HAFENCITY HAMBURG - A NEW MODEL FOR SOCIAL SUSTAINABILITY?

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Abstract

Contemporary European cities face pressing challenges of urban growth, density, and lack of affordable housing. Urban regeneration is considered a fruitful answer to expand urban cores and provide additional housing. Nevertheless, the profit-oriented real estate market and increasing rent levels foster rising inequalities and issues such as gentrification. Governments are in demand to steer inclusive growth and provide affordable housing for their growing populations. As such, the concept of social sustainability has entered the debate on sustainable urban development. Despite the urge for innovative solutions to deliver socially sustainable urban regeneration, literature is scarce. Methods of (publicly) enhancing social sustainability through building projects appear widely neglected. The use of tendering processes to secure public control over inner-city building projects does not find attention in extant academic discussion. In an attempt to fill the current literature gap, this research examines the role of tendering processes in urban regeneration. In particular, we will draw connections between tendering processes and the creation of social sustainability. Using a qualitative approach, this research reveals the pivotal role of tendering processes in fostering social sustainability in the case of HafenCity Hamburg, one of Europe's largest inner-city regeneration projects. In HafenCity, the publicly-owned privately managed regeneration corporation, HafenCity Hamburg GmbH (HCH), acts as a guardian of the public good and steers private development towards socially sustainable outcomes. Through the use of strict tender requirements for building sites, HCH manages to induce social sustainability in the newly developed area. Finally, this research presents an original process model to deliver socially sustainable urban regeneration, bringing together critical success factors and aspects of the tendering process in the unique context of HafenCity Hamburg.

Table of Contents

Table of Figures

Table of Tables

1.Introduction

1.1 Problem Discussion

Fueled by globalization, extensive worldwide migration, trade, and interconnected financial systems, more people than ever live in cities. Due to rapid growth of urban areas, cities are facing density and the danger of crashing social systems, where inequalities and social exclusion arise (Moulaert, Swyngedouw & Rodriguez, 2003). Governments are challenged to meet the demands of their growing urban populations in terms of housing, transportation, infrastructure, and access to social services. In European cities, the provision of affordable housing is among the greatest challenges (Pittini, 2012). The progress report of the Europe 2020 Strategy highlights that “the cost and quality of housing are a key determinant of living standards and wellbeing, especially for the most vulnerable people” (Pittini, 2012, p.2). However, speculation and an unregulated housing market have left cities with skyrocketing prices (PWC & the Urban Land Institute, 2017), gentrification and a disparity between demand and offer (Scanlon, Fernández Arrigoitia & Whitehead, 2015). Sharp, Pollock and Paddison (2005) argue, “one of the more pressing issues characterizing contemporary cities - certainly one which preoccupies much academic and policy debate - is how to achieve greater social inclusion in cities which (…) are characterized by deepening socioeconomic inequalities and increasing segregation” (p. 1005). In recent years, scholars have therefore recognized the need for innovative solutions in governance and finance to uphold the ecosystem of cities (Colantonio & Dixon, 2011; Darchen & Ladouceur, 2013; Degen & Garcia, 2012). With the aim to expand European cities in a socially inclusive manner, the European Union introduced an integrated approach to urban development that connects the stimulation of economic activities and environmental improvements with wider social and cultural aspects (Colantonio & Dixon, 2011; Glasson & Wood, 2009). Social sustainability has hence moved to the forefront of urban development and regeneration practices, yet poor investments or inadequate urban policies still create social polarization and exclusion (Colantonio & Dixon, 2011; Glasson & Wood, 2009). Researchers hence urge governments to take back control over inner-city developments to secure provision of housing and create livable environments for a diverse population (Adair, Berry & McGreal, 2003; van Nouwelant, Davison, Gurran et al., 2015).

The city of Hamburg is a European example that has moved sustainable urban development to the core of city politics. Hamburg's Senator for Urban Development and the Environment, Jutta Blankau, raised one of the key challenges, which many European cities face: "How can we design the physical features and spaces in this city so that every member of its growing population benefits from them in the future?" (Hamburg, 2014, p. 2). One of Hamburg's approaches to foster inclusive growth is the regeneration of Hamburg's de-industrialized port area, HafenCity. With the aim to expand the city's urban core and provide additional housing, the area is regenerated since 1999 and to date is one of Europe's largest inner-city urban development projects.

While the regeneration of industrial and port areas is regarded as fruitful tactic for cities looking to expand, little research has focused on the tools and metrics to create social sustainability in these developments (Colantonio & Dixon, 2011; Smith & Ferrari, 2012). Since the concept of social sustainability has only recently entered the debate on sustainable urban development, much academic discussion centers around the definition of the concept and its integration into urban policies (Colantonio & Dixon, 2011). Limited research investigates approaches to implement and enforce social sustainability through building developments. Tendering processes can secure public control in building projects, thereby steering inner city developments (Peters, Ludwig, Risch & Pflug, 2017). However, while tendering processes are known to affect the development of new building projects in public hands, little theory exists on their role in urban regeneration and their potential to create social sustainability. In an attempt to fill this literature gap, this research explores how social sustainability can be enforced through tendering processes. We thereby illustrate how public tendering processes can secure social sustainability enhancing factors, such as affordable housing. This research contributes to the current academic discussion on socially sustainable urban development in times of urban crises and enhances the incomplete literature on the role of tendering processes in urban regeneration.

1.2 Research Objectives

Looking at the urban regeneration project of HafenCity Hamburg, we will investigate the tendering processes for building sites in this development. In particular, we examine the role of tendering processes for the creation of social sustainability in the area. To investigate this

role and the connected processes in HafenCity Hamburg, we formulated the following research question:

What role do tendering processes for building sites play in fostering social sustainability in HafenCity Hamburg's regeneration?

Against the backdrop of this research question, the objectives of this research are:

- to explore HafenCity Hamburg's tendering processes for building sites in detail
- to link the tendering processes to the creation of those building developments that foster social sustainability in HafenCity Hamburg
- to draw conclusions on the role of tendering processes in fostering social sustainability in this particular case
- to identify critical success factors that enable the creation of social sustainability in HafenCity Hamburg
- to discuss tendering processes as a new vehicle for socially sustainable urban regeneration

To provide a thorough understanding of our research, the following section will introduce the case of Hamburg HafenCity and its adjacent area Grasbrook. The regeneration of these areas and the tendering processes employed to develop them are the subject of this study.

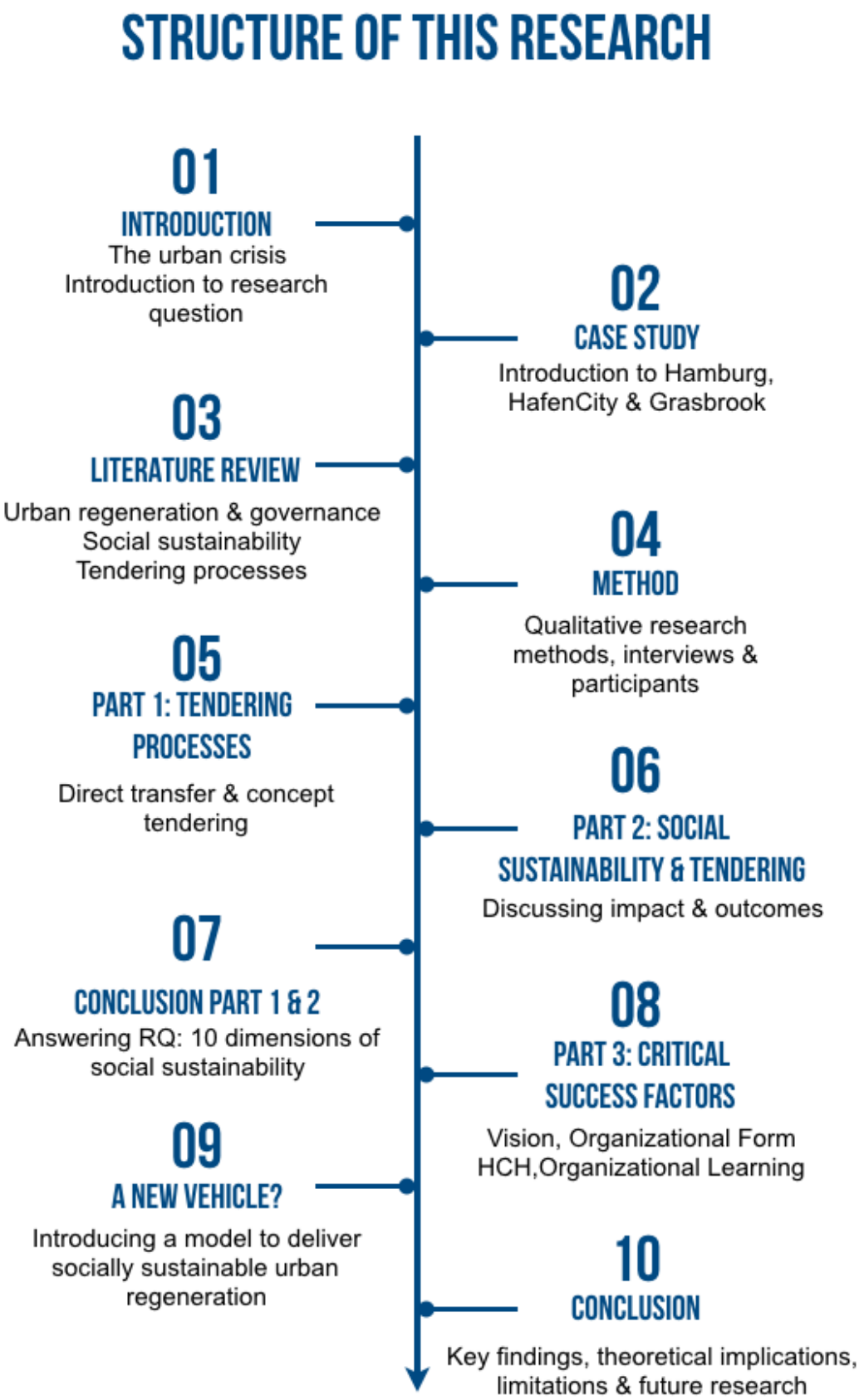

Figure 1. Outline of the research

2. Hamburg HafenCity and Grasbrook

The case of Hamburg HafenCity and its adjacent area Grasbrook was chosen due to its prominence as one of Europe's largest inner-city regeneration projects. Before introducing the case of HafenCity and Grasbrook, the city of Hamburg is introduced with its governmental structures. Understanding the particularities of Hamburg and its governance is vital, as it influences the choice of research participants and the following results of this research.

2.1 The City of Hamburg

The *free and hanseatic* city Hamburg is Germany's second-largest city after its capital Berlin. Hamburg has 1.8 million residents but extends to 5.2 million people when counting in the metropolitan area (Hamburg, 2019). Within the Federal Republic of Germany, the city-state Hamburg is one of the 16 federal states with a substantial degree of autonomy and legislative powers. As a city state, however, Hamburg has its own legislative (the state parliament "Bürgerschaft") and executive (Senat), ensuring a high degree of independence in determining economic and urban development policies. With access to the North Sea through the river Elbe, Hamburg constitutes Germany's most important port city (Smith & Ferrari, 2012; Hamburg, 2019). Related port and logistics activities, together with a strong economy, render Hamburg one of the wealthiest cities in Germany. However, while the river Elbe has brought substantial wealth to the city, it also illustrates the striking income disparities in Hamburg. Whereas the districts Blankenese and Nienstedten are among the wealthiest neighborhoods in Germany, Veddel and Wilhelmsburg, a few kilometers down the river Elbe, are low-income areas (Hamburg, 2019). With a strong reliance and focus on the port since the 11th century, a great amount of Hamburg's investment went into maintaining and improving its position in maritime trade. Much of Hamburg's port related development also benefited from the city's position as landowner of the port area, allowing to steer development and upcoming regeneration projects (Harms, 2003; Smith & Ferrari, 2012).

2.2 Urban Regeneration: HafenCity & Grasbrook

This research will examine the regeneration of Hamburg's de-industrialized harbor areas HafenCity and Grasbrook. However due to the progress of its regeneration, this research focuses predominantly on HafenCity. Grasbrook is in its infancy in terms of planning and tendering. Our focus here therefore lies on the new ways in which citizens can be included into the development of this area.

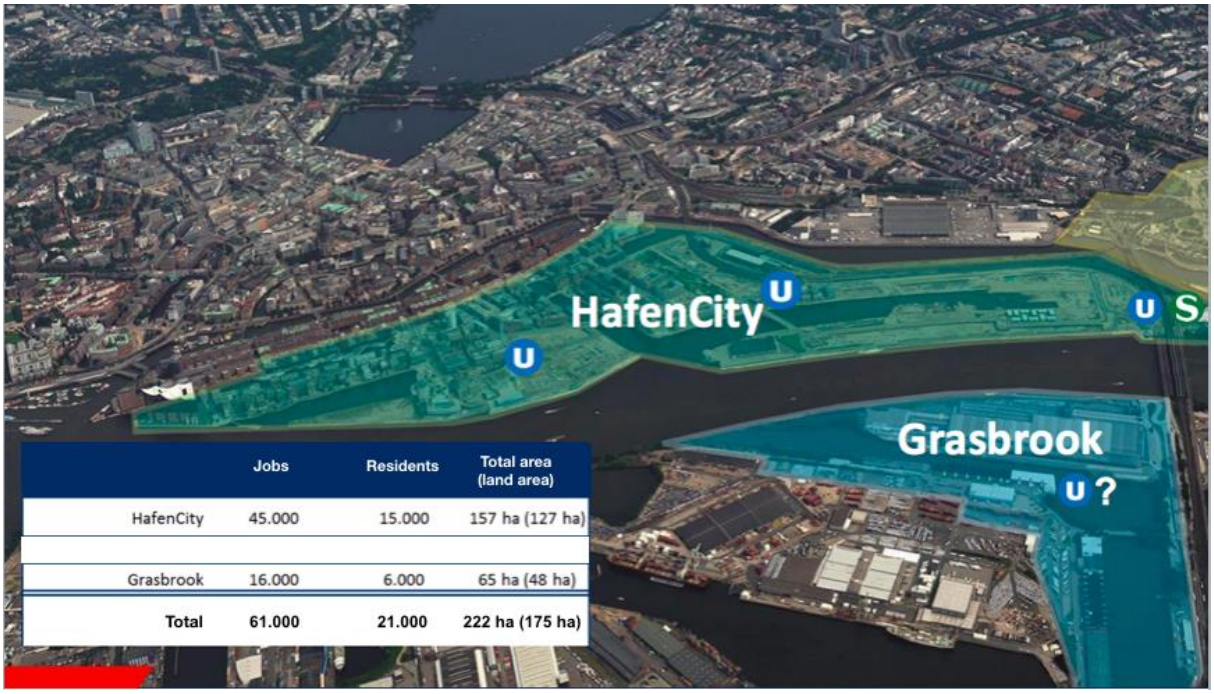

Figure 2. Areas under development: HafenCity and Grasbrook. Adapted from HafenCity Hamburg GmbH (2019).

HafenCity is an area spreading over 157 hectares of former port land. Since 2000, the area is regenerated in order to expand the urban core. Through the waterfront regeneration, the city of Hamburg aims to extend Hamburg's downtown area by 40 percent, create inner-city access to the shores of Elbe and provide additional housing for the city's growing population. The plan is to create a completely new urban district that provides not only business premises but also residential buildings, educational institutions, retail, cultural attractions and leisure activities with parks, plazas and promenades (Hafencity Hamburg, 2019). Upon planned completion in 2025, the area is promised to become a vibrant and densely settled urban milieu with a strong maritime note, providing around 7,000 residential units and business premises worth 45,000 job opportunities. Since most of the area is former port

land, only few existing buildings could be preserved. Therefore, HafenCity consists almost exclusively of new buildings. In order to visually align the redeveloped area with the rest of the city, the structure and architecture of HafenCity is characterized by the dominating water sites, the red clinker brick of the old warehouses and the visual axes of the inner city (Hafen-Hamburg, 2019).

The planning of HafenCity is based on the masterplan developed by the Dutch Architect Kees Christiaanse from ASTOC Architects (today KCAP Architects). The masterplan was approved by the Senate in 2000 and established the urban development concept and use structures of the future HafenCity. In 2010, the masterplan was adjusted and the eastern parts of HafenCity, Oberhafen, Baakenhafen and Elbbrücken were included into the development plan. The western parts of HafenCity were planned to have a metropolitan feel with public squares, restaurants and promenades. The first western quarter of HafenCity Am Sandtorkai/ Dalmankai was completed in 2009 and consists of mixed-use buildings including offices, retail spaces but also apartments (HafenCity Hamburg, 2019). The eastern quarters are still under development and are supposed to serve predominantly as residential areas with green spaces and education facilities with close-city connection and access to the Elbe. Today, 68 projects within the 10 quarters of HafenCity are completed, while another 71 are under construction or in the planning stage (HafenCity Hamburg, 2019). HafenCity critics raised concerns about the affordability of apartments and sterile environment, lacking an urban feel (Schaer, 2010).

The second area under redevelopment *kleiner Grasbrook* (hereafter Grasbrook), spans an area of 65 hectares right across HafenCity. The plan for the former industrial area is to radically transform it into a mixed-used quarter for research and development as well as spaces for startups and small production sites. Alongside, about 3.000 new apartments are planned. No constructions started at this point.

2.3 Governance Structures of HafenCity & Grasbrook's Development: *HafenCity Hamburg GmbH*

The mission to redevelop the former port area with the vision of HafenCity was first decided in 1997 by Hamburg's state parliament. Although the majority of portland for the later developments already belonged to the city of Hamburg, the city-owned *Port and Land Development Corporation,* acquired additional portland and privately owned buildings on

behalf of the city and bundled the acquired sites in one legal entity, the *Special Assets Corporation City and Harbou*r (SACC) (HafenCity Hamburg, 2019). The *Port and Land Development Corporation (*renamed into HafenCity Hamburg GmbH in 2004), was given the city mandate to develop HafenCity and manage the SACC. The goal of HafenCity Hamburg GmbH (HCH) was to finance infrastructure and development in HafenCity, through the earnings of land sales to developers. HCH thus acts as chief property owner and development manager of HafenCity on behalf of the city. Simultaneously, HCH represents the project externally whilst handling various internal operations ranging from public relations to all financial aspects. While HCH is wholly owned by the city of Hamburg, it is privately managed by its two CEOs Prof. Jürgen Bruns-Berentelg and Giselher Schultz-Berndt and employs a total of fifty-three employees. Particularly Prof. Bruns-Berentelg plays a major role in the development of HafenCity and chaperoned the project from its early beginnings, especially in regard to social and cultural developments. Although HCH is an autonomous organization, the corporation is publicly controlled by the supervisory board which is composed of senate members as well as the first mayor (HafenCity Hamburg, 2019). Consequently, any sale of land or development plan must be coordinated with the Ministry of Urban Development and Housing and is signed off by the Commission of Land Use. The Commission of Land use, which is a particularity of Hamburg, acts as a controlling committee of the fiscal authority. Additionally, HCH's advisory board consisting of architects, urban planners, professors and experts from HafenCity University, as well as representatives of the city and local economy advises the management on general questions of development (HafenCity Hamburg, 2019). HCH is also responsible for developing Grasbrook and started the conception of urban planning and development together with the Ministry of Urban Development and Housing in 2019.

2.4 Institutional Stakeholders in HafenCity & Grasbrook's development

2.4.1 Ministry for Urban Development and Housing

In Hamburg, the Ministry for Urban Development and Housing (MUDH) is responsible for urban development and housing policy. This also entails leading development projects or initiatives such as HafenCity from their political initiation to the actual execution (Hamburg,

2019). The city's interests are primarily channeled through the MUDH and they work in close collaboration with HCH on HafenCity's development.

2.4.2 Commission of Land Use

The Commission of Land Use (CoLU) is an institutional mechanism in Hamburg's city government and determines the outcome of real estate developments on publicly-owned land. Hence, whenever the city wishes to realize a land transaction with any stakeholder, the CoLU serves as controlling instance to ensure whether the land was sold in the interest of the city and at its full value. Furthermore, land deals are audited against applicable law and the development project on the land for sale is reviewed for its conformity with city politics. A decision by the CoLU gives the administration (in our case HCH) permission to complete the requested land transaction. As such, the CoLU plays an important role in Hamburg's urban development and is an essential part of public land transactions and tendering processes. Except for the Commission's chairperson Heike Heuer, the members of the Commission represent the political parties in Hamburg's parliament, the Ministry of Finance and the MUDH (Hamburg, 2019). Figure 1 illustrates the institutional framework and governance structures that HafenCity and Grasbrook are developed in.

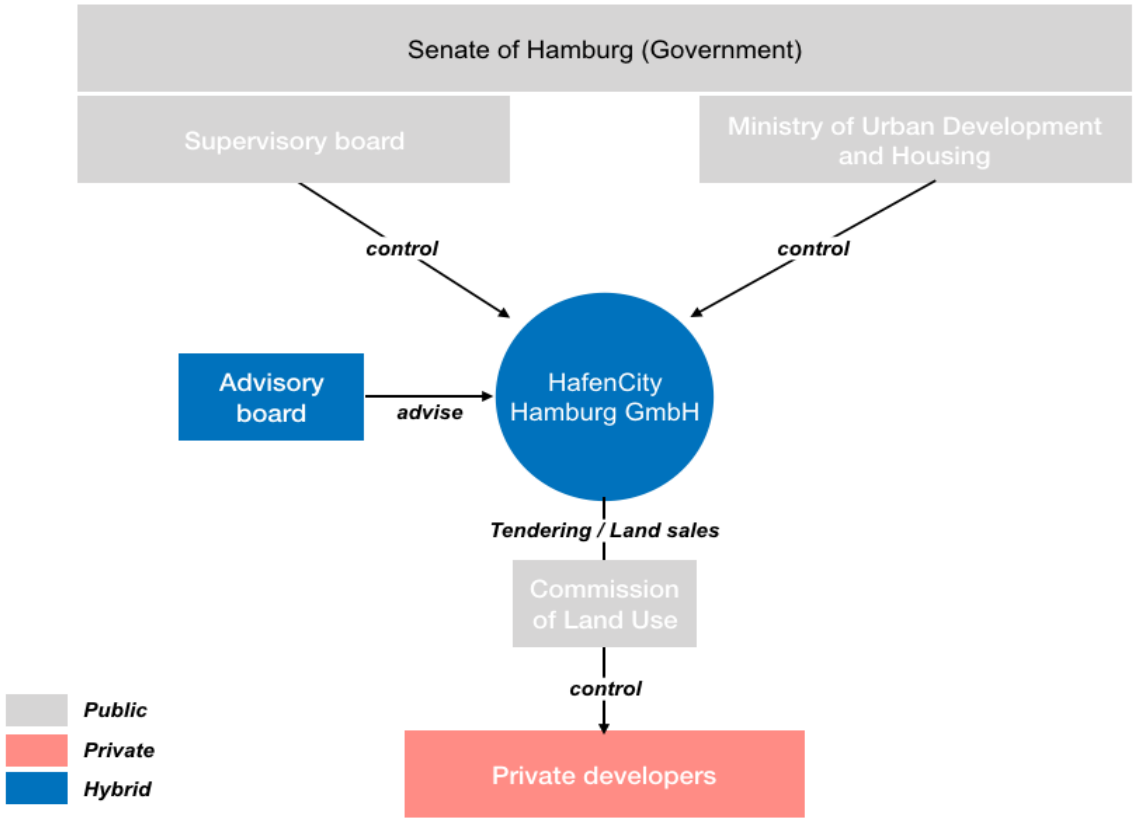

Figure 3. Governance structures HafenCity Hamburg.

3. Literature Review

3.1 Introduction

The following chapter presents literature from different fields, clarifying the concepts of urban regeneration and social sustainability. In particular, we draw on the following concepts as the theoretical foundation for our analysis of HafenCity's tendering processes and their role in fostering social sustainability:

- the definition and evolution of urban regeneration, and waterfront regeneration in particular (3.2)
- challenges of urban regeneration (3.3), which include gentrification and social polarization
- governance of urban regeneration projects (3.4), focusing on private, public and hybrid models of governance in urban regeneration as well as on the importance of formal and informal processes
- the definition of social sustainability in urban contexts and its role in urban regeneration (3.5)
- social sustainability in HafenCity Hamburg (3.6)
- and lastly, tendering processes for building sites (in Germany) and their impact on public sector control in inner-city developments (3.7).

3.2 Urban Regeneration

Urban regeneration is a key concept of this research and therefore needs to be defined and understood in a theoretical context. We present a definition of urban regeneration and discuss major shifts in the development of the concept. In line with the case study of HafenCity Hamburg analyzed in this research, we briefly touch upon relevant literature on waterfront regeneration in particular. Subsequently, we discuss major challenges of urban regeneration and place it in a governance context. Here, the two main streams in literature, private and public sector driven governance, are reviewed and hybrid models of governance (Public Asset Corporation and Public Private Partnerships) are discussed. Further, we briefly introduce processes driving urban regeneration governance, namely formal and informal processes.

3.2.1 Definition and Development of Urban Regeneration

In academia, urban regeneration is an often-thematized, but equivocally defined concept. Urban regeneration is developed from applied practice rather than theory (Jones & Evans, 2013). Roberts, Sykes and Granger (2017) illustrate the evolution of the concept over time and depict how *urban regeneration* has moved past the comparable concepts of reconstruction (1950s), revitalization (1960s), renewal (1970s), and redevelopment (1980s). Regeneration, in Roberts' et al. (2017) understanding, is the "comprehensive and integrated vision and action which seeks to resolve urban problems and bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change or offers opportunities for improvement "(p.10). Whilst other concepts focus on the physical activity (renewal) or lack a clear method and/or purpose to pursue such urban change (renewal, rehabilitation), regeneration is marked by its holistic approach to tackle urban problems with a long-term vision. Further, social and environmental efforts are likely to play a strong role in urban regeneration projects (Roberts et al., 2017). There are different reasons to pursue urban regeneration, but typically, changes of land use address changes in economy, social needs or environmental demands (Jones & Evans, 2013). The term urban regeneration refers to a multitude of efforts, ranging from large-scale reconstruction projects to efforts that promote the local economy to improve the urban quality of life in deprived neighborhoods (Roberts et al., 2017). Urban regeneration can hence take place in a variety of environments, from declining neighborhoods to uninhabited regions, such as former industrialized areas. Generally, we can distinguish between two broad purposes of urban regeneration: improve existing neighborhoods or create new neighborhoods. In existing, often disadvantaged or shrinking neighborhoods, urban regeneration is used to improve the conditions of everyday life, foster social mix, reduce crime, and combat departure of citizens to larger metropolitan cities (Lupton & Tunstall, 2008; van Boxmeer & van Beckhoven, 2006). This research, however, will focus on urban regeneration as the development of new neighborhoods (van den Nouwelant et al., 2015). Regenerating industrial areas, for example, is an effective way to provide space for housing, expand the city and allow for growth (Roberts et al., 2017; Jones & Evans, 2013). Urban regeneration is also paramount to attracting inward investment, as livable cities are more likely to stand out in global competition (Jones & Evans, 2013).

Overall, the concept of urban regeneration is manifold and relates to a series of efforts, all linked to the improvement or establishment of neighborhoods. In the case of HafenCity Hamburg, urban regeneration refers to the spatial redevelopment of the area from industrial to residential and mixed use and aims at the long-term development of a well-functioning neighbourhood.

3.2.2 Waterfront Regeneration

Waterfront regeneration has started in the 1960s, when US cities such as Baltimore or Boston started to transform abandoned harbor areas into public spaces with markets and festivals. In the following decades, cities around the world have adopted a similar approach to regenerate their waterfronts. From the 1980s/1990s onwards, cities have come to realize the potential of waterfronts in terms of housing and retail space (Smith & Ferrari, 2012). Successful waterfront regeneration holds various advantages for a city, among which are the provision of new use opportunities, an expansion of inner-city areas, the attraction of tourists, the provision of housing and jobs, as well as the improvement of environmental conditions (Jones, 2007; 2017). In general, successful urban waterfront regeneration is regarded as an emblem of contemporary urban development, helping the city to attract investment and publicity (Morena, 2011).

The commonalities across regenerated waterfronts have evolved over the years, as cities adopt approaches from “best cases” in terms of architecture, organization and spatial typologies. Therefore, Bruttomesso (2001, as cited in Smith & Ferrari, 2012) argues there is a uniform globalized approach to waterfront regeneration that is increasingly replicated by cities. Similarly, Brownill (2013) acknowledges the stark resemblance of waterfront regeneration projects across the world. This approach has been increasingly criticized by scholars, arguing that urban regeneration is rooted in the historic evolution of the city and should take place-specific phenomena into consideration (Moulaert, Martinelli, González & Swyngedouw, 2007; Turok, 2009).

Smith and Ferrari (2012), as part of the European Union-funded Waterfront Communities Project, have taken a closer look at waterfront regeneration within cities located around the North Sea, focusing on Aalborg, Edinburgh, Gateshead, Göteborg, Hamburg, Hull, Odense, Oslo and Schiedam. Overall, these cities are still relevant port cities, but have abandoned

the centrally located parts of the port in order to make place for new developments. According to their research, cities seem to face similar challenges in regenerating waterfronts. For example, the creation of an urban identity and the incorporation of heritage sites are key challenges to masterplanners and local authorities. Further, climate change and rising sea levels pose challenges to the resilience of waterfronts. Lastly, city authorities often have to manage rising socio-economic disparities between former workers and inhabitants of the waterfront and the new target groups of private redevelopers (Smith & Ferrari, 2012, p.15). Regenerated waterfronts benefit from a prime city location, in turn leading to higher land values and higher housing prices (Adair et al., 2003). With a future outlook, cities partaking in the Waterfront Communities Project have voiced the need for organizational and institutional innovation that can further drive sustainable waterfront development (Smith & Ferrari, 2012). “The biggest overall challenge to waterfront regeneration is to achieve an integrated approach which can simultaneously address a range of key issues – from the strategic to the very local, and from the physical design to the realization of the economic and social potential of the area," conclude Carley, Ferrari and Smith (2007, p.12).

Due to a lack of theory connecting waterfront regeneration with social sustainability, we will use the concepts of waterfront regeneration and urban regeneration interchangeably. Other than the particularities of waterfront regeneration in terms of location, site conditions, and historic development illustrated above, the concepts substantially align. The following section reviews the most pressing challenges of urban regeneration.

3.3 Challenges to Urban Regeneration

Urban regeneration and development commonly focus on the resolution of urban problems such as urban density, lack of affordable housing, improving local living conditions and alleviating social inequalities (Arbaci & Tapada-Berteli, 2012; Jones & Evans, 2013). Nevertheless, a growing body of research has pointed out negative effects of regeneration, which include gentrification and displacement of local residents, as well as social exclusion and destruction of existing social networks (Chan & Lee, 2008; Colantonio & Dixon, 2011; Gosling, 2008; Lawless, 2011). In waterfront regeneration in particular, researchers observed a risk to prioritise a high profit margin as opposed to a high-quality level (Morena,

2011). Further, it has been argued that the excessive focus on commercial and tourist functions eclipses residential use, which is necessary to guarantee resilience of newly developed areas (Morena, 2011). The problem of gentrification, that is "the process by which working class residential neighborhoods are rehabilitated by middle class homebuyers, landlords and professional developers" (Smith, 1982, p. 139), has received particular attention in relation to urban regeneration. Arabaci and Tapada-Berteli (2012) for instance, show how state-led urban regeneration projects in Barcelona's city centre have fostered new forms of gentrification, instead of reducing inequality and alleviating deprivation amongst the long-term residents. It is argued that extensive social mixing and deconcentration programs are conducive to polarization and state-led gentrification, since governments mostly collaborate with developers to create new build-developments for middle-class home-ownership (Arbaci & Tapada-Berteli, 2012; Cheshire, 2009). Such tenure change, from rental to owner-occupation, is in fact regarded as one of the main drivers of gentrification in working-class areas. It is also a key mechanism for the rise in property values and rents in gentrified areas. This has wider implications for the affordability of housing for long-term residents and often results in indirect displacement (Arabaci & Tapada-Berteli, 2012; Cheshire, 2009). Furthermore Breckner (2013), outlined processes of gentrification in three districts in Hamburg. The gentrification of all three areas occurred as a result of urban regeneration through the local government and international real estate investors, who forced modernization and drove up prizes.

A major criticism of regeneration is hence its failure to close the socioeconomic gap between the poorest neighborhoods and the national average. Instead of improving urban challenges such as social polarization or economic hardship, poor investments and insufficient urban policies often consolidate these problems in inner-city areas (Colantonio & Dixon, 2011). However, many cities face increasing demands for urban development and improvement at a time where public resources are under pressure. With limited financial budgets, municipalities and governments often struggle to deliver socially sustainable urban development (Breckner, 2013; Noring & Katz, 2018). Sustainable urban development, with a focus on social sustainability, requires a strong public sector and well-resourced, integrated approaches (Colantonio & Dixon, 2011). The following section therefore looks at the main governance approaches to urban regeneration, public and private.

3.4 Governance of Urban Regeneration Projects

Due to their fast-changing political and social environments as well as the multitude of involved governance actors, cities are highly complex systems. They are often centers of political power as well as economic and social activity (Gottdiener, Budd & Lehtovuori, 2015; Roberts et al., 2017). The type of governance used in urban regeneration has implications for the tendering process and the subsequent development of property sites. Hence, it is relevant to take a closer look at the governance of urban regeneration projects.

Governance is defined as “the sum of the many ways individuals and institutions, public and private, plan and manage the common affairs in the city. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action can be taken. It includes formal institutional as well as informal arrangements and the social capital of citizens” (UN-HABITAT, 2002, p. 17, as cited by Noring, 2019). Accordingly, urban governance comprises a multitude of actors, including local governments. Waterfront regeneration in cities around the North Sea, argue Smith and Ferrari (2012), is typically characterized by governance that is safeguarding public interest, whilst being partially dependent on private capital. Extreme examples of governance types applied to waterfront regeneration in cities across Europe range from complete public control over the port (Hamburg) to complete independence of the port authority from local government (Edinburgh) (Smith & Ferrari, 2012).

Generally, we can distinguish between public sector driven or private sector driven governance. Each type of governance has different implications for the planning and delivery of urban regeneration projects.

3.4.1 Private Sector Driven Urban Regeneration

Private ownership of large-scale public sector projects is usually praised for its cost-efficiency caused by the pressures of market competition. Private ownership hence can be a way to reduce public debts as well as increase competitiveness of a publicly owned institution (Asad, 2001, as cited by Noring, 2019). However, a common concern of private ownership is corruption, as well as the lack of a positive public impact (Pack, 1987; McGreal et al., 2000).

The New Urban Policy agenda (NUP) has emerged in the 1980s and since supports market-driven urban (re)development, favoring the new developments and trends market-driven cities emerge in (Moulaert et al., 2003). Whereas these developments could foster international visibility of cities, this type of regeneration has fueled spatial fragmentation as much as economic interdependence and inequality (Cars, Madanipour & Allen, 1998; Moulaert et al., 2007; Merrifield & Swyngedouw, 1996). It is also debated whether market-driven economic development undermines any form of sustainability in projects. A number of publications have criticized the use of private finances, expertise and resources in public sector delivery, as not only the sustainability performances were unsatisfactory upon completion, but also housing prices raised due to increased land values (Adair et al., 2003; Raco, 2005). Researchers are further concerned about generic design, low quality, and unequitable access (Adair et al. 2003; Boddy 2007; Bromley et al. 2005; Krueger & Gibbs, 2007; Keil 2007; Krueger & Agyeman 2005; Lees 2003; Raco 2007a, 2007b). Especially in delivering affordable housing in urban regeneration, researchers call for governments to intervene (van Nouwelant, Davison, Gurran et al., 2015). An example of the effects of private driven governance in waterfront regeneration is Canary Wharf in London. Here, private developers could build without planning permission in a so-called “Enterprise Zone”. The widely de-regulated approach to waterfront regeneration led to opportunity-led planning, with private developers enjoying large freedom in developing the area (Brownill, 1993; Brownill 2013). This resulted in large socio-economic gaps between the newly regenerated area and the surrounding communities, which are among the most underserved communities in London (Brownill & Kochan, 2011). According to the Greater London Authority (2004, as cited in Brownill, 2013), however, the regeneration of Canary Wharf helped to maintain London’s position as the world’s financial center and secure investments.

3.4.2 Public Sector Driven Urban Regeneration

In general, literature has focused on both opportunities and pitfalls of public sector driven urban regeneration. Public-sector driven governance is praised for its ambition to foster communities and force sustainability measurements into urban regeneration (Moore & Bunce, 2009). Furthermore, the public sector has the responsibility to determine the appropriateness of private investment in urban regeneration (Adair et al., 2003). To secure sustainable market practices, long-term needs of residents must be satisfied by the offer of

the private property development. Sustainable market practices must further address environmental sustainability principles and consider the downside-effects of an active property resale market in order to guarantee residential stability (Adair et al., 2003).

In contrast to the positive effects of public sector driven urban regeneration, Mitchell (1993) describes the inefficiencies that occur due to the periodical change of legislators and politicians. Short-term political decisions guide long-term urban projects, which can decrease the quality of delivery and the city's ability to adequately respond to market shifts, changing demographics or social needs (Mitchell, 1993, as cited by Noring, 2019). Mitchell (1993) further claims that public authorities are less innovative than private actors.
Countering the perception of public-sector governance being slow and highly bureaucratic, the theory of "New Public Management" has emerged. New Public Management offers various new models that address the deficiencies of public-sector governance and aim to enhance the performance of the public sector by utilizing management practices from the private sector (Essig & Batran, 2005; Hughes, 1998). This paradigm shift emerges from the conviction that the world has become too complex and too fragmented to rely on services provided by the public sector, the market or any single actor alone. Social problems, too, have become more complex, and according to the Copenhagen Centre "no single actor, public or private, has the all-encompassing knowledge, overview, information or resources to solve complex and diversified problems" (Sehested, 2003, p.89). This calls for new models and multi-level governance to deliver solutions for urban regeneration. As such, hybrid models of institutional governance have emerged.

3.4.3 Hybrid Governance Models: The Public Asset Corporation and Public-Private Partnerships

We discuss two hybrid models, namely public-private partnerships and the institutional model Public Asset Corporation (PAC), as innovative ways to deliver urban regeneration. These are particularly relevant to our research, since both hybrid models drive the regeneration of HafenCity Hamburg.

3.4.3.1 Public Asset Corporations

The Public Asset Corporation (PAC), as defined by Noring (2019), is a hybrid model for managing and financing urban regeneration and public infrastructure. It functions as a publicly held but privately managed regeneration corporation that finances urban development self-sufficiently through the ownership and sale of the land under development (Noring, 2019). Using the example of Copenhagen's regeneration of the northern port area, Noring (2019) illustrates how the PAC *Copenhagen City & Port*, operates as publicly held but privately managed organization that oversees and finances the entire regeneration and infrastructure development with merely 120 employees. By combining public ownership and private management, the PAC thus combines two approaches to urban regeneration (public and private) often viewed as conflicting (Noring, 2019). Through private management, the PAC furthermore allows to overcome operational inefficiencies and excessive bureaucracy of public authorities whilst allowing for agility and efficient execution processes (Noring, 2019). A fundamental aspect of the PAC model is however, that the land under development is bundled under the ownership of the developing organization. As the owner and controller of the public land in regeneration, the PAC finances the large-scale regeneration through the lease and sale of own land. Thus spurring urban regeneration without the use of scarce tax revenues. With the public mandate to operate as a private organization on market premises equal to any other private company, the PAC thereby allows to maximize revenues that can later be reinvested for the public good, such as the development of public infrastructure (Noring, 2019; Noring & Katz, 2018). As a publicly-owned but privately managed development corporation that is wholly owned by the city of Hamburg, HafenCity Hamburg GmbH (HCH) can therefore be defined as PAC (Noring & Katz, 2018).

The PAC offers a revolutionary model to overcome the pitfalls of public or private ownership and deliver financially sustainable and effectively managed urban regeneration. As such, the financial independence of the PAC could be used to realize projects that are beyond the scope of maximizing profits and allow to engage in projects that are less profitable but guarantee social sustainability. Nevertheless, the use of a PAC, as an effective vehicle for sustainable urban regeneration, is still new to research and its true potential to foster social sustainability requires academic attention.

In order to remain agile and flexible despite overseeing massive urban development projects, PACs frequently engage in public-private partnerships to deliver large-scale urban

regeneration projects. In the regeneration of HafenCity Hamburg, the public sector actively collaborates with the private sector. Therefore, we subsequently take a closer look at public-private partnerships.

3.4.3.2 Public-Private Partnerships (PPPs)

According to the Commission of the European Communities, PPPs are “forms of cooperation between public authorities and the private sector that aim to modernize the delivery of infrastructure and strategic public services” and have been heavily promoted by the European Union since 2003 (URBACT, 2006, p. 2). Whereas the Commission of European Communities highlights the innovative nature of PPPs, van Boxmeer and van Beckhoven (2005) focus on the shared responsibilities of the partners in their definition of PPPs, claiming that a PPP is an “agreed co-operation between government and private actors via the share of decision rights, costs and risks” (p.12). Whereas these co-operations are normally recorded in contracts, PPPs are also relying on a high degree of mutual trust. Future eventualities, for example, are often not part of a contractual basis (Noring, 2007; Noring 2019).

Based on a study of 13 cities, URBACT (2006) have identified the ideal roles of each partner involved in an urban regeneration PPP and highlighted the integration of community groups into the planning process. Here, the public sector is confined to a supervisory role, designing the vision for a project, whereas the private sector delivers financing, networks, and expertise (Table 1.).

Table 1. *Ideal Roles of Partners involved in Urban Regeneration PPPs.*

Role of public sector	Role of private sector	Role of community groups
Leader / Champion	Investment capital	Help to identify local needs / problems and different possible solutions
Initiate development	Hands-on approach: project development and delivery	Voluntary work, knowledge and support
Develop strategy / vision	Finance	Involvement in process: as part of administrative procedures
Subsidy provision, invest / co-finance Appraisal, negotiation with property / land owners	Delivery	Hands-on approach in community-based regeneration
Use of legal powers	Provision of knowledge / information	May be absent where there is no community
Project Management / Co-management	Networks with other private investors	
Evaluation and monitoring: post-implementation	Innovative in service delivery	
Allocates and secures funding	Provide delivery impetus and reduce / avoid delays	
Complements private sector initiatives		

Note. Adapted from URBACT (2006, p.26)

Van Boxmeer and van Beckhoven (2005) further argue that successful PPPs can result in capacity and budget enlargement, offering opportunities to further develop projects. Overall, synergy effects make resource use more efficient. These aspects illustrate the benefits of PPPs and their ability to make government bodies more agile and efficient in terms of project delivery and financing. Moreover, PPPs are praised for the innovative solutions they create in regenerating cities (Codecasa & Ponzini, 2011), largely benefitting from the know-how of the private sector (URBACT, 2006). Colantonio and Dixon (2011) further highlight PPPs as an effective tool to secure public sector influence in urban regeneration, allowing the public sector to include a social and environmental agenda into projects. It is debated, however, to what extent this argument holds. Various researchers argue that promised outcomes of PPPs are often not reached (Noring, 2007; Hodge, Greve & Boardman, 2010). Another major concern of PPPs is the lack of transparency in their establishment and the consequential danger of corruption (Hall, 2004). Lastly, the profit drive of private investors is criticized in facilitating public sector services. Researchers warn about public-sector

reliance on private financing and skills, as they documented rising land-value, expensive housing, and poor sustainability performances. They therefore question PPPs as a valuable mechanism to deliver socially sustainable urban regeneration (Adair et al., 2003; Bromley et al., 2005; Raco, 2005; Keil, 2007). Rather than engaging in PPPs, Moore and Bunce (2005) demand a shift in policies to strengthen the public provision of affordable housing in order to deliver socially sustainable urban regeneration.

Essentially, PPPs aim to combine the best of both worlds: the expertise, efficiency and capital of the private sector and the protection of the public interest through the public sector. The extent to which PPPs can be regarded as a vehicle to leverage and deliver socially sustainable urban regeneration is debated, and strongly depends on the individual case. More research is needed to understand the effects of PPPs in enabling or limiting social structures in urban regeneration.

Overall, urban (waterfront) regeneration is marked by a quest for innovation to address the shifting needs of society and environmental change, and to enable outcomes that counteract arising social inequalities. It is debated, however, which approach (private, public or hybrid) is most suitable. Due to the multitude of actors involved in urban regeneration, researchers have acknowledged the importance of formal and informal processes in urban governance (Hillier, 2000). It is therefore essential to elaborate on the role of formal and informal processes in urban governance.

3.4.4 Formal and Informal Processes in Urban Governance

The increased complexity of cooperation between stakeholders from different sectors (environmental, social, political, economic, etc.) leads to an extensive planning process (Perić & Furundžić, 2013). Both formal and informal processes govern the interaction of stakeholders. Hillier (2000) claims that actors, both from the private and public sector, utilize networks and strategies outside formal processes to realize ideological, economic or other benefits for themselves or the group they represent. Particularly in hybrid models of governance, such as PPPs, informal networks and flexible exchanges allow stakeholders to act more agile (Le Galès, 2000, as cited in Ysa, 2007). Based on a study of PPPs in the US and the UK concerned with inner-city regeneration, Ysa (2007) claims that the majority of negotiations and resulting contracts are based on informal processes, as opposed to formal

mechanisms. Informal processes are seen as a key to successful governance, as the adherence to formal mechanisms can result in inertia (Ysa, 2007). Informal processes and networks enable cooperation and provide stakeholders with the flexibility to cope with unforeseen events. Lowndes, Nanton, McCabe and Skelcher (1997) have contrasted networks and partnerships as ways of managing urban regeneration. The authors define networks “as informal relationships between individuals” and partnerships “as more formal inter-organizational arrangements” (pp.341-342). They found that networks are often the grounds on which partnerships develop, which renders the role of networks for project execution crucial. Informal networking is often formalized into processes of bidding, contracting and the allocation of resources (Lowndes et al., 1997). Informal processes, such as networking, can play a substantial role in partner selection and cooperation throughout the urban regeneration cycle (Lowndes et al., 1997). Although there is limited new research on the direct link between informal processes and urban regeneration, we can conclude that the informal ties between stakeholders can influence the governance and delivery of urban regeneration processes. Three key findings have been outlined above: One, informal networks and relationships can steer partner selection, two, informal processes can lead to formal processes of bidding and contracting, and three, informal processes help stakeholders to stay agile.

Having discussed governance processes guiding urban regeneration projects, it is now relevant to critically review the role of social sustainability in urban regeneration.

3.5 Social Sustainability and Urban Regeneration in Europe

This section defines and critically explores the concept of social sustainability in urban environments. As the nature of our research question calls for the assessment of social sustainability in the regeneration context of HafenCity, the role of social sustainability in urban regeneration is subsequently discussed. We critically review social sustainability indicators and contributing factors in urban regeneration practices with a particular focus on HafenCity.

3.5.1 Social Sustainability in the Urban Context

In recent years, social sustainability has gained increased recognition as a fundamental element of sustainable development. While there is little consensus on one definition of social sustainability, broader literature exists on the overlapping concepts of social capital, social cohesion, social inclusion and social equity, as underlying factors of the multi-dimensional concept (Colantonio & Dixon, 2011; Dempsey et al., 2009). Social inclusion should improve the ability, opportunity and dignity of people disadvantaged on the basis of their identity to take part in society (World Bank, 2019). Social cohesion and inclusion are further claimed to contribute to strong, fair and just societies for present as well as future communities (Dempsey et al., 2009). Polese and Stren (2000) define social sustainability as a social development that encourages social integration and fosters an environment where culturally and socially diverse groups live together, whilst at the same time improving the quality of life for all parts of the community (Polese & Stren, 2000, p.15). With a strong focus on social sustainability in cities, the researchers further acknowledge the importance of the physical environment such as affordable housing, urban design and public spaces (Polese & Stren, 2000). From the perspective of housing and environment, Chiu (2003) identifies several approaches to social sustainability. Her 'people-oriented' interpretation of social sustainability refers to the improvement of people's well-being and the fair distribution of resources whilst reducing social exclusions and destructive conflict. She further argues that social preconditions, social relations, housing quality and equitable distribution of housing resources are vital in the development of sustainable housing development (Chiu, 2003).

While Chiu (2003) as well as Polese and Stren (2000) relate urban social sustainability to rather physical features of the urban environment, Dempsey et al. (2006), place the overarching themes of social equity and sustainability of community at the core of social sustainability. Furthermore, they argue that creating social sustainability goes beyond achieving a mix of characteristics within an area but implies whether people actually interact with each other as neighbors (Dempsey et al., 2009). For our research, with its focus on urban regeneration, the definition of Polese and Stren (2000) appeared most relevant and will be applied as the working definition in the remains of this paper. The researchers define social sustainability as a development that must encourage social integration and foster an

environment where culturally and socially diverse groups live together, while acknowledging the importance of the physical environment such as affordable housing and urban design. According to Colantonio & Dixon (2011), municipalities with the aim of creating socially sustainable communities and neighborhoods should consider the following social sustainability parameters in their regeneration projects:

- Demographic change (ageing, migration and mobility)
- Education and skills
- Employment
- Health and safety
- Affordable housing and environmental health
- Identity, sense of place and culture
- Participation, empowerment and access
- Social capital
- Social mixing and cohesion
- Well-being, happiness and quality of life

The concepts of social mixing and mixed communities are regarded as integral components of sustainable urban neighborhoods. Social mixing is viewed on two different levels. Firstly, as the mixing of places in terms of buildings, their form, size, rent levels and designated uses (e.g. commercial, residential or industrial). Secondly, as the mixing of people and their social characteristics such as income and jobs, age, ethnicity and cultural background (Cheshire, 2009, Colantonio & Dixon, 2011; Tunstall & Fenton, 2006). However, there are opposing views on mixing and mixed communities in general. While Power and Houghton (2007) regard it as “the holy grail” of urban regeneration, others noted how mixed housing within one place does not necessarily translate into social mixing between residents (Cheshire, 2009). In fact, increased diversity could potentially generate negative rather than positive interaction between residents, as too many diverse groups may undermine the existing social networks present in the area under development. It is consequently vital to establish adequate levels of mixing, considering the socioeconomic and demographic characteristics of the incoming neighbors (Cheshire, 2009; Tunstall & Fenton 2006).

Within the opposing debate however, researches of all opinions agree that sustainable communities must offer decent homes at prices people from any social background can afford (McDonald et al., 2009; Malienė & Malys 2009). While intangible and less measurable themes of social sustainability such as identity, sense of place or the benefits of social networks have moved to the center of academic debates around social sustainability (Colantonio & Dixon, 2011), cities still demand for affordable housing as the central pillar of social sustainability (McDonald et al., 2009; Malienė & Malys 2009).

3.5.2 Social Sustainability in Urban Regeneration: Policies & Approaches

Early regeneration projects across Europe in the 1980s focused predominantly on the physical and economic renewal of degraded areas (Colantonio & Dixon, 2011; Roberts et al., 2017). Today, varying trends towards new approaches of urban regeneration increasingly focus on the inclusion of social dimensions. The notion of culture-driven urban regeneration, for instance, highlights culture as the source of quality in urban regeneration (Darchen & Ladouceur, 2013; Evans, 2005; Miles & Paddison, 2005). Interestingly, culture-led urban regeneration is said to combat social polarization and inequalities (Miles & Paddison, 2005). As Miles and Paddison (2005) found, the combination of cultural strategies with economic growth can function as a source to address social problems in urban regeneration projects. Next to the culture-led model of urban regeneration, other models such as community-based approaches emerged. Community-based urban regeneration is a bottom-up approach, focusing on the active involvement of the local population in decision-making processes to shape urban regeneration practices and improve the quality of life based on the population's needs (Deakin, 2009; Degen & Garcia, 2012; Duncan & Thomas, 2000; Moulaert et al., 2007). The social and cultural dimensions have marked recent developments in urban regeneration and depict a shift from a one-dimensional perspective on urban regeneration to a more holistic one. However, it is debated whether an integrated approach can truly be implemented (Jones & Evans, 2013). Smith and Ferrari (2012) similarly question whether a planned government-led approach would appear the most suitable, arguing that a vital city emerges in and through the society itself, not in a blueprint manner created by the government.

More holistic approaches to urban regeneration also entered the political debate, when European urban policy moved towards a more integrated approach of urban development, linking economic activities and environmental improvements with social and cultural vitality (Colantonio & Dixon, 2011). With the Bristol Accord in 2005, the concepts of community and neighbourhood moved into the focus of sustainable urban development. In 2007, all 27 EU member states signed the “Leipzig Charter on Sustainable European Cities” (EU, 2007, as cited in Colantonio & Dixon, 2011). The Leipzig Charter outlined an ideal model for the “European city of the 21st century” and laid the foundation for a new integrated urban policy in Europe, addressing urban challenges related to social exclusion, structural change, ageing, climate change and mobility. More recently in 2016, at the United Nations Conference on Housing and Sustainable Urban Development, world leaders adopted the New Urban Agenda. The Agenda sets new global standards for sustainable urban development, and aims at rethinking how modern societies plan, manage and live in cities (United Nations, 2016). Recent legislation in Germany has recognized the need for affordable and social housing as means to guarantee social stability. Beginning in 2020, the German government is entitled to subsidize social housing in all federal states and is planning significant investments (Bundesministerium des Innern, für Bau und Heimat, 2019). In 2011, the state parliament in Hamburg passed a law that recognized the need for social housing in a growing population and introduced the so-called “Mix of Thirds”. The Mix of Thirds, in German “Drittelmix”, requires one third of residential spaces to be dedicated to private ownership apartments, one third to standard rent units, and the remaining third to social housing (Koalitionsvertrag SPD /Bündnis 90 die Grünen, 2015). In accordance with this legislation, the city of Hamburg subsidized the development of more than 20.000 social housing units in new building projects since 2011 (NDR, 2019).

While the international political agenda increasingly focuses on the inclusion of social sustainability in regeneration practices, little has led to traceable actions. Urban problems such as gentrification, the lack of affordable housing, social polarization and exclusion as well as declining environmental quality persist (Darchen & Ladouceur, 2013; Malienė & Malys 2009; Moore & Bunce, 2009; Raco, 2005; United Nations, 2016). The most severe problems here still being private developer-led regeneration and lacking public financial means. Furthermore, misguided urban regeneration focusing solely on economic

opportunities and growth potential is recognized as causing economic and social exclusion (Darchen & Ladouceur, 2013). Initiatives such as mixed housing and the provision of affordable housing however are regarded as initiating social sustainability, fostering community cohesion and social inclusion (Darchen & Ladouceur, 2013; Randolph, 2004).
Creating socially sustainable neighborhoods hence places enormous demands on the regeneration efforts of cities and governments. The existing debates and agendas show the urge to include social sustainability as an independent and equally recognized dimension of sustainable urban development (Colantonio & Dixon, 2011).

3.5.3 Measuring Social Sustainability

A range of tools and metrics have been developed by specialists and municipalities to assess and measure social sustainability in cities (Glasson & Wood, 2009). The city of Rotterdam in the Netherlands, for instance, introduced the “Sociale Index” to assess and monitor the personal abilities, living environment, safety, community participation and connectedness of neighborhoods and their residents (Colantonio & Dixon, 2011). With lacking consensus on the defining criteria of social sustainability, indicator checklists, such as the following Table 2 have been developed to offer a comprehensive overview of factors indicating social sustainability in urban environments (Colantonio & Dixon, 2011; Dempsey et al., 2009). Criticism voiced against such forms of sustainability assessment draw on its subjective judgement and superficiality (Colantonio & Dixon, 2011). The latter being enhanced by the fact that there is no unified acceptance on which elements the concept of social sustainability should entail (Colantonio & Dixon, 2011; Mcdonald, Malys & Maliene, 2009).

Table 2. *The Social Dimension of Sustainable Urban Development*

Non-physical factors	Predominantly physical factors
Social justice: inter- and intra-generational	Urbanity
Education and training	Attractive public realm
Participation and local democracy	Decent housing
Health, quality of life and well-being	Local environmental quality and amenity
Social inclusion (and eradication of social exclusion)	Accessibility (e.g. to local services / facilities / employment/green space)
Social capital	Sustainable urban design
Community	Neighbourhood
Safety	Walkable neighbourhood: pedestrian friendly
Mixed tenure	
Fair distribution of income	
Social order	
Social cohesion	
Community cohesion (i.e. cohesion between and among groups)	
Social networks	
Social interaction	
Sense of community and belonging	
Employment	
Residential stability	
Active community organizations	
Cultural traditions	

Note. Adapted from Dempsey et al. (2009*), p. 291*

3.6 Social Sustainability in HafenCity Hamburg

While there is generally little research on social sustainability in HafenCity, few have referenced HafenCity as an example for sustainable waterfront regeneration (Niemann & Werner, 2016). Breckner and Menzl (2012) describe HafenCity as an example for the co-existence of the seemingly contradicting concepts of urbanity and neighborliness, thereby affirming that neighbourhood structures can exist in downtown areas. The researchers found that neighborliness is pro-actively driven by HafenCity's residents. Especially in the early development of HafenCity, residents desired to build and foster social structures. Moreover, mixed functions (retail, living, working) have substantially contributed to HafenCity's urbanity. Similarly, Niemann and Werner (2016) in their study on sustainable waterfront

regeneration describe the different mixed uses through retail, offices and residencies, as key factors for sustainable urban development. However, there is wide ranging dissent about the success of HafenCity's regeneration. While some praise it as an example of sustainable urban development, critics also raised concerns over HafenCity's limited approach to sustainability, evaluating merely the ecological aspects of sustainable resource management and neglecting the aspect of social sustainability (Menzel, 2010). This view was mainly driven by the lack of residential diversity at the point of study, caused by high prices for ownership apartments and rents as well as absent social housing (Menzel, 2010).

Unlike other cities (Colantonio & Dixon, 2011), HafenCity Hamburg currently employs no social sustainability assessment framework. Reflecting on the wide-ranging concept of social sustainability and the lacking consensus on its contributing factors in urban environments, we felt urged to create an applicable, recent assessment framework for HafenCity Hamburg. To evaluate social sustainability outcomes in our following analysis, we consequently developed a theoretical framework that outlines ten fundamental dimensions of social sustainability in urban environments. The framework was developed relying on Colantonio and Dixon's (2011, p.4) social sustainability dimensions in urban regeneration of European cities, as well as Dempsey et al.'s (2009, p. 291) fundamental work on defining social sustainability in urban environments (Table 3.). The chosen dimensions thus combine and reflect the most relevant findings of the social sustainability domain in urban regeneration and urban contexts in general. Following fundamental dimensions were identified:

Table 3. *Theoretical Framework: Ten dimensions of social sustainability*

Social Sustainability Dimension	Theoretical Explanation
Health & Safety	Supporting healthy living, access to medical services
Education & Skills	Access to educational facilities
Employment	Availability of diverse job opportunities
Social Mix	Mixed communities in terms of social characteristics, income, jobs, tenure, households, age, ethnicity and life stages. In terms of places: mix of uses (e.g. commercial, residential), rent levels, size and built form
Social Inclusion	Ensuring the right and opportunity of every individual to participate in and enjoy all aspects of community, social and political life
Sense of Community & Local Identitiy	Sense of belonging and identity among local residents. Strong local culture and shared community activities
Participation & Empowerment	Public involvement in decision making processes and planning. Representation of resident's needs and aspirations. Collaborative forms of governance
Decent Housing & Residential Stability	Equitable access to well designed, affordable and quality built housing. Long term tenure and stable residential community
Urbanity, Happiness & Quality of Life	Urban feel and access to services, cultural and recreation spaces. Walkable neighborhood as well as access to public transport
Environmental Sustainability	Environmental protection, e.g. minimize waste, carbon energy, water use, transport and use of sustainable building material

Note. Adapted from Colantonio & Dixon (2011), Dempsey et al. (2009)

This framework will guide our empirical analysis on social sustainability in HafenCity Hamburg.

As our research question asks, "*What role do tendering processes for building sites play in fostering social sustainability in HafenCity Hamburg's regeneration?"* the subsequent section introduces the main tendering processes for building sites in Germany and their relevance in urban regeneration.

3.7 Tendering Processes in Urban Regeneration

Despite the extensive literature on urban development and regeneration in the last decade (Jones & Evans, 2013; Roberts et al., 2017), there is limited research on the role and effects of tendering processes in urban development. The impact of traditional and emerging tendering processes on social inclusion and sustainability in cities is particularly understudied. Using mainly government and municipality documentation on German

national and local tendering processes, this research aims to fill the gap in existing literature and provide insights on the role of tendering processes in urban regeneration in Germany.

3.7.1 Tendering Processes in Urban Regeneration

Tendering is regarded as the fairest means of awarding government contracts for urban development and regeneration (Du, Foo, Nieto & Boyd, 2005).

In public tendering processes for urban development projects, the municipality opens a building site for tendering, traditionally with the aim of selling the plot of land to the highest bidder. The aim of the tender is hence to secure a favorable outcome for municipalities and ameliorate their budget (Du et al., 2005). Once a plot of land is sold, all property rights are transferred to the new owner, allowing him to freely determine the future use of the building site. However, despite ensuring means of revenue for municipalities selling property, different types of tendering processes also ensure varying degrees of municipal control over the outcome of the project on the property at hand (Peters et al., 2017). In Germany, there are three forms of tendering that guarantee varying levels of public influence over the redevelopment outcome.

3.7.2 Tendering Processes in Germany

The traditional and most common form of public tendering is the *market-oriented bidding process,* where the plot of land is awarded to the *highest bidder.* Here, the winning bidder is obliged to fulfill the minimum development requirements outlined in the tendering document. However, once the highest bidder won the tender, the municipality has lost control over further developments on that site (Peters et al., 2017). Strong public sector reliance on private developers' finance, skills and resources in urban regeneration projects has however been viewed with mixed feelings. While private delivery of projects often comes as an immediate relief of urban problems, municipalities also risk expensive housing developments with the danger of increased gentrification, rising land values and insufficient sustainability standards (Krueger & Agyeman, 2005; Moore & Bunce, 2009). Highest-bidder-tenders hence bear the risk of losing public control in enforcing social sustainability in urban regeneration.

The second, less common tendering procedure for public land sales, is the so-called *direct transfer*. A *direct transfer* entails the immediate award of the exclusive rights to the plot of

land and the development mandate on it (Gennies, Gerhardt, Kasper & Schaller, 2018; Peters et al., 2017). In this form of tendering, the land is awarded to one elected investor without a highest bidder competition. However, it happens rarely and is usually highly motivated by political and economic aspects of urban planning. In German they call this rare instance a “special circumstance for the promotion of the local economy” (Wirtschaftsförderungsfall). For the investor to be directly awarded the development rights to a plot of land, he hence has to offer concrete, unique attributes that bring a substantial political or economic benefit to the city and the area under development (Peters et al., 2017). Examples of such economic benefits could be the creation of jobs through the relocation of a firm's headquarters. While this form of tendering has the potential to ensure economic stability and create jobs in an area under development, the enforcement of social and ecological standards during the development depends on the political agenda and power of the public authority. As such, the public sector can retain control over building site developments through extensive contracts after the transfer or lose their power immediately after the sale of the site.

Finally, the third and most recent addition to tendering processes, is *concept tendering*. In this type of tendering, the plot of land is not awarded to the highest bidder but instead to the bidding participant with the most suitable concept for the building project on the property at stake (Gennies et al., 2018; Peters et.al, 2017). Beforehand, the municipality publishes tendering documents that outline the specifics of the building site open for sale and gives strict requirements for the developments on it. Using the guidance provided through the tender documents, the bidders create development (mostly building) concepts that fulfill or potentially exceed the outlined requirements. Subsequently, there are two forms of awarding the land: (1) Plots of land can be sold for a fixed price, determined by the public authorities. With the fixed price, the award of the land is then 100 percent dependent on the concept of the project proposal for the future development on the site. Or (2) the procedure evaluates the bidding proposals in a 70/30 ratio. 70 percent of a bidding proposal’s value is then placed on overall quality and local fit of the concept. The remaining 30 percent of the decision is based upon the bidding price. *Concept tendering* prioritizes fit to location and overall quality of a concept proposal over economic concerns, hence encouraging innovative thinking of developers (Peters et.al, 2017; Gennies et al., 2018). Through this tendering approach,

municipalities can articulate specific guidelines for future building developments and set quality standards. Municipalities thereby enhance security for project outcomes and ensure increased focus on social or ecological aspects of urban regeneration (Peters et al., 2017). Furthermore, *concept tendering* includes various stakeholders in the process of urban regeneration without municipalities losing control over inner city development (Peters et al., 2017).

At this moment, German cities employ *concept tendering* mainly as an active support for building cooperatives, which are often unable to compete in highest-bidding tendering processes but are preferred by municipalities because of their ability to foster lively communities and neighborhoods. Building cooperatives, then, are offered a fixed price for the land and merely tender for the best concept (Peters et al., 2017). Currently, only few cities employ *concept tendering* as it is less profitable and requires more effort from public actors (Peters et.al, 2017; Gennies et al., 2018). Figure 4 visualizes the three types of tendering processes in Germany and their respective evaluation of price and quality of the participating proposals.

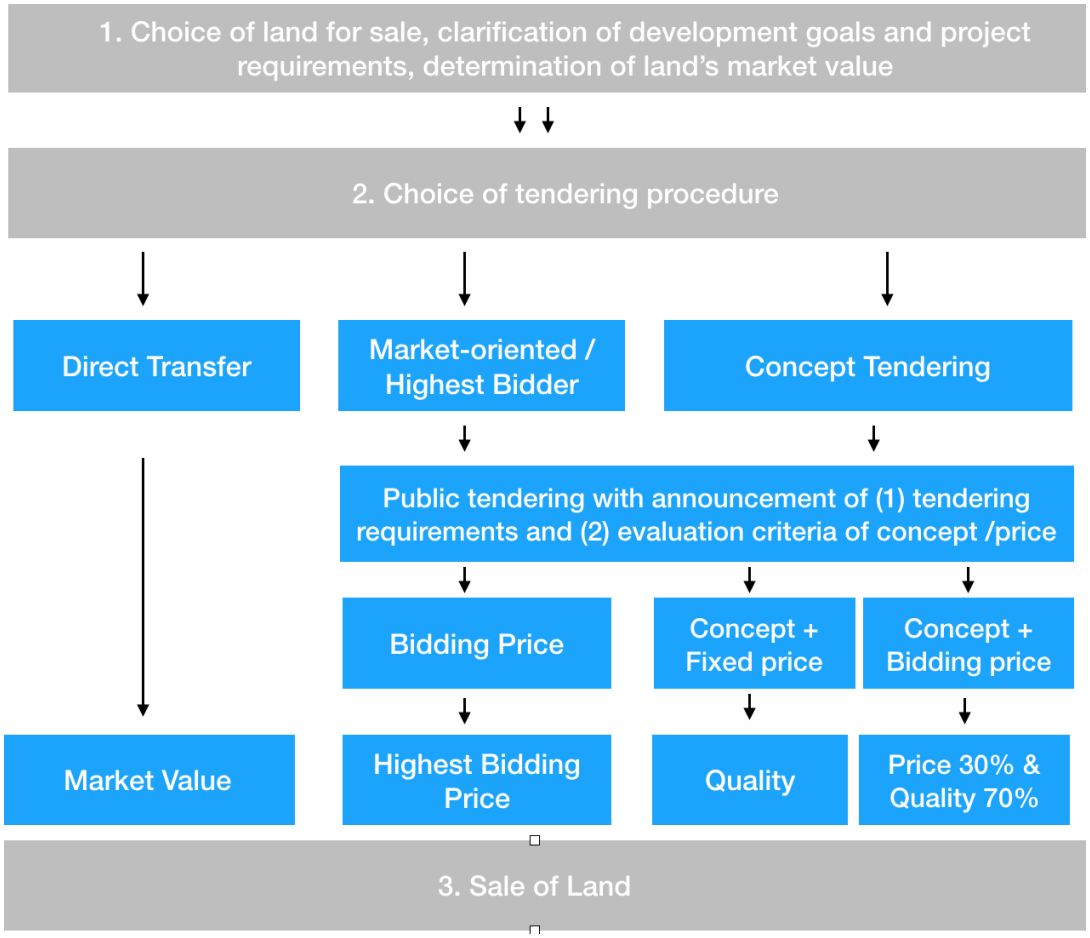

Figure 4. Tendering Processes in Germany. Adapted from Peters et al. (2017).

All in all, it is highly difficult to generalize or summarize tendering processes across Germany. That is mainly due to the federal organizational structure of Germany and the extensive independence in governance and decision-making processes of each of the 16 federal states. Nevertheless, the success of *concept tendering* has urged the federal states to harmonize regulations and find more alignment in tendering processes across Germany (Gennies et al., 2018). Particularly, since different tendering processes result in varying degrees of municipal control over the outcome of development projects. The varying public control further points towards the underestimated role of tendering processes in urban regeneration and urges for more research on this topic.

INFO: Building Cooperatives in Germany

A building cooperative is a consolidation of several private developers or individuals who come together in order to plan and build houses or apartments for their personal use. The motivations for joint construction projects commonly stem from the wish to articulate individual wishes in the planning procedure, architectural features and uses of the house as well as self-selected neighbors. The trend towards building cooperatives has been growing in Germany. A main reason is that building and owning through a cooperative is often cheaper than buying apartments on the open market. Many people also highly value the strong neighbourhood communities fostered by building cooperatives and the sociocultural structures that often emerge. Several German cities encourage the construction of affordable housing through building cooperatives and even reserve up to 20 percent of city-owned construction land for building cooperatives (Bura, Kasper, Markones & Töllner, 2016; Ministry for Families, the Elderly, Women and Youth, 2016).

3.8 Conclusion on Literature Review

Whereas urban regeneration and social sustainability have received considerable attention in literature, processes of implementing and measuring social sustainability in urban regeneration appear understudied. Although potentially viable vehicles for (socially) sustainable urban regeneration are discussed through PPPs or the PAC model, little is known about the execution of such models (on a building level) and their actual outcomes in terms of social sustainability. Furthermore, possible links between tendering processes and social sustainability have yet to be analyzed in the urban regeneration context. As such, this research explores the role of tendering processes in steering urban regeneration outcomes, uncovering its potential to serve as an alternative vehicle for socially sustainable urban regeneration.

4. Method

The chapter at hand outlines 4.1) the philosophy of science, 4.2) the research approach, 4.3) the methods of data collection, 4.4) the data analysis, and finally, 4.5) the limitations of the methodological choices. The conducted interviews with involved stakeholders of HafenCity Hamburg are at the core of this case study analysis and our methodological considerations.

4.1 Philosophy of Science

This research aims to reveal the connection between HafenCity's tendering processes and the establishment of social sustainability. As such, we are researching a phenomenon or process that occurs in the particular place and circumstance of HafenCity Hamburg. Studying a process in this particular context through a personal lens, this research hence applies the interpretivist paradigm as guiding philosophical assumption and conceptual framework for the following empirical analysis (Ponterotto, 2005; Wellington & Szczerbinski, 2007). The interpretivist paradigm relies on the assumption of interpretation. It assumes that there are multiple interpretations to a single phenomenon rather than one truth that can be determined by a process of measurement (Pham, 2018; Ponterotto, 2005). As interpretivist researchers, we consequently adapt the philosophical anchor of relativist ontology (what is reality). We hence assume that there are multiple realities, seen by multiple people with various perspectives, always depending on the social context they appear in (Mack, 2010). This approach and underlying philosophy was considered most suitable for this research, since it allows us to gain a deeper understanding of the phenomenon and its complexity in the unique context of the case study at hand. Furthermore, the interpretivist paradigm encourages researchers to conduct their research in natural settings, using methodologies such as case studies and interviews to gain authentic information from various perspectives, as it is the case in this empirical analysis (Pham, 2018; Ponterotto, 2005; Wellington & Szczerbinski, 2007). While the philosophical assumption of interpretivism might lead the researchers to gather valuable insights, it has to be noted that the ontological perspective of it tends to be subjective rather than objective. The research outcomes are thus unquestionably affected by our own interpretation, belief system and way of thinking (Mack, 2010; Pham, 2018).

4.2 Research Approach

With this research we aim to provide a better understanding HafenCity Hamburg's tendering processes and aim to identify how they can foster social sustainability. In order to fulfil this research objective, we follow the structure of an intrinsic case study (Baxter & Jack, 2008). The intrinsic case study approach was chosen, since this research is rooted in the primary interest of exploring HafenCity Hamburg. HafenCity's prominence as one of Europe's largest inner-city regeneration projects and Hamburg's innovative role in the context of international urban regeneration further guided our choice (Noring & Katz, 2018).

The purpose of this case study is not to build theory around a generic phenomenon but rather to shed light into this specific case of interest, in the specific context of HafenCity Hamburg (Baxter & Jack, 2008; Flyberg, 2006). Nevertheless, it is possible that the knowledge gathered in this case study research allows for transferability to similar urban regeneration projects. Our case study, as a "detailed examination of a single example" (Flyvbjerg, 2006, p. 220) follows an inductive research approach. Inductive reasoning makes broad generalizations from specific observations possible.

4.3 Methods of Data Collection

4.3.1 Semi-structured Interviews

Qualitative research is oriented towards analyzing concrete cases in their temporal and local particularity, starting from the expressions and activities of people in their local context (Flick, 2009). The in-depth, localized exploration of HafenCity Hamburg's tendering process and its influence on social sustainability, hence underlies a qualitative research design. Aligned with this idea, our qualitative research design applies a semi-structured interview process as method of data collection (Flick, 2009). This interview technique is a conversation between respondent and interviewer that is navigated by an interview guide to cover specific topics. However, it leaves room for improvisation to go into related fields that come up in the course of conversation and enables probing for more information and clarification of answers (Flick, 2009; Justesen & Mik-Meyer, 2012). With multiple participants, this approach ensures retrieving comparable answers, while gathering additional information on related topics. The varied professions and individual backgrounds of the interview participants also precluded the use of a standardized interview guide (Bariball & While, 1994). The semi-structured

interview process supports the inductive way of researching, since the participants reveal unexpected information that goes beyond the initially raised questions (Justesen & Mik-Meyer, 2012).

Designing the interview guide for the semi-structured interviews, we formulated six overarching themes to guide the conversation and understand motives and processes relevant to our research question. Those were: 1) General questions on HafenCity and the interviewee's role in its development process, 2) the goals of HafenCity within the wider development of the city of Hamburg, from the start until today, 3) the tendering process employed in the development of HafenCity, 4) stakeholder collaboration within the development process, 5) instruments and mechanisms employed to foster social structures, 6) critical success factors for social sustainability and innovation. Within the six themes, an interview guide with approximately sixty questions was produced (see Appendix 1). The questions slightly differed according to the respondent's profession and role within the development of HafenCity. This allowed to gather rich data, capturing various perspectives. The order of the questions was not fixed, but open to the flow of conversation (Justesen & Mik-Meyer, 2012). Follow up questions concerned further descriptions, clarifications or verifications of the previously said (e.g. about detailed steps of the tendering processes or collaboration in decision-making processes). The researchers also aimed for a balance between being open to new information, whilst at the same time steering the conversation to acquire the knowledge needed to answer the research question.

The interviews each lasted between sixty and ninety minutes and were held face-to-face (Hamburg and Copenhagen), with one video-call interview held via Skype. All interviews started with the introduction of the researchers, the purpose of the study and some general questions to make the respondents feel comfortable. Subsequently, the respondents were introduced to the procedure of the interview and asked for their consent to be recorded. The research ethics principles of informed consent were hereby fulfilled, asking all participants before and after the interview for their consent to be part of our research, as well as to be named and cited. Approval for each citation was also sought after individually, before being used in the subsequent empirical analysis.

At the end of the interview, respondents were given the opportunity to add information they perceived relevant in this context and felt it had not been covered during the conversation.

All interviews were held in German and transcripts are available upon request. Overall, the interviews allowed to gather the information needed to answer our research question and all our questions were answered freely and without hesitation. Nevertheless, we could observe differences in the structure and flow of conversation according to the respondent. One reason might be that interviewees in high positions often aim to lead the interview into their desired direction and field of expertise (Kvale & Brinkmann, 2009). This challenge was true in some cases, where it was difficult to lead the conversation out of the respondent's field of expert knowledge.

4.3.1.1 Participants

Participants for the interviews were selected on the premise of purposeful sampling. Through purposeful sampling, participants are selected or sought after based on pre-selected criteria related to the research question (Flick, 2009). With the aim of investigating the tendering process of HafenCity Hamburg and its role in the creation of social sustainability, those criteria included that all participants had to be either knowledgeable about and involved in the development process of HafenCity or have particular knowledge about social sustainability in urban contexts and HafenCity in particular.

In order to gain a holistic understanding, HafenCity's development and tendering process as well as its impact on social sustainability had to be explored from various perspectives, urging us to interview various stakeholders involved in the process. After extensive online research, seventeen potential participants from various fields of HafenCity's development were identified. All participants were approached via email as first means of contact and partially later per phone call to schedule appointments. Reaching people involved in the process, particularly those in higher positions of city government and HCH, proved difficult. Finally, nine out of the seventeen approached respondents agreed to be interviewed. No interview was scheduled with private developers of HafenCity. In our aim to explore the tendering process from varying perspectives, this bears a limitation for our results. The participating stakeholders and their role and relation to HafenCity Hamburg will be outlined in the following. Table 4 illustrates their role and relation to HafenCity as well as their relevance for this study.

Table 4. *Interview Participants and their Research Relevance*

Participant	Stakeholder Group	Profession/ Role in HafenCity	Research Relevance
Prof. Jürgen Bruns-Berentelg	HafenCity GmbH	CEO HafenCity GmbH	Chaperon of HafenCity project, knowledge of main development over time
Lukas Gilliard	HafenCity GmbH	Executive Management Assistant	Expert on tendering process and internal processes of HCH
MUDH Employee 1	Ministry of Urban Development & Housing	Urban Planner & Landscape Designer for HafenCity Project	Major role of MUDH in HafenCity development, he was involved since 1999
MUDH Employee 2	Ministry of Urban Development & Housing	Building Cooperatives Expert	Extensive knowledge on building cooperatives & social housing in HafenCity
Kees Christiaanse	Architects	HafenCity's Masterplan Developer, sits in Architecture Competition Jury & HCH Advisory Board	Insights on tendering process, architectural developments & development of HafenCity over time
COBE Architects	Architects	Urban- and Landscape - Designer	Took part in the tendering procedure, involved in Grasbrook Workshops
Heike Heuer	Commission of Land Use	Chairperson of CoLU	Key role of CoLU in public land transactions, tendering & urban development in Hamburg
Prof. Thomas Krüger	HafenCity University	Professor & Member of HafenCity Advisory Board	Insights on idea generation & innovation in HafenCity, knowledge on development of HCH, Expert on PPPs
Prof. Ingrid Breckner	HafenCity University	Professor & Researcher for Urban Development and Social Mix in HafenCity	Profound knowledge on social structures /cohesion in HafenCity & development over time

4.3.2 Additional Methods of Data Collection

While the interviews were the primary source of data collection, document analysis and field research in the form of participant observation were used as secondary sources of data, serving as additional background knowledge and verification of gathered data.

4.3.2.1 Document Analysis

Document analysis is often used in combination with other qualitative research methods as a means of triangulation. Triangulation is the combination of methodologies within the study of the same phenomenon (Bowen, 2009). The researcher draws upon at least two different sources of evidence to increase credibility and reduce potential bias (Bowen, 2009). In this case, the documents served to complement our interviews and provided factual background information to the conducted interviews. The documents employed for the analysis were retrieved from HCH and the Ministry of Urban Development and Housing (MUDH). The documents from HCH are presentations created by the management to illustrate the

tendering process of HafenCity and the measures taken to increase social inclusion. Further documents show detailed plans about development areas, buildings, their use and inhabitants. Documents from MUDH predominantly concern the involvement of building associations in HafenCity and the inclusion of governmental social housing measures in the areas under development.

4.3.2.2 Participant Observation

As another, complementary means of data collection in our data triangulation, we employed participant observation. Participant observation is a field strategy that combines interviewing of respondents and informants with direct participation and observation (Flick, 2009). We adopted the position of "participant as observer", because it enables the study of a greater range of aspects in one particular context (Flick, 2009). The observation for this research was done overtly and kept unsystematic in order to remain flexible and responsive to all occurrences (Flick, 2009). The natural setting of the Grasbrook workshop events was chosen for the observation, which we visited on the 7th of February (Flick, 2009). Here we talked to citizens of Hamburg, several experts and participated in discussion panels.
The Grasbrook workshop is a public dialogue and idea generation event, organized by HCH and the MUDH to involve citizens into the development process of Grasbrook. The Ministry and HCH use this form of public dialogue to discuss topics such as neighbourhood creation, urban sustainability, as well as mobility and housing with experts and interested citizens of Hamburg. As such we considered it a supportive background information for our research. To document our findings during the event, we took notes of the speeches and our conversations.

Finally, it has to be mentioned that all methods of data collection were influenced by our repeated visits to HafenCity Hamburg. To gain a deeper understanding of our case, we not only inspected development sites and different neighborhoods but also talked to residents of HafenCity.

4.4 Data Analysis

In order to analyze the data collected through the interviews, a qualitative content analysis was conducted. The aim of the analysis was to explore HafenCity Hamburg's tendering

process in great detail and detect its potential impact on the establishment of social sustainability within the area. To break down and understand the data, detect patterns and uncover dynamics, a three-step coding method was employed (Flick, 2009; Miles, Hubermann & Saldana. 2013). Miles et al. (2013) describe the process of coding as labelling passages of text with symbolic meaning on the basis of its content. The three-step coding process includes open, axial and selective coding, consequently (1) analytically breaking down data into descriptive codes (open), (2) finding relationships between codes and collecting them into possible themes (axial), and (3) defining and refining the specifics of each theme (selective) (Böhm, 2004; Corbin & Strauss, 1990; Flick, 2009). The three-step coding method was employed as opposed to the two-step coding method, because the third step, the selective coding, allows the researcher to be particularly active as author and refine codes in their direct relation to the research question (Ruppel & Mey, 2015). The nine interviews were transcribed, resulting in approximately 523 minutes of audio and 60 pages of analysis material. With the research question in mind, the transcribed interviews were analyzed individually, initially inserting open codes that serve as descriptive concepts for larger passages, significant sentences and paragraphs (Flick, 2009). To label the open codes, *in vivo* was employed. *In vivo* means labelling the codes using expressions from the interviews (Flick, 2009). At this stage, codes are very close to the actual interview text, but will become more abstract with each coding step (Flick, 2009). In total, 282 open codes were identified that were subsequently relabeled and put in alphabetical order to delete codes that appeared twice or more often. In the second step, axial coding, the researcher moves back and forth between inductive thinking (developing concepts from the text) and deductive thinking (testing the developed concepts against the interview texts) (Flick, 2009). In an iterative process, we consequently grouped the open codes into larger themes with relevance to the research question, resulting in 46 axial codes. Finally, the selective coding stage continues with the axial coding at a higher level of abstraction. The axial codes are hence grouped and refined again to form core concepts (Flick, 2009). The selective coding left us with five core concepts, refined in accordance to our research question. The final concepts were: *tendering processes, critical success factors, governance processes, innovative practices,* as well as *social sustainability and inclusion.* Please see Appendix 2 for a visualization of our coding procedure.

The documents were also analyzed using a coding approach. According to Bowen (2009) the analysis of documents involves skimming (superficial examination), reading (thorough examination), and interpretation. In an iterative process of re-reading and reviewing the data, codes and concepts were attached. In cases where document analysis is supplementary to other data collection methods, it is common to use the codes generated through interview analysis (Bowen, 2009). We hence employed the codes created during the previously described coding process. This furthermore helped to integrate the results of document analysis into our data gathered through interview analysis (Bowen, 2009). In the documents provided through HCH, we could identify following selective codes: *tendering process, innovative practices, social sustainability and inclusion*. In the documents provided through the MUDH the codes *social sustainability and inclusion* and *governance processes* were found.

Finally, the data gathered during participant observation was analyzed in relation to tendering and social sustainability. The notes were coded in line with the existing codes from the interviews, however only the code *social sustainability and inclusion* appeared.

4.5 Limitations

Although semi-structured interviews appeared as the most suitable method of data collection in this research, it has to be noted that there can always be discrepancies in participants answers and actual behavior, the so-called attitudinal fallacy (Jerolmack & Kahn, 2014). Furthermore, interviews might gather inaccurate data, since questions or answers could be biased, contain errors or misunderstandings (Gubrium & Holstein, 2001). By gathering data from several participants with varying viewpoints, we tried to overcome these challenges, nevertheless they always create a limitation to the gathered data (Gubrium & Holstein, 2001). A potential flaw of our document analysis is biased selectivity which suggests the incomplete collection of documents, that are, for instance, aligned with an organizational context or corporate strategy. That could be the case here, since all documents were given to us by interviewees themselves (Bowen, 2009). However due to the limited role of document analysis as a secondary data source, the biased selectivity has only minor influence on our research results (Bowen, 2009).

5. Empirical Analysis

The findings of our empirical analysis reveal that in HafenCity Hamburg, the tendering processes for building sites take great influence on the creation of social sustainability in the area. Exceptional features of the tendering processes secure public control in the regeneration process and allow the developing corporation HCH to steer developments into desired directions and secure social sustainability.

The analysis starts with exploring the tendering process in great detail, in order to subsequently assess its role for the creation of social sustainability in HafenCity.

Our empirical analysis rolls out in five different sections, divided into three larger parts:

Part 1 analyzes the tendering processes in detail and demonstrates their distinctiveness (5.1-5.4).

Part 2 discusses which aspects of the tendering process influence social sustainability and illustrates specific social sustainability outcomes in HafenCity Hamburg related to the tendering process (6.- 6.4). Throughout the analysis, the findings are connected with relevant literature and summarized using the theoretical framework of social sustainability developed in the Literature Review (7.).

Part 3 highlights critical success factors for HafenCity Hamburg's development and introduces a new model to foster social sustainability in urban regeneration (8.- 9.).

The results are summarized in the graphic below, which will also guide the outline of the following empirical analysis.

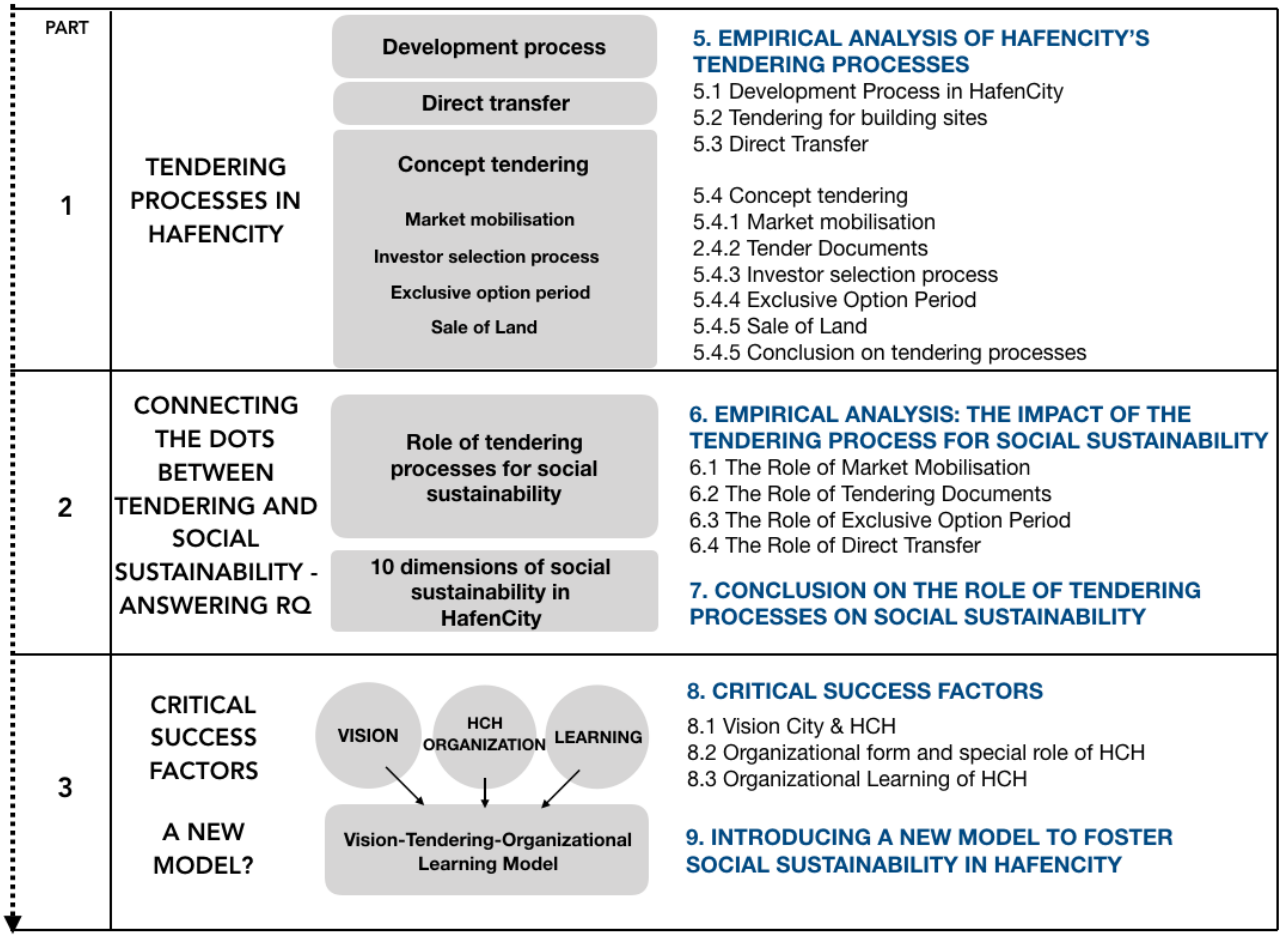

Figure 5. Research results outline

Part I: HafenCity Hamburg's Tendering Processes

The first part of our empirical analysis examines the tendering processes employed in HafenCity Hamburg in great detail, in order to subsequently assess their relevance for the creation of social sustainability. First, we situate the tendering process for building sites in the broader development process of HafenCity (5.1-5.2). Secondly, we discuss the tendering procedure *direct transfer* in HafenCity (5.3). And third, we analyze the four distinct phases of *concept tendering* in detail (5.4).

5.1 The Development Process in HafenCity Hamburg

In order to situate the tendering processes for building sites in the wider regeneration process of HafenCity, we briefly explain the different phases of the development process. The development process of HafenCity Hamburg comprises three main phases of

competitions, which intend to develop the area from larger structures to smaller ones: masterplan, urban design and building concepts.

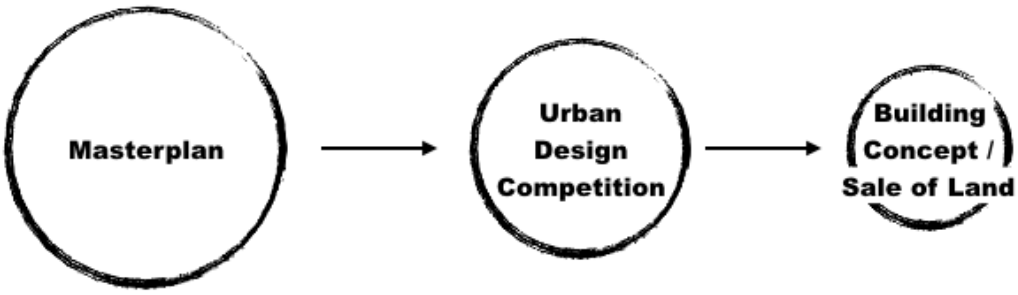

Figure 6. The development process of HafenCity Hamburg

The masterplan builds the framework for the development of an area. In HafenCity, the masterplan clarifies the more technical aspects that need consideration in planning, such as soil contamination, infrastructure, the use of old harbor structures and the broad use structures of living and working. It was the flexibility of the masterplan design that not only convinced the jury in the first place (2000), but also allowed for a revision of the masterplan in 2010 to adapt to the changing needs of society (K. Christiaanse, personal communication, February 11, 2019). HCH, the Ministry of Urban Development and Housing (MUDH), and KCAP (Kees Christiaanse) jointly created a concept to integrate the eastern parts of HafenCity (Oberhafen, Baakenhafen and Elbbrücken). Baakenhafen is set out to become the most diverse neighbourhood in HafenCity with many social and cultural offerings. A large part of this research centers around the development of this area.

Following the masterplan, the urban design competition subsequently develops fine-grained structures for each district. The winners of an urban design competition create the so-called functional use plan for each quarter, which assigns areas for buildings, free spaces (e.g. parks) and infrastructure. The functional use plans thus aim to create each quarter's own spatial identity. Today, HafenCity is divided into 10 districts, which all set a different thematic focus. It is important to note that all developed districts in HafenCity are of mixed use combining for instance housing and office space.

This research focuses on the last stage in the development process, the tendering for building sites. This competition determines the sale of a building site and its respective use concept. Here, ownership over a plot of land is transferred from HCH to private developers. Various stakeholders are involved in this development stage such as HCH, MUDH, Commission of Land Use, private developers, civil society, and architects. This part of the development process is particularly important for the creation of social mix and inclusion, as it is decisive about the future tenants, the specific use and the characteristics of the building. It lays the foundation for the creation of a neighbourhood both in technical and in human terms. The full tendering procedure and the interaction of stakeholders is outlined below.

5.2 Tendering for Building Sites

The following description of the tendering process relies on the data of our interviews and analyzed documents. The detailed analysis of the tendering processes is an attempt to fill the current literature gap, which scarcely discusses tendering processes in Germany.

In HafenCity, we can distinguish between two types of tendering processes: *concept tendering* and *direct transfer.* As the graphic below illustrates, *concept tendering* encompasses more phases than *direct transfer*.

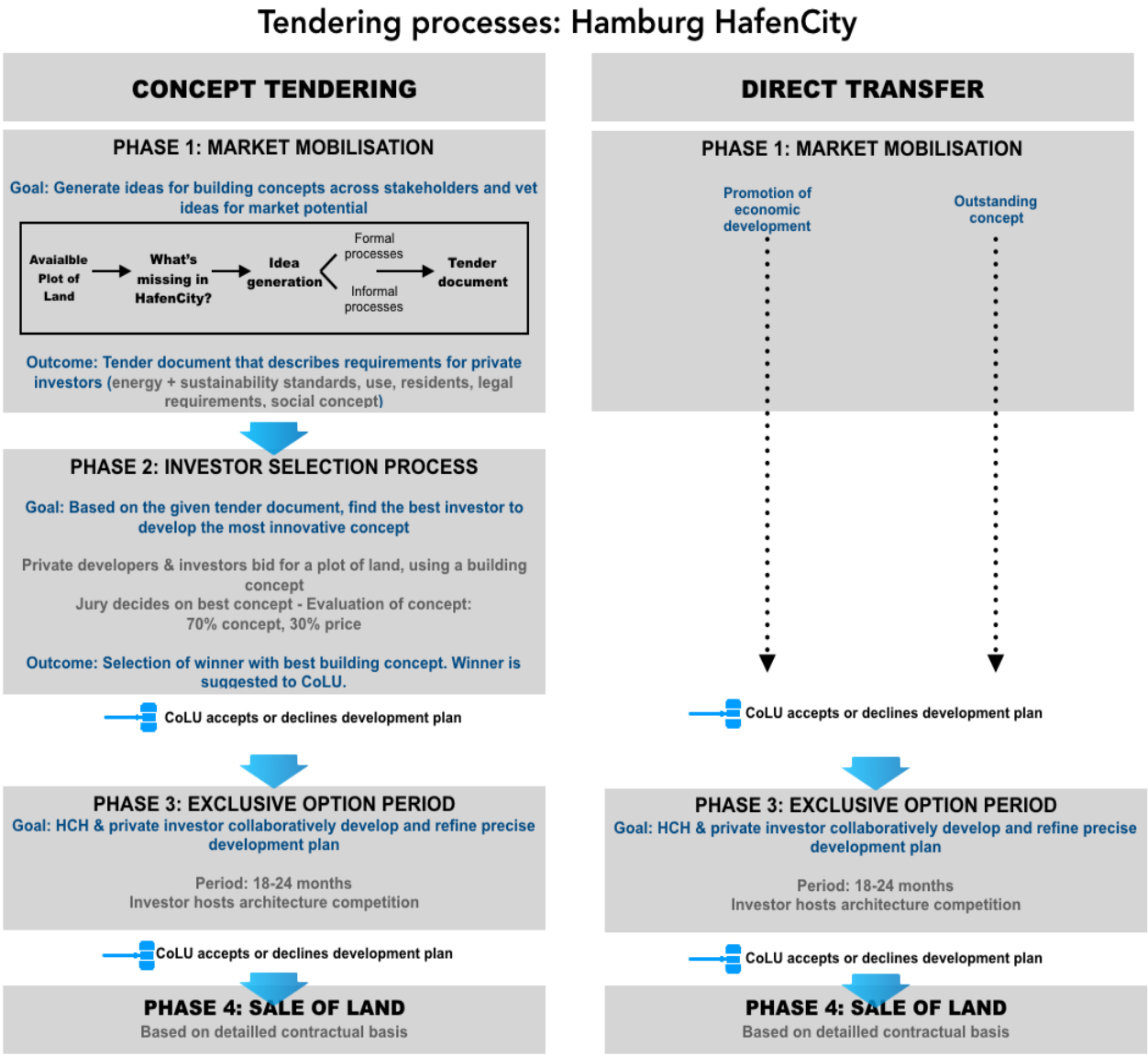

Figure 7. Two types of tendering processes in Hamburg HafenCity

5.3 Direct Transfer

Direct transfer describes a rare tendering process, in which the investor selection process is obsolete. The developer is immediately granted exclusive option to pursue his development plan for a building site. While the developer avoids a public investor selection process, the Commission of Land Use must still agree to the building concept, as it controls any given public land transaction.

The tendering procedure of *direct transfer* is only used in two cases: Either, to promote economic development (in German "*Wirtschaftsförderungsfall*") or to promote a unique

concept proposal. In order to promote economic development, HCH attempts to drive large-sized companies into HafenCity. Examples of this are the headquarters of Unilever Germany or the publishing house Der Spiegel. In other cases of *direct transfer* the concept is so compelling, innovative or suitable for a plot of land that it will be considered a landmark in Hafencity. An example of an architectural landmark is the largest wooden building in Germany, called “Wildspitze” (L. Gilliard, personal communication, February 14, 2019). In HafenCity, concept tendering is the default tendering procedure, therefore, this research focuses predominantly on concept tendering.

5.4 Concept Tendering

Consistent with theory (Gennies et al., 2019; Peters et al., 2017), not the highest price but the best concept wins in HafenCity’s *concept tendering*. Bidders apply on the basis of a tender document which sets the requirements for future use of the building site. These tender documents are created by HCH. To choose concept over price is a drastic move for cities particularly in times of financial insecurity as they potentially face financial losses. In HafenCity, this process is employed to ensure maximum quality in the regeneration process and to steer the developer into a desired direction. HafenCity’s motives to employ *concept tendering* hence confirm existing literature (Gennies et al., 2018; Peters et al., 2017). However, while the literature on *concept tendering* focuses on the broader benefits and only touches upon its different phases, the following analysis extends current literature by scope and detail.

Our analysis reveals that in HafenCity Hamburg, *concept tendering* is utilized since 2003. For the development of HafenCity, HCH created a very detailed form of *concept tendering,* comprising four broad stages: (1) Market Mobilisation, (2), Investor Selection Process, (3) Exclusive Option Period and (4) Sale of Land.

5.4.1 Phase 1: Market Mobilisation

This first phase of HafenCity’s *concept tendering* is an internal process within HCH, that occurs before a building site and its respective tender document is publicly announced for tendering. The aim of the market mobilisation phase is to generate ideas for the future use of a given plot of land (J. Bruns-Berentelg, personal communication, March 4, 2019). This phase, therefore, conceptualizes potential building concepts as much as it vets potential

ideas for feasibility in the market. As an ideation and testing phase, it reduces risks for HCH, by ensuring that ideas and demands for a building can be met by the private development market. In the market mobilisation phase, HCH gathers ideas for the future uses of buildings to be later incorporated into tender documents. These uses are supposed to fulfil certain functions in the neighbourhood (e.g. diverse access, community feeling, social infrastructure, etc.). In general, HCH seeks to answer the following questions when ideating on future building concepts for an available plot of land:

“What makes sense strategically?”
“What is missing?”
“What could be innovative?”
(HCH, personal communication, February 14, 2019, p.25).

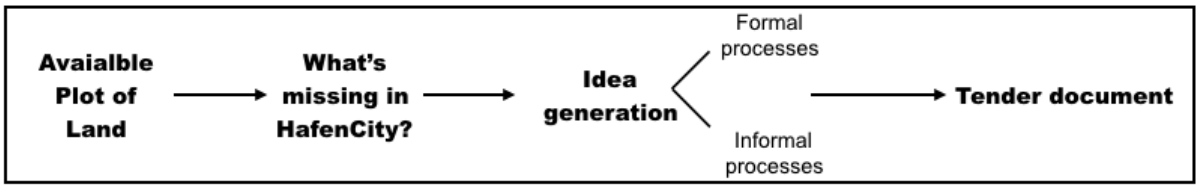

Figure 8. Processes within Market Mobilisation

Eventually, this ideation phase leads to the development of requirements for tender documents which serve as the basis for concept bidding. Meaning, the requirements set out in the tender document must be fulfilled by the developers and investors in order to apply with their building concepts. Hence, the requirements set out by HCH, resulting from this period, have the power to steer private investors in the development of proposals for building concepts (investor selection phase). By providing strict guidelines and requirements for bidding, HCH ensures that only developers with high qualitative ambitions and a vision for social inclusion and innovation can participate in the process (L. Gilliard, personal communication, February 14, 2019). Through a detailed concept and strict regulations, HCH thereby guarantees a fine-grained structure, mixed use, and diverse residents which is why it is of particular relevance to understand the process leading up to these requirements.

In the following, we outline how (1) ideas for tender document requirements are generated across stakeholders in formal and informal processes and (2) describe the tender document requirements in detail.

5.4.1.1 Market Mobilisation - Formal & Informal Processes to Generate Ideas

Ideas for tender documents are generated in many different processes across stakeholders, including civil society, politics, and the private sector, broadly summarized in the graphic below.

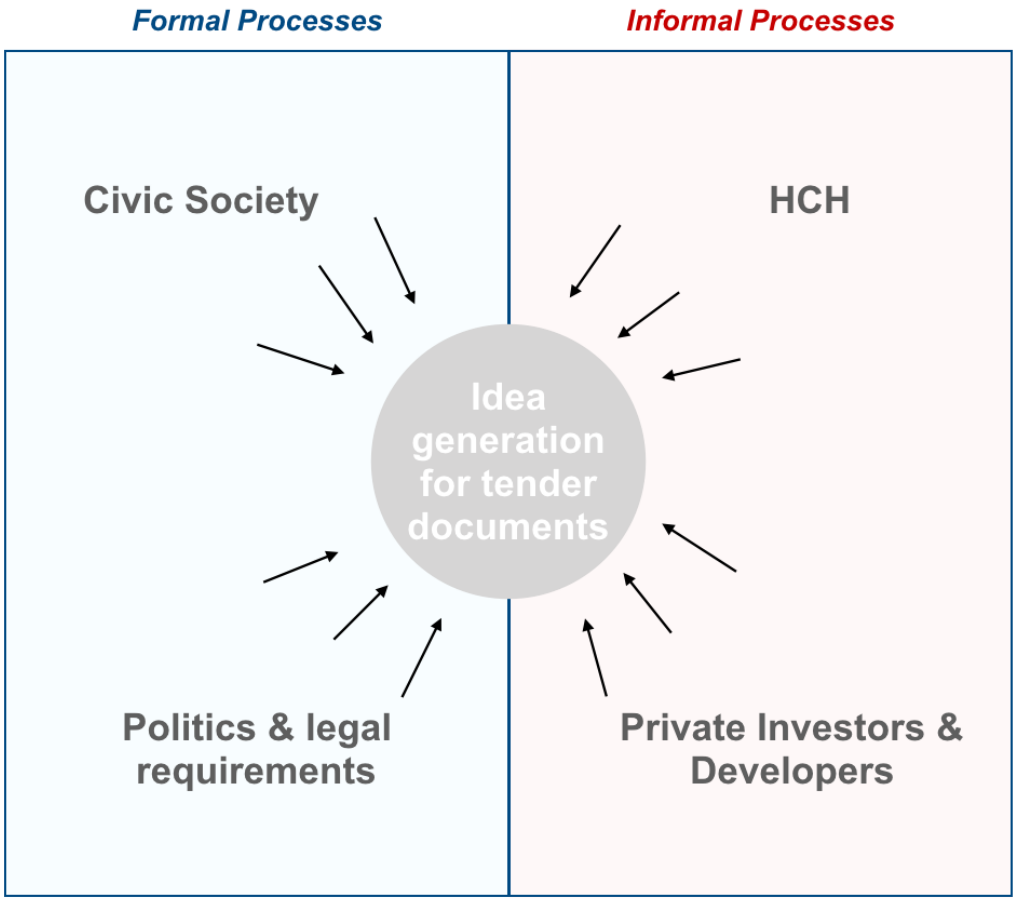

Figure 9: Formal and informal collaboration during market mobilisation for the creation of tendering document requirements

Throughout the coding of the interviews it appeared that the various processes influencing the creation of tender documents can be distinguished between formal and informal processes. In fact, a large part of the idea generation for tender documents is informal, i.e. not formalized or part of a mandatory process. The following will divide the processes of

market mobilisation into formal and informal processes and explain their impact on the development of ideas for the tender documents.

5.4.1.2 Formal Processes

Formal processes to generate ideas for building concepts occur around (A) citizen involvement through events and workshops, (B) citizen involvement through the collaboration with Netzwerk HafenCity e.V., and (C) HCH's interaction with MUDH.

A) Citizen Involvement: Events at Kesselhaus & Workshops

The city of Hamburg has recognized the role of civic participation in urban development and so has HCH. In Hamburg, early-stage public involvement is required by law and provides the city and HCH with political legitimation (Smith & Ferrera, 2012). The use of public participation methods in HafenCity is consistent with the broader trend towards increased civic participation in urban regeneration processes over the last decade (Deakin, 2009; Degen & Garcia, 2012; Thiel & Petrescu, 2017). In order to receive idea input, HCH hosts events at their main info point "Kesselhaus" as well as workshops in changing locations.

The public discussion events at *Kesselhaus* serve the purpose of receiving early input from various stakeholders in the development process of new buildings in HafenCity. The events are open to the public and are announced on the HafenCity website. Stakeholders, such as private developers, investors and social organizations (e.g. SOS Children's Villages), but also residents and business owners of HafenCity are invited to the events. HCH argues that the input generated during these public events is taken into consideration when developing the tender documents. During these events, HCH presents the plot of land soon to be opened for tendering and takes a lead role in discussing its future use. The plenum is encouraged to ask questions, raise concerns, provide ideas, and discuss the topic. Here, HCH can vet potential ideas in an early stage with prospective private developers to reduce risk and receive input from civil society on their wishes and needs to develop a human-centric concept for the plot of land.

In the regeneration process of Grasbrook, HCH in collaboration with the city of Hamburg (represented by MUDH), hosts public ideation workshops specifically designed to involve residents of Hamburg. Whereas workshops were less frequent in the early development of

HafenCity, they are now an integral part of the planning process for the new district Grasbrook. So far, four workshops have been carried out. The workshops serve to generate ideas, elicit concerns of residents, and inform residents of adjacent neighborhoods about future developments in the area. At this point, no planning or development has started in Grasbrook, meaning that the identity of an entire neighbourhood is being discussed from scratch. The early discussion on larger structures and the identity of Grasbrook takes place in public and is not directed top-down. During the workshops, architects, planners, politicians, HCH employees, and the senator, amongst others, hold presentations to trigger discussions and ideas from residents. The CEO of HCH (J. Bruns-Berentelg), the senator for Urban Development and Housing, and the chief planning director were present at the workshop we attended as part of this research. Their presence illustrates the serious interest of the city and HCH in involving the public into the planning process. After the presentations, people were encouraged to discuss different themes related to the regeneration of Grasbrook at separate tables with experts from various fields guiding the discussions (observation, February 7, 2019).

Figure 10. Impression from Workshop Grasbrook. Input collection and presentation during Workshop.

Ideas and concerns resulting from the workshops feed into the development of Grasbrook's masterplan and can therefore steer the development of larger structures in the area. Ideas gathered during events at Kesselhaus are informing the tender documents for building sites in HafenCity. Here, the public has direct influence on the future use of buildings in the neighbourhood. However, the role and effect of workshops and public participation is debated among this research's participants. There is dissent on the usefulness of civic participation in areas where at this stage no residents are directly affected by the outcome (Grasbrook). Further, it is criticized that a large proportion of participants at these events are industry members, who have an interest in co-developing the area, as opposed to residents who contribute with bright ideas (L. Gilliard, personal communication, February 14, 2019). Nevertheless, employees of MUDH evaluate civic participation as a collaborative process, in which the needs of residents are respected, for example in the development of kindergartens and schools. Breckner similarly evaluates the integration of civil society as positive and highlights how these processes have become more frequent over time (personal communication, February 12, 2019). This also indicates an organizational change within HCH and shows a development over time.

B) Citizen Involvement: Collaboration with Netzwerk HafenCity e.V.

Another form of idea generation for the development of tendering documents is generated through formal collaboration processes between HCH and the neighbourhood association Netzwerk HafenCity e.V.. Netzwerk HafenCity e.V. was established in 2009 and has the mission to "represent the interests of residents, initiatives and local business people of HafenCity as well as to co-develop HafenCity into a social, sustainable, inclusive and culturally diverse neighbourhood" (Netzwerk-Hafencity, 2018). It is a non-profit association initiated by HCH's former social commissary Markus Menzl. HCH and Netzwerk HafenCity e.V. have a cooperation agreement, which ensures regular interaction and an exchange of ideas between HCH and the association. As representative of the residents of HafenCity, the neighbourhood association has direct influence on the idea generation for the tender requirements (J. Bruns-Berentelg, personal communication, March 4, 2019). An example of the collaboration between Netzwerk HafenCity e.V. and HCH are the community houses planned in three different neighborhoods within HafenCity. Following an initiative of

Netzwerk HafenCity e.V for the development of the community houses, their wishes were incorporated into the tender documents.

Figure 11. The planned community houses Elbtorquartier, Lohsepark and Baakenhafen, which were co-developed with Netzwerk HafenCity e.V. (HafenCity, 2018)

C) Interaction with the Ministry of Urban Development and Housing

HCH is supervised by and in close contact with MUDH. However, according to our interviewees, MUDH has limited influence on the development of tender documents. Only after the development and presentation of the tender document, MUDH can provide input for changes to the tender document. Rather, MUDH ensures compliance with legal requirements and provides input on technical considerations.

5.4.1.3 Informal Processes

Informal processes are those interactions and collaborations that are not officially documented as leading up to the creation of tender documents but appear to play a crucial role. We identify informal processes between HCH, private investors and cultural institutions and analyze the role of personal networks. Our interviews revealed a strong effect of informal

process on the concept and idea generation for tender documents in the market mobilisation phase. Informal processes involve (A) trade shows and fairs, (B) personal networks and informal collaborations, and (C) internal idea generation.

A) Trade Shows and Fairs

It emerges from the interview data and documents that HCH proactively exchanges ideas with private investors during industry events. Employees of HCH, and the CEO in particular, attend the largest fairs in Europe such as Expo Real in Munich, Germany, or MIPIM in Cannes, France. These fairs pose an opportunity to connect with private investors and developers and observe trends in the industry. At times, HCH is approached by private developers or investors who propose ideas for buildings or specific slots. Through these types of proposals, HCH takes inspiration and "discovers what's possible" (L. Gilliard, personal communication, February 14, 2019). However, in the case of proposals, investors would still be required to go through the formal investor selection process in the application for a building site. The learnings on innovative buildings, future markets, and general industry trends feed into to the idea generation for building concepts leading up to the development of tender documents.

B) The Role of Personal Networks and Informal Collaborations

For idea generation and market testing, CEO Bruns-Berentelg makes extensive use of his own network and experience, which he acquired over the years in HafenCity as well as during his former career in the private sector. Wondering "what's missing in HafenCity" (HCH, personal communication, February 14, 2019), Bruns-Berentelg aims to involve under-represented stakeholders in HafenCity. He, for example, collaborates with cultural institutions and service providers in order to diversify the services and cultural offerings in HafenCity. Once their interest in HafenCity is confirmed, he incorporates their wishes and ideas into later tender documents. The future developer would then be required to integrate the needs of a cultural institution into his building concept proposal. An example of such informal collaboration is Bruns-Berentelg's vision to create an "Art Mile" in HafenCity, where he approached various cultural institutions to verify their interest for a representation in HafenCity. Bruns-Berentelg highlights the informality of these networking processes in developing ideas for building concepts in the market mobilisation stage, saying that "keeping

it under the radar" makes projects more feasible *(*J. Bruns-Berentelg, personal communication, March 4, 2019). In planning future projects, he trusts his own convictions of what is right and aims to strategically build HafenCity based on his personal vision of a functioning city.

*"(...) You need to think city in a sociological context, and you can't leave it to anyone, neither politicians nor private developers" (*J. Bruns-Berentelg, personal communication, March 4, 2019).

The informality of these collaborations further avoids the involvement of too many political stakeholders or representatives in early stages.

C) Internal Idea Generation and Research

In addition to collaborating with private investors, leveraging personal networks, attending fairs, and initiating dialogue with civil society, HCH also generates ideas for tender documents and building concepts internally. HCH and Bruns-Berentelg in particular, learn from other cities through research and field trips. Moreover, Bruns-Berentelg consults research professionals from HafenCity University (HCU). There are informal monthly meetings (e.g monthly lunch) between HCH and HCU professors, where future urban developments are discussed. HCU professor Ingrid Breckner identifies CEO Bruns-Berentelg's role as key to research and innovation in HafenCity:

"Right from the beginning he was very much invested in research and international comparison, in order to design the public realm in the best possible way in terms of housing and mixed use. He is a real exception." (personal communication, February 12, 2019).

The assistant to the CEO, Lukas Gilliard, confirms *"It's all in his head*" (L. Gilliard, personal communication, February 14, 2019). This, again, highlights the important role and competence of CEO Bruns-Berentelg as lead innovator in developing ideas and building concepts that are later translated into tender documents. His vision for HafenCity therefore greatly impacts the creation of tender documents and the later outcomes in HafenCity.

Further, the experience with tender documents and completed projects over the years helps HCH to develop new ideas and learn from success or failure.

5.4.2 The Tender Document

As outlined above, the process of idea generation leading up to the development of tender documents is complex and involves a variety of stakeholder processes. Whereas HCH takes the lead role in developing the tendering requirements, they ask for early-stage input from representatives of various industries and civil society to find the right concept for the right plot of land (market mobilisation phase).

"Basically, everyone knows long before the tendering starts that there is a location and that there is an idea competition. (…) It is not an ad-hoc decision, it's a strategic decision." (J. Bruns-Berentelg, personal communication, March 4, 2019).

Next to the diverse input collection, there are legal requirements that have to be considered in creating the tender documents. These include, for instance, that a minimum of 20 percent of the land available for tendering is reserved for building cooperatives. Furthermore, new developments have to comply with the so-called Mix of Thirds, which requires 1/3 of residential spaces to be dedicated to private ownership apartments, 1/3 to standard rent units, and the remaining 1/3 to social housing (Koalitionsvertrag SPD / Bündnis 90 die Grünen, 2015). These requirements already provide the tendering documents with a dimension of social mix and inclusion and guarantee alternative housing developers access to development sites (e.g. building cooperatives). As these laws have only been passed in 2011, the requirements only apply to the tendering documents of the last decade.

The tender document also comprises requirements to the use concept and future tenant groups. HCH, for example, could require age-appropriate building designs to be implemented by the private developer and thereby determine the tenant group as 'the elderly'. The private developer would have to provide inclusive building designs in their proposal. Or, if the market mobilisation phase has identified a need for a supermarket the tender document can require the developer to integrate public ground floor use into his proposal.

Further, HCH has developed sustainability standards and an eco-label that form an integral part of the tender document requirements for applicants since 2010. The sustainability standards are relatively high compared to industry practices and are considered unusual tender requirements by the participants of this research (e.g. I. Breckner, personal communication, February 12, 2019). There are two types of eco-labels: Gold and Platinum. These were introduced to reward developers for their sustainable management of energy, resources, and construction materials in order to foster a healthy living environment and resilient building structure in HafenCity. As CEO Bruns-Berentelg illustrates:

"The HafenCity Ecolabel is an important incentive instrument for sustainable construction. Its innovative character and quality requirements are reflected in the quality of HafenCity's buildings." (HafenCity, 2019).

Next to the HafenCity Ecolabel, HCH also introduced a CO2-friendly mobility concept that must be supported by applying developers. The mobility concept aims to establish a locally-run E-car-sharing service. To incentivize future residents to use this service, HCH aims to reduce individual parking space. In tender documents, the mobility concept requires developers to limit parking space to 0.4 parking spots per residential unit.
To summarize, the tender document describes the given plot(s) of land and details the requirements for use and purpose of the later building on that plot of land, including:

- a clear objective, including the social mission
- a sustainability concept and HCH's eco-label certification
- applicable legal requirements, e.g. Mix of Thirds, 20 percent site reservation for building cooperatives
- type of use concept (e.g. amounts of office space, residential space, public space)
- type of desired residents (students, families, disabled, elderly, etc.)
- requirements for architecture and design competition
- requirements to sustainable mobility concept

Based on the tender documents, private investors enter competition for building sites with their concept proposal. With participation in the investor selection process, each participant

is legally obliged to fulfil the list of minimum requirements outlined in the tender document. The extensive details of the tender documents are exceptional to the tendering process in HafenCity Hamburg. The tender document development is of high relevance to the overall tendering process as it steers the selection of a private developer to carry out the project and highly impacts the final building projects in HafenCity. Nevertheless, as the process of idea generation and tender document development is highly informal, it proves difficult to illustrate all interactions holistically. Upon creation of a detailed tender document, the second phase of the tendering process, the investor selection process, commences.

5.4.3 Phase 2: Investor Selection Process

After the tender requirements have been determined, the plot of land is opened for bids. The aim of this stage is to find the best private developer, based on the given concept and strict guidelines for participating.

"Sometimes you have to force people to think about how to create a better solution. And the purpose of the competition is actually, that people compete and that should ideally lead to better ideas and proposals", says assistant to CEO Lukas Gilliard (personal communication, February 14, 2019).

After the tender document has been published, investors have approximately 2 to 3 months to submit their application. Within that phase, bidders can consult HCH for questions or further clarifications. By submitting their concept proposal, the private investors are accepting the requirements described in the tender documents. The requirements set out by HCH are very demanding for private developers. The combination of having to include social concepts whilst fulfilling the sustainability standards of the eco-label are particularly challenging. From our interviews it emerges that private developers are often overburdened by the detailed requirements and restrain from applying (MUDH Employee 2, personal communication, February 14, 2019). However, Breckner sees clear advantages in using strict requirements in tender documents as the control on the use concept remains in the hands of the city despite transferring ownership of the plot of land:

“You have to force standards onto investors and developers, because otherwise they wouldn’t have any interest in pursuing all that. That’s why we use concept tendering, because we can decide whether it’s a place for apartments or a school” (I. Breckner, personal communication, February 12, 2019).

The strict requirements on sustainability, use concept, and materials often result in high costs for developers which makes developing a financially viable concept and the participation in the tendering difficult. Most developers in HafenCity come from Hamburg as the location helps to reduce costs in terms of delivery and time. Moreover, the majority of completed projects was carried out by a small group of private developers, as they are used to the process, have expertise in writing the right bids, and know about the high standards HCH expects in project proposals (L. Gilliard, personal communication, February 14, 2019). For building cooperatives, the fulfilment of the requirements is particularly difficult, as they often do not have the means to provide costly sustainability standards.

Submitted concept proposals for a plot of land are evaluated based on a 70/30 principle: 70 percent is based on the quality of the concept and only 30 percent is based on the adequacy of the bidder’s price.

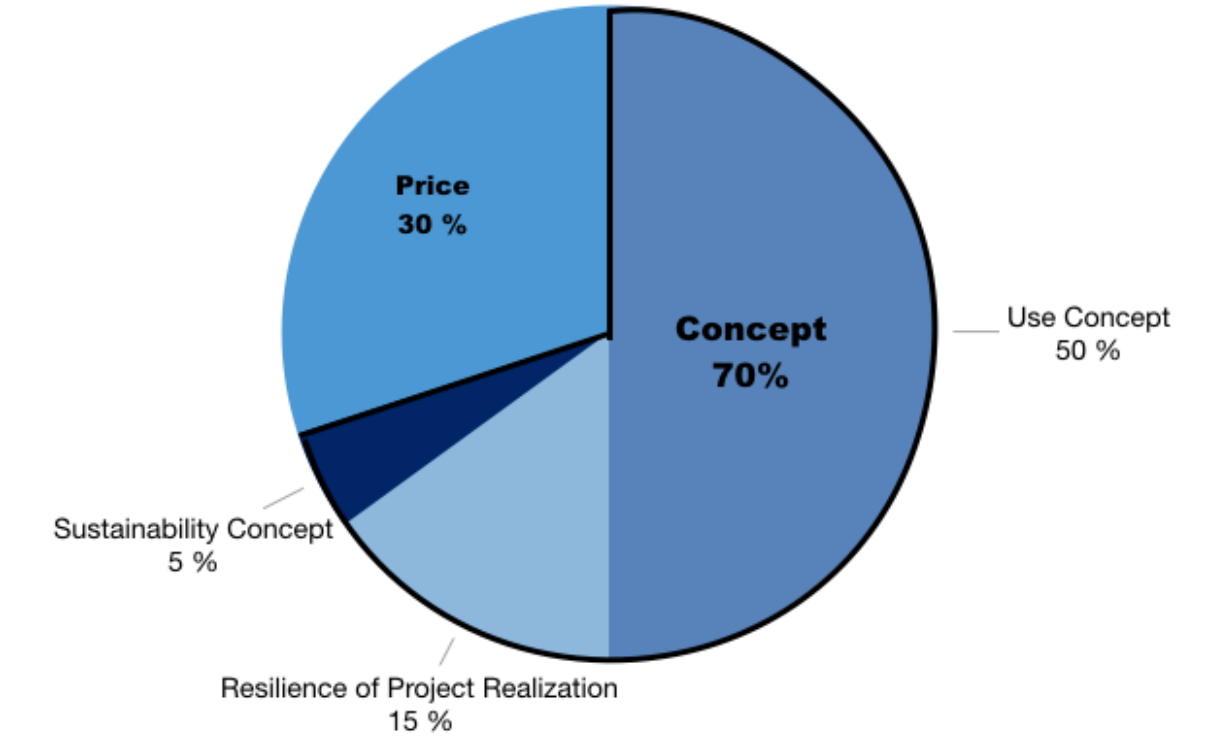

Figure 12. Evaluation of tendering proposals

The 70 percent of the concept evaluation can be broken down into:

- 50 percent use concept, focusing on innovation, quality, market viability, resilience, and durability
- 15 percent resilience of the project realization, focusing on financial feasibility, securities, and exceptional references
- 5 percent sustainability concept, e.g. exceeding HafenCity sustainability standards, implementation of a cradle-to-cradle concept (HCH, personal communication, March 4, 2019)

HCH further clarifies that the concepts of bidding proposals *"should not only take into consideration the many differing interests of end-users, but specifically contribute to the establishment of a versatile city. Only a city of this kind is equipped to cope with possible changes in demand in the future, because of its degree of diversification."* (HafenCity Hamburg, 2019).

The 70/30 evaluation is aimed to create resilience of the projects in the long-term. If there is no winning concept, HCH can combine elements of competing applications to create a new concept. For HCH, this leaves room for flexibility and adjustment and guarantees complete control over the desired outcome. The applications are reviewed by a jury, consisting of members of the MUDH, representatives of HCH, and urban development and architecture experts (L. Gilliard, personal communication, February 14, 2019).

Once the jury selected a winning proposal, HCH applies for ratification at the Commission of Land Use (CoLU). The additional validation step through the CoLU is exceptional for public land sales in Hamburg. In ordinary tendering processes, the transaction negotiation stays between the land owner and the private developer (I. Breckner, personal communication, February 12, 2019). The public sector remains very powerful in Hamburg since the CoLU retains the control over every city-owned building site available for tender. Only if the CoLU accepts the winning concept proposal, the investor can proceed into the next phase of the tendering process. In order to vote on a concept proposal, members of the Commission must understand the circumstances of each case. Not only legal matters and price are reviewed but also the building concept is evaluated. Since the majority of CoLU members are representatives of political parties, their vote might be influenced by their party's beliefs and opinions. However, they are not bound by instructions of their parties. Seeking approval, HCH creates a document which details the winning proposal in the context of HafenCity's greater vision and the direct surroundings of the building site at hand. It is important to mention that not the winning investor applies for ratification at CoLU but HCH does. The Commission's president Heike Heuer highlights HCH's efforts to get building concepts approved:

*"HafenCity Hamburg GmbH prepares these documents with such attention to detail, that there are hardly any questions left. After I have read everything, I have a clear understanding of what is supposed to happen on the plot of land. And they also inform us about the more general developments in HafenCity. For example, last year in spring they rented a bus for the Commission and showed us around, that was really great" (*personal communication, February 13, 2019).

If the CoLU dismisses the building concept proposal, the plot of land cannot be sold. In this case, HCH is allowed to submit an altered version of the same building concept and seek ratification again. Although the CoLU is very powerful in theory, they have never rejected a proposal by HCH (H. Heuer, personal communication, February 13, 2019). Once the CoLU agrees to the building concept, the selected developer proceeds to the next stage, the exclusive option period.

5.4.4 Phase 3: Exclusive Option Period

The aim of this stage is to collaboratively develop and refine the development plan of the winning proposal. Prerequisite for being granted an exclusive option for a building site is the prior concept approval by the CoLU. The definite sale of land occurs only after this period, meaning that no ownership is transferred at this point. Whereas the exclusive option period is also used in other tendering processes in Hamburg, the very intense collaboration between private developer and HCH is special to the exclusive option period in HafenCity. Lukas Gilliard argues:

"*The exclusive option period in Hamburg existed for quite some time now, but the rigor with which we pursue negotiations in the exclusive option period, that is particular to HafenCity. It also poses advantages for the investor, as he is guaranteed to develop the project and knows what to expect. But to use a tendering process in a way to influence the final outcome, that is very special to HafenCity"* (personal communication, February 14, 2019).

The exclusive option period is a phase of 18 to 24 months, in which the winning developer is granted exclusive rights to make development plans for the given plot of land, and to prepare for the construction permit. In this period, the building site is not offered to another bidder, but ownership is not yet transferred to the developer either. The developer pays a fee of approximately 1.5 percent of the purchase price to officially reserve the plot of land. This amount is later cleared with the purchase price. The reservation fee serves as a security for the city and HCH. During this period, the private developer is obligated to host an architecture competition at his own cost. The jury for this competition is provided by HCH and is split into two committees: expert judges from the field of architecture, for instance architecture professors, and material judges from the public sector, such as the chief-

planning director or city officials. The exclusive option period also gives the private investor time to discover local peculiarities, such as higher contamination of soil than accounted for. This phase is characterized by intense collaboration between the MUDH, HCH, and the developer over project refinements and architectural design in order to reduce costs and increase quality. One of our interviewees highlights the intensity of the planning and negotiation phase and illustrates its distinctiveness:

"Usually, with real estate projects, we have planning regulations and that's it. Normally no one interferes with the façade of your building or your ground floor use. It is only regulated what is relevant for public law and order. But no one cares about the stores in your building. Here (in HafenCity), every little detail is discussed. These negotiation procedures are very unusual. Also on a national scale." (T. Krüger, personal communication, March 5, 2019).

At the end of the exclusive option period, the building concept is completed with all relevant details including detailed financing, architectural design, cost estimates, potential tenants or buyers, and use concept. If the developer is still willing to purchase the plot of land, the CoLU again needs to approve the transaction based on building concept and development plan. This procedure is similar to the vote taken before the exclusive option period. Only when the CoLU repeatedly agrees to the concept and development plan, the building site is sold.

5.4.5 Phase 4: Sale of Land

Based on a detailed contractual basis and prior approval through the CoLU, the land is sold, and ownership is transferred from the city to the private developer. The purchase contract details the construction deadlines, the price, usage rights, design requirements, sustainability requirements, and other details agreed on through the concept development in the exclusive option period. Moreover, the contract includes repurchasing rights for HCH.

5.4.6 Conclusion on the Tendering Process

The tendering process in HafenCity Hamburg is marked by strong public control, particularly through the publicly owned, privately managed organization HCH and the CoLU. This detailed tendering process, with extensive public control on development outcomes, is a particularity to HafenCity Hamburg and was not found alike in existing literature. This

research's participants describe the tendering process in HafenCity as innovative and unique, because it allows the public sector to exercise control and influence over the final product from beginning to end rather than losing development power to private developers. In comparison to Anglo-American tendering processes, this contrast is particularly stark (T. Krüger, personal communication, March 5, 2019). Whereas it is common in other cities to sell building sites to the highest bidder without any public influence on the design or end use concept, HafenCity evaluates the bids in terms of concept and can steer private investors towards a publicly desired outcome (L. Gilliard, personal communication, February 14, 2019; J. Bruns-Berentelg, personal communication, March 4, 2019).

There are four key takeaways from the tendering process:

1) **The market mobilisation stage is crucial for the tender document development**

The market mobilisation is where innovative ideas for building concepts are bred. The interaction with various stakeholders provides HCH with a holistic overview of developments in the market, the demands of civil society, and local residents and HafenCity's position in global urban competition. Based on this information, HCH develops strict concept requirements and guidelines, that ensure buildings are innovative, inclusive, mixed, and fit the needs of the neighbourhood. The market mobilisation contributes to the development of strategic concepts that support the vision of HafenCity Hamburg as an inclusive urban neighbourhood.

2) **Informal processes shape tender documents**

Informal processes as part of the market mobilisation stage shape the requirements for tender documents immensely and can thus influence the public realm in HafenCity. Informal processes are used to increase efficiencies and test ideas for market potential.

3) **Concept requirements for tendering are extremely high compared to other cities**

Private developers are often stunned with the complexity of the tender documents, which forces them to think innovatively and use their resources efficiently. The requirements are particularly challenging in terms of financing, as it requires mixed use and diverse tenants with different needs, as well as high sustainability standards.

4) **Collaboration between HCH and private developers is lengthy and intense**

The exclusive option period provides HCH with the opportunity to shape and refine the concept and building envisioned in their tender requirements. The competition has brought forward the best proposal of a private developer, ready to plan and execute the building. Through close collaboration and certain requirements, e.g. the architecture competition, HCH secures the execution of the agreed upon concepts.

Having extensively analyzed the tendering process, we now highlight the importance of tendering processes for the creation of social sustainability in HafenCity Hamburg.

6. Part II: How can the Tendering Processes Foster Social Sustainability?

Exploring HafenCity Hamburg's *tendering processes* in detail, we revealed their immense importance for the overall development of HafenCity and its building projects in particular. Through a detailed analysis of our research data (interviews, document analysis, and field trips) and social sustainability literature, we now draw the connections between tendering processes and the creation of social sustainability in HafenCity's regeneration. To assess to what extent social sustainability was achieved, we look at specific projects and outcomes the tendering process produced in HafenCity.
By outlining how social sustainability was achieved through specific aspects of the tendering processes, we contribute to the academic discussion on the creation of social sustainability in urban regeneration.

Moving along the stages of the tendering processes, we have identified three main aspects of the *concept tendering* process that impact the creation of social sustainability in HafenCity, namely, the market mobilisation, the detailed tender documents, and the exclusive option period. As a stand-alone tendering process, *direct transfer* was also found to contribute to social sustainability in HafenCity. The following section rolls out in four parts, connecting the relevant aspects of the tendering processes with social sustainability outcomes:

- the role of the market mobilisation (6.1)
- the role of tender documents (6.2)
- the role of the exclusive option period (6.3)
- the role of *direct transfer* (6.4)

Lastly (7.), we will summarize our findings in an overview, combining the ten dimensions of social sustainability with specific instruments of the tendering process and concrete examples that foster social sustainability.

It is important to mention that the links between the tendering process and social sustainability we describe in the following are never linear processes, but mere connections between processes that we draw from our data. As we follow a qualitative approach, the

intent of this research is not to make causal connections or broad generalizations, directly replicable, but to describe and analyze findings from our data collection on the specific case of HafenCity Hamburg. Literature serves to compare our findings against the current academic knowledge on urban social sustainability, thereby connecting the results with theory.

6.1 The Role of Market Mobilisation for Social Sustainability in HafenCity Hamburg

The stage of market mobilisation has been extensively discussed before. However, we need to examine the role of this particular stage of the *concept tendering* process for the creation of social sustainability. Our analysis has shown that the market mobilisation stage is marked by two core processes, that influence the creation of social sustainability in HafenCity Hamburg:

1) Citizen Involvement
2) Informal collaboration with private stakeholders

6.1.1 Citizen Involvement

Public events at Kesselhaus and Workshops ensure a diverse representation of public opinions, needs, and wishes in the development of HafenCity and Grasbrook. The information collected during these events is considered in the development of tender documents in HafenCity, as well as in the development of larger structures in Grasbrook. Civic participation can therefore directly influence building projects in HafenCity and the future development of Grasbrook. Further, the cooperation agreements with Netzwerk HafenCity e.V. present a very strong example of civic participation, as residents are guaranteed to be represented in decision making processes (I. Breckner, personal communication, February 12, 2019).

Literature on social sustainability highlights civic dialogue and participation as crucial factors to enable social sustainability, as it not only provides people with a feeling of being heard, but also because future buildings are shaped by the people's needs (Colantonio & Dixon, 2011; Dempsey et al., 2009; Forrest & Kearns, 2001). Bottom-up approaches such as workshops foster the active involvement of the local population and can improve the quality of life through realizing people's needs (Deakin, 2009; Degen & Garcia, 2012; Moulaert et

al., 2007; Duncan & Thomas, 2000). Organizing local participation events and cooperation agreements can further be understood as localized empowerment (Putnam, 2001). Civic participation can further foster a sense of community among members, as they are collectively shaping the environment that surrounds them (Mitlin & Satterwaite, 1996; Putnam, 2001). In essence, civic participation represents a form of local democracy (Putnam, 1993), which is a pivotal contributing factor of social sustainability and sustainable communities. However, it must be noted that although HafenCity has taken initiatives to include citizens in planning processes, the degree to which they can influence decision-making processes is limited. Nevertheless, the formal process of civic participation as part of the tendering process has the potential to influence social sustainability outcomes.

6.1.2 Informal Collaboration with Private Stakeholders

Informal collaboration has largely facilitated the representation of culture and leisure institutions in HafenCity. Cultural life and recreation, as Dempsey et al. (2009) claim, are an important factor of social sustainability. Similarly, Colantonio and Dixon (2011) highlight equal access to cultural opportunities and services, amongst others, as contributing factor to an increased quality of life for the community. The drive of CEO Bruns-Berentelg to promote cultural projects as part of an urban neighbourhood is moreover aligned with the wider academic discussion on culture-led urban regeneration. In culture-led urban regeneration, researchers believe that cultural components of urban regeneration can combat social inequalities (Miles & Paddison, 2005). The social and cultural offerings that resulted from recent informal collaboration processes depict a shift from a one-dimensional perspective on urban regeneration to a more holistic one (Jones & Evans, 2013).

Our analysis has further shown that informal (network) processes can have a strong influence on partner selection (e.g. cultural institutions) and concept development for a building site. These findings partially confirm Lowndes et al. (1997), arguing that informal processes can be translated into formal processes of bidding and contracting (in this case, investor selection process). However, in HafenCity, informal processes are not only shaping governance structures, but are also contributing to social sustainability, as they are used to diversify cultural and social offerings. Our findings thereby extend academic literature. Particularly, the informal dynamics between public and private stakeholders in urban regeneration and the potential outcomes for social sustainability are under-theorized.

6.2 The Role of Tender Documents for Social Sustainability in HafenCity Hamburg

For the establishment of social sustainability in HafenCity, the extensive development of the tender requirements is key. Throughout the complex market mobilisation phase, HCH gathered ideas for future building developments across stakeholders. With a clear building concept in mind, HCH eventually creates a tender document outlining strict requirements for applying developers, including a social vision, use concept, and sustainability standards, amongst others. The limiting requirements and high standards of the tender documents force private developers to strive for the most innovative, socially inclusive development proposal in order to win the competition.

The strict concept- and legal-requirements, together with the evaluation of the proposals on the premise of 70/30 (investor selection process), have led to the realization of inclusive and sustainable buildings in HafenCity. We found that a variety of tender requirements were significantly impactful for the realization of ambitious (social) building projects. Depending on the envisioned building concept and the building site open for tender, those requirements obliged the inclusion of:

- innovative cohabitation concepts for integration of handicapped people
- diversified mix and/or cooperation of developers (e.g. building cooperatives)
- social housing legislation: 1/3 social housing, inclusion of subsidized price-capped housing
- inclusive building design: age-appropriate housing, student housing, barrier free apartments, family friendly
- mixed functional uses and public ground floor use
- eco-label certification for environmental sustainability

Examples of developed projects that incorporated these guidelines and their role for the creation of social sustainability in HafenCity are outlined in the following.

6.2.1 Requirement: Innovative Cohabitation Concepts

The following project was realized through the explicit tendering requirement of creating a concept of cohabitation that integrates students and people in need of additional care. In the

quarter Lohsepark, a private developer and a building cooperative created a home for an inclusive housing community of students and handicapped youth. In seven apartments, nineteen handicapped adolescents live together with ten students and create an inclusive symbiosis where the students take care of their handicapped flat mates and in return pay reduced rent (L. Gilliard, personal communication, February 14, 2019). Social inclusion, a factor significantly contributing to urban social sustainability, played a vital role in the development of this project, as the ability of all individuals to take part in society was significantly enhanced (Dempsey et al., 2009; Polese & Stran, 2000).

Another example where an innovative concept of cohabitation led to the inclusion of all groups of society and the creation of a sense of community in the quarter is the project Dock71. Dock71 is a housing complex in which three building cooperatives jointly created subsidized apartments for low-income households. Further, they created a shared community space with a garden between the buildings to foster neighbourhood community and togetherness (HCH, personal communication, February 14, 2019). The house also contains a day-care center with a kindergarten and several social service providers, fulfilling basic needs of local residents and fostering interaction. According to Dempsey et al. (2006) social sustainability goes beyond achieving a social mix within an area and demands people to actually interact with each other. In the case of Dock71 this was truly achieved since residents actually interact as neighbors in communal spaces such as their shared garden. This also refutes the previously mentioned criticism of extensive social mix, risking negative interaction between residents rather than fostering neighbourhood community (Cheshire, 2009; Dempsey et al., 2006; Tunstall & Fenton 2006).

6.2.2 Requirement: Diverse Developers

The explicit requirement of HCH and the city to diversify residential concepts and actors has led to the inclusion of various developing stakeholders and residents in HafenCity, such as building cooperatives and local housing associations. These support the creation of neighbourhood communities and residential stability in HafenCity (MUDH Employee 1, personal communication, March 8, 2019; MUDH Employee 2, personal communication, February 14, 2019). According to Dempsey et al. (2006) as well as Wallace (2006) residential stability and a sense of community are key facilitators of socially sustainable neighborhoods. Through building cooperatives, people build their own homes in close

collaboration with their neighbors with the intent to stay in HafenCity for a substantial amount of time. This not only creates a neighbourhood community but also a sense of belonging and identity for many people in HafenCity, as people who own property create long-term ties to a place and strengthen the community's local network (Wallace, 2006). Lukas Gilliard (HCH) further elaborates:

"*The advantage of building cooperatives is that we have residents who identify with HafenCity, because they made a great investment into building their homes here. Often, it is also these people who start community initiatives and foster a sense of neighbourhood. For HafenCity they are really important"* (personal communication, February 14, 2019).

To secure residential stability and prevent profit-oriented re-sales of subsidized building cooperative units, HCH integrated a 10-year tenure clause for building cooperative owners in the sale contract (J. Bruns-Berentelg, personal communication, March 4, 2019). Masterplan developer Kees Christiaanse further describes the neighbourhood and community structures as "rich social dynamics" that resulted from diversified development in HafenCity:

"The social dynamics in HafenCity are great. That is mainly due to the diversified development. There is business, living and there are various building types through building cooperatives and subsidized housing. All of this really fostered a socially rich milieu." (personal communication, February 12, 2019).

All of the projects outlined above are examples in which diversification of residential concepts and developers was explicitly stated in the requirements of the tendering documents. The creation of social sustainability in the quarters played a substantial role in project delivery and was mobilized through HCH's ambitious vision of HafenCity as an inclusive urban neighbourhood.

6.2.3 Requirement: Social Housing Legislation

The legal requirement to include one third social housing into all newly built residential space has brought substantial outcomes in HafenCity. As such, about 40 percent of the housing

units currently under development in Baakenhafen will be social housing. As Lukas Gilliard explains:

"In the quarter Baakenhafen, we will have about 40 percent subsidized housing, so even a bit more than the legally required ⅓. There are also building cooperatives here, we can see that there is a great mix" (personal communication, February 14, 2019).

Another substantial amount of the newly built apartments in Baakenhafen will be subsidized, price capped units. Here, investors and the city collaboratively decide on a maximum rent per square meter to support families and low- to medium-income households. In return, HCH reduces the selling price for the respective plot of land (HCH, personal communication, February 14, 2019). The availability of diverse housing types in HafenCity, including privately financed apartments (mostly western HafenCity) and social housing apartments (mostly eastern HafenCity), allows for the cohabitation of culturally and socially diverse groups, creating a sustainable neighbourhood (Chiu, 2003; Polese & Stren, 2000). In fact, the provision of affordable and social housing is widely recognized as a key catalyst to initiating social sustainability and promoting integration (Darchen & Ladouceur, 2013; Dempsey et al, 2009; Randolph, 2004). Furthermore, the mix of residents from all layers of society has been realized, despite the high construction costs and profit opportunity in one of Hamburg's most valuable locations by the Elbe and in close proximity to the city center. By offering affordable housing in prime locations, HCH fosters social inclusion and adds to the creation of social sustainability in the area (Colantonio & Dixon,2010; Darchen & Ladouceur, 2013; McDonald et al., 2009).

6.2.4 Requirement: Inclusive Building Design

Other projects in the quarters Baakenhafen and Lohsepark offer serviced apartments for seniors, subsidized (price-capped) apartments for students, as well as barrier-free apartments for handicapped people. These have further fostered the establishment of social sustainability by ensuring a social mix across age and income levels and the integration of all individuals in society (Colantonio & Dixon, 2011; McDonald et al., 2009). An example of this is a collaboration between three building cooperatives, who jointly built 155 mainly publicly-subsidized (price-capped) apartments that are suitable for families and seniors but

also include special units for handicapped residents. The project also includes a social service provider that assists all residents of the building. The social mix through inclusive building design and affordable housing units brought to life in this project, substantially contributes to the creation of social sustainability in the neighbourhood (Colantonio & Dixon, 2010; McDonald et al., 2009).

Two other projects currently under development by the private developer GWG Baden-Württemberg will also be home to a wide range of tenants by offering a mix of subsidized apartments for students, along with serviced apartments for seniors, and inclusive units for handicapped. Almost 80 percent of the residential units developed through these projects will be publicly subsidized in order to be affordable for the masses. In these cases, the private developers had come up with innovative concepts in their tendering applications to meet the requirements of inclusive housing development and building design, whilst making their project financially feasible. The inclusionary objectives of these projects contribute to the creation of social sustainability in HafenCity and attribute to an equitable society that enables individuals of all backgrounds to participate in societal life (Dempsey et al., 2009; McDonald et al., 2009).

6.2.5 Requirement: Mixed Functional Uses & Public Use of Ground Floors

The creation of social sustainability measures in HafenCity is, however, not limited to inclusive, affordable housing. Social sustainability in an urban context also means improving the quality of life for the community and ensuring equal access to opportunities and services (Colantonio & Dixon, 2011; Dempsey et al., 2009). The establishment of cultural or educational institutions, shops, and restaurants is equally important. It allows residents to take part in societal everyday life and triggers social interaction (Dempsey et al., 2009). Several interviewees mentioned the learnings from the 1960s where cheap social housing complexes were rapidly developed outside the inner-city cores without the consideration of social infrastructure (I. Breckner, personal communication, February 12, 2019; MUDH Employee 2, personal communication, February 14, 2019). In contrast, Bruns-Berentelg envisions an urban neighbourhood that not only entails a diverse social mix but also offers urbanity and a metropolitan feel. The core instruments of incorporating such social infrastructure and creating urbanity was the integration of mixed functional uses in all of HafenCity and the public use of ground floors. Bruns-Berentelg has made the public use of

ground floors through shops, restaurants, or cultural and social amenities a core requirement of tendering documents to bring life into HafenCity and to create a neighbourhood for various kinds of people. As he exemplifies:
"*And here (in Baakenhafen) we wanted to create a point for local supply, we needed a cheap supermarket, Aldi (food discounter) and an Edeka (medium-priced supermarket) so we don't create a social food desert and people don't have to leave HafenCity … and here is a primary school, so the school and the shops can share the parking facilities … and then down here we will have a space for startups, a bar and a hotel together with urban manufacturing spaces and a big fitness center – we need a social mix with various functions*" (J. Bruns Berentelg, personal communication, March 5, 2019).

Further examples of the public ground floor use and the aim for urbanity are the creation of cultural facilities such as a documentation center with running exhibitions and an event space, that were part of the tendering documents for a bigger office complex in Lohsepark. These examples illustrate the immense power of HCH in the development process, forcing private developers to make privately-owned space publicly available. The creation of such offerings improves the quality of life for HafenCity's residents, thereby contributing to social sustainability in the area (McDonald et al., 2009). Masterplan developer Kees Christiaanse applauds the social wealth that results from the mixed functional uses in HafenCity and compares:

"If you compare HafenCity with the port area in Amsterdam, which is similar in size, you realize that it is almost 95% residential units and there are no jobs. And that is the very interesting thing about HafenCity, the extensive mixed functional use allows the development of great social wealth" (personal communication, February 12, 2019).

The graphic below illustrates the mixed functional uses, the diversified mix of developers, and inclusive building concepts in Baakenhafen, all enforced through the tender documents. Furthermore, the graphic shows the extreme density of planned social projects in Baakenhafen.

Figure 13: *Diversified residential concepts and mixed uses in Baakenhafen, HafenCity. Adapted from HafenCity (2019). Please see Appendix 3 for an enlarged version of this figure.*

For a detailed list of all planned and completed projects in HafenCity, see Appendix 4.

6.2.6 Requirement: Eco-Label for Environmental Sustainability

While in the first decade of HafenCity the compliance with eco-labels was voluntary, they form an integral part of the tender documents since 2010. Today, the tendering documents require developers in HafenCity to meet HafenCity's highest eco-label certificate "Platinum". The introduction of HafenCity's sustainable smart mobility concept for increased e-mobility and a strong sharing system for cars as well as the reduction to 0.4 parking spaces per residential unit further add to HafenCity as an environmentally sustainable neighbourhood. The support of the smart mobility concept has only recently been added to the tender document requirements but already proved fruitful. Environmental sensitivity is crucial for the development of a socially sustainable community (Colantonio & Dixon, 2011; McDonald et. al, 2009). Chan and Lee (2008) further argue that the careful conversation of resources increase "the enjoyment of present and future generations" (p.252). HafenCity's assurance

of quality and sustainable urban design can hence be viewed as an integral part in creating social sustainability.

6.3 The Role of the Exclusive Option Period for Social Sustainability in HafenCity Hamburg

Based on our data analysis, we could identify two key processes within the exclusive option period that influence social sustainability:

1) The close collaboration between private developers and HCH
2) The architectural competition

6.3.1 Close Collaboration between Private Developers and HCH: Public-Private Partnerships

As highlighted throughout our analysis of the tendering process, the exclusive option period is marked by an intense collaboration between private developers and HCH. The public sector (HCH) can continuously shape the buildings developed in this phase. HCH's collaboration with the private sector can be described as a public-private partnership (PPP). However, it is important to mention that HCH, with its private management and financial independence, does not represent the classic public sector in a public-private partnership.

HCH's approach to public-private partnerships confirms extant literature on Hamburg's governance in regeneration projects. As Smith and Ferrari (2012) contend, local authorities in Hamburg are safeguarding public interests through strong regulation and public control. In PPPs, HCH engages strongly in providing a social vision for the project and uses tender requirements to secure inclusive concepts in future projects. Throughout the exclusive option period, HCH maintains control over the design and management of the project by not completing the land sale transaction at this point. As the land owner, HCH has the power to steer investors through requirements, which forces the private sector to develop innovative concepts for project delivery. Until the very last, HCH can shape the building development and can therefore ensure quality of materials, environmental standards, compliance with use concept, and timing deadlines. Ultimate public control is exerted by the CoLU, which can deny a building concept on legal factors as well as on concept considerations. The private sector is responsible for securing financial viability in the development of the project.

According to HCH, the private sector benefits from HafenCity's reputation as well as a transparent process which guarantees a timely completion of the project. The identified roles of HCH and the private sector largely mirror the ideal roles and responsibilities that the European Commission has laid out for successful PPPs (e.g. mutual benefits of stakeholders, strong public sector vision, innovation drive of the private sector) (URBACT, 2006). Successful PPPs, in turn, can strengthen social sustainability (Ysa, 2007). These findings also confirm Colantonio and Dixon's research (2011), who illustrate how public sector influence in urban regeneration PPPs can lever social sustainability outcomes. HCH mitigates the common risks of PPPs (profit drive, poor results, deregulation, contractual flaws) through strict requirements, a detailed contractual basis, close collaboration, and the decision-making power of the CoLU. In essence, public control guarantees the delivery of qualitative housing in the interest of the people, thereby strengthening social sustainability (Chan & Lee, 2008). MUDH employee 1 illustrates this process and argues:

"*It is surprising that developers are still willing to participate in this process, as we (city and HCH) have control over various aspects: design, certification, technical questions. But for us, this represents quality control. We can raise concerns and ask for changes in terms of storey height, materials, basement walls, roof greening, architecture-technique, sustainability topics, and so on. Those are small things that eventually (hopefully) lead to a characteristic look of HafenCity, that allows for individuality of each building"* (personal communication, March 8, 2019).

The aspect of quality control and specific attention on individuality is aligned with Chan and Lee's (2008) description of urban design quality to enhance social sustainability. The role of architecture and housing quality to foster social sustainability is further discussed in the following.

6.3.2 Architectural Competition

During the exclusive option period, the architectural competition is moreover of particular relevance. Here, the architectural design of the building is determined. When it comes to social sustainability, a crucial factor identified by literature is "decent housing", which relates

to the physical form of a building (Dempsey et al., 2009). MUDH employee 1 further elaborates on the construction of social housing, saying that:

"It was solved in a way that social housing blends in seamlessly with the overall picture of HafenCity. So there are no flaking house facades or alike, it's not visually nor spatially segregated from the rest. You can't tell from the outside that "Here's where the poor live". This is a very important step towards inclusivity through the use of architecture, that everyone has equal living conditions" (personal communication, March 8, 2019).

The creation of these equal living conditions is actively driven by the architectural competition and the guidelines it is subordinated to. As MUDH employee 1 claims, equitable access to living conditions serves the purpose of social inclusion.
Several researchers have recognized the quality of design and architecture in fostering social sustainability (Bramley & Power, 2003; Chan & Lee, 2008; Maliene & Malys, 2009). Chan and Lee, (2008), in their study on social sustainability in urban renewal projects in Hong Kong, have identified the creation of a "harmonious living environment" as a critical factor to foster social sustainability (p.252). This includes the quality of the building and its compatibility with its surrounding in terms of local distinctiveness and identity. MUDH Employee 1 describes HafenCity's architecture as compatible with the rest of Hamburg:

"We tried to create interesting, urban architecture, modern but also understandable for the people of Hamburg, they should also feel at home in HafenCity" (personal communication, March 8, 2019).

Similarly, Maliene and Malys (2009) have emphasized high-quality housing as an important prerequisite for healthy, attractive communities, arguing that sustainable housing should feature "well available, high-quality, economical, ecological, aesthetical design" (p.426). COBE architect confirms the link between housing quality and social sustainability, saying that innovation to her means developing human-centric designs.

"For me it is really important that humans are the starting point for every design. It's not so much innovation in itself, but rather to shift focus and think about how people really wish to

live. What does one attach importance to, and how do you really feel at home? It can be small things(...).” (personal communication, February 19, 2019).

In summary, decent housing and equitable living conditions were achieved through strong public control over the architectural design during the exclusive option period. It is important to mention that the exclusive option period is not common in many tendering processes and is almost exclusively used in Germany (H. Heuer, personal communication, February 13, 2019). Consequently, there is little academic discussion that has linked the public influence on architectural designs in this period with social sustainability in urban regeneration projects.

6.4 The Role of Direct Transfer for Social Sustainability

Direct transfer is the second type of tendering, which we previously discussed (see 5.3). It is only used under special circumstances and has therefore found less attention in this research. It can, however, have important effects for social sustainability.

The ability of HCH to use *direct transfer* to secure large office buildings in the area is an effective way to provide jobs. Jobs, as various researchers have argued (Colantonio & Dixon, 2011, Chan & Lee, 2008; Dempsey et al., 2009), are a pivotal factor of social sustainability. As such, the provision of jobs adds to the basic infrastructure of a regenerated district, facilitating daily life. Stiglitz (2001) has found that a low unemployment rate reduces urban challenges of social exclusion and poverty. On a micro level, employment enhances social well-being, as the income generated can increase the standard of living (Omann & Spangenberg, 2002). Furthermore, the workplace provides a location for social contact and interaction and is therefore an integral part of people’s lives (Omann & Spangenberg, 2002). Chan and Lee (2008) confirm these effects and identify employment as a critical factor to foster social sustainability in urban regeneration. HCH encourages this critical factor for social sustainability by recognizing the value of jobs in each neighbourhood, both in HafenCity and Grasbrook. *Direct transfe*r poses mutual benefits: the company has the opportunity to build their offices in top location without going through bidding competition. HCH, on the other hand, has the opportunity to secure jobs and leverage their position as land owner by forcing the company to fulfill strict requirements, for instance public ground

floor use. An example of this is the publishing house Gruner&Jahr, which is currently building its new head office in HafenCity. The publishing house will have to include three thousand square meters of culture and exhibition space into their new building (at their expense), allowing cultural institutions or museums to move in later on (J. Bruns-Berentelg, personal communication, March 4, 2019).

It can be criticized, however, that the diversity of jobs in HafenCity is limited. *Direct transfer* has predominantly enabled offices from global conglomerates (Unilever) or large publishing houses (Der Spiegel, Gruner&Jahr) to move into HafenCity. In Grasbrook, HCH plans to transform the area into a hub for research and development as well as spaces for start-ups and small production sites. Blue-collar jobs have thus not been fostered through *direct transfer* but would be a valuable addition to the creation of social sustainability.

7. Conclusion on the Role of Tendering Processes for Social Sustainability

Overall, we have found that the tendering processes for building sites have produced tangible outcomes which foster social sustainability in HafenCity Hamburg. Answering our research question,

What role do tendering processes for building sites play in fostering social sustainability in HafenCity Hamburg's regeneration?"

we revealed that both tendering processes (*concept tendering* and *direct transfer*) proved an effective mechanism for the creation of a socially sustainable neighbourhood. However, with the extensive market mobilisation, the specific requirements of the tendering documents, and the strong public control exerted during the exclusive option period, *concept tendering* proved particularly relevant in this regard. The aspects of HafenCity's *concept tendering* allowed to steer outcomes towards the creation of social sustainability.

Table 6 matches the ten dimensions of social sustainability with HCH requirements and instruments of both tendering processes and highlights specific examples of each social sustainability dimension.

Table 5. *Social sustainability outcomes in HafenCity fostered through the tendering processes*

Social Sustainability Dimension	Tendering Process Stage/Type of Tendering	HCH Requirements & Instruments	Examples
Health & Safety	X	Existing, but not related to tendering process	Various doctors & medical support services
Education & Skills	X	Existing, but not related to tendering process	5 universities, 2 schools, 6 day-care enters
Employment	Direct Transfer	Direct Transfer	E.g. SPIEGEL HQ, Unilever HQ, Gruner&Jahr HQ
Social Mix	Tendering Documents	Diversified mix and cooperation of developers, innovative cohabitation concepts, social & price capped housing	Affordable (subsidized) residential units for (low-income) families, students, seniors and handicapped, inclusion of building cooperatives, availability of freehold and rental apartments
Social Inclusion	Tendering Documents	Diversified mix of developers, innovative cohabitation concepts, inclusive building design	Age- and handicapped appropriate living through barrier free housing and special housing projects, serviced residential apartments for seniors
Sense of community & local identity	Tendering Documents	Diversified mix and cooperation of developers	(Joint) building cooperatives and their community spaces
Participation & Empowerment	Market Mobilisation	Civic dialogue, Netzwerk HafenCity e.V cooperation agreement	Civic dialogue at Kesselhaus events & workshops, Grasbrook public development event
Decent Housing & Residential Stability	Tendering Documents & Exclusive Option Period	Architectural competition, inclusive building design	High quality buildings, in prime location for all residents, long-lasting residents through building cooperatives
Urbanity, Happiness & Quality of Life	Tendering Documents & Market Mobilisation	Public ground-level use, creation of cultural & social amenities through market mobilisation	Cultural & social offerings, restaurants, bars, public amenities and services
Environmental Sustainability	Tendering Documents	Eco-label, sustainable mobility concept	Sustainable & environmentally friendly buildings, car-sharing, 0,4 parking slots per residential unit

As the table exemplifies, nearly all of the dimensions have been considered in the regeneration process of HafenCity and were substantially realized through various measures of the tendering processes.

Critically reflecting on the dimensions of the social sustainability realized in HafenCity, it has to be noted that the provision of social and affordable housing is the most critical factor in creating social sustainability (Malienė & Malys 2009; McDonald et al., 2009). Equitable access to housing in a neighbourhood must be guaranteed in order to develop a socially sustainable community.

Although the tendering processes played an integral part in creating the foundations for social sustainability in HafenCity, there are factors of social sustainability that cannot be directly linked to the tendering process, such as the creation of educational facilities. Education facilities are pivotal for social sustainability (Colantonio & Dixon, 2011). In all of HafenCity, there are currently five universities, two schools, and six day-care centers for

children, together amounting to an adequate offering for the population of HafenCity (HafenCity, 2019). Similarly, the organic development of a health and safety network through doctors and medical support services has to be viewed as a social sustainability development that is not directly linked to the tendering process. It also has to be noted that most projects and developments approving our findings concentrate on HafenCity's eastern parts Oberhafen, Lohsepark, and Baakenhafen, and were predominantly enforced since the revision of the masterplan in 2010. In the first years of HafenCity's development, the provision of social and affordable housing played a minor role. To attract initial private investment and cover the particularly high costs of flood protection in HafenCity, HCH focused on upper-class residential units and office uses.

In essence, our analysis demonstrates that eight out of the ten foundational dimensions of urban social sustainability were triggered through HCH's tendering processes. Using the theoretical framework of the fundamental dimensions of social sustainability, we illustrated how the different stages of *concept tendering* and its respective measures created social sustainability in HafenCity Hamburg. We hereby revealed a connection that has not been explained through existing literature.
Through the employment of the tendering process, HCH laid the foundation for future, organic development of HafenCity as a socially sustainable neighbourhood. However, to sustain this development, the ten fundamental dimensions of social sustainability should act as a guiding development framework for the choice of future developments and projects in HafenCity. Furthermore, HCH should verify the ten dimensions with the public in order to establish a social sustainability assessment framework that aligns with the needs of society.

The findings of this research exemplify the direct link between tendering processes in urban regeneration and the creation of social sustainability in HafenCity. However, in the particular case of HafenCity Hamburg, our analysis showed that the tendering process cannot be viewed as a secluded process but must instead be considered in the bigger context of this regeneration process and its institutional framework. Our data revealed three critical success factors that play a vital role for the final delivery of socially sustainable urban regeneration in HafenCity. The following section will explain the three critical success factors that enabled social sustainability in HafenCity Hamburg's regeneration.

8. Part III: Critical Success Factors for Social Sustainability

The following critical success factors were identified as drivers for the creation of social sustainability measures in HafenCity: (1) A strong and clear vision from both city and HCH, (2) the organizational form and special role of HCH, and (3) the organizational learning of HCH.

8.1 Vision of the City & HCH

"Environmental sustainability, new forms of mobility, low-emission energy supply, social justice, differentiated housing supply, and the creation of jobs for the future: with its stringent high standards and forward looking concepts, HafenCity is an international driver of innovation for living and working in the 21st century – well beyond its urban design qualities" (J. Bruns-Berentelg, HafenCity Hamburg, 2019).

Throughout our research, it emerged that this clear vision of HCH CEO Bruns-Berentelg was a critical success factor for the integration of social sustainability measures into HafenCity's tender documents. These ambitions for HafenCity are supported by the future vision of the city of Hamburg. The Ministry of Urban Development and the Environment (today MUDH) has coined Hamburg's vision as the aim to become a "green, inclusive, growing city by the water" and thereby identified the core values of urban development in Hamburg: A turn to environmentally-friendly energy, access for a diverse population, and provision of affordable housing to a growing number of residents (Hamburg, 2014). These pillars are essential to the development of urban regeneration projects in Grasbrook and HafenCity.

Within HafenCity, Hamburg moreover intended to deliver exemplary urban quality instead of putting speed of completion and efficiency at the forefront of urban regeneration (I. Breckner, personal communication, February 12, 2019). Interviewee Ingrid Breckner further outlines how CEO Bruns-Berentelg recognized the need of social structures to enable a functioning neighbourhood at an early stage. Bruns-Berentelg set himself the personal goal of realizing HafenCity as an urban neighbourhood with a metropolitan feel that is socially inclusive, just, and sustainable (personal communication, February 12, 2019). Several interviewees highlight that it is particularly Bruns-Berentelg's personal drive and vision which

made HCH find innovative solutions that integrate financial opportunities with social and ecological initiatives. Data of this research illustrates how his decision-making power and courage to try new approaches facilitated innovation and the introduction of social projects:

“Much of the development has to do with his open and brave personality, to set standards and try out things that no one else dares to” (T. Krüger, personal communication, March 5, 2019).

The clear vision of the city of Hamburg and the HCH thus played a vital role in shaping the development in HafenCity, placing a sustainability-centered approach at the forefront of urban development.

8.2 Organizational Form and Special Role of HCH

The second critical success factor we identified is the organizational form and special role of HCH. As a publicly owned, privately managed organization, HCH ensures efficiency, agility, and innovative strength whilst securing managerial autonomy. As a Public Asset Corporation (PAC), HCH thereby avoids many pitfalls of public sector governance, such as inertia and inefficiencies (Mitchell, 1993; Noring & Katz, 2018). Moreover, while public sector governance often suffers from the irregularities of political periodical change (Mitchell, 1993), HCH benefits from the continuity of its managing directors. The autonomy and ability to try out new processes is mainly grounded in HCH’s role as the manager of the SACC and, thus, public land owner of nearly all development sites in HafenCity (L. Gilliard, personal communication, February 14, 2019). With the revenue of the land sale proceeds, HCH has the mandate to develop HafenCity and provide the necessary infrastructure. It is unique, however, that HCH’s main ambition is not profit maximization but the mere target of break even at the end of the fiscal year. Interviewees repeatedly stated how this ultimately ensures complete control and financial independence for HCH, allowing them to distribute financial means in line with their vision of HafenCity as a sustainable neighbourhood without the pressure of generating revenue (J. Bruns-Berentelg, personal communication, March 4, 2019; L. Gilliard, personal communication, February 14, 2019). The role as landowner further allows HCH to develop alternative finance mechanisms and property offerings that proved to accommodate more social initiatives and cultural offerings.

At the intersection of politics and the private sector, HCH acts as the connecting element that brings various stakeholders from the private and public sector to the table, fostering dialogue and collaboration. In a nutshell, HCH benefits from its financial independence as land owner, the agility and innovative capacity of a private management under public supervision (PAC), and the absence of financial pressures. HCH's organizational form and special role are consequently a key enabler for the successful initiation of social sustainability measures.

8.3 Organizational Learning of HCH

By establishing the HCH as an autonomous institutional actor, the city of Hamburg created an entity with the freedom to experiment, innovate, learn, and adapt new standards. HCH's freedom as a private organization with only fifty-three employees fostered the ability of internal, organizational learning. The Commission of Land Use as well as the two experts from HafenCity University highlight the internal development and continuous improvement HCH went through during the last years. Examples are the increasingly fine-grained development and the introduction of civic dialog for the development of Grasbrook.

"The developments at Grasbrook clearly show how HCH learned. The civic dialogue and the fine-grained structures now make the learnings of HCH very visible. Such forms of dialog are now happening at various development sites in Hamburg" (I. Breckner, personal communication, February 12, 2019).

HCH is consequently working towards improving conditions in HafenCity by learning from experience. With the revision of the masterplan in 2010, tender requirements have drastically changed to include concepts fostering social mix and inclusion. The flexibility to change current procedures and the willingness to improve the quality of life for residents has strengthened social sustainability outcomes over time.

The three critical success factors form the institutional context for HafenCity's regeneration. They are inevitable for the implementation of HafenCity Hamburg's particular tendering processes and its resulting social sustainability outcomes. In the attempt to create a holistic working model that illustrates HafenCity's tendering processes in its unique institutional

framework, we combined two of the critical success factors (*vision HCH & City, HCH organizational learning*) with the learnings from the analysis of the tendering processes. The third critical success factor, *organizational form and special role of HCH*, serves as a vital (financial) prerequisite for HafenCity's successful development and the effective operation of the working model. The model can be seen as a potential model for socially sustainable urban regeneration in HafenCity and will be discussed in the following.

9. Introducing a Model to Foster Social Sustainability in HafenCity

The model connects the tendering processes with HCH's critical success factors and highlights the continuous nature of social sustainability development in HafenCity.

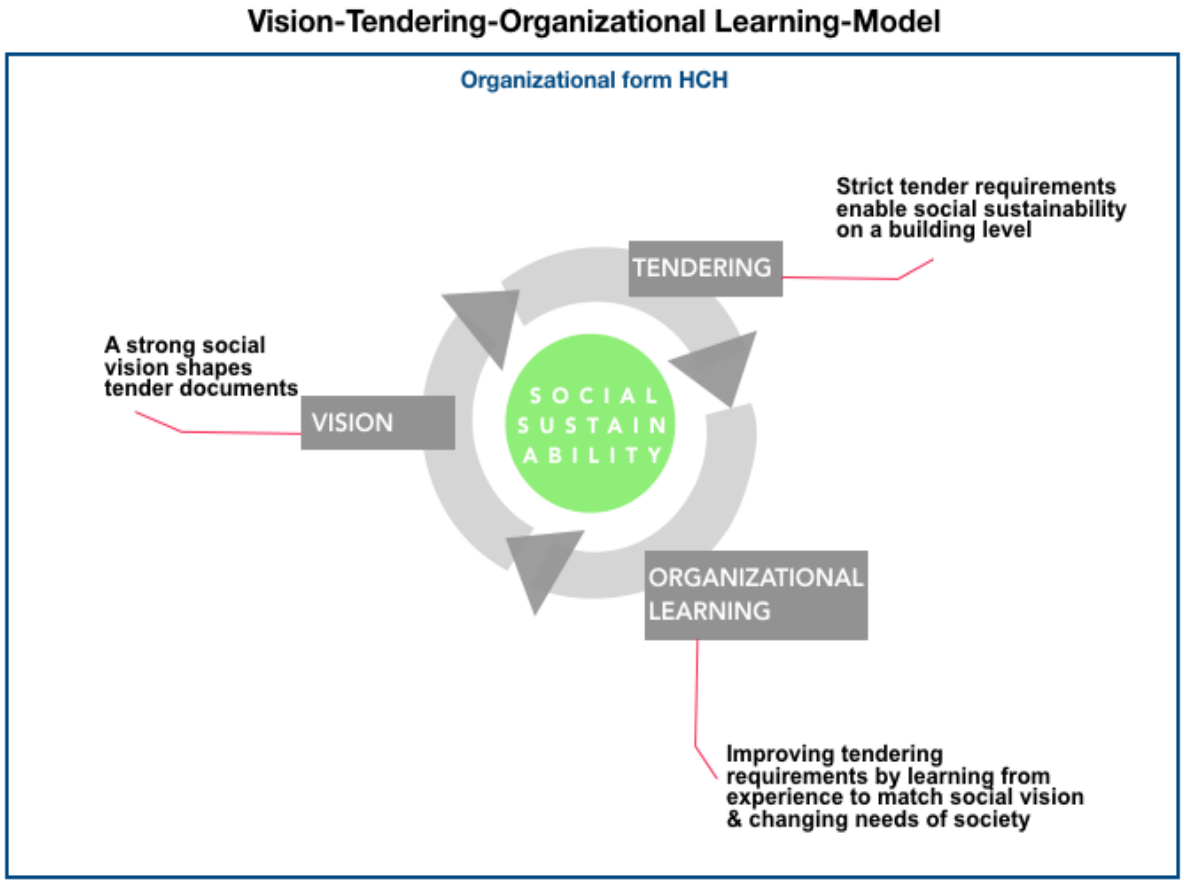

Figure 14. Vision-Tendering-Organizational Learning Model

9.1 Vision - Tendering - Organizational Learning

The three concepts of *vision, concept tendering,* and *organizational learning* work in a loop and continuously reinforce each other to enhance social sustainability and innovation. The vision of Hamburg and HCH to build an inclusive city drives the strict requirements within the tendering process. In these tendering requirements, HCH sets above industry standards to elicit the most innovative building proposals. Each successful project in turn, allows HCH to learn and consequently refine and elevate their organizational processes and standards

to match HCH's vision of an equitable, diverse quarter. Social sustainability is consequently fostered and continuously improved through the interconnectedness and repeated enforcement of (1) the strong vision of HCH and the city, (2) the detailed tendering documents, and (3) HCH's learning from each project. Bruns-Berentelg illustrates the development of tendering documents towards more social and ecological objectives but also demonstrates the organizational learning HCH went through:

"You have to create new requirements that develop into standards for the following project. If HafenCity had announced tenders in 2004 like the ones that we publish today, the market would not have responded as required. We did nothing wrong, the market has to learn and adapt" (J. Bruns-Berentelg, personal communication, March 4, 2019).

HCH's continuous improvement and organizational learning is also mirrored in the current development of Baakenhafen. As one of the last quarters to be developed in HafenCity, Baakenhafen shows the highest density of inclusive living options and subsidized social housing. Quite visually, the organizational learning and development towards more social objectives can be seen in HafenCity's development from West to East. The beginnings with Am Sandtorkai and Dalmannkai in western HafenCity were marked by office buildings and privately-owned apartments. Moving towards eastern HafenCity however, the amount of diverse living concepts increases significantly. Today, the eastern parts of HafenCity, Am Lohsepark and Baakenhafen, are characteristic for a dense mix of residential and recreational uses for families, students, and seniors with social housing units, green spaces, education, and leisure.

In essence, for the regeneration project of HafenCity Hamburg, the reinforcing model of *vision-tendering-organizational learning* has ultimately led to the creation of outcomes that foster social sustainability and it will continuously enhance social and ecological standards. Within the given prerequisites in HafenCity, this model consequently offers a viable vehicle for self-sustaining, continuous development for a socially sustainable neighbourhood. In accordance with our research question, it can thus be stated that the tendering processes as such play a vital role in fostering social sustainability in HafenCity Hamburg.

10. Conclusion: Tendering as a New Vehicle for Socially Sustainable Urban Regeneration

10.1 Key Findings

This research examined HafenCity Hamburg's tendering processes in detail and explored the role they play for fostering social sustainability.

The findings of this research illustrate the particularities and special features of HafenCity Hamburg's tendering processes. Throughout the tendering, HCH guards the public interest in developing the area. Various aspects of the tendering processes helped to realize the needs of society on a building level. Strong public sector control, enforced through CoLU and the exclusive option period, forced private developers to pursue high quality, inclusive building projects. *Concept tendering* in particular proves a powerful tool to regulate the profit-driven real estate market.

Comparing the realized projects in HafenCity with the ten dimensions of social sustainability, outlined through literature, we argue that tendering processes can function as a viable vehicle to foster social sustainability in HafenCity. For tendering as a vehicle to function effectively, the working context of the tendering processes is key. We introduced the *vision-tendering-organizational learning* model to illustrate how the tendering processes foster social sustainability in the institutional context of HafenCity Hamburg. Without the fulfillment of the prerequisites (Vision, HCH's organizational form, HCH organizational learning), it would hence remain difficult for other cities across Europe to implement or copy the extensive tendering procedures as an independent delivery vehicle for socially sustainable urban regeneration. Particularly, since cities and urban regeneration always need to be considered in their unique context of governance, finance, location, culture, and most importantly its people.

All in all, HafenCity Hamburg developed into an inner city neighbourhood marked by a fine-grained blend of workplaces and residential uses, education, culture, tourism, and retail facilities. The regenerated area offers equitable access to housing and living in a prime city location. However, many of the described projects, particularly in Baakenhafen, are still in the planning and development phase and it remains to be seen how residents will accept and enliven the area and its offers. Despite the ideal preconditions for a socially diverse

neighbourhood and the extensive planning of HCH, it is questionable to what extent true urbanity can be planned. The high density of socially diverse and inclusive projects in Baakenhafen is astonishing, but HCH must ensure its connection and compatibility with the rest of HafenCity to avoid it becoming an isolated social peninsula.

As the development of Grasbrook is still in its infancy, this research could not identify social sustainability outcomes realized through building projects. Nevertheless, measures have been taken to actively include citizens in the development of the area. Whereas the current status of planning envisions Grasbrook as a hub for research and a vibrant start-up scene, HCH should use *direct transfer* to promote more socially diverse job opportunities than currently available in HafenCity.

10.2 Theoretical Implications

This research illustrated the role tendering processes can play in fostering social sustainability in the specific case of HafenCity Hamburg. So far, academia has predominantly focused on financial models as well as governance approaches for the delivery of socially sustainable urban regeneration (Clark, 2007; Colantonio & Dixon, 2011; Trache & Green, 2006; van Boxmeer & van Beckhoven, 2005). Similarly, in the case of HafenCity Hamburg, academic discussion focused on public financing and governance. Noring and Katz (2018), for example, discussed the PAC model as a viable tool to manage and finance urban regeneration in HafenCity Hamburg. This research not only confirms the findings of Noring and Katz (2018) but adds how HCH as a PAC functions as a critical success factor to lever social sustainability. Supported by the critical success factors, the *vision-tendering-organizational learning* model serves as a viable vehicle for the creation of social sustainability in HafenCity. Although the model only works in the specific context of HafenCity, our findings add to Colantonio and Dixon's (2011) study on social sustainability in European cities, who identified vision and managerial leadership as critical success factors to deliver socially sustainable urban regeneration.

Confirming Ysa (2007) as well as Adair et al., (2003), we illustrate the importance of public sector control in urban regeneration. Extending current academic discussion, we introduced tendering processes as a vehicle to retain public control and steer private developers in urban regeneration. As such, we analyzed the extensive details of HafenCity Hamburg's tendering processes to understand their effect on social sustainability.

Existent research outlines HafenCity Hamburg as a sustainable waterfront regeneration project that included measures such as mixed uses and sustainable building standards (Niemann & Werner, 2016). While this research confirms HafenCity as an example of sustainable waterfront regeneration, we also verify it as socially inclusive. We extend literature by explaining how social sustainability was achieved during the planning of building developments by means of tendering processes. Research has focused on the existence of mixed uses, civic participation, and urbanity as indicators for successful waterfront regeneration (Breckner & Menzl, 2012; Niemann & Werner, 2016; Smith & Ferrera, 2012). This research conceptualizes these indicators in the context of social sustainability and adds measures such as social housing legislations, innovative concepts of cohabitation, and inclusive building designs as contributing factors of social sustainability in HafenCity.
Finally, studying the creation of social sustainability by means of tendering processes, we took a unique approach and uncovered an unseen link between tendering processes and the creation of social sustainability.

10.3 Critical Reflection, Future Research & Limitations

This research was a first attempt to introduce a new vehicle for fostering social sustainability in urban development and start the discussion on the immense importance of tendering processes in urban development. It aimed to conceptualize the tendering process in great detail, as such contributing to the limited research on tendering processes.

More research is needed to understand tendering processes in urban regeneration projects, particularly looking at local differences of involved partners and processes. Here, it would be relevant to study the potential differences between waterfront regeneration and other urban regeneration projects. In general, the direct link between tendering for building sites and the implementation of social sustainability measures requires more attention in academia. Moreover, the potential of tendering to function as a viable vehicle in the delivery of social sustainability outcomes in urban regeneration must be explored by researchers internationally, especially in light of pressing urban challenges. As the case of HafenCity Hamburg relied on land ownership and little financial pressures, more research is needed to examine tendering as a vehicle for cities with different financial prerequisites. Here, a combination of tendering processes and innovative finance mechanisms could be valuable.

Overall, we urge researchers to apply a holistic, integrated approach to studying the phenomenon of tendering processes in urban regeneration, as it requires interdisciplinary collaboration of sociology, economy, politics, and urban planning.

This research is limited by its scope focusing only on the case of HafenCity Hamburg. Furthermore, interview data could have been enriched through the participation of private developers. Hearing their perspective on the implementation of the strict tender requirements and their experience in working with HCH could have provided valuable insights. Also, this research was laid out as a qualitative study, therefore relying on the subjective perceptions and opinions of the participants. Consequently, the results cannot be generalized. Similar case studies could help verify the impact of tendering processes on the creation of social sustainability in urban regeneration.

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11. Appendix

Appendix 1: Interview Guide

1) **Allgemeine Definitionen und Fragen / General questions on HafenCity and the interviewees role in its development process**
    - Wie definieren Sie Ihre Rolle für die HafenCity?
    - Was beinhaltet ihr Tätigkeitsbereich?
    - Seit wann sind Sie Teil des HafenCity Teams?

2) **Die Vision der HafenCity & Entwicklung / The goals of HafenCity in Hamburgs urban development, from the start until today**

- An welchen Zielen orientiert sich die Hafencity und die HCH gerade?
- Was ist / war Ihre **Vision** von der HafenCity und inwiefern konnte sie diese verwirklichen?
    - Nach welchen Zielen wurde sie anfänglich entwickelt?
    - Wer hat diese Ziele festgelegt? Die Stadt/Politik?
    - Wie hat sich diese Zielsetzung über die Jahre verändert?
    - Woher kam die Idee doch ein dichtes, belebtes Quartier zu schaffen in der HafenCity?

3) **Ausschreibungsprozess / The Tendering Process**

- Was macht die Entwicklung der HafenCity so besonders?
- Wie genau läuft der Ausschreibungsprozess ab?
- Welche Rolle Spielt der Ausschreibungsprozess für die heutige Entwicklung der HafenCity?
- Welche Rolle spielen die finanziellen Kapazitäten einzelner investoren innerhalb des Ausschreibungsprozesses? Gibt es hier Bevorzugung?
- Was macht den HafenCity Ausschreibungsprozess aus?
    - Warum ist dieser Prozess so besonders im Gegensatz zu anderen Städten?
    - Wo liegt für Sie die Innovation hier?
- Welche Rolle spielt die Kommission für Bodenordnung?

Ausschreibungsdokumente / Tender Documents Development

- Wie kommen die Vorgaben für die Ausschreibungen zustande?
- Woher kommen neue Ideen und Impulse für Innovative / soziale Konzepte bei Ausschreibungen?
    - Welche Rolle spielen Messen? Welche anderen Impulse / Ideen / Innovationen werden hier berücksichtigt?
    - Welche Rolle spielen das Ministerium/ die Stadt in der Entwicklung von Konzepten für Ausschreibungen?
    - Inwiefern beziehen Sie aktuelle Transformationen innerhalb der Gesellschaft und aktuelle Anforderungen mit ein?
    - Passieren solche Gespräche/ Prozesse offen und dokumentiert oder eher informel?
    - Hat sich das organisch entwickelt dass sie viele Akteure zu Rate ziehen um gehaltvolle Konzepte zu entwickelt?
    - Wie hat man hier aus der Vergangenheit gelernt?
- Welche Rolle spiele die strikten Vorgaben der Ausschreibungsdokumente
- Haben sie zu Innovation in den Konzepten von Investoren und Architekten geführt?
- Wie konnten die Ausschreibungen zu Sozialen Strukturen beitragen?
- Warum hat man den Ausschreibungsprozess so designed?

4) Öffentliche Kollaboration / Stakeholder collaboration within the development process

- Wie beschreiben Sie die Zusammenarbeit mit der Politik?
- Wie beschreiben Sie die Zusammenarbeit mit Architekten?
- Wie beschreiben Sie die Zusammenarbeit mit privaten Investoren?
- Wo und wie findet hier Kollaboration zwischen Privaten Investoren und der HCH statt?
- Der Anhandgabeprozess (Exclusive Option Period) spielt eine wichtige Rolle im Ausschreibungsprozess. Wozu dient er hauptsächlich?
- Der Anhandgabeprozess (Exclusive Option Period) gewährleiste ständiges Mitspracherecht für die HCH - warum war dies so wichtig?
- Was passiert nachdem die Ausschreibungsanforderungen erstellt sind?
- Erarbeitet die HCH Konzepte GEMEINSAM mit Investoren oder erstellen diese Ihre eigenen und werden dann ausgewählt von der Jury?
- Auf welcher Grundlage werden Investoren / Entwickler ausgewählt von der HCH um ein Projekt zu entwickeln?
- Was machen Investoren die nicht vor Ort sind und mit der HCH gemeinsam entwickeln können?

5) Strukturen zu Förderung Sozialer Nachhaltigkeit/ instruments and mechanisms to foster social structures

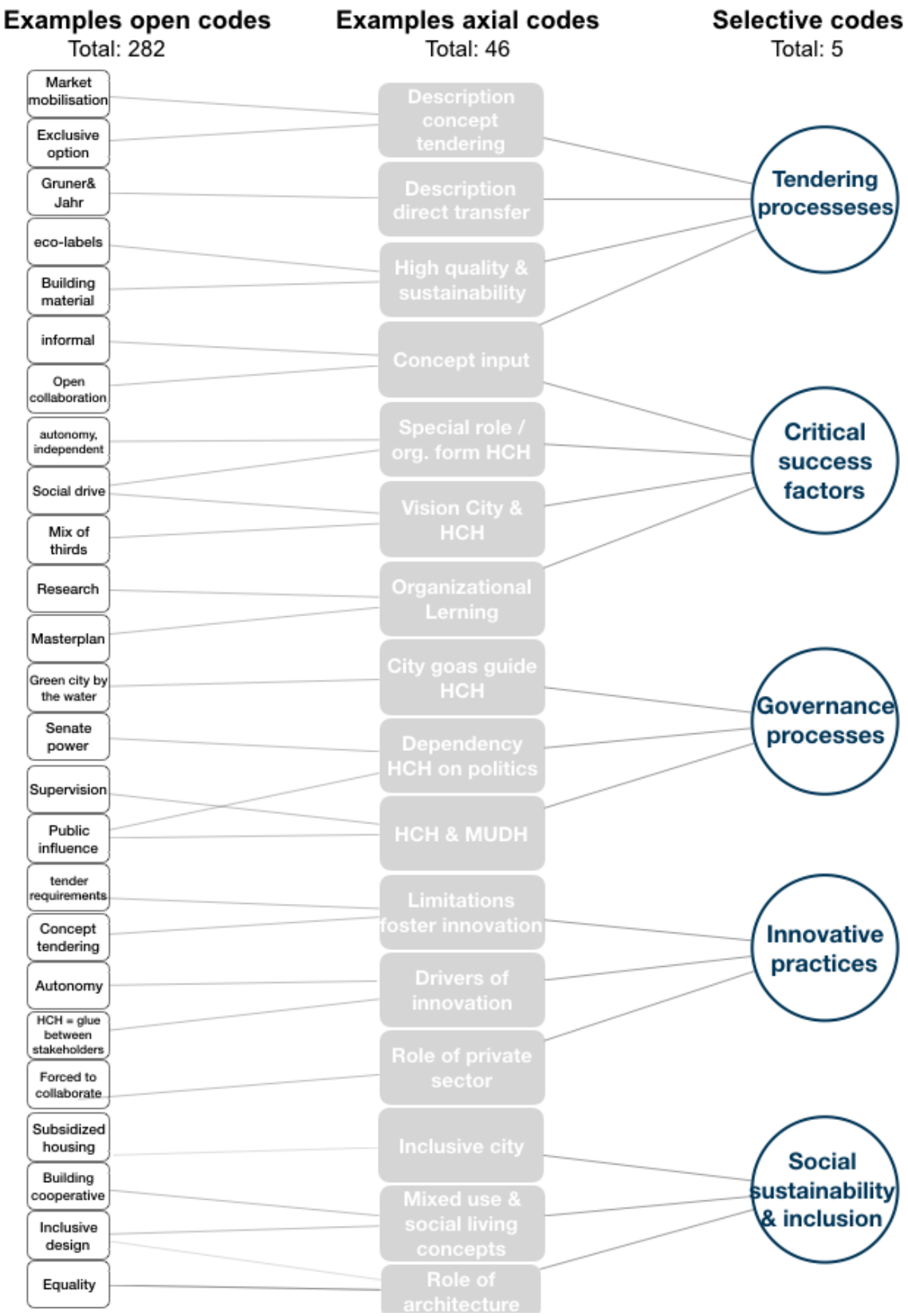
- Hamburg hat das Ziel, eine “gerechte” und “inklusive” Stadt zu sein. Wie definieren Sie dies?
- Wie definieren Sie Urbanität?
- Ab wann werden Wohnungen in der HafenCity als Sozialwohnungen definiert?
- Wie definieren sie Soziale Nachhaltigkeit?
    - Inwiefern trifft das auf die HafenCity zu?
    - Wie konnte soziale Nachhaltigkeit in der HafenCity realisiert werden?
- Inwiefern misst die Hafencity ihren Fortschritt in Sachen “inklusive” Stadt?
    - Rotterdam zum Beispiel hat einen Index entwickelt, um soziale Entwicklungen in den Quartieren zu überblicken. Wäre das interessant für die HCH?
    - Wird “inklusivität” nur an der Zahl von Baugemeinschaften, Sozialwohnungen, etc. gemessen, oder gibt es noch andere Indikatoren?
- Ist es denn auch wirklich erschwinglich für Geringverdiener?
- Welche Rolle spielt der Bürgerdialog in der Entwicklung des Grasbrooks?
- Welche Strukturen ermöglichen eine “gerechte / inklusive” Stadt?
- Wie begegnen Sie einer möglichen / bereits bestehenden Gentrifizierung der HafenCity?
- Was sehen Sie als Störfaktoren / hindernde Strukturen hinsichtlich der Entwicklung einer “inklusiven” Stadt?
- Wo sehen Sie Probleme hinsichtlich sozialer Nachhaltigkeit / Inklusion in der jetzigen HafenCity?

6) Voraussetzungen zum Erfolg / Critical Success Factors

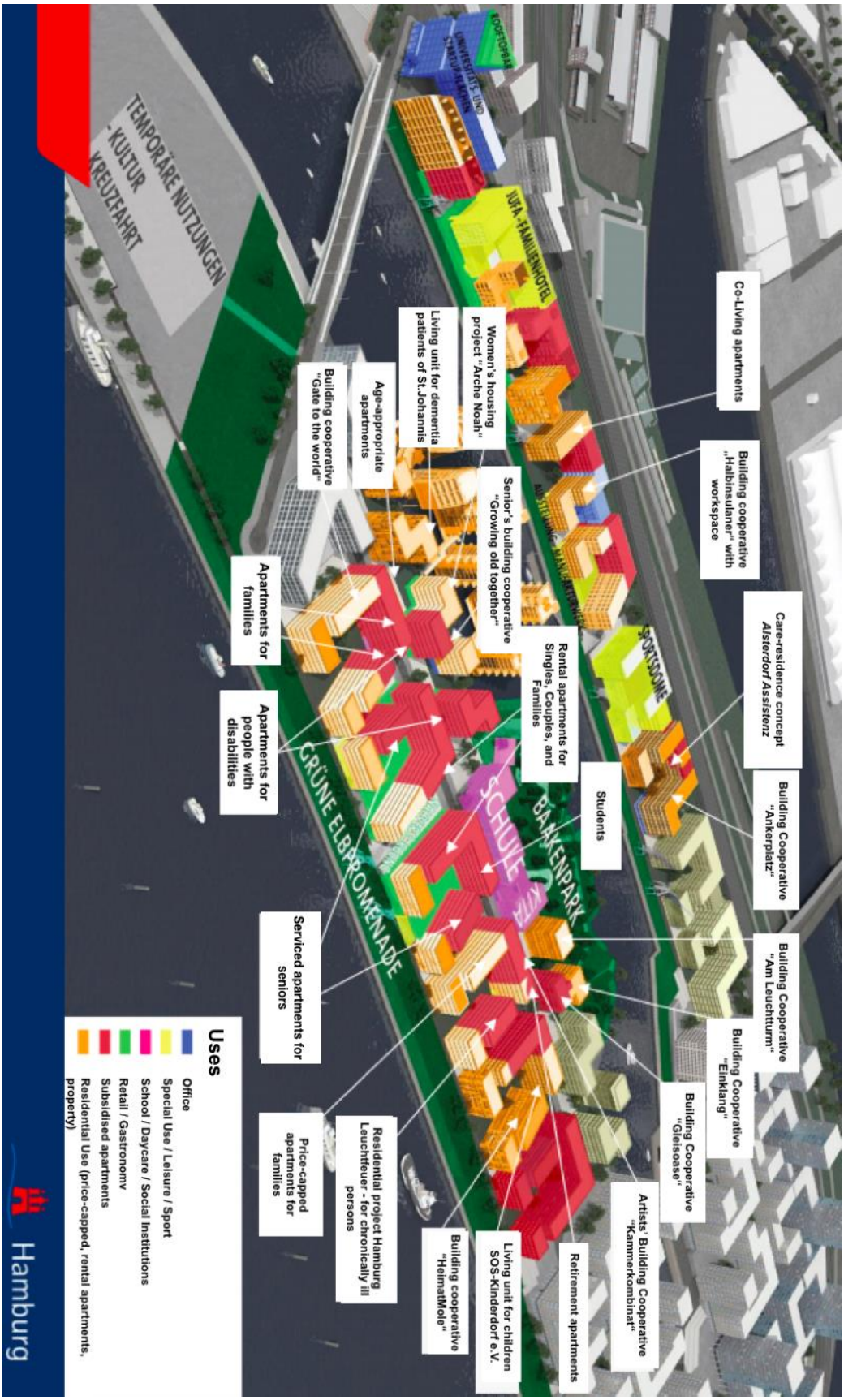
- Warum war dieser besondere Ausschreibungsprozess in der HafenCity überhaupt möglich
    - was waren die Faktoren die eine solche Innovation ermöglicht haben?
- Welche Prozesse oder Verfahren erlauben Ihnen, soziale Projekte zu fördern?
- Handeln sie autonom?
    - Wenn ja, was erleichtert dies in täglichen Abläufen?
- Halten sie die HCH für innovativ?
    - Wenn ja, warum? Was trägt dazu bei?
- Inwiefern ist Innovation ein Leitfaden für Entscheidungen innerhalb der HCH?

- Wer oder was innerhalb der HCH fördert neue, innovative Ideen bei der Planung der HafenCity sowie Grasbrook?
- Wie werden innerhalb der HCH Ideen generiert?
- Wie funktioniert Organizational Learning innerhalb der HCH? (rückblickend auf Entwicklung Hafencity bis jetzt, was hat man gelernt?)

Appendix 2: Coding Procedure



Appendix 3: Density of Social Housing in Baakenhafen



Appendix 4: Overview of Inclusive Building Projects in HafenCity

Developer/Owner	Project
Private Developer	Katharinen Primary School + day-care centre by social and welfare organization
Private Developer & two Building Cooperatives	Partially subsidized residential units, day-care centre
Three Building Cooperatives	Residential units of building cooperatives with ground floor use for the Children's Culture House
Private Developer	Hotel, cinema, culture/theatre space HafenBühne
Private Developer	Documentation centre and public event space
Non-profit Building Cooperative & Private Developer	Residential units for an inclusive housing community for students and handicapped youth, subsidized residential units, day-care centre, social service providers, ground floor use by PME Family Services (family support and childcare centre)
Three Building Cooperatives	Subsidized residential units, public community space/garden, kinder garden, social service providers (Dock 71 Project)
Two Private Developers & Public Association for Students in Hamburg	Subsidized residential units for students
Gruner & Jahr Publishing House	Partially publicly financed residential units, cultural amenities with
School Development Hamburg with HCH	Educational facilities with four gymnasiums streams, including 3 sports fields
Private Developer	Innovation development of "hotel of the future", co-working spaces, exhibition space
Two Building Cooperatives with social background	Partially subsidized residential units, inclusive residential units for mentally challenged people and units for families and seniors
Projects under development	
Private Developer	Residential units for sufferers of dementia
Building Cooperative	Publicly subsidized apartments for 60+ seniors to grow old together, with partial support if necessary
Private Developer	Residential units, predominantly subsidized with a price threshold, inclusive residential units for handicapped people, serviced apartments for seniors (Martha Foundation)
Private Developer	Residential units, predominantly subsidized with a price threshold, student residential units, serviced apartments for seniors (Martha Foundation)
Private Developer	Day care centre, family help and consulting centre, beginners swimming pool
Four Building Cooperatives & Social Organizations	Residential units, partially subsidized, residential units for young people with chronic illness, social service providers, recreational facilities and ateliers for cultural engagement in the quarter
Private Developer & Building Cooperative & Social Organisation	Residential units for families, partially subsidized for a tenant group from SOS Children's Village