit Despite the increasing social awareness and new environmental laws, most port authorities are frequently bounded to prioritize the business as usual approach to decide port development projects. Economic viability of ports is the main priority of port authorities, hence profit making, ensuring traffic, and efficient connection between maritime and land infrastructure is the only lens through which their performance is measured. As we will see in the following chapters, the legal definition of most European port authorities does not explicitly supports a sustainable port-city relationship. The proposed framework integrates all pillars, also in port development projects, possibly creating tensions and governance dilemmas.

2.5. Port authorities leading for sustainable port-city relationships

The new framework challenges the traditional governance model, beneficial for several port actors, and questions the status quo. Although there are cases in which the involved actors apparently establish a new type of governance, often these strategies are superficial or temporary, without affecting the core problem. Changes in the traditional approach to port development are rare, and often limited to technological upgrades to improve the efficiency. The role of port authorities in the port-city relationship today is often confusing, as can be seen in planning dilemmas emerging in port projects, particularly between economic goals and environmental and social ones (Acciaro et al., 2014). However, these organizations can potentially lead sustainable development governance in port cities if they are capacitated to do so.

Port authorities have a dual nature, since they are competing in the free market, but controlled by the local or national government, while at the same time responsible for the public good (Acciaro, 2015). In the new framework, the port authority balances the goals in the three pillars, the interests of the actors and the negative externalities to make the port-city relationship sustainable, i.e. to increase its ability to reproduce in the future. Port authorities can lead a sustainable port-city relationship, fulfilling the role of the planner in Campbell´s model (1996). However, to fulfil this role, these organizations must be redefined, overcoming conceptual conflicts and gaining new attributions.

Several researchers have pointed out the need of a new port authority role in port governance, mostly focused on economic issues. In de Langen's port cluster theory (2006), this organization must handle port-city-territory conflicts and tensions, developing accommodations [39]. Other authors, such as Vries (2014) or van der Lugt et al. (2013,2015), explain how port authorities are increasingly going beyond the traditional landlord role, taking a more entrepreneurial approach. Verhoeven (2010) describes a reconceptualization of public port authorities, having a renewed role, embracing the three pillars of sustainable development.

The main regulations and decisions affecting the port-city relation are taken at a national or global level, such as planning laws, national infrastructural plans or the laws dictating the attributions of port authorities and municipalities. Hence, port authorities are in a weak position either dealing with global corporations that control the logistic chain and the market, or with higher governmental levels defining the legal framework. These organizations are limited by the boundaries imposed by higher hierarchies, laws, and the market´s "iron

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39   de Langen (2006: 465,466) indicates that accommodations are not definitive solutions for port related conflicts, but temporary settlements between conflicting interests and actors, that allow port activities to proceed. Accommodations are temporary because, as de Langen (2006) indicates, goals, strengths and strategies change over time.

grid"[40]. Its capacity for actions for a sustainable port-city are stronger in specific waterfront projects, acting within the rules that structure its relationship with the other actors, or stretching them.

Port authorities can only lead if its own attributions allow it to, but the dominant governance model prioritizes traffic growth over sustainable port-city relationship pillars. If there is an unbalanced correlation between them, i.e. if the economic pillar dominates over environment and society, the port-city relationship will not be sustainable in the long-term. The proposed governance framework requires a leading actor capable of establishing strategic coupling in all pillars with community groups, companies and organizations. This capacity must be explicit in the legal structure, otherwise the business as usual governance prevails, threatening the long-term sustainability of the port-city relationship.

2.6.   Analysing the port-city relationship

In this chapter, we explained in detail the problem of port-city relationships, definitions given in the 20th century and the new conceptualization of ports. We proposed a new framework for understanding and analysing port-city relationships, emphasizing the role of the port authority as lead actor in the governance process around waterfront projects. However, there is a knowledge gap in understanding how port-city relations are governed and how these relations can become (more) sustainable. This research will contribute to fill this gap applying an institutionalist perspective to port-city relations in a comparative and in-depth case studies. We need to know the fundamental rules that govern and influence the interactions between the main actors in the port-city relationship, particularly the capacity for action of the port authority. In the praxis literature we could find countless ideas to improve the port-city relationship. However, the literature we reviewed does not question the mission of the port authority fundamentally, i.e. how it is socially and legally conceived. In the academic literature, we could find research focused on the logistic reliability of ports, their role as economic engines and different environmental strategies to reduce their impact in the ecosystem. At the same time, there have been also authors that explain that port authorities have broader missions than just landlords, often including social goals. However, most port authorities have not changed their focus to adopt broader conceptions of the port within their missions. Hence, we can only assume that something is impeding this change, i.e. rules that dictate a certain behaviour of these organizations. In the meantime, port city citizens, planners and politicians have developed a specific expectation for the urban waterfront, influenced by a socio-cultural phenomenon we have termed the 'waterfront imaginary' that has the capacity to change the conception of port waterfront space and beliefs about its appropriate uses.

To fill the knowledge gap regarding sustainable port-city relationships and analyse the interaction between the relevant actors we need a theory that considers the rules that govern

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[40]   The expression "iron grid" was coined by Merk (2016) referring to the few companies that control the global logistic chains. This expression was first heard in his keynote speak during a conference on megaship, organized by the AIVP in Mála, Spain, in 2016.

society and the roles of actors. Institutionalism will provide us a theoretical base on which we can build our research framework and analyse case. Only by discovering the influence of these rules we will be able to propose solutions that go deeper than the usual "surface" actions.

Chapter 3. Actors and institutions in port cities

3.1. Introduction

In the previous chapters, we have defined the port-city relationship as both the process and outcome of rules and actions (re)produced by the actors involved in developing waterfront projects within a port city, building on the work of Olivier and Slack (2006) and Daamen and Vries (2013). Although we place this research in the field of urban and regional planning and governance, we share the concerns and analysis methods with urban geographers, and sociologists, focusing on the actors of the port-city relationship and the rules that structure their interactions. For this reason, we need to introduce theoretical elements common to political sciences, economics and sociology. Hence, we aim to look at the port-city relationship from a novel perspective, emphasizing the inherent links between governance processes and the outcomes produced.

In this chapter, we start by discussing the different theoretical approaches to study complex problems like port-city relationships. We determine that (actor-centered) institutionalism offers a useful theoretical perspective for analysing the cases and answer our research questions. In section 3.3. we explain this theoretical perspective and how it helps to analyse our cases. In doing so, we explain the main differences between three branches of institutionalism, and the key concepts from each one. In the following section (3.4) we observe how institutional theory has been used in planning and port-city research. Although political scientists, sociologists and new institutional economists have developed the theory in "pure" form, we will show that scholars from other disciplines have also used a combination of concepts from different branches of institutionalism in order to explain complex phenomena. Finally, in section 3.5, we explain the research framework, our attention for the role of one key actor and the main stages of the investigation, the comparative analysis of European port cities and the in-depth case of Lisbon.

3.2. Theories for port-city relationships: focusing on actors and rules

Port-city relationships have been analysed from different perspectives, in different disciplines. We can emphasize the work of urban historians (e.g. Braudel, 1995; O'Flanagan, 2008; Hein, 2011), urban planners (Schubert, 2018; Bruttomesso, 1993; Meyer, 1999; Daamen and Vries, 2013), maritime/economic geographers (Bird, 1963; Hoyle, 1988, 2000; Hayuth, 1982; Hesse, 2017; Hall and Jacobs, 2012; Notteboom and Rodrigue; 2005; Ducruet, 2007, 2011) sociologist, anthropologists and ethnographers (Driessen, 2005; Kokot et al, 2008; Warsewa, 2011; Mah, 2014). However, as we mentioned in the previous chapters,

there has been a paradigm shift from the first models developed by geographers such as Bird (1963) and Hoyle (1988) to the most recent conceptualization from Olivier and Slack (2006). While the first focused on the logic behind the territorial evolution of the port-city relationship, emphasizing technological drivers, the latter focused on port actors and the (strategic) relationships that explain territorial investments and thus the spatial evolution of ports. This paradigm shift has also influenced scholars studying the port-city relationship. To understand the relationship between port and urban actors, scholars from the disciplines of geography, planning, history and management have borrowed theoretical elements from other fields like sociology. The work of Hoyle (1988) and Bird (1963) offered a relatively simple explanation of the port-city relationship, with a very clear *action-effect* principle. Their models presented a sequence of interconnected changes. First, new maritime technologies required more space at port, forcing them to expand and relocate outside the city centre looking for area. As consequence of this, urban waterfronts were first abandoned, and finally regenerated for new urban programs. Studying the port-city relationship focusing on (inter-) actor behaviour implies accepting its broader complexity. The models from Bird (ibid.) and Hoyle (ibid.) do not comprehend this complexity, hence a relational approach benefits from sociological theories.

One possible theoretical approach to study port-city relationships can be found in the work of Hein (2011). This author developed research focused on network analysis to explain the global nature of the port-city relationship and the interconnected phenomena that form the build environment. This concept can also relate to *path dependence*, used mainly in historical research to explain the influence of past events in the current situation. As we will see, this concept is addressed in *historical institutionalism*, particularly emphasizing the power unbalance and lock-in scenarios, in which it is unlikely that change occurs since it would break the status quo.

Considering that we conceptualize the port as a community of actors and the port-city relationship as the outcome of interactions between them, *Actor-Network Theory* (ANT) could be a useful approach too. This theory was developed by Michel Callon, Bruno Latour, and John Law in the 1980s (Martek and Lozanovska, 2018; Marskamp, 2014). Despite its name, ANT is not considered a theory, but rather a method or analytical framework to explain how heterogenous actors associate and negotiate to form actor-network relationships. In this methodology actors are not only human, but also non-human (i.e. natural and material objects). This is a defining characteristic since it implies giving a role to objects such as floorplans or contracts (see Martek and Lozanovska, 2018). This theory could be an interesting methodology to explain the port-city relationship, since it focuses on the effects one actor has over the others rather than on what the actor is. However, as pointed by Modell et al., (2017), given its definition of the actors – particularly non-human ones – most research following this method emphasizes this last type of actor.

However, ANT has also been criticized in its application to planning. For example, Boelens (2010) encounters three fundamental issues in the direct application of ANT to planning. The first criticism is its pure analytical nature, that only focuses on past issues, understand-

ing where we are and what has happened without proposing solutions. This is problematic for a normative, prescriptive field of research like planning. We can argue that focusing on the rules and understanding them gives us the chance of changing the process and improve the planning of the port-city interface, as we will see. The second issue for Boelens (2010: 39) is assigning active roles to non-human actors in planning processes. This author explains that non-human elements (e.g. heritage, materials, climate) are indeed present in urban planning, but represented through or by human actors. Finally, the same author indicates that ANT does not explain how actor associations are integrated in broader settings or how are they supported (Boelens, 2010). This is problematic since planning must solve problems considering broader contexts, and that the consequences of planning processes will affect generations to come.

We agree with Boelens (2010), and follow another theoretical approach, institutionalism, more concretely the variant developed by Scharpf (1997) named *Actor-Centered Institutionalism*, in which he emphasizes the role of the actors and the rules that guide the relationships (institutions). There are several reasons why we chose actor-centered institutionalism instead of other theories such as ANT. Following Scharpf's (1997) definition, we focus on what he calls composite actors i.e. actors with the capacity for actions above the level of individuals that form them. These actors can take a proactive role in a planning processes (such as waterfront projects) or during the continuous interaction with other actors pursuing their goals. Obviously, in practice, there can be disagreements between the different levels of these actors, an issue that we will explore further ahead in the focus projects in Lisbon and in the conclusion [41]. These actors are for example the port authorities, municipalities, port companies, real estate companies, citizen organizations, or NGOs.

The second reason is that, based on previous research, we acknowledge the importance of rules influencing the behavior of the actors. These rules are crucial elements to structure social interactions, particularly the ones between port and city actors, hence it is necessary to discover and understand their influence. Thirdly, institutionalism allows us to make a better transition between explaining current praxis and proposing ways to improve port-city relationships. There have been promising results applying institutionalism in port research and, in fewer cases, in port city studies. Therefore, it is worth further exploring the explanatory value of this theory in the port-city relationship and expose what could make it more sustainable in the long-term.

3.3. Institutionalism: a fundamental theory to analyse complex problems

Early institutional theory was originally used in economics, political sciences and sociology during the second half of 19th century and first decades of the 20th (Scott, 2014).

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41   In-depth interviews with port authority employees became a crucial source of information to assess the level of disagreement between individuals forming the composite actors. This disagreement breaks the uniform image transmitted in official documents and allows us to see the conflicting visions that coexists inside a complex organization such as port authorities.

Originally, organizations were also included in the definition of institutions. Today, colloquially, public organizations are still called institutions. However, institutional theory was abandoned during most part of the 20th century, until the 1960s and 1970s, when it was recovered as a reaction to the existing explanations of social interaction (Hall and Taylor, 1996). When social scientists recovered institutional theory, mainly economist, sociologist and political scientists, they provided new definitions for institutions, excluding organizations (Sorensen, 2018).

Although neo-institutionalism (hereafter institutionalism) can have several branches, authors such as Hall and Taylor (1996), and Sorensen (2018) identify three main theoretical streams, all emerging almost simultaneously in the 1970s. These are *rational choice*, *historical institutionalism* and *sociological institutionalism*. Although they explain differently the role of institutions, why they exist and how they change, they share key concepts. There are several definitions of institutions, depending on the stream the author follows (Scott, 2014). Despite their common aspects, there have been few successful attempts to merge or combine concepts from each stream, while the theory is only starting to be used in urban planning theory (Hall and Taylor, 1996; Sorensen, 2018).

Rational choice

North (1991: 97), one of the most prominent scientists in rational choice institutionalism, defined institutions as the "humanly devised constraints that structure political, economic and social interaction". For rational choice institutionalists, the role of institutions is to reduce the cost of economic transactions and to make the results of these transactions and the behaviour of the actors predictable. Institutions allow economic activities to take place. North (1991) also indicates that there are *formal* and *informal* institutions. The first are the laws and property rights, which exist in written documents and are enforced via punishment. The latter are taboos, traditions and customs that are socially embedded and enforced. For rational choice institutionalists, institutions change following an efficiency logic, in which efficient institutions endure, while inefficient ones disappear or change. This rationale is applicable to formal institutions, the ones that can be purposely changed and designed. On the other hand, informal institutions are socially based, therefore they evolve slowly along history, and cannot be purposely changed.

Williamson (1998), another key author of rational choice and new institutional economics, explained the different levels of institutions and how the dialectic process between them inducing change. According to his scheme (fig. 14), there are four levels of institutions, each studied by a different scientific discipline and each with a different scope and change rhythm. From the top level, informal institutions, to the bottom one, regular economic activities, there is a continuous influence. The author indicates that the higher levels impose constraints over the lower levels, and that at the same time these ones produce a feedback that might influence the higher levels. The top level, the informal institutions, which have not been purposely designed, can determine the success or failure of the institutions in the lower levels. This spontaneously created level takes centuries to be modified, and, cannot

be purposely crafted. On the other hand, society intentionally modifies levels (L) 2 and 3. L2 includes the formal institutional environment, while L3 is the governance.

	Level	Frequency (years)	Purpose
L1	Embeddedness: informal institutions, customs, traditions, norms religion	10^2 to 10^3	Often noncalculative; spontaneous (caveat: see discussion in text)
L2	Institutional environment: formal rules of the game—esp. property (polity, judiciary, bureaucracy)	10 to 10^2	Get the institutional environment right. 1st order economizing
L3	Governance: play of the game —esp. contract (aligning governance structures with transactions)	1 to 10	Get the governance structures right. 2nd order economizing
L4	Resource allocation and employment (prices and quantities; incentive alignment)	continuous	Get the marginal conditions right. 3rd order economizing

L1: social theory
L2: economics of property rights/positive political theory
L3: transaction cost economics
L4: neoclassical economics/agency theory

Figure 1. Economics of Institutions

Figure 14. The four levels of social analysis according to Williamson (1998: 26).

Williamson (1998), building on Coase (1937), explains the interaction between the rules of the game (institutional context) and playing of the game (governance). This interaction is key to understand more recent research developed on the port-city relationship and has been used by other authors such as Notteboom et al. (2013) and Daamen and Vries (2013). We will later build on the dialectic process between governance and institutional settings, and how there is a continuous flow between both.

In his synthesis of neo-institutionalism, Sorensen (2018) presents the problems of rational choice. This branch of institutionalism oversimplifies the complexity of human motivations, assuming that actors only operate instrumentally, strictly following their best interest with strategic actions (Hall and Taylor, 1996). At the same time, rational choice is criticized for disregarding macro social structures, missing the "big picture" of how social actors work, and the influence past decisions may have today (Sorensen, 2018). In addition, rational choice explains institutional change based on efficiency, but there are institutions

that endure although they are not efficient. Finally, in researches following rational choice branch, the role of informal institutions is often neglected, despite the important effect they can have in economic transactions. Traditions and beliefs influence the actors' choices and motivations; hence, they should be included in the analysis.

Historical institutionalism

According to Hall and Taylor (1996:938), historical institutionalists define institutions as "the formal or informal procedures, routines, norms and conventions embedded in the organizational structure of the polity or political economy". One of the main issues for historical institutionalism is power and power asymmetries. Sorensen (2018), building on Mahoney (2010), explains how institutions unevenly distribute power, benefiting certain actors over others. Actors that benefit from the existing institutional framework will defend it from a more powerful position, generating path dependency. The uneven distribution of power creates positive feedback loopholes for the actors in the powerful positions, reinforcing institutional continuity. Given the explicit connection between power and institutions, the traditional explanation for institutional change provided by historical institutionalism is based on its definition of history. In this stream, history is considered a succession of periods of continuity, interrupted by critical junctures when institutional change happens, and branching path takes place (Hall and Taylor, 1996). However, as Sorensen (2018) indicates, this traditional explanation is currently discussed, and authors such as Thelen (2004) argue that institutional change takes place incrementally, outside the critical junctures.

Sociological institutionalism

Sociological Institutionalism gives a broader definition of institutions, they "include, not just formal rules, procedures or norms, but the symbol systems, cognitive scripts, and moral templates that provide the 'frames of meaning' guiding human action. Such a definition breaks down the conceptual divide between 'institutions' and 'culture'" (Hall and Taylor, 1996: 947). Hence, institutions do not provide just the rules for strategic actions, they also construct the understanding and interpretation of individuals of different situations. This broader definition of institutions is based on a reinterpretation of *culture*, as a complex set of rules and structures, constituting resources that can be strategically used (Di Maggio, 1997; Sorensen, 2018). Culture in itself can be considered an institution, as a network of routines and symbols or scripts providing templates for behaviour and interpretation (Hall and Taylor, 1996).

Unlike rational choice, sociological institutionalism downplays the importance of the actor's individual choices, since they are framed in a broader institutional-cultural framework, influencing their interpretation and reactions (Hall and Taylor, 1996; Sorensen, 2018). Hence, based on this deeply embedded cultural definition of institutions, they do not evolve based on their efficiency to achieve the actor's goals, but based on how they are socially accepted and how they allow the actor to express its identity, what Sorensen (2018) defines as "institutional isomorphism". This is a slower process than in other institutionalism branches, since changes in the institutional structure imply cultural changes that take longer to occur.

However, more recently, other authors have provided alternative explanations for institutional change in sociological institutionalism. Sorensen (2018) explains the great influence of the work of Healey, bridging sociological institutionalism and planning theory. Healey (1997) defends that governance and institutional change are constantly influencing each other, in a permeable relationship. Actors are not just bounded by institutions, they also reproduce them, potentially changing them. According to Healey (1997), this fluid process between institutional settings and governance processes is particularly visible in the municipal scale, mainly in public participation process, where citizens more clearly understand the spaces and rules discussed. In this context, there are processes of institutional discussion and co-creation of new institutions and governance practices. Koppenjan and Klijn (2004), building on Giddens (1979, 1984) defend a similar idea but from a network definition perspective, without concretely defining the context where the change process is more likely to happen. More specifically they indicate that the rules and meanings inside a network provide meaning, they are also formed, sustained and changed through the interactions between the actors; these rules are necessary for action but also changed because of it (Koppenjan and Klijn, 2004: 73)

Although rational choice and sociological institutionalism seem drastically opposed, the authors we have here mentioned share several concepts or approaches, for example on institutional change. Both recognize that there is dialectic process between governance and institutions. We can find similarities between the work of Healey (1997) and the model provided by Williamson (1998). The influx between the different levels of institutions takes place equally. However, Williamson (1998), as rational choice theorists, assume informal institutions as fixed and focuses on the market functioning, while Healey (1997), providing a more concrete context, the municipal scale, shows how governance and institutions are connected and how, in public participation processes, culture is produced, hence the cognitive level of institutions is changed.

Among social institutionalists, we highlight the work of Scott (2014), who explains that institutional arrangements are based on three pillars: *regulative*, *normative* and *cultural cognitive* (see table 3). He defends, as most sociological institutionalism theorists, that institutions not only determine the answer of the actor to certain situations, but also the actor's interpretation of reality. He defines institutions as "multifaceted, durable social structures, made up of symbolic elements, social activities, and material resources", that "comprise regulative, normative, and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life" (Scott, 2014: 56-57). Scott also acknowledges the connection between different pillars in the institutional framework, explaining that some institutional arrangements are based on all three pillars, while others prioritize one or are even exclusively supported by one pillar. This is one of the most interesting elements in Scott's theory, that it is possible that pillars are misaligned, generating doubt and confusion on the actors. This idea is crucial for our interpretation of the port-city relationship.

Table 3. The three pillars of Institution. Adapted from Scott (2014:60).

	Regulative	*Normative*	*Cultural-Cognitive*
Basis of Compliance	Expedience	Social Obligation	Taken-for-grantedness Shared understanding
Basis of order	Regulative rules	Binding expectations	Constitutive schemes
Mechanisms	Coercive	Normative	Mimetic
Logic	Instrumentality	Appropriateness	Orthodoxy
Indicators	Rules, Laws, Sanctions	Certification Accreditation	Common beliefs Shared logics of action Isomorphism
Affect	Fear Guilt/ Innocence	Shame/Honour	Certainty/Confusion
Basis of legitimacy	Legally sanctioned	Morally governed	Comprehensible, Recognizable, Culturally supported

Another interesting element of Scott's theory is the emotional link of the different pillars. Hence, institutions are not simply the "rules of the game", as rational choice defends, but the bare structures, morally rooted, that allow actors to interpret the world and react based on their interpretation. Although sociological institutionalism does not fully reject the instrumental decision-making rationale from rational choice, it frames it in a broader institutional framework, emphasizing the cultural cognitive level.

In his work, Scott (2014), builds on several authors that have developed theories to explain social behaviour, accepting that humans and organizations are not perfect, therefore they cannot act based solely on the means-end formulation, but on their interpretation of the world and the social expectations of their behaviour. In this sense, the normative pillar, including values and norms, is oriented to establish patterns for action, while the cultural pillar, includes the definitions, premises, postulates and perceptions about the nature of the universe and man's place in it (Scott, 2014, building on Schneider, 1976). Rational choice, on the other hand, presents a simpler and clearer explanation of how society works and how actors act. However, this interpretation of society is simplified and does not include the inherent believes of individual actors.

The explanation for institutional change given by sociological institutionalism also raises an interesting point. According to this branch, actors will only operate following what it is socially expected from them. For example, port authorities are predominantly focused on traffic and cargo, neglecting other dimensions of sustainable development, because society does not expect more from them. If the social image of port authorities remains based on an outdated vision, that ports only exist for traffic, they will not feel obliged to address any other dimensions of sustainable development. We will explore this idea in the empirical research in chapters four and five.

3.4. Institutional theory in planning, ports and port cities

Although institutional theory has been used mainly in economics, sociology, political theory and management, several authors have already used it in planning theory and geography, combining elements from different branches to form their own research frameworks. In port studies, there has been an institutionalist turn (Witte et al., 2014), according to which different authors (e.g. Hall, 2003; Jacobs, 2007; Notteboom et al., 2013) have used institutional theory to detect the effects of institutions on port governance and development, and to analyse institutional change. These studies have confirmed the sensitive position of port authorities, especially since the early 1990s, when new governance guidelines changed the role of port authorities. This change has been analysed from institutional theory lenses.

The definition of ports as communities of actors given in the beginning of this chapter emerges from the transformation caused by the governance reform. Port activities were no longer handled by the port authority who became a landlord, administrating the port territory and concessions, and implementing regulations. Instead, private companies developed these activities, increasing the network of actors forming the port. At the same time, multinational corporations responsible for supply chains increased its power, being able to force ports to compete against each other to secure traffic (Hall, 2003). This situation changed the nature of port authorities, that although they are public corporations in most European countries, they must operate in a market, competing against peers.

The dual nature of port authorities has caused conflicts of interests, and questions if the real goal of port authorities remains to serve the public good or act as private companies, focusing on profit and strict economic equilibrium, harming the implementation of the sustainable development agenda (Acciaro, 2013,2015). de Langen and van de Lugt (2017), even argue if port authorities should still be considered public organizations or if they should be seen as port development companies[42]. Since the aforementioned reforms were implemented, several governance changes have taken place, both in Europe and in each individual country, redefining the role of the port authority, often looking beyond the landlord model (van der Lugt, 2013, 2015; Vries, 2014). Economic geographers and maritime economists have focused on this actor and its behaviour, using institutional theory to explain how they have evolved, the interaction between all actors operating in the port and the transformation of institutional settings (Notteboom et al., 2013). Their work has been usually focused on transportation issues, however, as the sustainable development agenda has gained importance on port authorities' strategic plans, scholars have also started to pay attention to other issues.

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42   These authors (de Langen and van der Lugt, 2017: 108,109) propose a new paradigm in the conceptualization of port authorities. They indicate that port development is intrinsically a commercial activity, requiring a governance structure focused on commercial operations, hence port authorities should be considered (port development) companies. This commercial nature of port development is sustained by two arguments, that port compete against each other for traffic and investment, and that they can be considered business clusters or ecosystem, overcoming the landlord role of the port authority.

Most authors studying ports combine concepts from the three streams of institutionalism to explain the evolution of legal frameworks of port authorities. The concept of path dependence has been used several times to explain the interaction of national institutions with international governance models, and how the first have adapted to the demands of global organizations. Hall and Jacobs, both individually (Hall, 2003, 2007; Hall et al., 2013; Jacobs, 2007, Jacobs and Notteboom, 2011) and together (Hall and Jacobs, 2010, 2012) have applied institutional theory to analyse port governance reforms, comparing different case studies. These authors (Hall, 2003; Hall and Jacobs,2010) demonstrated that, despite global reform pressures for specific governance models, institutional settings will not converge towards a global model, but will instead change and adapt these global models to comply the expectations of the local institutional context. This idea shows that there is not only path dependence, historically bounded, but also place dependence. Jacobs on the other hand, has linked institutional settings with power structures, defining ports as scenarios for regime politics, where actors form coalitions and bargain to defend their interests for institutional change (Notteboom et al, 2013 on Jacobs, 2007).

Ng and Pallis (2010) confirmed a previous statement by Hall (2003) saying that pressures of international organizations and private actors to adopt a specific institutional model are more likely to result in institutional transformation than institutional convergence. According to these authors, the local institutional framework will absorb the international pressures and react to them, adapting their current institutional framework, rather than directly copying the suggested governance model. This conclusion is also relevant to sustainable port-city relationships, and the implementation of the sustainable development agenda defended by the UN. The expected solution is not a complete transformation of the current institutional framework, but an adaptation to respond to social and organizational pressures.

Ng and Pallis (2010), also explain that ultimately, the institutional framework also depends on what the market allows. In our research, we acknowledge the presence of institutions and recognise that they are the mechanism guiding the actor's behaviour. However, we agree with Ng and Pallis (2010), that the market imposes limitations, since port authorities operate on a market controlled by a few logistic companies, while competing with peers for traffic. For this reason, we cannot limit the behaviour of port authorities to the institutional context, but we must also consider that other actors, more powerful in the market, will be able to influence their capacity to act. The "game board" is unbalanced in favour of transnational corporations, that can pressure the decision-making process. The capacity of port authorities to influence the institutional framework through its governance strategies and actions it is then considerably limited. If the institutional framework prioritizes exclusively economic results, then these actors are at the will of the market forces, dictating these results.

Notteboom et al. (2013), building on Buitelaar et al. (2007), have addressed one of the main questions in institutional theory: how do institutions change? These authors haves analysed institutional changes in Dutch and Belgian ports, explaining how port authorities imple-

mented new functions beyond the traditional landlord model, increasing their competitive advantage. These authors explain the connection between evolutionary economics and historical institutionalism, building on North (1990), who pointed out that history matters in the way institutions change. Notteboom et al., (2013), follow an instrumentality logic to explain institutional change, i.e. institutions change to respond to new external demands. These authors, building on Strambach (2010), explain that through institutional plasticity, actors can broaden their development path, responding to external pressures, without completely breaking it.

On the other hand, Notteboom et al. (2013) referring to Hall and Jacobs (2010), also introduce the concept of *lock in situations*, when the institutional framework does not evolve to cope with new external demands, failing to accommodate new behaviours or routines. This concept is linked to path dependency and is key to understand the port-city relationship as we will see in the following chapters. The authors also explain the difference between *institutional environments* and *institutional arrangements*, the first being the rules of the game, and the second the governance systems, the play of the game. Williamson (1998) already defended this idea, and Daamen and Vries (2013) expanded it later, explaining that there is continuous interaction between governance and institutions, in which the latter are constantly reproduced and potentially changed.

Maritime economists have also applied institutional theory to study port governance. Acciaro (2013, 2015) for example, uses institutional theory to explain why port authorities implement *Corporate Responsibility* (CR)[43] and environmental policies, what is the added value for them, for the port, and logistic chains, and how they do it. Becoming a green port has become one of the main goals of port authorities trying to balance economic and environmental development, answering to societal and customer pressures to provide a green image. Acciaro (2013,2015), building on Scott (2004), explains that organizations and their workers seek legitimacy, trying to act in conformity with the social expectations, for examples towards the role of port authorities. Legitimacy is at the same time crucial for the survival of the organization, which must adopt certain behaviours followed by similar organizations, i.e. isomorphism. In this case the imitated behaviour is adopting CR policies. From Acciaro's work we understand that laws are not the only institutions limiting the behaviour of port authorities. Since these organizations are social actors, operating in a

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43   CR or CSR (Corporate Social Responsibility) is a concept from business management sciences, which modern interpretations comes from the 1950s (Carrol, 1999). More recently, the European Commission (2011) defined CSR as "the responsibility of enterprises for their impacts on society". Other organizations, such as the Working Group on Social Responsibility from the International Organizations for Standardization (ISO), defined CSR in the ISO 26000 as "the responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour", getting closer to sustainable development and the SDGs, as defined by the UN. Acciaro (2015:18), in his paper indicates that he decided to use CR instead of CSR because "given the intrinsic importance of CR practices for port authorities as organisations with wider public impacts that not necessarily materialise in a socially driven or a particularly proactive attitude.

society that has developed a specific set of rules and expectations, these organizations are also limited by the innate impulse to achieve social recognition and legitimacy.

Acciaro's (2015) paper raises a relevant discussion on two topics. On the one hand, port authorities and companies develop CR policies specially when they are under social pressure and must create a "green" image, from which they can also profit. This issue emphasizes the need to keep a connection between cities and ports, since then port actors will feel more pressured in urban environments to implement measures for sustainable development, motivated by the "green" image. On the other hand, legitimacy is associated with the expectations of society for the actors' behaviours. Hence, if the image society has of the waterfront is port free, and exclusively dedicated to leisure programs, then, the port authority trying to be socially recognized, will be inclined to release land and detach itself from the city, gaining legitimacy. This process becomes a vicious circle between institutions that have generated a certain expectation regarding the role of the port authorities, the legal mechanisms to release land and relocate port activities, and governance actions, that although theoretically could diminish the *demaritimisation*[44] of port cities, they will not do it to keep their legitimacy.

As Witte et al. (2014) explain, the *institutionalist turn* in port studies has also inspired other scholars to look at the port-city relationship following this theoretical framework. This allows urban planning researchers to focus on the actors and the governance, beyond the physical dimension of the port-city relationship. For example, Daamen and Vries (2013) building on the work of Hall and Jacobs (2007), and González and Healy (2005), explain how institutions shape the actions of the actors, characterizing the port-city relationship. Further on, they explain the dialectic process between governance and institutional framework, and how conservative approaches from European port authorities hinder institutional change, harming innovative hybrid solutions for the port-city interface. Daamen and Vries (2013) consider not just the legal rules, but also complex institutions, such as the post-modern waterfront imaginary relying on the social assumption that the port will leave the urban location to leave space for urban redevelopment. Daamen and Louw (2016) also analysed the port-city interface in the Netherlands, taking an institutionalist perspective. These authors highlight the differences between institutional frameworks, not just internationally, but also nationally, confirming Hall's idea (2003, 2007) that institutional arrangements are not just history dependent, but also geographically bounded.

Also analysing port cities, but inland, Witte et al. (2014), building on Daamen and Vries (2013) defend the interconnection between laws and informal documents in developing integrated policy. These authors explain that to balance different goals, including economic and environmental concerns it is not just a problem of laws but of strategies and governance. Although Witte et al. (2014) follow institutionalism, they present a simplified definition of informal institutions, limiting it to other documents that are not legally bounding,

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44   Demaritimisation, as explained by Musso and Ghiara (2011) is the increasing disentanglement of port and maritime activities and culture from the territory, through economic, social and technical processes.

such as development strategies and policy documents. Our notion of informal institutions includes the informal rules that form the interpretation capacity of the actor. While these authors focus on the regulative pillar of institutions (Witte et al., building on Scott, 2001), we consider the interaction between all of them and the governance process.

The literature here commented shows that institutional theory has been useful to understand the current state of the port-city relationship in Europe. It is also clear that the role of the port authority has gained much attention due to its dual identity, its definition in the law and it is changing nature over the last 30 years. At the same time, we highlight that most scholars have focused on the regulative pillar, which is easier to analyse, since laws are accessible documents, and determine the legal powers. However, we have also seen that there is increasing attention to the normative and cultural-cognitive pillar and constitutive rules, that also influence the role of the port authority. Based on the specific port-city literature and broader institutional theory, we develop a research framework to answer the questions presented in the beginning of the research.

3.5. Research framework: analysing actors and institutions in European port cities

In our analytical model, we take the basic elements of institutional theory, particularly from authors from the sociological stream, to form a research framework to analyse the behaviour and the interaction between actors that form the port-city relation. Following this theory, we can see that the interaction between port and city actors i.e. the port-city relationship, does not occurs in a vacuum. The actors forming this relationship operate following their own priorities, influenced by written and unwritten rules, which dictate and determine their responses and interpretation of the reality, i.e. institutions. The legal and social context and the history of the exchanges between the actors have formed specific interaction patterns. The actors are not in a position in which they have all the information, they are - to some extent - hostages of their past decisions and the connections they have established between themselves. The fundamental goal of our research is then to identify the institutions that govern the behaviour of the actors operating in the port-city relationship and understand how they work and how they can also be influenced. These institutions govern the physical and strategic planning of the waterfront and the interface, and the management of the resources controlled by the key actors, namely the port authority and the municipality.

To further develop our research framework, we build on the work of political scientist Scharpf (1997), management scholars Koppenjan and Klijn (2004) and sociologist Scott (2014). The first three authors defend a similar position on the interaction between the rules (institutions) and the actors. Scharpf (1997) particularly, has explored the role of institutions in policy making, developing actor-centred institutionalism. This author defends that institutions are relevant to study the complex behaviour of actors because they must be of common knowledge to influence their behaviour, hence a valid source of information (Scharpf, 1997). As Scharpf (1997: 38,39) explains:

(institutions) are systems of rules that structure the courses of actions that a set of actors may choose. (they) are the most important influences - and hence the most useful sources of information -on actors and interactions because (...) the actors themselves depend on socially constructed rules to orient their actions in otherwise chaotic social environments and because, if they in fact perform this function, these rules must be "common knowledge" among the actors and hence relatively accessible to researchers as well.

We follow Scharpf's (1997) work also because he defends that the capacity to choose is crucial and recognizes a higher independency and freedom of the actors, than other authors of institutional theory, focusing on the interaction between actors and rules. In his analysis framework, he combines this definition of institutions with game theory. However, we only use some of his main ideas and concepts that can be useful to analyse the port-city relationship, without applying his full model. As political scientist, his focus is on policy making, while we also consider planning issues that although they relate to policy, also imply urban and port governance or even design issues.

Scharpf (1997) also argues that actors are imperfect, following their best interest but also choosing among the options provided by the institutional context based on the available information and subjective beliefs. This could explain the actions of the actors operating in the port-city relationship. At the same time, Scharpf (1997:41) also takes concepts from historical institutionalism, recognizing that path dependency plays an important role in institutional evolution, explaining that "where you end up is strongly influenced by where you started from".

According to Scharpf (1997), the cognitive orientations and institutions defined by social constructions create certain regularities in the behaviour of the actors that can be studied. In this research, we focus on the behaviour regularities of one key actor, the port authority, affecting the port-city relations. More specifically, we focus on the institutions guiding the behaviour of the port authority and the dialectic process between them and the governance. Although Scharpf (1997) explains that institutional settings are context and time bounded, he also defends a practical point of view. He recognizes that there are characteristics that repeat themselves, and by studying them, we are able to explain and predict the behaviour of the actors. Understanding the formation of policy allows us to act on the process of policy making, potentially influencing it to develop better solutions.

The primary goal of this research is not to improve institutional theory, but by applying it we provide room for reflection. Hence, we must consider one of its main debates, whether regulative or constitutive rules are more relevant to explain the behaviour of individuals and organizations (Scott, 2014). Although all three branches of institutionalism agree that there are formal and informal institutions, or regulative and constitutive rules as Scott (2014) indicates, they do not agree on which ones can better explain interaction between individuals or organizations. Scott (2014) remarks the importance of this debate and on what theory

better explains human behaviour, if the instrumental logic from rational choice and new institutional economics, or the socially embedded logic from sociological institutionalism.

In the preliminary interviews we noticed that not only both legal or social rules are relevant, but also how they are built and supported. However, instead of focusing on the duality between formal and informal institutions, we focus on the complex constitution of institutions. Therefore, we build on the work of Scott (2014), who explains that institutions are supported by elements from three fundamental pillars (regulatory, normative and cultural-cognitive).

Institutions are indeed the rules that guide the behaviour of the actors, but also their interpretations of reality. The three pillars model explains that institutions are based on legal elements but must also be normative and socially supported. Economic geographers have prioritized studying the formal institutions (laws) to analyse ports and port-city- region relationship. However, the laws are only the regulatory pillar of the institutions, being also the one that can be more easily modified, but it may be irrelevant if the idea that it is defended it is not acknowledged in society. At the same time, urban matters also require a soft approach, considering laws, but also social expectations, traditions and culture. Organizations are formed and led by individuals who, despite the regulatory boundaries (e.g. employment contracts) may transpose their personal believes into governance and strategic decisions. For this reason, the complete institutional framework is important, including their structure (pillars). Hence, we must also focus on the connection between the different pillars, e.g. how is the role of the port authority legally, normative and culturally defined.

We emphasize the importance of the dialectic process between institutions (the rules of the game), and the governance (the play of the game), as other scholars studying ports and port-city relationships have done before us (see Notteboom et al., 2013; Daamen and Vries, 2013). The dialectic process between institutions and governance relates to another crucial issue of institutionalism: institutional change. Although we do not focus on institutional change, we must comprehend how the actors arrived at the current institutional framework, to understand it. As we will see in following chapters, there are few cases of institutional change in port-city relationships, but discussing this phenomenon will be necessary in the coming future (see conclusions in chapter six). Unlike rational choice theorists, such as Williamson (1998), we are closer to the conception of social institutionalists, such as Healey (1997), who defends that institutions can be modified, including ideas and cultural conceptions. These ideas and conceptions form the cognitive-cultural level configuring the world vision of the actors. We defend that dialectic process occurs horizontally between institutions and governance actions.

Understanding the worldview of the different actors, and the persons forming these actors, it is crucial to understand how they frame the port-city relationship. Scharpf (1997:19) indicates that people make decisions based on their subjective interpretation of reality, not on objective analysis, "Intentional action, in other words, cannot be described and explained without reference to the subjective meaning that this action has for the actor in

question". Koppenjan and Klijn (2004) also explain that networks form wicked problems because the perception and interpretation of the problem differ between actors, as so do the goals. At the same time, goals can be contradictory between the strategic documents, public discourse, and what the law establishes. This is one of the main research topics of our investigation, to know if the perception of reality and goals of the different actors operating in the port-city relationship are different, and how the expectations and cultural beliefs are affecting them. Another issue we investigate is the disparity between the normative demands that are made to the port authority, and the formal definition of their goals.

Subjective interpretations depend on the cognitive cultural pillar, which provides the base to interpret the exterior inputs of the world, to build meaning. This pillar can be observed in artistic expressions, such as films, or paintings, texts. We considered also relevant semi-structured in-depth interviews with the persons forming the actors, to observe these subjective interpretations. As Koppenjan and Klijn (2004) indicate, we must first analyse the documents that configure the formal institutional framework, and that legally force the actors to act in a certain way. After exhausting all the formal and explicit sources of information, it is necessary to perform interviews to understand the subjective interpretations of reality done by the persons acting in behalf of the corporate actors [45]. At the same time, the cultural pillar is also harder to determine, since unlike laws, we cannot precisely determine when a cultural phenomenon becomes an institution. Instead, we must focus on the influence this cultural belief has on the governance of waterfront projects. It is then crucial to observe if it has influenced the behaviour of the actors in a specific way, for example guiding to a specific approach, against what a "cold" analysis of facts would suggest. In this scenario, failure, fear or confusion in the involved actors could reveal that the cultural belief is taken for granted and is socially embedded. All sources complement each other and could reveal the mismatch between the legal framework, the normative obligations and the social expectations that guide the behaviour of the (key) actor and eventually also affect the port-city relationship.

Analysing a key actor

According to Scharpf (1997), in policy making we can identify primary and secondary actors. Primary actors are those necessarily and directly participating in the policy choices, in the case of port-city relationships, the most active actor is the port authority. This actor stands in between the tensions generated by port companies and urban aspirations of the municipality and the citizens. Port authorities are today organizations characterized by its dual nature, controlled by the government, but operating in the free market, competing with rivals for traffic (Verhoeven, 2010). This definition states the possible contradictions in its scope, goals and strategies. In this chapter and the previous one, we have discussed how the governance reforms during the 1990s changed the role of the port authorities,

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45   Scharpf (1997) differentiates between collective and corporate actors. While the first are guided by the preferences of their members (e.g. citizens organizations), the second are characterized by a clear hierarchy and top-down approach, ruled by employment contracts, as usually happens in port authorities.

turning them into "pawns in the game" (Oliver and Slack, 2006). Redefining their role has had consequences for the port-city relationship, since they lost capacity for action, increasing the network nature of the port as a community of actors, of which they were no longer the most powerful one. However, port authorities remain an important element of the network, and the one more interested in developing sustainable port-city relationship.

Three stages of research

We structure the research in three main stages: problem description and theoretical approach (chapters two and three), comparative analysis of European port cities (chapter four) and in-depth analysis of Lisbon (chapter five) (see table 1 in section 1.4). In this research we do not present a complete hypothetic-deductive model but rely on the empirical analysis to draw conclusions that could contribute to theory, hence following an inductive reasoning. However, in the first stage of the research we followed a deductive inference, relying on the existing academic and praxis literature that would help us define the problem and choose a theoretical field (institutionalism). This first stage, that we conclude with this chapter, also help us define the research framework for the following stages.

The empirical analysis of case studies can provide us with a snapshot of how the actors that form the port-city relation interact and how the institutional framework influences the long-term sustainability of the relationship. It is a snapshot because the institutional frameworks and actors evolve, hence a new analysis in the future might provide different results. At the same time, it is also a snapshot because institutional frameworks are locally based, they depend on the local and regional context and can change in time. This implies facing another challenge in social sciences studies, and mostly institutionalism, that there are no universal principles regulating the interaction between actors, hence the actors from other port-city will interact differently following another institutional setting.

Comparative analysis in the port-city relationship in Europe

In the second stage of the research, we do a comparative analysis of six European port cities to understand how waterfront projects were developed and what role did the key actor played. Oslo, Helsinki, Hamburg, Rotterdam, Marseille and Genoa are a sample of medium to large scale European port cities in which the port has played an important socio-economic role in its history and still is in contact with the urban tissue This contact takes place both in central locations (Helsinki or Genoa) and in the broader metropolitan scale (Rotterdam or Hamburg). Port authorities have often followed the sustainable development paradigm in their strategic plans. However, they predominantly prioritize technological solutions to respect the environmental regulations imposed by the higher political levels, either on the national or European contexts.

To analyse institutions, we rely mainly on documents and legislation analysis, and on interviews. Although we focus on a key actor, the port authority, we also included other actors, namely the municipality or the municipal development public company. One of the main issues affecting the port-city relation is the competition for precious waterfront land.

Private companies are pressuring to redevelop the urban waterfront, but the municipality leads the urban vision and developing the urban masterplan that will determine the possible uses of the waterfront and the participation of private companies

The selected case studies represent the variety of approaches to the port-city relationship in Europe. This diversity will be explained in chapter four. Previously we have seen that the port authority must bridge the public interest with market systems, global chains with local elements and flows with fixities. This, along with the local and national planning traditions of each port city, has generated a panoply of different approaches and solutions which efficiency must be observed in loco due to their physical dimension, particularly public spaces and identity. The definition of port authorities has also created different governance solutions for the urban waterfront, from daughter companies, to new legal arrangements or specific plans. Port authorities have had different roles in each one of the analysed solutions, linked to the social and legal context. The contrast between conservative and innovative roles of the port authorities in waterfront projects shall provide evidence of the negative effects of a reductive vision of this organization in the quest for sustainable port-city relationships. This reductive conception of port authorities could potentially be considered an institution.

In the comparative analysis we expect to find evidences confirming the presence of a dominant (post-modern) waterfront imaginary, influencing planning and governance decisions. These cases shall provide proofs that this imaginary has become culturally embedded and assumed as the "natural" evolution of the urban waterfront. We will be able to demonstrate the existence of this institution if we see that decision makers followed this imaginary via mimetic process, disregarding alternatives that could better contribute to sustainable port-city relationships. At the same time, we expect to find incipient alternative imaginaries to the post-modern waterfront.

This analysis gives us a knowledge base to place the main case study in terms of innovation and understand if there is a tendency in terms of institutional innovation. Comparing six case studies helps us to understand the implementation of the SDGs and the sustainable development pillars in European port cities, and if the recommendations in policy documents are being implemented. In this stage of the research, we find evidences that an important part of the issues in the port-city relationship are caused by the institutional definition of the port authority. Finally, since the comparative analysis is done before the Lisbon case, it also allows us to emphasize or prioritize certain aspects that could indicate if the port authority can develop a sustainable port-city relationship or not.

In-depth analysis

Given the complexity of port-city relationships, it is necessary to study the port authority in a more detailed level, in a context we can relate to and understand the local idiosyncrasies. For this purpose, we chose Lisbon as the main case study. There are several criteria to choose Lisbon as the main case for an in-depth study of the port-city relationship, as explained in chapter five. Succinctly, Lisbon has several symptoms of a tense port-city

relationship, as well as new projects and laws where we can see institutions at play. The first step is to review the port-city relationship in the last 30 years and analyse the legal framework of the key actor. The institutional framework of the port-city relationship is not always the same and different situations can sum different institutions and associated problems. Hence, we identified three specific focus projects on Lisbon's waterfront, where we can observe the interaction between the different actors in different moments and stages of the project development, and where the institutions are more explicitly summed. Each project is briefly described to understand the process and current situation. Next, we analyse each of the three cases through the lens of institutionalism. In order to identify the institutions affecting the port-city relationship, it was necessary to do semi-structured interviews with representatives from different actors participating in the port-city relationship. These interviews give the different perspectives of the relationship and the social expectation of what should happen on the waterfront.

The first focus project is the general policy for Lisbon's urban waterfront. In this project we concentrate on the key actor and the municipal planning department. We also address other secondary actors, that do not have the power to directly intervene in the waterfront regeneration process, but that pressure the policy making process. In this focus project, we also discuss the problem of the waterfront imaginary (post-modern vs hybrid solutions), and how it influences the policy making process. By reviewing the most recent planning decisions concerning the waterfront we shall see how the post-modern waterfront imaginary has been consistently followed, gradually becoming a rule, culturally embedded and generating a social expectation towards this area.

It is important to understand the recent history of the waterfront policies, since, as Williamson (1998) said, history matters in institutional analysis. If the actors' current interactions are influenced by decisions they made in the past, we must understand these decisions. As Koppenjan and Klijn (2004) indicate, the *solidified history* of each network of actors is expressed through patterns of interactions and rules that represent the institutional characteristic of the same network. In waterfront policy in Lisbon, there have been several policy changes pointing towards the deindustrialization and *demaritimisation* of the waterfront. These changes are relevant since they result from the dialectic process between institutions, and governance, developed on specific waterfront projects, defining the waterfront imaginary. In this focus project we shall also see what happens when the port authority exceeds the role society expects from it, demonstrating the confusion and rejection it occurs when institutions are challenged.

The second focus project is the new cruise terminal. This project, situated in a central waterfront location, is another arena where port and urban actors interact. In this project, private companies have a key role since they are the concessionaries of the activity and responsible for the development of the project. Power imbalances are explicit, since global actors, such as terminal operators and cruise lines agencies control and influence the traffic. In this focus project, we see how the port authority operated in a port project with an "urban" character. The conservative approach of the port authority initially challenged the

social sustainability of the project and motivated a specific reaction to overcome this limitation. This will demonstrate that port authorities follow a conservative conception of port projects and their own role, even if it may jeopardize the project's viability. However, we will also see that change is possible and positive results can happen when other concerns besides economic ones are taken into consideration.

The third focus project reflects on the regional scale of port activities and the impact on a broader ecosystem. The new container terminal in Barreiro, on the south side of the river, is currently under discussion. Officially, private investors should be responsible for the main part of the investment, several hundreds of millions of euros, while the EU would also support the project, partially financing it. The terminal is part of the national strategic infrastructural plan and could define the future of the port in Lisbon. Although the terminal is not completely designed, and the private investors remains unknown, the behaviour of the port authority is worth studying. We will see a different approach when compared with "soft" port activities, like cruises, albeit repeating similar mistakes. This project is an example of the influence of a conservative self-conception of the port authority, prioritizing economic results and disregarding a dialogue process. However, the latest stages in the planning and decision-making process, also makes this project an example of pressure to change and to consider port development alternatives to improve its social and environmental sustainability.

In these three projects, we can find empirical evidence of the current state of the port-city relationship and the governing institutions. In specific projects, we can see the interaction between the play of the game and the rules of the game. We can also see if the key actor is trying to develop a sustainable port-city relationship, or if it is just complying with its conservative definition. Comparing the outcomes of the three cases, we can see which institutions limit the action of the port authority in its quest for sustainable development and provide recommendations to achieve this goal.

Table 4. Synthesis of the analytical framework for the comparative and in-depth analysis:

	Regulative pillar	Normative pillar	Cultural Cognitive pillar
Possible evidence for conservative role of port authority	Laws prioritizing economic and logistics results	Social expectation for the port authority to focus only on port business	Conflict and confusion around the role of the port authority. Port authorities repeating an approach despite previous negative results
Possible evidence for post-modern waterfront imaginary	Laws incentivising the post-modern waterfront imaginary	Social expectation for the port-free waterfront, replaced for green and public areas, or housing.	Actors adopting this imaginary regardless the specificities of each plan. Social reactions to the imaginary fear or confusion.
Source	Laws and contracts (European and National)	Marketing documents, non-binding plans, guides of practice, newspapers. Interviews. (mostly local)	Interviews and cultural manifestations. In local and global documents.

Chapter 4. Comparative analysis of European port cities

4.1. Introduction

In the previous chapters, we have seen how sustainable port-city relationships have become a normative goal for port authorities (PAs), particularly in those cases where the port is in the urban fabric. We have also seen that ports can be understood as communities of actors established around a specific activity and concerning a concrete location, the waterfront (Daamen and Vries, 2013). In the second chapter we already explored the theoretical definitions of the port-city relationship and commented the existing explanations. However, it is also necessary to understand what it is happening in European port cities and identify the main problems affecting the interaction, while acknowledging their diversity. At the same time, we must understand the role of port authorities and how they relate with other organizations and citizens. Analysing these interactions, we will understand what institutions affect the actions and governance of port authorities and how they do it. In the sample of case studies, we will also see different port governance models, and how these differences harm or facilitate a sustainable port-city relationship. Finally, we also try to understand the dominant waterfront imaginary and the alternatives that have recently emerged.

In this chapter, we first explain in brief the European context, emphasizing the continental organizations influencing policymaking, and the differences in port governance, particularly between the Hanseatic and Latin models. Afterwards, we introduce the cases explaining the criteria to choose them and the analysis methodology to explore each of them. We focus on six port cities that can help us respond the initial research questions. Finally, we present the conclusions of the analysis and the added value it brings to the investigation, including the preparation of the in-depth case.

4.2. European port cities: historical routes and innovative waterfront projects

Port cities have played a crucial role in the development of Europe. From the expansion of commercial empires in the antiquity, to the later middle age and the renaissance (the Hanseatic League, the Italian commercial republics such as Venice or Genoa, or the Portuguese and Spanish overseas empires) to colonial expansion (the British or Dutch empires). They have also witnessed some of the most dramatic episodes of the continental history, such as mass migrations during the late 19th and early 20th century (e.g. Hamburg or Genoa). Port cities have also been critical war scenarios, such as Rotterdam, Marseille

or Hamburg [46]. This historical evolution has left marks in these cities, becoming extreme examples or even "test-labs" for urban planning ideas and socio-economic phenomena reflecting global changes (Hein, 2011). At the same time, port activities have contributed to a maritime identity that was often more resilient that this sector itself. Historians such as Konvitz (1978), O'Flanagan (2008) or Hein (2011), have studied this evolution until the end of 20th century. It is also evident that today ports are crucial elements of the European transportation system, structuring the backbone of the logistic system and connecting it to global supply chains. The succession of historical events, the crucial role in the European economic system and their increasing importance as socio-cultural hubs make port cities fascinating cases to be studied.

Figure 15. "L'intérieur du Port de Marseille vû du Pavillon d l'Horloge du Parc", Joseph Vernet, 1754. Retrieved from https://upload.wikimedia.org/wikipedia/commons/0/0b/Vernet-marseille-1754.jpg

In European port cities we can find different kinds of waterfront redevelopment schemes, where port and urban actors have interacted in diverse arenas. As we saw in the previous chapter, urban planning scholars have focused on these waterfront plans, producing a considerable body of literature, exploring paradigmatic cases (e.g. London, Barcelona and Bilbao[47]), methodologies, key topics (e.g. public spaces, cultural facilities or climate change

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46   These three cities suffered heavy destruction during the second World War.

47   For analysis of London see Foster (1999), for London and Barcelona see Meyer (1999), for Bilbao see Vergara (2004).

adaptation[48]) and comparative studies between different cases (Meyer, 1999; Schubert, 2001; Breen and Rigby, 1994, 1996; Marshall, 2001). In most cases, the starting point was the transformation of port brownfields or former port facilities, such as shipyards, integrating existing heritage or following a "tabula rasa" principle. However, an urban approach towards active ports is lacking.

Other literature, more praxis oriented, has focused on solutions for the port-city relationship, diminishing the negative externalities of ports, or implementing social programs to gain or maintain the Social License to Operate (SLO) (AIVP, 2015; ESPO, 2010, 2016). Today, in Europe, we can find numerous examples of port authorities with strategies aiming at sustainable port-city relationships, often linked to innovative waterfront transformation plans connecting both. It is necessary to understand these strategies, how can the key actors implement them, and what influence have the governance models and the institutions. Analysing the actions and plans we can have a more accurate notion of the institutional framework of the actors, and the port-city relationship in Europe today.

Europe presents several practical advantages to study port cities, such as that we could rapidly visit the locations and get in contact with the involved actors to interview them complementing the academic literature. During the research we spent a minimum of two weeks in each port city getting in contact with the local context. At the same time, during these periods, we could observe the way local citizens interact with the port and the water, understanding the image they have of the port and the importance they give to it. At the same time, in Europe most port authorities and municipalities can be easily approached, facilitating information. The European Union (EU) has organizations providing useful data, as traffic figures, while also funds projects focused on the port-city relationship (see chapter two). European integration and interconnectivity have propitiated isomorphism processes, in which the port actors (e.g. port authorities) apply solutions, imitating and adapting, strategies developed by "sister" organizations. In the six cases we selected we can observe the governance trends, institutional limitations to sustainable port-city relationships, and the "fine tuning" of global or continental models and solutions to fit the local context.

4.3. European ports: governing the logistic backbone of the continent

The main European ports are integrated in the *Trans-European Transport Network* (TEN-T), including the core Ten-T corridors, linking the EU with global logistic chains (Fig. 16). In this system, 600 ports handle approximately 90% of the EU's external trade, and 51% of its value[49]. This system includes areas outside the EU such as Norway. Since inside the EU there is free circulation due to the Schengen treaty, logistic companies can choose the most convenient port according to efficiency criteria, where they have their own private

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48   For public spaces on waterfronts see MacDonald (2017), for cultural facilities see Marshall (2001), and for climate change adaptation see Costa (2013).

49   Value from 2016 according to Eurostat news release 184/2016 (https://ec.europa.eu/eurostat/documents/2995521/7667714/6-28092016-AP-EN.pdf)

terminals or the best connection to the final destination. Hence, territorial connections are not limited by borders, increasing the competition between different ports for cargo, since they often share the same hinterland.
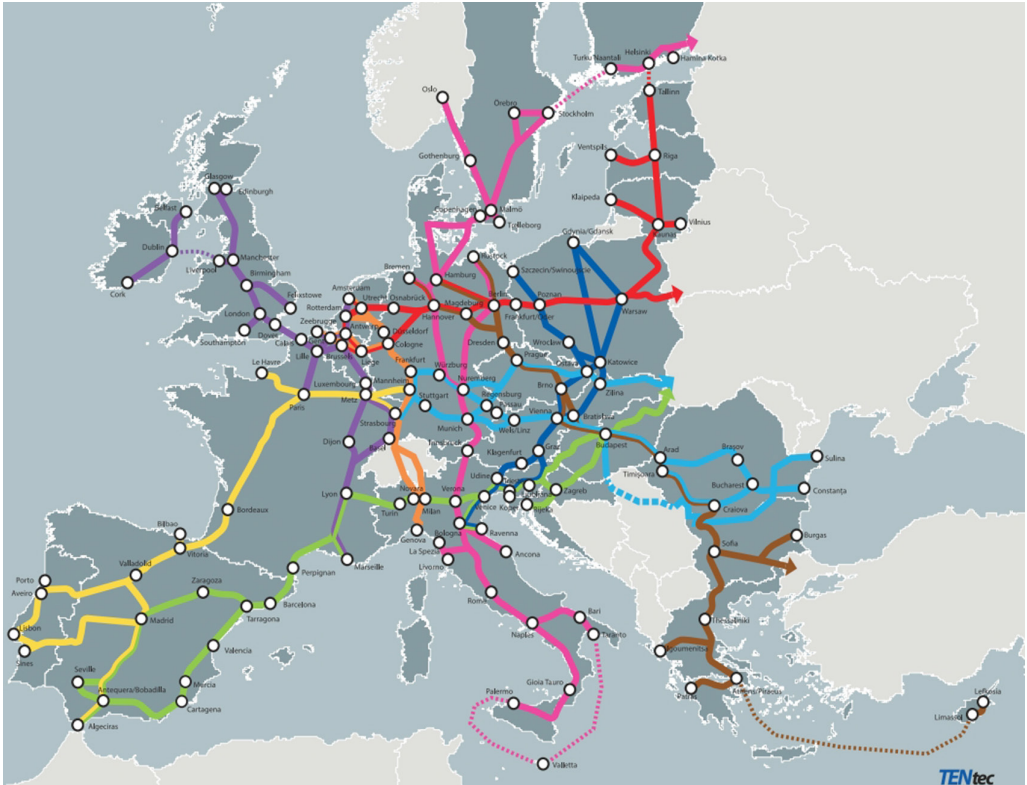

Figure 16. European Core Ten-T Corridor network. These corridors are the backbone of the European logistic system including, roads, ports, maritime routes, airports, waterways and railways. Source: http://ec.europa.eu/transport/infrastructure/tentec/tentec-portal/map/maps.html

The European port system has two areas agglomerating the main ports, the Central Range, including the ports between Le Havre and Hamburg (e.g. Antwerp, Rotterdam and Amsterdam), and the western Mediterranean coast, including the coasts of Italy, France and Spain. Outside these two major areas, there are other important ports or port clusters, such as Piraeus in Greece, Sines in Portugal or Gdansk in Poland (Notteboom, 2018). In the Ten-T corridors, we also find many other smaller ports that are mainly relevant at the regional level, such as Lisbon, Helsinki or Oslo. The two areas of port concentration agglomerate approximately 60% of the European traffic (Pastori, 2015). Rotterdam alone handles over 10% of the sea traffic generated in Europe, while Antwerp and Hamburg complete the podium of the three biggest ports of the continent [50].

In the central range we can find cases where the port–city relationship in terms of scale is extremely unbalanced, such as Le Havre, where the port is the second in France in tonnage,

50   See https://www.porteconomics.eu/2018/02/28/portgraphic-the-top-15-container-ports-in-europe-in-2017/ (November 15, 2018)

but the city only has 175 000 inhabitants. In this case we see that the scale of the port relates to the scale and importance of the hinterland. The port of Le Havre is the port of Paris, 200 km away, and is part of the union of port authorities HAROPA. We can find more examples of port-city unbalances in southern Europe. Algeciras, Gioia Tauro or Sines, are small cities (between 14 000 and 120 000 inhabitants) with large port terminals, often controlled by one private actor, creating dependency relationships (e.g. PSA in Sines, or APM in Algeciras). Although these port cities are extreme examples, ports have inevitably an impact in urban areas hosting them due to the bare scale of its infrastructure.

On the other hand, in the Mediterranean coast we can find medium to large scale port cities, in which the port has an important impact, despite the diversified economic model. Valencia, Barcelona, Marseilles or Genoa host major ports, usually in the top-10/15 rankings for traffic in Europe[51]. In these cases, but also in Nordic port cities, port activities are associated with other complex socio-economic phenomena, such as tourism. The cruise sector adds yet another layer to the complex port-city relationship, due to its specific needs, often close to the city centre, and the pressure it puts on the immediate port-city interface. Although some studies (Pallis, 2015) show that cruise tourism still has a reduced market penetration, it is responsible for major environmental externalities in urban cores (NABU, 2017).

In Europe we can find different political and administrative systems historically rooted that have affected the development of each national planning framework (Newman and Thornley, 1996). According to port governance taxonomy proposed by Suykens and van de Voorde (1998) and the World Bank (2001), there are four main models to govern ports, after the regulatory changes at the end of the 1980s and 1990s, focused on the corporatization of port authorities (Pallis and Brooks, 2011). These models, varying from more public to fully private, are the public port, tool port, landlord port or private port (Ferrari et al., 2015 referring to World Bank, 2001)[52]. The involvement of government and private companies in port strategy and investment differs considerably. While in the public port model, the government has a strong position (e.g. Ukraine or Israel), in private ports, the role of government is reduced to national regulation (e.g. UK or Australia) (Ferrari et al. 2015).

Most European ports follow the landlord model, in which the port authority manages the port territory through concession agreements, while private companies develop port activities and invest in infrastructure[53]. In this model, the port authority organises and manages the relations between private actors, the state and the local community, develops the

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51   For more information on the port rankings see https://www.porteconomics. eu/2018/02/28/portgraphic-the-top-15-container-ports-in-europe-in-2017/ (November 15, 2018)

52   Author such as Brooks and Pallis (2011) propose a different taxonomy based on the different ownership-governance system.

53   Debrie et al. (2013) disagree with this point, since, as they explain, only in large ports is possible to attract private operators, fundamental for a landlord port type. In smaller ports public sector still plays an important role in port operations, distancing itself from the pure landlord port and closer to tool port governance.

strategic vision for the port and applies the regulation. The landlord model gives the port authority the responsibility of competing for traffic growth, but also sustainable development. Today, local communities and port actors are increasingly aware of the negative externalities of port activities, imposing the normative responsibility on port authorities of assuring sustainable local development (Brooks and Pallis, 2011[54]; Ferrari et al., 2015).

As several authors have already explained (Brooks and Pallis, 2011; Acciaro, 2014), the landlord governance model (predominant in Europe) implies a dilemma since port authorities are responsible for looking for local benefits, while being economically profitable. The main issue is negotiating the concessions with global companies that usually do not consider local development one of their top priorities. The dominant financial approach to ports has caused a conflict of interests that we will see in this chapter and mostly in the following one about Lisbon.

The landlord model in Europe is organized in two main "traditions" the Hanseatic in central and northern ports, and the Latin in southern and Mediterranean ports (Verhoeven, 2010; Pallis and Brooks, 2011; Ferrari et al. 2015).

Hanseatic model

Port authorities following the Hanseatic tradition are relatively independent from the central government, while the municipality has a strong influence. When these organizations are corporatized, such as in Rotterdam, the municipality is the majority shareholder, instead, in other cases, like Hamburg or Helsinki, the municipality completely controls them. In these cases, the port governance duties used to be distributed by several departments of the municipality responsible for port affairs. In this model, the port authority acts as coordinator and facilitator of port activities (Ferrari et al., 2015). According to Ferrari et al. (2015), this model has the advantage of providing a closer relationship with the local context and community, being more flexible and allowing a more dynamic interaction with private stakeholders. At the same time, this can also be considered a weakness for port authorities, since it implies more risk and reduced vision of the "big picture" in a national or regional context. Some ports, like Rotterdam, are currently going beyond the pure landlord-Hanseatic model, playing a more active role (see Verhoeven, 2010; Brook and Pallis, 2011; Vries, 2014; van der Lugt et al, 2013 and 2015; de Langen and van der Lugt, 2017).

Latin Model

In the Latin tradition, the central government has a stronger position, determining the strategic choices and investments. The port authority has regulatory responsibilities, it must achieve the goals imposed in the national framework and translate the national strategy to the local context. Countries such as Italy, Spain, France or Portugal follow this tradition,

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54   Brooks and Pallis (2011: 502,503) give a specific definition of what the ideal governance model should be: "open and transparent, has key decision makers in the room, practices community consultation, is responsive and inclusive, and plans to deal with environmental concerns and social and economic sustainability in the future, all to the benefit of the community".

but with several nuances, as we will see in the reference cases (see Parola et al., 2017 for the Italian cases and Debrie et al., for 2017 French ones). Although in recent years these countries have implemented regulatory reforms, heading towards a hybrid model, authors like Debrie et al. (2017) and Parola et al. (2017), indicate that the influence of local stakeholders in port governance remains very limited. Although Ferrari et al. (2015) explain that this model also emphasizes local development, we will see that the port authority can be "hostage" of central decisions taken far from the local context, resulting from a rigid and bureaucratic framework, not supporting a proactive attitude.

The Hanseatic and Latin traditions differ not only in the influence of the national or local government in the territorial administration, but also in the implementation of reforms. While in the Latin model there is a clear top-down strategy, directed by the central government, in the Hanseatic model there is more room for local agreements, following bottom-up processes. Although they seem two antagonistic models, there is a tendency towards hybridization, mainly in the composition of the different boards. This confirms that the international models are adapted to the local or regional context, employing processes of fine tuning (Hall, 2003, 2007). Central control can affect the port-city relationship, imposing an institutional distance and prioritizing macro-economic goals at the expense of local sustainable development. In the reference cases we will see the differences in each specific context and how they facilitate or not a sustainable port-city relationship.

4.4. Six European cases: from big to small, from north to south, from innovative to conservative

Earlier in this chapter, we explained the diversity of ports in Europe, varying in scale, governance model or key sector. We have also seen that each country has different planning systems, with different approaches to urban development. Hence if we need to assess the port-city relationship in Europe, we require a sample representing this diversity, including port cities from north and south, with different scales and approaches towards waterfront projects. In these cases, we can see the different role of the key actor, the port authority. The sample is formed by six port cities, Oslo, Helsinki, Rotterdam, Hamburg, Marseilles and Genoa, representing different contexts and development models. Although the challenges are not the same, and scale changes the perception of the problems, these port cities coexist with ports in their urban tissue and have undergone waterfront transformation operation, including innovative approaches and traditional models.

Why these port cities and not others, is a good question. We decided to follow several criteria to select the reference cases representing the aforementioned diversity. In this sample of cases, we focus on qualitative research, unlike other studies that have opted for quantitative methods, common in port studies (see Verhoeven and Vanoutrive, 2012; Ducruet and Jeong, 2005). Six reference cases provide information to see incipient trends or patterns in different contexts, caused by the same technologies or even the same companies. We can also observe different approaches to these similar problems, albeit under the same EU regulative umbrella. In six cases, we can also see different adaptations of port govern-

ance models and interpretations of the main traditions (Hanseatic and Latin).

In this stage of the research, we do a preliminary analysis of the policies and actions presented in guides of good practice and gather inputs to direct the analysis of the in-depth case. These cases have previously been studied from different perspectives. For example, the cases of Rotterdam, Hamburg, Marseille and Genoa are usually analysed by economic geographers and maritime economists (see de Langen, 2002, 2004; Dooms et al., 2013; Notteboom et al., 2013; Acciaro et al., 2014). On the other hand, urban planning scholars have also studied these cases for their waterfront approach (Daamen et al,2015; Schubert, 2014; Gastaldi, 2010; Rodrigues-Malta, 2001). In some cases, they have also researched the Nordic port cities from a comparative perspective as examples of a new approaches (Schubert, 2013).

Figure 17. Map of Europe with the case studies. Author: José M P Sánchez

In these six cases we include different scales, reaching from the biggest ports in the continent to others of national or regional relevance. In this sample, we also include cases that are "second cities"[55], while others are at the same time the most important port and the capital of the country, with the political pressure it implies. The selected ports have different scale and configurations. For example, Rotterdam port extends over 40 km from the central areas to the new open sea expansion, the Maasvlakte 2. On the other side of the spectrum, the port of Oslo is relatively small, occupying approximately 125 Ha (in table 5 we can see the different areas these ports occupy).

In the sample we can also see different configurations of the port territory. While among the selected cases we detect a tendency to develop large terminals outside the urban fabric, we also confirm that certain port functions remain in contact with the city centre. The ports of Oslo, Helsinki and Marseille have a fragmented layout, containing heavy port terminals far from the urban waterfront (Vuosaari in Helsinki, Sydhavna in Oslo and Fos in Marseille). The other ports present a continuum from the most central areas to the most recent expansion, where we can easily read the port evolution, such as in Rotterdam or Genoa. Hamburg presents a different layout, with a compact expansion on the south side of the

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55   As authors like Warsewa (2017) indicates, port cities have been in many countries a natural counter-pole to the capital city's power, in economic, cultural and sociological terms, often seen as relatively independent from a central power (see also Umbach 2005; Hodos, 2011).

Elbe river. Although all cases have expanded away from the city centre, we could confirm that this growth has been either accompanied by urban expansion or it is affecting existing city districts or neighbouring municipalities perpetuating the contact with the urban tissue in the metropolitan area. At the same time, we observe that some central locations still include port activities, such as passenger services, ferries carrying cargo (such as in Helsinki), smaller container terminals, shipyards or short-sea shipping and river traffic in barges.

The problem of scale also refers to the city and metropolitan area. The main case study, Lisbon, is the capital of Portugal, with an approximate population of 500 000 and almost 2,7 million in the metropolitan area. The sample of port cities includes medium-large metropolitan areas, such as Hamburg with 5 million or Marseille with 1,8, and capital cities such as Helsinki and Oslo, with less than one million. These cities have a historical connection with their ports. In the southern cases like Genoa and Marseille, this connection goes back to Greek or Roman times, while in northern cities, although younger - Helsinki is 500 years old - the connection with the sea and the water is equally important. This maritime identity is visible in public spaces and public art, publications or marketing campaigns, often referring to port or maritime elements (e.g. Havnepromenade in Oslo, Hafencity in Hamburg or Porto Antico in Genoa).
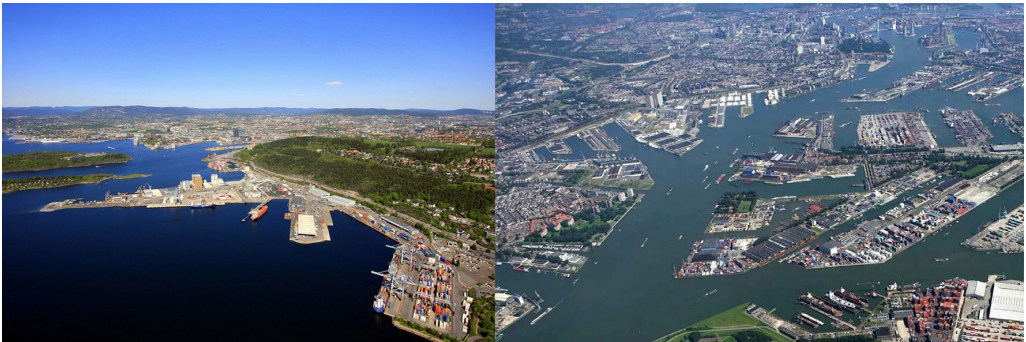

Figure 18. Birds eye view comparing Oslo (L) and Rotterdam. Sources: Aarts et al. (2012) and https://container-mag.com/2014/10/16/oslo-chooses-yilport-terminal-operator/

Table 5. Synthesis of port city characteristics based on the most recent from port authorities' websites.

Mag. City	Port size (ha)	Throughput (Mill. Ton)	Predominant traffic	Passenger (Mill.)	Governance model	Population City (met. area)
Helsinki	150 (land in Vousaari)	14.3	Passenger and unitised cargo	12.3	Hanseatic	643 272 (1.15 mill.)
Oslo	125 land	5.9	Passenger and unitised cargo	2.5	Hanseatic (PA owns its land)	673 469
Rotterdam	12 643 (7 903 land)	467.3	Bulk and Container	-	Hanseatic (City 70%)	635 000 (1.18 mill.)
Hamburg	7 083 (4 243 land)	136.5	General Cargo, Container	0.81	Hanseatic	1.81 (5 mill.)
Marseille	10 000	80.6	Bulk cargo, container, passenger	2.7	Latin	850 000 (1.8)
Genoa	2050 (600 land)	69	Bulk cargo, container, passenger	4.2	Latin	580 548 (844 957)

Table 6. Dimensions of waterfront (re-)development for comparative perspectives, adapted from Schubert (2011).

Dim. City/ Project	Size	Start and completion of the project	Property led / Plan led	Geography / Location	Plan. culture / Nat. Framework	Dominant uses / planning targets
Helsinki (West Harbour + Kalasata-ma)	200 Ha + 177 Ha	2005 - 2030/2035	Plan led. Public - private partnership	WH: near the city centre. K: expansion area	Decentralized model with participative planning. Flexible implementation	Predominance of housing
Oslo (Fjord City)	226 Ha	2000-2030	Property led. Public - private partnership	Complete Urban Waterfront	Decentralized model with partici-pative planning	Mixed use in-cluding several key cultural projects
Rotterdam (Stadsha-vens)	1600 Ha (600 Ha Land)	2007 - 2040	Plan led, adapt-ed to existing contracts	Urban and industrial waterfront, not in the city centre	Decentralized model with participative planning. Flexible implementation	Mixed use including port related indus-tries
Hamburg (Hafenc-ity)	157 Ha	1997-2025/2030	Plan led	Central location	Decentralized model	Mixed use in-cluding several key cultural projects
Marseille (Eu-romédi-terranée 1+2)	480 Ha	1995 - 2030 (2º act)	Plan led. Public - private partnership	Central loca-tion. Reduce waterfront usage.	Centralized model regarding port gov-ernment. Project is considered of national interest.	Mixed use in-cluding several key cultural projects
Genoa (Blueprint)	85 Ha Approx.	2015 (concept planning + pilots tower) -	Plan Led for port section. Private partnership for urban section.	Port Industrial waterfront near city centre	Centralized model regarding port government. Regional institutions hold planning capacities	Industrial areas refurbishment and urban renovation

An important criterion to select the case studies was the maturity of the port-city inter-action and the waterfront. We considered a mature port-city relationship if the different phases and phenomena described by authors such as Hoyle (1988) or Schubert (2011) have taken place, i.e. expansion outside the city centre, waterfront regeneration plans, implemen-tation of green policies, projects for maritime heritage refurbishment and initial dialogue with other actors. The issue of maturity, aligned with other practical aspects, forced us to reject one initial case study, Izmir in Turkey. Ducruet (2011) catalogued this port city as a "maritime" port city, as Marseille and Lisbon. Initially we intended to analyse the Turkish case, but finally we decided to exclude it because it is outside Europe, following different legislation, and the port-city relationship has not reached the same maturity as other cases. Additionally, an initial literature review indicated problems to obtain data, difficulties in communication and to reach the necessary authorities. However, we do consider that this case is worth researching, and could benefit from the results of this investigation.

The selected ports have different profiles, hosting companies active in the several sectors. Despite its diversified profile, in Rotterdam cargo terminals are predominant, mainly from the petrochemical cluster and container traffic. Other cases present a more diversified profile, such as Genoa or Marseille where we can find *bulk cargo* [56], shipyards or fish harbours. In these ports we can also find different passenger activities. While Marseille and Genoa are usually among the top 10 cruise destinations in Europe, with traffic going from 0,9 to 1,5 million in 2017, Hamburg, Oslo and Helsinki also have an important share of this market in norther Europe. Helsinki is also a particular case in terms of passenger activities, since it has one of the most active ferry connections in the world, with Tallin, moving over 11 million persons in 2017 (Port of Helsinki, 2018).

The port sample also includes the different governance systems we can find in continental Europe, in which port authorities are publicly controlled either by the central government or by the municipality. In the six cases all landlord governance traditions are represented. In them, we can see a contrast between more entrepreneurial approaches, such as in the Netherlands and others more passive, such as in Genoa. At the same time, and related to the scale, we could see that power differences are very relevant, particularly linked to land control, even in cases in the same region, such as in Oslo and Helsinki. In the first, the port authority controls the land and benefits from real estate operations, in the second instead, the land is owned by the municipality.

Waterfront regeneration projects were another criterion to select the cases. In these port cities we can find different approaches, that have occurred at different times, with different goals. While in some cases such as Genoa, public space and leisure was predominant, in others gentrification strategies for offices and housing were explicit, such as in Kop van Zuid in Rotterdam. We can find classical operations of port out-city in, like in the Hafencity in Hamburg, or others that attempt to find a coexistence or transition between port and city, such as in Euromediterranée in Marseilles, the Blueprint plan in Genoa or Stadshavens in Rotterdam. At the same time, in the Nordic capitals intense negotiation process between all involved actors took place. For example, in the case of Oslo an open debate about the future of the waterfront with or without the port took place, with an important role of the port authority in the real estate development.

Oslo

Oslo is the capital and the biggest city of Norway with over 600 000 inhabitants and approximately 1 million in the metropolitan area. At the same time, it is the biggest Norwegian port with a throughput of almost 6 mill tons and almost 2,5 mill passengers in 2017 (Oslo Havn, 2018). The port of Oslo is part of the Oslo fjord *multiport gateway* region[57] (Schøyen et al. 2017), the main demographic, commercial, economic and industrial centre

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56   Bulk cargo is defined by Rodrigue et al., (2013) as the freight that it is not packaged, such as minerals (ore, oil), grain or cement clinker.

57   According to Rodrigue et al. (2013:67) a gateway is "a location offering accessibility to a large system of circulation of freight and passengers".

of Norway, a country with 5,3 million inhabitants[58]. The case of Oslo is worth analysing because the urban waterfront has undergone great change in the last two decades, including intense public discussion and negotiation, with an active role of the port authority as urban developer. This role resulted from its (new) legal definition and the power over the land. This is one of the main issues defining the port-city relationship, and it changes from one port city to the next. At the same time, in Oslo we can see how a strict legal framework can affect the implication of the port authority in other issues beyond the traditional scope of traffic and infrastructure.

Historically, maritime and industrial activities had an important role in the local economy, mainly raw material exports and shipyards. During the 19th and first half of the 20th century, these activities linked to the port propelled the growth of Oslo modifying the coastline (Bergsli, 2015). As it happened in many port cities, industrial activities gradually required more area, modifying the relationship of the city with the water. During the 1970s and 1980s the maritime industrial sectors gradually decayed. In 1982 the Aker Company decided to shut down the shipyards in Aker Brygge, the western section of the urban waterfront. This situation motivated the quest for a new economic model, knowledge based, to avoid the post-industrial crisis that was hitting other European port cities. The urban waterfront where port activities were installed was considered the base for new economic growth (Bergsli, 2015).

Besides the crisis of the industrial sector, other issues such as the increasing social disparity, economic and financial problems, and lack of housing in the inner city, motivated an open debate lead by civic organizations. This debate resulted in an idea competition in 1982 to discuss the future of the city, named "The City and the Fjord - Oslo year 2000" (Bergsli, 2015). This competition, organized by the Association of Norwegian Landscape Architects and the Oslo Heritage Society, was also supported by the port authority and defended the inclusion of port activities and urban functions (Bergsli, 2015).

Since this first concept competition, the waterfront became an important issue in public discussions. The seaside was the area for a new post-fordist society, rejecting the industrial sector, aiming at creating white collar jobs in the service sector. This socio-economic change was matched and supported by the international waterfront imaginary, with examples from the USA and Europe.

At the same time, the first waterfront regeneration project took place in the former Aker Brygge shipyards. The new area was developed following a project from architect Niels Torp, including new offices, housing and public spaces by the water. This project marked the future waterfront development, not just aesthetically and programmatically, but also in terms of the role to the stakeholders. The new governance model supported public-private partnerships, leaving the public administration the role of regulator, while the private sector was the developer. Although until the end of the 1980s the municipality included joint

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[58]   https://www.ssb.no/en/befolkning/nokkeltall/population (visited on August 23rd, 2018).

development strategies of the port and the city, the success of the Aker Brygge and the international planning trends gradually pictured a future waterfront without port activities (Bergsli, 2015) (see fig. 19). This process strengthened what we consider a key institution, the post-modern waterfront imaginary, able to influence planning decisions, port-city governance and the role of the port authority.

Figure 19. Aker Brygge waterfront. Author: José M Pagés Sánchez

Unlike other cases, the port was not always controlled by the municipally. Until 1984 the central government oversighted the port authority when it was incorporated in the municipal "umbrella". Although Oslo`s port governance model follows the Hanseatic tradition, Oslo Havn KF (Oslo Port Authority) and the municipality remain relatively independent organizations (Børrud, 2007), while the national ministry maintains certain influence. The port authority is an autonomous company with its own board of directors with ten members, of which one is selected by the municipal counties of Akerhus, Hedmark and Oppland; two are selected by the employees and six by the city council, including the chairman and deputy chairman. The city council also appoints a user's representative expert in port or transport issues. The board of directors appoints the general director responsible for the everyday management of the port.

As it happens in most corporatization processes, Oslo Havn KF became responsible for finding its own resources and self-financing. In the case of Oslo, the profits generated by the port activities can only be used to improve port infrastructure or commercial strategies that would support traffic growth (Rekdal, 2013)[59]. Another key issue is the land ownership. In this case, the port authority is the owner of the port land, which is an important resource for self-financing, and it gives them influence in urban redevelopment (Rekdal, 2013). As pointed out during the interviews, although the municipality is present in Oslo Havn board, tension emerges when discussing the future of port urban lands[60].

During the 1990s, the port authority presented a plan to expand the port in Filipstad, in the eastern section of the urban waterfront. This decision collided with the influential urban imaginary of a post-modern waterfront dedicated to leisure, housing and offices, triggering an intense debate about the use of the waterfront and the complete separation between port and urban activities. There were some voices even questioning the attributions of the port to decide on urban land (Bergsli, 2015). This explicit urban development path choice between a "Port city" or a "Fjord City" is one of the particularities of the Oslo case. While

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59   Chapter seven, section 47 on port capitals of the Law on Ports and Waters (Port and Water Act).

60   Interview on September 15th, 2015 in Oslo Municipal Services.

the port authority supported the first, the municipal Agency for Planning and Building Services argued for the second [61].

This urban development choice reflected international trends as summarized in phases four and five of Hoyle's model (1988), relocating port terminals outside the urban fabric and consequently regenerating the waterfront. However, in this case, it was not a gradual technological change, but an explicit political choice, anticipating a possible crisis. The port defended their new plan based on growth prospects and the reduced environmental impact of a port closer to the consumption centre (Børrud, 2007). The post-modern waterfront imaginary, previously developed in other European and American cases, provided a strong perception of the potential, also supported by the successful redevelopment of Aker Brygge. After much discussion, government changes and negotiation, the Fjord city vision was supported by the council, forcing changes in the port plan, relocating heavier port activities to Sydhavna, in the new container terminal in Sursoya (Rekdal, 2013). This decision reflected the new socio-economic reality, in which the port benefits were no longer considered as important as before, and port activities were an obstruction to the water access, perceived as a missed opportunity in terms of the space they occupied.

As Børrud (2007:41) indicates, the main issue was not about the architectural quality of the waterfront vision, but about the role of the port authority in the urban development of the waterfront and who had the capacity and decision-making power over this valued land. In the case of Oslo, since the port was controlled by the municipal council, the port authority was forced to enter the discussion and eventually accept the fate decided by the politicians. The port would release the land for new urban development. Although here we have synthesized the decision-making and negotiation process, it was considerably complex, including elections and political changes in between. During the discussion, the final decision was not clear until the last moment. The problem was an institutional conflict between the authority of the organization controlling the land, its attributions and what was expected by other actors. Quoting Børrud (2007:41)

> A Gordian knot lay in this question in the relation between the Harbour Act, the Local Government Act and the Planning & Building Services Act. As we saw it, this issue must be addressed in terms of the values inherent to the port areas and who can administrate these values when it will not be used as a port and which statutory framework would decide what.

The same author also presents other questions that emerged at the time, regarding the exclusive use of port financial funds for port development (Børrud, 2007). This issue has damaged the port-city relationship in several cases, since the legal definition forces the port authority to dedicate its financial resources in the port economy, limiting its capacity

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61   The official report commissioned by the city council in 1996 was named "Fjordby eller Havneby?" Fjord City or Harbor City? (Kolstø, 2013:1)

to intervene in the waterfront and the port-city interface, i.e. the main problem lied in the fact that port money could only be used for port development and not to benefit the city (Børrud, 2007).

The final decision was made in the municipal assembly in 2000, but the Fjord City plan was only finally approved in 2008 (Kølsto, 2013). This plan is currently being developed and it will generate 2 million sqm. of new areas, 9000 housing units and over 45 000 work places. The plan had the original motivation of reconnecting Oslo with the surrounding nature, the water

Figure 20. General plan of Fjord City waterfront plan. Source: https://commons.wikimedia.org/wiki/File:Fjordbyen.gif

and the fjord, and stimulating the new urban economy. The plan is organized in three main sections and eleven sub-sections (see fig. 20), implementing a mixed-use approach, continuing a market led urban development scheme, in which the private sector leads the construction and the municipality acts as regulator.

As we have seen, the plan required long discussion, political debate and negotiation between the port authority and the municipality. Although the plan is being developed and is expected to be concluded in 2030, the negotiation and the tension continues, since there are still several areas with port activities in the urban waterfront[62]. During the discussions and in the final plan, ferries and cruises were considered the only port activities adequate for the new post-modern waterfront. However, today, cruises and ferries still generate debate due to their impact in the surrounding urban tissue and the different criteria for their location. The port authority defends two separated facilities to organize the traffic, while the municipality argues for a centralized solution. This discussion was visible during the interviews and emphasizes that there are different interpretations of the same problem. While the municipal representative during the interview implied that the port authority lacked "urban sensitivity", the Oslo Havn officials indicated a lack of awareness regarding port technical issues and that most of the population ignored the port impact and their necessary activities, as it was visible in the debate that took place in the 1990s and early 2000s.

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62   In interviews with the municipality (September 15th, 2015) and the PA (September 20th, 2015), both confirmed that despite the existing agreements, there are different perspectives for the remaining waterfront, and that tensions emerges.

Figure 21.Birds eye view of Oslo Opera House, before the tunnel and new buildings were built.

In the plan, one of the first key decisions was building a tunnel to bury the E18 highway, separating the city from the water close to the central station in Bjørvika, where today we find the famous Oslo Opera house (see fig. 21) [63]. The issue of infrastructural barriers is common in most port cities. The industrial expansion of the port and the needs of urban highways crossing cities created walls separating the city from the water. Often, as it happens in Oslo, these infrastructures are not the exclusive responsibility of Oslo Havn, and the solutions are very complex for financial, technical and social reasons.

The land included in the Fjord city plan was mostly owned by the port authority and in certain locations by the national railways company. To reduce the investment risk, they created a "daughter" company, HAV Eiendom, responsible for the real estate operation. This solution was used mainly in the bigger sections of the plan, such as Bjørvika, while in smaller areas where the port authority was the only landowner, such as Tjuvholmen[64], it operated by itself. The approach to Filipstad, the western section of the waterfront remains unclear, since in this area the port authority will still have the ferry terminal.

Although the Fjord city plan includes several cultural facilities such as the new Munch museum, the new library and the Opera, it is market led and destined mainly for luxury housing and offices. Oslo Havn, as land owner, benefited from the operations, financing the new container terminal in Sursøya[65], hence the motivation was to sell the terrain as expensive as possible, generating the maximum profit. This, along with the costly decontamination process, led to the gentrification of the waterfront, as discussed during the interviews[66]. The municipality determined the uses to be implemented and negotiated the compensation measures with private developers, mainly for new public space and facilities. Although gentrification is a common problem in urban redevelopment plans, in port cities the problem is magnified, since often the people that used to live close to the port were

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63   This infrastructure was paid by the national government, raising polemic due to the impact of the same investment in other parts of the country.

64   Competition won by architect Nils Torp (Rekdal, 2013).

65   Despite the relocation outside central city districts, the new terminal is also close to housing areas, continuing the contact with the metropolitan area.

66   Interview on September 15th, 2015, in Oslo Municipal Services. Scholars have criticized the gentrification of the waterfront and its artificialization, nicknaming it as "zombie urbanism" (Aspen, 2013)

lower-class dockers and their families that in a short period may lose their job and their neighbourhood.

The port-city relationship today remains tense, mainly due to the undefined future of the two waterfront sections where port activities still take place, Vippetangen and Filipstad. The municipality defends the same strategy of redeveloping the waterfront for leisure or tertiary programmes disregarding any option to implement hybrid solutions, including port activities. At the same time, the port authority defends the existing port activities, including new projects following public private partnerships.

The physical separation between the port and the city is clearly visible in the plan, being the port reduced to the south east section of the Fjord city area. The port authority has tried to compensate this physical break with social programmes including port visits and open days. However, as it was visible during the interviews[67], the locals do not relate with the current port activities and do not know how the port works today, or what role does it play for the city. Despite the country's connection with the sea and the maritime world, for local inhabitants the port is not as important for the urban identity as it is in other cases like Hamburg or Rotterdam.

At the same time, the port authority has adopted new strategies to increase the urban integration of the port, for example developing aesthetic guidelines for new port buildings in Vippetangen and Sursøya (Oslo Havn K, 2010). Another initiative concerned existing port heritage, preparing a publication, explaining the history of these artefacts. However, the port authority did not implement specific action to include them in redevelopment projects. From the existing 50 ancient cranes, only three were preserved as a memory, but with an uncertain future. More recently, there were new investment in the quays, providing electric power supply to cruise vessels to reduce their environmental impact.

In the case of Oslo, we see how the port and municipal authority were forced into a relational development, including open debate, coordinating efforts to achieve positive results. In the debate about the future of the waterfront, the port authority emerged as an inevitable urban actor, that had to change its relationship with other local actors and be open to discussion (Børrud, 2007). In the process, the institutional framework that initially limited the actions of Oslo Havn changed. This modification allowed the post-modern waterfront and the engagement of the port authority in the process to benefit from the real estate operation, but it stopped there. The funds of the port remain linked to port investment. However, the changes to the institutional framework to allow this investment could potentially open the discussion for new initiatives towards port urban activities. The change in the regulation could be considered an institutional plasticity process in which the port authority gained new capacities to continue with its main goal.

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67   Interview on September 20th, 2015 in the PA Headquarters.

Helsinki

Helsinki was founded in the 16th century as a port city by king Gustavus I Vasa, from Sweden. It has been the capital of Finland since it became independent in 1917. The city has today more than 500 000 inhabitants and over 1,2 million in the metropolitan area. The port of Helsinki is Finland's main port, competing with Hamina Kotka and Skoeldvik in cargo throughput. This infrastructure is an important element of the local economy, with an impact of almost 5% in the city of Helsinki GDP, generating over 4% of the city's jobs (Merk et al., 2012).

Finland's port governance model follows the Hanseatic tradition, since the municipal government controls the port. However, following international trends, most major ports in the country have recently become corporatized, evolving from municipal departments to limited companies owned by the city (Rönty et al., 2011). This change is thought to increase the port efficiency and operational independency, while the city still benefits from its activities and controls the land. The port authority of Helsinki is managed by a board of directors, composed by 9 politicians, who, according to Merk et al. (2012) do not interfere in the port business. However, the same authors highlight the doubts regarding the suitability of this model with such political presence. Although Merk et al. (2012) published the OECD report before the corporatization of the port authority, the situation has not changed, the board of director remains politically linked. A team of six persons including the CEO is in charge for the port management. Unlike Norway, the municipality gives a concession of the land to the port authority, who, acting as a landlord, administrates it for private companies. At the same time, the port authority owns buildings, such as the terminals, and certain superstructure. This organization is also responsible for its own investment, although for major infrastructure, such as the new Vuosaari terminal, was supported by the central government for the road and railway connections.

Until recently, the port occupied several sections of the urban waterfront, including the South Harbour for ferries and cruises, Kalasatama and the West Harbour. In 2008, the Vuosaari terminal in the eastern part of the metropolitan area was opened, agglomerating most industrial port activities. This change released several sections of the urban waterfront for regeneration, leaving only ferries, cruises and the Arctech shipyard in the urban centre. The operation is expected to create housing for 50 000 new inhabitants and 20 000 new workplaces (Oasamaa, 2013).

Today, large-scale waterfront redevelopment plans are taking place in Helsinki; however, the first projects of this kind took place in the 1970s and 1980s, in Katajanokka (Oasmaa, 2013). The first operations created new housing areas by the sea, introducing new uses for industrial buildings. Like it happened in other cases, the post-modern waterfront imaginary was gradually introduced and considered as an alternative for former industrial sites. This new imaginary and the increasing population, requiring new housing, brought a new perspective for the waterfront land the city owned

Since the municipality controls the port territory, it has considerable influence in the port development strategy, as it was visible in the decision to move the industrial activities to Vuosaari (see fig. 22). In the masterplan of 1992, the municipality decided to relocate and concentrate all port industrial activities in one location outside the city centre. In the interview [68], the municipality official indicated that the original motivation to relocate the harbour was to improve its efficiency and not to redevelop the waterfront. However, he also pointed out that the decision was received with certain scepticism by port stakeholders, since it opened the door to the relocation of all port activities outside the urban core, including those that require a direct urban connection. During the interviews, the port authority representative claimed that they considered themselves under threat of being fully relocated and feel in a "weak" position. Recently, the municipality has committed to keeping ferries in the urban waterfront, including the construction of the new terminal in the West Harbour redevelopment plan. These activities are responsible for 25 to 30% of the port's cargo (Merk et al., 2012), causing traffic issues in the city centre.

The decision and negotiation to relocate the harbour to Vuosaari was not easy, taking several years to complete the process. Initially other locations in the metropolitan area were also considered, but Vuosaari offered optimal connections and an existing industrial area, including a declining shipyard. The decision taken in 1992 was corroborated in the 2002 masterplan. Finally, the construction period lasted from 2003 to 2006, becoming operational in 2008.

Figure 22. Vuosaari Harbour. In the front we can see the border to the Natura 2000 protected area. Source: http://www.aprt.fi/projects/vuosaari-harbour/

The new site in Vuosaari presented several challenges, among them the immediate contact with a Natura 2000 reserve. The port authority took into account other issues besides traffic management, such as implementing an innovative design to reduce the impact of the new terminal, including specific sound proofing boundaries (Mustonen, 2013), and special lighting solutions.

At the same time, the municipality initiated the contemporary waterfront redevelopment process, prioritizing housing but also following a mixed-use approach in some areas. Currently there are several redevelopment plans affecting waterfront land, which will transform the city until 2030. Since the municipality is the main landowner of the city, it has stronger

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68   Interview with the municipality on October 6th, 2015.

Figure 23. West Harbour of Helsinki. In the top image before the regeneration plan. In the inferior, a rendering of the waterfront plan, today partially executed. Sources: https://container-mag.com/2013/10/18/eu-supports-baltic-twin-port-project/ and https://www.hel.fi

position in the real estate market, been able to implement an affordable housing scheme[69].

Unlike other waterfront plans, in the case of Helsinki there is no "star-architect" landmark. However, there have been several unsuccessful attempts to include this kind of projects in the South Harbour, the closest waterfront to the city centre. In this area we see how the maritime identity of Helsinki coexists with its capital-city role, including all political and social functions (Merk et al., 2012). Here we can find several heritage buildings such as the ferry terminal or the market, but also the city hall, the Swedish embassy, the Supreme Court or the presidential palace. At the same time, in this area there is an intense port activity, including ro-ro traffic[70] associated with the ferries. This complex urban jigsaw has been object of numerous debates over the past decade. Despite its importance it has remained an unstructured space for decades, but it has also become an excellent arena to observe institutions in play and different redevelopment approaches. The municipality remains the most powerful actor, controlling the land, but it has officially recognized the important presence of the port in this area, both for practical and symbolic reasons.

In 2008, we can find two different projects for the area. Famous swiss architects Herzog and De Meuron signed a hotel project by private developer in the eastern part that was never built. In the same year, the municipality commissioned ALA architects a plan for the

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69   In this scheme 20% of all housing will be subsidized, 40 % will have controlled prices, and the remaining 40% will be traded in a free market.

70   Ro-ro traffic is mainly composed by wheeled vehicles or trailers that roll on and off the vessels in ports, including for example automobiles, trailers or trucks. In the case of Helsinki, this traffic is often associated with the ferries.

central and western sections of the south harbour, reaching the Olympia terminal [71]. The municipality acknowledged this time the need to retain the maritime character of the areas, including the ferries, even though it reduced the space assigned to these activities (Ponzini and Ruoppila, 2018). In 2011, the municipality organized an idea competition for the south harbour with occasion of the World Design Capital Helsinki 2012 programme. The main scope was to design an inclusive plan for the area (23Ha), with better public spaces and pedestrian connections, linking the waterfront with the city centre, and improving the land use efficiency of the port areas. Four projects earned an award, but none was considered the winner. The most remarkable aspect of the competition from a port-city relationship perspective, was the development of a common vision for the waterfront, including the port functions.

Figure 24. South Harbour competition area. Source: Municipality of Helsinki (2012).

In the same year the south harbour competition was held, started the Helsinki Guggenheim museum process. The Guggenheim effect on waterfronts has been researched by several scholars (see Schubert, 2011; Vicario and Martínez Monje, 2003, 2004; Plaza, 2000, 2006; Gómez and González, 2001), however, as Ponzini and Ruoppila (2018) indicate, Helsinki differs from other cases in which cultural landmarks were used as investment and development catalysers. According to these authors, the Guggenheim process generated large controversy in the Finnish society for the relevant burdens that implied for the public administration, the opaque planning process and the draconian conditions imposed by a foreign private institution. Despite the intense negotiations, media attention, lobbying campaigns and open competition, the project was finally rejected in 2016 (Ponzini and Ruoppila, 2018). In terms of the port-city relationship it became a lost opportunity for collaboration between the different stakeholders, since the port authority was excluded from the negotiations[72].

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71   http://ala.fi/work/south-harbour-masterplan/ (visited on April 20th, 2018)

72   According to PA representative, they did not participate in the jury nor in the negotiations (interview on October 1st, 2015).

After the Guggenheim fiasco, the municipality developed a new plan for the market square in the South Harbour, this time including the port authority in the discussions. The final document grants the presence of port activities (mainly ferries) in this section of the waterfront, acknowledging them as key elements of the urban landscape. This plan and the new ferry terminal in the West Harbour assure port activities in the urban waterfront for the coming future, ending the pressures from some sections of the local government to release the waterfront for other activities. These infrastructures also pose challenges for urban management, particularly traffic related. However, the local planning department, collaborating with the port authority is trying to coordinate traffic management solutions to improve the outflow of trailers from the ferry terminal.

As it happens in other ports, the legal definition of the port authority prioritizes economic results and efficient operational management over other issues. However, the actions of the port authority in the last decade reveal a certain sensitivity and a need to achieve the SLO, as a reaction to the lost urban presence. On the one hand, environmental laws affecting all industrial activities have imposed limitations regarding the interaction with the surroundings in new industrial sites, such as in Vuosaari. On the other, since most heavy operations were relocated to the outskirts of Helsinki, the port authority developed a social agenda, particularly in the years before and after moving the port, to preserve their visibility despite the distance (see van Hooydonk, 2008). These initiatives included classic social activities such as port visits or open days, collaboration with schools, dialogue with local stakeholders to discuss nuisances, process transparency, and disclosure of port heritage and history.

The port authority of Helsinki won in 2010 the ESPO Award for societal integration. The main argument for the victory was the program developed during the years before and after the move to Vuosaari, and for their efforts to maintain port activities in the city centre. In the application document we can see that they developed this social agenda with the goal of reassuring the port presence in the urban waterfront (Port of Helsinki, 2010), confirming that they feared being forced to relocate also the passenger activities to the new terminal. The goal was to develop a sustainable relationship, to convince the stakeholders and decision makers that the port is a part of the city and that several port activities must stay in the urban fabric.

The case of Helsinki shows other perspective of the port-city relationship, one in which the port authority holds a weaker position than the municipality due to the land ownership. The institutions do not oblige the port authority to develop any sort of specific actions beyond the efficient administration of the land and port activities; however, they felt the urgency to go beyond this legal obligation to gain the SLO. On the one hand, they implemented innovative solutions in the new terminal to reduce the impact of port activities and the new construction in a sensible context. On the other, the port authority developed a social program based on transparency, cultural values, education and history to convince the local stakeholders to assure the port presence in the urban waterfront.

Most waterfront areas being redeveloped focus on new non-port programs, mainly housing, offices and public spaces. The ferries and cruises grant the continuity of port activities

on the waterfront, with interesting outcomes in the most sensible locations such as the South Harbour. In this area, a full redevelopment ignoring port activities could have been possible. However, after several attempts, the municipality also reassured the port presence, avoiding the complete transformation of the area into a post-modernist funfair based on red tape international franchise museums. The most recent plan shows an evolution from previous failures, since both actors port authority and municipality, have developed a common and coherent vision. However, the solutions and initiatives applied to improve the port-city relationship have been based on an action-reaction rationale. They only emerged when the traditional approach was problematic, and not from the institutional definition of the port authority.

Rotterdam

Rotterdam is the largest port in Europe with a total throughput of 467 million tons in 2017 (Port of Rotterdam, 2018). It is also the only European port in the global top 10, formed almost exclusively by Asian ports. The city has been an important transport hub since the 19th century, when the Nieuwe Waterweg connecting it with the North Sea was opened (Aarts et al., 2012). Today, Rotterdam has a population of over 600 000, being the second city of the Netherlands, after Amsterdam. The Rotterdam-The Hague metropolitan region has a population of over two million, with a clear maritime connection. The scale and impact of the port, handling 10% of the maritime traffic in Europe[73], has forced it to become a field of innovation, since all port related issues in other European port cities are here magnified.

Figure 25. Satellite image of the port of Rotterdam. Source: https://www.intelligence-airbusds.com/en/5751-image-gallery-details?img=760#.W3GJo-gzY2y

73   Value from 2016 according to Eurostat news release 184/2016 (https://ec.europa.eu/eurostat/documents/2995521/7667714/6-28092016-AP-EN.pdf)

Maritime economists (de Langen, 2004, 2006; Notteboom et al., 2013), economic geographers (Jacobs, 2014), management scholars (Han and Koppenjan, 2002; Dooms et al., 2013) and urban planners (Couch et al., 2008; Daamen, 2010) have analysed the case of Rotterdam from different perspectives. Its leading position in the European port system and its pro-innovation attitude makes it a rich case study, also in terms of historic urban evolution (van de Laar, 2016) and waterfront regeneration (Meyer, 1999; Daamen, 2010). Architecture scholars have also reflected on this case since it has been a test field to experiment new solutions by innovative famous local architects, such as OMA or MVRDV[74].

Officially, in the Netherlands, the port governance system follows the landlord model in the Hanseatic tradition, but with differences from case to case. During the last 15 years, port authorities have followed international port governance trends, evolving from departments of the municipality to publicly owned companies (de Langen and van der Lugt, 2006). In the case of Rotterdam, the corporatization process took place in 2004, when the port authority was officially detached from the municipal department of port affairs, becoming the Havenbedrijf Rotterdam NV (Ng and Pallis, 2010). One key difference in Rotterdam is that the municipality is not the single shareholder, it owns 70% of the shares, while the Dutch state owns the other 30%. In other Dutch ports, like Amsterdam, the municipality is the only owner of the port authority. The case of Rotterdam is different due to the financing agreements made for the Maasvlakte II expansion in 2006 (de Langen and van der Lugt, 2006). This port authority has been economically successful, providing dividends to the shareholders.

The Port of Rotterdam Authority has two boards, one executive and one supervisory. The first includes three members responsible for the management of the organization and is accountable to the supervisory board and the general meeting of shareholders. The latter can nominate or dismiss the members of the executive board. In this sense, the municipality as main shareholder is also responsible for indicating the executive board. The supervisory board controls and advises the executive board, it is formed by five individuals chosen for the personal characteristics and expertise, appointed by the general meeting of shareholders.

The role of the Port of Rotterdam Authority in urban transformations has evolved and is currently discussed. According to Ng and Pallis (2010: 2153), this publicly owned corporation has among its responsibilities financial affairs, commercial and physical development of the port, and the redevelopment of former port areas. However, this last issue was contested during the interviews, in which the port authority representative indicated that urban redevelopment was not among the main tasks of the organization [75]. We can interpret this statement in the sense that the port authority will not become an urban development actor, sponsoring the transformation of port areas into housing or leisure areas. However, if we

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74   OMA (Office for Metropolitan Architecture) is a world-famous architecture and planning office led by Rem Koolhaas. MVRDV is also a world-famous architecture and urban design office led by Winny Maas, Jacob van Rijs and Nathalie de Vries.

75   Interview with the PA on October 27th, 2015.

consider the most recent waterfront plans that have taken place in Rotterdam in recent years (e.g. Stadshavens, as we will analyse in the coming sections), "redevelopment of former port areas" could also refer to the transformation of port areas into new industries related to the port in different ways, such as investigation or innovative companies.

As we discussed in chapter two and three, currently there is an ongoing academic debate about the changing role of the port authority, mainly in Dutch cases and the port of Rotterdam as example of this change. Several scholars have argued for a new role of the Port of Rotterdam Authority, moving from a passive attitude to a more pro-active model (Verhoeven, 2010). Other Dutch academics are arguing that in Rotterdam, the port authority is surpassing the classic landlord model (van der Lugt et al., 2014; Vries, 2014) and some say that institutional change, through an institutional plasticity process has already taken place (Notteboom et al; 2013), or that it should be named "Port Development Company" instead of port authority[76] (de Langen and van der Lugt, 2017).

While the main debate has focused on the issue of logistic efficiency, traffic growth and participation in other areas of the supply chain, other authors (Daamen and Vries, 2013; and Vries, 2014), have shown that this pro-active attitude of the port authority could also provide innovative solutions for waterfront redevelopment. At the same time, this pro-active approach also generates new arenas where it could engage with other stakeholders, looking for sustainable development solutions (Daamen and Vries, 2013). Port of Rotterdam Authority's strategic plan shows the predominant commercial function of the organization, but also include other goals related with environmental and social sustainability and urban development (PoR, 2011).

In the case of Rotterdam, the municipality owns the port territory, but the port authority is responsible for leasing it to private companies undertaking port activities. As it was explained during the interviews, the main principle for port land management implies that if there is no current or future port activity in a certain land it should be returned to the municipality. This procedure allowed several traditional waterfront interventions during the 1980s, 1990s and early 2000s. However, the most recent waterfront redevelopment plan, the Stadshavens, has followed a different path, since it is not based on the brownfield regeneration principle, but on a transitional process. This plan structures the transformation of one area from exclusive port area, with heavy industrial activities, to port related activities and urban programs.

Rotterdam is a classic example of physical port city evolution following the Anyport model and its reinterpretations (Bird, 1963; Hoyle, 1988; Meyer, 1999). Technological changes linked to the functioning of global logistic chains modified the urban waterfront since the mid-20th century. The need for more land and the increasing size of ships motivated the port expansion towards open seas, culminating in the Maasvlakte 2, 40 km away from its original location. At the same time the port was growing away from the city centre, several waterfront regeneration projects took place during the 1980s and 1990s. These projects

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76   See in chapter 3.4 the reference about the work of de Langen and van der Lugt (2017).

shared the underlying goal of bringing people closer to the Maas river, integrating it in the city, and reconnecting the north and south sides. From this period, we can find several examples in areas near the city centre such as the Oude Haven (Old Port), Leuerhaven, Wijnhaven, Zahnhaven, the Scheeprartkwartier and Parkhaven, that were focused on developing new quality housing, leisure areas and offices (Aarts et al., 2012).

Figure 26. View of the Kop van Zuid, characterized by the numerous skyscrapers. Authors: José M Pagés Sánchez

The projects described above preceded the first large scale plan named Kop van Zuid (the head of the south - see fig. 26), drafted by Prof. Riek Bakker and Teun Koolhaas. This waterfront regeneration plan began to be discussed in the late 1980s and was finally approved in 1994, creating 5300 new housing units and 400 000 sqm. of office space, besides new connections with the north and cultural venues. The municipality invested in new infrastructure such as the Erasmus Bridge, opened in 1996, and the expansion of the subway system (Aarts et al., 2012). Unlike other port cities, gentrification was not an undesired effect but an explicit goal to balance the housing stock of the city, aiming at a more resilient urban social structure[77]. The plan included several skyscrapers, with projects from prominent architects, such as Rem Koolhaas, Norman Foster[78] and Siza Vieira. The Kop van Zuid is currently in its final construction stage, after overcoming the global financial crisis of 2008.

A second generation of waterfront plans emerged in 2002, linked to the future expansion of the port in the Maavlakte 2. Stadshavens included the remaining industrial port areas inside Rotterdam's highway ring, namely Merwehaven and Vierhaven (also known as M4H) in the north side of the river, Waalhaven, Eemhaven, Rijnhaven and Maashaven on the south side, totalling 1600 Ha of land and water (see fig. 27). After a first attempt to follow a similar scheme to Kop van Zuid and failing, the responsible authorities changed the approach. There were several key differences between both projects. In terms of scale (80 Ha for the Kop van Zuid against the 1600 Ha of Stadshavens), and location (closer to the city centre the first, or further away the second). Also, in the Kop van Zuid there were large scale brownfields available, while in Stadshavens there were several active port industries, that would theoretically relocate and release the land, but had not done it yet. At the same

77   Information discussed during the interview with the municipality representative in October 27th, 2015.

78   His building hosts the headquarters of the PA, who moved there after the corporatization in 2004.

time, the role of the municipality, with large scale public investment could not be proportionally replicated in the Stadshavens. In addition, the Maasvlakte 2 project also found obstacles on the way, showing the underlying risk for the complete operation. Finally, the two lead actors, the port authority and the municipality, had divergent visions and goals for the area, and the newly created corporation to handle the process proved to be inefficient (Daamen, 2010). In 2007, the approach changed from a rigid real estate development to a new flexible framework relying on five key vectors emerging from valences existing in the area, linked to port activities.

Figure 27. Area included in the Stadshavens plan. Source: Aarts et al. (2012)

The new approach for Stadshavens focused on creating new activities, research and business, linked to the local knowhow, such as the port sector or delta technologies. This new strategy enhanced the port-city relationship in other ways than the traditional musealization of maritime heritage or port festival. However, it included several key urban programs such as the creation of new "floating communities" and blue transports, to improve the connection of the area with the city, while, also integrated new housing in the areas that were suited for this program, such as Katendrecht. At the same time the actors implemented a strategic approach, the development schedule also changed, organizing it in three stages with increasing flexibility to be adapted to changing conditions. The Stadshavens plan was developed at the same time the port authority gained independency after its corporatization. The new institutional framework allowed it to play a more active role in key projects such as the RDM campus (Vries, 2014) [79].

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79   The RDM Campus is a new space developed to potentiate scientific research in start-ups, mainly technology based, and port related. The PA is one of the main stakeholders of the project.

Besides waterfront operations, the Port of Rotterdam Authority has developed other initiatives to improve the port-city relationship, innovating in several fields, due to its scale, available resources and externalities. During the interviews, we could see that the distance between the port and the citizens, mainly younger generations, is growing. Youngsters do not relate to the port as before. To tackle this problem, the port authority is developing different social initiatives, such as the World Port Days, in collaboration with the municipality and the port business community. The goal is to celebrate the port city identity and enhance the social integration of the port, producing results mainly for the long term (Tuijl and van den Berg, 2016). In Rotterdam, we can find two port centers, the EIC and Futureland. The first opened in 1993 as collaboration project between Deltalinqs [80] and the Port of Rotterdam Authority, being one of the first structures of the kind to explain the port to younger generations and show it as a good place to have a career. Futureland was developed in the Maasvlakte 2, to explain the port expansion project to a broader audience (Marini and Pagés Sánchez, 2016). Both have been successful attracting public (Merk, 2013), and along with the companies providing tours around the harbour, they have created a different port imaginary, showing it as a place to visit (Marini and Pagés Sánchez, 2016, 2017). Other social initiatives are being developed, such as the Startbaan project, focused on helping young unqualified people to graduate and improve their labour market prospects. Despite these efforts and other communication projects, including a free newspaper, the port authority is aware that the risk of social disconnection remains.

The port of Rotterdam presents several environmental challenges. Once again, the scale of the operations taking place in it and its core business (the petrochemical cluster is responsible for almost 50% of its throughput [81]), has forced the port authority to develop innovative solutions that later have become industry standards. For example, the e-nose system. functioning since 2010. This system includes sensors detecting the air quality and emitting alerts in case certain parameters are exceeded (Milan et al., 2012; AIVP 2015). The port authority has developed an array of environmentally focused initiatives besides the sensor system, including economic incentives for cleaner ships or reusing industrial heat surplus for the heating of housing close to the port territory (AIVP, 2015). These initiatives are often replicated in other ports and international organizations, such as AIVP, ESPO or Ecoports present them as best practice examples.

In the case of Rotterdam, we can see the tension between the institutions and the governance, and how institutional stretching process occur when it becomes necessary, for example in the configuration of the port-city relationship and the waterfront regeneration. If, as defended by Ng and Pallis (2010), the Port of Rotterdam Authority also has the responsibility of redeveloping old port land, it can look at these areas not just as future housing or leisure spaces, but also as opportunity places for new port activities that can coexist with the city and citizens, potentially bringing locals back to the port. The Stad-

80   Deltalinqs is the lobby organization gathering 95% of the port companies in Rotterdam. https://www.deltalinqs.nl/homepage

81   https://www.portofrotterdam.com/en/our-port/facts-and-figures/facts-figures-about-the-port/throughput (visited on December 3rd, 2018)

shavens plan proves this point. Failing to implement a traditional waterfront regeneration project opened the door to innovative approaches to the same problem. The new solution emerges from new governance, going beyond the traditional passive role of the landlord, engaging in new organizations with the municipality, coordinating goals and establishing a common vision.

It is also important to recognize that the Port of Rotterdam Authority has exceptional resources that allow it to support projects not related to its core business. At the same time, the municipality acknowledges the value of new port business, seeing them as tools to regenerate waterfront areas with a different approach. They also provide new arguments to compete against other cities, while developing new port-city interactions. Nevertheless, the main actors had to fail first to later react and implement a new governance strategy that defies the dominant institution of the post-modern waterfront imaginary. In this case we could see that the port authority was also whiling to defy the traditional conception of their role. The case of Rotterdam raises the question whether a catharsis is necessary to implement new approaches to the port-city relationship, to change the perspective of the involved actors.

Hamburg

Hamburg is one of the top three European ports in terms of total throughput (136,5 million ton in 2017) and container traffic (8,8 million TEUs in 2017)[82]. However, in the last ten years has been losing to its competitors, partly due to the limitations the port faces, such as the dredging of the Elbe River, the waterway connecting to the North Sea. Historically, the port city of Hamburg is one of the main examples of a city characterized by its commercial and maritime identity. Since the Middle Ages, when Hamburg was part of the Hanseatic League, it has been an important port city, growing linked to port activities. Although originally the port was inside the city walls, during the industrial revolution it expanded to the south side of the river, as it happened with many others. During the 20th century Hamburg was the main port of Germany, suffering heavy destruction during WWII due to its logistic importance. After the fall of the Berlin Wall, Hamburg became the main port for a hinterland expanding to several eastern European countries such as Poland or the Czech Republic (Hein, 2011b).

Today, Hamburg has a population of 1,81 million, and 5 million in the metropolitan area. It is the second biggest German city and an industrial and service hub, with the offices of international corporations such as Google, Unilever or Airbus. At the same time, it remains the base for many maritime companies, such as Hapag-Lloyd, Hamburg Süd or Kühne und Nagel. Hamburg container terminals were among the first to have fully automatized operations, e.g. Eurogate terminal. At the same time, important shipyards remain active close to the city centre, such as Blohm und Voss.

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82   https://www.hafen-hamburg.de/en/statistics (visited on December 3rd, 2018).

Figure 28. View of the city and the port of Hamburg, with the Elbe river separating them. Author: José M Pagés Sánchez

Hamburg is a city state in the German federal system, with relative autonomy from the central government in issues such as education or public safety. The state's boundaries have conditioned the port expansion, forcing a continuous contact between city and port until today. The port is not just an important element of the economy, responsible for156,000 jobs in Hamburg's Metropolitan Region (Hamburg Port Authority - HPA, 2017), but also the strongest identity symbol of the city (Kowalewski, 2018). However, as it happens in other port cities, Hamburg has developed a diversified economic model, including other sectors such as media and communication or services. Despite the social attachment to the port, local organizations and citizens are increasingly questioning port investment and negative externalities. During the interview with Hamburg Port Authority (HPA)[83], it was indicated that there was some sort of "urban schizophrenia" regarding the port, i.e. the people appreciate the port identity, particularly the romanticize image of the port as seen in movies or novels but reject the modern port for its negative externalities.

The main conclusion of the OECD report assessing Hamburg's competitiveness (Merk and Hesse, 2012), was that the relation between port positive and negatives externalities for the city of Hamburg is unbalanced. In the report, it is emphasized that the investment made in the port creates more positive economic outcomes in other German regions, such as Bayern or Baden Württemberg, than in Hamburg itself (Merk and Hesse, 2012). The "leak" of positive outcomes is visible not just in the broad hinterland, but also on the closest regional context. Companies operating in the port are being established in neighbouring states, given the increasing regionalization of port activities, with the associated loss of tax money (Schubert, 2014).

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83   Interview with HPA, on March 5th, 2015

This imbalance between local externalities was already detected by Grossmann (2008), who explained that the port required increasingly larger investments to keep up with the maritime technological changes imposed by multinational corporations, while their repercussion for the local economy was increasingly reduced. This author defended that the same investment would produce more economic benefits if it was applied in other sectors, such as cultural industries, research or leisure (Grossmann, 2008).

The case of Hamburg is just one exponent of the complex relationship between positive and negative effects of ports. This issue has been debated since port activities began a gradual disconnection from cities and mostly since society became aware of the pernicious consequences of heavy industrial activities. In the OECD synthesis report for their study of "Competitiveness of Global Port-Cities", Merk (2013) emphasizes the issue of national or regional benefits and local negative externalities as one of the biggest challenges for ports in urban environments. This conflict has also been one of the main motivations for port authorities to look for solutions to reduce the negative impacts, mainly in environmental terms.

Germany's port governance follows the Hanseatic tradition, in which the local government controls the port authority. In the case of Hamburg, the port authority is a publicly owned corporation since 2005, when it was created following international trends already explained in this chapter. This corporation is an independent organization but remains controlled by the local senate and the senator for economic affairs, depending on the Ministry for Economy, Transport and Innovation. The governance is done by two bodies, the management board and the supervisory board. The first is formed by two managing directors and the heads of the different departments. The supervisory board is formed by 9 members, of which six come from the senate, and three representatives of the port authority employees, freely elected. This board must supervise and advise the management board, it has the power to hire or dismiss it, and must approve the economic plan, the regulation for contracts, the creation of subsidiaries, tariffs and credits.

The governance model and institutional framework of HPA facilitates the coordination of initiatives between city and port to improve its environmental behaviour and reduce the negative nuances, giving to the port authority a pro-active role (Acciaro et al., 2014). However, the main scope of HPA as defined in the legal framework, is the economic and logistic efficiency of the port[84], while sustainability and a sustainable port-city relationship is seen as a by-product to facilitate port activities in the long term, based on reducing the negative externalities using environmental and social strategies. The port authority is also responsible for the maintenance and management of the port territory and port water infrastructure. This land can change to municipal control for urban development, in which

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84   As indicated in the first article of the law for Hamburg Port Authority (HmbGVBl. 2005, S. 256) http://www.landesrecht-hamburg.de/jportal/portal/page/bshaprod.psml;jsessionid=9344984AC964C778D77D4C32D4693C11.jp25?showdoccase=1&st=null&doc.id=-jlr-HPAErGHArahmen&doc.part=X&doc.origin=bs visited on October 16th ,2018.

case, the port authority should receive a compensation according to market prices, as it was seen in the Hafencity project[85].

Although HPA is an independent organization and the port is considered a key asset in economic and symbolic terms, the port future is discussed in the municipality and the senate. The port authority must accommodate the development path chosen by city officials and high political levels, as it was explained during the interview. In this sense, the debate about port development is visible in the waterfront, where port and urban goals may collide. The tendency has been an either/or path, following a traditional full reconversion strategy, answering to other urban problems, such as increasing housing demands (Schubert, 2014). This approach contrasts with other major ports as Rotterdam, where we could see innovative schemes. The land scarcity plays a major role in this discussion, since there is not enough available land for the relocation of port activities, unlike what happens in the Dutch case.

In Hamburg, we can find different approaches to waterfront regeneration, that authors like Schubert (2014), have organized in three main moments: the *Perlen Kette*, the Hafencity and the *Sprung über die Elbe*. Since 1986, the port authority has released 315 Ha of land for these urban redevelopment plans without replacing it (HPA, 2018). In these plans, HPA did not play an active role except for specific facilities or river maintenance strategies. The approach has predominantly been the complete replacement of port for urban activities except for cruises.

The first projects of this kind took place in the early 1980s on the northern side of the Elbe river, in the western section of the city close to Altona. These projects were mainly case by case, known as the Perlen Kette (String of Pearls), regenerating disused industrial buildings close to the waterfront and developing new luxury offices and housing buildings, developing a strong architectural identity (Hein, 2014). These projects were important because they brought a new image of the Elbe river, beyond the traditional port activities that had for the most part migrated to the south side of the river. As Schubert (2011) indicates, and from what we have seen in other cases here presented, the first waterfront regeneration projects in Europe followed a similar process, i.e. small-scale projects, focusing on the architectural quality of the individual buildings, without a large-scale plan.

The second major moment in the waterfront regeneration history in Hamburg was the Hafencity plan. This plan was initially discussed during the late 1980s in participatory workshops, later approved in 1997 and under development during the following decades, with predicted conclusion in 2030 (Schubert, 2014; Harms, 2007). The Hafencity is one of the biggest urban redevelopment projects in Europe, affecting an area of 157 Ha, expanding the city centre by 40%, following a mixed-use approach (see fig.29). Besides creating 7000

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85   According to section one of article four of the law for Hamburg Port Authority (Hmb-GVBl. 2005, S. 256). http://www.landesrecht-hamburg.de/jportal/portal/page/bshaprod. psml;jsessionid=9344984AC964C778D77D4C32D4693C11.jp25?showdoccase=1&st=null&doc. id=jlr-HPAErGHArahmen&doc.part=X&doc.origin=bs visited on October 16th ,2018.

housing units and 45 000 workplaces (Hafencity, 2017), it also hosts several major cultural facilities and museums, such as the maritime, car prototype or Speicherstadt museums, the latter dedicated to the homonymous heritage area, next to the redevelopment. The new Elbphilarmonie, from swiss architects Herzog and de Meuron, opened in 2017 after much controversy, becoming the new landmark of the city and the lighthouse project of the Hafencity. This kind of projects, often causing controversy for their exorbitant costs and practical usability, are a common approach in waterfront regeneration plans, as we have seen in other port cities such as Bilbao or Oslo.

Despite the physical closeness to the port, and that several port heritage elements have been musealized to be part of the public space and preserve the "maritime flair" of the area, few real port activities remain. The port authority has its headquarters in the Speicherstadt and a new cruise terminal has been built. Several universities have been created in the area, such as the Hafencity, dedicated to architecture and urban planning, and the Kuhne und Nagel university, a private university from the homonymous group for advanced degrees in logistics.

Figure 29. General view of the Hafencity project. The western section is almost completed, while the eastern it is starting to be built. Source: Hafencity GmbH

To develop the Hafencity, the municipality created an ad-hoc company named GHS, the Hamburg Port Area Development Corporation (later Hafencity Gmbh) which acquired shares of companies still operating in the area to be redeveloped, to facilitate the relocation (Harms, 2007). The port authority had a relatively passive role in the process, and it is not part of any board of the Hafencity Gmbh. However, the new container terminal in Alten-weder was in the same political decision and part of the same operation (Harms, 2007).

Since the area included in the Hafencity project is relatively close to the port industries, HPA had to develop additional measures, capping acoustic pollution from port companies especially during night time, to allow the development of housing in several areas (Merk and Hesse, 2012). At the same time, special construction regulation was applied in the buildings closer to the port to reduce the same negative effects and have liveable houses. In 2018, most of the western section was concluded, and several architectural competitions were held for the eastern part that will be completed with a skyscraper by British architect David Chipperfield, counterbalancing the Elbphilarmonie on the west. The remaining development will continue the path set in the original plan, following a mixed-use approach, emphasizing housing.

In 2007, the municipality presented the new city vision entitled Sprung über die Elbe (leap over the Elb river), one of the main urban development vectors for the coming decades. The main idea is to link the districts on the north and south side of the Elbe, including the river island Wilhemsburg, and Harburg. The areas included in the regional strategy are mainly urban, with social and economic problems, including some of the lower income neighbourhoods of Hamburg. The area is sectioned by several railway and roads, crucial both for the city and the port. Two large scale initiatives were planned to catalyse the redevelopment process, the Internationale Bauaustellung 2013 (IBA) and the International Garden Show 2013 (IGA). The first has been celebrated several times during the 20th century in different German cities to impulse local regeneration plans, often with experimental solutions, gathering support from many actors.

The IBA in Hamburg is focused on introducing new strategies and solutions for urban regeneration, mainly in Wilhemsburg, trying to solve the many conflicts between the traffic arteries, industrial tissue and housing areas (Schubert, 2014). Housing is one of the main issues in the IBA, addressed not only with new buildings but also refurbishing existing ones. Other goals are related to sustainable development, including new green areas or energy management programs. Several port industries are either active or functioning close to Wilhemsburg, and other areas included in the Leap over the Elbe vision, harming coexistence due to acoustic and air pollution. The port authority has joined research projects to study environmental conditions of Wilhemsburg, (e.g. water quality, see Chlebek et al., 2011), and has developed buffer areas, authorizing public uses such as music festival. Despite the urban orientation of the IBA, Hamburg Port Authority was involved both as a partner and as investor in specific projects affecting port territory. Particularly in affairs related to flood protections, maintenance of water paths and new bicycle lanes. For example, the port authority is cooperating with IBA Hamburg by providing technical and financial assistance on the pilot project Kreetsand, a tide-influenced shallow water area in eastern Wilhelmsburg with approximately 40 ha.

More recently, the municipality presented its Olympic bid linked to the north-south connection strategy. This was considered an opportunity to redevelop the Kleiner Grasbrook, a port area between the Hafencity and Wilhemsburg (see fig. 30). In this area, there are active industries, with concession contracts that would demand significant compensations

to leave their premises. The Olympic candidacy was first discussed in Hamburg in the early 2000s, seen as an urban development opportunity and to refresh the image of the city, even before the Elbphilarmonie project became the main urban marketing symbol. The city tried several times to present its bid to the national and international Olympic committee, generating intense debate between the port lobby - defending the traditional economic engine of the city - and those standing for new approaches and economic models, defending the need to solve urban issues before investing more in the port.

Figure 30. Rendering of the Kleiner Grasbrook, the port area where the Olympics would have been hosted. Author: GMP. Source: https://www.dw.com/en/nolympia-why-did-hamburg-vote-no-on-2024-olympics/a-18885256

The zenith of the debate took place in 2015, when a referendum was hosted to decide if Hamburg would present its bid for the 2024 Olympics. After a long and intense social debate with different groups on both sides of the matter, the "no" won with of 51,6%. Several issues influenced the public decision and may have played a decisive role in the popular thinking. For example, the ramping costs of the Elbphilarmonie - almost tenfold the original budget-, the doubts about the financing, lack of transparency, other social concerns demanding more attention and a conflict of interests with the port cluster (Lauermann and Vogelpohl, 2017).

Although the 2024 Olyimpics will not be hosted in Hamburg, the reconversion of the Kleine Grasbrook will proceed. It will be considered a part of the expansion of the Hafencity plan to the south. The approach will be similar to previous waterfront projects, the port territory will be transformed into urban programmes, with the exception that this time the area to refurbished is affects active companies. For this reason, the plan includes a transition period and space. The Hafencity will gradually expand over the Kleine Grasbrook, gaining 46 Ha, modifying the port perimeter. Port activities will remain on the south side of the area, occupying 53Ha. In this area, commercial and residential (6000 residents) programs will be organized to act as transition area between port and city[86].

86   Information on the Kleine Grasbrook from Hafencity GmbH https://www.hafencity. com/en/news/grasbrook-hamburg-to-get-a-new-city-district.html (visited on October 16, 2018).

The port has been historically considered the reason of being of Hamburg, providing a maritime identity to the city, visible in the urban environment, from public spaces, to official emblems or popular culture. However, the public support has decreased in recent times due to the potential environmental impact of port related works to maintain the port competitive, such as the Elbe river dredging. The port authority is aware that needs public support to keep port activities in its current locations, close to the city, and that the port has become an important element of the urban imaginary of the city.

To maintain the public support, HPA has developed a social event agenda along the year. For example, in May the Hafengeburtstag (port birthday) takes place, a major event with over one million visitors[87], celebrating popular maritime culture, albeit far from the real port activities, showing a festivalized version of the port. Private companies have also engaged into large scale social activities, such as the Cruise Days, celebrated since 2014 by cruise cluster companies, including lighting installation, cruise ships parade and fireworks. Blohm und Voss shipyards also organize a large music festival since 2010, the Elbjazz Festival. Originally in their facilities but gradually expanding to other locations in the city, such as the Elbphilarmonie. HPA also develops other, more discreet, social initiatives, such as bike lanes around the port to foster ship spotting, maintenance of the Elbe river beach, or green areas as buffer zones. These initiatives are considered necessary to carry on port activities close to the city. However, there are also tension points, mainly related with the expansion areas of the port, the environmental externalities, or the close coexistence between port and urban activities.

The urban location of the port of Hamburg has motivated a strong commitment from the port authority and the port cluster to control and reduce the negative environmental effects of port activities. For example, since 2013, HPA collaborates in the SmartPort Energy project with several municipal departments for energy use efficiency and management, including the production of green energy (Acciaro et al., 2014). These authors explain that the Hanseatic port governance model allowed better integration between port and municipality than in the Latin alternative where the local stakeholders could barely influence port development. Acciaro et al. (2014) also argue, using the comparison between Hamburg and Genoa, that the port governance model of Hamburg, better supports the new role demanded for port authorities, particularly in ports that remain urban. Although the environmental policies developed by HPA have shown positive results, including flood protection, the same integration is not visible in other themes, such as waterfront development.

In the interview it was clear that the port authority and the port cluster see urban development ambitions with mistrust and concern, arguing that the relocation of companies with ongoing contracts does not occur immediately and that large sums of money are required for compensations. Hamburg is in some respects a paradigmatic case of the misfit between the current logistic chain development, the institutions and the waterfront projects. HPA

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87   In the 2018 edition, over 1,3 million visitors came to the Hafengeburtstag. https://www.abendblatt.de/hamburg/article214279589/1-3-Millionen-feiern-Hafengeburtstag-unter-Schutzschild.html (visited on October 16th, 2018)

is legally defined to focus on commercial and technical issues of port development. It also carries several environmental responsibilities and the application of environmental rules. However, the waterfront projects developed over the past three decades reveal that the port authority, limited by this strict definition, is bounded to traditional port aspects, while the social and environmental agendas are considered necessary to compensate the negative effects of port activities.

The port authority and port lobby faced difficulties to get support for the Elbe river dredging, necessary to keep up with the increasing size of the vessels and to compete with ports for the same hinterland [88]. At the same time, there are few port cities where the local population supports more the port imaginary and considers it part of the urban identity. However, the urban strategies indicate otherwise. As it was pointed out during the interview, HPA must cope with what is decided in the higher political levels. In these levels, it has been decided to develop port and city separately, instead of trying innovative approaches, merging new port business and new urban forms.

Marseille

Marseille is the second city of France, with a population of 850 000 inhabitants and over 1,8 million in the metropolitan area. The city was founded by Greek merchants as Massalia when they arrived in the 6th century BC to the Mediterranean coast of what is today France, in the region of Provence Alpes et Côte d'Azur (PACA). Marseille evolved to become one of the main Mediterranean port cities, developing a symbiotic relationship between maritime activities and urban development.

Until very recently, Marseille has been undisputedly the main port of France, connecting the metropole with the colonies and overseas territories. During the late 19th and early 20th centuries, the port expanded from the Vieux Port towards the west until L'estaque, following the industrial growth of the city, using landfills and artificializing the coastline. In 1964

Figure 31. Map from Marseille from 1866, where we see the industrial port expansion and the transformation of the waterfront. Retrieved from: http://archivesplans.marseille.fr/archivesplans/

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88   The decision of dredging the Elbe river has been a controversial process that was only settled in 2018 after 17 years of discussion. (https://www.abendblatt.de/hamburg/article215158453/Nach-17-Jahren-Hamburg-startet-endlich-die-Elbvertiefung.html visited on December 3rd, 2018).

the port expanded to its second location in Fos, a village 50 km to the west from the city centre. Later, during the 1970s and 1980s, Marseille entered a period of economic and social decline for several reasons, among them the decadence of the traditional heavy port and industrial activities, with a major impact of the city's economy. Its inability to adapt to a post-industrial economy aligned with broader geo-political problems, such as decolonization and increasing international competition, caused severe social problems, turning the city into a dangerous place, gaining bad reputation (Rodrigues-Malta, 2001; Mah, 2014; Bergsli, 2015). In this context, during the 1990s, the central government, with the support of the EU, developed a plan to regenerate the city named Euroméditerranée. The plan included key investments in several districts and infrastructures, and international mega-events to improve the city's image, such as the European Capital of Culture of 2013. One of the main areas included in the Euroméditerranée was the urban waterfront, where the port of Marseille still is active.

Since the 1960s, the port of Marseille has been divided into two main locations, the East basin, in the city, occupying 8 km of the urban waterfront, and the West basin, in the village of Fos. The East basin is rather limited in terms of area (400 Ha), but includes several port activities, such as passenger services (ferries and cruises), fishing port, multipurpose terminals and shipyards. The West basin, occupies a large extension of land (10000 Ha), including the terminal Marseille 2XL. In the West basin we can find the major container terminals and the petrochemical clusters, two activities responsible for 70% of the total throughput (Merk and Comtois, 2012). Although the west terminal agglomerates 90% of the throughput, the East terminal generates 45% of the 43,500 direct and indirect port related jobs. This imbalance distribution of port employment occurs due to the nature of the activities taking place in each basin, while passenger services require considerable staff, liquid bulk cargo is the port activity producing less jobs (Merk et Comtois, 2012).

Figure 32. Satellite image of the East basin of the port of Marseille. Source: https://www.intelligence-airbusds.com/en/5751-image-gallery-details?img=24290&search=gallery&market=0&world=0&sensor=0&continent=0&keyword=marseille#.W3GfkOgzY2x

The port of Marseille is officially named the Grand Port Maritime du Marseille (GPMM) since the last port law reform in 2008, which changed the definition of the port authority. This law defined seven key ports that became GPM (Grand Port Maritime), that would remain controlled by the central government, while other smaller ports would be admin-

istered by local authorities [89]. In France, as in most Mediterranean countries, the port governance follows the Latin tradition in which the central state controls the port development strategy.

The complex governance system of the port of Marseille is formed by two boards (supervision and development) and the management (*directoire*). The management board has three persons, including the director. This board is pointed out directly by the central government and is responsible for managing the port and executing the strategy defined by the supervisory council. The supervisory board determines the strategic guidelines of the port and controls the management board. It is formed by 17 members, of which five represent the national government, including the responsible ministries, four represent local authorities, including the region, the department, the city of Marseille and the *Syndicate* of West Provence. There are also three representatives of the workers and 5 individuals chosen for their expertise, one of them representing the chamber of commerce.

Finally, the board for development must be consulted for strategic decisions, planning, and the pricing policy. This board is formed by 40 persons grouped into four categories. The first group are 12 representatives of port companies and organization responsible for different activities, from port pilots to maritime companies. The second group is formed by four representatives of the port workers. The third group includes 12 representatives of local authorities of districts or territories affected by port activities. In this group, the region decides which authorities are present. The final group includes 12 individuals representing professional organizations with expertise on infrastructural issues and environmental concerns. The members of the board for development are appointed by the prefect of the PACA region. Despite the complex composition of the different boards with representatives of several local and regional authorities, Debries et al. (2013) indicate that the new law emphasized the centralization of governance in main ports and the lack of local power to influence it.

The port-city relation has become a love-hate story, in which the locals acknowledge the important historical role of the port but also blame it for several urban problems, mainly for the lack of free access to the water in the western part of the city (Mah, 2014). However, in the last two decades, the Euroméditerranée operation has generated a new dialogue. The goal has been to clarify and decide the organization of the port in the urban waterfront, introducing hybrid planning and architecture solutions for sustainable coexistence.

The Euroméditerranée plan was the first major waterfront regeneration project in Marseille since the post-WWII reconstruction of the Vieux-Port. Although the plan was conceptualised by local organizations (Bergsli, 2015), it was finally led by the central state. This approach has been seen before in large urban transformation projects in France, particularly in cases where the local actors could not find an agreement on the strategy or vision for the future of the city (Rodrigues-Malta, 2001).

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89   Besides Marseille, the other six major ports of the France are Le Havre, Dunkirk, Nantes-Saint Nazaire, Rouen, La Rochelle and Bourdeaux. Later, in 2013 the ports of oversea territories also gained the same status (Guadeloupe, Guyane, Martinique and La Réunion).

Figure 33. General Plan of Euroméditerranée. Source: http://www.euromediterranee.fr/index.php?eID=tx_mm_bccmsbase_zip&id=621145655b71a169896a6

Euroméditerranée has a combined area of 480 Ha (310 from the first phase and 170 from the second), and will create18 000 housing units, one million sqm. for office space and over seven and a half billion € of investment (Paoli, 2010) Although the plan included investment and redevelopment of several urban areas far from the water, such as the district of St. Charles including central station, or the former industrial area of Belle de Mai, the port was considered both part of the problem and a crucial element for the solution. The discussion between the different involved authorities (GPMM, Municipality and Agence d'Urbanisme) and with the local inhabitants was difficult. As pointed during the interviews[90], the local community, particularly those connected to the port, saw the new waterfront operation with mistrust and feared a "Dubai" type of urban intervention that would erase port activities from Marseille.

To steer the Euroméditerranée, the central government created in 1995 a new QUANGO[91] named Établissement Public d'Aménagement Euroméditerranée (EPAEM), including one representative of the port authority in its board. This organization is responsible for the real estate strategy and planning, and to find an agreement on the land distribution and changes. During the first approaches for the waterfront operation, named Cité de la Mediterranée, the GPMM itself interpreted the first plan as a threat to the port position in the urban wa-

90   Interviews with the GPMM (November 13th, 2015) and Euroméditerranée (November 17th 2015).

91   QUANGO stands for Quasi Autonomous Non-Governmental Organization. This kind of governance tool is common in waterfront regeneration projects in port cities around the world. These special development agencies take different forms, however, usually the get the land ownership and extraordinary powers, in some cases above the traditional planning laws (Schubert, 2018). We can find them in other cases, like Oslo, Hamburg or Lisbon as we have seen in this chapter and the following one.

terfront. At the time, there was also an increasing popular opinion that port activities in the east basin were decaying and they could and should be completely relocated to Fos, where there would be no urban conflicts (Daamen and Vries, 2013). The negotiation stood in a stalemate until the central government increased the pressure, forcing the agreement to reconfigure the east basin in the early 2000s. According to the interviews, the final agreement was only possible when the port authority and the port community understood that the plan would not suppose a threat to their activities, and that the port would be preserved and recognized as necessary for the city. The western waterfront of Marseille was organized into three main sections, responding to different uses (urban, industrial and sport-leisure). At the same time, the GPMM also admitted that there were areas more fitted to urban activities if they preserved the control of most of the waterfront.

The projects proposed for Cité de la Mediterranée combined port and urban activities, while giving the port authority a new source of revenue, for the new leasing of activities and spaces that are not traditionally within their scope. The new urban waterfront included projects with multi-level architectural solutions, in which the people could reach the water border in higher floors, while port activities continue the ground. Several facilities have been developed this way, including the concert hall The Silo and the shopping centre Terrasses du Port, that remain under port control.

In the Cité de la Mediterranée, the port authority agreed on two main urban changes, one was deviation of the port boundary 10 meters towards the sea to replace the urban highway for a new tunnel and the Boulevard du Littoral, ending the barrier effect and connecting the waterfront to

Figure 34. Conceptual plan of the Cité de la Mediterranée. In the grey area of the bottom we see the new museum and the congress centre, where the people can get closer to the water. The arrows indicate the major goal of connecting the city with the sea. Cousquer (2011: 18).

La Joliette neighbourhood. The second was to release the J4 quay to leave space for the new Museum of the Mediterranean Civilisations (MUCEM) and the Villa Méditerranée, a congress centre. The port authority received a monetary compensation for the area and modified the other quays to compensate the lost space. At the same time, it reorganized the distribution of port activities, placing passenger ferries from Schengen countries where the port-city interface is more porous. The agreement was officially ratified in 2013, crystalized in the Ville et Port Charter, setting the planning and governance elements for the future organization of the urban waterfront.
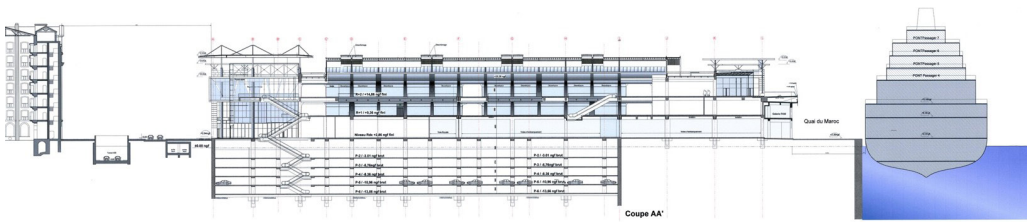
Figure 35. Section of Terrasses du Port. The ground floor is destined to port activities, while the top levels are a shopping centre. Project from: 4a-architectes and C Concept Design.

Euroméditerranée included several large-scale projects for offices and mixed-use in the neighbourhood of La Joliette, behind the port. These are being developed by large private investors or corporations such as the shipping company CMA- CGM headquarters or the Docks. The industrial part of the waterfront preserved the existing port activities. The final section of the waterfront was destined to marinas and leisure and sport activities, most of them already existing at the time when the plan was drafted.

Besides considerable investments in several key infrastructures, the plan included new cultural facilities and public spaces framed in the 2013 European Culture Capital program. Mega-events are a common catalyser of large urban regeneration, particularly in urban waterfronts, with cases such as Barcelona, Genoa or Liverpool (Mah, 2014). In the case of Marseille, the Mediterranean Sea and culture were the chosen theme. The program lasted the entire year, bringing 11 million visitors to 900 events in the city and the region, in which the waterfront played a crucial role emphasizing the connection with the Mediterranean Sea. The MUCEM and the Ville Méditerranée were two of the main venues, as well as the public space in the Vieux Port, refurbished for the occasion. The main strategic goal was to show the new, modern and clean image of the city, in contrast with its previous stigmatized idea of Marseille as a dangerous place (Mah, 2014).

The perimeter of the Euroméditerranée was extended in 2007, to include the second act, an area towards the west of the first part, north of the port territory, focusing mainly in new affordable housing and new green areas. Although there are not waterfront projects in the second act, the port will increase the Mourepiane terminal in the same area. During the interviews with GPMM, these two projects were identified as possible conflict areas in the future, due to the difficult coexistence between a port terminal and new housing. The first act is not concluded yet and several projects in the waterfront remain unfinished, such

as the J1 warehouse. This project should follow a similar hybrid approach seen in other buildings such as the Silo, i.e. cultural programs in the elevated floors, and port activities on the ground.

Despite the presence of the port in the urban tissue and its historical relevance, the disconnection between port and city in the urban imaginary is greater than in other cases here presented (Merk and Comtois,2012). As it happens in port cities, the population not related to the port activities are increasingly disconnected from it, despite the new waterfront interventions. However, as Mah (2014:80) indicates, contradicting Merk and Comtois (2012), there is still a certain sense of pride towards the maritime history of the city, but the citizens also criticize its deterioration. Marseille's port authority has previously developed few social initiatives, as pointed out by Merk and Comtois (2012), but recently has invested more in the relationship with the population. One indicator of the new social approach is the commitment to develop two (potentially three) port centres, following the approach recommended by AIVP, to explain and debate about the port, mainly with younger generations[92]. Besides the port centres, the port authority had previously developed other social initiatives, such as a school visits, but not with the same intensity and frequency as other major European ports (e.g Rotterdam and Hamburg).

In the case of Marseille, we can observe how institutions such as the post-modern waterfront imaginary and the negative connotations it may imply, affected the implementation of the plan, since local port stakeholders perceived it as threat to their interests. The port authority had itself doubts about the operation and experienced difficulties explaining the plan to the port community, who did all in their hand to stale the process. Finally, GPMM had an active role in the waterfront redevelopment process, particularly when new activities were introduced as part of the agreement to reform this area.

The new activities for the waterfront are in the boundary of the port authority's institutional framework. This organization was able to implement them because they took place in the port territory and because they combined port and urban activities. Although shopping and cultural programs are not new in waterfront projects, this approach was innovative for the architectural and governance solutions combining active port areas and urban spaces. The governance in this case stretched the traditional conception and social expectations for the port authority, to include more functions that before the Euroméditerranée. Another positive aspect of this plan was the result of the long negotiation process between the different groups of stakeholders, the port-city charter. This document established the official recognition of port activities in the city and its importance for future development, while it became the base for co-constructing the port-city relations for the coming decades.

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92   The GPMM did not only presented the new port centers projects, but also signed the Port Center Charter of the AIVP, a symbolic decision to show the commitment to improve the social interaction with the port. (http://www.aivp.org/en/2017/09/19/with-the-port-centers-charter-the-people-of-marseilles-are-back-at-the-heart-of-the-port-city-relationship/ visited April 20th 2018)

Genoa

Genoa is a historic port-city in the region of Liguria, in northern Italy, with almost 600 000 inhabitants, and 850 000 in the metropolitan area. The city forms with Milan and Torino the most industrialized area of the country. Although Genoa was created by Greek merchants as Marseilles, it only became a relevant maritime centre during the middle ages. At the time it gained the epithet of *La Superba*, while competing with the Venetian republic for the dominance of the Mediterranean Sea and developing one of the first banking systems in the world. After the period of splendour led by local Andrea Doria (15th and 16th centuries), Genoa would only regain economic and industrial importance during the 19th and 20th centuries. In this period, the city became the port for the regional hinterland formed by Torino and Milan. It suffered heavy damage during the WWII for its logistic importance, and once again regained importance during the post-war redevelopment, the "Italian miracle".

As it happened with other port cities, Genoa suffered with the global economic changes that took place during the 1970s and 1980s, linked to the decay of local heavy industries that were the foundations of its economic system. During the early 1990s the city developed one of the most studied waterfront regeneration projects in recent decades, the Porto Antico. The plan was authored by local starchitect Renzo Piano, who has influenced noteworthily the relationship between port and city and the organization of the waterfront in the last decades. Over the last 20 years, port and urban actors have developed different

Figure 36. Birds eye view of Genoa. Porto Antico in the centre of the image and Voltri terminal in the left corner.
Source: https://www.portsofgenoa.com/it/comunicazionemarketing/photogallery/item/19-

initiatives to improve the contact with the sea. The port authority has acted within its institutional framework, characterised by the centralised power structure, such as in Spain and France.

In 2016 the Italian government reformed the port governance with the law n.169/2016, implementing a regional system, in which a port authority controls several ports. In the case of Genoa, the new organization is the Autorità di Sistema Portuale del Mar Ligure Occidentale (Port System Authority of the Western Ligurian Sea). This system, besides Genoa, includes the port of Savona and Vado Ligure, and is the biggest in Italy in terms of throughput, 69 million tons in 2017 [93]. The port of Genoa has different activities besides cargo handling (mostly containers and liquid bulk), being one of the main passenger ports in the Mediterranean with 4,2 million passengers in 2017, even though the cruise passenger diminished by 7% from 2016. Other port activities in the port territory include, bulk cargo terminals, shipyards and marinas. Genoa is the one of the few port cities with an airport inside the port, due to the complex topography and scarcity of flat land where large infrastructure can be built.

The port governance system follows the Latin tradition. As in France, the central government controls the port authority and determines the main policies, reducing the independence of the organization and its capacity to dedicate resources to other activities that are not considered core port issues. In the Italian case, the port authority does not control the profits it generates, since they are transferred to the central state who decides where and how they will be applied, often redistributing them over the national port system. The port authority cannot invest freely, as it was confirmed during an interview [94]. If this organization wanted to invest in other areas that could be more beneficial for the port-city relationship it had to be associated to other port investments. This governance model also reduces the influence of the municipality in the port development strategy.

Although the new law introduces several changes, maritime economists have already criticized it. Parola et al. (2017) indicate that the new law did not considered the local demands for more independent port authorities. In their article, they emphasize that these organizations must be economically independent and corporatized for better efficiency and port performance. This was already a problem in the previous law, but the new reform increases the complexity of the system, introducing a new organization (Port System Authority - ASP) in between the local port authority, now port directorate, and the national government, increasing the distance between the main decision makers and the local context. Parola et al. (2017) also criticize the new reform because it does not provide a governance model that is independent from the politics, in fact, increases the political dependency, reducing even more the influence of the local stakeholders. The same arguments could also be applied to the port-city relationship.

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93   Information from Ports of Genoa: https://www.portsofgenoa.com/en/marketing-communication/news/item/802-record-breaking-throughput-figures-for-the-ports-of-genoa.html (visited on October 17th, 2018).

94   Interview with the PA, on November 24th, 2015.

In administrative terms, the president of the ASP is appointed directly by the central government. The other governance element is the management committee, formed by the president, a representative from the region - or regions if the ASP affects more than one - a representative from each municipality affected by port territory, and a representative from the maritime authority appointed by the maritime direction with territorial responsibilities. This management committee must approve the port development plan and the financial management. However, the president has great influence over the committee, since he proposes the plans, the regulation or other measures. The law also defines a second body in the port authority, the board of auditors. This body is formed by three individuals appointed by the central ministry of transport. The president and a substitute are appointed by the ministry of economy, and is responsible for supervising the management and accounting, reporting periodically to the central government. In the ASP of the western Ligurian Sea, there is also a *Tavolo di Partenariato*, an advisory council gathering 18 representatives of port industries and unions, and the president and representatives of both the ports of Genoa and Savona. By law, these local stakeholders are not included in the management committee that only integrates representatives from public authorities.

Since the law is very recent, it is not possible to evaluate the effects it may have in the port-city relationship. From a theoretical perspective there could be arguments in favour and against. The new body may be closer to a regional level if it demonstrates independence in terms of investment and decision-making capacity. On the other hand, the new organizations may distance itself from the urban context and its problems, focusing more on the broader hinterland connections. This change is in line with what transport geographers has pointed out as the logical evolution of ports, the last phase being regionalization of port infrastructure (Notteboom and Rodrigue, 2005).

The port of Genoa has partly followed the traditional expansion schemes developed by several geographers already discussed in this dissertation (See chapters 1 and 2). Originally the port was an integral part of the old city centre, where it remained until the industrial revolution. From the late 19th century until the early 1990s, the port grew towards the west, artificializing the coastline with landfills, destroying pre-existing beaches. However, the connection with the city remained strong, even in the city centre. The most recent expansion was the Voltri terminal, a large container facility in front of the district of Pra opened in 1992, where several urban planning solutions have been implemented to reduce the impact of port activities and provide the local population with sport and leisure facilities that act as buffer areas to the terminal (Port of Genoa, 2015).

Since the late 1980s we have seen several waterfront regeneration plans in Europe. In the case of Genoa, we can find several projects with different motivations and approaches that have focused on the waterfront, from traditional approaches from the late 1980s and early 1990s to recent innovative ones. Genoa was one of the first cases to redevelop its historical waterfront with the Porto Antico project in 1992. This project created new public spaces by the water and cultural facilities, linked to major cultural events. The Porto Antico waterfront has been analysed several times (see Gastaldi 2007, 2010, 2013; Gastaldi and Camerin,

2017; Corsi, 2013; Marshall, 2001), therefore a detailed explanation is not required. We can emphasize that the project captured the *zeitgeist* of the time in terms of waterfront regenerations. Renzo Piano followed the traditional approach, transforming former port areas in the city centre to regain a direct access to the water, creating new leisure facilities and providing public space that was absent in the dense city centre (Gastaldi, 2010; Gastaldi and Camerin, 2017).

Figure 37. View of Porto Antico. Author: José M Pagés Sánchez

The Porto Antico project emerges from a new stage in the port-city relationship. In the mid-1980s, the port authority and the municipality collaborated towards the same objectives, that were later reflected in the new city masterplan and in the modification of the port plan. In 1992, Genoa celebrated the 500th anniversary of the arrival of Columbus to America, who was supposedly Genoese. The historical date motivated an international exposition and the urban renewal operation[95]. The project was based on an agreement from 1985 between the port authority, the municipality and the region to transform the old harbour into new leisure and cultural uses (Gastaldi and Camerin, 2017). It was one of the first large waterfront projects of Renzo Piano in the city, a theme to which he would contribute greatly in the following decades. This architect designed the masterplan, the public space, the congress centre, the Bigo (an elevator on the waterfront resembling an old crane) and the aquarium. One of the main decisions of the project was burying the road parallel to the waterfront, to allow a continuous public space from the city centre until the water, later imitated in other port cities, such as Oslo and Marseille.

After the project, in 1994, the Porto Antico public society was created to manage the area. The shareholders of this organization are the municipality (51 %), the local chamber of commerce (43,44%) and the port authority (5,56%). Although the port authority has a minority position, and the municipality controls the society, this organization was an innovative approach in a Latin governance mode. Traditionally ports have been often limited in their scope to "pure" port activities. Although in the interviews it was indicated that the port authority cannot engage in urban matters, it remains active Porto Antico, whose scope is managing urban space and facilities.

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95   A new public society for the Expo development was created in 1988, and counted with the PA, the municipality, the province, the region and the chamber of commerce (Gastaldi and Camerin, 2017). The state invested in the expo the equivalent to 500 million €.

In the following years after the Porto Antico project, the port authority and the municipality developed several initiatives to improve the port-city relationship and the waterfront, often linked to major cultural or political events (Gastaldi, 2013). In 1996, the port authority created a new agency that should provide ideas for the new port plan. This agency collaborated with several renowned international architects (e.g Manuel Solá Morales or Rem Koolhaas) and the university, producing new ideas for the port-city interface, that later would inspire other projects (Molinari, 1999; Imbesi and Moretti, 2013). In 2001, the city hosted the G8 summit, a catalyser for further urban renewal in the historic area. Renzo Piano also intervened this time, with the project of the Biosphere. In 2004, Genoa was the European capital of culture. This cultural event gave an impulse to complete the central waterfront renewal started in the 1980s/90s. The approach remained leisure-based, including new museums, such as the Galata Museum of the Sea and Navigation, but also including other functions, such as the economic faculty.

In the same year 2004, Renzo Piano presented the Affresco Plan, providing a vision for Genova's waterfront, from the area of Fiera until Voltri, including the port, airport and urban waterfront (see fig. 38). The region commissioned Renzo Piano to prepare a plan for the port, which he accepted to do free of charge. The plan included several major changes, such as transforming the airport into an island, creating more space for port activities, or relocating the oil harbour and the repair shipyards. Despite the favourable opinion of key public actors, such as the port authority, the municipality or the region, different port companies opposed some ideas presented in the plan, such as the owners of the shipyards (Gastaldi and Camerin, 2017). Renzo Piano presented two more versions of the plan in 2005 and 2006, but the doubts regarding its financing, and other challenges, such as building the new airport while the old one remained active, made it unviable (Gastaldi, 2010).
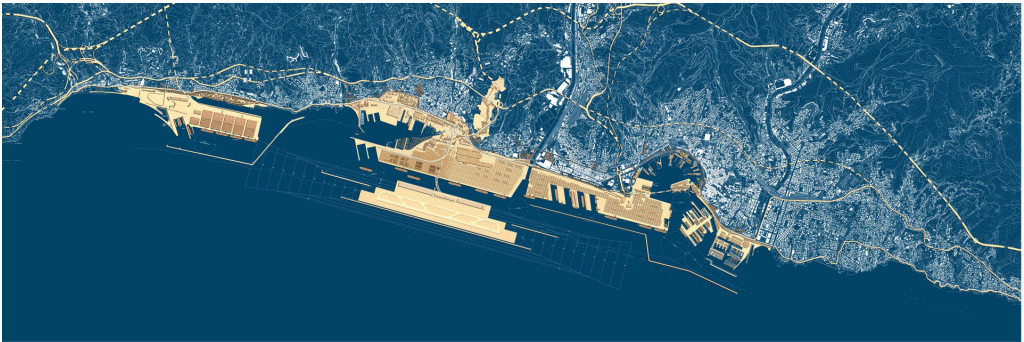

Figure 38. General plan of the Affresco vision from Renzo Piano. Source: http://www.rpbw.com/project/a-vision-for-genoa-harbour

Although the Affresco was finally not implemented, it provided opportunities for collaboration between the different organizations, for example the new agency "Waterfront and Territory", with state financing and support. This agency was dismantled in 2008 and absorbed by the Genoa Urban Lab, a new organization made to discuss urban problems of the city and foster the discussion around the new urban masterplan. The Affresco also provided a first vision and a base to discuss the port-city relationship, bringing this issue to the

spotlight of the media (Erriu et al., 2017). The involved authorities were willing to discuss different perspectives and cooperate, but the opposition of certain sectors also showed the difficulties of operating or transforming port areas with active industries, breaking the status quo. The different port clusters may perceive change as a threat to their interests, in a similar way as it happened in Marseille. The plan provided new ideas that later would inspire new visions for the waterfront, or even work as base for new port infrastructure (Gastaldi, 2010).

In most cases previously analysed, the visions for the waterfront were only partial or presented from separate perspectives, either port or city. Instead, the vision defended by an independent actor such as Piano, provided a coherent vision, albeit utopic, combining activities that can exist in the waterfront, merging the urban and port imaginary, As Gastaldi and Camerin (2017:50) indicate, it was a moment of change in the way the city looked at the port, understanding that strengthening the port does not immediately means weakening the city.

Later, the port authority, the region and the municipality commissioned again Renzo Piano to do a plan for the eastern section of the waterfront, with more concrete problems, combining port and urban issues. The architect presented the first version of the Blue Print plan in 2014 (see fig. 39). This time, the port goal was reorganizing and improving the repair shipyards close to the Magazzini del Cotone congress centre. On the other hand, the urban goals were redeveloping the Fiera district, gradually decaying from the lack of activities, and reconnecting the Porto Antico with the eastern section of the waterfront (Alberini, 2017). The result was a plan providing the main guidelines for future interventions, improving the efficiency of the shipyards land use, introducing new programs that could regenerate the area, including luxury housing, that at the same time could make the intervention financially viable. The main physical characteristic of the new waterfront plan was the new water canal, parallel to the coast, following the old wall line (Alberini, 2017 and interviews with Renzo Piano Architects [96]). The plan was immediately supported by public authorities,

Figure 39. Blueprint plan by Renzo Piano. Source: http://www.blueprintcompetition.it/it/blueprint/il-blueprint-10-punti

96   Interview with Renzo Piano Architects on December 1st, 2015

but also opposed by local stakeholders, such as the yacht club and the rowing associations, which presented legal actions to stop it.

Unlike the Affresco, the Blue Print was more concrete in its spatial and functional program. Since the plan tackled planning problems for local industries it was able to gain their support. At the same time, it had a clear financing scheme, since the port could be responsible for almost half the investment, (73 million € out of 160) because it improved port facilities.

In September 2015, Renzo Piano presented the final version of the plan, including the new Pilot Tower close to Fiera and the new beach and green areas in Piazzale Kennedy. The different sections of the Blue print should be discussed in competitions, providing opportunities for smaller or younger offices to present their ideas for the Genoese waterfront. The Blue Print is the consolidation of a process started with the Affresco, combining port and urban functions on the waterfront, presenting an alternative to the post-modern imaginary. Although there is opposition from minority groups, something almost inevitable in waterfront projects, the Blue Print seems to have better chances of being built, unlike previous projects such as the Ponte Parodi terminal, or the Silo Hennebique refurbishing.

Besides the waterfront operations here presented that have influenced or integrated the port masterplan, the port authority has also developed social and environmental initiatives to improve the relationship with the city. Besides the traditional port visits and open days as in other ports, in Genoa was developed one of the first port centres of second-generation (Ghiara et al. 2014; Marini and Pagés Sánchez, 2016). In 2009 the port authority, the region, the port community and the university collaborated to develop this facility that explains the port to the broader population, mainly children and teenagers. The port centre of Genoa follows the model of those of Antwerp and Rotterdam, but it is placed in the port-city interface, close to the historic city centre, in the Magazzini del Cotone. The project had EU funding and has been relatively successful, hosting almost 20 000 visitors per year. Today, it is managed by Port Antico society, after a been temporarily closed between 2014 and 2016.

In environmental terms, the port of Genoa has been one of the most innovative ones in Italy in recent years (Acciaro et al., 2014). As other ports here analysed, one of the actions has been bringing electric power to quays, providing alternatives to oil engines for the docked vessels. Another initiative has focused on energy efficiency, both reducing its waste and finding production strategies. However, the port authority faced a reductive legal framework that limited its capacity to engage in businesses, allowing it only to act as regulator (Acciaro et al., 2014). Hence, it was only possible to prepare a plan in which private companies developed energy production businesses. At the same time, the port authority intended to coordinate this initiative with similar ones by the city but was again limited legal boundaries. This situation shows how the legal elements supporting the institutions can hinder pro-active policies that can have positive effects on the city. In cases when the port authority is trying to go beyond the traditional landlord model, the institutions can cap these ambitions, particularly in centralize governance models like this one (Acciaro et al., 2014).

Although in Genoa the central government controls the port authority and the economic development of the port, over the past thirty years the municipality, this organization and the region have developed a joint vision of the waterfront with the help of Renzo Piano. The vision has evolved greatly from the first plans to regenerate the waterfront into a leisure and touristic area, to hybrid solutions combining port industries and urban programs. The problem of these visions remains its actual concretion, since for the moment they have nurtured the debate, but have not produced tangible results. Several projects combining port and urban functions remain for the moment in the drawing board (e.g Ponte Parodi cruise terminal, or Silos Hennebique). These projects have faced several challenges, from the lack of public funding that allowed the first waterfront redevelopment, to inappropriate economic climate (2008 financial crisis that affected mainly the southern European countries) to lack of appropriate governance.

4.5.   Key issues: need to innovate to be flexible and to be flexible to innovate

In these six cases we were able to find recurring ideas in the governance, the institutional frameworks, the problems and solutions from the key actor and its interaction with other stakeholders. We confirmed several ideas presented in the literature, such as that ports are still economically relevant, that the positive effects are mostly visible in the broader hinterland while the negative ones remain in the city, that port authorities are gradually deploying environmental strategies and that society is increasingly detached from the port, preserving only a romanticize idea from films and literature.

In these cases, we could also observe other aspects, such as the difference between Hanseatic and Latin models. While the first does provide a closer relationship between port and city organizations, it does not mean that it is balanced or sustainable, since the urban agenda tends to be politically prioritized. We could also see that there is a dominant waterfront planning approach and an emerging one. The post-modern waterfront imaginary has been established during decades, adopted in the first operations of this kind in these cities (e.g. Kop van Zuid or Porto Antico) or in more recent ones (Hafencity or Fjord City). This imaginary has gradually become an institution being legally, normatively and socially supported, and taken for granted as the "natural" approach to the waterfront regeneration. The alternative approach defies the dominant conception, in what potentially could become an institutional stretching process. The other main conclusion from these cases is that there is a conflict between what it is normatively and socially demanded to the port authority and the general conception of its mission, also supported on legal, normative and socio-cultural elements. While the dominant conception of their mission is to focus on economic and logistic issues, as they are defined in the law, in few cases an alternative model beyond landlord is gradually followed. This issue is visible in the waterfront projects and the position the port authority has in them, but also in other situations such as engaging in business or green policies.

a. An unbalanced relationship

In previous chapters, we have seen that historically the port-city relationship was symbiotic and port growth was associated with urban development. However, today, this exchange between positive and negative externalities is unbalanced, becoming the main problem affecting the port-city relationship. More specifically, the positive effects extend to the broader hinterland, while the negative ones remain in the metropolitan area hosting the port (Grossmann, 2008; Merk, 2013) [97]. This problem is at the core of a complex relationship between global systems formed by flows that are crucial for the economy, and the local context formed by fixities that are urban agglomerations, that bear the side effects of these flows.

The clearest example of the negative externalities that locals supports are the environmental problems caused by port industries. In the sample of port cities, we could confirm that this is the most important issue for all involved actors. It was also clear that there are sectors such as the petrochemical, predominant in ports like Rotterdam and Marseille, that entail more risks. However, other types of traffic also cause environmental damages and harm ecosystems. For example, container cargo often causes congestions in the road system accessing the port (Rotterdam, Hamburg or Genoa), port expansion projects imply artificializing the coast (Rotterdam or Helsinki), and even passenger related activities, such as cruises or ferries, are associated to polluting emissions (visible in Hamburg, Genoa or Marseille) or ro-ro traffic, also plugging the urban traffic systems (a problem in Oslo or Helsinki). Nevertheless, in our sample we could also confirm that port authorities have assumed the leadership in the quest for sustainable port-city relationship[98].

The current governance of ports in port cities follows a double rationale, influenced by global policy institutions such as the OECD, IMO or the EU. The main goal, and what it is socially and legally expected from port authorities, is to increase the efficiency of port logistic operations, preserving a relevant role in the global supply chain, and providing positive economic results. On the other hand, the sustainability paradigm has enforced a

[97] The OECD did a broad investigation on port city competitiveness that has been one of the key references of PhD this research, including numerous European case studies, several overlapping with our own sample. In their final report, it was clear that the main challenge ports in cities face is the imbalance between the positive externalities that spread out the broader hinterland, and the negative effects that remain in the urban area (Merk, 2013). The report provides a series of recommendations to reduce the negative issues, mostly environmental concerns with policy measures. The same organization published short after a paper questioning the efficiency of port-city policies, emphasizing that there is a lack of knowledge on the topic, and that policies to foster port-city synergies continue to fail (Merk and Tang, 2013).

[98] The port of Hamburg for example published in 2016 a report on sustainable behaviour, referencing the global governance initiative of UN Sustainable Development Goals. HPA wanted to show their commitment to achieve these goals, in all three dimensions of sustainable development (HPA, 2018). Other ports here analysed, such as Rotterdam or Marseille also explain in their websites what actions are they taking, and others not included in this research, have also prepared port plans based on the three axes of SD (e.g. the port of Amsterdam plan).

normative goal, mostly from an environmental perspective focused on reducing the negative externalities. This last concept has influenced policies at European, national and local governance and legislation.

The green discourse has also been backed by some private companies, which are under social pressure to implement greener transportation methods (Acciaro, 2015). However, in some sectors such as cruises, the main corporations are reticent to adopt all necessary measures to reduce their impact (NABU, 2017)[99]. In the analysed cases we could see that port authorities try to solve environmental issues investing in governance measures, such as incentives or fines, and technology, using for example detection systems, electric power supply for vessels and traffic management systems. These measures relate to the recommendations to improve the port-city relationship highlighted by Merk (2013) in the OECD report, i.e. reducing the negative externalities and increasing positive outcomes. In the report, Merk (2013:7) indicates three main areas to enhance the local benefit: the maritime cluster (i.e. maritime services that can be associated to the port), the port-industrial development, and the port-related waterfront redevelopment. This last issue caught our attention since we could see different approaches in the six case studies.

Among the selected cases we could see that port authorities (such as Hamburg and Rotterdam) are responding to new sustainable development and social demands, exceeding the traditional landlord model. This situation was already observed by authors such as Acciaro et al. (2014), and Verhoeven (2010). However, we must go back to our main research question about the institutions governing the port-city relationship and if they contributed to long-term sustainability.

b. Conservative definition of port authorities

In general terms, the different national laws defining the mission of the port authorities prioritize economic results, logistic efficiency and managing the port territory. This conservative definition is also supported by social expectations for these organizations, reinforcing their passive role in urban matters. The respective ministries responsible for the environment and the local authorities have also introduced new legislation affecting port activities and land, mostly in terms of emissions, particles, noise and other environmental indicators. Port authorities are responsible for enforcing this legislation, and EU initiatives in the same direction[100]. The legal obligations refer mainly to economic and environmental issues, safety regulation such as the ISPS Code, or labour negotiations.

Other aspects affecting the port-city relationship, such as social integration, or waterfront redevelopment are not included in the legal definition of port authorities. At the same time, the capacity to innovate and engage into new activities depends on the governance and the

99   The German environmental NGO NABU makes a yearly evaluation of the behaviour of cruise companies operating in Europe, focusing on polluting emissions and its relation with health issues. https://www.nabu.de/news/2017/09/23043.html (visited on April 24th, 2018).

100   For example, the Directive 2014/94/EU concerning alternative fuels; the Directive 2005/65/EC concerning port security; or the Directive 2000/59/EC on ship waste.

leadership, and on the priorities and social expectations on each port city. For example, in the case of Hamburg we could see that the port authority has been active in energy issues, while in waterfront redevelopment remains passive, except from specific passenger terminals. In the first case, HPA is going beyond the landlord model, while in the second follows a "business as usual" approach, i.e. not been involved in waterfront redevelopment and releasing the land for urban development.

While the different national laws define similar goals for the selected cases, the differences between the Latin and Hanseatic port governance models influence the port-city relationship. These differences are mainly visible in the investment and decision-making capacity, and in the ability to coordinate initiatives with the municipality and local stakeholders. Despite recent legal reforms affecting the selected ports we confirmed that the Hanseatic port governance facilitates a clearer and more direct relationship with the local context and actors, including municipalities. On the other hand, the Latin alternative, pending on the central government, limits the capacity of port authorities to respond to demands from local citizens and companies. However, these two main governance traditions have been adapted to the local context, forming a panoply of heterogenous models, confirming what Hall (2003) and Ng and Pallis (2010) defended. Although port and urban policies can be better coordinated in the Hanseatic model, it does not automatically imply hybrid waterfront solutions, better physical integration between port and city or easier dialogue.

The legal framework does not define in which terms the port-city relationship should be developed, remaining an issue depending of the contextual specificities of the case and the leadership. One of the few issues affecting the waterfront development determined in the legal definition of port authorities is the procedure for releasing port land for other uses. While in some cases there is an economic compensation (Hamburg), in others, the port authority must release the land when there is no clear port use, since it belongs to the municipality (Helsinki or Rotterdam). In the southern cases, releasing port land is more complex, involving negotiation between actors at different governmental levels (national vs local), that have different interpretations of the same problems and different agendas. Although this is often associated with conflict, it has also motivated innovative approaches.

One of the main issues for the port-city relationship is finance control and investment freedom. In some cases, particularly in south European countries (Latin tradition), the port authority can only invest in port projects (e.g. Genoa). Instead, in ports following the Hanseatic model, the port authority has invested in plans that can have positive repercussions on the city, even if they deviate from core port business. For example, the Port of Rotterdam Authority stretched its institutional framework, being involved in initiatives such as the RDM Campus. In other cases, like Oslo, the law was changed to allow the port authority to invest in the waterfront redevelopment, but the profit had to be reinvested in port infrastructure. Another economic issue affecting the port-city relationship is the participation of the municipality in port generated profits. While in cases such as Rotterdam, the municipality receives dividends from the port (de Langen and van der Lugt, 2017), in other, like Genoa, the profits are controlled by the central government.

Developing a sustainable port-city relationship remains implicit in the quotidian governance and responsibilities of port authorities. In this matter, there are also key differences between the Hanseatic and Latin models, particularly in the influence of leadership. In Hanseatic cases, the city council (Oslo), the city parliament (Hamburg) or the shareholder meeting (Rotterdam), influence the choice or directly select the port authority's management board and/or the CEO. On the other hand, in the Latin cases here presented, the central government indicates the president of these organizations to whom he will answer directly. Although the local authorities have seats on the boards, the strategy is decided by central ministries and applied by the president they assigned.

The evidence gathered in these six cases indicate that a conservative interpretation of the role of the port authority in port and port-city governance negatively affect the quest for sustainable port-city relationships. This conservative conception, prioritizing economic results over environmental but mainly social issues, is supported by the legal definition of port authorities, but also by the social expectations on their role. We could see proofs of this for example in the cases of Hamburg (not engaging in waterfront transformation plans), Genoa (limited capacity to invest on initiatives for the city), or Oslo (benefits of real estate operations must be reinvested in port projects), among others. This institution will become clearer in the governance of the focus projects in the Lisbon case.

c. Waterfront plans

In the selected cases we could see that port authorities have implemented several solutions reflecting a new conception of the port-city interface. These measures have been previously commented and can be found in guides of good practice, such as the one from AIVP (2014). For example, reducing or eliminating barriers separating port and city, merging uses in the same space or building, integrating explanations of the port in the public space, making the port reachable by bike or building sightseen points

However, in broader waterfront projects and plans, we can see institutional rigidity. While green and social policies are broadly implemented, the actual co-production of the port city waterfront remains in most cases linked to the leadership and the local specificities of each case. Although we can identify coincident paths regarding environmental sustainability and social actions, depending in each case of the available resources of the participating actors, waterfront redevelopment schemes are divergent. Institutions influence the development of innovative approaches that can contribute to a sustainable port-city relationship.

In the case studies, we could find that often port authorities, port actors, communities (companies, workers, organizations), and urban actors (municipality, region, planning department, citizens) have different expectations for the waterfront, and different perceptions of the importance of the port. The ambitions for the waterfront are one of the most polemic elements of the port-city relationship. While port actors defend their central locations, most municipal governments and inhabitants desire a waterfront for leisure and housing. Rivalling perspectives for the same area cause frictions between the actors, only solved through long negotiation processes. This was confirmed in the interviews with port

authorities and was emphasized in the cases in which the port had a second location outside the urban fabric, since the general perception was that port activities should be completely relocated to the industrial settings. Other authors have discussed this issue in Marseille (Daamen and Vries, 2013), but we could also see it in Helsinki and Oslo, or even Hamburg.

In our sample we could confirm the thesis defended by Wiegmans and Louw (2011), cities are today pressuring the port for changes in the waterfront. However, As Daamen and Vries (2013) point out, there are different governance approaches for the port-city interface, striving between challenging the governing institutions, or complying with them, following business as usual. In our sample, we could see two divergent approaches pending on the programmatic approach and the collaboration between the port and city authorities. We expected to find stronger synergies in ports following the Hanseatic governance model. Instead, we noticed that in three cases in which city authorities have a clearer influence on the port (Oslo, Helsinki and Hamburg), the post-modern waterfront imaginary was predominant, diminishing the options of hybrid plans. In the other three (Marseille, Genoa and Rotterdam) the port had a stronger position and was necessary to look for a balanced plan for the waterfront.

There are also differences among the cases with a dominant post-modern approach. In both Nordic port cities, the port required new facilities to answer the growing logistic demands, and following an efficiency rationale, new terminals were developed outside the urban waterfront. While in Helsinki this decision was made in the urban masterplan, since the municipality owns the land, in Oslo there was a debate to choose the fate of the port and the waterfront. The key difference between both, besides the debate, was that the economic benefits of the waterfront transformation reverted for the port in Oslo, while in Helsinki the port authority could not participate in the new plan. In both cases, ferries and cruises remained in the city centre, forcing the discussion between the different authorities to solve the traffic these activities generate, and the organization in these areas. For example, recently, in Helsinki, the municipality presented a new vision for the central waterfront of the south bay, integrating ferry activities.

On the other hand, the case of Hamburg is paradigmatic regarding waterfront operations. Although the port is integrated in the urban landscape, the waterfront approach remains transforming this land for housing, offices or leisure (following the post-modern imaginary). The first phase of the Hafencity redevelopment took place in areas that were considered no longer suitable for port activities. Instead, the most recent waterfront plans will transform active port territory to answer to the housing demands. This process was visible in the Olympic bid that included port land to later become an urban area (Lauermann and Vogelpohl, 2017) and in the Kleiner Grasbrook, following a similar plan. During the interviews with the port authority, it was explained that they must adapt to the policy defended by the municipality. This case was surprising since in Hamburg local inhabitants express their pride in the port, business exploit the maritime image and several port activities take place close to the city centre. However, there is no explicit will to update the waterfront imaginary and look for hybrid approaches.

In all three cases, cruises and ferries activities were considered compatible with regeneration projects for the waterfront. Although this sector is associated with passenger, it can also include cargo (ro-ro transport) and generate heavy traffic. However, it is integrated and accepted as part of the post-modern urban waterfront and is gradually becoming an issue for urban and port actors. Although cruises and ferries are often not considered heavy port activities, using relatively small extensions of waterfront, they are

Figure 40. Cruise Terminal from Leixões (Porto). Image author: Dennis Morhardt. Source: https://commons.wikimedia.org/wiki/File:Au%C3%9Fenansicht_(38287203275).jpg

responsible for polluting emissions and increasing the effects of mass tourism in the city centre. These have emerged as both problems and opportunities for strategic coupling (Hesse, 2017). While there are technologic solutions for the environmental problems, port authorities, municipalities and private actors will have to cooperate to handle mass tourism, as it is already happening in cities like Barcelona (Garay et al., 2014) or Venice (Casagrande, 2015). Cruise and ferry terminals have also emerged as opportunities to bring together urban and port activities, with several examples in recent years, such as Porto (fig. 40) or Marseille.

The other three cases, Rotterdam, Marseille and Genoa, have followed a different path for the waterfront, despite the challenges that have emerged along the way. In these port cities, leading actors tried to follow the post-modern imaginary, and failed for several reasons. While in some cases there were financing, planning and /or strategic failures, in others there was local opposition due to communication problems, or simply a rigid legal framework. This failure shows that the dominant imaginary has become institutionalized, governing the decision-making process, and leading actors to try to achieve it. In this process, the actors have disregarded clear indicators that the post-modern waterfront imaginary was not the best alternative. This shows that the waterfront imaginary is culturally embedded. However, the main actors found creative governance and technical solutions to overcome these issues.

In Rotterdam, Marseille and Genoa, we find conflict and negotiation between two main stakeholders in powerful positions that are forced to find an understanding. While in the previous cases the city had a stronger position, with the capacity to impose an urban agenda in detriment of port priorities, in these cases the port authority has a stronger position, either for the importance of the port in the urban economy (Rotterdam), or for the back-

ing of the central authorities (Genoa and Marseilles). The actors have been able to find agreements and common visions, evolving from conflict between different priorities and rivalling agendas (e.g. waterfront public access, housing, offices or cultural facilities, vs shipyards, expansion areas, ferry terminals).

The common vision has been a determinant characteristic in these cases in which port and city negotiated the activities that could happen in waterfront for the benefit of the city. At the same time, the port authority stretched the institutional framework to participate in non-port projects and waterfront redevelopment organizations. In the case of Rotterdam, the solution to the original planning failure of Stadshavens originated a joint agency to manage the waterfront transition. In the Mediterranean cases, the port was considered an external actor, controlled by a central organization, but affecting local development. Although this reduces the local influence in the port, it has forced a dialogue.

In Marseille and Genoa, there was a third actor that contributed to the negotiation process. The initial conflict in Marseille, within members of the port community fearing their relocation, also shows that the post-modern waterfront imaginary is taken for granted, even before the main ideas of the plan were explained. In this case, the central state forced the agreement between the municipality and the port authority in the context of the Euroméditerranée. This resulted in the Chartre Ville et Port, setting the foundations for the port-city relationship in the coming decades, ending a long period of conflict, with fruitful results visible in the Citè de la Mediterranée. In the case of Genoa, the local starchitect Renzo Piano, with considerable social prestige, was the external actor in the relationship between the different stakeholders (the port authority, the municipality and the region). At the same time, during the past two decades, the port authority has searched for common development solutions, limited by the restricting legal framework, imposing a strict finance control, limiting the investment to "pure" port infrastructures. This willingness to develop common waterfront solutions is visible in the different projects and ideas proposed since the 1990s, until today, with the Blue Print plan.

Although in some cases like Rotterdam, the representatives of the port authority explicitly emphasized that their organization will not be responsible for urban development, it is also true that if the goal is a balanced port-city relationship then, it is necessary to discuss the port as an urban element, not just as a logistic infrastructure. One of the most relevant issues visible in the analysis of the port-city relationship in these six cases, is the gradual acknowledgment of ports and port authorities as urban actors, relevant for the city development. In these cases, port authorities participated in urban development or management societies explicitly accepting their role as urban actors, such as in Marseille (Euroméditerranée), Genoa (Porto Antico) or Oslo (Hav Eiendom for the real estate waterfront redevelopment), even in Rotterdam (Stadshavens). However, this evolution has occurred fuelled by local governance arrangements, pending on the leadership, that go beyond the legal definition of the port authority, and not on new laws that induce a change in the way the port relates to the city and the territory. Today, in the cases here analysed, the law does not oblige port authorities to develop a joint vision for the port with the local authorities,

often simply demanding a compliance of local planning instruments. This problem relates to rigid institutional definitions of port authorities as organizations exclusively focused on logistic issues. An approach that favours *port or city* rationales to the waterfront against *port and city*, and can still be found in other European cases, like Lisbon.

d. Social integration

Ports have been a key identity element of port cities. In some cases, like Hamburg or Rotterdam, it is the main defining characteristic of the city, while in others, such as in Oslo or Helsinki, it contributed to the urban identity. However, legal, technological and governance changes and the reconfiguration of the port territory has caused local residents to become emotionally detached from the port. To correct this situation, port authorities have accepted that social awareness is one of the fields where they must invest more, as it was explicit in the recent ESPO (2018) environmental concerns report. International organizations such as ESPO (2010) or AIVP (2014) have published documents recommending different strategies to address this issue. For example, using the romanticize vision of ports that still exists today, in different folkloric celebrations (port days, *Hafengeburtstag*, etc), or open days and information transparency strategies. Other example are port centres, often used to explain the port to the public. These activities are not defined in the legal framework, they depend on the kind of governance and leadership, and often represent isomorphic behaviours, imitating the strategies developed by leading ports or recommended by international organizations.

In the selected cases, port authorities have developed social activities to grant the SLO and continue operating in the current setting. However, the problem remains in terms of actively engaging with residents in port development projects and discussing the future of the port. Port centres (in Rotterdam and Genoa, and in the future in Marseille) originally have in their scope discussing port development with the local citizens. However, most of them focused mainly on younger generations, to present the port as an attractive place to pursue a professional career, responding to other problem some ports are facing, the lack of qualified staff. Among the six cases, during the interviews, it was also clear that dialogue is increasingly included in the planning process. Nevertheless, this dialogue occurs informally and on a reactive basis, answering to existing problems, rather that co-constructing a port vision for the future. If ports remain in cities, discussing port infrastructure before reaching open NIMBY[101] conflicts will require more attention.

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101   The acronym NIMBY stands for: Not In My Backyard. This sort of civil movements opposing real estate or infrastructural developments can often be found in port related situations. For more information on social movements against infrastructure or real estate development see Schubert (2018b).

4.6.   Key topics for Lisbon: governance, laws and relations with the citizens

Analysing and comparing six case studies gives us orientations on the key issues we must concentrate on the in-depth case study and on the three focus projects. Following the same institutional analytical framework, focusing on the role legal elements, social expectations, governance, and dominant urban imaginary defended by politicians and local inhabitants. In the six reference cases we could see that port authorities still are defined as organizations exclusively dedicated to administrating the port territory and the activities that take place in it. The dominant rationale remains logistic and economic efficiency, but also included environmental concerns. This conservative conception of the role of port authorities indicates the existence of an institution blocking other goals, or strategies that deviate from the core port activities, even if they could contribute to a sustainable port-city relationship. Hence, these "secondary" activities are left at the expenses of the port authority's leadership, its governance capacity and available resources.

In the in-depth case, we will analyse the legal definition of the port authority, and the priorities and goals, as they are defined in the law. We must confirm if the institutional framework follows the conservative models seen in this chapter, or if on the other hand, it breaks the traditional governance schemes. Considering that it is a case following the Latin tradition, we must confirm how autonomous is the port authority, the influence of local stakeholders, and the capacity to lead a sustainable port-city relationship.

It is also necessary to see if the port authority has developed projects beyond its landlord function, and what were the consequences to this behaviour. Although we do not focus on institutional change, it is important to understand if the legal framework has evolved allowing greater flexibility, or if the port authority has lost capacities that could influence the port-city relationship. In the analysed cases we could observe that the institutions do not foster proactive governance that would impulse the leadership to pursue actions contributing to sustainable port-city relationships. Hence, we must analyse the role of the leadership and how it reacts to the governing institutions in key issues (e.g. the environment or urban development). This often depends on the expectations and general perception of the port authority role; therefore, we must also understand what the people of Lisbon expect from the port and the port authority.

In Lisbon, we must also look for evidences confirming or not, the influence of the post-modern waterfront imaginary, and if it operates as an institution. In the focus projects, we will analyse the position of the municipality and what does the law allows to the port authority. We need to discover if there is a common vision developed with these actors, as in Marseille and Rotterdam, or if there are competing ideas, as in Oslo. Finally, we must also focus on other concrete aspects, such as the interaction between the port actors and the local inhabitants, if it is opening up and fostering cooperation and dialogue, as international organization recommend, or closing in, as it has historically happened.

Chapter 5. In-depth case: Lisbon

5.1. Introduction

In the previous chapter we have seen how the port-city relationship functions in six European cases, what role plays the port authority in these relationships, and what approaches have been followed in waterfront projects. We have also seen that there are important differences between the Hanseatic and Latin port governance models, determining the capacity for action of the port authority, affecting the port-city relationship. In the first chapters we explained that institutional theory could help us understand the behaviour of the actors that shape the port-city relationship, particularly the port authority, that we consider the key actor, and main responsible for developing a sustainable port-city relationship. Later, in chapter four, we could see how institutions have affected the operations of the key actor. Given the comparative perspective of the previous chapter we only did a limited analysis of several port cities, without going in depth in the actor constellation and all the nuances of each institution. Analysing in depth the institutional framework affecting the port-city relationship means to make visible and explicit what is often invisible and implicit. It is necessary to do a detail analysis of the actor's behaviour in concrete projects to detect the institutions governing its capacity for action. The case of Lisbon will allow us to perform such detailed analysis.

We chose Lisbon as the main case study for several reasons. Besides being the original motivation behind this research, as we said in chapter one, it is a historical port-city with an active port in the urban tissue and a history of tension in the relation. Also, in Lisbon, we could find waterfront regenerations projects, and different sectors in the port to understand the differences between diverse port activities, for example between containers and cruises. Another crucial reason was the familiarity to the local context, culture and language, that would allow us to better understand the institutions acting in the port-city relationship and the pillars that support them. At the same time, Lisbon is not one of the most relevant ports in Europe, not even the biggest in Portugal, making it more relatable to most European ports. Extreme cases, like Rotterdam, may be paradigmatic, but far too exceptional in the European context. Finally, the port-city relationship is in a situation of "uneasy calm", a state of apparent tranquillity but that at any given time, waterfront projects could make the tension (re)emerge and restart a conflict. Hence, the situation calls for a study to solve tensions in the long term, that eventually could provide inputs for the broader port-city debate in Europe.

In this chapter we first make a brief synthesis of the port-city relationship, focusing on the last thirty years, since there have been several key moments determining the current institutional framework of the port authority. To understand the role of this organization and

the current state of the port-city relationship we must comprehend the events that have affected it. As we have seen, during the second half of the 20th century, there were key technologic, economic and governance changes in the maritime world, as well as new expectations for the urban waterfront. All these changes arrived in Portugal and were adapted to the local context. We analyse how these global trends interacted and modified the waterfront conception. Afterwards, we focus on the legal definition of the port authority and its capacities. We will notice that certain rules are open to interpretation, and that there is an increasing institutional rigidity, reducing the governance capacity for sustainable port-city relationships, increasingly depending on the leadership.

The following sections of the chapter are dedicated to three focus projects where we will be able to see institutions in action and what role has the port authority played in each project, contributing or not for a sustainable port-city relationship. The first project is the waterfront transformation, emphasizing land management, the activities that are developed, the negotiation process over this land and the role of the two main actors, the port authority and the municipality. The second focus project is the new cruise terminal, recently built by an international consortium. In this unit we will see the influence the port authority, as landlord, can have on port activities and suprastructure. The third focus project is the new container terminal in Barreiro, on the south side of the Tagus estuary. This controversial project has forced new dialogue and negotiation with other municipalities in the metropolitan area, nurturing the debate about the port presence in Lisbon, and the possible relocation of heavy port activities.

5.2.   Lisbon: a maritime capital with a complex port-city relationship

Today, Lisbon is a city of half a million inhabitants, and over 2,8 million in the metropolitan area (AML). The AML[102] is the biggest urban region of Portugal, with over 27% of the total population and responsible for 36,4% of the national GDP (Pires, 2017). The region is structured around the Tagus estuary, formed by 18 municipalities, and two main ports, Lisbon and Setúbal. The city has a diversified economic model, predominantly service oriented, with few maritime companies when compared with other European cases. Lisbon is also the capital of Portugal, hence the political centre of the country, besides the economic and cultural one, gathering all ministries, most major public organizations, and the headquarters of most national and international corporations. This "capital-city" status increases the complexity of the discussions about infrastructural development, politicizing port development projects and concessions, as we could see in the first pages of this dissertation. Lisbon is also the cusp of national politics. In the last decades, several mayors of Lisbon have afterwards become prime ministers or presidents of the republic, showing the political connection between the municipality and the national government.

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102   AML is also an official organization with, created to govern the regional scale of Lisbon's metropolitan area, with the capacity of elaborating plans (PROT – Plano Regional de Ordenamento do Território).

Figure 41. View of Lisbon in the 16th century, from Braun and Hogenberg, 1575. Source: http://historic-cities.huji.ac.il

Lisbon was founded by Phoenicians explorers over 3000 years ago. The city developed linked to maritime activities. During the 15th and 16th centuries, Lisbon reached its historical zenith due to the discoveries and the Portuguese overseas empire. In November 1st, 1755 suffered one the major earthquakes registered in history, followed by a great fire and a tsunami[103]. This event was a significant moment in the city's history, forcing the reconstruction of the complete downtown, that was not officially concluded until the mid-19th century. Although the industrial revolution arrived at Portugal later and less intensively than in other European countries, it also increased the scale and speed of production processes. New companies demanded new, bigger and better infrastructure, including maritime facilities. During the second half of the 19th century several port expansion plans were discussed until Hildernent Hersent won the call for tender in 1887, presenting a definitive layout based on the previous plan from Matos and Loureiro (Nabais & Ramos, 1987; Pagés Sánchez, 2017). As it happened in many other European ports, the new plan included large landfills and the regularization of the coastline, changing the relationship between the city and the Tagus river. The new port was built during the first half of the 20th century following the original plan and the successive modifications. These plans also included different port buildings, from warehouses to maritime stations.

The Port Authority of Lisbon (Administração do Porto de Lisboa - APL) has been since 1907 the administrator of a large territory including the riverfront, and since the 1930s responsible for the entire Tagus estuary (Nabais & Ramos, 1987). This public body is controlled by the national government. Since the late 1980s there has been an intense discussion about the waterfront, the importance of the port-city relationship and the capabilities

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103   The earthquake reached 8,75 degrees in the Richter scale, and had its epicentre 200 km away from the southwest Portuguese coast, in the ocean (Baptista et al., 2006). The earthquake had repercussions over Europe, causing even a philosophical debate, visible in the work of Voltaire (1755) "Poème sur le désastre de Lisbonne".

of the port authority[104]. In the last three decades there have been several key moments, of confrontation but also dialogue and collaboration. Today, the relation remains tense but better than before.

Although the port is no longer the main economic engine of the region, it remains relevant for the regional and national economics and logistics. After recent periods of dockers strikes and labour conflicts [105], the port of Lisbon started recovering its former throughput volume. In 2017, it had a total throughput of 12,2 million tons, increasing 19% compared to 2016, of which almost 44% was break bulk and 32% container (APL, 2018). In 2017, it hosted 521 038 cruise passengers, almost the same that in 2016. In the national context, Lisbon is no longer the main port, but the third one, responsible for 10,3 % of the Portuguese traffic in 2016, after Sines (52,6%) [106] and Leixões (18,5%) (INE, 2017). There are divergent figures regarding the impact of the port in the national and regional economy. While the port authority website indicates[107] that the port has an impact of 2% in the national GDP and 5% in the regional one, a recent study by consulting firm Augusto Mateus e Associados indicates a much higher figure, 15% of the national GDP[108]. The authors of the same study also indicate that they considered activities that are not directly dependent of the port. APL indicates that the port has created 40 000 associated jobs, including induced economic impact. However, if we compare these figures with those of other major European ports, like Marseille, there seems to be a certain disparity. The port of Marseille, with a total through put of 82 million tons in 2015 created 43,500 jobs only counting direct

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104   In 1940, the Exposição do Mundo Português (Exposition of the Portuguese World) took place in Belém, including one section of the waterfront. Although this was the first riverfront plan in Lisbon in the 20th century, creating new public spaces and cultural facilities, it did not affect any port activities, hence it is not so relevant for our research. However, this intervention enhanced the western section of Lisbon's waterfront, emphasizing its leisure and representative character, while the eastern section remained for heavy industrial activities and port expansion.

105   Between August 2012 and June 2016, dock workers in the port of Lisbon did several strikes spanning between 1 and six months. These strikes affected the traffic to the port and the trust of the logistic companies that cancelled some routes through the por of Lisbon. E.g. the container traffic in the port of Lisbon between 2005 and 2015 decreased by 5%, unlike the other Portuguese ports that registered a positive evolution. (https://www.dn.pt/dinheiro/interior/greve-dos-estivadores-ja-causou-prejuizo-de-69-milhoes-ao-porto-de-lisboa-5172133.html Visited on May 1st 2018; Resolução do Conselho de Ministros n.º 175/2017 P. 6195)

106   The port of Sines is an exceptional case in the Portuguese port system, since it was artificially created in the 1970s, next to a fisherman village. The port was created to host the petro-chemical cluster, linked to refineries in the 1970s. Due to its deep water it has become a relevant port in Europe for transhipment, particularly since 2004 when the PSA (Port of Singapore Authority), started operating the container terminal. In 2017, Sines was among the top 15 container ports ranking in Europe. In contrast, Sines is today only a small city of 14 000 inhabitants.

107   http://www.portodelisboa.pt/portal/page/portal/PORTAL_PORTO_LISBOA/CARGA/IMPACTO_ECONOMICO_PORTO_LISBOA visited on May 1st, 2018.

108   Information about the study of port economic impact can be found in: http://www.jornaldaeconomiadomar.com/impacto-economico-do-porto-lisboa/ visited on May 29th, 2018.

and indirect impact[109]. In any case, the port of Lisbon still has a role position in the local economy and the national transportation strategy, with a diversified portfolio of activities and still nationally leading some sectors, such as agricultural bulk cargo and cruises.

In territorial terms, the port of Lisbon occupies different locations of the north and south bank of the Tagus river estuary. APL's jurisdictional area includes the Tagus river estuary and 110 km of riverfront, distributed along 11 municipalities, defined in the law Artº 7º of DL 336/98 of November 3rd. However, not all port infrastructures are distributed equally. In the north side of the river, two sections of Lisbon's waterfront host port terminals. In the central section, in Alcântara, we find the main container terminal and repair shipyards, and in the eastern section, the multipurpose terminal of Beato and other port activities, such as agricultural break-bulk silos. In the north shore are also five marinas, the port authority's headquarters and offices, warehouses and cruise facilities in Santa Apolonia, including both the new and old terminals. The historic passenger terminal in Alcântara is deactivated, and the one in Rocha Conde d'Óbidos is only used in very exceptional occasions[110]. In the south side we can find different locations dedicated to bulk cargo, i.e. silos and grain terminals such as in Trafaria, and petrochemical tanks.

Figure 42. Map with the terminals of the port of Lisbon on the Tagus estuary. Source: horizonte25 PEPL (APL, 2007: 9)

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109   http://www.marseille-port.fr/en/Page/13805 visited on August 7, 2018

110   The manager of Lisbon Cruise Terminal (LCT), indicated in the interview that they also control the passenger terminal of Rocha Conde d Óbidos, although it is reserved for exceptional occasions. Both former terminals are used today for offices, restaurants or the representative headquarters of APL.

5.3. Defining moments of the port-city relationship since the 1980s

Changes in the port 1970 - 2000

The changes taking place on a global scale in the maritime sector also affected the port and industrial development in Lisbon. During the 1970s and 1980s, new container terminals were created in Sta. Apolónia and in Alcântara (Nabais and Ramos, 1987). Sta Apolónia terminal, opened in 1970 and was the first infrastructure dedicated to containers in the Iberian Peninsula. The terminal in Alcântara[111] was inaugurated in 1985. At the same time, other port facilities were created, including new silos for bulk cargo for concrete manufacturers, agri-food companies[112], mainly dedicated to cereal derivatives, and liquid bulk companies. The new infrastructure caused an important visual impact in the estuary but increased the throughput of this type of cargo.

Along with the investments in new infrastructure, the maritime world was changing, transforming the port-city relation. The chemical sector, shipyards and steel factories decayed during the 1970s and 1980s, causing large scale industrial brownfields in Lisbon's metropolitan area, mainly on the eastern section of the city and the south side of the Tagus[113] (Costa, 2006). As in other port cities, there was a process of socio-economical decay in the urban areas linked with port and industrial activities (Figueira de Sousa and Fernandes, 2012)

The social perception of the river and the port also changed as people demanded an access to the Tagus. In the 1990s, the port authority changed its governance model to become a landlord port (Cabral, 2001) and later a publicly owned company, as we will see in the next section. The economic and technological changes along with the increasing social pressure to access the river, motivated a compendium of planning initiatives, led by different stakeholders, that changed the port-city-river relationship. Four key planning processes took place almost simultaneously, marking APL's scope for the following decades, pointing out to institutional rigidity process. Although they initially focused on riverfront redevelopment, rapidly evolved to questioning the port presence in Lisbon and the power of the port authority.

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111   According to Nabais & Ramos (1987), this terminal was severely deteriorated in the 1960. The AGPL (Administração Geral do Porto de Lisboa) decided to invest on it and prepared for containers.

112   According to the strategic plan of 2007 and activity reports, the Iberian Peninsula is the main hinterland of the port of Lisbon, more specifically the western side from Madrid. For this reason, it is relevant the competition with the Spanish ports. The agro-food industry grew considerably due to the investment in the 1980s. In the early 21st century, the port is one of the leading players in this type of cargo, competing with Girona and Barcelona. (APL, 2007)

113   The large industrial conglomerates had a stronger presence in the south side of the river, with companies related to heavy activities, such as Quimigal in Barreiro, Lisnave in Almada and Siderurgia Nacional in Seixal (Costa, 2006, Nabais & Ramos, 1987)

Waterfront plans and projects

During the second half of the 20th century, particularly since the 1980s, several private projects were developed along the railway barrier, on the city side. These new constructions gradually changed the programs of existing buildings, from industrial to office and housing, but they were not part of any general plan, nor considered the connection with the river a relevant goal. The new buildings were simply answering to market and urban development demands, gradually increasing the pressure over the port (Costa, 2006). Simultaneously, there was a growing interest on the historical value of heritage buildings near the river, related with former port activities. This process is similar to what happened in other port cities (e.g. Hamburg), in which the first waterfront intervention were individual projects, without a coherent plan (Schubert, 2011).

Changes in the maritime sector and in the industrial tissue left brownfields on the waterfront, creating an image of decadence, mostly on the eastern section. The national government, the municipality (Câmara Municipal de Lisboa - CML), and the port authority, saw these spaces as an opportunity for waterfront regeneration. During this period, all three stakeholders developed competing plans.

The first relevant moment was in 1988, when the Architectural Association and other public organizations, including the port authority, organized the riverside idea competition. During the 1990s, more concrete plans were developed such as the EXPO 1998, the PO-ZOR and the 1994 municipal strategic and city development plans, such as the municipal masterplan or PDM (Plano Director Municipal).

One of the most interesting characteristics of this period (late 1980s – early 1990s) is the evolution of the conception of the port authority, both internally and socially. Several authors have explained that this organization started dedicating more time and resources to urban planning almost neglecting its supposed core assignment, port activities. This change was inspired by international waterfront regeneration trends and to find financing for new port infrastructure, even though it implied disobeying the institutional mandate (Matias Ferreira, 1997, 1999; Ressano Garcia, 2007; Costa, 2006; Rêgo Cabral, 2001). This change earned APL criticism from different sectors of society, claiming that it was going beyond its realm and accusing it of privatizing public territory (Ressano Garcia, 2007). Society had a clear idea of what was the role of the port authority and its responsibilities, and those did not include urban development. The design and governance choices of APL did not help its public image as we will see.

First waterfront redevelopment– "Lisboa, a Cidade e o Rio" competition - 1988

Most scholars agree that the first important moment for the new approach towards the waterfront and the port-river-city relationship occurred in 1988, with the competition

Figure 43. Cover of the catalogue of the waterfront competition from 1988. Brandão and Jorge (1988).

"Lisboa, a Cidade e o Rio" (Lisbon, the city and the river)[114](see fig. 43). The Portuguese Chamber of Architects (Ordem dos Arquitetos, OA) this event, with the support of the port authority, to provide new ideas for the riverfront, including the port presence, and to raise a debate about the city - river connection.

The Tagus has always been Lisbon's key identity element, inspiration for artists and stage of political events such as arrival of kings from foreign countries. It was one of the main reasons for the original settlement by the Phoenicians, providing transport, protection, work and food. The main public space of the city, the Praça do Comércio (Commerce Square), opens directly to the river, strengthening the symbolic connection. Today, in the social psyche, there is a certain false nostalgia for free access to the river, something that did not happened the way most locals picture it (Morgado, 2005) [115]. During the 20th century, industrial activities blocked the visual connection to the water and turned the riverfront an inhospitable space, increasing the separation between the city and the river. New port landfills progressively changed the "face" of Lisbon creating a new artificial territory, increasing the distance between both.

Gradually, during the second half of the 20th century, worldwide, water landscape elements such as rivers and seas, gained a new role in the city´s urban structure, from recognizable identity elements and leisure spaces, to playing an economic role by increasing property´s value (Meyer, 1999; Ward, 2011; Hein, 2016). New waterfront projects were created around water, seen it as an inspirational development concept, and as an asset to increase the profitability of the real estate operation. The examples known at the time included new leisure facilities, office building or housing. The post-modern waterfront imaginary was dominant

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114   Although this statement is widely accepted, some scholars like Costa (2006), mention the Casa dos Bicos refurbishment project, as another important moment for the waterfront regeneration movement. This project had an important impact, however, from our perspective, is not as relevant as the following plans, since it was an isolated intervention, more linked with the identity value of the heritage and historic waterfront.

115   The riverfront, as we can see in paintings and photographs, was mostly built, without a continuous public space along the water. The concept of a Tagus promenade appeared in the 19th century, remaining in the social psyche. The access to the water was limited to places where specific economic activities took place, such as port, commerce or fishing. The only locations where leisure activities by the water could take place was on the beaches in the western part of Lisbon, far from the city centre.

and remained inspired by several projects in the USA and Europe, showing a new image for water cities, based on what is often considered the urban post-Fordist society (Norcliffe et al, 1996; Olivier & Slack, 2006; Schubert, 2011). This imaginary was strengthened by discourses of successful waterfront plans (Breen and Rigby, 1996), the partial decadence of some port areas, an intense cultural program and the interest of several stakeholders. The port authority and the OA, raised the awareness of residents creating a vibrant debate about the port-city relationship and the river (Costa, 2006).

The competition was innovative since it considered port activities inseparable from the city and claimed for a (necessary) coexistence between both, despite the reigning post-modern waterfront imaginary in coetaneous plans in other port cities (e.g. London, Barcelona or Genoa) (Brandão, 1988:3). Further on, Brandão (1988), in the competition book, described the riverfront as both 15 km of conflict and a key element of the urban and metropolitan structure to connect with the hinterland, the Iberian Peninsula and Europe. In the same text, Brandão (1988) also highlighted the variety of layers existing in the port-city interface, including cultural and heritage elements, relevant economic activities and important landscape features.

Finally, 23 proposals were presented in the competition, none of which fully aware of the technical aspects of the port activity to propose its urban integration. Therefore, most projects presented idealized scenarios in which port activities were either ignored or oversimplified, except the proposal from Arch. Manuel Bastos (jury statement in Brandão, 1988:62). At the same time, the entry presented by Gravata Filipe, transforming Cais do Sodré gathered attention due to its influence from American and British waterfront projects. Several real estate companies and the port authority were interested in this plan, that later would be further developed to include more commercial areas and housing, but never built.

The competition played an important role, raising considerable media attention about a topic so far neglected, creating a debate about the riverfront and the port (Costa, 2006).

Figure 44. Plan of the winning entry. Team led by Arch. Carlos Marques. Retrieved from the competition catalogue "Lisboa, a cidade e o rio". Brandão and Jorge (1988: 34).
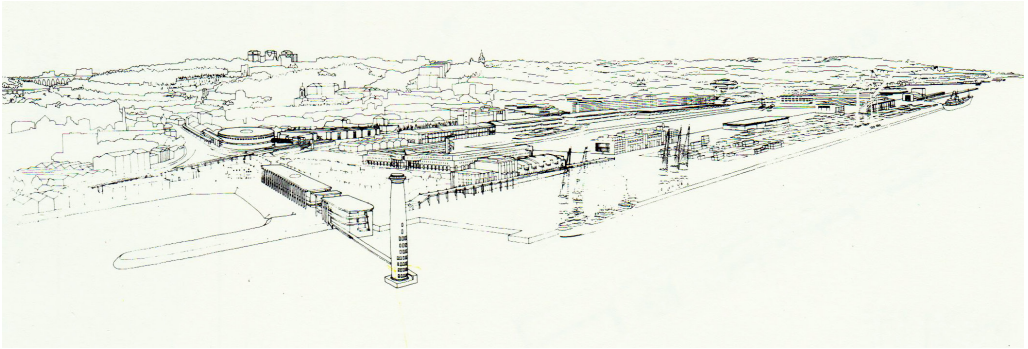
Figure 45. Birds eye perspective of the winning entry. Brandão and Jorge (1988:34).

Despite the clear message by the organization of the competition, the main issue of the port-city coexistence was not addressed, since most proposals were predominantly leisure focused emphasizing the post-modern waterfront imaginary that would guide policies for the following years. Some ideas were later retaken or included in other plans, such as burying the railway line or transforming central locations for housing. Although this competition was sponsored by the port authority, the municipality was also very present. Later, both organizations would develop separate visions over the same problem, deepening the conflict. Although it was only an idea competition, the critical areas highlighted in the catalogue were later improved, after years of discussion and frustrated attempts.

This initiative marked the beginning of a new stage in the port-city relationship, in which the riverfront was openly discussed, considering it as well a crucial part of Lisbon's identity. The competition generated new expectations about this area of the city, both socially and in the national and local governments, that changed its perspective for the waterfront, seeing the potential for leisure uses. The port authority played a leading role, while cooperated with other organizations, and realising that the land they controlled could potentially be a source of income as indicated by the law approved in 1987 (DL 309/87).

First major plans and projects in the waterfront – 1990s

The Centro Cultural de Belém

The idea competition of 1988 created a new vision of what could happen in Lisbon´s waterfront. While the municipality and local inhabitants rediscovered the waterfront as an urban area, the national government presented different projects with massive public investment, linked to international events, as it happened in other port cities like Barcelona or Genoa. One of the first examples was the Centro Cultural de Belém (Belem Cultural Centre - CCB).

In 1987, Prof. Costa Lobo presented a plan to regenerate Belém, in the western section of Lisbon's waterfront, including the CCB project. This plan focused on the area where the 1940 Expo took place, which had left several urban voids and an unstructured urban fabric. The plan also included burying the railway lines, trying to solve the infrastructural barrier

separating the river from the city. Although this solution was finally not implemented, burying this infrastructure became a "common idea" idea in the following decades in the different planning initiatives affecting the waterfront, not just in Lisbon, but also in other cases seen in chapter four.

As it happened in Genoa or Barcelona, major cultural and political events were in Lisbon igniters of urban investment policies. In this case, hosting the EU commission presidency in 1992, was a motivation to create a new large public-cultural facility. The CCB was in a sensible place, next to the Jerónimos monastery, a construction from the 15th and 16th centuries, and the Lisbon-Cascais railway line. In total 57 architects presented proposals in 1988 to develop the site of 5 Ha[116]. The team formed by Gregotti and Risco Ateliê (the office led by Manuel Salgado, current deputy mayor of Lisbon and responsible for urban development) was the final winner with a design including 5 volumes connected with an interior street linking the Praça do Império to Belém Tower[117]. The project´s geometry and the sensible location raised considerable discussion and controversy, particularly among certain sectors of society, that considered the new building too aggressive and disrespectful to the monastery, a national monument (França, 1997).

Although the CCB was built on municipal land, not port land, it was one of the first major waterfront intervention, implementing cultural programs and trying to develop a connec-

Figure 46. Aerial view of the CCB today. Project by Gregotti and Ateliê Risco. Source: https://en.wikipedia.org/wiki/Cultural_Centre_of_Bel%C3%A9m#/media/File:CentroCulturalBelem-CCBY.jpg

116   Among the participants were Renzo Piano, Jean Tribel or Gonçalo Byrne.

117   From the five volumes that composed the project, two remained unbuilt, including a congress centre and hotel. The proposal´s completion has remained in municipal masterplans and detail and sector plans. No specific deadlines have been set, and other cultural projects on the waterfront have been developed in the meantime.

tion with the river through its elevated public space (Pagés Sanchez, 2011). The controversy already indicated how delicate the riverfront is for the local society, and how any intervention would be closely examined.

National government plans - EXPO 1998

Portugal was at the end of the 1980s and early 1990s a country aching to achieve international recognition and establish a fast development process to match its European partners. The country needed to show a new image to distance itself from the dictatorship and overcome existing challenges. Spain had successfully applied to host international events that would raise the international profile of two major port cities, namely Barcelona with the 1992 Olympics, and Seville with the 1992 Expo.

Hosting international events would also bring funding and generate opportunities to build new key infrastructures in Lisbon, allowing it to compete with other cities. The publicity, marketing, tourism generated income, and positive externalities justified the required investment. It was also an opportunity to impulse a transformation in Lisbon that otherwise would have taken longer and face greater difficulties. Although the main stakeholder was the central government, the municipality benefited from the investment associated to the international exhibition. At the same time, the scale of the intervention would go beyond Lisbon, affecting the entire metropolitan area and the region.

During the first discussion for the application, it was clear that the Expo would take place in a waterfront location[118], either on the eastern or western boundaries of Lisbon. Finally, the first option was chosen in 1991, since it presented greater redevelopment needs, it had important infrastructure close by, such as the airport and national and international railway lines, and the area could integrate a new bridge to the south side of the river (Cid and Reis, 1999). At the same time, the Expo was an opportunity to balance urban development in Lisbon, between the east and the west. While the west had an organic a gradual development during the 20th century including the 1940 expo, the east had hosted major industries and port areas that had recently decayed, causing severe problems (Costa, 2006). This section became a depressed area, suffering socio-economic problems, poverty, and chaotic urban development, including slums, large social housing projects and industrial brownfields. In this area we could also find companies from the petrochemical sector, whose activities were no longer considered suitable for the urban environment, presenting diverse hazards (Matias Ferreira, 1999).

The port authority was invited to the committee once it was clear that the EXPO would

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118   Originally, the committee considered three alternatives, including one based on a poly-nucleus concept, with several locations distributed over the metropolitan area, that was immediately discarded since it presented several difficulties that could make the event unmanageable, leaving the waterfront areas as the only realistic options.

take place in port territory [119], but it would have no say in the matter and could only adapt its plans to the decision of the national government. The Expo was considered an opportunity to balance the urban development and impulse a regeneration process in this section of the city, implementing a new centrality that would attract private investment between the downtown and the new area.

Figure 47. Expo location before the construction start. We can see several industries, including a petrochemical area that was later transferred to Sines. Retrieved from www.skycrapercity.com

The case of the Expo 98 in Lisbon can be analysed from different perspectives. It has been presented as a positive example of urban design, creating quality public spaces and new architectural landmarks on the waterfront, and new leisure and cultural facilities, unique in the region or even in the country (Ressano Garcia, 2007). It has also been presented as a successful real estate scheme, with considerable private investment after the event[120] (Guimarães, 2006). The fast reconversion of the exhibition area into a new city district was also considered exemplary, avoiding abandonment situation like it happened in Seville six years

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119   The committee was formed by representatives of the different stakeholders involved in the project. Initially it did not include the PA, but after the location of the exhibition was decided the PA was invited, along with Loures municipality. Different experts were also consulted, particularly in the initial stages to decide the location. The process has been well documented and can be consulted in: Cid, M. S., & Reis, D. (Org.) (1999). Documentos para a história da Expo '98 1989-1992. Lisbon: Parque Expo 98 SA.

120   After the Expo, the new area changed its name to Parque das Nações.

earlier (Durão, 2004). Politically, it has been frequently used to show the Portuguese efficiency and capacity when competing to host international events, such as the football Euro cup in 2004, or international conferences, such as the EU summits. However, the plan and development of this section of the city also had its flaws and negative aspects.

In 1992, Lisbon beat Toronto in the final vote of the BIE (Bureau International de Exhibition). The inauguration date was set for May 1998, implying a fast development process. Given the tight deadline, the government decided to create a new QUANGO, named Parque Expo [121], that would operate outside the usual urban legislation, and have special capabilities. The area where the exhibition and associated real estate operation would take place was removed from the PDM (the city's masterplan determining the use of the land) being drafted at the time. The new public company had complete authority for redeveloping the area, including giving building permits, being responsible for managing and selling the land for new construction (almost 2,5 million sqm.[122]) and acting as manager, shareholder, partner or consultant, depending on the project (Guimarães, 2006: 175). These extraordinary conditions introduced two speeds in Lisbon´s development, enabling an unprecedented urban transformation rhythm (Costa, 2006)[123].

The government set three main goals (Matias Ferreira, 1997): (i) to reconnect the city with the river - also included in the municipal plans, (ii) to impulse the regeneration of this area, and (iii) to develop the plan with no cost for the state, being financed through the after-event real estate scheme associated. Initially, the Olivais dock, a former maritime airport, was considered the main element to establish a new connection with the river, but gradually the plan expanded to respond to the three goals.

The regeneration of the area was complemented with the Plano de Urbanização da Zona Envolvente da Expo 98 (Plan for the surrounding area of the 98 Expo). This part of the city was already a priority in the new PDM due to the social problems and unstructured urban development. The municipality had planned the regeneration based on the "gate" character of this area, connecting with major transportation chains, such as railway, port and airport, and on redeveloping depleted industries, including new education and investigation facil-

121   Parque Expo was a QUANGO (Quasi autonomous Non-Government Organization). We can see companies of this kind in Hamburg, Oslo, Helsinki, and other port-cities. In the case of Lisbon, it continued to operate after the Expo, being responsible for urban management and facilities in the Parque das Nações. The company developed more projects, not just in Portugal. During the early 2000s it developed several riverfront green areas in different Portuguese cities integrated in the POLIS program. Parque Expo was deactivated on December 31st, 2016, although its fate had already been decided in 2011 (http://expresso.sapo.pt/economia/2016-12-30-Parque-Expo-extinta-a-31-de-dezembro, consulted on 4/6/2017 11:50).

122   Of which 1,24 million sqm. for housing for 25 000 inhabitants, 610 000 sqm. for office, with working space for 22 500 persons, 170 000 sqm. for commerce and 300 000 sqm. for other uses. The Parque das Nações also includes 110 Ha of green areas, including one park of 80 Ha and two smaller gardens (Guimarães, 2006: 174-175).

123   These issues are not exclusive from Lisbon. In other waterfront operations similar schemes were followed, for example in Copenhagen (see Desfor& Jørgensen, 2004).

ities (CML, 1994). When the expo location was decided, the PDM was modified, and the 350 Ha for the operation were handled to Parque Expo, as the ultimate responsible for its redevelopment.

The original intention of the plans for the post-expo was to avoid creating a new urbanity island, but the connection with the surrounding did not happened as expected, particularly in the social sense, remaining an open challenge

Figure 48. Aerial view of the Parque das Nações - Post-Expo98. In this image the real estate operation was not concluded yet. Retrieved from: www.tsf.pt

(Matias Ferreira, 1999)[124]. The pressure to complete the project on schedule has been often used to justify the lack of public consultation that in other conditions would have taken place. At the same time, to achieve the goal of minimal state investment[125], the real estate scheme favoured luxury housing and higher densities creating a gentrification process. The Expo (or Parque das Nações) became one of the most expensive areas to live in Lisbon.

Port authority role during the Expo 98 process

The law DL 207/93 14th of June officialised the decommission of port land for the Expo, being the Parque Expo responsible for the compensation to APL (Matias Ferreira, 1997). When the exhibition was concluded, the port authority demanded a considerable compensation for losses, mostly due to contract breach with concessionaries and lost investment. According to Castro and Lucas (1999), the losses caused by the land release were accounted in 1994 in 65 million €[126]. This operation has caused controversy, since the compensation from Parque Expo to APL was never paid, and the latter had to carry with the losses (Tri-

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124   Particularly relevant for this matter is the work developed by Matias Ferreira, who published two books the opinions of different experts, "Lisboa, a Metrópole e o Rio" (1997) and "A Cidade da Expo 98" (1999). In the latter the issues that would affect the overall operation were predicted. The main critic was that in the end the operation was a requalification with new uses and high socio-economical classes, and not a proper regeneration as it was announced during the planning process.

125   During the first stages of the planning and application process the state and the committee defended that the Expo would not cost the state anything, thanks to the real estate operation (Wemans, 1999).

126   Castro and Lucas (1999) originally indicate 14 million contos, equivalent to 65 mill. € approx. According to the National Statistical Institute of Portugal (INE) 65 mill€ adjusted to 2016, after the inflation would be ca. 105,8 million € (https://www.ine.pt/xportal/xmain?xpid=INE&x-pgid=ipc).

bunal de Contas, 2007)[127]. Additionally, the port land release took place in a particularly sensitive moment when the tension between the port authority and the municipality was increasing. During the application and planning process the role of APL was rather passive, since it was a central government operation, who also controlled the port (Castro and Lucas, 1999). For the central government, the Expo was more important than the port plans or even the compensation payment, that if paid, could have compromised the financial balance of the operation. This top-down decision-making process accelerated the waterfront regeneration at the expenses of port activities, that in any case were less intensive in the area. The centralized port management model diminished possible confrontation, forcing an agreement regarding the port land between two government companies[128].

The Expo 1998 changed the social perception of the riverfront in Lisbon, emphasizing the post-modern waterfront imaginary with major cultural facilities and public spaces by the

Figure 49. Birds eye view of the former Expo 98, today Parque das Nações. The tree-lined boulevard separates cultural facilities to the right, next to the water's edge, from the private investment (housing and offices) to the left. Source: http://www.diarioimobiliario.pt

127   In an audit to APL from the Portuguese Court of Auditors (Tribunal de Contas, 2007) it is said that the debt from Parque Expo to APL was never paid. Later, in a news piece from 2018, we can read that since the Parque Expo was extinguished 2011 the debt is now a responsibility of the General Directorate of Treasury and Finance. https://www.rtp.pt/noticias/economia/imoveis-da-parque-expo-passam-para-o-estado-com-extincao-da-empresa_n1094399 (October 2nd, 2018).

128   The national committee, answering to the BIE survey from October the 7th of 1991 to evaluate the Portuguese application, explicitly indicated as an advantage that the central government owned the PA, granting the absence of any social conflict (Velez, 1999).

river. As indicated in the interview with local journalists[129], the Expo and later the Parque das Nações, brought back the people to the river. Although at the time the event was concluded there were already green areas in the western section of the waterfront, none had the quality of the new spaces created for the Expo. This event brought a new paradigm in the way the city related to the river, while creating a new image of modernity and post-industrial urban economy.

At the same time the expo process was taking place, the port authority was drafting its own waterfront real estate operation, the POZOR (Plano de Ordenamento da Zona Ribeirinha), that would propose transforming a central waterfront section into housing and office buildings. Although the scope was similar, transforming an industrial area into housing and leisure, the process and the outcome of both plans was completely different.

Port plans

During the 1970s and 1980s, port activities decreased forcing APL to reassess its role and evaluate the port territory, identifying where were active port facilities, and what land could be destined to other uses (Figueira de Sousa and Fernandes, 2012). During the early 1990s, the port authority saw its role and influence in Lisbon's waterfront diminished by the ambitions of the central government to do the 1998 Expo. In one single operation, APL lost almost 20% of its territory for the Expo and saw the petrochemical cluster move to Sines (Figueira de Sousa and Fernandes, 2012). At this point APL decided to elaborate a strategic plan to answer the contextual changes.

Port strategic plan 1988 - 1992

Already before the POZOR, and influenced by the 1988 competition, the port authority realized it was necessary to change its attitude towards the city, responding to the growing municipal and social pressure to gain access to the river (Matias Ferreira, 1997), and additionally, gaining extra revenues from the waterfront regeneration. For this reason, the project presented by Gravata Filipe in the 1988 competition for the waterfront between Cais do Sodré and Praça do Comércio, gathered much attention, since it had a clear commercial vision, including a shopping centre, that could become a new source of income for APL (Ressano Garcia, 2007).

Gravata Filipe partnered with British architect David Colley to turn the competition proposal into a concrete plan affecting 2,5 km of riverfront, from Santos to Sta. Apolónia in the historic waterfront, including land from the port authority, the municipality and the central state. With a clear commercial approach, influenced by British examples, the plan included several key ideas that later would be again discussed, and some implemented, such as the transport node and the road tunnel to solve the barrier effect in this section. The transport node would finally be developed in the late 1990s and early 2000s, connecting trains, ferries and the subway, while the tunnel idea, was often discussed, but never built (Costa, 2006).

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129   Interview in Lisbon, on August 2nd, 2017.

This proposal marked the beginning of a new approach towards the waterfront, emphasizing its commercial value. The port authority saw an opportunity to satisfy the public demand of more and better access to the water, avoiding possible social conflict and profiting from the land, that later could be reinvested to develop a new container terminal on the south side of the Tagus (Matias Ferreira, 1997). As Costa (2006) mentions, the sensitive location caused considerable debate, continuing what had taken place some years earlier. During the second half of the 1990s the argument about this section would continue, even with an ad-hoc company for its redevelopment, proposing old ideas (e.g. the tunnel), but producing few visible results.

Strategic plan 1992

Simultaneously to the project for Cais do Sodré, the port authority had taken a pro-active attitude and decided to do the first strategic plan for the port. Following the results of the public debate, the international planning trends and the waterfront redevelopment of the Expo, it seemed necessary and logic to expand the port on the south side of the river and redevelop the waterfront on the north bank for leisure and urban uses, that could finance new port infrastructure.

Figure 50. Refurbished warehouses for restaurants and bars in Doca de Sto. Amaro. This project preceded the POZOR, but already indicated the transformation path of disuse port areas for leisure activities. Project from architect Rui Alexandre. Photo: José M Pagés Sánchez

The port strategic plan, developed between 1990 and 1992, included two controversial ideas: a new deep-water container terminal on the south side (in Trafaria, Almada), and a waterfront regeneration plan on the north side. At the time, expanding the port was not considered an issue, but the local population and the municipality of Almada opposed the project for its environmental and visual impact. The terminal was proposed on the river's mouth, with a layout linking Trafaria with the Bugio Fort island (Costa, 2006).

In this same period, the port authority did a plan to refurbish Sto. Amaro Docks for leisure programmes such as clubs and restaurants (see fig. 50). At the same time, the waterfront redevelopment proposed in the strategic plan evolved into a more concrete plan, the POZOR, published in 1994. This new document created unprecedented tensions in the port-city-citizens relationship.

POZOR 1 - 1994

The POZOR was publicly presented in June 1994, proposing to restructure most of the urban waterfront, from Algés to the Expo, releasing 12 km of riverfront to the city, following a commercial approach similar in some areas to the one introduced by Gravata Filipe. The new plan was drafted by Miguel Correia and Terry Farrel, both architects, with the external advice of Alcino Soutinho (Matias Ferreira, 1997). One of the characteristics of the POZOR was the dense construction in certain areas, influenced by British waterfront models. It organized the waterfront in six sections, each one treated differently (see fig. 51); at the same time, it catalogued the existing buildings, either to be kept, to be refurbished or to be demolished. The new buildings would totalize 450 000 m2 between Sto. Amaro and Alcântara, and 160 000 m2 in Rocha Conde d'Óbidos - Santos. The plan included a new shopping mall with 82 000 m2 in Cais do Sodré, by Multi Development Corporation International (Ressano Garcia: 2007:71).
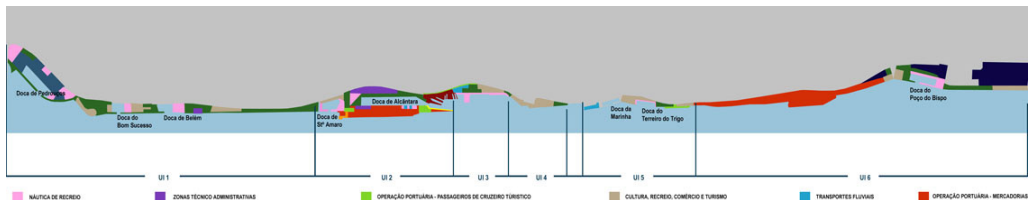
Figure 51. General plan of the POZOR sections (units). From unit one in the left side to six on the right. In red are the core cargo areas and in dark blue the associated industries. Source: http://www.fat.pt/Architecture/project?lang=PT&m=4&s=2&c=61#

Social contestation

Since the project was publicly presented it faced fierce opposition, not just from the civil society or NIMBY[130] movements, but also from reputed specialists from architecture, landscape architecture and urban planning. The port authority took an innovative approach, since it prepared an exhibition with a large model and plans (see fig. 53), and several debate sessions in Alcântara maritime terminal. The POZOR did not counted with much political support, and social figures from the media and popular intellectuals supported the opposition movement, reaching large press coverage, taking the conflict to a previously unseen polemic (see fig. 52). The mayor at the time, Jorge Sampaio, rejected the proposal of the port authority, claiming that the port land recovered for urban uses should be planned for the city's general good i.e. leisure and public spaces, not private development (Costa, 2006).

POZOR 2 - 1995

The massive social contestation forced APL to retract itself and offer an alternative plan. In 1995, the port authority presented a second version of the POZOR, removing the planned

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130   As we saw in chapter four, this sort of civil movements opposing real estate or infrastructural developments can often be found in port cities. In the case of Lisbon, a civic platform the NIMBY movement was the "Movimento de Defesa de Lisboa" (Movement to defend Lisbon). This organization installed a process in court to diminish APL's power, and pressure politicians to discuss and reduce the planning capabilities of the PA (Matias Ferreira, 1997).

Figure 52. Newspapers from 1994 showing the conflict caused by the POZOR plan. In the left we can read "POZOR – for some a tragedy, for others an opportunity". In the 6th column we read that the underlying issue is removing the port from Lisbon. In the left the headline says: "Lisbon: arguments on the waterfront". Source: (R) Jornal de Notícias, October 11th, 1994. (L) Semanário, July 23rd, 1994. Retrieved from: http://oasrs.org/media/uploads/LIS_ZON_RIB_POZOR_NMqUtd2.pdf

Figure 53. Model used to present the POZOR to the public. Source: Revista Expresso. July 16th, 1994. pp. 84

construction and the real estate operation, focusing on new public spaces for the city. The plan kept the same scheme, dividing the waterfront into six sections, with four different vectors (buildings, connections, parking and zoning). The main point was in this occasion to study each case without proceeding to large scale transformations. The plan affected 15 km of riverfront, of which 5 km would be made accessible to the public, complementing the existing 5 km, and 5 km would be reserved for port activities[131].

Another difference to the previous POZOR was the collaboration with public organizations. Unlike the former plan, in which the port authority operated independently mostly cooperating with private companies, for the new document it established an intense dialogue with the municipality. Short after the new plan was presented, the leadership of APL changed, with a new board. Cabral, the new head of the board, stated that the port authority would refocus on port development, reducing its implication in urban operations (Matias Ferreira, 1997; Cabral, 2011).

After POZOR

Finally, the POZOR 2 was not concluded but, as it has happened with other plans in Lisbon during the 20th century, it guided the actions of the port authority in the waterfront. The influence of the plan was mainly visible in the western section of the waterfront, where APL recovered green areas by the river. The area of Santo Amaro, was also regenerated following the pre-POZOR project, including warehouses transformed into restaurants and clubs, several parking and marinas (see fig. 51). In 1995, the port authority and the municipality began to cooperate, mostly to redevelop public spaces and create new connections, focusing on the western section, from Cais do Sodré to Algés.

Although the second version of the plan had a stronger social focus, with public spaces and leisure facilities, the port authority never fully recovered the trust of the local inhabitants. They considered this organization unfitted to intervene in urban issues, being solely responsible for port activities. This was clearly visible in the attempts to change the law that determined the capacity of the port authority.

The timing, location and design principles of the POZOR affected its fate negatively. The Expo, was already taking place in Lisbon, reducing the potential support from the national government. The plan from APL was considered a possible threat to the economic sustainability of the Expo project, since both included real estate operations on the waterfront, and investors could be "distracted" (Matias Ferreira, 1997). The POZOR was an initiative defended by the port authority leadership with the opposition of the local government and local society. The municipality was already left out of the Expo process, due to the creation of the Parque Expo. The corporation, created by the central government, had su-

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131   After defining the port areas, the remaining 14 Ha were divided into six intervention units, following functional and physical division criteria. (Algés, Belem, Junqueira - Sto. Amaro, Alcantara - Rocha Conde d 'Obidos, Santos - Cais do Sodré - TP, Sta Apolonia - Sta Apolonia, Poço do Bispo.) The Cais do Sodré was the most complicated intervention unit, since it was a land with three owners (Railways company with 20 000 m2, CML with 14800 m2, APL with 14000 m2)

pra-municipal powers, similar to port authorities, and operated above the traditional urban planning scheme. The priority for the central government was the success of the Expo, therefore the POZOR political support was compromised from the start.

The location also presented issues. The central section of the waterfront has stronger roots in Lisbon´s history, hence any intervention could easily become controversial. On the opposite side, the EXPO was on the eastern part of the city, where the urban tissue was not so consolidated, implying less discussion or protest.

Finally, the plan´s character and design principles were unfitted for the context. The influence of British plans for urban waterfronts, which often included dense real estate operations, affected the POZOR negatively, threatening with strong gentrification and privatization in an area for which the local population had other expectations. The planning model was not adapted enough, disrupting the local prospects for the area. Unlike what happened in other port cities like Oslo, the easiest area to be regenerated was not the central waterfront, but the eastern section of the city, far from downtown. The social expectations, including those of policy makers, marked the fate of the POZOR.

Finally, during the following decades after the plan, new construction on the riverfront has been done. Although the new buildings violate the local development plan, they are accepted in the public eyes because they have a "social" program, either cultural, or research, or even hotel, disregarding the often opaque development processes. Despite the innovative character of the POZOR, including public presentations, the results were not what APL expected. Although they were operating within the law, respecting the legal boundaries of the port territory, at the eyes of society, the waterfront was a continuum, regardless the property limits, and the POZOR represented an aggression to their relation to the river and the riverfront.

POZOR: A process of institutional change

The POZOR process resembles in some issues what happened in Oslo as explained by Børrud (2007). Although the process started as an attempt of the port authority to redevelop unused port areas for housing and offices, acting within the existing legal framework, it soon became a broader debate about its capacity to plan urban areas and influence the city. This issue reached the national political agenda, when the parliament discussed the attributions of port authorities. Deputies of the Portuguese Communist party presented the law proposition 85/VII in 1996 to reduce the power and responsibilities of port authorities that was finally dismissed[132].

Although APL followed the law that allowed it to do such operation, the social expectations towards its role and the waterfront differed. These expectations were influenced by the previous waterfront competition and other cases around the world. In this case, the waterfront imaginary was predominantly public areas, pointed with leisure and cultural

132   Document available at the parliament's website on https://www.parlamento.pt/ActividadeParlamentar/Paginas/DetalheIniciativa.aspx?BID=5581 (Visited on December 5th, 2018)

facilities and green areas to get in contact with the river. The proposal of the port authority had a stronger private investment character, and it was done by an organization that did not have the social recognition to do such operation, in a location that was particularly sensible, unlike what was seen in the Expo. The people demanded new public spaces by the water and considered the port authority unsuited to plan urban areas. Although the proposed legal changes failed, the POZOR process narrowed down the development path and social conception of the role of port authorities. Their role was associated with port activities, and only certain smaller actions to implement leisure programs, linked with heritage refurbishment would be socially accepted.

Municipal plans – 1992 – 2000s

In 1989 a new political[133] team arrived at the city hall, starting an intense period of municipal change and planning (Leite, 2008). The new team and the broader regional plans discussed in transition from the 1980s to the 1990s potentiated the notion of Lisbon as capital of a metropolitan area, and the need to compete in an international context to attract investment. During this time the municipality drafted and implemented the first city development plan since the end of the dictatorship.

Plano Estratégico de Lisboa (PEL) - 1992

Lisbon´s strategic plan (Plano Estratégico de Lisboa - PEL), approved in 1992, was the first document of the new planning system, including the PDM and different priority plans and projects (Craveiro, 2004). We must consider that this plan was drafted before the POZOR, when the memories of the 1988 riverfront competition were still recent. The PEL was mainly a socioeconomic instrument to define the principal development vectors and to support the political decision-making processes (Leite, 2008). This strategic document proposed a new urban development model based on eight key points, including connecting the city with the river[134]. The main goals for the strategic plan were: to modernize the city, to improve the general quality of life, to make the city capable of competing with other European metropolises, to reassure the role of Lisbon as metropolitan capital and to improve the administrative system.

The plan divided the city into four sections, one of which was the riverfront, with the goal of reconnecting the city with the Tagus without harming the port (Craveiro & Soares, 1997). The municipality recognized the port authority´s effort in the recent waterfront regeneration projects, particularly the new public spaces by the river and the debate generated during the 1988 competition for the waterfront.

During the following years the municipality developed several plans for the riverfront, mostly for the western and eastern sections, emphasizing existing heritage and trying to

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133   The new major was Jorge Sampaio, later to become the president of Portugal.

134   Others major concerns were redeveloping historic areas in the centre, regenerating the eastern section, improving public transport system and reducing urban expansion towards the north.

Figure 54. Roads and railway line form a barrier separating the city from the river, also in the areas where there are no port activities. Despite several attempts since the 1970s, the issue has not been solved. In other cases, explored in Ch. 4, we saw that one of the first actions to redevelop the waterfront was burying the road or railway (e.g. Oslo or Marseille). This solution has been proposed several times in Lisbon, but never executed. Author: José M P Sánchez

reduce the barrier effect of the railway and the roads[135] (see fig. 54). The municipality identified several key operations[136] to reinforce the connection between the city and the river, mostly in the western and central waterfront. These concrete actions were in areas controlled by the municipality, such as Praça do Comércio, or in which port activities were no longer suitable, mostly from Alcântara to Belém, including several bridges to improve the connection.

Plano Director Municipal (PDM) - 1994

The PDM approved in 1994 was the first city masterplan since 1977, coordinated with other documents drafted at the same time, such as the PROT-AML (*Plano Regional de Ordenamento do Território - Área Metropolitana de Lisboa,* Regional Land Management Plan for the Metropolitan Area of Lisbon), or the detail plans.

In the plan, the territory was organized in 4 different areas, one of them the riverfront, as it happened in the PEL. Among the key goals was again reconnecting the city with the river, identified as a key element of Lisbon. In the PDM report the connection with the estuary is emphasized, defining Lisbon as a river-city (cidade ribeirinha). Although the port was not assumed as a key identity element, it can be considered part of the river-city character, since port activities had a strong influence in the urban economy, identity and development (CML, 1994).

The municipality proposed several actions to improve the connection with the river. The first one was to integrate port areas, improving the port access and its complementary services. Other measures included better integration of water transport in Lisbon's public transport interfaces, enhancing public areas on the riverfront, integration of the infrastructural barrier formed by the railway and roads, and establishing a visual axes system.

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135   As we said before, the idea of burying the railway, and later also the road, have been discussed several times since 1988, without actually been implemented.

136   According to Craveiro & Soares (1997) the anchor projects were: Praça Afonso de Albuquerque, Cordoaria, Standard Eléctrica, Alcântara-Rio, Janelas Verdes, Aterro da Boavista, Ribeira das Naus, and Terreiro do Paço.

The basic PDM intervention units were the UOP (Unidade Operativa de Planeamento e Gestão -Operative Unit of Planning and Management). There were 30 UOPs in the plan, of which seven affected the riverfront (Costa, 2006). Costa (2006) explains that the PDM was more specific than the PEL regarding the possible land uses, including refurbishing industrial buildings to host other programs, such as offices or housing. The relation with the port authority was made via specific agreements for concrete issues, such as port communication, roads and railway (CML, 1994).

Plano de Urbanização da Zona Ribeirinha Oriental (PUZRO) – 2000s

Once the Expo was finished, the planning horizon for the post-event period expanded until 2009. The municipality began to work on the redevelopment of the surrounding territory to integrate the "new urbanity island" the EXPO area was about to become (Matias Ferreira, 1999).

The new plan to regenerate the eastern edge of Lisbon was named PUZRO (Plano de Urbanização da Zona Ribeirinha Oriental - Urbanization Plan for the Eastern Riverfront) and continued the work developed in the previous plan for the surroundings of the Expo, practically assuming the same boundaries. A first version of the plan was presented in 2001, although not approved, partly due to the remarks given by the regional development commission. Afterwards, it became a strategic document, republished in 2008 with the name "Documento Estratégico de Monitorização da Zona Ribeirinha Oriental" (Strategic Document for Eastern Riverfront Control). In the new strategic document, the interaction with the port was explained on article 7, indicating that any urban action to be taken within the realm of this plan must include APL approval (CML, 2008).

The intervention area was structured along four urban axes, three running parallel to the river (Av. Infante Dom Henrique, the interior street from Rua da Madre Deus to Rua Fernando Palha and the railway line) and the avenue Marechal Gomes da Costa expanding from the riverfront towards the north. In total, the covered area was 418,1 Ha, including 4,5 km of riverfront. The PUZRO included a detailed analysis of the existing industrial heritage, while at the same time potentiated redeveloping large industrial sites and new public facilities. From this document, several detail plans were drafted, such as the "Plano de Pormenor do Braço de Prata" and the "Plano de Pormenor da Matinha".

The Plano de Pormenor do Braço de Prata, drafted in 1999, redeveloped a military industrial site affecting 10 Ha. This plan, private led and designed by Renzo Piano, included the integration of the avenue Infante Dom Henrique into the new urban structure, releasing the riverfront for a new public garden. The project proposed 142500 m2 of which 72% for housing, 16% for economic activities and 12% for services, and 5500 m2 for public facilities (Costa, 2006). The project suffered several setbacks, but since 2015 it is being developed.

The final version of the detail plan of Matinha was published in 2011, affecting an area of 31,5 Ha characterized by the gasometer structures, remembering its industrial past. The

project has a green central axis, framing the industrial heritage on one extreme and connecting with the riverfront park on the other. The new buildings are designed perpendicular to the river, following a similar concept and program to Renzo Piano's project, but on a larger scale [137], with a total construction area of 339.305 m2.

This section of the waterfront was included in the 2009 agreement between the municipality and the port authority, based on the law DL 100/2008 to release inactive port areas for the local government. In the following sections, we will explore this operation between the municipality and APL, since it included several riverfront locations. According to both plans, the river bank will be transformed in a riverfront park financed by the private developer. The approach was similar to the Expo, responding to the general imaginary of green areas by the river, based on leisure and, on a second distance new housing. This approach was only possible in the eastern section of the city, where large scale brownfields were available, and the local history is not so entrenched as in the central waterfront. The operations of the PUZRO were supposed to be developed immediately after the Expo, closing the gap to the Baixa. However, the process has extended for decades, and still has no completion date, since it depends on private investors and the market behaviour. The port authority remained as a consultee entity but did not play an active role in the decision-making process regarding the program.

First glance on the institutions governing the port-city relationship

The way local authorities and residents looked at the river changed significantly between the riverfront competition of 1988 and the opening of the Expo 1998. The Tagus was no longer just a reference in literature and history, but a space for the citizens to enjoy. During this period several urban actors repositioned in terms of urban planning responsibilities. The port authority development path was narrowed due to the social protest, and to some extent marked its role for the following decades. During these years the foundations for contemporary Lisbon's were built, with a planning frenzy, producing many projects, some of which still under construction today. The image of the city was transformed, as so were the ambitions of the inhabitants regarding public space and riverfront areas.

What took place in Lisbon during this period is an example of the dialectic process that occurs between governance and institutions (Daamen and Vries, 2013). In these plans, the national government, the municipality, the local inhabitants, and the port authority expressed their expectations for the waterfront and the role of the latter. The institutions that we will see in the focus projects are influenced by the actions, processes and relationships that took place in this period, related to these plans. As North (1990) explains, history matters in the process of institutional formation, and these events affected the current in-

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137   Initially, the uses planned in the 1994 PDM for this area were related with investigation and technology. After the PUZRO was cancelled the municipality changed the program to mixed use including housing and tertiary activities. Since the plan was published the plot has not suffered any alteration. No construction nor real estate development has been announced, remaining an industrial landfill during this time.

stitutional framework. At the same time, following Hall work (2003, 2007), the institutional framework is also geographically bounded, the events that we described here took place in a specific context and affected the waterfront imaginary and the social conception of APL. The current law defining the role of the port authorities and their priorities has also been influenced by these events, particularly since 1988 when different actors started to debate the future of the waterfront in Lisbon.

In the events that we described here we can already see glances of the institutions that govern the port-city relationship and the role of the port authority, which will be more explicit in the focus projects. During this period the narrow conception of the port authority mission and the post-modern waterfront imaginary gradually became standard and taken for granted by the different actors. Although initially in the plans presented by the main actors (the port authority and the municipality) there was an aim to find a coexistence between port and city, this aim gradually extinguished as they presented new plans with narrower visions for the riverfront. We could see an evolution from an initial moment of clear cooperation, in 1988, to explicit conflict, to light collaboration for the most recent plans.

After a moment in which APL showed a strong will to intervene in the urban tissue, it gradually refocused on port activities, fitting the institutional mandate. The other actors planning the riverfront (national government and municipality) and society did not consider the port authority fitted to restructure the riverfront, even though it was legally allowed to do it. This organization was perceived as non-democratic[138], pending from the central government, with a very specific function: APL was in charge of managing a specific territory for port activities (Matias Ferreira, 1997). The public discussion about the POZOR was not only about rejecting certain planning ideas and design, it eventually influenced and made explicit what port authorities are allowed to do in Portugal. The general role of the port authority was associated with port activities, and only certain smaller actions to implement leisure programs, linked with heritage refurbishment would be socially accepted. The consequences of this crucial moment around the POZOR process are still felt today, as we will see in the new laws and the new waterfront spaces.

In these plans we could also see the expectations of the people and the politicians for the waterfront, and the influence of international experiences, mostly from British port cities and Mediterranean cases. Despite their disparity, both related to the same imaginary, transforming the waterfront for urban uses. Further ahead we will see how these expectations still influence waterfront projects, but also how new solutions may be possible.

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138   In the interviews, the presidents of the *freguesias* indicated that APL was perceived as a state within a state, with its own rules and laws.

5.4. Port authority legal framework: limiting innovative approaches

The legal framework of Portuguese port authorities, and more specifically the one from Lisbon, reflect the changes that have taken place during the last 30 years in the national and international context. Although many laws are relatively recent, the main legislation defining port authorities' mission is already several decades old and is starting to reveal its limitations. To understand the institutions governing the port-city relationship we must see what are the legal elements that define the main actor we will observe in the focus projects. These laws complement the social expectations towards the role of APL and in the different waterfront projects. The narrow definition that we started to see in the previous section is confirmed in the legal framework of Portuguese port authorities. At the same time, the waterfront imaginary is also supported in laws defining the territorial management of the port land.

The port governance follows the landlord Latin tradition, in which the central government controls the port authority and private companies are responsible for port activities. In this model, port authorities govern the port territory, concessions, regulation and promotion. As indicated by several authors (van der Lugt et al, 2013, 2015; Vries, 2014), these organizations are currently demanded to go beyond the traditional (landlord) role. However, it is not clear if their legal definition and the social expectations allow it to focus in other issues than cargo and economic results.

The legal framework of the port authority regulates several issues, from labour and safety, to environment and cargo handling[139]. For the scope of this research we focus on the laws defining its mission and powers, and the land under its jurisdiction. We also comment the most recent strategic plans since they are also legally sanctioned and are supposed to guide the future of the sector.

Legal definition of the port authority of Lisbon

Although the first law concerning the port authority are from 1907, the modern definition of this organization is from the late 1980s. In the past thirty years, the port authority has evolved from a public organization to a public company. The legal changes occurred during this period answer to the global governance trends to make ports more efficient and profitable. Despite the several reforms occurred until today, the main characteristics of the port authority and its core goals as defined in the law have remained unaltered since 1987. Authors such as Caldeirinha et al. (2017) explain that port reforms from the last 10 years have been successful for their economic and logistics results. Sustainability has become a normative goal, mostly regarding the environmental externalities of port activities, visible

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139   For the complete legal framework of Lisbon's port authority see http://www.portodel-isboa.pt/portal/page/portal/PORTAL_PORTO_LISBOA/AUTORIDADE_PORTUARIA/LEGISLACAO visited on October 3rd, 2018.

in national strategies[140], instead of becoming part of the port authority's legal definition. We must remember that the Brundtland report defining sustainable development was presented by the UN in 1987. The modern legal definition of the port authority could not have possibly included this aim as the UN established it, since they were published on the same year. However, the following legal reforms also did not include this issue, reinforcing logistic efficiency and economic profitability.

The current definition of APL is the outcome of cumulative legal reforms, with incremental changes. Each new law builds on the previous one, hence certain aspects have remained unmodified, while others such as the management system, have suffered several changes. For this reason, we describe here the main laws that are still relevant today, from the one from 1987, when the core functions of the port authority were defined, to the most recent one from 2016, that started a possible integration of the port authorities of Lisbon and Setúbal, while the metropolitan area gained representation in the board (see table 7).

Table 7. Main laws defining the port authority of Lisbon

Law	Year	Scope
DL 36976	1948	Definition of the territorial jurisdiction
DL 309/87 7th of August	1987	Definition of the modern PA, including the management system and the economic the logistic efficiency orientation.
DL 324/94, of 30th of December	1994	Becoming a landlord port
DL 336/98 3rd of November	1998	Changing to a public owned corporation
DL 334/2001 of 24th of December	2001	Simplified management board for efficiency
DL 15/2016 9th of March	2016	Merging the boards of the PAs of Lisbon and Setúbal.

The law DL 36976 (20th July 1948) renamed the port authority as the *Administração Geral do Porto de Lisboa* (AGPL) and defined the current boundaries of its territorial jurisdiction. In the 1980s, the organization mutated to respond to the changes of the sector, being renamed as *Administração do Porto de Lisboa* (APL) DL 309/87 7th of August. This law defined the port authority as an organization responsible for managing the riverfront including port activities and others, aiming at maximum efficiency, prioritizing economic results. This law also established three management bodies: the managing board, the surveillance board and the advisory board. In the latter, the most relevant stakeholders were represented, including the municipalities affected by the port jurisdiction.

The next legal change was transforming the governance model to a landlord port, in which port activities are developed by private organizations, and the port authority is focused on planning, coordination, regulation and improving port efficiency. The law DL nº 324/94, of 30th of December, established the current model for concessions of port activities, releasing APL from operational responsibilities. The concessions contracts were defined following exclusively economic parameters.

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140   Estratégia do Sector Marítimo Portuário, 2006

In 1998, APL was corporatized, following governance models proposed by international organizations (e.g. World Bank, 2003). In this year, APL mutated from a public organization to a public company, with 100% of its shares owned by the state (DL 336/98 3rd of November). The port authority became a *Sociedade Anónima* (limited company), changing its name to APL S.A. to manage more efficiently the logistic and port activities. In the introductory text of the law it is indicated that a corporation would be more efficient than a public organization because it is not restrained by the general laws that do not consider the specificities of the port sector. Several authors, such as Brooks and Pallis (2012), have questioned this belief, since it increases the influence of private corporations over public good, and forces port authorities to compete against each other for traffic. Despite these potential negative aspects, as we saw in the previous chapter, most European countries have implemented the landlord model.

The law from 1998 also changed the governing bodies of APL, diminishing the influence of the local stakeholders. The article 12 of the law DL 336/98, defined three governing bodies: the stakeholders' general assembly, the executive board and the statutory auditor. The central government, through the general assembly, nominates the chairman of the board and the other members. Since APL is fully owned by the state, only the state is represented, controlled by the finance and sea ministries, and it is the only one receiving dividends. This assembly must approve the general budget and the plans of APL and decide on major investments and changes in the statutes.

Additionally, the law DL 336/98 defined an advisory body, named the *Commission for Port Coordination*, who gives recommendations about maritime security and piloting services. The commission is formed by three members, one from the executive board, one from the port captaincy and another one from the ministry of infrastructures and territorial development. The influence of local stakeholders on port strategy and development remained limited until the new law of 2016, in which the metropolitan area gained a new representative in the board. While in the law from 1987 the advisory board included representatives from all municipalities affected by APL's jurisdiction, and more than 20 representatives from other organizations, from companies and workers to other territorial bodies, in the reform of 1998, the advisory board was reduced to three members, focused on security issues and depending from the central government. The functions of the former advisory board, of establishing a contact with the port companies is done through the Port Communities (Caldeirinha et al., 2017).

Although the law of 1998 redefined the nature of APL as a public owned corporation, its jurisdiction and capabilities remained mostly unaltered. This change was later complemented with the law DL 334/2001 of 24th of December, in which the port authority's board was reduced to one president and two members, and the process towards becoming a landlord port continued, incentivising the participation of private stakeholders in port activities[141]. Caldeirinha et al (2017), explain that during the period between 2005 and 2010,

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141   The evolution of PA´s towards the land lord port management model was a goal explicit in the "white book – port and maritime sector". DL 324/94 30 December

there were more changes in the Portuguese port government policy. One of these changes affected the retribution of port managers, who would get performance-based bonuses, incrementing the business-like approach to port governance.

The law DL 336/98 3rd of November assigned APL planning and construction powers, such as being responsible for territorial and infrastructural planning and constructions within its jurisdiction. According to the same law, APL can give construction licenses for developments directly related with its activities in its jurisdiction, but with the opinion of the municipality. However, APL must always comply with the broader environmental laws, and, if necessary, ask for an environmental impact report from the public entities this issue. It can also expropriate land for port uses and expansion, it must manage the public land under its jurisdiction and elaborate plans for maritime and land constructions, and port infrastructure, and send these plans for government approval (DL 309/87 7th August).

The DL 336/98 was published four years after the POZOR controversy, in which the power of the port authority was questioned. Although the plan caused a major controversy, and there were political and social pressures to reduce APL's scope, the planning capabilities did not change significantly compared to the law of 87, that was the legal "umbrella" allowing the waterfront redevelopment plan. Article 3.2 of DL 309/87 describes the competencies of APL, indicating that it has the right to define the public good and to give concessions for activities taking place in the public space that manages, looking after the public good. At the same time, article 33 of the law DL 309/87 indicates that the management or sale of inactive assets is a revenue source for APL. However, if this organization followed strictly its legal attributions, it could still draft and license constructions to improve its financing. In article 53 of the same law (DL309/87), self-financing and profitability is explicitly appointed as one of the main goals of the port authority, emphasizing the economic dimension of the port above other pillars of sustainable development.

The most recent changes were introduced with the law DL 15/2016 9th of March. Although this law did not change the core mission and goals of APL, it established a new shared management board for the port authorities of Lisbon and Setúbal[142]. However, both port authorities remain independent public corporations. The goal is to improve the synergies and coordination between the two ports in Lisbon's metropolitan area, but it also opens the door to other forms of cooperation.

The law DL 15/2016 raised considerable controversy since it was interpreted as a first step towards the integration of both port authorities. In Portugal there are other examples of one organization managing two ports, such as in Leixões or Sines[143]. In Europe we can

142   The port authority of Setúbal also controls the small fishing port of Sesimbra.

143   The port authority of Douro and Leixões (APDL) manages the ports of Leixões and Viana do Castelo. The port authority of Sines is responsible for the ports of Sines, Faro and Portimão. These cases have a clear difference between main ports (Sines and Leixões), and secondary ports, often for specific functions (Faro and Portimão for cruises and marinas, Viana do Castelo for shipyards), while Setúbal and Lisbon are closer in terms of throughput and share certain cargo traffic (containers).

find other examples, such as the new Italian port law or the port authority of Marseille and Fos. However, in the case of Lisbon and Setúbal, both ports are relevant for the national strategy and compete for traffic. At the same time, scholars and politicians have speculated in the media about the consequences of a possible integration. One of the main ideas is that heavier port activities could be relocated to Setúbal, that has expansion possibilities directly in open sea, and leave the port of Lisbon for "urban friendly" activities, and agro-food and industries operating in silos. Although for the moment, the involved port authorities decline this option and political forces in Setúbal have rejected this scenario, it is a possible outcome in the medium or long-term[144].

The law DL 15/2016 also changed the composition of the management board, with potential implications for the port-city relationship. Previously, the board was formed by a president and other two members, designated by the general assembly, i.e. the central government. The new board is formed by a president and four *administrators*[145], of which one is appointed by the board of the Lisbon's metropolitan area. This resolution is in line with the government goal of promoting greater closeness to the local administration (DL 15/2016 9th of March), implementing a process of decentralization, transferring several responsibilities to local and regional authorities. Authors like Matias Ferreira (1997), had previously suggested this kind of hybrid models for Portuguese port authorities, as a simplified version of the French model. However, these changes did not alter the central government control, since it remains the sole shareholder, receiving dividends and represented in the general assembly.

We can compare the situation introduced by the new law to other south European ports, such as Marseille and Genoa. Although there have been legal changes towards decentralization, the local influence in the port remains limited (Debrie et al., 2013; Parola et al, 2017). This situation is particularly clear in the case of Marseille, where the new model integrated local representatives in the management board, but they lack real power (Debrie et al., 2013), while the decision-making process has become slower and more complex[146].

The law DL 15/2016 also raises governance questions about the role of the organization governing Lisbon's metropolitan area. Although this organization should have a relevant position in the regional territorial management, it did not have a relevant role coordinating the relationships between the port authority and the municipalities. We can find examples of direct agreements between different cities in the metropolitan area for port related mat-

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144   Local stakeholders in Setúbal fear losing autonomy and that their needs would be neglected in the plans for the port of the capital. Besides the symbolic political opposition, local stakeholders presented a public petition for the autonomy of the port of Setúbal and the permanence of the CEO, based on the recent growth of traffic, and positive results, competing with Lisbon.

145   Administrator is the new name given to the members of the management board that are not the president.

146   In chapter four we could see the French model includes territorial representatives in the management board. In the interviews in Marseille, the PA representatives explained the difficulties and dragging decisions making processes.

ters without the participation of the AML [147]. Since the new law is very recent, it is not yet possible to evaluate the new role of the AML and the potential advantages.

Strategic plans

Legal elements have been complemented with strategic plans from different governments. These plans reveal the expectations towards the port and maritime sector, and may influence future legal changes, as it has happened in the past. Today, there are four relevant strategic plans (transport, tourism, sea policy and port competitiveness) developed by different government cabinets since 2013 that could modify the law and governance of the port authority. These plans were approved by cabinet meetings (Resolução de conselho de Ministros: n.º 61-A/2015, of 20 of August; n.º 24/2013, of 16 of April; n.º 12/2014, of 12 de February and n.º 175/2017 of 24 of November respectively). The Transport Plan (2015) focuses on economic sustainability, referring to the overall national strategy, including public transport, road system and railways. The plan indicates the priorities in new port infrastructure and connections with the hinterland stating the government position in the new container terminal.

The Tourism Plan (2013) emphasizes sustainable development and tourism, highlighting the need to find a balance relationship with the local population, harmonizing economic sustainability and local development, offering original experiences, and environmental protection avoiding over exploitation. It also considers the cruise sector a key field for local development, therefore the cruise terminal project is an arena between national interests, municipal goals, international stakeholders and local residents. These tensions take place in a sector with a strong economic impact that is gradually raising controversy and being rejected due to its side effects (mass tourism, real estate speculation, etc).

The National Sea Strategy 2013-2020, including the *Plano Mar Portugal* (Portuguese Sea Plan), is an open document constantly updated, done by the government in power from 2011 to 2015. The plan emphasizes the geographical location of Portuguese ports for transhipment, mainly Sines, given the routes crossing in front of the Atlantic. At the same time, it also stresses the need of integrating the ports in the continental logistic networks to take advantage of their geographic location. Another relevant activity highlighted in the plan is cruise tourism and sailing. The first is considered a key sector in the Portuguese tourism market with short-term positive effects. The second is considered a complement to the traditional "sea and sun tourism". Although naval construction is another relevant topic, it doesn't specify how or what incentives may be applied.

The sea plan emphasizes the importance of the sea and the need to retake it as a key vector for future development. The plan stresses the importance of less tangible aspects, such as maritime identity, sea related research, or enhancing the exterior image of Portugal as a sea

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147   In 2017, the municipalities of Barreiro, Setúbal, and Lisbon, presented a joint initiative demanding greater importance for the port in the region, to establish themselves as the country´s main logistic platform. (https://www.logisticaetransporteshoje.com/logistica/lisboa-setubal-barreiro-querem-estrategia-portuaria-comum/ visited on May 14th, 2018)

country, while emphasizing the *blue economy*[148]. At the same time, while it prioritizes exploiting the different economic sectors that are ocean related, it also points out to the need of preserving and managing sustainable development, without jeopardizing the same oceans. To implement the sea plan, the government proposed port related actions including increasing the articulation between the different ports to improve their commercial competitiveness, and improving their capacity to attract investment, making them sustainable, well organized, safe and efficient. In a different section, the plan indicates several issues in which port authorities and ports could play a key role, going beyond their economic function, such as education, science and technology, identity and culture and research.

After the 19th constitutional government of Portugal defined the sea as one of the key economic fields for the country's development, affecting the ports, the 20th government presented at the end of 2017 the new strategic plan for port competitiveness until 2026 (Estratégia para o Aumento da Competitividade da Rede de Portos Comerciais do Continente — Horizonte 2026 Resolução do Conselho de Ministros n.º 175/2017). The plan is focused on economic and logistic aspects, emphasizing traffic growth, mainly in containers, profiting from the natural geographic conditions of Portugal, and benefiting from the on-going changes in the maritime and port sector (mainly related to new infrastructure, new alliances and market configuration). Along the document, there are several references to sustainable development of ports, i.e. development based on economic, environmental and social vectors. However, there are no specific measures or projects directly focused on the last two dimensions. In social terms, the main measures are related to jobs created by new traffics and infrastructure, such as the new terminal in Barreiro. Other initiatives strive in the same direction, focusing on port technologic added value, innovative companies and research. The environmental value is mostly related to logistic initiatives that provide environmental advantages, such as implementing LNG providers and infrastructure. In the case of Lisbon, these initiatives focus on supporting river traffic and the new logistic platform up stream, that should help to reduce truck emissions and traffic in the city.

The most interesting element in the new strategic plan for the port competitiveness is the *Port Tech Clusters* concept. One of the three main development vectors is creating poles of technologic acceleration and new competencies. These poles of new activities associated with the port and maritime sector would require new kinds of expertise, research and technology, being an opportunity for Portugal to excel, and become an international stakeholder. This proposal is framed on the broader sea economy programme, emphasizing the importance of the sea in the Portuguese economy. These clusters are considered crucial points to bring private investment, local benefits and added value for the local communities. They could become poles for strategic coupling, connecting Portugal to the global economic system. According to the plan, these clusters should provide added value

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148   The EU (2018: 5, 12) defines the blue economy as "all economic activities related to oceans, sea and coasts, from energy, to fisheries, tourism and transportation." "The concept of the blue economy emphasizes conservation and sustainable management based on the idea that healthy ocean ecosystems are more productive and are fundamental to sustainable, ocean-based economies."

in Portuguese ports for advance sea industries, including also innovative repair and construction shipyards, establishing research centres in ports close to maritime industries and environment. The approach would be bottom-up, following the existing dynamics for new sea industries in each port. The plan identifies seven key topics (renewable ocean energy, specialized ships, green shipping, oceanic engineering and robotics, digital ports (*industry 4.0*[149], green port and leisure ship repairs). Lisbon is present in all except the specialized ships and green port.

Although the Port Tech Clusters concept seems very attractive and forward looking, it raises several questions. This idea would imply a new responsibility for port authorities if they are the organizations responsible for these actions. However, it is not explicitly explained how it should work, who is in charge, what concrete actions should occur or how the financing would function. At the same time, there are no references to potential connections with the local communities and authorities, and the spatial consequences of this idea.

The main strategies defended in the port competitiveness plan could imply a new role for port authorities, becoming more active in areas unrelated with traffic. This could require a broader institutional framework, or at least operating on the boundaries of what it is expected from the port authority. The Port Tech Clusters concept recalls the role of port authorities seen in other cases such as Rotterdam, where it was involved in the RDM Campus, supporting maritime start-ups (Vries, 2014). Although this approach could be better accepted by local communities, matching the expectations to the port authority's behaviour, it also raises doubts about the current legal framework.

Land ownership

The most relevant issue in the evolution of port land laws has been the gradual process in which port authorities have been forced to release port territory for urban uses, reducing their territorial presence, evolving towards terminal based ports. However, this issue is not new, since the 1960s several partial and general agreements have been legally sanctioned, transferring port land for municipal control in Lisbon. This tendency can also be observed in other port cities in which port activities have occasioned misfits between the port land and maritime activities.

After the intense debate that took place during the 1990s about waterfront plans and the use of former port areas, in the first decade of the 2000s, new legislation was approved to clarify the purpose of the land that was no longer appropriate for port activities but remained under the jurisdiction of port authorities. In 2007, the government obliged these organizations to make an inventory of port vacant areas. Later, in 2008, the law DL 100/2008 16th of June determined that port authorities must release the territory no longer suitable for current or future port activities and transfer it to the municipal authorities.

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149   Industry 4.0 is a term referring to the fourth industrial revolution. This concept is based on the opportunities that internet connected technologies provide to productions process, and the mass use of "smart" devices, from consumer to factories (see Lasi et al., 2014; Brettel et al., 2014).

The same law DL 100/2008 (Art. 5.2) indicated that areas with port activities that no longer require exclusive use of the land could follow a hybrid management model, involving local and port authorities. This would be a similar port-urban solution to what we saw in other European port cities, such as Genoa, Marseille or Rotterdam. In the following years, when the general law was adapted to the local context of Lisbon, there were two areas in which the mixed management models were tested, but the results were not as expected, as we will see in the next sub-chapter. There was no agreement between the stakeholders, and the vision remained *either/or*, excluding combined activities that could have resulted into new governance approaches. The application, and failure, of this article in real life scenarios shows that sustainable port city governance does not only depends on the legal framework, but also on the informal institutions, orienting the behaviour of the actors [150].

The law DL 100/2008 (article 8.5) also explained that the public nature of the assets should be preserved, limiting what can happen in the land transferred to the local authorities. If this does not happen, the state could recover the property. The same law obliged the municipalities to do strategic plans explaining the future of the areas to be transferred. In the case of Lisbon, the plan was the "Plano Geral de Intevenções na Frente Ribeirinha" (PGIFR) [151].

In the same year 2008, the state and the municipality signed an agreement for inactive port territory that could be released from APL's jurisdiction. This agreement was later transformed into the law DL 75/2009 31st of March, indicating which waterfront locations would be given to the municipality. The same decision was ratified by the council of minister in document 87/2009, with the following areas:

1. area surrounding the Belem with 52 991 m2;

2. area between the Altis hotel and the Padrão dos Descobrimentos, with 46 336 m2;

3. Junqueira embankment, with 95 009 m2;

4. Cais do Sodré, with 3068 m2;

5. Ribeira das Naus, with 24 113 m2;

6. Matinha, with 82 193 m2
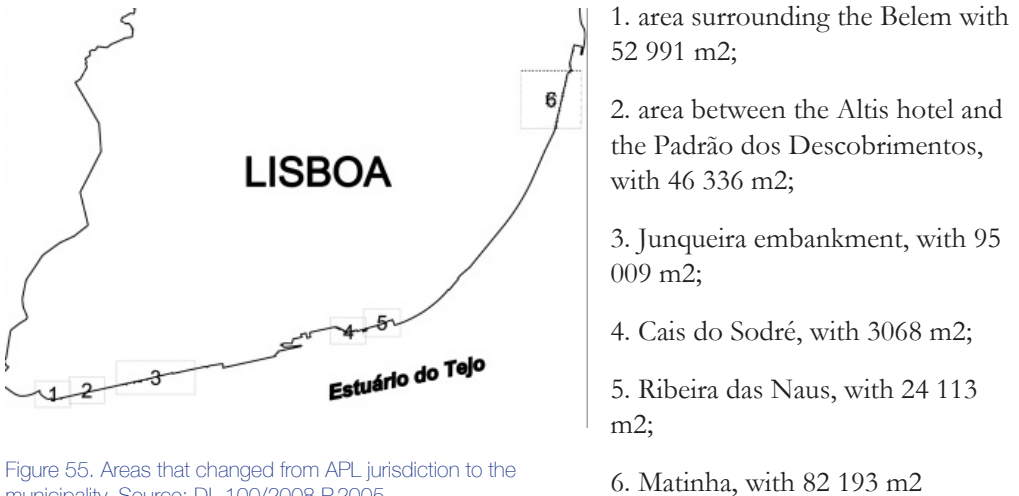
Figure 55. Areas that changed from APL jurisdiction to the municipality. Source: DL 100/2008 P.2005

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150   On this topic we received contradictory information from the municipality and the port authority. While CML indicates that there are still looking for a solution, APL indicated that they presented them several alternatives but were rejected, without specific counter argument.

151   We explain this plan in section 5.7

Most of these locations had been inactive for several years and did not have any prospective port activities. In some cases (areas 1, 2 and 3), APL itself refurbished the public space during the second half of the 1990s, following some ideas drafted in the POZOR plan. The municipality refurbished areas 4 and 5, opening them to the public in 2017 and 2014 respectively. Area 6 is included in the Plano de Pormenor (PP) of Braço de Prata and Matinha, currently developed by private investors.

Since the landlord model was applied in 1994, and particularly since APL was corporatized in 1998, the main rationale has been increasing the efficiency of logistic processes, fostering the specialization of the port authority in port business, ignoring other activities that could have positive influence in the port-city relationship. Although APL has been active in cultural and sport initiatives (e.g. school visits, cooperation for cultural or leisure events [152]), the legal evolution and political discourse points out towards exclusive dedication to port key sectors, transferring any other responsibilities to municipal governments. This rationale resonates with the general idea defended by the current government, aiming at decentralization [153].

Decentralization policies could potentially imply including local stakeholders in the shareholding of port authorities. Instead, they are retrieving certain activities from these organizations, and transferring them to municipal governments (law nº50/2018 from August 16th, 2018). This new law is framed in a broader framework, aiming at decentralizing certain function of the central state to municipalities. Although the law focuses on recreational activities, such as marinas, and secondary fishing ports, it continues the process started with law 100/2008 of removing from port authority jurisdiction areas that are not strictly linked to core port business.

The decentralization law has been quite controversial, raising a debate about the resources that should be transferred to the municipalities, so they can manage the new responsibilities. In terms of port-city relationship, there could be two different perspectives. On the one hand, port authorities gradually lose the capacity of developing port-urban activities, that also provide economic benefits, while they remain responsible for maintaining the navigation channels. In this case, the tendency seems to be reducing the scope of port authorities towards heavy industrial activities. On the other hand, if municipal governments gain responsibilities over light maritime functions, they may become more sensible towards the relationship with the port and other port activities.

Planning and Construction

The most relevant law for planning and construction is the DL 555/99 and the posterior modifications, defining the general legal framework of urbanization and construction. This

152   The APL does regularly school and group visits to Alcântara maritime terminal. Recently, also cooperated for the exhibition "Maresias", about the Tagus river. The Volvo Ocean Race has taken place several times in port territory, in the Docapesca, with free public access.

153   See government program and goals (https://www.portugal.gov.pt/ficheiros-geral/pro-grama-do-governo-pdf.aspx)

law has a broad scope, reaching all acts of construction and urbanizations, not just port areas or waterfronts. In section 2, article 7 of the most recent update (DL 136/2014 9 of September), it is indicated that any construction taking place in port territory and directly related with the its scope (port activities), does not require any sort of municipal license, but they need a preliminary opinion from the municipality, without implying any sort of limitation[154].

In the same article 7 (section 4), it is also indicated that any urbanization developments or plans drafted by the state (in our interpretation, including state representative organization, such as the port authorities), requires ministerial approval, after the municipality and the regional development commission have been consulted. This point is particularly relevant, since it gives the local authorities the opportunity to debate port developments. In section 5 of article 2 in the mentioned law public discussion is mentioned. The document explicitly says that any urbanization plan must undergo a process of public discussion as stated in the law, if they are not included in a previous urban plan for the specific area.

The main conclusions from the legal framework refer to the reduced capacity of the port authorities to engage in activities that are not directly connected to its core business. Although the strategic programs frequently mention sustainable development, the legal definition of APL does not force it to seek for sustainable port-city relationship. Further on, it does explicitly indicate that efficient management economic development, and profitability are its core mission and how they will be evaluated. Legislation changes have emphasized these values, first transforming APL in a landlord organization, and then fostering its corporatization. Local stakeholders have remained with a reduce influence in the port development policies, which are a responsibility from the central state as the sole shareholder determining.

The national strategies recently presented include goals that require a new role of the port authorities. Although there are no specific legal impediments, besides the pure economic focus, it remains unclear if society will welcome this new role. Despite protest and debates occurred in the past about the urban capacity of port authorities, its legal definition did not change in this matter. For this reason, the issue of interacting and stretching the institutional framework greatly depends on the leadership and their priorities.

5.5. Social expectations: a green waterfront instead of the port

In chapter three we explained the existing interaction between institutions and governance. Earlier in this chapter, we have also seen that the legal framework still allows APL to act beyond its core business (e.g. traffic and logistic issues). However, it does not oblige a governance towards sustainable relationship, since environmental and social concerns are

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154   The article refers to all sorts of infrastructural development controlled by national agencies or organizations, besides ports, also includes airports and railways. Being a general law, it refers to the entire country, in our case we translate the national scale to the local scale in Lisbon.

not among the priorities defined in the same laws. Nevertheless, developing a sustainable port-city relationship remains a normative goal, important for the permanence of the port in the urban waterfront. However, since there is no legal obligation, and in some cases the duty of APL is open to interpretation, other elements influence the port-city relationship. These elements include the social expectations for the waterfront (post-modern imaginary – either/or approach vs hybrid solutions) and APL's mission (socially and environmentally active or focused exclusively on traffic) and the type of governance (conservative landlord – beyond the landlord).

The social expectations for the waterfront and APL influence the port policy and strategy. These expectations can crystalize in the law, reinforcing a certain development path. Hence, it is necessary to analyse these expectations since they can also influence the governance model. The social expectations also influence the social recognition that the port authority and its workers naturally seek (Acciaro, 2016, building on Di Maggio, 1997).

To analyse the social expectations, we interviewed local leaders (presidents of *freguesias* [155]), museum directors, journalists, port community leaders and coordinators of citizen movements, besides the technicians in the port authority and the municipality. In this section we explore the social expectations and the results of the interviews. We can see how the post-modern waterfront imaginary remains the preferred option for this area of the city, but also that the port still has a certain social recognition, linked to its economic and its role.

These expectations have changed since the first debates in the late 1980s. During several decades of the 20th century the Praça do Comércio, the most important square of Lisbon, was used as a parking place (see fig. 56). This could be interpreted as a metaphor of how the relationship with the river has changed during the second half of the 20th century. Today, this image would be unthinkable and the connection with the river is a top priority, as seen in the previous sections of the chapter.

Figure 56. Praça do Comercio in the 1950s used as parking space. Source: http://aps-ruasdelisboacomhistria.blogspot.com/2014/10/terreiro-do-paco-ix.html

155   Freguesia, in English parish, is the smallest government structure in Portugal. Their president and organs are democratically elected every four years, and since 2016 they are responsible for several urban issues, such as public space maintenance. For our research, we considered them the government structure that is the closest to the local inhabitants, and those that can better understand and express the expectations of the people towards the PA and the waterfront.

Historically, in terms of urban planning, the city broke the relationship with the river after earthquake in 1755. The reconstruction plans and urban expansion strategies of the late 19th and early 20th century planned the city towards the north, while industries grew on the river edge, separating the city from the water (França, 1997). Although in these centuries there were also ideas for a leisure-oriented riverfront[156], for the current waterfront imaginary the competition in the late the 1980s was a crucial moment, providing new ideas a reigniting the discussion. This waterfront imaginary has influenced the social expectations and determined a specific approach to the port-city relationship. As we have seen, in the 1990s the social perception of the river had already changed influenced by the different plans that were developed during this decade. This imaginary has influenced the policy agenda, determined the pressures for port land transfer and the expected role of the port authority in waterfront projects.

The legal framework and the (lack) of strategic plans clarifying the presence of the port in Lisbon's riverfront has reinforced the image of an almost inevitable relocation. Interviewees considered a matter of time that port activities would be transferred to Barreiro or Trafaria on the south side, to later refurbish the urban waterfront in Lisbon for new uses. Although the interviewees considered the port important for the economy (mostly for the region and the country), the social perception is that it remains an obstacle to the river and that it does not fit in Lisbon's future.

The post-modern waterfront imaginary is dominant, but we could also find dissonant voices. For example, the president of the freguesia of Marvila said that the port should remain connected to the waterfront redevelopment process and that the people would only recognize the value of the port when their (professional) life depend on it. Although this might be a passionate and extreme defence of the port, it reveals that there are different and conflicting visions for the waterfront. The president of Lisbon's Port Community, also defended that hybrid waterfront redevelopment is the only way to have a sustainable port-city relationship, agreeing with what has been done in other port cities and what Merk (2013) already indicated. We can also find local politicians[157] and media figures[158] defending the port presence in the urban waterfront for overall benefits, mostly jobs, and to have a diversified city, against the evolution of the legal framework and the transformation of the waterfront witnessed in recent decades.

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156   There were several moments in history in which leisure-oriented riverfront was discussed. For example, during the second half of the 19th century when the port expansion was discussed, Thomé de Gamond proposed a riverfront plan merging port and urban uses like a garden (Barata, 2009, 2010; Pagés Sánchez, 2017). Another relevant moment was the 1940 Expo for the Portuguese World, in the western waterfront, in front of the Jerónimos monastery, in which new gardens and monuments by the river were created (see Acciaiuoli, 1998).

157   The municipal candidate of the Communist Party defended the presence of the port Lisbon to protect jobs and other economic sectors that do not depend on tourism. (https://ionline.sapo.pt/561352 visited on October 4th, 2018).

158   See for example the opinion of journalist Daniel Oliveira (https://leitor.expresso.pt/diario/07-08-2017/html/caderno-1/opiniao/turismo-para-que-a-prosperidade-nao-nos-mate visited on October 4th, 2018).

In the interviews we could confirm that the river Tagus is the main identity element of the city. As it happens in other port cities, like Oslo, the natural element is more important than the port function. However, the maritime culture has clearly influenced the local identity, visible in the major landmarks (e.g. the Belém tower), or the coat of arms (see fig. 57). The interviewees considered the port an important historic element of this maritime culture and of the river image.

According to the interviewees the port is not considered a major source of nuisances, unlike what happens in other port cities with bigger ports. The hardest externalities are caused by truck traffic in specific locations, and pollution associated to the same traffic and to cruise ships. However, these concerns are not comparable to other urban and social issues such as mass tour-

Figure 57. Coat of arms of Lisbon, in which the maritime world is represented with a boat. Source: https://upload.wikimedia.org/wikipedia/commons/d/d3/LSB.png

ism, housing prices or low salaries. During the interviews, we could confirm that in most cases the port is relatively unknown, but it may be the source of conflicts in specific situations such as container terminal expansion [159] or cruise activities. In the case of Lisbon, we could detect a latent tension, emerging in certain situations, often linked to political disputes. In these situations, the "capital city" effect is visible, since, as indicated by a port company manager, in the cases where the port is in the capital, port projects or conflicts become politicized and entrenched.

All interviewees agreed that the relationship between the city, the port and the port authority has improved significantly in the last decade. Several pointed out that the new central access to the river has helped the relationship, since this was the main concern for local inhabitants. However, leaders from the freguesias where the port controls the waterfront expressed their concern of remaining the only areas without a quality waterfront access.

Although several waterfront sections were already accessible since the late 1990s, for most interviewees the relevant changes are most recent ones, particularly since thenexpo and more clearly in recent years, when central sections with historical meaning have been refurbished. In the interview with a local journalist he explained that these interventions released pressure from APL, since the biggest concern was to access the river.

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159   The coordinator of citizen movement Fórum Cidadania LX explained that the relation with APL, and the port, only occurs in the public discussion of some projects like the new cruise terminal (as we will see further ahead), or to oppose the container terminal in Alcântara. The latter was a public controversy due to the political connections of the company controlling the terminal concession.

Figure 58. Birds eye perspective of Ribeira das Naus, one of the most recent waterfront regeneration projects. According to local journalist, this sort of intervention release pressure over the PA to release waterfront area. Author: Javier Ortega Figueiral. Source: https://www.flickr.com/photos/jortegafigueiral/18690182961/

The post-modern waterfront image that has been defended in plans, documents and laws over the past three decades has become the standard expectation. Citizen movements and politicians desire a waterfront park, replacing the remaining port terminals, particularly in the areas with mixed management models.

In the interviews we could also confirm that there is an increasing social disconnection with the port, as it happens in other port cities in Europe. This issue is particularly visible in the (lack of) communication, even for positive initiatives of the port authority. For example, most people ignore that APL has done urban projects in the riverfront such as public spaces or bicycle lanes. This lack of communication is visible in different levels. If there are issues regarding the relationship with the port, the freguesias will predominantly communicate with the municipality who will then communicate with APL. While some understand that the port authority is not obliged to talk to them, since it is a national organization, others disagree, since the freguesias are currently responsible for managing the public space and have a direct contact with the citizens. Other interviewees (from non-political organizations) indicate that APL has not been able to communicate appropriately. Hence, the people do not understand how important the port is, what it brings to the city, or even its importance for the identity, and socio-economic value. In the case of port companies, we found two approaches. Lisbon Cruise Terminal (LCT) has communicated with the freguesias in the central waterfront sections to improve their management and interaction with the city. On the other hand, heavy port activities companies have not developed any specific communication nor social strategy, leaving this duty to APL. This approach con-

trasts with what we can see in other port cities, like Rotterdam or Hamburg, where the port cluster is often active, implementing different social programs.

Although APL has been involved in cultural events in recent years (e.g. heritage days [160] or exhibitions like the *Maresias* exhibition, see fig. 59) most interviewees did not know these initiatives but thought they should happen more often and be more publicized. The director of Lisbon's city museum explained that they collaborated with APL for exhibitions like the *Maresias* and that there is considerable potential and archives to develop a more intense cultural agenda. However, during the preparations of the exhibition, there was the notion that this was not a core activity for APL, and the port authority would have limited interest to invest in follow up initiatives. The cultural and identity value of the port remains unknown for most inhabitants, as it was made clear during the interviews, but mainly for younger generations, as it was visible

Figure 59. Poster of the *Maresias* exhibition in which APL collaborated. Source: http://www.museudelisboa.pt/exposicoes-actividades/detalhe/news/maresias-lisboa-e-o-tejo-1850-2014.html?tx_news_pi1%5Bcontroller%5D=Event&tx_news_pi1%5Baction%5D=eventDetail&cHas

in other port cities such as Helsinki and Oslo. To solve this problem, APL has increased the social activities agenda in recent years, organizing public visits, including school visits [161] or open-door days [162], but less intense than other leading ports, and sponsoring concerts in its territory. In other European port cities, the port authority or the port cluster have created port centers or sponsored maritime museums to transmit the port culture to a broader audience. In the case of Lisbon, there is a navy museum with historical collection of boats and artefacts, and the city museum, that does not explain the history of the port.

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160   APL organized several events for the heritage days in 2018 (http://w3.patrimoniocultural.pt/jep2018/public/view.php?id=1933 and http://w3.patrimoniocultural.pt/jep2018/public/view.php?id=1868 visited on October 4th, 2018)

161   APL provides free visits to Alcântara's cruise terminal where we can find the panels from Almada Negreiros. School visits have a broader program to integrate the port in different school subjects (e.g. geography, history, etc). (http://www.portodelisboa.pt/portal/page/portal/PORTAL_PORTO_LISBOA/VISITAS_PORTO and https://www.esec-danielsampaio.pt/website/pt/9-atividades/571-a-nossa-visita-de-estudo-ao-porto-de-lisboa visited on December 6th, 2018)

162   APL organizes special events for the public on the port anniversary, during October 31st and the first days of November. The events include accessing the terminals, visiting the control tower or boat tours and sailing races. (https://www.nauticapress.com/aniversario-do-porto-de-lisboa/). Although these events are less intense than the port days of other European ports, it is a first step towards opening up.

Today, APL relies mainly on its core business and economic impact to justify its presence in Lisbon's waterfront. The problem partly lies on the increasing legal limitations of port authorities' functions to its core activities, retrieving from these organizations the remaining deactivated port areas, the marinas and any possible urban-port function. Consulting the different strategic plans that emphasize the sea economy as a crucial sector for national development, we find a contradiction between the policy goals and the evolution of the legal framework of the port authorities. These organizations can link the maritime and urban economies, bringing together the port cluster with universities, public functions, culture and leisure. However, the hyper-specialization of the port authorities, potentiating sectorial perspectives, may probably result on narrow-minded development policies This will in turn hinder dialogue and cooperation, blocking hybrid waterfront redevelopment that even the port community recognizes as crucial for a sustainable port-city relationship.

In the interviews with APL's representatives we could asses that within the organization there are different approaches to waterfront projects and its role in the port-city relationship. Nevertheless, the vision stated in the law is dominant, based on two mains ideas: a strict economic focus on the port and a conservative self-conception of its own role in the territory. Although some people recognize the need to be active in other issues, the economic priorities limit what they can do. At the same time, there is an "old-school" port governance model, relying only on the core sectors. This approach could be justified in ports outside urban areas, such as Sines, but in ports that are integrated in the urban context urban demands can be expected. If the goal is to have a sustainable relationship with the city as former APL presidents have said (Frasquilho, 2008), then it must contribute to the city in several aspects that are not the core functions as defined in the law. The governing institutions leave the urban integration of the port pending on the leadership, that will act based on their personal beliefs and experience. If the leadership defends a hard port perspective, then it unlikely that fosters initiatives not considered core port business or mandatory by law.

5.6. Three waterfront projects to analyse the institutions

In the previous sections we could see that the port-city relationship has gone through several stages in Lisbon over the past thirty years. The defining moment caused by the PO-ZOR plan, in which APL tried to extend its actions beyond its traditional functions affected its image and societal expectations towards its behaviour and functions. Although the politicians that tried to reduce the legal scope of the port authority failed, the institutional rigidity process developed in that direction. Local authorities, mostly in the case of Lisbon, pressured to "regain" access to the water. This process meant retrieving land from the port authority to handle it to the municipality, instead of finding hybrid governance solutions with both authorities.

The agreements of 2008 and 2009 seemed the logical solution for the municipality, who would be able to refurbish the waterfront and keep its public function as green and leisure area. The reverse side of the legal change was that port authorities would gradually become

hyper-specialized organizations, focused exclusively on hard port business. The waterfront regeneration process was directed to refurbishing areas for leisure, while hybrid projects areas remained stalled for over a decade. National and local governments have demonstrated in different strategic documents that from their perspective, the best solution is that port authorities focus exclusively on hard port activities, while the riverfront is left for the municipality. The new decentralization law (L50/2018) continues the process of specialization of the port authorities, while the municipality gains more powers over the riverfront and leisure maritime activities. At the same time, port authorities are evolving towards public companies managing terminal concessions instead of being responsible for a territory that is part of an urban agglomeration. However, not everyone agrees with this process, as it was clear in the interviews with APL's officials responsible for the port-city relationship[163]. It seems clear that this reductive approach could hinder their efforts to have a peaceful relationship with the city, since they will lose the areas where other soft (urban) port and maritime activities could be developed. Metaphorically speaking, it was said that the port authority would be reduced to the "bones" i.e. the hard port activities – terminals, losing the "flesh", i.e. the territory where soft port activities could take place. This will force a direct contact between urban programs and the port elements, potentially generating new frictions.

In these focus projects we can analyse the effects of the institutions and the relationship between the different stakeholders. At the same time, it is possible to identify contradictions in the discourse of Lisbon's municipality, that on some occasions calls to "reconquer" the waterfront, while in other cases recognizes the value of the port and its importance for the city and the region [164]. In these focus projects we will also confirm how two main institutions govern the port-city relationship: the post-modern waterfront imaginary and the narrow conception of the role of the port authority. We have seen that both institutions are legally and socially supported, in the coming sections we will also see the effects on the port-city interface and the physical configuration of the riverfront.

5.7. Urban waterfront plans and projects: towards a post-modern riverfront

The first focus project is the municipal strategic plan for the riverfront (PGIFR), developed by the municipality after the law DL100/2008 was approved. We have seen that this law transferred several port areas to the municipality, with the condition of preserving the public use and having a strategic plan (the PGIFR). The two main stakeholders in the waterfront projects here presented have been the municipality and the port authority of Lisbon. The central government has also been directly involved in waterfront regeneration in Lisbon, since the early1990s, in the Expo area, and between 2008 and 2011, with Frente

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163   Interview on January 9th, 2018, in APL's technical department.

164   For example, the municipality now supports the container in Alcântara, that was previously criticized. (https://www.dn.pt/lusa/interior/camara-de-lisboa-quer-manutencao-do-terminal-de-alcantara-8986763.html visited on October 4th, 2018).

Tejo (see box 2). In this section we will see what the urban plans and projects that have taken place on the waterfront can tell us about how the institutional framework has affected the actions of all actors, but mostly of the port authority. We will briefly comment the port strategic plan of 2007 and Frente Tejo, and later focus on the general principles of the PGI-FR, assessing the proposed the results for the mixed governance areas proposed in the law

Figure 60. Fundação Champalimaud. A health research facility on the waterfront, in land released directly by the state for this facility. Project from architect Charles Correa. Author: Alegna13. Source: https://upload.wikimedia.org/wikipedia/commons/thumb/9/92/Centro_de_Investiga%C3%A7%C3%A3o_da_Funda%C3%A7%C3%A3o_Cham

Unlike other European port cities, the private sector has not been the main actor for Lisbon's waterfront regeneration. In some cases, like in the Expo, the private sector played a crucial role in the general operation, that was financed through real estate investments. However, most private buildings and programs (housing and offices) took place in the second row of edifications, not immediately on the water's edge, since this area was reserved for museums and public spaces, that were also the initial public investments. This principle has structured the waterfront regeneration process over the past three decades, following the law that obliges to protect the public function of the riverfront land that was previously under port authority jurisdiction. Private companies and organizations have been involved in special projects, such as museums or research facilities, developed on the waterfront[165], or to acquire concessions for restaurants and bars, but no private office or housing developments have been built close to the river[166]. The closest involvement of private real estate on the waterfront has been the Braço de Prata plan, in the eastern section of the waterfront, where the water's edge will remain a public park.

165   The notion of public function is relatively flexible, since it can include private organizations that propose a public or semi-public programme, such as the MAAT or the Champalimaud foundation. The planning process of these projects are often controversial. The MAAT museum in an area that used to be in the port jurisdiction, the municipality had to do a symbolic concession to the EDP Foundation for 99 years, since it is not allowed to sell the area without government approval, a process that would take longer time to be approved. The Champalimaud Foundation was a different case since the national government directly gave the land for the new research facility on the waterfront between Belém and Pedrouços. We could conclude that, what the law strictly prohibits is private housing or offices, that give a private "character" to the riverfront.

166   We can find one exceptional case in Cais do Sodré, in the central section, where the European Monitoring Centre for Drugs and Drug Addiction and the European Maritime Safety Agency are.

Plano Estratégico do Porto de Lisboa - 2007

The Plano Estratégico do Porto de Lisboa (PEDPL) from 2007 is the most recent strategic plan of the port authority [167]. This plan was prepared before the law DL 100/2008 concerning the waterfront land transfer to the municipality was approved. The municipality considered the PEDPL a base document to understand the expected growth of the port, the key sectors and the areas to be released in the future.

The PEDPL indicated three key sectors for port development: containers, agricultural bulk cargo and nautical leisure, including cruises. The container terminal in Alcântara was considered a key asset for its expansion potential. According to the plan, the port of Lisbon should strength its position in bulk cargo, remining the main port for this sector in Portugal and second in the Iberian Peninsula. The main decision regarding nautical activities and cruises was building a new cruise terminal close to the city centre. This decision resulted from the combination of two strategies. First, releasing Alcântara from the cruises activities to facilitate the expansion of the container terminal, using the space in front of the maritime stations. The second was expanding the cruise sector, with a new facility easily accessible (APL, 2007).

Plano Geral de Intervenções na Frente Ribeirinha - 2008

In January 2008, the municipality and the state, signed an agreement to release several waterfront sections. As we have previously seen in section 5.4, in the same year 2008 the parliament approved the national legislation about inactive port land (DL 100/2008). In 2009, the specific law for Lisbon (DL 75/2009) officialised the agreement between the port authority and the municipality. The latter prepared the Plano Geral de Intervenções na Frente Ribeirinha (PGIFR)[168], to have a coherent vision of the waterfront, and to guide the future of the released port areas. This document included the land of the 2008 agreement and several existing plans for areas next to the port. However, it also presented visions for other areas that remained under port authority's jurisdiction and other general principles to improve the connection of the city with the river, such as reducing the barrier, implementing a leisure oriented urban agenda.

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167   The strategic plan from 2007 is the most recent full strategic plan of APL approved by the government. However, there is a more recent document (Plano de reestruturação do Porto de Lisboa) integrated in the national plan "Plano 5+1". This plan was presented in 2013 and had three main ideas: a deep-water container terminal in Trafaria, removing the containers from the eastern waterfront of Lisbon and to build the cruise terminal in Santa Apolónia and become a landlord port in this sector. The container terminal in Trafaria was once again socially rejected, facing immediate opposition from the local government (Almada), environmentalist groups and local residents. The second idea was linked to the first and led local and national politicians to claim that the eastern waterfront could be transformed for urban uses, before being sure that the new terminal would be built. We will comment the third idea in section 5.8.

168   The PGIFR (General Plan of Interventions in the Riverfront), was approved in the proposal 504/2008.

Although the port authority collaborated with the municipality, as it was recognized during the interviews, the leading actor in the PGIFR was the municipality, who presented several ambitious ideas often affecting port territory, such as the container terminals. Although among the potential projects we see a will to take port territory, the port was considered an important element of Lisbon. The municipality tried to include in the PGIFR the main ideas defended in the port strategic plan, namely the most relevant port sectors, container, dry bulk cargo, cruises and sailing. This integration is visible for example in the central waterfront where the PGIFR articulates the reorganization of the public space with the new cruise terminal proposed by APL.

During the interviews with the municipal urban planning department [169] we confirmed that since 2008 the PGIFR has guided the redevelopment of released port areas, particularly in the central section of the waterfront, where it was also articulated with the Frente Tejo initiative (see Box nº 2). The PGIFR, pointed out in the same interviews that it was also an important moment for the relationship between both organizations, inaugurating a new era with better communication despite the differences. APL agrees that it was an important moment and that the collaboration has been better than before; however, it also points out that the municipality still ignored port planning issues and criticizes that the goal for the waterfront remains fully leisure and tourism oriented ignoring port related programs[170].

Although the municipality drafted the PGIFR motivated by the new agreement and the laws, the plan was more complex than just determining the uses for the recovered land. First, it evaluated Lisbon's waterfront and the relationship with the river Tagus. Reconnecting city and water had been one of the main goals of urban development policies since the 1980s, and this was an opportunity to reflect on the future of this relationship and the character to give to this area. The main problems identified in the PGIFR were the barrier effect produced by the railway and roads running parallel to the river, the port areas separating the city from the Tagus, mainly the sub-utilized sections, and the lack of coherence along the 19km riverfront (CML, 2008). To solve these problems, the CML defined six key principles focused on recovering the physical, visual and psychological connection with the river, creating a common identity for the riverfront, and emphasizing the leisure function, tourism programs and public space. However, among the sub-principles, the CML also indicated that the port should be preserved and provided with conditions to improve its activities, while reducing the negative externalities. At the same time, the PGIFR recovered the idea of burying the railway and the infrastructural barriers, while improving the public transportation. These goals were complemented with strategic decisions for the complete waterfront, such as creating an identity or marketing plan, or more concrete proposals in specific locations.

Besides considering the main ideas of the port's strategic plan, the municipality tried to integrate the PGIFR in broader national and regional plans, namely the PNPOT (Programa Nacional da Política do Ordenamento do Território) and the PROT-AML (Plano Regional

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169   Interviews with CML in December 12th, 2015, and January 5th, 2018.

170   Interview with APL in January 9th, 2018.

Box nº 2

Frente Tejo

Frente Tejo (FT) was an initiative, created by the national government in 2008 to refurbish two historical reas of the Lisbon, Belém-Ajuda and Baixa, for the celebration of the 100th anniversary of the republic (RCM 78/2008). This Quango had controversial capabilities, such as handling direct contracts over 5mill € (considerably more than other public organizations), capacity to expropriate and power to develop plans without public consultation. Although the riverfront was the main action area of Frente Tejo, including marinas, the projects did not affect the port, since most of them took place on land already controlled by the municipality, or included in the coming agreements that structured the PGIFR. However, APL's strategic plan is mentioned, particularly the new cruise terminal to be developed in Sta Apolónia, that was integrated with the new public spaces of Frente Tejo. The plan had several goals, from general refurbishing of public spaces and historical areas (e.g Praça do Comércio, Largo das Cebolas, Ribeira das Naus) to landmark projects, such as the Carriages Museum (RCM 78/2008). This organization had a total budget of almost 145 million €, including 82 million from direct state funding and 63 from other sources (including 37 million in revenues). Finally, Frente Tejo was involved in several scandals for wasting public money, construction delays and lack of resources to finish the projects already started. In January 2011 CML became minority shareholder. Later in the same year, the troika (formed by the European Commission, the International Monetary Fund and the European Central Bank) determined that state companies such as the Frente Tejo and Parque Expo should be terminated since they were redundant and repeated the same functions of other public bodies (Law 110/2011 25th November 2011). After being terminated, CML took over the ongoing projects concerning the Baixa. Although Frente Tejo existed only for three years, it started several projects for relevant public spaces and cultural facilities, concluded several years after by the municipality.

Figure 61 Areas included in the Frente Tejo plan. On the left the area in Belém and on the right, the central waterfront (CML, 2008: 66, 70).
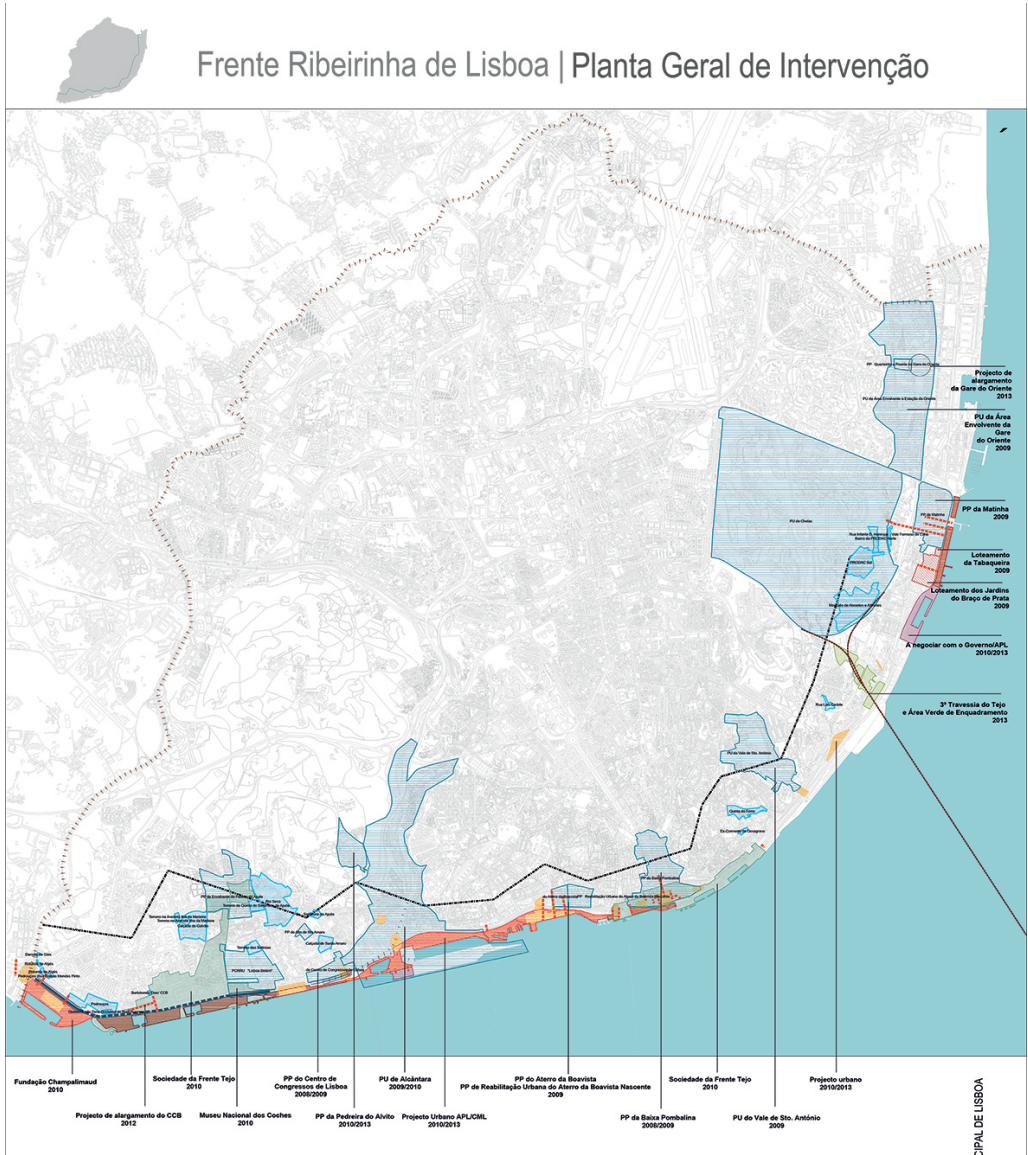
Figure 62. PGIFR general plan of interventions. (CML, 2008).

do Ordenamento do Território - Area Metropolitana de Lisboa). These plans set vague development goals, referring also to territorial governability, integration between different systems to improve the synergies, such as in the public transportation sector. They also highlight the role of the Tagus and the water, and the need for a sustainable development strategy. The PGIFR does not refer to any specific measures to integrate these two plans concerning port, logistic or maritime activities, focusing on the aspects that are aligned with the transformation of riverfront for tourism and leisure, such as nautical sports and marinas.

Since the PGIFR is not a legal document, but operates in the strategic level, it had to refer to the PDM determining the land uses. The 1994 PDM identified the port territory as special uses area and did not considered any alternative programs. At the same time, the PDM provided a different conceptualisation of the riverfront, since it included the land from the river's edge to the top of the hills, emphasizing the visual relationship. This conception has remained in the new plans. The new PDM, only presented in 2013, had a new approach, following the guidelines of the PGIFR, recognizing the port importance but changing the uses in riverfront to leisure and tourism where it was possible. The new plan explicitly indicates that the waterfront controlled by the municipality must host leisure functions, including public space, cultural facilities or marinas and sailing facilities (CML, 2013: 30). The goal is to recover the connection with the river, but following a post-modern waterfront imaginary, in which industries and logistic activities are not included.

The PGIFR main document concludes with hypothetical urban design proposals for several sites. In some cases, the actual development occurred after 2008 differed significantly from the concepts defended in this document, e.g. the *Cordoaria* [171] area. For this section of the waterfront, the PGIFR proposed reorganizing the existing constructions to emphasize the (former) geometry of this national monument (see fig.63). Instead, the new MAAT Museum from the EDP foundation and bars and clubs have been built, neglecting the existing

Figure 63 In the area of the Central Tejo, the PGIFR suggests reconfiguring the space, enhancing the Cordoaria, and regaining contact with the water. In the year afterwards, we see that new construction has been done in front of this historical building. Source: PGIFR (CML, 2008:78).

171   The Cordoaria is a former maritime industrial building, built during the late 18th century, where ropes and ship rigging was manufactured. The original name was Real Fábrica de Cordoaria. The building, characterized by its dimensions, over 400m long, it is controlled by Lisbon's municipality, and hosts exhibition areas and the navy archives. It has National Monument status since 1996.

plans and prohibitions under the premises of being a special project. Although the MAAT has been considered a successful project since with private investments high-quality public spaces and cultural facilities were created, the process was irregular and questioned the criteria of the municipality [172]. At the same time, the new bars and restaurants built based on pre-existing smaller constructions, block the visual relationship between the Cordoaria and the river, while disrespecting municipal development rules [173].

In conclusion, the PGIFR had ambitious goals, some perhaps unrealistic, with strategies that in principle respected the port and its activities, acknowledging its important role. Analysing the document in detail we observe that a considerable part were pre-existing urban plans and that several strategies coincide with those of other entities, like the port authority or Frente Tejo. Although many interventions proposed in the PGIFR have not been realized, the projects overlapping with Frente Tejo and APL plans have been concluded (or are well under way), mainly in the central waterfronts section. Here, we can find the Ribeira das Naus, where the archaeological remains of a 16th century shipyard are part of the new public area by the river, or the Campo das Cebolas, where heritage structures are also part of the rearranged public space. These projects recover the historical connection of the city with the river.

In retrospect, the PGIFR can thus be considered a first attempt in reconciling some interests of APL and Lisbon municipality, and thus the relationship between them. The large-scale goals, such as reducing the barrier effect or developing a common identity for the riverfront, have not been solved. In the next section we will see that one of the ambitious and innovative elements of the law and the plan, the mixed-management areas, have remained in a planning/governance limbo, without been redeveloped or integrated in the urban waterfront.

Mixed management areas

The mixed management areas have been one of the most discussed matters of the law DL 2008/100 (art. 5) and the waterfront regeneration process. After the PGIFR was presented, the port authority and the municipality continued the dialogue, resulting in an agreement signed in June 2010 (CML, 2011). In this agreement they defined two areas that could have the new management model, one section of the port territory in Santos and the former fishing facilities of Docapesca, around the dock of Pedrouços (see figures 64 and 65 respectively)[174]. However, the law does not specify how or in which terms should the mixed

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172   The MAAT process was also controversial for several decisions affecting heritage and disrespecting the rules. See https://www.publico.pt/2012/04/11/jornal/projecto-da-edp-a-bei-ratejo-motiva-queixa-colectiva-ao-provedor-de-justica-24348352 (visited on October 5th, 2018).

173   See https://observador.pt/2016/01/27/camara-lisboa-embargou-obras-polemicas-res-taurantes-belem/ (visited on October 5th, 2018).

174   Besides these two areas, there have been other simpler cooperation projects done in this period, such as the Tagus bicycle lane developed between 2008 and 2009, paid by APL and EDP, and managed by the municipality.

management occur, nor does it indicate specific functions. The general guideline remains the same as for other waterfront areas that have been transferred to the local government, preserving the public use. Later, in 2011, the municipality in cooperation with APL, presented new strategic documents for the two locations as a continuation into further detail of the PGIFR (proposal 212/2011) [175]. Since they were defined, these areas have been discussed several times, with different proposals from both APL and municipality, without reaching a definitive agreement. In the interviews, the actors explained that double approval was necessary for any intervention, and that the port authority and the municipality did not find common ground or agreement about what should happen in these areas. The land remains under control of APL, who would be responsible for any intervention.

Santos

In the case of Santos, APL presented in 2007, before the law DL100/2008 was approved, a proposal for the area, including new facilities for art programs [176]. Lisbon's municipality rejected this proposal, defending a different programme, focused on leisure, night-life entertainment, such as clubs or bars, since they considered that it would release the pressure from the other neighbourhoods where these activities currently take place. In the PGIFR, the municipality proposed new leisure and sport facilities, and a new marina.

In 2011, the municipality presented a more detailed plan for the area with APL, including some demolitions, improving the visual and physical connections with the urban fabric, insisting on the leisure program, while coexisting with the neighbouring port activities. Although the document remained on the strategic level, it was supposed to guide a future
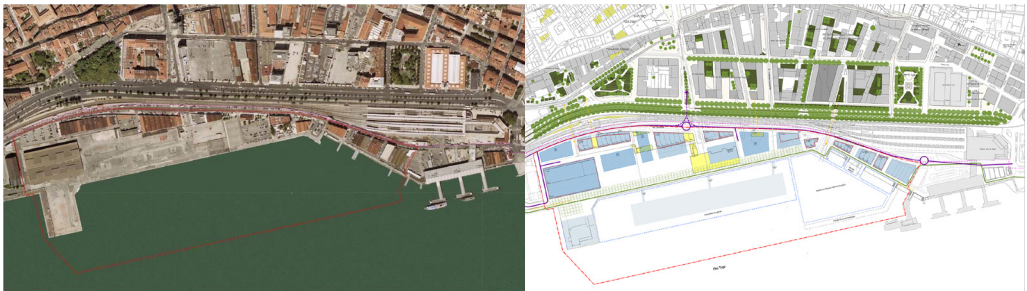
Figure 64. Mixed management area in Santos. Above we see the current state. Under we see the proposal from CML (2011). Source: http://www.cm-lisboa.pt/municipio/camara-municipal/reunioes-da-camara/arquivo?eID=dam_frontend_push&docID=7150

175   In the same document we quote here, the area in Matinha included in the DL100/2008 is also discussed because there existed warehouses under port authority jurisdiction. However, the land and the functions were transferred to the municipality who decided to create a park and included in the compensatory measured of the Braço de Prata project. In interviews with APL, it was also mentioned the Cruise terminal was a similar process in which they closely collaborated with the municipality, but mainly for the public space outside the terminal perimeter. We will analyze this case in detail in section 5.7.

176   In an interview, APL's technician indicated that although their proposal respected the urban structure alignments to preserve the visual connection, the municipality rejected their plan.

international idea competition for the area, to be organized by APL. We could not find evidence that this competition ever took place and the proposal was never concreted. To-day, the area remains unstructured, with night clubs, parking spaces, and warehouses, while some have been used for different functions, others remain abandoned. The brownfields that continue in the "in-between" areas have been used for temporary events, occasionally organized in collaboration with the Junta de Freguesia of Estrela[177].

Pedrouços

The second location is another port deactivated area in Pedrouços that has been discussed several times, often linked to mega-events. This area used to host the Docapesca of Lisbon i.e. the facilities for the fishermen and the fish market. In 2003, the government decided to use this area to apply to host the 2007 edition of the America's cup. This event was de-clared of national importance, as an opportunity to transform the area and to improve the connection with the neighbouring municipality of Oeiras (RCM 162/2003; Costa, 2006). The fishing sector was deactivated in Lisbon, while its activities are carried out by the neighbouring ports of Nazaré and Setúbal-Sesimbra. Finally, Valencia in Spain won the application, but the goal of transforming the former fishing dock for sailing facilities and marinas remained. This goal also resonated well with the sea economy plans that consid-ered maritime sports a key sector.

Later, in the PEDPL of 2007, the dock of Pedrouços was thought for mega yachts and support services for this activity following the national strategies. In 2008, the PGIFR pre-sented a new vision for the area following the same programme, proposing sailing facilities and a new urban design, strengthening the connection with Oeiras and Algés. Later, this area benefited from the investment on the new project of the new Champalimaud Center for the Unknown next to the Docapesca. This project was supported by the national gov-ernment and private foundations to implement research facilities in this area.

In June 2010, the port authority and municipality signed the aforementioned agreement for the mixed management of this area. In 2011, the municipality presented a new plan for the Docapesca (P212 - 2011), also linked to a major sailing event, the Volvo Ocean Race. The scope was similar to the America´s Cup, a high-profile maritime sports event, with the po-tential of regenerating the area. In the plan, several older buildings would be demolished to leave free space for the sport facilities, but the main building for the fish market would be preserved, since it is the only element with architectural value. The main program remained leisure and sports, as it was later confirmed in the 2013 PDM. The proposal was backed by the Council of Ministers (RCM 68/2010), declaring the event of public importance and including it in the broader national strategy for the developing the sea economy. Since

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177   In an interview with the president of the Junta de Freguesia de Estrela, he explained that this area has been used in more occasions for events proposed they proposed, and that APL was always open to collaborate and facilitate the organization. The area is not gated, it is freely acces-sible, while the river edge on this section has also been refurbished, including a cycling pat, path, paid by APL.

2011, Lisbon has hosted one of the stopovers of the Volvo Ocean Race[178], and since 2016 a permanent boatyard. Despite the sports events, the regeneration of the area has not taken place. The facilities for the Volvo Ocean Race have only been temporary constructions, and the long-term redevelopment strategy has changed.

Figure 65. Mixed management area Docapesca. Above we see the current state. Under we see the proposal from CML (2011). Source: http://www.cm-lisboa.pt/municipio/camara-municipal/reunioes-da-camara/arquivo?eID=dam_frontend_push&docID=7150

Although the municipality reiterated the leisure orientation for the complete riverfront in the 2013 PDM, the most recent national sea and port strategic plans early mentioned, consider other functions for coast and waterfront areas related with research in blue economy. For example, in Pedrouços the sea minister defends the creation of the *Sea Campus*[179], possibly related to the port tech cluster presented in the strategic plan. Although the Sea Campus has been mentioned by the former and current mayors of Lisbon in different media[180], until the conclusion of this research, the project remained unclear. Since the land is controlled by APL, it is expected to be the leading partner as stated in the proposal for mixed management areas (CML, 2011), while the municipality is responsible for articulating the project with urban policies and integrating it with other major plans. However, since there have not been any changes in APL's priorities we remain sceptic regarding the future of the project.

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178   The Volvo Ocean Race is celebrated every three years. Hence, Lisbon hosted the editions of 2011, 2014 and 2017.

179   The minister has defended this concept in several interventions in public events, without explaining in more detail the actual implementation, financing, sectors involved or its physical translation in Pedrouços. http://www.jornaldaeconomiadomar.com/ministra-do-mar-presidente-da-apl-apresentaram-estrategia-porto-lisboa/ (visited on 18th May 2018)

180   Former Mayor, and since November 2015 prime minister, António Costa already emphasized the need to affirm Lisbon as the Atlantic European capital (Costa, 2013). However, in the same year, the deputy mayor Salgado, in a magazine article and interview, emphasized the waterfront regeneration projects oriented towards leisure programmes (Salgado, 2012; Revista Turismo de Lisboa, 2013). Fernando Medina, Mayor since April 2015, supported the national sea strategy, however, preferably on both sides of the Tagus and prioritizing cruise tourism in Lisbon's waterfront http://www.jornaldaeconomiadomar.com/ministra-do-mar-presidente-da-apl-apresentaram-estrategia-porto-lisboa/ (visited on 18th May 2018).

Reflections on the urban waterfront projects

Although since the early 2000s the sea has become an explicit strategic sector for national development, and gradually these national guidelines have been translated to the local context, the role of the key actors has not changed significantly. Furthermore, the leisure orientation of waterfront project remains dominant. In the same period since the law was approved in 2008, mixed management areas have remained as brownfields, with significant transformation potential. Several issues have influenced the mismatch between the national strategic aims and the transformation of the urban waterfront, such as lack of definition of these goals or the outdated legal framework.

The first issue is that although the law (DL100/2008) created the concept of areas that did not required exclusive use for port activities and could be included in agreements with the municipalities for mixed management, it did not detail how these agreements were supposed to take place. The law did not specify several important issues, such as what influence would local governments have or who would be responsible for the financing or the benefits. In the case of Santos, the program remained unclear, since the priorities for the municipality and the port authority were diverging, even when the port authority proposed urban functions.

At the same time, the legal framework has not changed, it does not oblige APL to act in these areas or develop specific plans for the port-urban sections. Instead, the opposite has happened, since the most recent law forcing the port authority to release its land indicates that the "hybrid" areas will sooner or later be transferred to the municipality. This could explain why APL has showed no interest on investing in them. The evolution of the legal framework indicates that these areas will not provide positive inputs for APL's main institutional mission i.e. to support logistic efficiency, to enforce regulations and to be economically sustainable, while respecting the environment. Hence, APL does not have any legal obligation of investing outside its core business, while these investments could reduce its capacity to engage in other profitable areas, and additionally there is the general perception that the waterfront areas outside the terminals will sooner or later be transferred to the municipality. In this scenario, it is unlikely that APL is whiling to invest in these areas for hybrid uses supporting a sustainable port-city relationship.

Another key problem has also been that the future of the port in the urban waterfront remains unclear. Although the official documents today do not indicate the relocation of the port of Lisbon, the most recent laws and the informal discourse indicate that the municipality will gradually gain more waterfront areas and eventually control soft port functions. The uncertain future is visible in the changing political discourse, exemplified in several relevant interviews in a publication of Lisbon's tourism organization from 2013. The first interview was with the state secretary for transport and public works from the 19th constitutional government[181]. In this interview, he explained that the port would gradually leave

181   The 19th Constitutional Government of Portugal was led by Passos Coelhos, in a liberal conservative coalition between PSD and PP.

the city, still defending the terminal of Trafaria to replace Alcântara deep water container terminal[182]. At the same time, he explained that the riverfront would be given back to the citizens, insisting on the leisure orientation.

In another number of the same magazine in 2013, the deputy mayor and responsible for urban planning Manuel Salgado insisted that the port was in retreat and that the waterfront would be destined for marinas, leisure and public spaces referring to information given by the central government. Further on, he gave more insights on the future of the waterfront, indicating that the port terminals between Sta. Apolónia and Matinha would be relocated[183], as so would the repair shipyards in Santos, and eventually the Alcântara terminal. He also pointed out to common projects with APL, mainly marinas and sport areas, in the mixed governance areas (Santos and Pedrouços). Although these interviews are not official documents determining policies, they do emphasize the general vision for Lisbon's waterfront. A vision insisting on the post-modern waterfront imaginary, also included in other documents such as the 2008 PGIFR and mainly the 2013 PDM, indicating a future without port or logistic activity. However, since 2013, there have been other messages from the national and local government, as shown previously, supporting the port presence, contradicting the previous discourse.

Another problem affecting the port-city relationship and the waterfront in Lisbon is related to the lack of transition planning. Even if the port will continue in Lisbon's metropolitan area, when we analyse the evolution of the waterfront in the past 30 years we notice a trend towards the demaritimisation of the city, as seen in other cases (Musso and Ghiara, 2011). In other European port cities, like Rotterdam, we have seen how the actors tried a new approach after failing to implement a traditional waterfront redevelopment project. The new approach focused on managing the transition in the long term, mixing port and urban activities. In Lisbon, the mixed management areas could have followed a transition plan from port uses towards urban programmes, integrating areas adjacent to the active port terminals in case they are deactivated. Instead, the mixed management areas remained as expectant brownfields, waiting for a definitive solution. This situation goes against what scholars such as Hall (2016) defend. Hall (2016) proposes planning incompletely, to allow new activities to flourish in one of the most vibrant and dynamic locations in the urban structure. However, planning incompletely still means planning, having a route or a concept that is shared by all actors, and that can set the foundations for the future.

In the projects here analysed we have seen that the evolution of the legal framework supporting the narrow definition of the port authority have affected its eagerness to invest outside its core business. At the same time, despite the apparent cooperation between

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182   The content of both interviews was based on the recent plan to restructure the port of Lisbon, included in the national plan 5+1 from 2013, already mentioned.

183   In the interview with the director of port terminal and logistics of APL, she indicated that the concessions between Santa Apolónia and Marvial will continue until 2021, and that two companies have already expressed their interest to extend them. These companies are responsible for large shares of the traffic to Madeira and Açores.

the municipality and the port authority, the post-modern waterfront imaginary remains an insurmountable obstacle for more productive cooperation between both organizations. In these projects the municipality was often the most influential actor, benefiting from new laws. In the following section we will see how the influence of institutions was different when APL was the leading actor.

5.8. Cruise terminal in Sta. Apolónia: overcoming conflict for an urban sensitive approach

Introduction to the cruise sector

One of the port activities that are most widely accepted in urban waterfronts are cruises (Figueira de Sousa, 2003; ESPO, 2016). Although cruises have existed as luxury tourism since the beginning of 20th the century, during the last 50 years they have changed significantly, with a new business approach, promoting mass tourism, with visible consequences in several European port cities, such as Barcelona, Venice or Lisbon. At the same time, cruise terminals have evolved to answer new demands from passengers, companies and local inhabitants, becoming a crucial element in the port-city interface where different actors exchange with each other.

In this section of the dissertation we will explore the new cruise terminal project in Lisbon. We will start with a brief introduction to the cruise sector, to understand how it works, the main actors in the industry and the consequences of this tourism for the port-city relationship. Afterwards, we will focus on Lisbon, to analyse the project of the new cruise terminal, from its initial proposition in the strategic plan from 2007 to its inauguration in 2017. The project initially generated great controversy and debate, but the port authority reconsidered and proposed a new approach, answering to the criticism, and implementing the concession with new terms. In certain aspects it could be considered a positive example for the learning process and implication of the organization beyond what it was legally mandatory, and for prioritizing some urban aspects in the terminal layout. Although there was a clear institutional mandate for profitability, the port authority was able to defy the governing institutions and innovate.

Cruises started in the early 20th century, when in 1900 the Hapag shipping company from Hamburg fleeted the Prinzessin Victoria Luise, the first custom build cruise ship (Hein and Hillmann, 2016), starting a new shipping sector that would grow in the following decades. In the 1960s, the increasing availability of air travel and new forms of tourism affected negatively the cruise market as it had existed until that moment, losing the initial growth and expansion rates, and losing its exclusivity as the predominant tourism for high society (Wood, 2004; Hein and Hillmann, 2016). These changes forced to rethink the business model, creating the cruise sector as we know it today (Rodrigue and Notteboom, 2013). Cruises were no longer an elitist activity, but were thought for the emerging middle class, while gradually including new destinations, such as urban ports with regenerated waterfronts (Hein and Hillmann, 2016).

The re-birth of the sector was also based on scale economies, ships rapidly increased its size, carrying thousands of passengers, including new amenities, from large swimming pools to shopping centres or theatres and extreme sports, becoming "floating cities". In the last decades, the scale of the ships and the functioning of the sector, with excursions of dozens of tourists meandering through historic city centres, have transformed them into a symbol of mass tourism and the associated negative effects for cities (see fig. 66).
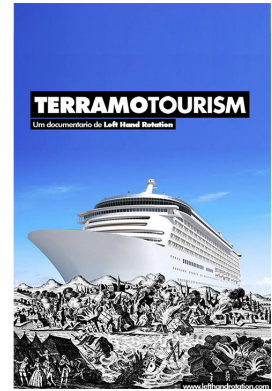
Figure 66. Social movements against cruises. On the right the symbol from the Venetian movement "No grandi navi". On the left, a poster of the documentary "Terramotourism", by Left Hand Rotation collective. Source: https://www.facebook.com/comitatonograndinavi/ and https://imagens.publicocdn.com/imagens.aspx/1245663?tp=UH&db=IMAGENS&type=PNG

The cruise sector has become one of the main port activities for several ports that are conveniently placed in the itineraries that cruise companies offer. According to Pallis (2015) report for the International Transport Forum (ITF), although the sector still experiences considerable growth rates (2,7% in 2014), it is gradually slowing down, reaching a maturity state. At the same time, it needs new approaches to cope with the increasing negative externalities visible in the most visited port cities (e.g. Barcelona, Venice or Dubrovnik [184]). Although market research by geographers and economists indicates that the sector still has a considerable margin for expansion, since it only represents a small fraction of the overall tourism industry (Pallis, 2015), with the current model it is unsustainable in the long term. For this reason, new itineraries complementing the two main markets (Caribbean and Mediterranean Seas [185]) are being explored and it is expected that in port cities where the saturation point has not been reached, this sector will still expand, increasing the tension

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184   For more information on Barcelona reaction to cruise tourism see: https://elpais.com/elpais/2016/06/08/inenglish/1465391697_493106.html (visited on June 5th 2018)

In the case of Venice, locals have explicitly protested against cruises, while the national government proposed to ban for cruises in the main approaching route in 2012 and 2013 (ITF, 2016) (for more information see Tattara, 2014; Vianello, 2016; and https://www.nytimes.com/2017/08/02/world/europe/venice-italy-tourist-invasion.html visited on June 5th 2018).

Recently, local politicians of Dubrovnik proposed to cap tourism and limit the number of cruises (WTCC, 2018) (see https://www.theguardian.com/travel/2017/aug/10/anti-tourism-marches-spread-across-europe-venice-barcelona visited on June 5ht 2018).

185   These two markets complement each other, since the Mediterranean high season occurs during the northern hemisphere summer (May - September approx.) and in the Caribbean Sea the high season is during the winter months.

and effects of this activity over port cities, while gaining attention in the port city interface. Cruise companies are increasingly seeking for new ports to offer more cruises. This process leads to regional cruise networks served by a home port with an international airport and the expansion of the cruise tourism to other geographies beyond the traditional markets[186]. Hesse (2017) indicates that this progression creates opportunities for strategic coupling with possible positive effects for port cities.

Since one of the main characteristics of the cruise industry is that it is based on itineraries, not destinations, the companies have a considerable leverage to decide and negotiate in which ports they are going to stop (Rodrigue and Notteboom, 2013). However, there are exceptions, some ports have become an almost mandatory stop over (e.g. Dubrovnik, Venice or Santorini also known as marquee port) or base port for their infrastructural connections, i.e. world class cruise terminal and international airport (e.g. Barcelona).

As it happens in other maritime sectors, the cruise market is an oligopoly (Wie, 2005), concentrated in the hands of three companies. These companies have existed since the reinvention of the sector in the 1960s (Carnival Corporation, Royal Caribbean Cruise Ltd - RCCL, and Norwegian Cruise Lines). Combined, they had in 2014 a passenger market cap of 82,9%, of which 48,1% belongs to Carnival corporation and 24,1% to RCCL (Pallis, 2015). Other companies like MSC or Disney are also relevant stakeholders but on a smaller scale.

Figure 67. Poster of the activities that passenger can do onboard of the Symphony of the seas, the biggest cruise ship up to date. Source: https://cruiseweb.com/admin/editorImages/cw-infographic-royal-caribbean-symphony-of-the-seas.jpg

The three major companies have a panoply of brands, giving the illusion of diversity, and offering differentiated products also for niche markets, such as luxury tourism, or thematic products, destined for specific audiences, such as singles cruises, fitness enthusiasts or Disney themed travels (Rodrigue and Notteboom, 2013; Pallis et al., 2014). The themes and on-board services emphasize other key characteristic of cruises, the ship is the destination (Wood, 2004; Pallis et al., 2014; Pallis, 2015).

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186   Alternative markets are for example the north of Europe, Baltic Sea and the Fjords, Atlantic islands (Madeira, Canary Islands and Açores), and other destinations in the Asian market.

Despite the importance given to the itineraries and destinations[187], the onboard passenger expenses and services account for 20% to 30% of the revenues of cruise companies (Rodrigue and Notteboom, 2013). These services go from shopping to hiring the excursions, with a tendency to increase these on-board revenues, reducing the passenger expenses in the port cities they visit. At the same time, there is a growing vertical integration of services, reducing the economic spill-over effect for the hosting city and region (Gui and Russo, 2011).

There are two main types of cruise ports, those that can act as turnaround port (also defined as home port or hub port), and those that are ports of call[188]. While the first are the main ports where the cruise starts and/or finishes, and the embarkation and disembarkation takes place, the second are stops in the itinerary, in which passenger may leave the ships for several hours and visit the city. For port cities and port authorities it is more beneficial to become turnaround ports because the revenues generated are considerably higher as so are the services demanded by the cruise companies (Pallis, 2015). The passengers, besides visiting the city, will usually spend extra nights either before or after the cruise, with a series of extra expenses, such as hotel, restaurants and transportations, and generate air traffic for the local airport. According to ESPO (2016), quoting CLIA (Cruise Line International Association), passengers spend on average 81€ in embarkation port cities and 62€ in ports of call. This economic advantage of home ports against ports of call, and the oligopoly of the sector has given the cruise companies the power of "playing ports against each other" to achieve more beneficial conditions (London and Lohmann, 2013, quoting Klein, 2005: 266).

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187   The itineraries are decided according to different criteria such as, attractiveness of the city, port facilities, diversified local offer, engagement of the cruise company in the port terminal, among others. Pallis (2015:29-30) defines five key criteria for a cruise port success: port location, tourist attractiveness, destination accessibility, port facilities and services, and port fees.

188   Rodrigue and Notteboom (2013), have also classified cruise ports in three categories based on their functionality. The first category are destination ports, in which tourists stay in the city and do not visit anything outside the urban centre (e.g. Barcelona or Venice). The second category are gateway ports, since passengers do not visit the city, but travel immediately to other location, (e.g. Civitavecchia – Rome, or Livorno-Florence/Pisa). Finally, the authors identify balanced cruise ports, where the passenger can either visit the port city or other regional attractions. According to Rodrigue and Notteboom (2013), Lisbon belongs to the third category, what could be considered an advantage, since with the proper tourism strategy the heavy fluxes of passenger could be distributed to other locations outside the saturated city centre. Gui and Russo (2011), building on the same concept, propose an alternative classification, depending on the regional tourism flow, oscillating from a "black hole" port city absorbing completely the visitors flow, to semi-gateway, gateway or balanced model, in which the region also benefits from tourism.

2009 Oasis of the Seas 220 000 2712 Cabins GT 360 × 47 × 9,1

2006 Freedom of the Seas 158 000 1816 Cabins GT 339 × 38,60 × 8,50 m

1999 Voyager of the Seas 137 300 GT 1557 Cabins 311,12 × 38,60 × 8,60 m

1996 Grandeur of the Seas 74 000 GT 975 Cabins 279,8 × 32,20 × 7,60 m

1990 Fantasy 70 400 GT 1028 Cabins 260,8 × 31,50 × 7,80 m

1982 Song of America 37 600 GT 707 Cabins 214,51 × 28,41 × 6,80 m

1970 Song of Norway 18 400 GT 377 Cabins 168,32 × 23,96 × 6,70 m

Figure 68. Evolution of the size of cruises since the 1970s. Retrieved from: http://www.vesseltracking.net/wp-content/uploads/2016/05/Biggest-Cruise-Ship-development.jpg

Although cruises produce positive economic impacts[189], they also cause negative social and environmental externalities. Collectives formed by local residents are increasingly protesting against the industry (see fig. 66) for these externalities. Several factors contribute to the increasing tensions, such as the current scale of ships, carrying in average more than 3000 passengers (with new ships reaching 6000 passengers plus crew of approximately 2000, see fig. 68), the seasonality of the sector, concentrated on summer or mild weather months, and the concentration of tourists in specific areas of port cities. International organizations such as ESPO (2016)[190] have published guides of good practices for the sector but the tension has continued to grow.

Cruises are also causing negative social effects such as artificialization of the waterfront and the city centre to correspond to the expectations of tourists, that have been generated through marketing campaigns, distorting the local identity (Hein and Hillmann, 2016), or cultural confrontation, price inflation or general depletion of the quality of life for locals (Gui and Russo, 2011). Although cruises are not the single cause for mass tourism, only accounting for 2% of the global tourism (Gui and Russo, 2011), they have become a symbol, and their characteristics increase the perception of a mass phenomenon. At the same time, they cause social problems such as the over use of public infrastructure without leaving a direct payment, such as public transport or street cleaning, they also cause milieu changes, displacing traditional commerce for others, more tourist oriented, or increase the pressure on the real estate market.

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189   The economic impact of cruises is also under discussion, since the expenditure per passenger is decreasing, associated with the "democratization" of this kind of tourism, i.e. include social classes with less resources than the traditional markets (high and high-middle class). This situation is visible in Lisbon, where the revenues left by tourist decreased in recent years, despite the increase in the number of passengers (Observatório de Turismo de Lisboa, 2016) (https://expresso.sapo.pt/economia/2016-04-30-Cruzeiros-com-mais-passageiros-mas-menos-gastos-em-terra visited on August 7th, 2018).

190   ESPO published in 2016 the "Code of Good Practice for Cruise and Ferry", to improve the city and citizens relationship with the cruise industry, including social and environmental concerns. In this document, they recommend doing information events with the local residents and to establish a social agenda, including open days, activities in the terminals and training programs, but also educating the passengers, to enhance the positive consequences of cruise and ferry activities.

The other obvious negative effects of cruises, and of general shipping industries, are environmental, more specifically air and noise pollution and waste disposal. Maritime economists, such as a Pallis (2015), have explained that cruise companies and ports are already implementing several measures to diminish the sector's environmental footprint, and that the EU and other regional organizations are developing stricter regulations. However, other scholars from planning and geography, such as Hein and Hillmann (2016), indicate that cruise companies take advantage of their global reach to scape to national or regional regulation regarding labour, taxes and the environment. Authors, such as Wood (2004), have even defined the sector as deterritorialized emphasizing its ability to scape national or even continental regulations. European ecologist organizations, such as NABU (Naturschutzbund Deutschland e.V) are pressuring the EU to improve the current environmental laws, particularly against toxic fumes emitted by most cruise ships, mainly sulphur oxide (SOx) and nitrogen oxide (NOx). NABU, besides doing eco-lobbying, is also assessing the implementation of new rules on a yearly basis, indicating that cruise companies have not taken the necessary measures to reduce these toxic emissions (NABU, 2017).

Cruise terminals

As Hesse (2017) explains, cruise terminals have become beacons of port-city relationship, where the interaction occurs intensively, as it is one of the few port functions accepted in the urban waterfront. At the same time, it is an element of the port-city interface, showing the exchange between global economic trends and the challenges port activities present for cities, such as those environmental here mentioned. Cruise terminals have become an extreme example of the interaction and conflicts between fluxes and fixities on the urban waterfront, that characterizes port cities. Hesse (2017) explains in his article that cruise terminals increasingly present challenges to exercise a positive coupling between the local and global dimensions of this industry, and that these facilities can easily become an example of fluxes taking over places and territories, acting for their profit.

Despite the negative externalities cruises cause, port cities are still competing to be a home port, with new terminals that are no longer refurbished warehouse, but specialised buildings that can be landmarks integrated in the waterfront (Pallis, 2015). Several authors (Rodrigue and Notteboom, 2013; Esteve-Perez and Garcia-Sanchez, 2015), emphasize the increasing engagement of cruise companies in developing and managing port infrastructure, mainly cruise terminals, and how these processes become "power games" between international corporations, local authorities, businesses and community groups (London and Lohmann, 2014). At the same time, Hein and Hillmann (2016), explain that these facilities have become an architectural typology on its own, including urban functions, to be profitable all year around.

Cruise terminals have attracted the attention of designers as an opportunity to showcase their capacities, framed in architectural competitions for a new landmark in a prominent location, such as the waterfront. At the same time, politicians and developers have seen these facilities as anchor projects to foster redevelopment schemes, and crucial elements in the urban marketing campaigns for tourism led regeneration.

Although Asian port cities were among the first to build landmark cruise terminals (Hein and Hillmann, 2016), we can also find numerous examples in Europe, with project signed by internationally acclaimed starchitects, with exotic designs. For example, Zaha Hadid designed the cruise terminal of Salerno, inaugurated in 2016, resembling an oyster (see fig. 69). Another example is the new cruise and ferry terminal of Helsinki, concluded in 2017 (see fig. 70). This is a crucial part of the West Harbour waterfront redevelopment, exemplifying the link between this kind of urban plans and the new cruise facilities, as defended by Hein and Hillmann (2016). In Portugal we can find other examples in Porto and Lisbon. In the northern port city, in the harbour of Leixões, the new cruise terminal was opened in 2015, combining port functions with research facilities for the university and marinas, besides event rooms and a restaurant. The new terminal, signed by Luís Pedro Silva, has an iconic character, concluding the pier entering the sea. In the case of Lisbon, the terminal is in a central location, sensitive for its historic character and visual relation with the famous hill of Alfama. We will explore this project in detail, focusing on the development and planning process and the participating actors, analysing the role of the port authority, and its operation, complying and challenging the institutional framework.

Figure 69 Salerno Cruise Terminal (L) from Zaha Hadid Architects. Photo from Hélène Binet. Retrieved from https://www.dezeen.com/2016/04/25/zaha-hadid-architects-salerno-maritime-ferry-terminal-italy-concrete/
Figure 70 Helsinki Cruise Terminal. Project by PES Architects. Photo by Marc Goodwin. Image retrieved from https://www.archdaily.com/883857/west-terminal-2-pes-architects

The Lisbon case

Cruises have become an appealing sector for the Portuguese economy, benefiting from the country's geographical location, the need of cruise companies to find new routes, and the already consolidated tourism industry. Before the new cruise terminal was discussed, the cruise sector grew considerably between 1998 and 2008, more specifically 42% in terms of stopovers and 191% in passengers (APL, 2010). Despite this growth, APL indicated that the number of turnaround passengers did not increase accordingly due to the inadequate facilities. This issue, combined with the importance the government gave to cruise tourism and the will to reorganize the port of Lisbon led to a process of multi-scalar planning. This process merged national strategies, with the port masterplan (PEPL), and discussions with the locals for a new cruise terminal in a central location for current and future cruise traffic.

The cruise terminal project suffered several setbacks, forcing the port authority to follow a new approach acting beyond what was legally mandatory, reacting to social criticism with a solution integrating the critics of the first approach. Although APL was not legally bound to consider the people's reaction, it was socially pressured to reflect on the consequences of a new port infrastructure in the historic urban centre. We analyse this project, which contrasts with other waterfront interventions of APL, where the institutions strictly governed the decision-making process.

A new cruise terminal in Santa Apolónia - PEDPL 2007

In the national strategic plans from 2005 and 2006 concerning the sea economy and tourism, the cruise industry was considered a key sector to be explored. The two main cruise ports of Portugal were Madeira (Funchal) and Lisbon, but the existing infrastructure was not capacitated for further expansion, in a sector that had growth potential. At the same time, the national and local governments of Portugal and Lisbon considered tourism one of the main economic sectors, even before the 2008 crisis took place. Portugal has traditionally been a tourism friendly country, but mass urban tourism in historical urban centres and vibrant cities (mostly Lisbon and Porto) is a relatively recent phenomenon compared to other cases, such as London, Paris or Barcelona. Cruises were considered an opportunity to combine two key sectors for the country, sea and tourism, while being compatible with urban ports like Lisbon.

As we have previously seen, in 2007 APL, under the leadership of Frasquilho, presented the strategic plan adapting the national strategies to the local context. Besides indicating the business plan for the following years and the development vectors, the plan also indicated two interconnected changes in the port layout. Since the container cargo was a priority, the plan proposed the expansion of Alcântara container terminal as a tem-

Figure 71. Location of the cruise terminal of Santa Apolónia. Author José M P Sánchez

porary solution, until the government made the final decision regarding the new terminal on the south side of the Tagus. However, this expansion was limited by the existing passenger terminal in the same location and in Rocha Conde d'Óbidos, in the same dock.

To allow the expansion of the container terminal and improve the cruise facilities, APL proposed a new cruise terminal in a central location close to Santa Apolónia train station, where there was already one facility of this kind. This was not a completely new idea, but it

became crucial for the future ambitions of the port authority [191]. The goal was to concentrate all cruise activities in this location, closer to the historic city centre. This strategic decision generated social debate, since some argued that it would increase the pressure on the city centre, that large cruise ships were incompatible with the medieval urban structure and that Belém, the other main tourist area, would be too far away. At the time, cruise tourists disembarked from the ship in Alcântara and use excursions, taxis or buses to go to Belém or Baixa. Instead, the proposed solution would allow tourists to go by foot to the city centre. Although the passenger terminals in Alcântara would be kept, due to their heritage and artistic value, the new location in Santa Apolónia would be the central facility for cruises.

Besides the cruise facilities, the new terminal (11000 sqm.) would include a hotel (7800 sqm.), offices, shopping areas and parking (1065 spaces in total). The conclusion date would have been 2010. The construction would have three phases, the first two for dock refurbishment and improvement, and a third one for the terminal building itself. The first works regarding the dock would be paid by APL supported by the EU who would pay 40% of the budget. The terminal would be paid by a private investor who would explore the hotel, offices and commercial areas[192].

At the same time, the plan was also to make a concession for the cruise activities, that until that moment were handled by APL itself, unlike what occurred with freight operations, in which it was operating as a landlord port. It was clear that for the cruise companies a more central location was more attractive and friendlier to their customer, a key aspect in the cruise business (ESPO, 2016). Besides the advantages of a central location for traffic issues, there was also the underlying goal of making the operation attractive for private investment, responding to the usual demands of the sector regarding new infrastructure and site locations.

The strategic decision in the PEDPL of concentrating the cruises in a central location was initially accepted by the municipality. Cruises were considered a friendlier port activity on the increasingly urbanized waterfront, compatible with their own ambitions of refurbishing this section of the city. Only later, the cruise terminal was integrated in the PGIFR and in the Frente Tejo plan, with other interventions in the central waterfront section that were destined to enhance the contact with the river in this area. Although the main strategic decision seemed clear for the main actors (port authority and municipality), the first images of the project raised major controversy among the local politicians and residents.

Contested design, controversy and new approach - 2007 – 2010

Once the strategic plan became public, in April 2007 the port authority presented the first concepts and images for the terminal in an event with local residents, mostly those living in

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191   See https://www.publico.pt/2006/10/23/jornal/administracao-do-porto-de-lisboa-projecta-terminal-de-cruzeiros-para-almada-103691 (visited on October 10th, 2018).

192   See https://www.publico.pt/2007/04/20/jornal/terminal-de-cruzeiros-de-santa-apolonia-pronto-em-2010-e-inclui-hotel-e-comercio-211605 visited on May 25th 2018.

the closer areas to the site. As explained in an interview[193], the images were misinterpreted, since they were not the definitive layout of the terminal but a conceptual suggestion. However, citizens, politicians, public figures and the media, interpreted the images as the final design, criticizing that it would create a new wall, 600 meters long, between the city and the river (see figure 72). The controversy escalated in the following months, culmi-
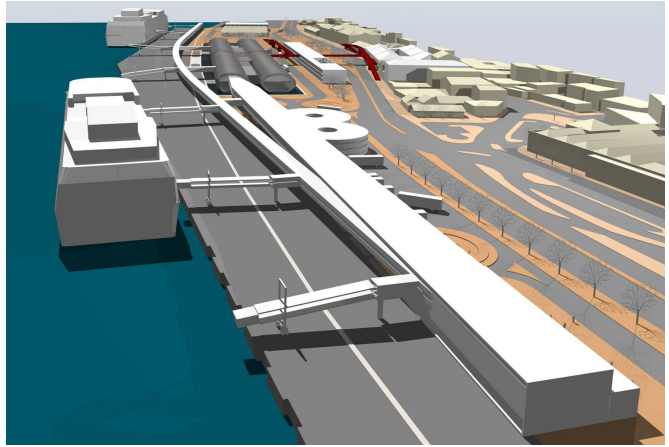
Figure 72. Original proposal for the cruise terminal by APL (APL, 2007).

nating in September 2007, when the municipal assembly approved a motion against the terminal[194]. The main criticism was not just the physical layout as it appeared in the images, but that the port authority had acted unilaterally, without consulting with the municipality. Although legally APL was not obliged to get an approval from the municipality, it was considered the correct approach.

Two citizens organizations, Movimento Fórum Cidadania Lisboa (FCLX) and the Associação do Património e População de Alfama (APPA) organized the social protest against the project, demanding changes and an alternative design. In principle they were also against the location of the terminal as we could confirm during interviews and in the website of the organizations [195]. These organizations prepared a public debate about the terminal in September 27th, 2007, inviting all involved stakeholders, including APL (see fig. 73). Finally, the port authority did not attend the debate, while public figures accused them of only

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193   Interview with APL employees on August 18th, 2018.

194   See https://www.publico.pt/2007/09/27/jornal/camara-de-lisboa-contesta-terminal--de-cruzeiros-e-exige-ser-ouvida-pela-apl-231291 (visited on October 8th 2010).

195   Interview with Movimento Fórum Cidadania Lisboa on August 7th 2017 and with APPA on August 21st 2017. The position of both movements against the cruise terminals and the overall plan can be seen in their website (http://cidadanialx.blogspot.com/2008/05/terminal-de-cruzeiros.html; http://cidadanialx.blogspot.com/2009/10/novo-cais-de-santa-apolonia-devera.html; http://cidadanialx.blogspot.com/2008/11/terminal-de-contentores-de-alcntara_23.html; https://alfama.wordpress.com/2007/10/11/terminal-dos-cruzeiros-associacao-de-alfama-congratula-se-pelo-abandono-do-projecto/ visited on June 7th 2018).

Figure 73. Poster of the debate organized by FCLX and APPA. Source: http://1.bp.blogspot.com/_bfgH8fgEfUw/Rv32Hvpzo-I/AAAAAAAAAP4/40GDX6ys4YA/s1600-h/debate..JPG

considering their own profit [196]. The main reason to protest was the barrier character of the project, that would harm the visual connection with the river of one of the most traditional areas of Lisbon. APL initially replied against the critics, saying that they did technical meetings with the municipality, and that the images were only a study[197]. In the same year 2007, after considerable protest, the port authority decided to cancel the project as it was presented to try a different approach.

APL announced in 2009 that there would be a competition for the new terminal[198]. The strategic decision concerning the location remained unaltered, but the new approach would seek more transparency and a new design answering to the social concerns caused by the former layout, particularly avoiding creating a visual barrier to the river. APL also simplified the program of the new terminal since it removed the hotel and commercial areas, reducing the built area and answering to other criticism about the risk of affecting the local commerce[199].

Although the idea of doing an architectural competition was already considered in the 2007 PEDPL, the new approach would also include greater collaboration with other relevant actors, such as the municipality or the architectural chamber. This approach was reflected

196   The debate gathered much media attention, since local politicians and public figures participated, and it was a "hot topic" at the time. Since APL did not participated there was no actual confrontation of ideas, it became a united front against the project with heavy accusations against the port, including calling them a "bunch of wrongdoers" and a "public enemy of the city". Later APL sued the authors of these declarations. See https://www.publico.pt/2007/09/29/jornal/debate-sobre-terminal-de-cruzeiros-gera-consenso-lisboa-nao-quer-o-projecto-da-apl-231593 and https://www.dn.pt/arquivo/2007/interior/porto-de-lisboa-processa-miguel-sousa-tavares-986253.html (visited on October 8th, 2018).

197   See https://www.dn.pt/arquivo/2007/interior/porto-de-lisboa-processa-miguel-sousa-tavares-986253.html and https://www.publico.pt/2007/07/03/politica/noticia/lisboa-ruben-de-carvalho-contra-zona-comercial-no-terminal-de-cruzeiros-do-tejo-1298436 (visited on October 8th, 2018).

198   https://www.jn.pt/local/noticias/lisboa/lisboa/interior/novo-cais-de-cruzeiros-pronto-ate-marco-de-2011-1393892.html (visited on June 7th, 2018).

199   https://www.publico.pt/2009/07/21/local/noticia/terminal-de-cruzeiros-de-s-apolonia-avanca-com-concurso-e-sem-hotel-e-comercio-1392647 (visited on October 8th 2018).

in the jury of the competition, formed by seven members, of which four from APL, one from the municipality, one form the architectural chamber and one from the association of landscape architects. The initial plan was to have the new terminal concluded in 2013. In the meantime, APL continued with the construction works to improve the pier for the new terminal to allow modern cruise ships to berth in this area[200].

In March 2010, APL officially opened the public competition for the architectural project for the new cruise terminal (*Procedimento* n.º 1200/2010). Although in the guidelines, the main criterium was the architectural quality, among the sub-criteria for the evaluation of the proposals the budget represented 40% of the evaluation. Other sub-criteria were integration in the context (24%), functionality of the broader layout including public spaces and maritime access (18%), functionality of the building (12%), and innovation (6%). In the competition program, APL defined the main goals, emphasizing functionals aspects related to passengers' comfort and operational efficiency, but also including urban other urban issues, such as the integration with the sensitive context, new waterfront public spaces with direct view of the river, the relationship with heritage buildings (such as the historic customs, the military museum of the Santa Apolónia train station) and the overall design quality.

The new terminal should be able to host three to four ships simultaneously, pending on the size of the ship, or a maximum of 9200 transit passengers at the same time, with a proposed budget of 25, 5 million €, excluding taxes. APL (2010) explained in the competition program that although cruises are less profitable than cargo, and that major cruise ports often do not invest (at the time) in landmark terminals, they were willing to invest in a quality solution due to the sensitive location of the terminal and to the initial criticism received.

Figure 74. View of the area where the cruise terminal was built, during the construction period of the dock. Source: https://tpf.eu/wp-content/uploads/2007/01/Jardim-do-Tabaco-Quai-Lisbonne-800-400.jpg

The commitment to improve the urban environment is not formally recognized, however, the port authority needed to go beyond the institutional obligations, recognizing the urban character of this infrastructure and its influence in the city. This behaviour reveals that cruises are an activity accepted in the urban waterfront, therefore a bigger investment in architectural quality is necessary. The same attitude is not visible in other heavy port activities, in which the traditional management model relies exclusively on its institutional obligations, that are based on economic parameters to decide the development approach.

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200   https://www.publico.pt/2010/03/25/jornal/terminal-de-cruzeiros-de-santa-apolo-nia-abre-em-2013-sem-lojas-escritorios-ou-hotel-19061849 (visited on October 8th, 2018).

Figure 75. Rendering of the winning proposal by João Luis Carrilho da Graça Arquitectos. Source: http://jlcg.pt/lisbon_cruise_terminal

The jury unanimously chose the proposal from Portuguese architect João Luís Carrilho da Graça due to several key features. The project responded to all functional and budget requirements, while developing a compact, sculptural, elegant solution, that responded to the context, while being an architectural landmark. At the same time, the project from Carriho da Graça included a new semi-public space on the rooftop complemented with a bar, that could be used independently from the terminal allowing different activities, while creating a new sightseen point. This project also included several green areas and semi buried parking space, reducing its visual impact. In the detailed score board done by the jury, we can see that the winning design won all criteria except from the economic one. This fact emphasizes that the economic impact of the project was not the most determinant aspect since functionality and integration determined the first prize.

Besides the architectural competition, another relevant aspect of the cruise terminal project, is the chronological order of events. The new proposal was presented to the public, gaining general approval since for most it was a better design than the previous one, particularly because it was more compact and included green areas around the building. During the interviews with both citizens association, they admitted that at the time they did not considered the new proposal a problem, and that there were greater problems in the city requiring their attention[201]. The municipality, being part of the jury, also agreed with the new design and integrated it in their own urban plans. Although the original idea was to have the cruise terminal functioning in 2013, the economic crisis was affecting all major

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201   Interviews on August 7th and 21st, 2018.

investments in Portugal[202]. However, the design that had already won the competition was not questioned and remained the definitive one, but the business model changed.

Concession of the cruise terminal - 2013

Concessioning cruise activities is a decision framed in the broader framework of implementing a landlord governance model, that started with cargo terminals and it is increasingly being pursued in other port sectors. In general terms, the case of the cruise terminal is a positive example because APL included urban and social concerns in the overall process. However, there are some issues that could be improved related to the institutional definition of the port authority and its official governance priorities.

The importance of terminal concessions in the port-city relationship has been an issue surprisingly less studied than others, particularly considering its influence in port governance and the efficient use of scarce resources such as waterfront land. Notteboom (2006), and later Notteboom et al. (2012), have highlighted the importance of concession contracts in port governance. They emphasize how they are one of the few resources port authorities have to influence port governance and the behaviour of port actors after these organizations were corporatized and transformed into landlords (Notteboom, 2006; Notteboom et al., 2012). Port authorities can pressure private companies in concession contracts and in the negotiation that takes place before them, to obtain better economic conditions, but also to demand social or environmental goals (Parola et a., 2012; de Langen et al., 2012). Most research on concessions focuses predominantly on their importance in port economics (Parola et al., 2012) or on container terminal (Pallis et al., 2015). de Langen et al. (2012) particularly, have explored how sustainability goals could be included in the port expansion project in Rotterdam, in which the environmental criteria had an influence of 20% over the general proposal assessment.

In 2013, the government presented the plan to restructure the port of Lisbon, including the concession of the cruise terminal for a maximum of 35 years. The government opened the call for tender in April of the same year, extending it until August, to which eight national and international companies distributed in three consortia applied[203]. The final decision was only reached in January 2014, after the companies reorganized into one single consortium with four companies under the leadership of Global Port Holdings (GPH)[204] (APL, 2014). The winning bid created a new company (Lisbon Cruise Terminal – LCT) in which GPH detains 40% of the shareholding, while Grupo Sousa the national partner detains 30%,

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202   One year later, in April 2011, the Portuguese government requested international economic aid, overviewed by the Troika, who brought an austerity plan, reassessing public investment and the overall functioning of the state.

203   https://www.publico.pt/2013/08/21/economia/noticia/oito-empresas-na-corrida-ao-terminal-de-cruzeiros-de-lisboa-1603588 visited on June 8th, 2018.

204   GPH is also known as Global Liman İşletmeleri A.Ş.

Royal Caribbean 20% and Creuers de Barcelona 10% [205]. These companies have experience in cruise terminal management and control other facilities of the kind, for example in Barcelona, Málaga, Singapore or Venice. The shareholding structure is an example of the increasing engagement of cruise companies in port infrastructure, as explained by Rodrigue and Notteboom (2013). Among the conditions for the concessions, APL demanded a minimum traffic of 550000 passengers per year and the construction of the terminal project as defined in the previous competition.

APL also requested building the cruise terminal within two years after signing the contract. The project has been developed according to the competition proposal, with minimal changes for operational needs, but the two lateral pavilions in the green areas are currently missing. On the other hand, the concession competition and the following contract followed strictly economic criteria, referring to the number of passengers, fee per passenger and other services, such as piloting or wage treatment, without any specific social criteria. The terminal was finally inaugurated in September 2017, and fully functional in 2018. In 2018, Lisbon port hosted 339 stopovers with a record of 577 603 passengers (APL, 2019).

Figure 76. View of the terminal in use. Source: APL. https://www.facebook.com/PORTODELISBOA/photos/a.10150770858317437.460756.350782687436/10156160296062437/?type=1&theater

The case of Lisbon is exceptional in several aspects. In most concession bidding processes, the layout and design of the infrastructure is decided afterwards, instead, in Lisbon, the design of the cruise terminal was previously decided and only later the port authority did the

205   GPH controls 62% of Creuers de Barcelona. See https://www.globalyatirim.com.tr/en/investments/ports/global-ports-holding/226-lisbon-cruise-terminal visited on June 8th, 2018.

call for proposals. The new design reduced the profitable activities in the terminal for cruise companies, to the point that some port services usually provided by APL were included in the agreement to increase the profit margin and make the project attractive enough to private companies[206]. This decision might have influenced the capacity of the port authority to introduce other criteria besides economic ones, in the contract. Instead, the main factors influencing the decision were the fixed yearly fee (300 000 €), variable passenger fee (0,22€/passenger), the concession duration (35 years – the maximum allowed by law), and the guaranteed increased in passenger traffic (APL, 2014). The last criterium was considered a priority, due to the economic impact this activity has over the region of Lisbon. The figures here presented are far from what was indicated in the call for proposals. The fee per passenger was stipulated between 0,2 and 2,2 €, and the concession duration was proposed to last between 20 and 35 years (APL, 2013).

We could speculate on the issues that have led to this situation. First, in the call for proposal, there were originally four competitors but finally only one remained, ending the competition factor. In this situation, APL risked not having a proposal to build the terminal. Second, a reduced passenger fee may have been a strategic commercial decision to attract ships, but also in favour of the municipality, for bringing as many passengers as possible. Third, forcing the winning bid to build the cruise terminal in the terms they had already decided reduced the margin for action of the companies. The design is accepted by most stakeholders for its architectural quality and interaction with the build environment, and its compact design, but it is built with the minimums required dimensions [207], and has limited commercial areas (or hotel or other uses), as complementary profitable programmes.

At the same time, in the contract, APL indicated that the companies operating the terminal must comply the existing environmental regulation. The contract does not mention other values of sustainable development, such as involvement of social communities, communication or other CSR activities, leaving it to the free will of the LCT consortium.

The behaviour of the stakeholders

Different authors have discussed the stakeholders that participate in port projects. Verhoeven (2010) identified the three groups of port stakeholders (market players, government and social groups) pressuring port authorities. Other authors such as London and Lohmann (2014) analysed cruise destinations in more detail, identifying four categories of stakeholders: cruise industry, gatekeepers, port side stakeholders, and shore-side stakeholders. According to these authors, these groups establish power relationships depending on the type of port, the maturity of the destination, the port characteristics and the origin of the business proposals. However, since we focus on the project development and not on the cruise business model, we centre our research on stakeholders trying to influence the development of the infrastructure, each with its own goals and concerns.

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206   This information was discussed in an interview with APL, on January 2018.

207   This information was confirmed in interviews with APL in January 2018 and with LCT in August 2017.

Since the project was developed into two stages, one for the design of the terminal and a second one for the concession competition, it facilitated a two-stage dialogue, and less direct conflict of interests. During the first stage, the main stakeholders were the port authority, the municipality and the citizen's organizations, while only in the second stage were large private corporations active, with a reduced direct influence in the terminal location and design. This process facilitated the investment for foreign companies, since the terminal project had been previously accepted, but also reduced their margin to build an infrastructure according to their demands. To understand the role of the stakeholders, we interviewed them, confirming that there were diverging goals, but also that the main problem was not just the terminal itself, but cruise tourism and the tourism industry as a whole, requiring larger scale plans and strategies, in which all these stakeholders, and others, should be involved.

The cruise terminal has been an initiative led by APL, to answer to the sector's demands and to improve Lisbon's profile as a cruise destination, competing with other port cities for a growing market. According to APL press releases (2014), its main motivation has been to contribute to Lisbon's regional economy, since this type of tourism can provide jobs and income, mainly when the port city is a home port, to which is necessary to have modern terminal. This official explanation, based on the common good resonates with the inputs received from the interviews[208], since it was mentioned that cruises are not one of the most profitable activities for the port authorities despite its leadership in the national market. At the same time, the development process that extended over ten years, revealed an evolution of the urban perspective of the port authority and its capacity to react to criticism. Unfortunately, as pointed out in the same interviews, this sensibility towards urban issues is not visible in all projects. Hence, the cruise terminal could be considered an exception due to its public focus and its sensitive location.

The concession process was subordinated to the design decision since the port authority had to allow LCT to provide some services to the cruise ships to increase the profitability of the project. This decision shows how sometimes port authorities can be limited by market characteristics to impose their criterium. However, the fact that the port authority was able to impose the competition design can be considered a positive step forward. The final design responded to urban and social demands, that in a direct negotiation with the sector actors could have been much harder to include.

LCT is a new stakeholder in the port community, since the concession of the cruise terminal is a new business until recently done by the port authority directly. In the interview with the manager of LCT [209], he explained that the priority for them are the passenger and the ships, but that having a sustainable relationship with the local population was also important. LCT is not forced to have any sort of CSR policy or to inform the population. However, they collaborate in cultural initiatives such as the fado festival "Caixa Alfama", organizing

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208   Interviews with APL in Lisbon, on August 18th, 2017 and on January 9th and 10th, 2018.

209   Interview in Lisbon on July 20th, 2017.

one of the main stages in the terminal [210]. In the interview, the manager of LCT indicated that he was willing to collaborate with other stakeholders, mainly the ones necessary for their activities, but also to contribute to new forms of tourism that could be more sustainable, such as diversifying the visitors' areas, including other local experiences. Although the motivation to develop alternative tourism relates to the business strategy of diversifying the offer for the tourists, it could be an opportunity for strategic coupling between the global fluxes of cruise tourism, and the localities in the traditional neighbourhoods.

In cruise terminal projects, community groups often play an important role conditioning the development of the infrastructure, its location and functioning, as it has happened in other cases (see London and Lohmann, 2014). In the case of Lisbon, there was a first stage in which the protest from local inhabitants played a major role, influencing the outcome of the project. The two citizens organizations consulted, APPA and FCLX [211], who oversaw the opposition to the terminal, expressed their scepticism towards the positive aspects of cruises, to how they are improving the locals' quality of life, while also revealed their concern for mass tourism. These organizations, consider a victory that APL followed a new, more transparent approach, integrating their concerns about public access to the water and the barrier effect. Although they remain critical about the aesthetics of the building, the new terminal answered the main concerns of the social organizations.

Despite the two events organized to discuss the terminal, one by APL other by citizens' organizations, the latter still criticize the lack of public participation in the planning process. This critic is not only to the specific cruise terminal project, but the overall planning system. According to the interviewees, there is often a superficial public discussion, mostly due to the lack of information, impeding the local to actively participate in the debate, reducing it to informative sessions, or tokenism according to Arnstein ladder (1969). This issue emphasizes the need to create debate structures such as port centers, to support the social pillar of a sustainable port-city relationship.

Both organizations expressed their scepticism as well regarding the development of alternative forms of tourism that would improve the profit distribution and reduce the negative externalities. At the same time, they also explained that they do not have a formed position about the port presence in the waterfront, considering it both necessary and problematic, but remain alert to the environmental externalities that increasing cruise traffic could cause. This issue, along with mass tourism, will keep the cruise terminal as an arena to discuss the role of the port and the port authority in the urban waterfront and the city.

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210   In 2018's edition of the fado festival, the rooftop of the cruise terminal was one of the main stages. https://www.blueticket.pt/Event/3617 visited on June 21st, 2018.

211   Interviews on August 7th, 2017 with FCLX, and August 21st, 2017 with APPA. In the interviews they explained that the electoral calendar also provided a good timing to have very active politicians.

Although the municipality[212] agreed with the location of the new cruise terminal, it also supported the citizens associations defending a new approach with better architectural quality[213] and less concentrated programmes. The new location presented an opportunity to regenerate the older sections of the city centre. Since the moment APL decided to include the municipality in the discussion and in the competition jury it did not presented any opposition to the project. They were aware that the city was the main beneficiary of the new terminal and cruise activities, and supported the tourism focus of waterfront projects, particularly in this case in which public spaces would be generated, an approach also visible in the new MAAT museum. At the same time, another goal of the municipality included in the final design of the terminal was to reduce the commercial areas, to potentiate local commerce in the close neighbourhoods. The priority for the municipality has been the connection with the terminal, the surrounding public spaces and the nearby public transport, as well as improving the itineraries connecting the terminal with the castle and Alfama. LCT has collaborated with the municipality to articulate the response to tourism fluxes, although for the moment without major implications. According to the interviews, it is expected that in the coming years, as the number of visitors increases, further dialogue will be necessary.

The Junta de Freguesia of Santa Maria Maior is the lowest governmental level affected in the process. In the interview with the president of the Junta de Freguesia[214], we learnt that they proposed including sport spaces in the project, since they are lacking in the area, and they could also bring locals closer to the terminal and the waterfront. Finally, this proposal was not considered in the final project, since it conflicted with the parking area (also considered necessary for Santa Maria Maior), and because APL argued that in previous experiences, secondary programs have conflicted with the main function of the port facility[215]. Despite this, the president of the Junta de Freguesia understood that national infrastructures are decided by the national government and the municipality, and they only contribute when they are asked.

Although there has been no official dialogue between LCT and the freguesia, the president of the latter appreciates the Caixa Alfama festival initiative and acknowledges that for the moment a specific consultation has not been necessary. He considers the cruise terminal something positive for the economy, despite the possible externalities. However, he also recognizes that it may represent challenges, because since the last government system reform, they have become in charge of public space maintenance, one of the urban aspects in which (cruise) tourism can do the greater damage.

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212   Interviews on December 21st, 2015 and January 5th, 2018. In this interview, CML's official indicated that the public facilities were considered in the broader plan done by Frente Tejo. The terminal location was defended by the municipality because it was considered a regeneration opportunity for Alfama.

213   https://www.dn.pt/arquivo/2007/interior/porto-de-lisboa-processa-miguel-sousa-tavares-986253.html (visited on August 7th, 2018).

214   Interview on August 21st, 2017.

215   Interview with APL on January 10th, 2018.

The cruise terminal process from an actor-centred institutional perspective.

In this focus project we could see how APL was forced to stretch the institutional framework. Initially, the port authority followed the strict mandate of the governing institutions, namely the limited conception of its mission, exclusively focused on economic and sectorial aspects. In this case, this mandate would translate into finding the most profitable solution, including as many functions as possible to make the terminal economically attractive. However, when local inhabitants and politicians reacted against the project, the port authority was forced to change. It was forced to look beyond the institutions, and challenge them, including other priorities that are not reflected in the usual narrow conception of its goals. These priorities are for examples the integration of port infrastructure in the urban context or including the social concerns in the decision-making process.

The final design also reflects a proactive attitude, since prioritizing social concerns (developing a compact building) affected the profitability of the terminal, reducing its economic attractiveness for private companies. In this sense, the governance decisions taken in the design of the cruise terminal was the main institutional stretch to foster a sustainable port-city relationship. On the other hand, during the call for proposals for the concession, the port authority followed a conservative attitude not introducing any social or extraordinary environmental clauses that would improve the port-city relationship during the functioning of the building. In this stage, the most positive aspect was forcing the winning consortium to build the terminal as it had been previously decided. Sticking with its decision was already a step forward, particularly when compared to what happened in other focus projects as we will see in the following section.

In the introduction we mentioned the work of Hesse (2017:10), where he explains that the port-city interface should not be a "victim" of one-sided solutions benefiting only global business, such as cruises. Instead this author defended that there should be a careful balance between the transformation of the waterfront and the needs of global corporations in cruise or container sectors. The case of Lisbon is a positive example since the port authority was able to find a balance between the local demands for the waterfront and the requirements from cruise companies. In the interviews we could see that nobody was completely satisfied, since a compromise was necessary. The people would demand more public space, while for the companies it would have been better to have complementary functions that would make the project more profitable. The complete development, from strategic decisions to final design and concession, is a good synthesis of the complexity of port governance in urban settings, and the need to find a compromise.

In our research we have questioned the institutional capacity of the port authority to contribute to the port-city balance, given its rigid legal definition and conservative social expectations. In the case of the cruise terminal here analysed, APL could impose its criterium in the physical design of the terminal but did not included specific clauses in the concession for the regular operation of the cruises. It is however arguable if it is solely a responsibility of the port authority to pressure for balance agreements with the cruises and terminal

operators, or if a higher engagement of local forces, such as the municipality, would have contributed to another negotiation. It is then also a question about the representations and/or involvement of local authorities in port governance and its possible effects, since at the time the contract was negotiated, there was no representative of the metropolitan area in the management board of APL.

In the case of the cruise terminal, APL engaged in governance measures that defied the dominant institutions, assuming its role in the broader urban environment and the sensible location of the terminal. However, we could see that the approach followed after the public rejected the first proposal was exceptional and it has not been applied in other port projects. More specifically, as pointed in an interview, the port authority assumed that the cruise terminal was an urban project, therefore required an extra effort, while in other cases, such as container terminals, this effort is not considered necessary, given the industrial character of these projects. This issue and the influence of public protest will be analysed in the third and final focus project, the cargo terminal in the south bank of the Tagus.

5.9. Cargo terminal in Barreiro: balancing port and social goals

Introduction

In this section of the chapter we will focus on the new cargo terminal project to be developed in Barreiro, south of Lisbon, in the coming years. This project has caused broad discussion between different sectors of society. The consequences of building a new facility on the south side of the Tagus estuary remain unclear, since it could potentially imply reorganizing port activities in Lisbon's urban waterfront. Although the decision and location of the new multipurpose terminal in Barreiro have been polemic[216], in this section we will not evaluate if they are right or wrong, instead we will focus on the development process carried on so far. Building a new container terminal is an old aspiration of APL. However, the most relevant part of the process for this investigation is what has happened since 2014 when the new location for the terminal was decided and a series of steps took place, revealing the influence of institutions.

Since the project here analysed is ongoing, and it has become a political and social sensitive issue, the involved authorities could not provide as much information as in other cases. For this reason, we had to work with news from general media, interviews and the few available documents, with the logical limitations.

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216   The government decision to build a new terminal in Barreiro has been contested by different actors. The competing port of Setúbal actively defended their position to host the container traffic from Lisbon, arguing that less investment was necessary (https://www.transportesenegocios.pt/notaveis-alinham-com-setubal-nas-criticas-ao-terminal-do-barreiro/ visited on July 14th 2018). Academics, such as Dr. Augusto Felicio (2017), and the engineers association also defended Setúbal (https://www.transportesenegocios.pt/bastonario-dos-engenheiros-insiste-nas-criticas-ao-barreiro/ visited on October 9th, 2018).

We first provide a general introduction to the container traffic sector, to present the global scenario in which this project takes place. Later we approach the situation in Portugal and the port of Lisbon. We then provide a brief synthesis of the decade-long development process, to understand the socio-political context in which the new terminal is discussed. Afterwards, we explain the chronological steps that have taken place since 2014. Finally, we focus on the consequences of APL governance approach from an actor-centered institutional perspective and how it relates to other projects, such as the cruise terminal, and the general port-city relationship.

The container shipping sector

Since the invention of the container by Malcom McLean in the 1954 (Cudahy, 2006), containerized cargo has been constantly increasing, becoming in many ports the predominant activity. As pointed out by several authors, containerization and the associated technological changes such as the increasing size of ships (mostly linked to scale economies) or mechanization of the loading process changed ports, originating a new demand for larger container terminals and reducing the time ships docked (Hoyle, 1988; Notteboom and Rodrigue, 2005). According to Hoyle (1988), containerization was also one of the main reasons for the expansion of ports outside the centre of port cities, since this traffic required large facilities with efficient connections to the railway and road systems, to bring the cargo to the hinterland. This kind of expansion is visible in different European cases, such as the Maasvlakte (one and two) in Rotterdam, the Fos 2XL and 3 XL in Marseille or the Voltri Terminal in Genoa [217].

Figure 77. View of the port of Sines. The port is located far from any large urban settlement, with no growth impediment. Source: http://www.apsinesalgarve.pt/en/ports/port-of-sines/

In Portugal, the container sector changed the traditional hierarchy of the national port system. While historically the port of Lisbon and the port of Porto-Leixões were the two main seaports, between the 1970s and the 2000s Sines became a significant player, first for oil, and later for containers. Already in the 21st century, the investment of international cor-

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217   For a detailed explanation of the container sector in Europe see Notteboom and de Langen (2015).

porations such as PSA (Port of Singapore Authority)[218] has given Sines the lead in tonnage and containers [219], becoming an important port not just in Portugal, but also in Europe[220]. Nevertheless, the other Portuguese ports also host container terminals, and the state has expanded them or created new infrastructures.

In the case of Lisbon, a new container terminal has been an old demand to capture international traffic and stakeholders, and benefit from the strategic geographic position, in the crossroads on the Atlantic Ocean. Since the 1970s the state has demonstrated interest on investing in deep water terminal in the Tagus estuary [221]. Initially the port of Sines was dedicated to the petrochemical cluster and Lisbon was considered the main consumer goods port, since around it is the biggest metropolitan area of the country. Later, the liberalization of the sector and the inter-port competition motivated several studies to find the appropriate location of the new container terminal. At the same time, in the late 1970s and early 1980s, APL created in Lisbon the first container terminals (Nabais and Ramos, 1987), but these facilities rapidly became insuf-

Figure 78. Satellite image with the location of Trafaria and Barreiro, the two main options for the new terminal. Base image: https://www.intelligence-airbusds.com/fr/5762-details-de-l-image?img=510#.W3WNFegzY2w

218   In 2004 PSA started operating the new deep-water container terminal (known as Terminal XXI) with a capacity of 2,1 million TEUS. Although the terminal is specialized in transhipment, i.e. changing cargo from one ship to another, it also shares Lisbon's hinterlan, expanding until the western regions of Spain (source: https://www.globalpsa.com/wp-content/uploads/PSA-SINES.pdf visited on July 11th, 2018; http://www.portodesines.pt/o-porto/terminais-portu%C3%A1rios/tcs-terminal-de-contentores-de-sines/ visited on July 11th, 2018). Authors such as Ducruet and Notteboom (2012), explain the phenomenon of transhipment hubs (e.g. Algeciras, Gioia Tauro or Marsalock), in the crossing between different sea highways. These ports are characterized by an unbalanced port-city relation, since they are often located close to small villages or cities, have considerable expansion capacity, without urban constraints, but do not produce added value since there is very little transformation of the cargo. At the same time, in many cases one single company is responsible for most investment, creating a "dependency" relationship between the PA and the terminal operator or shipping line.

219   The port of Sines was in 2017 responsible for more than half of the national traffic (52%) (AMT, 2017).

220   The port of Sines is one of the top 15 container ports in Europe, with 1,67 mill. TEUs in 2017, with a growth of 1012,7 % in the last ten years (2007-2017) (Notteboom, 2018).

221   Information discussed in an interview with APL on July 4th, 2018.

ficient for the increasing traffic. A new terminal seemed necessary, and the logical location would be on the south side of the river Tagus where we could already find other port infrastructure such as silos, petrochemical and agro-food terminals.

New cargo terminal in Lisbon, a long-awaited project

Although already in the "General Development Plan for the ports of Lisbon and Setúbal"[222] from 1972 creating a new container terminal was discussed, the best documented projects have taken place since the late 1980s. These projects have caused significant controversy for their environmental externalities and for the political opposition of municipalities where it was supposed to be developed. Since 1972, APL has performed at least eight plans discussing the new terminal, and in most cases the chosen location was in Trafaria, in Almada, on the river mouth of the Tagus.

Trafaria presented ideal conditions for the new terminal, since there the river depth would allow a deep-water facility, adapted to the largest sea vessels. At the same time, the location on the river mouth saved dredging the navigation channels in the estuary, and the terminal would have expansion potential, far from urban constraints. This approach would follow the classical port-city evolution, of larger port facilities relocating or expanding

Figure 79. Protest against the terminal in Trafaria. Source: Lusa (2013).

downstream, close to open sea. However, this location also included several challenges that affected the development process. The new terminal would have considerable environmental and landscape impacts in a sensible location. Additionally, the new railway and road connections would also require large investments, due to the complex topography, making the project environmental and economically unsustainable.

The municipality of Almada has always opposed the projects in Trafaria, presenting official statements and political actions in the parliament and municipal assembly. At the same time, social groups demonstrated against the new terminal, arguing that the economic and social gains (mostly described as jobs) would not justify the impact in a protected area. They also indicated that it would harm other development goals related to tourism or tertiary industries [223].

222   Translated by the author. Original title: Plano Geral de Desenvolvimento dos Portos de Lisboa e Setúbal.

223   For a detailed account of the events, particularly the public participation in the projects and general process since the 1990s see Malty (2017) "Social participation promoted from the implantation of mega projects in small communities: the Trafaria case, Tejo river estuary of Portugal".

After several unsuccessful attempts, the port authority and the national government tried once again to develop the new terminal in Trafaria in the early 2000s. Although APL's strategic plan (APL, 2007) included several alternative locations in the estuary, it also indicated that Trafaria was still the frontrunner for its natural conditions. At the same time, the port authority prepared specific technical and economic studies to compare these options, but with the underlying goal of justifying the choice of Trafaria.

As we have seen in previous chapters, the Portuguese port authorities follow the Latin landlord model, in which the central government has the utterly development decision. In the case of the new cargo terminal, both the socialist and the centre-right parties have defended the project, often against local politicians and experts such as the engineer associations, regional representatives or social movements. In February 2013 the governing coalition (PSD-PP, centre-right and liberals) presented the plan for restructuring the port of Lisbon[224], including a new container terminal in Trafaria, considering it a crucial facility for national growth. The process followed the same path as before, with local opposition[225] and open discussion[226], been generally rejected[227]. This final rejection led to a new approach both in terms of location and planning[228].

The current process

After the municipality of Almada and the local population rejected the terminal in Trafaria once again in 2013, the government decided to follow a new path, changing the position. The new chosen location was Barreiro, another of the six municipalities of the south side of the Tagus estuary. In previous studies comparing alternative locations, Barreiro was already considered but it did not have the necessary water depth for the largest container vessels. However, this new location presented several advantages, that were also aligned with the new functionality for the terminal, changing its scope from deep-water terminal to multi-purpose [229], not requiring such river depth.

As pointed out by Costa (2007), the south side of the Tagus is a region characterized by large brownfields, left by some of the most important Portuguese industrial complexes

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224   Included in the Plano 5+1 previously discussed in this dissertation.

225   For more information see the websites of the local groups against the terminal. https://www.facebook.com/contentores.caparicatrafaria.nao and http://contentorescaparicatrafarianao.blogspot.com/ (visited on July 14th, 2018).

226   The proposal for the new terminal in Trafaria was rejected by the municipality of Almada (see announcement 106 from the municipal assembly of Almada) and by the general assembly of Lisbon Metropolitan Area (https://www.publico.pt/2013/04/29/local/noticia/assembleia-metropolitana-de-lisboa-contra-terminal-de-contentores-na-trafaria-1592896 visited on July, 14th, 2018).

227   see Malty (2007).

228   The process is described in detail in documents from the municipal assembly of Barreiro, for example in the meeting report of March 5th, 2014.

229   The goal was to plan for vessels of up to 8000 TEUs, long 352 m (Fernandes and Batista, 2017).

from the 20th century, particularly since the 1960s. The CUF/Quimigal was the largest industrial company occupying large extensions of land, some on the waterfront (Fernandes, 2014) [230]. When these industrial conglomerates decayed, these municipalities became mostly *dormitory-towns* for people working in Lisbon, losing their traditional economic model. As pointed out during the interviews with Barreiro municipality, the city is currently too big for its population, presenting several urban voids, socioeconomic problems and requiring new investment to revert the *shrinking-city* dynamic. At the same time, most brownfields are heavily polluted due to past activities, harming the possible regeneration for urban uses. Besides having considerable land reserves, another advantage was the existing railway and roads, saving investment in these infrastructures. The final relevant advantage was that the local authorities, unlike in Trafaria, were whiling to collaborate and would welcome the investment of APL and port companies, given the urban and socio-economic context.

In 2014, APL already commissioned feasibility studies to consulting and engineering firms, to confirm if Barreiro was a good option. The main requirement was to allow a new terminal with a capacity for 2,1 million TEUs, using existing navigation channels. These studies presented a layout for the new terminal occupying the existing brownfields, but also including a second stage in front of the city's waterfront. This last issue could be problematic, since the municipality had already indicated that it was a priority to preserve the view over Lisbon. In the proposal from consulting firm AT Kearney (see fig. 80), we can already see that the new terminal would conflict with the municipality's intentions. In the figure, AT Kearney indicates that this was the most favourable option for the terminal since it would have a "limited" impact over the view compared to other options in the same report. The view would be determinant for the aftercoming events as will see.

In formal terms, APL required new in-depth studies to assess the terminal project. The first step was presenting an application to the 2014 call of "Connecting Europe Facility (CEF)" program from the EU, to get partial funding (50% of 6,56 million €) for studies for the new multimodal platform of the port of Lisbon in Barreiro and Seixal [231]. Although the application was officially led by the Direção-Geral das Atividades Económicas (General Directorate of economic activities - DGAE) from the economic affairs ministry, it was a group led by APL, supported by Barreiro's municipality, Infraestruturas de Portugal[232] and

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230   Besides the Quimiparque of Barreiro, in Almada we can find the Lisnave shipyard brownfield and in Seixal the steel plant

231   See https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport/2014-pt-tm-0666-s (visited on July 12th, 2018).

232   Infraestruturas de Portugal is the national organization for infrastructural development and maintenance. It depends from the central government and at the time the agreement was signed, in late 2014, it was formed by two separate organizations REFER (Portuguese railways) and Estradas de Portugal (Portuguese roads). http://www.infraestruturasdeportugal.pt/ (visited on July 12th 2018).

Figure 80 In the image we see the terminal layout proposed by AT Kearney consulting and engineers. The red line was the limit defined by the municipality to protect the view over Lisbon. In the same report we can read that respecting this limit would reduce the terminal from 2,1 to 1,3 million. The first section of the terminal would not compromise the view, but for economic and environmental issues it was recommended to build the landfill in a single stage. Hence it was necessary to decide at the beginning if the terminal would overpass the red line. In the report we could read that AT Kearney advised to follow the most profitable version of the terminal, i.e. the two phases overstepping the red line, but that it would require the conscious choice of going against the boundaries set by the municipality. The red line is also visible in images from Amaral (2015). Image retrieved from internal document available in APL's documentation centre (n.d.)

Baia do Tejo[233]. Later, on the same year, the different partners officialised the agreement on December 3rd (Fernandes and Batista, 2015). Almost simultaneously, and connected to the content of the application, an agreement with the architectural order was signed to prepare an international competition for the urban concept of the new facilities. This agreement was signed on December 11th, 2014, between APL, Barreiro's Municipality, Baía do Tejo and the OA (Fernandes and Batista, 2015).

The application to European funding presented a broader territorial scope and a holistic approach, involving professionals from different disciplines [234]. It did not just focus on the new port terminal, but included areas in Seixal, a bordering municipality with the same urban socio-economic problems as Barreiro. In interviews, the port authority [235] indicated that the application included a list of tasks, such as the environmental impact study, pre-

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233   Baía do Tejo is a public company responsible for several industrial sites on the south bank of the Tagus. The company, created in 2009, manages several large industrial brownfields in Barreiro and Seixal. The main mission of Baía do Tejo is redeveloping these sites and supporting new economic activities on the south side of the Tagus.

234   The official name of the CEF application was "Designing the Port of Lisbon's Multi-modal Platform", already revealing the holistic approach to the new port infrastructure and the broader territorial demarcation.

235   Interview in APL headquarters on July 4th, 2018.

liminary layout and the urban concept for the area, that was supposed to define the general guidelines for the intervention.

After the application succeeded to gather the EU funding, the project was renamed as ViaLisbon, on September 16th, 2015, in a new agreement with the support of the national transport secretary (see fig. 81). ViaLisbon continued the same multidisciplinary approach from the application, but rapidly launched the call for tenders for the Environmental Impact Report (Estudo de Impacte Ambiental – EIA), and the preliminary study of the container terminal. These tasks were prioritized against others, ignoring the possible incoher-

Figure 81. Concept plan of the ViaLisbon project including the areas of Barreiro and Seixal. Source: https://www.eimpactproject.eu/documents/20543/28210/Via+Lisboa+-+Port+of+Lisbon/1b08443f-016a-4a72-8766-4ad605c10cab

ence between developing a broader territorial concept by the winner of the international competition to be organized by the OA, after presenting a terminal layout and its possible environmental impact. In a way we could say that it was "starting to build the house from the roof down" [236] and rushing certain decisions that could potentially be polemic.

The port authority left aside the innovative approach of preparing an urban concept for a heavy port infrastructure as presented in the application, while the mandatory legal steps (EIA and preliminary study) were done as soon as possible. Although the idea of developing an urban concept has not been officially rejected, since 2015 there have been no communication concerning this issue. On the other hand, to do the EIA it was necessary to present a terminal layout (see box 3). As it was visible in the design presented, it was very much inspired by the previous approaches that prioritized economic and logistic efficiency over the interests of the local population, namely the view, ignoring the *red line*.

In the press and in the interviews with the port authority and Barreiro's municipality we could confirm that the involved actors sustained a dialogue along the process, from the early studies in which Barreiro's municipality set the visual boundary of the terminal, to the most recent developments. In between, APL's management board changed in 2016, but maintained the governance decisions of the previous board. Despite this continuous communication and the clear visual boundary set by the municipality, the terminal layout

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236   This a translation from the Portuguese proverb "construir a casa pelo telhado". In English we could also say "putting the cart before the horse".

Box nº 3
Environmental Impact Evaluation in Portugal– Law DL nº 151-B/2013

According to the Portuguese legal framework, projects that may cause significant environmental impact must have an Evaluation of Environmental Impact (Avaliação de Impacte Ambiental – AIA). This process is defined in the law DL nº 151-B/2013, with the necessary steps and stakeholders. The main organization responsible for these issues is the Portuguese Environmental Agency (Agência Portuguesa do Ambiênte – APA), who is responsible for counselling and assessing projects, and designating the committee (Comissão de Avaliação – CA) that will be responsible for evaluating the process and elaborating the Environmental Impact Declaration (Declaração de Impacte Ambiental – DIA), allowing or not the project. The first (optional) step is presenting to the APA a proposal to define the relevant issues to be assessed (Proposta de Definição de âmbito - PDA) in the Environmental Impact Study (Estudo de Impacte Ambiental – EIA). This is recommendable for complex projects such as the container terminal. Afterwards the project developer must do the EIA, usually with the collaboration of experts from different fields, covering the areas defined in the PDA. The EIA must assess the positive and negative impacts of the projects and the compensatory measures for the negative externalities (See art. 13 and annex V of the same law). The EIA must be publicly discussed for a period of 20 days, after which the APA will elaborate a report with the remarks and handle it to the CA. Afterwards the commission designated by the APA will proceed to evaluate the project, considering the EIA, the public participation report and any other documents considered relevant. The process concludes with the DIA, authorizing or not the project.

included in the EIA (APL, 2017)[237] ignored the remarks of the municipality, blocking the view over Lisbon. This layout was similar to the one previously proposed, in which the first phase would not affect the view, but the second would block it partially. For economic and environmental reasons, the EIA recommended to develop both phases of the landfill immediately, determining future development [238].

The authors of the EIA[239] defended that the new terminal would have an overall positive

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237   The EIA was presented for public discussion during the months of May and June of 2017.

238   Besides the economic advantages of doing the landfill at once, it would also be environmentally positive since it would be possible to use the dredged material from the river bed.

239   The group of companies that won the call for tenders was led by Consulmar, but also included other organizations such as Nemus, Hidromod, Risco e Vtm.

impact [240], while most negative impacts would be relatively insignificant, and they would occur during the building period. According to the authors, the most relevant and durable externalities would occur in the river hydrodynamics and in the river bed for the deposal of dredging material[241], in the geographical configuration of the river for the modifications of the landfill and in the landscape of the waterfront creating obstacles in the view over Lisbon. However, according to the EIA, the positive outcomes (mostly socio-economic) would compensate the negative ones.
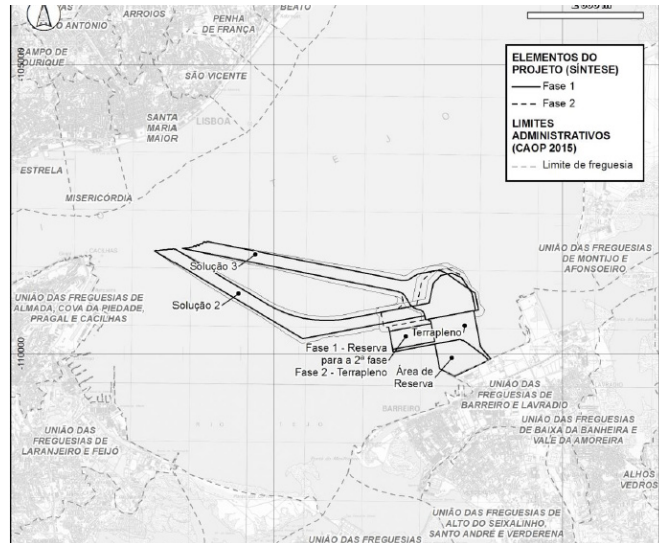
Figure 82. Layout for the terminal landfill proposed in the EIA. (APL, 2017:6)

According to the interviews with Barreiro's municipality [242], APL did not show before the public discussion period the layout of the terminal, surprising the involved actors. The layout shocked the local stakeholders because since the early stages of the discussion it was clear that preserving the view over the river and Lisbon was a priority, and any proposal affecting the view would be rejected. During the public discussion period, the municipality[243],

240   The president of the board indicated in January 2017 that the new terminal would create 1150 jobs and have an impact between 7000 and 12 000 million € in the regional GDP. (https://www.distritonline.pt/plataforma-multimodal-do-barreiroterminal-de-contentores-preve-a-criacao-1150-postos-de-trabalho/). However, according to the EIA, during the construction, between 300 and 500 jobs could be created, and achieving the maximum capacity of phase 1, would imply generating 550 jobs. (APL, 2017: 26).

241   Although the terminal project would imply significant dredging of the river bed to adapt existing navigation channels, this material was considered safe, since it is not polluted and also could be used for the landfill for both phases one and two. For this reason, already indicated in the MC Kearney report, it was recommended to do the landfill for both phases from the beginning since it was possible to reuse the dredged sand.

242   Interview on August 16th, 2018.

243   See https://www.distritonline.pt/terminal-contentores-vereador-rui-lopo-reitera-a-fase-2-nos-moldes-em-que-aqui-e-apresentada-e-liminarmente-rejeitada-pela-camara-municipal-do-barreiro-e-em-concordancia-com-o-governo/

local political parties [244] and environmental organizations[245] presented their concerns and pressured the port authority to withdraw the proposal.
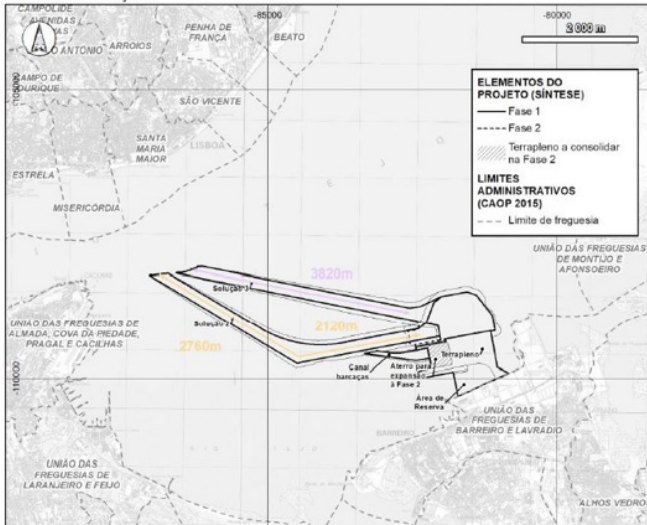
Figure 83. Terminal layout proposed in the EIA from October 2018. We see that the terminal has a more compact organization, and that it has been displaced towards the east, reducing the possible visual impact. Source: RNT EIA, (APL, 2018:5)

In July 2017, after assessing the public and political rejection of the local stakeholders, the port authority retrieved the report, and stopped the AIA, to form a new team and try a different approach. Finally, in October 26th, 2018 the new EIA was made available for a new public consultation period. Since the process was not concluded until the end of this research, it is not possible to comment on its outcome. However, we could see that APL and the companies responsible for the EIA presented a new layout for the terminal responding to the previous criticism (fig. 83).

The new version of the terminal presents a more compact layout, reducing the berth from 1500 m. to 1375 m, which implied reducing the capacity from 2 million TEU to 1,74, with the logical economic effects. At the same time, in the western edge of the new terminal it is included a new area for barges to potentiate the river as waterway for cargo vessels. This measure would reduce the pollution associated with logistic operations related to the port.

Although the new layout demonstrates greater sensibility to issues like the view from Barreiro, the EIA also explains that the visual impact will still be considerable. Despite reducing the capacity of the terminal, the positive socio-economic effects will still be significant for a city like Barreiro, creating 550 jobs. Only after the public discussion period we will be able to know if the local authorities support the project and if the environmental agency gives the final approval.

Reflections on the cargo terminal project

We decided to analyse the new cargo terminal project because it shows the constant back and forward process that occurs in port development, and the influence institutions have

244   See https://www.esquerda.net/artigo/associacao-zero-rejeita-terminal-de-contentores-do-barreiro/49643 and https://www.rostos.pt/inicio2.asp?cronica=2001471

245   See https://zero.ong/zero-defende-revisao-significativa-do-projeto-de-terminal-de-contentores-do-barreiro/ and Zero (2017).

in the decision making. When we observe the development of the port of Lisbon in recent decades, we see that this terminal was a coveted infrastructure. However, when the port authority found an appropriate location and municipal partner, the process failed because it chose to follow the "business as usual" approach, rather than sticking to the innovative path it had itself proposed. Although the innovative approach to the new terminal project reached consensus among the involved actors, from national to local, the port authority finally took a sectorial attitude, prioritizing its own goals and agenda as defined by the governing institutions, against the conditions given by other partners.

The process was marked by a constant alternation of positive and negative aspects. The port authority was motivated to try a new innovative approach since it had previously failed to get the local support to implement a similar project. This approach was a step forward and could have contributed to a sustainable port-city development, both in Barreiro and in the broader metropolitan area. However, despite the support of the EU, APL finally followed the traditional conception of its role, answering to the institutional mandate. It prioritized the legal demands (having an EIA) and immediate results instead of following a holistic approach. Although initially the port authority tried to innovate, incorporating other factors to the decision-making process, finally the approach prioritized the economic pillar, instead of integrating all at the same time.

The ViaLisbon project was an example of co-construction of port infrastructure, both for the interdisciplinary approach and for the constant dialogue with local stakeholders. At the same time, it proposed a win-win solution, since the environmental impact would have been reduced, compared with other blue field or green field port expansions, and Barreiro would have received the investment it required. However, institutionally, the port authority was not required to pursue a holistic cooperative approach, and the final decision pended from the governance. As it happened in the cruise terminal, the first layout of the project was rejected, and APL was forced to reconsider and present an alternative. The new approach takes into consideration the concerns regarding the view more seriously, sacrificing commercial capacity. This change could be considered a positive step, trying to find a compromise. Although the process remains opens, and we cannot assure the reaction of the local government and the people, the most recent approach could finally gather the necessary support for its development. During this process, it was visible in the decisive decision-making moments, how an institution such as the conservative conception of the port authority and the port still dominates over innovative, path-breaking alternatives.

In this process, it is also relevant to notice that there was a leadership change, that could have chosen to redirect the approach to the original proposal of ViaLisbon. However, this did not happen, leaving two possible conclusions: either APL's leadership always tries first the conservative approach, prioritizing economic results regardless the people in charge, or the conservative approach is entrenched in the port authority. Both options imply that the narrow conception of the port authority is not only legally supported but is also normatively expected, and culturally taken for granted, particularly in the corporate culture of the organization.

5.10. Conclusion of the Lisbon case study.

The three focus projects in Lisbon show us the main institutions governing the port-city relationship: the post-modern waterfront imaginary and a narrow conception of the port authority. In these cases, we can also see that it is not simply a matter of the legal definition of actors such as the port authority. These institutions are also socially supported and culturally embedded. The regulatory pillar of the institution is combined with the expectations society has for a part of the city (the waterfront), and for the behaviour of the port authority as one key actor. In the moments when the port authority deviated from the expected role (for example in the POZOR), despite proposing a regeneration of the industrial waterfront, it was socially rejected, causing confusion about its role and motivating an institutional rigidity process to legally reduce its capabilities. However, in a later moment, when the port authority strictly followed its role as defined in the governing institutions (seeking above all economic profitability and logistic efficiency), in both the cruise and container terminals projects, it was also contested and accused of been reckless. This situation shows how difficult it can be for the port authority to cope with the expected demands from the national government, from the local society and from the port companies.

These projects are a good example of how complex, unstable and mutable the port-city relationship can be. It also shows how difficult can be for the port authority to balance the official goals (profit making, efficient cargo handling, etc) with the social ones (environmental protection, accessible waterfront, leisure by the water). We have also seen that there is no single vision for the port-city relationship and for the waterfront. Although the post-modern imaginary is predominant and socially embedded, there are also minority dissonant voices that defend other approaches. However, the main issue in the case of Lisbon was the lack of definition and changing position of the local and national government about the port. In the end, as one interviewee from APL indicated, the key question is: "do we (society and the government) want the port in Lisbon or not?". An undefined future is harming the port-city relationship and undermines the will of the actors to roundly engage in initiatives that aim at long-term sustainability.

The terminal projects show us that port development ideas are difficult to change. Although the port authority struggled to get social support for port projects in the past, it did not change its approach on most recent plans. Furthermore, when it proposed an innovative process, like in the container terminal, it failed to pursue it until the end, going back to old habits. In both cases fail was necessary to force a change in the governance process. The final outcome can be considered positive since the port authority finally presented a new approach, answering to social demands. The compromise resulted in a good solution for the waterfront, combining interests from the port authority, the people, municipality and port companies. Two questions remain: if these changes will modify APL's approach to waterfront projects, and if this is the beginning of a process of institutional change in which the conception of the port authority is broadened to include other goals besides the traditional ones.

At the same time, both terminal projects also leave us interesting arguments regarding the urban location of ports and the influence society can have in infrastructural plans. If the goal of the government is to keep the port of Lisbon in the urban waterfront, then, it seems necessary to develop and "urban conscience" for this kind of infrastructure. The days in which port or industrial projects were easily imposed on the territory are long gone in Europe. In the case of Lisbon, we could see that port projects developed in close contact to the city are under extraordinary scrutiny since the people will feel them closer to their everyday life. This scrutiny forces the actors to innovative and find the best possible solutions. Although it may drag the decision-making process it also contributes to finding long-term sustainable solutions. Considering the almost permanent effects of infrastructural projects, extra time for the discussion seems justified.

The scrutiny is another argument for keeping ports in the urban tissue. In these locations, port companies are more controlled than in ports developed far from the "public eye". At the same time, the port projects we analysed confirm the argument of Healy (1997), that in the municipal context is where governance and institutions are more clearly mutually influencing each other. In these port urban projects, we could see how the engagement with the citizens have forced processes that could lead to institutional and governance change. This is the scale citizens understand better, but also where they can more easily organize actions to pressure the port.

In Lisbon we could also confirm that the institutions that govern the port-city relationship respond to the specific exchanges occurred between the key actors in the past decades. The expectations for the waterfront and the role of the port authority today are conditioned by the events occurred in the late 1980s and 1990s. This demonstrates what North (1990) and Hall (2003, 2007) have explained, that institutions are geographically and historically bounded.

When we compare Lisbon to the other cases, we see that although the municipality developed the PGIFR for the waterfront, it is not comparable to the plans of Genoa, Rotterdam or Marseille, where port and city programs were equally considered. Although this plan was a positive step, port and city remain separated, collaborating in specific projects, without a common vision. As mentioned before, this common vision may only be possible once the future of the port in the metropolitan and the urban waterfront is clarified. However, the positive steps taken in the terminal projects could improve the port-city relationship in the long term. These examples could inspire solutions for other cases such as Oslo or Helsinki, where the passenger traffic is also a significant function on the waterfront.

In the case of Lisbon, we have seen how the post-modern waterfront imaginary has governed most plans for this part of the city, showing evidences of being an institution. This was visible from the beginning of the debate about the riverfront in the late 1980s, to the (post) Expo plan, to the most recent initiatives encompassing the complete waterfront (PGIFR). The municipality has pressured until recently to transform waterfront sections into green areas and museums, also resulting in *ad-hoc* legal arrangements. The failure of

the only two locations where hybrid waterfront models were suggested, demonstrates how the dominant imaginary is socially and culturally embedded. The plans for these areas have faced more governance uncertainties regarding the role of the actors, the decision-making capacity, and overall the interest to complete the project. If decision-makers still intend to regenerate these areas following a different path, they could follow the example of Rotterdam. We saw that here, port and city actors found an agreement and even created a specific plan and organization for the transition from *port only* to *port and city* and for the future of these special locations. The issue in this case is that the governing institutions in Lisbon are stronger and stiffer than in the Dutch case.

In conclusion, in the case of Lisbon we could see that the institutions governing the port-city relationship reduce the capacity of the port authority to act for a sustainable relationship. These institutions are oriented for an *either/or* future, i.e. the port areas and the port authority should only focus on core port activities, and the urban waterfront should be used for leisure and managed by the municipality. The port authority is not institutionally crafted to answer to some social demands, particularly regarding sensitive issues such as transparency or the visual connection between the water and the city. In the most recent projects, the common denominator was the view, or better saying, the lack of it. This appears as a relatively "delicate" matter, that the traditional port development culture is not prepared to handle. The legal framework does not oblige the port authority to pay attention to these "details", and the focus remains on economic results, eventually at the expenses of the quality of the built environment. It is not necessary, nor mandatory, to present or include an "urban" or landscape approach to port projects. This situation feeds the argument that the port authority should not manage areas that are not for exclusive port activities. The question remains if the leadership will be able to reflect on what happened in the recent projects and implement governance changes that lead towards sustainable port-city relationships.

Chapter 6. Conclusion

6.1. Introduction

The original motivation for this research was to understand the port-city relationship in Lisbon, its problems, challenges and actors. In the Portuguese capital, the port still occupies a central section of the waterfront, while the municipality and the citizens have increased the pressure to gain access to the Tagus river. Port and urban actors have different perspectives and expectations on the port-city relationship, and thus waterfront projects become a stage for exchanges and tensions between the port authority, municipality, local pressure groups and private companies.

Over the last thirty years, leading academics such as Hoyle (1988, 2000) have developed well-known theoretical models that explain the evolution of port-city relationships in Europe. When we first consult Hoyle's work, we see that cases where the port remains in the urban tissue, such as Lisbon, do not fit well within his model. This discrepancy increased our curiosity about the evolution of port-city relationships, existing theoretical explanations, its current state in Europe, and to what extent the relationship is or can become sustainable in the long term. Besides a personal motivation, the literature shows that port cities are a permanent conundrum that inspires researchers from many different fields. In contemporary practice, dealing with port-city relationships means dealing with key policy issues such as sustainable development, e.g. the delicate balance between the economic performance of the port, its environmental footprint, and the social well-being of citizens.

Motivated by the academic literature and what we could observe in Lisbon, we looked for the best way to analyse the port-city relationship in Europe today. This quest has taken us to the work of geographers and planners such as Olivier and Slack (2006), Notteboom et al. (2013), and Daamen and Vries (2013). These authors reconceptualize ports and port cities as communities of actors. This means that a port city and the port-city interface should not (only) be seen as a physical space or territory, but as a community or group of actors, of which the port authority is only one. In this perspective, the analysis of the port-city relationship as a territory of functions, as Hoyle (1988) does, shifts to an analysis of actors, and more particularly the rules (institutions) and relations (interactions) that shape the decisions they make when developing the port and urban waterfront projects. In this thesis, we thus define the port-city relationship as both the process and outcome of rules and actions (re) produced by the actors involved in developing waterfront projects within a port city. We structured our research around two main questions:

1. What rules and actions govern waterfront projects in European port cities?

and

2. To what extent do these projects (re)produce sustainable port-city relationships?

The first research question reflects our actor-centered institutionalist approach, following Scharpf (1997), our geographical context, Europe, and our focus on the rules and actions governing waterfront projects, as seen in chapters two, three and four. The second question shows our concern for sustainable outcomes and contributing to current debates taking place on this issue between academics, practitioners and international organizations concerned with the evolution of European port cities.

To answer the main research questions, we set out to answer sub-questions such as:

How can sustainable port-city relationships be defined and evaluated?

What roles do port authorities play in waterfront projects in European port cities and what rules govern these roles?

How are port authorities trying to develop a sustainable port-city relationship in Europe?

What institutions are apparent in the process and outcome of concrete waterfront projects in Lisbon, and to what extent are they reproduced or challenged?

After confirming that—unlike what theoretical models have pointed out in the past—ports are still geographically inside cities, we decided to adopt an actor-centered approach to the port-city relationship. By doing this, we build on the most recent literature on the topic, mostly from geographers, planners and maritime economists who use socio-political concepts to explain the processes and outcomes apparent in contemporary ports. This literature indicates that to understand the port-city relationship we must focus on the actors and the rules that guide their interactions.

The perspective of actor-centered institutionalism employed in this thesis allows us to better understand the behaviour of actors that shape the European port-city relationship (Daamen & Vries, 2013). This perspective implies accepting that actors operate following humanly devised rules (institutions) that are both explicit and implicit, but that these same rules can be challenged through governance decisions (see chapter 3; Scharpf, 1997; Healey, 1997). The effects of institutions over the actions that shape the port-city relationship are visible in the projects that, to many scholars and practitioners, represent the physical port-city interface and urban waterfront. In this research, we focused on the behaviour of a primary actor affecting the port-city relationship, the port authority, and the way its institutional framework influences concrete governance actions in the context of waterfront projects.

To answer our research questions, we analysed and compared six European port cities (chapter 4) and studied Lisbon in detail (chapter 5), from the above perspective. The questions we formulated required a direct contact with practice, not relying only on the literature from acknowledged authors, but also interacting with the actors in the context of different European port cities. One of the goals was to assess existing theoretical models. Hence, we had to analyse the port-city relationship in different waterfront projects, and directly ask key individuals how they perceive the project and the ways it affects port-city relations. The

interviews became a crucial source of information to compare what is recorded in plans and other formal documents with what is actually done and experienced in practice.

In this final chapter, we first present the findings from the comparative and in-depth analysis through the lens of actor-centered institutionalism, answering our main research questions. The case of Lisbon must be situated in the spectrum ranging between innovative and conservative governance practices formed by the six European cases. In the following section, we answer the main questions posed in this research, building on the empirical results and positioning it in the relevant literature. Our empirical analysis will show that dominant waterfront imaginaries and development models can be criticised regarding their contribution for sustainable port-city relationships, and that governance capacities often assigned to port authorities in practice can also be questioned. In the third section, after presenting the findings, we provide recommendations resulting from the research for port-city planning and governance. In the final section, we reflect on the research findings, discussing possible limitation and new research avenues.

6.2. Findings

This thesis shows that there are two dominant institutions governing the role of the port authorities in waterfront projects and the quest for sustainable port-city relationship in European port cities. The first is the narrow social and legal conception of the mission, priorities and capabilities of port authorities. The second is the post-modern waterfront imaginary that predominantly guides urban planning strategies for the waterfront and social expectations for this part of port cities. These two institutions are affecting the relationships between the port authority and other actors involved in waterfront projects negatively, i.e. they do not contribute to processes and outcomes that lead to sustainable port-city relationships. However, we could also see that in some cases, port authorities are deploying innovative governance approaches that seek to improve the port-city relationship. In these cases, actors are occasionally stretching existing rules, such as the exclusive economic focus of port authorities. For example, some port authorities are developing innovative planning solutions together with municipalities, universities and private actors for waterfront projects, integrating other issues (public space, educational facilities, cultural activities) beyond their usual scope. This tension between conservative and innovative port-city governance resonates well with the theoretical choice of actor-centered institutionalism, since it demonstrates that actors (port authorities) can influence institutional settings, as predicted by Healey (1997) and demonstrated by other authors such as Daamen and Vries (2013).

One important issue found in the case studies is the dependence on appropriate leadership and local political and social activism and expectations to implement sustainable approaches to waterfront projects. At the same time, pursuing (more) sustainable port-city relationships often remains a normative rule, not a legally binding priority for the port authority. The two dominant institutions are complex and legally and socially supported. At the same time, they are often in conflict, and relate between themselves. However, these institutions are not isolated elements, they are supported by different pillars as Scott (2014) indicates.

In the case of port-city relationships, both institutions have gained supporting elements in regulative, normative and cultural-cognitive terms. In the analysed cases we could see that either evolving from a legal root (definition of the port authority) or from urban planning processes (waterfront imaginary), they have expanded until they became supported in different ways.

As indicated by Scharpf (1997), the abstract notion of institutions becomes more clearly evident when analysing actual practices, in our case in waterfront projects in European port cities where urban and port actors have been forced to interact. These projects showed the need to stretch the institutional framework, i.e. to go beyond the landlord model of the port authority as it is legally and socially accepted. The projects demonstrate that institutional stretching is possible and necessary, that the current institutions can conflict with sustainable port-city relationships, but also that it is possible to find solutions that allow port activities in the urban waterfront. These solutions emerge from innovative port authority governance efforts that attend to environmental and social concerns while pursuing the economic and logistic mission of the port. However, the success of these efforts will depend on the persistence of actors and if they take the step needed to transform the institutions governing the relationship.

Table 8. Synthesis of the institutions affecting the port-city relationship. The arrows indicate the influence between the different institutions. In the last row, Sustainable port-city relationships is gradually becoming supported by the normative pillar, but not in the other regulative and cultural-cognitive. With the arrows we express the influence that the regulative and cultural elements of the two dominant institutions have over sustainable port-city relationships.

Institutions	Regulative pillar	Normative pillar	Cultural Cognitive pillar
Narrow definition of the mission, priorities and capabilities of the PA	Laws defining the goals of the PA, emphasizing economic performance over social and environmental aspects. PAs are only allowed to invest in port development. Legal obligation affecting employees—mostly PA leaders.	Strategic Plans from PAs and governments confirm the economic mission of the PA. PA employees assume that their mission is concerned only with port issues.	The exclusive focus of PAs on economic and port issues of PAs is taken for granted, becoming a cultural construction. Urban issues are not the responsibility of the PA.
Post-Modern Waterfront imaginary	Urban Planning laws force PAs to release port area that it is no longer useful for core port activities, for transformation for urban programmes. Municipalities must comply with the law to transform the waterfront for new leisure-oriented urban uses. They draft masterplans that defined the use of the land and are legally bounding documents.	Urban actors and society see and expect the transformation of the waterfront to be the best alternative better for the city. PAs respond to social expectations by releasing waterfront land for redevelopment and public access. Municipalities answer to social expectations to create green and public spaces by the water.	The idea that the port will sooner or later leave the urban waterfront for redevelopment is seen as the "natural" order of things and taken for granted, evidenced by other cases. Port and urban activities are incompatible for security and/or environmental reasons. Tourism, offices and housing are considered more appropriate for the urban waterfront.
Sustainable port-city relationships	Lack of legal responsibility to develop hybrid waterfront projects favouring sustainable port-city relationships, since it does not comply with PA economic mission or urban transformation obligations.	Strategic documents, public interventions and international organizations call for a (more) sustainable port-city relationship. Sustainable development is a global moral mandate.	Port and city co-existence on the waterfront is socially regarded as inconceivable for the long term.

Narrow definition of Port Authorities, its priorities and responsibilities.

The first institution we consider is affecting the port-city relationship is the narrow definition of port authorities, focused exclusively on economic results and supply chain efficiency. This institution was analysed more in-depth in Lisbon, where we could do more interviews and study the law in detail. But it was also detected in other cases as we will explain below.

It is undeniable that ports are crucial elements of regional, national and European economic and logistic structures (e.g. Ten-T corridors) and that port authorities are a relevant actor in port communities and supply chains. However, a narrow definition of their role reduces its capacity to develop innovative initiatives in which other dimensions of sustainable development can be included. The narrow definition of the port authority mission, as an institution, has a regulative, normative as well as cultural dimensions and is thus extremely powerful and persistent. We could clearly find examples of all three dimensions in the case of Lisbon. First, we found that the attributions of the port authority and its capacities are recorded in several laws that do not include the port-city relationship as one of its priorities (e.g. DL 309/87; or DL 336/98). As we have shown in chapter 5, the laws emphasize economic results only, and define indicators that assess the economic performance of the port authority and its leadership.

In Lisbon, we could also see that the strict legal definition of the port authority's mission and priorities have normative and cultural-cognitive effects. The way the law defines this organization has propitiated a conservative self-conception of their role, focused on port affairs and acting independently. This self-conception can be understood as a normative rule that is clearly apparent in some aspects of the most recent port projects in Lisbon's urban waterfront. For example, when the port authority presented an initial image for the cruise terminal, it included economic activities that would make the project more attractive for international developers but less acceptable for local stakeholders and more aggressive for the urban waterfront. This approach was also visible in the plans for the new cargo terminal, when the port authority disregarded municipal concerns about the visual connection with the river, prioritizing a better technical and economic layout. In the same project, the port authority also decided to neglect a holistic approach that it had itself previously proposed and follow the minimum compulsory tasks to develop the terminal. The self-conception that led to these plans was also evident in the interviews results. Port authority employees indicated that there was an internal conservative self-image, that their organization should focus on affairs prioritized by the law, since that is what it is expected.

A conservative conception of the port authority can also be regarded as a cultural-cognitive rule, which is visible in the Lisbon case as well. As Scott (2014:60) indicates, this institutional pillar relies on a "taken-for-grantedness", i.e. that it is a shared understanding in society. In the case of port authorities, its conservative and "hard-port focus" conception is socially taken for granted. When a cultural conception is contested, it generates confusion and controversy. This happened to Lisbon's port authority in the 1990s, when it presented its plans to redevelop the part of the waterfront that was under its jurisdiction and within the capacities the law recognized. The debate that followed these plans was not only concerned with the quality of the plans, but also with the planning powers and expected duties of the port authority. As we showed in chapter five, critics of this last issue not only considered that the port authority was overstepping its mandate, but also attempted to redefine their legal framework so it would reflect the socially shared conception of their mission.

The narrow definition of the port authority was also visible in other European cases, mostly concerning rules limiting the capacity to invest port income in non-port projects in the port-city interface (see ch. four). While in some cases, like in Hamburg, the port authority has gone beyond port functions to invest in green energy, in others there is a strict definition of their investment capacity (Acciaro et al., 2014). For example, in Oslo, the law was changed to allow the port authority to invest in waterfront real estate development, as long as revenues would be exclusively reinvested into port infrastructure (Børrud, 2007). In the case of Genoa, we could confirm in the interviews that the port authority required an authorization from the central government for any investment, mostly urban ones. The central government would only allow urban oriented initiatives if they were integrated in compensatory measures of port projects. This obviously limits the capacity of the port authority to give back to the port city hosting the port, reducing the possibility of compensating negative externalities, and contributing to projects that pursue a sustainable port-city relation. As pointed out by Merk (2013) in chapter two, the main issue affecting the port-city relationship remains the imbalance between positive and negative externalities.

Post-Modern Waterfront Imaginary

We consider the post-modern waterfront imaginary the second main institution affecting the port-city relationship in European port cities. To support this, we have findings on both our comparative case study (chapter 4) and the in-depth case (chapter 5). This institution considers inevitable the relocation of ports to leave space for urban waterfront regeneration for new programs, such as housing, offices and leisure. The post-modern waterfront imaginary emerges from the combination of two phenomena and is also supported by three institutional pillars.

The first main phenomenon is the waterfront redevelopment plans that have taken place in port cities around the world since the 1960s. These plans, prioritized transforming central port brownfields into new tertiary districts, representing a post-modern society, with a post-industrial urban economic model. These interventions, as we have seen in chapter two and four, gained an aura of success (Breen and Rigby, 1996) and became the new standard for urban waterfronts in the social mindset, for real estate companies and politicians. The second phenomenon, linked to the first, is the general assumption that the "normal" evolution of the port implies relocating its terminals outside the urban tissue for technologic, maritime and logistic reasons. This phenomenon was ratified by geographers in several models explaining the evolution of the port city interface (e.g. Hoyle, 1988), and prone to be "cherry-picked" by politicians to justify certain planning decisions. Many ports have expanded outside the historical central location, but it is also true that many others have preserved port facilities within the urban territory. Both phenomena have been combined forming a port city evolution discourse, used to justify the transformation of the waterfront, without considering alternatives such as hybrid plans mixing port and urban functions. This discourse has already been contested by scholars (see chapter 2), regarding the theoretical success of waterfront plans, and the spatial evolution and disconnection between port and city (chapter 2). Nevertheless, as authors such as Wiegmans and Louw

(2011) have explained, this discourse has become an institution, that is pressuring the port while it is supported by all three pillars and is visible in most European port cities.

In the cultural-cognitive pillar we see that society expects the port to leave the city, and takes for granted that it will happen. The interviews in Lisbon revealed that for most locals, the port migration is seen as something inevitable. Sooner or later the waterfront will be "logically" transformed for public and green spaces, "sprinkled" with cultural or leisure facilities. This issue was also visible in the political discourse. Although initially the presence of the port was defended, we found evidence in which the local and national politician argued for "reconquering" Lisbon's waterfront for urban uses. At the same time, they also defended the relocation of port activities, despite lacking the support of the local community where the new port terminals would have been built (see chapter 5).

In other European cases, the influence of the post-modern waterfront imaginary is even clearer. In Marseille, as also indicated by Daamen and Vries (2013:12), the local community assumed that since the port had a second location 40 km away, the east basin was declining, and it would inevitably relocate. In this case, the cultural-cognitive pillar was strong enough to make the port community initially reject any waterfront project, even before knowing the full scope of the operation. In the interviews with the GPMM, they indicated that there were considerable conflicts, since certain sections of the port community assumed that the Euroméditerranée operation would automatically imply the relocation of the port, affecting their lives. In the case of Oslo, the waterfront regeneration was associated with the new post-industrial economic model, based on white collar jobs in luxury offices and condos, and world-class cultural facilities such as the opera. In Rotterdam, it was assumed that the destiny of the remaining port areas inside the highway ring would follow the same fate as the Kop van Zuid. However, later, an alternative plan would have to be enforced, since the post-modern waterfront redevelopment scheme failed.

The case of Rotterdam shows how strong the cultural-constitutive pillar is, since even in a case in which the physical conditions for waterfront redevelopment changed, the waterfront imaginary remained the same, and no alternatives were initially conceived. In this case, the Kop van Zuid had a location, scale and conditions that contributed to a positive result following the traditional scheme. However, for the remaining port areas inside the highway ring, the planners and politicians in charge did not consider that the location was not central in the city, that the scale was considerably larger than the Kop van Zuid area, and that this was in fact still a very active port area. Despite the different conditions, the waterfront imaginary was not rethought nor updated, and acted as an institution, guiding the leading actors to imitate solutions that had worked in the past, and seamed successful.

The post-modern waterfront imaginary is not just taken for granted but has also generated expectations in society and in urban planners and architects. In port authorities, representatives from the planning departments explained during the interviews that they also felt the pressure to comply with the social expectations for the waterfront, particularly in waterfront areas that were no longer exclusive for port activities. At the same time, as

Witte et al. (2014) indicates, institutions can also include other documents that lack the coercive powers of laws. In our understanding, these documents also contribute to the normative pillar, supporting the social expectations towards the waterfront. For example, in Lisbon, the municipality elaborated a strategic document, the PGIFR, that presented a vision for the complete waterfront emphasizing the leisure orientation (see ch. 5). Although this document was a positive step in the relationship between the municipality and the port authority, and it was not legally binding, its main concepts supported the post-modern waterfront imaginary.

In the studied port cities, we often found a paradoxical situation regarding the normative support of the post-modern waterfront imaginary. Real estate companies responsible for waterfront redevelopments often use romanticized maritime images in their marketing campaigns, including anchors, ships or ropes. However, this phantasy is disconnected from the real image of ports today. These companies foster false images and expectations, that are only possible in the post-modern waterfront imaginary, musealizing port gear "heritage". As one interviewee from Hamburg Port Authority explained, "it is some sort of urban schizophrenia, people want the port image, but they don't want the real port" .

The post-modern waterfront imaginary is also supported by regulative structures, such as planning laws. In the case of Portugal, we could see that the waterfront ambitions of the municipalities following this institution were translated into laws forcing the port authority to release inactive port land. On this land, the port authority could potentially develop hybrid uses that would facilitate the port-city relationship. Instead, the laws of 2008 (DL 100/2008) and 2009 (75/2009), along with previous smaller agreements, reinforced the perception that the waterfront transformation into urban activities was inevitable. This would affect the interest of the port authority in investing in hybrid uses, since this land would come under municipal control. At the same time, the municipality presented the urban masterplan, a legal document determining the possible programmes to be developed, in which the riverfront is destined for leisure uses. In the interviews with the CML, it was said that the riverfront is considered one of the major public spaces of the metropolitan area, not just Lisbon. At the same time, they were already preparing plans for several port areas currently under port authority jurisdiction but prone to be urbanized.

The regulative pillar supporting the post-modern waterfront imaginary resonates with the other institutions affecting the port-city relationship. A narrow vision of the port authority mission is aligned with transforming the urban waterfront for non-port uses. If the port authority is limited to core port activities, it is then logical to assume that the areas that are not destined to these port activities should be removed from their jurisdiction. Both institutions are reinforcing themselves, a narrow definition of the port authority cannot include hybrid functions, nor can it conceive other responsibilities beyond the port activities as they are now socially and legally recognized. This supports the idea that port areas no longer useful for these core functions should be in the jurisdiction of other organizations, such as the municipality. At the same time, the post-modern waterfront imaginary does not conceive hybrid functions for the urban waterfront, nor the presence of the port in the long

term. Since core port activities will relocate outside the urban waterfront, the area should be handed over to the municipality or development agencies. This reinforces the idea that the port authority should only focus on core port activities. In the cases we analysed, this circle was only broken when the conservative conception of the port authority and the waterfront imaginary was not possible, and innovation was necessary.
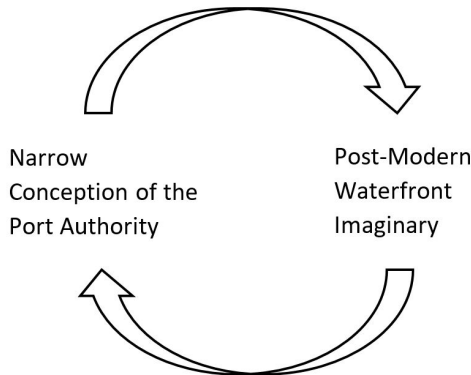
Figure 84 Feedback loop between the two institutions governing the port-city relationship.

Ports remain in cities: between innovative governance and business as usual.

In the cases we analysed, we confirmed that port and city remain in contact, as Hall and Jacobs (2012) had already defended. Although these authors emphasized the metropolitan scale, in our sample of case studies we could also see that the port-city connection also persists even in central locations. This permanent connection has occasioned different reactions to the governing institutions. While some port authorities have (partly) complied with the mandate of the institutions, retrieving most port activities from the urban waterfront, succumbing to urban pressure or technical needs, others have found new innovative governance solutions to strive for sustainable port-city relationships. However, in the cases that followed a conservative approach to urban waterfront planning we could see that there are no "pure" solutions, since port activities did not disappear completely.

In some cases, like Helsinki or Oslo, almost all heavy port industries have been relocated to new terminals far from urban functions, apparently following Hoyle's (1988) model. However, in these cases, ferry terminals in central locations in the urban waterfront remain important logistic facilities for ro-ro traffic, causing tension with the city, contradicting the idea of a complete port relocation. In other cases, like Hamburg, Marseille, Genoa or Rotterdam, we can observe that heavy port activities take place close to central urban locations. Some ports, despite having main facilities far from the city centre (e.g. Maasvlakte 2 – Rotterdam, or Fos – Marseille), have specific terminals in the urban waterfront. The case of Genoa is more explicit, since the complete port develops along a strip of land

parallel to the urban tissue. In these cases, there were post-modern waterfront regeneration projects. However, both institutions previously explained conflicted with the physical and political port city geography, and new solutions were necessary. For example, in the case of Rotterdam, the Stadshavens project has evolved into an alternative to the post-modern waterfront regeneration imaginary. This plan now mixes port and city uses according to a long-term transition process, and the port authority involved itself in projects with a hybrid character, such as the RDM Campus. In this case, the port authority went beyond the traditional landlord model (Vries, 2014; Lugt, 2015), considering other values for a sustainable port-city relationship than just the economic. In the case of Marseille, we could see that the port and the city found a long-term agreement for the urban waterfront, visible in the Chartre Ville et Port. This agreement included architectural solutions mixing port and urban functions, such as Terrasses du Port or the Silo.

In the case of Lisbon, we can also observe that in two important waterfront projects (cruise terminal and container terminal) the port authority was forced to innovate. Here, the usual approach emphasizing economic results, as the dominant port authority conception indicates, failed. In the cruise terminal, the port authority's initial approach faced broad opposition, forcing them to reconsider. The new proposal included the social demands for visual connection with the river, reducing the barrier effect, integrating public space. In the project for the container terminal, the port authority started an innovative approach, including dialogue with local partners. However, later, they focused on economic profitability presenting a terminal layout against the preferences of the local population. This opposition forced the port authority to retrieve their original design and reconsider their approach. In this case, as in the previous ones, failure was necessary to seek for innovative approaches. The new approaches included other values than economic and logistic results, emphasizing other pillars of sustainable development, visible in hybrid waterfront uses.

End of port unity – Urban pressure breaks the territorial unity of the port

This research also contributes to the field of port city studies providing a new actor-institutional perspective on the physical configuration of the port, the port-city interface and the urban waterfront. In chapter two, we departed from Hoyle's (1988) explanation of the port-city interface and confirmed that the approach of Olivier and Slack (2006) that emphasizes the importance of the actors and governance structures—also apparent in the work of Hall (2003, 2007), Jacobs (2007), Wiegmans and Louw (2011), Witte et al., (2014,) and Daamen and Vries (2013)—provides a more powerful conceptual framework to explain the spatial evolution of port cities. In chapter three, we argued that Hoyle's stages of the port-city relationship have grown to oversimplify empirical realities in European port cities. In the Nordic cases, we could see that the main terminals are outside the urban tissue, in other cases such as Hamburg, Lisbon or Genoa, the heaviest port activities are close or in front of the city centre. At the same time, we could see that focusing on the actors and their relationships we can understand the decision-making process and the reasons behind the present physical configuration of the urban waterfront and the port-city interface.

This new approach is reflected in the fragmented territorial configuration of ports. Geographers (Notteboom and Rodrigue, 2005; Ducruet, 2011), had already defined this process as *terminalisation*, i.e. the fragmentation of the spatial unit of the port, becoming an ensemble of terminals over a broader territory. This expansion of the port outside the original port site, is followed by regionalization, in which new facilities and logistic areas are created in a more extensive scale, relying on infrastructure such as roads and railway. However, in this research, following the work of Wiegmans and Louw (2011), we showed that this fragmentation also occurs for urban governance reasons. Urban actors, such as the municipality, social groups and private companies pressure the port, demanding access to the waterfront, not just in central port brownfields. New hybrid projects are not just an innovative solution for certain terminals, but they are a consequence of the new power equilibrium in specific situations, where the local pressure groups demanded new solutions including their priorities. Hence, the break of the port unity is not just a matter of port needs, but also of urban actors demands.

The port-city relationship becomes increasingly entangled, both physically and in terms of governance, for example concerning environmental issues (noise and fumes), traffic management, or compatibility between functions. For this issue, we could also see how port city actors struggle with the governing institutions. For example, in international congresses and policy documents (see ESPO, 2010), the ISPS code is considered a major impediment for its security constraints. However, in several cases, we could find examples where the ISPS code was reinterpreted following an innovative governance approach that would allow hybrid facilities. This for example occurs in cruise terminals, where urban functions such as public space, shopping areas or cultural facilities are combined with port functions. In Lisbon, the new cruise terminal includes a publicly accessible rooftop (see chapter 5), and in Marseille the Terrasses du Port and the Silo (see chapter 4) allow the port activities to continue on the ground floor, while the upper levels are released for theatres or shopping malls.

In this thesis, we also showed that understanding the contemporary port-city relationship requires a relational approach to actors and institutions, as other authors have already suggested (Hesse, 2017). Conflicts appear necessary for actors to challenge the institutions and discuss the roles they play in the evolution of the port-city relationship. As we could see in the different cases, but mainly in Lisbon, co-construction is crucial to establish a sustainable port-city relationship, especially if certain port functions remain on the urban waterfront and in close contact with the city. New arenas where port city actors can interact are necessary, and these arenas may be organised by other actors than the port authority, such as the municipality. This for example happened around the issue of heritage and identity, following innovative approaches such as the UNESCO's Historical Urban Landscape (HUL). Although Lisbon's UNESCO application is based on its maritime identity and includes the city centre and the riverfront—land partly within port authority jurisdiction—the question remains if the port authority will join the effort and effectively challenge its institutional mission that focuses on port operations only (Pagés Sánchez and Daamen, 2020).

We conclude that innovative approaches to the port-city relationship (e.g. co-construction processes or hybrid waterfronts) occur when the traditional ones fail. These approaches take place when the port authority needs to implement new governance measured to pursue their goals. This can be considered unstable, since it relies on ephemeral conditions (such as port authority leadership or project characteristics), instead of the institutions to guarantee the long-term sustainability of the port-city relationship. Leaders of both port and urban actors are only temporary, but the need of sustainable port-city relationships is permanent. Hence, the question remains if the innovation that we found on the different cases will turn into institutional change or not. To confirm this, further studies will be necessary, following the same or other cases, observing both the law and the role of the port authority in waterfront projects.

6.3. Recommendations for sustainable port-city relationships

This research has a double goal. On one side, it aims to contribute to the academic field about port-city relationships. On the other, the goal is also to provide recommendations to port city actors, mainly to port authorities, on how to strive for a sustainable port-city relationship.

Institutional Change – Institutionalizing Sustainable Port-City Relationships

The first recommendation is related to the main conclusion, that the governing institutions of the port authority do not support the quest for sustainable port-city relationships as defined in this thesis. Previously, we have seen how the port authority of Lisbon struggled with a narrowing legal framework that was reducing its capacity to act in the port-urban environment (see chapter 5). Simultaneously, the economic and logistic goals of the organization were emphasized. Ports and port authorities are undoubtedly crucial infrastructures and actors for national and local development. They are part of global logistic chains controlled by a handful of private companies. However, if sustainable development is the major normative goal of government and society, the pillars and values that structure it must be included in the rules that govern port authorities, including the law. Port authorities must consider sustainability in new projects and everyday management practices, not only as environmental restrictions that need to be complied with. These pillars must be institutionalized independently from the type of leadership. Sustainable port-city relationships must be institutionalized, cannot not remain a "side goal", or as part of the license to operate. The approaches following "business as usual", will not just be conflictual in the short-term, but also unsustainable in the long.

Co-Construction of the port-city interface

Another specific institutional change refers to port-city co-construction. Although public consultation has become almost a standard in planning practices in Europe, for example in

major infrastructural projects (chapter 5), for the moment they remain mostly in the tokenism level, as defined by Arnstein (1969). This means that the public participation is often reduced to informative sessions or consultations, since these processes are not structured to be "user-friendly", facilitating the engagement. We could see that participative process often work on an action-reaction principle as it happened in Lisbon's cruise terminal. The port authority initially only informed the local residents of the characteristics of the project; afterwards, the public reacted to this, protesting against the project, forcing the port authority to respond to this criticism and consider their demands. Nevertheless, the process was a positive example, since the demands of the public were integrated in the project conception, but we frequently read about processes that do not go as well, and the conflict gets entrenched. Instead, based on our observation of the cases, it is recommendable to establish real port-city co-construction processes, that contribute to mutual learning, increasing the port authority transparency, avoiding conflict before they exist, saving resources to all actors involved. Organizations such as the AIVP supports port centres, which may be used as places or platforms where co-construction processes can be built (Marini and Pagés Sánchez, 2017; Morucci, 2017). The institutional framework can be modified to include co-construction with local population and other actors, participating in new port projects.

Governance models for hybrid waterfront - Transitional planning

From analysing the diverse case studies, we can also conclude that hybrid waterfronts are necessary for sustainable port-city relationships. We have seen that there are incipient projects in different European cases, in which port and city programmes coexist, answering to the demands of both port and urban actors. However, in the case of Lisbon, we could see that although mixed management areas are recognized in the law, they have become spaces with an undefined future, where nothing happens. This occurs due to unclear governance structures, complicating projects and the use of the space. At the same time, the national government presented new sea strategic plans, including the concept of "port-tech clusters", without clarifying their location or management. It is necessary to give clear and transparent governance structures to these hybrid areas, so they can develop their potential in the port-city interface, linking port actors, society and research such as it happens in Rotterdam. To answer to the challenges posed by the hybrid areas and the port-tech clusters (or similar concepts), it is necessary to update the goals and investment freedom of port authorities, to allow them to go beyond the landlord function. The combination of top-down initiatives, from the central government, and bottom-up actions based on co-construction processes, can improve the port-city relationship. This could forge new waterfront imaginaries, updating the social expectations towards the port and the port authority.

At the same time, the mixed management areas in Lisbon that have become abandoned expectant spaces, are also an opportunity to test new urban solution. These areas offer unique qualities in the urban tissue but require transitional planning in terms of space and time. One of the key concepts of Rotterdam's Stadshavens is to plan the transition in different time spans. The available spaces can host temporary functions keeping a flow of

people to the area, remaining valued. At the same time, these spaces are opportunities to test new programmatic, design and governance solutions, for example following informal planning solutions. In Oslo a similar approach was followed to design the public spaces of the Havnepromenade. Several testbeds were created, and the solutions that were most successful were implemented permanently. The "in between" character of these spaces can be linked to the new "port-tech clusters", fostering start-ups that not only contribute to the urban landscape, but also to the local economy, such as in other locations in Lisbon, like the LX Factory. The key issue in this case exceeds the design of the area and goes back to having a clear governance scheme that allows for informal planning.

Port people – Self-image of the PA

During the interviews, but also during informal talks, some port authority employees complained that their organizations predominantly defended a sectorial self-conception, harming innovative approaches. The vision of the port authority defended in the legal framework is not entrenched just in the leadership, that may change rapidly, but also among the technical officials that will be responsible for port projects, usually extending beyond the mandate of the leaders. These professionals predominantly defend a conservative mission of the port authority, focused on traffic, logistic infrastructures and economic results. This was sufficient for decades, until local stakeholders and society contested the presence of the port and demanded other values besides economic ones. It is necessary to update the self-conception port authority employees have of their own organization and their concept of the port. This recommendation implies forming multidisciplinary teams with professionals with complementary backgrounds, and re-educating the technical staff, including exchanges of knowledge to recognise other potential functions of the port authority, and new visions for ports. International organizations favouring the exchange of experiences can play a relevant role in this process.

Planning the urban port

At the same time, new institutional arrangements should also recognize that if the government and port actors require urban ports, this infrastructure must be conceptualised as an urban setting, not just as an industrial area by the water. In interviews with the port authority's department responsible for port-city relationship, the issue of the aesthetical qualities of the port was also discussed. Port areas have been usually governed focusing on the highest economic gains, disregarding other landscape or architectural values. Although this issue might sound secondary compared to environmental concerns, jobs or logistic efficiency, the aesthetic guidelines developed by the port authority in Oslo shows that it is relevant in the quest for a sustainable port-city relationship. It is then necessary that the port also develops guidelines and regulations for the urban and landscape integration of terminals and other facilities. These efforts have mostly been visible in passenger infrastructure. However, if the port remains part of the urban scenery, it should be reflected on its physical configuration, as we could see in warehouses of previous times (e.g. the Speicherstadt in Hamburg). In this sense, a historical reflection could be useful to understand

the architectural significance of storage facilities that today are considered world heritage, such as in Hamburg or Liverpool (see Sepe, 2013). At the same time, this urban vision of the port also emphasizes the cultural value of this infrastructure as a crucial element of the social pillar, as shown in chapter 2.

In the case of Lisbon, we confirmed that currently there is no port masterplan equivalent to the city's masterplan, determining the use of the space, but rather a case-by-case logic, focused on the commercial units. In these conditions it is difficult to produce a coherent image of the port, to be integrated in the urban waterfront. However, urban-port masterplans cannot only focus on the larger industrial units, it must also include the space between terminals, often considered "left-over" space, used for informal parking or garbage deposit. Industrial spaces are not museums or elegant shopping malls, but if the port wants to remain urban, it is necessary to incorporate certain urban qualities. New technologies are increasingly clean and less polluting, allowing an easier integration of uses and new possibilities.

Share failure

In the initial analysis of guides of good practice for port-city relationships (chapter 2) we could see that they focus predominantly on the result of the projects, providing finished images and descriptions of the solution. Using examples, such as buffer zones or educational programmes and cultural agendas, these documents influence the normative dimension of the mission of port authorities. These guides have been published either by organizations such as AIVP or ESPO, formed by port authorities, municipalities and private companies, or are the result of European projects. In both cases, the guides focus on successful solutions, including brief descriptions, usually without explaining the process details. In our research we noticed that failure is an important part of the governance and innovation process. Positive examples shown in the sector's literature hide a complex story of steps backs and forward, negotiation and struggle. For the actors operating in the port-city relationship it would be beneficial to understand the process that led to the solution, and where peers failed, to avoid repeating the same mistakes. Although solutions can inspire policy and planning choices, from a practical standpoint it is more efficient to focus on the actors' actions and steps. The actors can then design a path adapted to the local context that will lead to a solution, rather than trying to copy a solution seen in a guide.

These recommendations build on the theoretical contribution and on the empirical analysis of European cases. The institutions must reflect the changes seen in recent projects, embracing other values than just economic ones. They must favour hybrid waterfronts, acknowledging the new role of the port authority, beyond the landlord, supporting other initiatives than just core port functions. At the same time, this new role in broader economic and sea strategies must be clarified, potentiating it as sea-cluster manager. However, we recognize that these recommendations result from a research project with a limited amount of case studies. Hence, we conclude this chapter with a reflection on the findings and future research paths.

6.4. Reflections on port city research

Following an actor-centered institutional perspective on port-city relationships allows us to contribute to the field of port city planning and governance, providing innovative insights that could be useful for further research and policy. However, this research also presents limitations worth acknowledging that at the same time open up new research avenues. In this section, we explain those limitations and opportunities. In our opinion, these are caused by practical considerations (mainly linked with time) and research choices, and do not affect the validity of the work and its applicability in other port cities.

The first issue we immediately encounter is that we purposely chose to focus on Europe. As we saw in the introduction and in chapter 4, we chose this geographical area to have a sample of port cities that could be relatively comparable. These port cities share some features in terms economic development, are involved in the same continental organizations and are affected by the same European regulations. However, we recognize that port cities around the world have developed differently, responding to local characteristics. Furthermore, we can learn from different cases depending on the specificity of the question, i.e. the broad conclusions of this research are useful for a broader audience, while specific issues, emphasized in Europe or Lisbon are obviously more useful for research on similar cases.

To overcome the limitations of this research, we recommend investigating port-city relationships in other locations. New investigations could be done following the same theoretical approach or other alternatives such as Actor Network Theory or mobilising the concept of path dependency. To select a new sample of port cities we consider particularly relevant to compare cases that share common rules or participate in the same organizations, such as the AAPA (American Association of Port Authorities). At the same time, other organizations provide an interesting pool of cases that share other characteristics besides geographical location, such as the APLOP (Association of Ports of Portuguese Language), who may share similar formal institutional frameworks for historical reasons, but have adapted to different contexts.

Another limitation already introduced in the initial chapters concerning the cases studies, is that seven ports may be considered a limited sample to draw broader conclusions on port-city development principles. Although this could be a fair criticism from a positivist perspective, the cases in this thesis represent a research approach that acknowledges European diversity regarding the rules, culture, scales and sectors that govern local practices. This approach is consistent with the qualitative methodology that we decided to follow. Nevertheless, it is recommendable to perform new studies with broader samples that would allow better comparison, possibly using more quantitative methods. We highlight the work of Hall and Jacobs (2012), often quoted in this research, that based a part of their findings on a large sample of ports. Similar studies could be done focusing on the port-city relationship, particularly on the innovation of the port-city interface configuration and the capacity of key actors, such as the port authority, to steer this relationship towards sustainable development.

In this research, following Sharpf 's (1997) definition of primary and secondary actors, we focus on what we considered the key actor for sustainable port-city relationships, the port authority. Despite our efforts of interviewing all involved actors and gathering the different perspectives on the same problem, we emphasized the role of the port authority in the port-city relationship, a perspective that could be considered one-sided by some. Additionally, there are practical reasons to do so, since it would have been impossible to do in the same research project a European comparative analysis and an in-depth study of all actors affecting the port-city relationship in one particular case. Nevertheless, the institutions that were found are grounded on both "sides" of the port-city actor community: the post-modern waterfront imaginary is supported by urban actors, while the narrow definition of the port authority is also socially accepted and expected. However, we recommend developing similar research, following institutionalism, to understand the role of the municipality in the port-city relationship, its expectations and capacity for action. A similar project on private port companies, and how they face the port-city relationship would also be interesting. However, this project may be hard to take forward, considering that for most companies this interaction is not the main priority and they may not be whiling to discuss their development strategies with academic researchers.

One of the main contributions of this research is the detailed analysis of the port-city relationship in two very recent projects in Lisbon. In chapter 5, we mentioned existing research on Lisbon's waterfront, predominantly focused on urban regeneration. We detected a gap in the literature concerning the role of the port authority in the port-city relationship and in the most recent port projects. The waterfront projects and the port authority role had only been analysed from an architectural or economic perspective, lacking a governance angle. We tried to fill this gap, but working with recent or ongoing projects entails risks. The cruise terminal project is concluded, and future research should focus on the consequences of the new facility for the city and how it contributes to the port-city relationship. However, the new container terminal remains an open issue, not just at the end of this research, but probably in years to come. Therefore, new investigations are necessary, assessing the project development and evaluating the involved actors, and mostly the port authority. It is important to confirm if finally this organization decided to implement an innovative approach, or if on the other hand, it will be "business as usual", prioritizing economic results and underestimating the relationship with the local society and the landscape.

Analysing the case of Lisbon also opened up other future research paths that could not be developed in this investigation. One of the main issues that we detected was the importance of leadership and the implementation of innovative ideas in port-city relationships. This problem relates to the concept of path dependency and inertia. Port authorities are complex organizations with a stable technical staff, but often unstable leadership, depending on political influence. In Lisbon, we saw that in less than ten years, the port authority had four board presidents, lacking continuity to change the foundations of the organization. At the same time, in informal interviews in different cases, we were told that the concept among the port community remains that the port authority must only focus on port efficiency

and economy. Therefore, it is necessary to investigate how this conception can change and challenge the institutions and implement new approaches to the port-city relationship.

The issue of port authority self-conception emphasizes the disconnection between the academic research and praxis. International organizations influencing policy-making have become an important reference or knowledge brokers (Hesse, 2017), building a practical knowledge base. At the same time, academics analyse cases in depth, detecting problems that often the actors involved in the projects miss or prefer to hide. Along this research we participated in several academic and sector conferences, noticing a gap between both worlds. On the one hand, scholars presented thorough and well-grounded analyses of cases, usually in academic congresses and journals and magazines oriented to this specific audience. On the other hand, professionals from port authorities and municipalities presented their projects in other conferences, too often as actions of marketing and promotion of the work developed in their port or port city, hiding the less glamorous details. It is necessary to bridge both worlds, providing "guides of bad practice" or "collection of failures", facilitating the knowledge from the detailed analyses in a "user-friendly" way. This may sound chimeric, since many port city actors are not used to sharing information about the struggles of the projects, but it is valuable information for other cases, to avoid repeating the same mistakes. Organizations such as the AIVP have advanced in this direction in the most recent world conference on port cities, taking place in Quebec in June 2018, where several leading scholars coordinated the sessions and the content for an audience coming predominantly from port authorities and municipalities. These merging efforts must continue, while academics must attempt to adapt their language and communicate to wider audiences that have the decision-making capacity.

Finally, the last research topic we propose for the future is generating an urban port imaginary. In the interviews it was clear that one of the struggles from port authority employees responsible for the port-city relationship was the lack of a clear urban approach and image to ports. It is necessary to explore what issues are relevant, or what it means to have this infrastructure in the city in terms of image. In this sense, the broader comparison of port cities mentioned before, and the work of the international organizations is crucial. There is abundant literature about waterfront regeneration, both academic and praxis oriented. However, there is a gap in the field of planning regarding the definition of urban infrastructures and how they can be integrated in cities. Technological advances are gradually reducing the negative externalities of these infrastructures. Hence it becomes necessary to explore what these changes allow, both in terms urban morphology, design, planning and governance.

This PhD research could be characterized in a double question: city and port? city or port? This double question implies a choice about how the port-city relationship may occur, indirectly presenting the issue of waterfront planning. The choice, in other words, is whether city and port can co-exist, in hybrid waterfront development, or if, on the other hand, a full separation between both must occur and is desirable. In this dissertation we explicitly

explained that the coexistence between port and city it is not just desirable, but inevitable. Sustainable port-city relationships are therefore the normative goal, but can only occur if the main actors have the institutional framework and governance skills that allow them to actively seek it. Sustainable development must be the main goal of public and private organizations, it is the challenge of present and future generations, but humanity will only be able to efficiently quest it when the legal and cultural rules guiding our behaviour are crafted in the right direction.

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List of abbreviations

Abbreviation	Meaning
AIA	Avaliação de Impacto Ambiental –Environmental Impact Assessment
APA	Agência Portuguesa do Ambiente – Portuguese Environmental Agency
AIVP	Agência Portuguesa do Ambiente – Portuguese Environmental Agency
AML	Area Metropolitana de Lisboa - Lisbon Metropolitan Area
ANT	Actor Network Theory
APL	Administração do Porto de Lisboa- Lisbon Port Authority
APPA	Associação do Património e População de Alfama – Alfama's People and Heritage Association
ASP	Autorità di Sistema Portuale – Port System Authority
BIE	Bureau Internartional de Exhibition
CA	Comissão de Avaliação – Evaluation Commitee (of environmental imapct)
CEF	Connecting Europe Facility
CLIA	Cruise Line International Association
CML	Câmara Municipal de Lisboa - Lisbon Municipality
CSR	Corporate Social Responsibility
CR	Corporate Responsibility
DIA	Declaração de Impacte Ambiental – Environmental Impact Declaration
EC	European Commission
EEC	European Economic Community
EIA	Estudo de Impacte Ambiental – Environmental Impact Study
EIC	Education and Information Centre Mainport Rotterdam
EPAEM	Etablissement Public d'Aménagement Euroméditerranée
ESPO	European Sea Port Organization
EU	European Union
FCLX	Fórum Cidadania LX

Abbreviation	Meaning
FT	Frente Tejo
GDP	Gross Domestic Product
GPH	Global Port Holdings
GPMM	Grand Port Maritime de Marseille
HAROPA	Ports of Le Havre, Rouen and Paris
HPA	Hamburg Port Authority
IAPH	International Association Ports and Harbours
IMO	International Maritime Organization
INE	Instituto Nacional de Estatística
ISPS	International Ship and Port Facility Security (code)
ITF	International Transport Forum
JF	Junta de Freguesia - Parish Council
LCT	Lisbon Cruise Terminal
LNG	Liquified Natural Gas
MAAT	Museu de Arte, Arquitetura e Tecnologia - Museum of Art, Architecture and Technology
MDCI	Multi Development Corporation International
MUCEM	Musée des civilisations de l'Europe et de la Méditerranée - Museum of European and Mediterranean Civilisations
NABU	Naturschutzbund Deutschland e.V.
NIE	New Institutional Economics
NIMBY	Not In My Backyard
OA	Ordem dos Arquitectos – Architectural Order (Portugal)
OECD	Organisation for Economic Co-operation and Development
PA	Port Authority

Abbreviation	Meaning
PACA	Provence Alpes et Côte d'Azur
PDA	Proposta de Definição de Âmbito – Area Definition Proposal
PDM	Plano Director Municipal - Municipal Development Masterplan
PEL	Plano Estratégico de Lisboa – Strategic Plan of Lisbon
PEPL	Plano Estrategico do Porto de Lisbon – Strategic Plan of the Port of Lisbon
PGIFR	Plano Geral de Intervenções da Frente Ribeirinha - General Plan for Riverfront Interventions
PIANC	World Association for Waterborne Transport Infrastructure
PoR	Port of Rotterdam Authority
POZOR	Plano Ordenamento da Zona Ribeirinha – Riverfront Plan
PUZRO	Plano de Urbanização da Zona Ribeirinha Oriental – Urbanization Plan for the Eastern Riverfront
QUANGO	Quasi-Autonomous Non-Governmental Organization
Ro-Ro	Roll On – Roll Off traffic
SD	Sustainable Development
SDG	UN's Sustainable Development Goals
SLO	Social License to Operate
SPCR	Sustainable Port-City Relationship
TEU	Twenty-foot Equivalent Unit
TNC	Transnational Corporation
UN	United Nations
UOP	Unidade Operativa de Planeamento e Gestão – Planning and Management Operative Unit
USA	United States of America
WCED	World Commission on Environment and Development

Appendix 1. List of interviewees

Nº	Date	Name	Organization	Location
1	Jan. 29th 2015	Hilda Ghiara	Dept. of Economy and Quantitative Methods – University of Genoa	Fac. of Economics – University of Genoa
2	Jan. 30th 2015	Paola Giampietri	Port Authority of Genoa	PA Headquarters
3	March 5th 2015	Heike Naumann	Hamburg Port Authority	HPA Headquarters
4	Sept. 3rd 2015	Rui Alexandre	Port Authority of Lisbon	APL Headquarters
5	Sept. 15th 2015	Stein Kolstø	Oslo Waterfront Planning Office – Ag. for Planning and Building Services – Municipality of Oslo	Oslo Waterfront Planning Office
6	Sept. 20th 2015	Vidar Fiskum Anne Trine Hoel	Port Authority of Oslo	PA Headquarters
7	Oct. 1st 2015	Satu Aatra	Port Authority of Helsinki	PA Headquarters
8	Oct. 6th 2015	Rikhard Manninen	Strategic Planning Division - City Planning Dep. - City of Helsinki	Helsinki City Planning Department
9	Oct. 26th 2015	Stijnie Lohof	Dept. of City development - City of Rotterdam	Dept. of City development - City of Rotterdam
10	Oct. 27th 2015	Martin Aarts	Dept. of Urban Planning - City of Rotterdam	Dept. of Urban Planning - City of Rotterdam
11	Oct. 27th 2015	Isabelle Vries	Port Authority of Rotterdam	PA Headquarters
12	Nov. 13th 2015	Régine Vinson Claire Hallé	Port Authority of Marseille	PA Headquarters
13	Nov. 17th 2015	Alexandre Sorrentino	Euroméditerranée	Euroméditerranée Hq.

Nº	Date	Name	Organization	Location
14	Nov. 24th 2015	Antonio Pastorino Nicoletta Poleggi	Infrastructure and Port Planning Section - Town Planning Department -Municipality of Genoa	Town Planning Department -Municipality of Genoa
15	Nov. 25th 2015	Paola Giampietri	Port Authority of Genoa	PA Headquarters
16	Dec. 1st 2015	Stefano Russo	Renzo Piano Building Workshop	Renzo Piano Building Workshop Hq.
17	Dec. 16th 2015	Mariana Teixeira Carla Matos	Port Authority of Lisbon	APL Headquarters
18	Dec. 21st 2015	Pedro Dinis	Public Space Department - Municipality of Lisbon	CML Public Space Department
19	July 20th 2017	Ricardo Ferreira	Lisbon Cruise Terminal (LCT)	LCT Headquarters
20	July 21st 2017	Luís Newton	JF de Estrela	JF de Estrela Office
21	July 21st 2017	Joana Monteiro	City Museum of Lisbon	Museum of Lisbon
22	Aug. 2nd 2017	Samuel Alemão	O Corvo	A Padaria Portuguesa – Cais do Sodré
23	Aug. 3rd 2017	Belarmino Silva	JF Marvila	JF Marvila Office
24	Aug. 7th 2017	Paulo Ferrero	Forum Cidadania LX	Dolce Vita Monumental
25	Aug. 16th 2017	Rui Lopo João Lopes	Barreiro Municipality	City Management dpt.- Barreiro Municipality
26	Aug. 17th 2017	Silvino Correia	JF Beato	JF Beato Office
27	Aug. 18th 2017	Rui Alexandre	Port Authority of Lisbon	APL Headquarters
28	Aug. 21st 2017	Maria Pinheiro	APPA Alfama	Miradouro de Sta, Luzia
29	Aug. 21st 2017	Miguel Coelho	JF Sta. Maria Maior	JF Sta. Maria Maior Office
30	Aug. 24th 2017	Cihan Akin	Yilport	Skype

Nº	Date	Name	Organization	Location
31	Aug. 29th 2017	Rui Raposo	Lisbon Port Community (CPL)	Email
32	Jan. 5th 2018	Teresa Duarte	Urbanism Dpt. – Municipality of Lisbon	Urbanism Dpt. - CML
33	Jan. 5th 2018	Pedro Dinis	Public Space Department - Municipality of Lisbon	CML Public Space Department
34	Jan. 9th 2018	Rui Alexandre	Port Authority of Lisbon	APL Headquarters
35	Jan. 10th 2018	Manuela Patricio	Port Authority of Lisbon	APL Headquarters
36	Jul. 4th 2018	Rui Alexandre	Port Authority of Lisbon	APL Headquarters

Appendix 2. Publications during the PhD research

Books and Chapters

Pagés Sánchez, J. M. & Daamen, T. (2020) Using Heritage to Develop Sustainable Port-City Relationships: Lisbon's shift from Object-based to Landscape Approaches. In C. Hein (Ed.), Adaptive Strategies for Water Heritage. Springer.

Marini, G., & Pagés Sánchez, J. M. (2017). Port Center: Step-by-Step Guide. (G. Marini, Ed.). Le Havre: AIVP. ISBN: 978-2-910238-65-0

Peer reviewed Journal

Pagés Sánchez, J. M. (2017). Evolution of Lisbon's Port-City relation: from the earthquake of 1755 to the port plan of 1887. PORTUSplus the Online Journal of RETE, VII(7).

Magazine Article

Bordato, L., & Pagés Sánchez, J. M. (2015). Desarrollo sostenible de los Puertos y Ciudades Portuarias Medianas. Una investigación necesaria para el futuro del Mediterráneo. Portus - the Online Magazine of RETE, 29(XV). Retrieved from http://portusonline.org/es/desarrollo-sostenible-de-los-puertos-y-ciudades-portuarias-medianas-una-investigacion-necesaria-para-el-futuro-del-mediterraneo/

Congress Proceedings

Pagés Sánchez, J. M. (2016). Port-City relation: integration - conflict - coexistence. Analysis of good practices. In J. Ryser (Ed.), 51st International Congress 2015 , Cities Save the World. Let´s Reinvent Planning. (pp. 1581–1592). The Hague. ISBN: 978-94-90354-45-9

Pagés Sánchez, J. M. (2012). Medium sized ports and cities in euromed region a proposal for the future research. In L. Gaiser & D. Čurčić (Eds.), Bridging gaps in the Mediterranean research space - 4 EMUNI Research Souk The Euro-Mediterranean Student Research Multi-conference (pp. 385–394). Ljubljana: EMUNI University. ISBN 978-961-6805-05-6

Appendix 3. Conference participations during the PhD Research

Nº	Date	Conference
1	Oct. 23-25 2014	Colloquium on Mediterranean Urban Studies-The Transformation of Mediterranean Port Cities: 19th and 20th Centuries.
2	June 15-17 2015	5th Sustainable Development Symposium
3	Oct. 19 - 23 2015	51st ISOCARP Congress - How to Develop Unprecedented Port City Synergies?
4	March 21-24 2016	10th Aesop-YA Conference Spatial Governance: Bridging Theory and Practice
5	July 11-13 2016	Crossovers entre ciudades y puertos. Oportunidades y perspectivas para Almería
6	July 11-13 2016	Crossovers entre ciudades y puertos. Oportunidades y perspectivas para Almería
7	Aug. 24-27 2016	13 International Conference on Urban History – EAUH. Reinterpreting Cities
8	July 11-14 2017	30th AESOP Congress. Spaces of Dialog for Places of Dignity: Fostering the European Dimension of Planning – S. 15 Law and planning under societal challenges
9	July 11-14 2017	30th AESOP Congress. Spaces of Dialog for Places of Dignity: Fostering the European Dimension of Planning – RT 15. Planning Urban Waterfronts for the 21st Century. Past, Present, Future
10	Sept. 26-29 2017	Sustainable Development Summit

Organization	Location	Presentation
Mersin University – Center for Mediterranean Urban Studies	Mersin - Turkey	Reuse and musealization of port infrastructure in urban waterfronts. The Lisbon Case.
University of Lisbon	Lisbon-Portugal	Port-City coexistence. Analysis of codes of good practices for a sustainable development model. Hamburg and Genoa
ISOCARP	Rotterdam-Netherlands	Port-City relation: integration - conflict - coexistence. Analysis of good practices.
AESOP – Ghent University	Ghent - Belgium	Port-City governance. A comparative analysis in the European context.
Almería University, Faculty of Economics and Business science - Port Authority of Almería	Almería - Spain	Innovaciones en las Actuaciones Puerto-Ciudad. Evaluación de Experiencias
Almería University, Fac. of Economics and Business science - Port Authority of Almería	Almería - Spain	Haciendo la ciudad con el puerto. Guía de buenas prácticas
EAUH – Helsinki University	Helsinki-Finland	Port Centers, the spearheads of Seaport Culture disclosure.
University of Lisbon – IST, IGOT and FA	Lisbon-Portugal	Governance Reform, Changing Property Rights, and New Planning Approaches in the European Port-City Interface. (with. T. Daamen)
University of Lisbon – IST, IGOT and FA	Lisbon-Portugal	Port Centers
University of Hamburg	Hamburg-Germany	Port Centers: a new tool for sustainable port-city relationships