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coping with ambiguous national environmental policies

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PLACE BRANDING

IN
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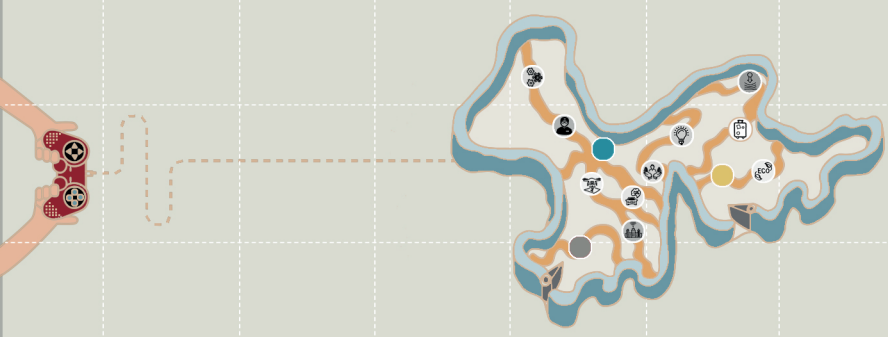

HAIYAN LU

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-coping with ambiguous national environmental policies

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To my family.

CONTENTS

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Acronyms

CDG	Shenzhen Construction and Development Group
CEPA	The Closer Economic Partnership Agreement
FYP	Five Year Plans
GPRD	The Greater Pearl River Delta
HKSAR	The Hong Kong Special Administrative Region
ICT	Information and Communication Technology
ILCC	International Low Carbon City
JJJ	The Jing-Jin-Ji region
MCR	Megacity Region
MEP	the Ministry of Environment Protection
MLG	Multi-level Governance
MLR	the Ministry of Land and Resources
MOHURD	the Ministry of Housing and Urban-Rural Development
MSAR	The Macau Special Administrative Region
NDRC	the National Development and Reform Committee
OCT Group	Overseas Chinese Town Holdings Company
PNT	Policy Network Theory
SAR	Special Administrative Region
SOE	state-owned enterprises
UMP	the Urban Master Plan
UPDIS	Urban Planning Design Institute of Shenzhen
YRD	The Yangtze River Delta

Introduction 1

1.1 National policies dealing with sustainable urbanization

In the past four decades, China has experienced unprecedented rates of urban growth. The urban population has increased from 17.9% in 1978 to 57.4 % in 2016, and is expected to rise to 71.4% in 2030. This rapid urbanization is remarkable but has also created challenges for China's environment. For instance, air pollution in China has been so severe that the health of residents is at risk. The annual average PM2.5 (particles with an aerodynamic diameter less than 2.5 μm) was four times the international standard in 2017. In addition, water and soil have also been contaminated in both urban and rural areas in China. This environmental deterioration is not unique in China, since it also occurred in Western countries in the 1960s and 1970s. Like their western counterparties, Chinese governments started to incorporate sustainable development concepts in their policies.

The Chinese national government has issued several policies to protect the environment while still maintaining high economic growth. The concept "scientific approach to development" was coined by the national government in China, and stated sustainable development was a critical element of the harmonious socialist society in 2003. Another national policy that of the "ecological civilization", was adopted in China in 2007, promoting a synthesis of economic, educational, political, agricultural and other reforms to develop a sustainable society. Furthermore, ecological principles, such as intensive, smart, green, and low-carbon production, were further made a part of the urbanization process in the National New Urbanization Plan in 2014 (State Council, 2014). Although many policies aim to promote sustainable

development, their scope is broad, and the goals are formulated in ambiguous ways.

These national policies are supposed to be implemented in pilot areas with the participation of provincial and municipal governments in China's unitary governance system. The megacity regions, urban agglomerations surrounding Hong Kong, Shanghai, and Beijing, were selected as the pilots of sustainable urbanization for other regions. Additionally, provincial and municipal governments across the country can apply to be pilot of various ecological development programs, which have been launched by different national ministries. For instance, eco cities have been promoted by the Ministry of Environment Protection (MEP), low carbon cities by the National Development and Reform Committee (NDRC) and low carbon eco-cities by the Ministry of Housing and Urban-Rural Development (MOHURD). Some cities became the pilots to undertake the ecological and low carbon initiatives in their development strategies. The unsuccessful ones still incorporated similar ecological concepts in their visions or targets, either to show their obedience to national policies or their enthusiasm for sustainable urbanization. Nearly 90% of municipalities in China promoted the "eco city" and "low carbon city" in their development targets in 2016 (Fang, Wang, & Wang, 2016).

1.2 Reactions from provincial and municipal governments

One way to investigate the reactions of provincial and municipal governments to national environmental policies is to examine how their development targets are aligned with these policies. Provinces and cities in China usually express their targets or visions in their urban or economic development plans. In the South of China, Guangdong Province drew up a green and low carbon industrial development strategy to follow the national policies (Guangdong Province, 2013). At the municipal level, Shenzhen proposes to become "a modern international innovative city" in its 13th Five Year Plan. Foshan focuses on becoming "an advanced manufacturing base" and "a service centre for industries" in its urban plan (FS Municipality, 2012). The proliferation of environmental concerns in place brands indicates the influence of the national government. Nonetheless, maintaining economic growth through technological innovation and industrial transformation are expressed in regional and city identities at the same time.

These place identities or labels should go beyond mere intentions. The regional and municipal governments have an obligation to promote sustainable development initiatives listed in their policy plans. In the process

of urban expansion, new towns are archetypes of urban projects that flesh out sustainable ideas in China. The new towns are favored by the provincial and municipal government because the achievement can be shown by the percentage of green buildings and the adoption of clean technologies. Moreover, these successful experiences can also be transferred to other cities, such as in International Low Carbon City in Shenzhen and Guangzhou Knowledge City. These new towns are usually located in suburban areas and are planned to be a mix of residential, commercial and industrial clusters. Low carbon buildings and green infrastructure can be promoted at a large scale due to the size of these new towns. Furthermore, factory plants with high levels of pollution are phased out, and high-tech and service enterprises are encouraged to enter.

1.3 Underlying theoretical concepts

This dissertation studies regional and city branding in China from two angles, i.e., place branding and the intergovernmental context. First, place branding process focuses on the development stages of regional and city brands, which helps us to understand place branding at the regional and municipal scales, ranging from identities and labels in planning documents to city images created around urban projects. Second, the intergovernmental context further addresses the interactions among different levels of governments in the decision-making regarding brand identities and labels, as well as private actors in urban projects.

These two dimensions complement each other in helping understand regional and city branding in China. The place branding process aspect aims to track the different stages in place branding, while the intergovernmental context dimension explains the interactions among governmental and non-governmental actors in this place branding process. Together they form a complementary theoretical framework to understand place branding practices in China. The main concepts of the two dimensions can be understood as follows.

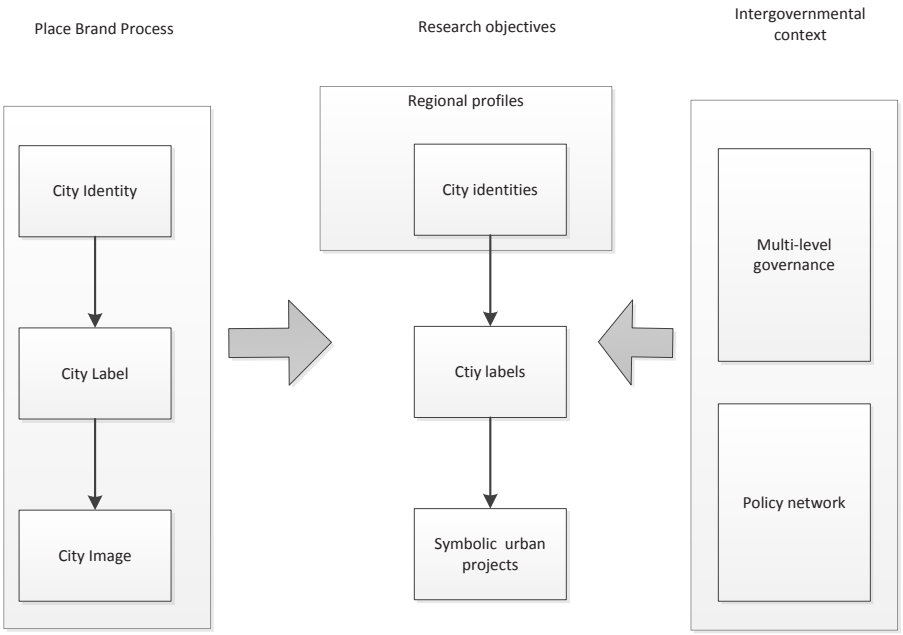


Figure 1. 1 Regional and city branding based on place branding and intergovernmental context theories

1.3.1 Place branding as a process

Changes responding to environmental pressures are not automatic, but involve planning with a long term vision. The desired changes are expressed in the urban planning, economic and social planning, and land use planning. Place brand identities and labels are essential information in these planning documents because they are the future visions and desired image, which provides the common ground for governments, residents, and investors to cooperate together.

Place branding can be studied based on a process approach. Moilanen and Rainisto (2009) suggested that the city branding process can be divided into five stages: start-up and organization, research stage, forming brand identity, making and enforcing the plan, and finally implementation and follow-up. The regional brand process begins with the identity, which distinguishes physical, cultural and historical features that make one region different from others (Paasi, 2002). Then, regional branding markets the qualities of the region in a broad sense, such as landscape, nature, products, and tradition (Messely, Dessein, & Lauwers, 2010). Moreover, regional branding is embedded in the region building process, which is promoted and modified by different levels of governments within the region. In sum, place branding is a complicated process, in which political and

economic factors influence each other (Lucarelli, 2017). This dissertation adopted the key elements, namely brand identity, brand position and brand image to describe the place branding process.

Brand identity

Regional brand identities can be understood as established features of the region. Most scholars agree that identities are moulded gradually in the region building process (Browning, 2003; Neumann, 1994). A region is also a space of political governance, where governments play an essential role in creating new spaces of identification and belonging (Del Biaggio, 2010).

Regarding city brand identity, it is designed in the early stages, and consists of a general self-description and its essence are core differentiation from others (Kavaratzis, 2008). Brand identities can be complicated combinations of their spatial configuration and distinctive cultural characteristics and values (Zhang & Zhao, 2009). Those characteristics need to be carefully considered and creatively synthesized to design a meaningful and irreplaceable identity. A city brand identity is crucial to a city's long-term development.

City label

At the city level, city labels are the various aspects of a brand identity, targeting different stakeholders or customers. They are the stage to elaborate the identity into specific targets or plans. Some scholars also regard city labels as a relational concept, reflecting its position within the urban hierarchy system (Kresl & Singh, 1999). For example, if a city labels itself as a 'global city', it will endeavour to enhance its international reputation. In China, city labels are also adopted as policy instruments to convey information to higher governments. Some city labels express a short-term development strategy, such as 'eco city' and 'smart city', which are influenced by national policies in China.

City image

At the city level, city image is composed of urban elements, including public spaces, architectures and natural environments (Riza, Doratli, & Fasli, 2012). A city image is the result of the specific implementation of city labels on the ground, which also impacts the perceptions of residents and visitors (Chapman & Lynch, 1962; Hospers, 2010). In a broad sense, these actions include landscape interventions, infrastructure development, organizational and administrative structure and corresponding behaviours (Ashworth &

Kavaratzis, 2009). Since this dissertation mainly focuses on the changes in the use of city labels, they are not further discussed from here on.

1.3.2 Branding in an intergovernmental context

In the urban transformation in China, place branding is a planning instrument responding to national policies dealing with environmental crises and social-economic inequality. This dissertation will specifically explain how the region and city identity and labels are adopted as policy instruments in response to national policies in China (see Figure 1.1). In China's unitary governance, environmental policies are drafted at the national level. In the planning process, the regions and cities tend to incorporate the spirit of national policies into their own regional or municipal identity or labels. As regional and city brand identities are often shaped by many rounds of discussion among government officers and planners, it is necessary to investigate the relationships among different governmental tiers in branding practices, linking it to multi-level governance theory.

In this research, I will focus on the consistency of urban development strategies (brand-related expressions) and the symbolic actions connected to them. In line with Anholt's analysis of national brands, it is assumed that effective execution of a strategy must be coupled with many symbolic actions if it is to result in an enhanced reputation in the end (Anholt, 2007). In the context of cities, brand-related expressions in urban and economic planning documents show the self-perception of these cities. Symbolic actions are a particular species of the effective execution of this strategy that happens to have inherent communicative power. They might be innovations, structures, legislation, reforms, investments, institutions, or policies, which are emblematic of city strategies (Anholt, 2010). Many scholars choose to study the interventions on the ground through urban design, architecture (Ashworth & Kavaratzis, 2009), green spaces and general public spaces in the city (Gulsrud, Gooding, & Bosch, 2013). New town projects are regarded as the exemplar of urban development strategy in China, and can thus be understood as symbolic urban projects. It is also necessary to understand how governments and non-governmental actors cooperate with each other in symbolic urban projects with analytical framework adopted from the policy network theory.

Multi-level governance

Multi-level governance has emerged as an approach to understanding the dynamic inter-relationship within and between levels of government (Bache

& Flinders, 2004; Guy Peters & Pierre, 2001). City branding in an intergovernmental context thus refers to the creation of economic city profiles in the interactions between municipal and higher level governments, as well as to the reflection of these profiles in flagship projects, which are urban projects primarily carried out by district governments and developers 'below' the municipal government. Therefore, the research on urban project development in China should also consider the different levels of local governments (provincial, municipal and district).

Multilevel governance can typically be analysed vertically (Hooghe & Marks, 2003). It essentially combines top-down and bottom-up actions between interdependent levels of government. This is relevant to China, since its urban planning system is also based on the idea of command and control regulation, inherited from China's planned economy and hierarchical political system (Wu, 2015). Some earlier studies also characterize governance in China as predominantly top-down (from national to subnational), with subnational (provincial and municipal) governments merely being held responsible for implementing national mandates (Miao & Lang, 2014; Wu, 2002).

It is necessary to realize that cities operate within an administrative hierarchy to understand urban governance in China. The different positions of cities in urban hierarchy impacts their administrative power, resource allocation and institutional arrangements (Wei, 2015). Since 1949, China has established a unitary governance system, the municipal governments also have different levels, including the provincial capital, prefectural, county, township, and village levels (Ma, 2005). The provincial capital or key prefectural cities have more chance to gain the title of eco or low carbon city from the national government because of their higher position in the urban hierarchy. However, the prefectural level cities are less likely to receive the support from higher-level governments. Therefore, research on urban project development in China should also consider the interplay between the municipal and district governments.

Policy networks

These city labels are physically shaped in symbolic urban projects, which are best exemplified the emergence of new town projects in these cities. The actors involved in the implementation of new town projects in the Pearl River Delta are the different levels of government (national, provincial, municipal and district), developers and financiers (cloaked either as public or private

enterprises), architects and consultancy firms. In some cases, non-governmental actors and foreign governments also participate in the project.

Policy Network Theory (PNT) is a cluster of concepts focussing on the formal and informal institutional linkages among various interdependent governmental and other actors sharing a common interest in policy-making (Rhodes, 2006). PNT explains why policy concepts often fail to be realized on the ground, or to put it more mildly, why good policy intentions are often diluted or twisted during implementation (Hudson, Lowe, Oscroft, & Snell, 2007; Klijn & Koppenjan, 2000). Below I will introduce some essential concepts in PNT and their applicability to the Chinese context.

First, policy actors are assumed to have objectives they aim to see realized as if in a game-like network setting and this includes a perception of the problem situation at hand (Van Bueren, Klijn, & Koppenjan, 2003). These perceptions have evolved based on earlier learning experiences. Both the objectives and strategies are derived from their perceptions. Objectives are concrete (partial) translations of perceptions (de Bruijn & ten Heuvelhof, 1991; Koppenjan & Klijn, 2004). Additionally, actors require resources or policy instruments to reach their objectives, and some of these resources are owned or controlled by other actors thus creating interdependency (Borzel, 1998; Klijn & Koppenjan, 2000; Marsh & Smith, 2000).

The private actor participation in the housing and infrastructure development in China provides the opportunity to adopt PNT to study Chinese cases. Since 1978, private and foreign investment have continued to flow into the real estate market and played a vital role in urban development (Wu, 2001). Since the amount of governmental expenditure on public facilities is limited, the involvement of private capital is encouraged (Bellier, 2003; Zhan, de Jong, & de Bruijn, 2017). Although the public sector is still the most influential stakeholder, the private sector has participated more actively in the housing and infrastructure development after 1978. This expanding interwovenness between the public and private sectors alongside the already pre-existing connections among various public actors suggests that PNT is as applicable to urban (and new town) development in China as it is elsewhere (Zhang, 2002).

1.4 Research questions

Although much research has been conducted to study sustainable urbanization policies in China, limited effort has been spent on how

provincial and municipal governments react to these national environmental policies. This study examines how the national environmental policies affect the place identities and labels in the planning documents of provinces and cities in the megacity regions. Then, this study further explores to what extent and how the ecological initiatives in these place brands are aligned with urban projects on the ground.

Above all, the main research questions are "**How are place brands chosen by provincial and municipal governments? How are place brands aligned with urban projects, given the fact that they are expected to contribute to the ecological initiatives?"** Specifically, four sub-questions are addressed for a deeper understanding of place branding and its alignment with urban projects in China:

1. How do regional profiles emerge and how are they recognized by different levels of governments in China's three main Megacity Regions (MCRs)?
2. How have municipalities in the Pearl River Delta branded themselves after 2000 and what are possible explanations?
3. In which intergovernmental context can the choices of city brands be explained in the Pearl River Delta region and how are these initiatives aligned with symbolic urban projects?
4. How are the ecological initiatives delivered in urban projects and how can existing implementation barriers be explained?

1.5 Dissertation structure

The structure of the thesis is shown in Figure 1.2. Part 1 introduces the research background and relevant theories. Part 2 presents the empirical analysis of place branding practices and their materialization in urban projects in Chapter 2, 3, 4 and 5. Part 6 provides the further discussion and conclusion based on the findings of this dissertation. The content of each chapter is introduced in the following paragraphs.

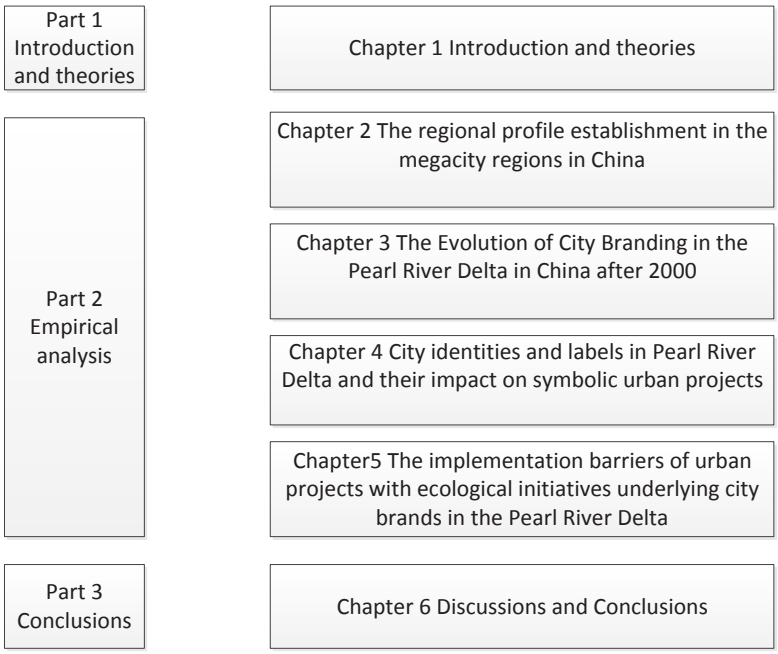


Figure 1. 2 The structure of the dissertation

Chapter 1 provided an overview of the research by introducing the research background, problem statement, research questions, and theoretical framework. Chapter 2 begins with the investigation of the establishment of regional profiles in megacity regions in China with the interactions between central, provincial and municipal governments. The role of each tier of government in regional profile development in the Greater Pearl River Delta is studied. Then, Chapter 3 demonstrates the change of city labels after 2000, and offers three propositions to explain the choice for brand labels. In Chapter 4, city brand identities and labels in the Pearl River Delta cities and their impact on symbolic urban projects are explored from a multi-level governance perspective. Chapter 5 further highlights implementation barriers in urban projects with the ecological initiatives underlying city labels in the Pearl River Delta. Finally, chapter 6 presents the key conclusions, reflects on the limitations of this research and points out suggestions for future research.

2 Establishing Regional Profiles for Megacity Regions in China

(Lu, H., de Jong, M., Zhao, M., Song, Y. Establishing Regional Profiles for Megacity Regions in China-- A Multi-Level Governance Perspective. Tijdschrift voor economische en sociale geografie, under review.) .

2.1. Introduction

What regional identities are is an important topic in the academic literature, especially now that a growing number of new regions have emerged as engines for economic development after the 1970s (Tomaney & Ward, 2000). Most scholars conceptualize regional identity as two intertwined dimensions, the identity of a region and the regional consciousness of residents (Paasi, 2002a). The former refers to it as a set of natural and cultural assets with given bounded spaces in the region, such as landscapes, dialects, local foods and music (Everett &Aitchison, 2008; Sletto, 2002). The latter refers to the social collective identification local residents have. This contribution focuses on the former aspect, on how they are different from other regions in terms of political strategies, cultural assets and relevant functions (van Houtum & Lagendijk, 2001). As new regions after 1970 have typically been planned with the aim to develop or increase the competitiveness of an area, a shared identity is crucial to safeguard the functionality and sustainability of new regions (Castells, 1997).

To avoid conceptual confusion and to stress the purposeful role that governmental bodies have in establishing regional identities, we label them regional profiles rather than identities from here on. A regional profile refers to an attractive description or shared understanding of what the region

represents as formulated by relevant government bodies. Current interest in the scale of the city-region marks a new stage in the rapidly intensifying debate about regional profiles.

For the Chinese context, the Mega City Regions are typical examples of such planned new regions, as their territorial boundaries and developmental visions are defined in planning documents drafted by the Chinese national government. Typical examples are the three well-developed regions described in the national strategy, the Greater Pearl River Delta (GPRD), the Yangtze River Delta (YRD) and the Jing-Jin-Ji region (JJJ). They are initially promoted by the national government, and later on recognized and adopted in some form by provincial and municipal governments.

Nonetheless, regional profile cannot simply be understood as conceptions promoted by the national government, because they are modified and reinterpreted by provincial and municipal governments. The emergence, acceptance and rejection of regional profiles by different levels of government depend on their power relations, resources under their control, interests and problem perceptions (Paasi, 1991; Zimmerbauer, Suutari, & Saartenoja, 2012). Above all, different government tiers throw in their own, often divergent, interests and concepts moulding the 'regional profiles' in their own ways. Dealing with the complexity in understanding regional profiles, our research question is: how are regional profiles established and how are they recognized and adopted by different governments tiers in China's three main Megacity Regions (MCRs)?

Regional profiles emerge in a specific national context and are subsequently mobilized in the planning process (Paasi, 2013). Similarly in China, the emergence of regional profiles can be found in the national planning documents related to MCR development. As for the recognition of these profiles, the provincial and municipal governments express positive, neutral or negative attitudes in their planning documents regarding regional development in conscious and explicit ways (Hague & Jenkins, 2005; Paasi, 2003; Raagmaa, 2002). In China, urban planning documents, including Five Year Social and Economic Plans (FYPs) and Urban Master Plans (UMPs), are often adopted by researchers to study and comprehend the attitude of Chinese governments on regional development (Li &Wu, 2013). We likewise adopt urban planning documents as the most reliable source to address our research question.

In the rest of this article, we will proceed as follows. In section 2, we will theorize how regional profiles are formulated in the region building process as multi-level governance theory. In section 3, we present our research methodology. Section 4 will introduce the historical evolution and institutionalization of the three MCRs. Section 5, 6 and 7 will present the recognition of the regional profiles that the three MCRs have obtained in national, provincial and municipal urban planning documents. Finally, section 8 draws conclusions.

2.2 Establishing regional profiles as multi-level governance

2.2.1 Regional profiles in the region building process

Since regional identities can be understood as an established feature of the region, most scholars agree that identities are moulded gradually in the region building process (Browning, 2003; Neumann, 1994). A region is also a space of political governance, where governments play an important role in creating new spaces of identification and belonging (Del Biaggio, 2010). When we highlight the acceptance, resistance to and re-conception of regional identities by different levels of government, we rename them 'regional profiles' to emphasize the purposefulness of governmental action.

One way to conceptualize the region building process is through a model developed by Paasi (Paasi, 1986). He has argued that a regional identity emerges when four elements become intertwined and begin reinforcing each other, namely territorial shape (definition of borders), symbolic shape (names, concepts and other symbols offering a distinct narrative of the region), institutional shape (institutions producing/reproducing the territorial and symbolic shapes) and functional shape (the recognition of regions as a part of the regional system and broader social consciousness).

Regional profiles can be seen as the interplay of territorial, symbolic and institutional shapes in the region building process, in which symbolic shaping refers to the process of naming and creating additional symbols to express and strengthen the idea of the existence of a specific region (Paasi, 2009). The name itself is one of the most important symbols for a region (Raagmaa, 2002; Simon, Huigen, & Groote, 2010). By focusing on the territorial, symbolic and institutional aspects of region building (and not on the functional shape, which is largely beyond the grasp of public authorities) (See Figure 2.1). We focus on how the different tiers of governments describe the borders, vision, targets and roles of various constituencies in

the region, thus constituting its 'regional profile'. The governance model and power relations in the region affect the involved actors and their attitudes towards the regional profile (Messely, Dessein, & Rogge, 2015). The early adoption of such symbols for MCRs in China can be found in the national urban planning documents, followed by those drafted by provincial and municipal governments.

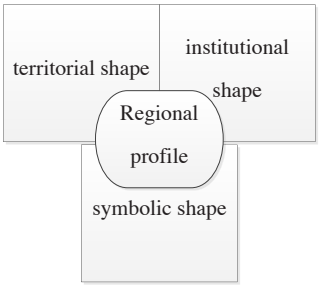


Figure 2. 1 The regional profile in the regional building process

For the governance of regions in China, tasks are distributed across national, provincial and municipal governments. Regional profiles are consequently construed through relationships among these different levels of governments. On the one hand, these regional profiles are open to reinterpretation by different levels of government and may meet resistance from governments with divergent interests (Castells, 1997; Zimmerbauer et al., 2012). In this contribution, we hope to shed light on the handling of territorial, symbolic and institutional aspects of regional building in China and spot possible variety in this handling across the three MCRs. Since the involved governmental bodies are crucial to the recognition and adoption of regional profiles, it is crucial to grasp how they are conceived at different levels of government in the Chinese context.

2.2.2 Regional profiles in the Multi-level Governance

Inspired by the adoption of the multi-level governance perspective to understand regional profiles (Davis & Reed, 2013), we examine the perceptions of national, provincial and municipal governments of these profiles through the narratives in policy documents describing the Chinese MCRs.

Multi-level Governance (MLG) can be defined as political structures and processes, which aim to cope with interdependencies among territorial units in political decision-making (Benz, 2004). MLG can, however, also refer to negotiated relationships across institutional boundaries both vertically and

horizontally (Peters & Pierre, 2001; Hooghe & Marks, 2003). In our contribution about regional profiles, we deem it suitable to embrace the former definition and examine just the intergovernmental relations. The vertical approach in MLG has already been applied to study urban governance in China, as for the urban politics of climate change (Liu et al., 2012). Before 1980, urban sustainability governance in China had been predominantly top-down, with provincial and municipal governments merely responsible for implementing national mandates. Although the national government has preserved its leading role in governance, provincial and municipal governments have acquired more administrative and economic power since the fiscal decentralization in 1994. And gradually, local governments gained momentum in the process of reshaping the state (Zhu, 1999; Yang and Wang, 2008).

Since MCRs emerged in the urbanization process in China, the roles national and provincial governments play in regional governance have attracted ample academic interest. These insights are summarized as embracing a vertical scaling building mechanism, which is discussed as state rescaling (Li, Xu, & Yeh, 2014), upscaling and downscaling (Li et al., 2014). First, the national government cannot fully impose its regional vision because economic decision-making has been decentralized to lower administrative levels (Li & Wu, 2017). Second, provincial governments and municipalities are relatively independent administrative units and therefore there tend to compete rather than cooperate (Luo & Shen, 2008; Xu, 2009; Xu & Yeh, 2005). In response to a lack of coordination, the national government strives to fix regional development problems by issuing spatial plans or establishing institutions (Wu, 2016). Abovementioned studies on MCRs in China have provided both theoretical and empirical insight to understanding regional governance. Nevertheless, the roles and interactions of national and provincial governments in regional governance vary across urban contexts (Li & Wu, 2017; Xu, 2009). Although these studies shed light on the dynamics of regional governance in China, the significance of regional profiles as multi-level governance to fit the interests and intentions of governments at various level is yet to be fully investigated.

2.3 Methodology

First, we found the territorial boundaries of the three megacity regions in relevant policy documents. Secondly, we analysed the government promotion and institutionalization events during the region building process. Thirdly, the symbolic dimension of regional profile establishment was

mapped based on the names and concepts of regions in the corresponding planning documents (available online or in print), which were issued by national, provincial, and municipal governments. We also interviewed academics, senior planners and other experts involved in planning for the GPRD, YRD and JJJ to dig up additional information and insights not found in the official documents.

Specifically, we selected plans drafted by the national, provincial and municipal governments on socio-economic regional development, all so-called Five Year Plans (FYPs) and Urban Master Plans (UMPs) drafted and approved after 2000. FYPs reflect strategic and comprehensive planning for economic and social development, whereas UMPs elaborate on the spatial changes in localities.

At the national level, we examined the national FYPs and UMPs. As for the provincial plans, we included those drafted by Guangdong, Hong Kong SAR and Macao SAR (for GPRD), Shanghai, Jiangsu, Zhejiang and Anhui (for YRD) and Beijing, Tianjin and Hebei (for JJJ). When it came to the municipalities, we went through the plans made by 9 PRD cities (excluding Hong Kong and Macau), 15 YRD cities (excluding Shanghai) and 12 JJJ cities (excluding Beijing and Tianjin). In all cases, we first made a frequency-count of the regional profile keywords in the text. Then, we collected the key concepts related to regional profiles from illustrative sentences or quotes in the urban planning documents, which demonstrate to what extent they recognize the existence of regions.

After mapping the above factors, we still had to check the adequacy of our understanding of the regional profiles adopted by different levels of government through interviews. The information provided by interviewees helped us to detail the planning process of the MCRs and clarified ambiguities found in the urban planning documents. The list of respondents can be found in Appendix Table 1.

2.4 Territorial boundaries and institutionalization of the three MRCs

2.4.1 Territorial boundaries of the regions

The origin of the Greater Pearl River Delta (GPRD), the Yangtze River Delta (YRD) and the Jing-Jin-Ji region (JJJ) can be found in the emergence of urban clusters (*chengshiqun*), as described in studies on urban systems (Yao, Chan, & Zhu, 1992). Regions evolved around the development of

some mega cities, more particularly Hong Kong, Shenzhen, Guangzhou, Shanghai, Beijing, and Tianjin (see Figure 2.2). As the surrounding areas near these megacities also developed, the term mega-city region has been adopted by most scholars to describe JJJ, YRD and GRPD (Douglass, 2000; Xu & Yeh, 2011; Ye, 2014).

As these regions emerged as clusters of large cities between which a growing number of functional economic relations evolved, the national government played a key role in promoting them as economic regions through issuing regional planning document to clarify the functions, targets and spatial plans of three regions. The territorial boundaries are clarified in these spatial planning documents. The territorial boundary of the Greater Pearl River Delta is quite clear: it consists of nine PRD cities and two Special Administrative Regions.

As for the Yangtze River Delta mega city region, it began with Shanghai, and some cities from Jiangsu and Zhejiang Province. The territory boundaries were redefined in *the Yangtze River Delta Regional Plan* issued by the State Council in 2010, including 8 cities from Jiangsu Province and 7 from Zhejiang Province. In 2016, in *the Yangtze River Delta Megacity Region Plan*, the area of Yangtze River Delta mega city region was enlarged to include 9 cities from Jiangsu, 8 cities from Zhejiang and 8 cities from Anhui Province.

In the Jing-Jin-Ji megacity region, the concept of the Capital Economy Circle was used in 2010, which covers Beijing, Tianjin, and 11 cities from Hebei Province. In *the Beijing, Tianjin and Hebei Synergy Development Outline in 2015,* the coverage of JJJ remains the same. From other planning documents, Anyang from Henan province, Datong from Shanxi Province and Dezhou from Shandong Province are also mentioned in the JJJ megacity region. The ambiguous territory boundaries also demonstrates that JJJ's development is still in its early stages compared with the other two regions.

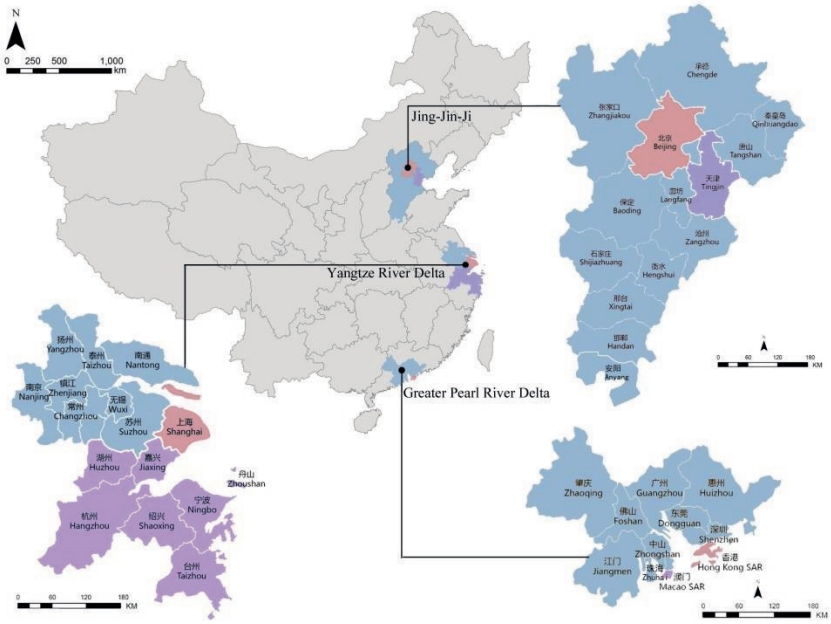


Figure 2. 2 The location of the Greater Pearl River Delta, Jing-Jin-Ji and the Yangzi River Delta

2.4.2 The initial organizational arrangements

Among the three regions, institutionalization of the GPRD is clearly in process, but demands higher level intervention because of the variety of political and administrative systems involved. In contrast, the YPD has advanced the most, since it has experienced the failure of its institutionalization imposed in a top-down manner, and its subsequent re-constitution organized by municipal and provincial governments in a bottom-up fashion (Li & Wu, 2017). Compared with the former two, the institutionalization of the JJJ is still in the early stage.

The growth of the Pearl River Delta (PRD) cannot be seen apart from the roles that Hong Kong and Macau have played (Bie, de Jong, & Derudder, 2015). During the economic reform in the 1980s, Shenzhen Special Economic Zone was established as an experimental area to transfer Hong Kong's capitalist free market economy to mainland China. Zhuhai Special Economic Zone was established later on as Macau's counterpart. The PRD area soon became the biggest national manufacturing base. The concept of the PRD Economic Zone was first introduced by Guangdong's provincial

government in 1994, and it tended to emphasize the integrated development of the nine mainland cities in it.

The rise of the Yangtze River Delta is highly connected with that of Shanghai. The concept originated from the establishment of the *Shanghai Economic Zone* in 1982, which promoted coordinated economic development among a number of cities in Zhejiang province, Jiangsu province and Shanghai. Shanghai and the YRD entered a period of rapid development in the 1990s. *Pudong New District* was established in 1992 as Shanghai's Special Economic Zone and it benefited greatly from national policies. Evolving into an international financial and trade hub, Shanghai remained the YRD's economic engine. In 2008, YRD cooperation even became a national strategy, as indicated in the issuing of the *Guidance for Promoting YRD Reform and Opening Up, Economic and Social Development* by the State Council.

Jing-Jin-Ji is located around the Bohai Rim in the northern part of China. It is the national capital region and famous for its heavy industrial base, called Jing-Jin-Tang (formed by Beijing, Tianjin, and Tangshan).The concept Jing-Jin-Ji (JJJ) was first coined in the 1980s, but it took on a life of its own in 2004, when the two province-level cities, Beijing and Tianjin, joined forces with Hebei province and signed a Closer Economic Partnership Agreement (CEPA) for the Bohai Rim. Two years after the agreement the National DRC specified the concept of economic integration for the JJJ and began to formulate a Comprehensive Plan for the JJJ Metropolitan Region. The promotion of national policies and institutional establishment are presented through the key historical events of three regions in next section.

2.4.2 Further promotion and institutionalization

Greater Pearl River Delta

The turning point for this region was the establishment of the Hong Kong Special Administrative Region (HKSAR) on 1 July, 1997. Hong Kong's reunification with mainland China fuelled the expectations and plans in Guangdong to promote the economic integration of the PRD and Hong Kong. The Hong Kong and Guangdong Cooperation Joint Conference was established in 1998 (Table 2.1). The idea of a Greater PRD was proposed immediately after the reunification of Macau to mainland China in 1999. In the same year, Macau returned to China and the Macau Special

Administrative Region (MSAR) was established. Two years later, in 2001, a Guangdong and Macao high-level meeting system was founded.

In 2002, the concept of the Greater PRD was officially adopted by the HKSAR government. However, a really significant milestone was the signing of the *Mainland and Hong Kong Closer Economic Partnership Agreement* (CEPA) in 2003 by the national and HKSAR governments (Cheung, 2015). This agreement aimed to counter the national government's prioritization of the development of Shanghai and the Yangtze River Delta in 1990s, which had significantly slowed down that of the PRD.

In 2008, the *Pearl River Delta Development and Reform Outline* was approved by the national government, which mentioned the cooperation between Guangdong province, Hong Kong and Macau at the national level. In the period between 2006 and 2009, the Guangdong, HKSAR and MSAR governments first jointly conducted a *Planning Study of the Coordinated Development of the Greater Pearl River Delta Townships*, which brought up the concept of a 'bay area' development. Finally, the '*Deepening the Cooperation of Guangdong-Hong Kong-Macau and Promoting Greater Bay Area Development Framework Agreement*' was signed by the national government, HKSAR, MSAR and Guangdong provincial governments in 2017. It showed the determination of the national government to promote this concept, despite the plan becoming controversial under the 'one nation two systems policy' and raising debates in the Hong Kong's public.

Table 2. 1 Milestone events in the history of the Greater Pearl River Delta

	Milestone event
1994	The PRD Economic Zone established
1997	Hong Kong reunified with the mainland China
1998	The Hong Kong and Guangdong Cooperation Joint Conference established; the top leader from Guangdong and HKSAG attended this conference in 2003
1999	Macau reunified with mainland China
2001	The Guangdong and Macao high-level meeting system established; later upgraded to the Guangdong-Macau Cooperation Joint Conference system in 2003
2003	The Mainland and Hong Kong Closer Economic Partnership Agreement (CEPA) signed
2008	*The Pearl River Delta Development and Reform Outline* issued
2006 to 2009	*The Planning Study of the Coordinated Development of the Greater Pearl River Delta Townships* conducted
2017	The Concept of Guangdong-Hong Kong-Macau Greater Bay Area first raised

Yangtze River Delta

In 1983, a coordination organization, the Shanghai Economic Zone Planning Office was established by the national government, with the mission to explore alternatives for the problems resulting from the sector-dominated economic development (See Table 2.2). However, the organization lacked efficiency and hierarchical control and it was abolished in 1988 with the suggestion to establish a Provincial Governor Joint Conference.

In 1992, 13 cities from all three provinces, including Shanghai, Nanjing, Suzhou and Hangzhou, founded the *Yangtze River Delta Urban Economic Coordinated Committee*. This was the first regionally coordinated and bottom-up initiated organization, nonetheless adopting similar concepts as the national government had done before. In 2001, Shanghai, Jiangsu, and Zhejiang province established the Shanghai, Jiangsu, and Zhejiang Economic Cooperation and Development Forum, of which the respective vice-provincial governors were in charge. In 2004, it was lifted to the level of main leaders and became the highest decision-making group at the provincial level.

In 2009, Anhui was also invited to attend the governor's forum of Shanghai, Jiangsu and Zhejiang Provinces and the Yangtze River Delta Urban Economic Coordinated Joint Conference. By 2010, the number of members in the YRD Coordination Committee had risen to 22, including some cities from Anhui province. Furthermore, the national government finally formulated the *Yangtze River Delta Urban Agglomeration Development Plan* in 2016, in which Shanghai and 25 cities from Zhejiang, Jiangsu and Anhui formed a powerful alliance aiming to compete with the world's most developed urban agglomerations[1].

[1]Although 25 cities from Zhejiang, Jiangsu and Anhui province coordinated with Shanghai in the Yangtze River Delta Urban Agglomeration Development Plan (2016), this research still focuses on the original 15 cities, which have more connections among each other compared with the later joiners.

Table 2. 2 Milestone events in the history of Yangtze River Delta

Year	Milestone event
1983	The Shanghai Economic Zone Planning Office established by the national government (abolished in 1988)
1983	The Shanghai Economic Zone Provincial Governor Conference system established
1992	Yangtze River Delta Urban Economic Coordinated Committee established; renamed Yangtze River Delta Urban Economic Coordinated Joint Conference in 1997
2001	Shanghai, Jiangsu, and Zhejiang Economic Cooperation and Development Forum established
2004	Main Leaders Forum of Shanghai, Jiangsu and Zhejiang Provinces established
2008	*Guidance for Promoting YRD Reform and Opening Up, Economic and Social Development* issued by the State Council
2009	Anhui Province officially invited to join the YRD
2016	Yangtze River Delta Urban Agglomeration Development Plan issued

Jing-Jin-Ji

In 2014, the JJJ Coordination Development Leadership Team Office was established. After this, Beijing, Tianjin and Hebei province also established corresponding offices to facilitate the operations of the JJJ Coordination Development Leadership Team Office (See Table 2.3). In 2015, the *Beijing, Tianjin and Hebei Synergy Development Outline* was issued by the national government. Nevertheless, although the importance of the JJJ concept was repeatedly emphasized, it was by far the least successful region compared with the GPRD and YRD regions. It suffers from poor collaboration among cities and the widest GDP gap between the core city Beijing and peripheral cities in Hebei. Acknowledging the deteriorating position of Hebei province, the national government unexpectedly drafted the plan of Xiongan New District in April 2017, which was located in Hebei province with roughly the same distance to both Beijing and Tianjin. It was the first new district directly issued by the State Council (China's national government) and considered the most important planning event after Shenzhen in the 1980s and Pudong in the 1990s. As for the recognition of the regional identities, national, provincial, and municipal governments are further examined in Section 5, 6 and 7 respectively.

Table 2. 3 Milestone events in the history of Jing-Jin-Ji

Year	Milestone event
2004	The Closer Economic Partnership Agreement (CEPA) of Bohai Rim signed by Beijing, Tianjin and Hebei provinces
2014	The National Jing-Jin-Ii coordination development leadership team office established under NDRC
2015	The Beijing, Tianjin and Hebei Synergy Development Outline issued
2016	The Jing-Jin-Ji Vice Provincial Governor Joint Conference/Jing-Jin-Ji coordination development leadership team office Joint Conference established
2017	The Plan for Xiongan New District drafted by national government

2.5. Regional profiles for the MCRs: the national perspective

In section 5, the symbolic dimension of regional profiles for the three MCRs is examined in the plan documents of the national government. Regional cooperation has been a key national policy to improve China's global competitiveness for over a decade (Interviewee 8). The growing attention paid to regional development at the national level can be found in the National FYPs as well as Urban System Plans (See Table 2.4 and 2.5). These show both in increasing frequency by which regions are mentioned and in how the national government sets developmental targets for these regions. PRD, YRD and JJJ are all approved as important regions and can be traced back to Deng Xiaoping's policy to "develop some regions to be wealthy first". From the perspective of the national government, the MCRs should take the lead in and be the exemplar for other city regions in China (Interviewee 11 and 12). The national government has created new concepts for them, such as the Guangdong-Hong Kong-Macau Greater Bay Area, the Yangtze River Economic Belt and the Bohai Rim Economic Belt, depending on their different regional economic and political contexts. To some extent, the current expectation of the national government still emphasizes on the international competitiveness, while the regional imbalance is not valued so much (interview 11 and 12).

Greater Pearl River Delta

The PRD, as a region aimed to be a world-class urban agglomeration, is widely embraced in the National Urban System Plan. The 12th FYP mentions the PRD twice as a pilot region for political and economic reform, while in the 13th FYP the attention of the national government has evolved towards higher ambition levels including closer links among PRD cities as

well as broader cooperation with Hong Kong and Macau, hence rising the importance of concepts such as the Greater PRD and the Greater Bay Area (see Table 2.4). The concept of Greater Bay Area are important for the national government since it includes the symbolically crucial tasks to promote the integration of two Special Administrative Regions, Hong Kong and Macau, within the Chinese planning system. HKSAR and MSAR still enjoy highly independent administrative powers, but the national government tends to get strongly involved through regional identity formulation, as can be seen in the *Greater Bay Area Cooperation Mechanism* signed in 2017 by the national government, Guangdong Provincial, HKSAR and MSAR governments (Interviewee 9).

Table 2. 4 Regional profiles mentioned in key national planning documents

Region	12th FYP	13th FYP	Urban System Plan
GPRD	PRD (2)	Guangdong-Hong Kong-Macau Greater Bay Area (1), PRD (4), GPRD (1),	PRD (37)
YRD	YRD (2)	YRD (4), Yangtze River Economic Belt (3)	YRD (36)
JJJ	JJJ (2) Capital Economic Circle (1)	Transfer non-capital functions from Beijing (4), Bohai Rim (4), JJJ (5)	JJJ (19)

Table 2. 5 Key development targets of the three MCRs in key national planning documents

	12th FYP	13th FYP	Urban System Plan
GPRD/YRD/JJJ	Urban agglomeration	World Urban agglomeration; Opening-up function; Economic zone with international competiveness	World Urban agglomeration

Yangtze River Delta

In the perspective of the national government, the YRD is now the most developed MCR in China, also having the strongest cooperation among its cities (interviewee 1 and 2). Like the PRD, the YRD is also to become a world-class urban agglomeration in the National Urban System Plan. In the 12th FYP and 13th FYP, the YRD is expected to lead in the development of the Yangtze River Economic Belt (raised by the national government in 2015, referring to the provinces located upstream of the Yangtze River). The national government has paid less attention to the YRD in recent years because the economic integration evolved more easily given the relative

equality in wealth among the various cities (unlike in the JJJ) and the absence of thorny political issues (such as in the GPRD).

Jing-Jin-Ji

The term Jing-Jin-Ji can be found both in the 12th and 13th national FYP. The term Capital Economic Circle was coined in 2010 to focus on the urban agglomeration with the centre of capital Beijing. This concept still appeared in the 12th FYP, but it disappeared in the 13th FYP. The national government's attention has shifted to the transfer of 'non-capital functions' from Beijing to other areas within the JJJ region. With Beijing suffering from serious environmental pollution and an overly crowded urban area, JJJ is regarded as the region that can relieve it from much of this ecological and population pressure. Although the Capital Economic Circle has never appeared in the National Urban System Plan, the national government still played a more dominant role in the relatively early phase of JJJ's regional identity formulation process. Its main goal was to offload pressure from Beijing to Hebei Province, while narrowing the developmental gap between Beijing and Hebei seemed less important. Obviously, the national intention behind this promotion of MCR is to relieve their mega cities from extreme population growth and funnel it to subordinate cities in the region around it.

2.6. Regional profiles for the MCRs: the provincial perspectives

Since the planning system in China is such that the national plan documents have their exact equivalents at lower government tiers (provincial and municipal), we will present the provincial Five-Year Plans and Urban Systems Plans in terms of the three MCRs in section 6. The (Greater) Pearl River Delta appears in plans drafted and adopted by the Guangdong provincial government and the Hong Kong and Macau SARs. The Yangtze River Delta appears in plans developed by the Shanghai, Jiangsu, Zhejiang and Anhui provincial governments. Jing-Jin-Ji is dealt with by the Beijing, Tianjin and Hebei provincial governments.

Greater Pearl River Delta

Guangdong and Hong Kong are the key actors in promoting regional integration in the GPRD (Interviewee 7). In the 1990s, Guangdong was the leading area in China's 'Opening Up policy'. After Pudong became a national new district in 1992, the Yangtze River Delta developed tremendously fast, which made Guangdong anxious to keep its leading position in the national economy. In 1994, Guangdong Province actively began striving for regional integration with Hong Kong. In 2008, *the PRD Development and Reform*

Outline offered an important chance for Guangdong Province to gain support from the national government to speed up the region's development. The term PRD appears around a hundred times and GPRD a few times in its 12th FYP, its 13th FYP and Urban System Plan (see Table 2.6). The term Guangdong-Hong Kong-Macau Greater Bay Area appears for the first time in Guangdong's 13th FYP (See Table 2.7).

Table 2. 6 Regional profiles for PRD and GPRD mentioned in provincial level planning documents

Province/SAR	12th Plan and Policy Address Hong Kong and Macau in 2011	13th Plan and policy address in Hong Kong and Macau in 2016	Urban System Plan and Conceptual Plan in Hong Kong and Macau
Guangdong	PRD (58) GPRD (6)	PRD (115), GPRD (3), Guangdong-Hong Kong-Macau Greater Bay Area (6)	PRD (166) GPRD (8)
Hong Kong	PRD (3)	PRD (1)	PRD (19) GPRD (4)
Macau	PRD (4)	PRD (1) GPRD (1) Guangdong-Hong Kong-Macau Greater Bay Area (1)	PRD (5) GPRD (3)

Table 2. 7 Key development targets of the PRD and GPRD in the provincial planning documents

	Key regional concepts
Guangdong	GPRD high living standard circle (12th Plan); Guangdong-Hong Kong-Macau Greater Bay Area(13th Plan); World-class metropolitan region (Urban System Plan)
Hong Kong	PRD Economic Zone (Policy address 2011-2012); Multi-centred city-region (Hong Kong 2030)
Macau	None

Until 2003, Hong Kong had hardly responded to initiatives for regional integration with the mainland. But the growing economic pressure since China's joining the WTO has become a crucial factor in the changing relationship between Hong Kong and the mainland (Yeung, 2010). Its negative attitude changed gradually, and both PRD and GPRD were mentioned in the Hong Kong Policy Addresses of 2011 and 2016, as well as in its conceptual plan. Hong Kong even recognized the need to find synergy through co-operation and coordination as the "super-connector" for the mainland in its Policy Address 2016. Considering the rise of Shenzhen and Guangzhou (interviewee 6), it admitted the PRD region as a multi-centred

city region and itself as “an integral part” of this region in the HK2030 Conceptual Plan

The role played by Macau is less significant, simply because of its limited economic scale and regional influence. It relies heavily on resources from the mainland and wishes to cooperate with the mainland to diversify its industrial structure. Macau mentioned the PRD more than Hong Kong in its Policy Address 2011-2012 and is closer to the national government by acknowledging that the cooperation between the PRD and the MSAR is a national strategy. Being aware of the benefits derived from the regional cooperation, Macau specifically mentioned the disadvantage of its highly limited land resources and the possibility to cooperate with its mainland neighbour Zhuhai in making use of the latter’s land.

Yangtze River Delta

Shanghai has long had a leading role in the YRD region (interviewee 1, 2). As a gate for international business and the nation’s prime financial hub, Shanghai identifies itself as the core of the Yangtze River Delta. Aiming to develop into a world-class urban agglomeration, in its 13th FYP Shanghai developed its own regional concept of the *Grand Shanghai Metropolitan Economic Circle* (See Table 2.8 and 2.9). This concept emphasized synergetic cooperation with three cities in Jiangsu (Suzhou, Wuxi, Nantong) and three in Zhejiang (Ningbo, Jiaxing, Zhoushan). However, the political clout behind it was not nearly as great as that of the *Jing-jin-ji* and the *Guangdong-Hong Kong-Macau Greater Bay Area* (GPRD).

Regional profiles for the YRD at the provincial level are sketchier and more varied. For example, Zhejiang province introduced the sub-profile *Hangzhou Bay Area* (See Table 2.9), which consisted of 7 cities including Shanghai, Jiaxing, Hangzhou, Ningbo, Zhoushan, as a counterpart to the *Guangdong-Hong Kong-Macau Greater Bay Area.* Though the sub-profile Hangzhou Bay is not new and harks back to the *Zhejiang Hangzhou Bay Industrial Belt Development Plan* in 2003, it remains a generic concept and is far from mature (interviewee 3). Jiangsu province also seems to juggle with a variety of regional synergetic profiles. In its 13th FYP, we find two equivalent sub-profiles, the Nanjing metropolitan circle and Su-Xi-Chang (Suzhou, Wuxi, Changzhou) urban agglomeration (see Table 2.9). On the one hand, Su-Xi-Chang urban agglomeration has built a close relationship with Shanghai and enjoys well-developed manufacturing bases. The close relationship between Su-Xi-Chang and Shanghai is built upon interprovincial rather than intra-provincial intercity cooperation and synergy.

Table 2. 8 Regional profiles for the YRD mentioned in provincial level planning documents

Province	12th FYP	13th FYP	Urban System Plan & Urban Master Plan
Shanghai	YRD (24) Hangzhou Bay (4) Grand Shanghai Urban Economic Circle (1)	YRD (14) Yangtze River Economic Belt (4) Hangzhou Bay (3)	YRD (5) Yangtze River Economic Belt (3) Hangzhou Bay (4)
Jiangsu	YRD (13) Yangtze River Economic Belt (0)	YRD (7) Yangtze River Economic Belt (10) Su-Xi-Chang (2)	YRD (24)
Zhejiang	YRD (10) Hangzhou Bay (5)	YRD (5) Yangtze River Economic Belt (7) Hangzhou Bay (3)	YRD (7) Hangzhou Bay (2)
Anhui	YRD (10)	YRD (14) Wanbei* (22) Yangtze River Economic Belt (9)	YRD (1)

Table 2. 9 Key development targets of the YRD in provincial planning documents

Province	12th FYP	13th FYP	Urban System Plan & Urban Master Plan
Shanghai	World-class urban agglomeration	World-class urban agglomeration	World-class urban agglomeration
Jiangsu	YRD Northern core urban agglomeration	World-class urban agglomeration; Cooperation with Shanghai; Interaction with Zhejiang, Coordination with Anhui	"YZD world-class urban agglomeration northern core area"
Zhejiang	World-class urban agglomeration;YRD Southern economic center	World-class urban agglomeration; Deepening cooperation with Shanghai	YZD world-class urban agglomeration southern international gate
Anhui	Wanbei* urban agglomeration;	World-class urban agglomeration; Hefei Economic Circle	Wanbei* urban agglomeration; Hefei metropolitan circle

Note: Wanbei* is located in northern Anhui province

Anhui, YRD's newest member, is obviously the least connected with Shanghai and its emphasis on regional synergetic profiles is weaker (interviewee 5). In its 13th FYP and Urban System Plan, the Wanbei urban agglomeration (located in northern Anhui province) and Hefei capital metropolitan circle come to the fore (see Table 2.9). Little is said in the way of interprovincial cooperation. In short, though the YRD has well-developed networks for inter-city cooperation in the manufacturing industry and for urban development, these networks are founded on cities rather than provinces. Even after the publication of the *YRD Urban Agglomeration Development Plan* in 2016, the regional synergetic profiles are fuzzy and show strong overlap.

Jing-Jin-Ji

In Beijing's 13th FYP, JJJ is mentioned 80 times and recognized as a world-class urban agglomeration with Beijing as its capital city (see Table 2.7 and 2.8). A specific strategy of *synergetic development* is to transfer Beijing's non-capital functions to the areas around Beijing by getting rid of the undesirable industries to decrease the pressure from overpopulation, congestion and pollution. A similar picture emerges in its *Beijing Master Plan 2004-2020:* Beijing has promoted the development of a metropolitan region around itself for a long time. It adopted concepts like "the nation serving the capital" and "the outside province protecting Beijing", which indicated its special attention for Beijing, even at the expense of areas outside the capital (Interviewee 11). Promoting the regional integration for Beijing is more about deepening its cooperation with Tianjin (interviewee 12).

Tianjin's contribution to JJJ's regional integration has been limited in recent decades (Interviewee 12). Following national economic policies, many state-owned enterprises have historically been relocated to Tianjin. Tianjin mentions JJJ 21 times in its 13th FYP (see Table 2.10), and stated that it will actively participate in JJJ's integration process. In fact, Tianjin primarily focuses on building a closer relationship with Beijing within the JJJ framework and on promoting its industrial upgrade to advanced manufacturing and services. In the JJJ synergetic strategy of the *Tianjin Master Plan 2005-2020,* emphasis is put on the development of the Binhai New District where Tianjin's deep water port is located.

Neither Beijing nor Tianjin deems the JJJ coordination very important, presumably because they already have long-established strong political and economic positions as the development poles in the region. However, Hebei

has long been known as providing cheap labour for Beijing and Tianjin and it has become one of the biggest national steel production bases and polluted regions in China (Wei, Liao, & Fan, 2007). Accordingly, Hebei's aspiration to turn JJJ's synergetic development into a success appears from the far more elaborate texts and detailed strategies in its 13th FYP: JJJ is mentioned no less than 79 times (see Table 2.10).

Table 2. 10 Regional profiles for JJJ mentioned in provincial level planning documents

Province	12th FYP	13th FYP	Urban System Plan & Urban Master plan
Beijing	Capital economic circle (1)	JJJ (80); Bohai Rim (1)	JJJ (14); Bohai Rim (2)
Tianjin	JJJ (3); Bohai Rim (5)	JJJ (21); Bohai Rim (2)	JJJ (6); Bohai Rim (16)
Hebei	JJJ (15); Bohai Rim (9)	JJJ (79); Bohai Rim (1)	JJJ (16); Bohai Rim (3)

Table 2. 11 the Key development target of the JJJ in the provincial planning documents

Province	12th FYP	13th FYP	Urban System Plan & Urban Master plan
Beijing	Urban agglomeration with Beijing capital city as its core	World-class urban agglomeration with Beijing capital city as its core	Important regional centre for social and economic development in China
Tianjin	JJJ national capital region		JJJ Economic Core Area; Bohai Rim Economic Zone
Hebei	World-class urban agglomeration	World-class urban agglomeration	JJJ World-class urban agglomeration

2.7. Regional profiles for the MCRs: the municipal perspectives

Section 7 demonstrates our findings regarding the appearance and characterization of the MCRs in the planning documents drafted by the various municipalities located in these regions. We will follow the same order as in sections 4-6. However, since Hong Kong, Macau, Shanghai, Beijing and Tianjin operate at the provincial level rather than at the municipal level, these administrative bodies will not again show up below here. Also, since the number of cities involved is higher than the number of provinces, we will analyse them more broadly and present the details and exact numbers in Appendices 2-4. Overall, the growing frequency in the reference to regional

profiles among most cities makes the formulation of such profiles a credible approach to increase their competitiveness. How this is done and how important this regional profile is to them, depends on their relative importance within this region. The more important the city is, the less important the region seems to be for this city, and vice versa.

Greater Pearl River Delta

The concept PRD is adopted by all nine cities in the region (See Figure 2.3). The GPRD is mentioned less in their 12th and 13th FYP and their Urban Master Plan (See Appendix A Table A2). Most but not all cities see a rise in their reference to the PRD in their 13th FYP in comparison with the 12th FYP (See Figure 2.3). Among them, Guangzhou and Shenzhen appear not to be identify themselves much with the PRD or GPRD; they consider themselves as the national front-runners and aim to be international cities rather than to be part of a regional entity (Interviewee 8). As for the other cities, Dongguan and Huizhou both aim to be regional "central city" in the PRD, whereas the others only mention themselves as central cities on the west bank of the PRD (Jiangmen and Zhongshan), or the "manufacturing base" of the PRD (Zhaoqing).

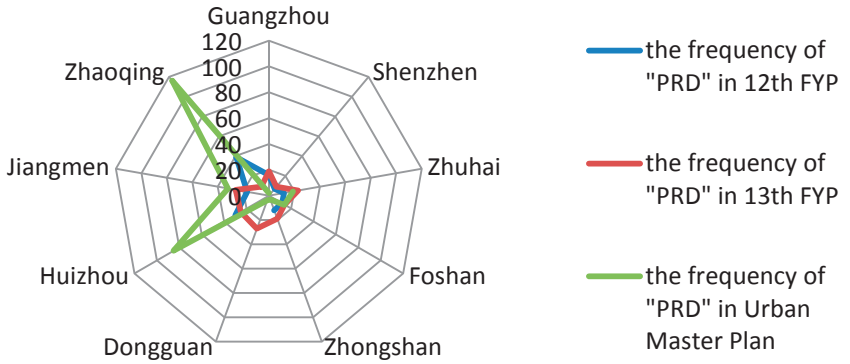


Figure 2. 3 Frequency of "PRD" in municipal level planning documents in PRD cities (details see in Appendix 2)

Yangtze River Delta

In the YRD region, all cities have pitched their urban development in line with the profiles of the YRD (See Appendix A Table A3). The keyword "YRD" is the most prominent in the 12th FYP plan, and municipalities have begun

mentioning the Yangtze River Economic Belt in the 13th FYP, a policy that has newly emerged and is now attracting growing attention among relevant governments and aims to supplement the YRD rather than to replace it (See Figure 2.4). Most cities indicate their positions as being that of “centre city” (Wuxi, Suzhou, Zhenjiang and Hangzhou) or “important city” (Ningbo) in the YRD region, or as having the specific functions of an “advanced manufacturing base and eco city” in the YRD (Nanjing). As for the cities located at the fringes of the region, they either emphasize their connection functions, such as “regional hub city” connecting east and west, south and north (Changzhou) or relate themselves to the YRD to only a limited extent (Zhoushan).

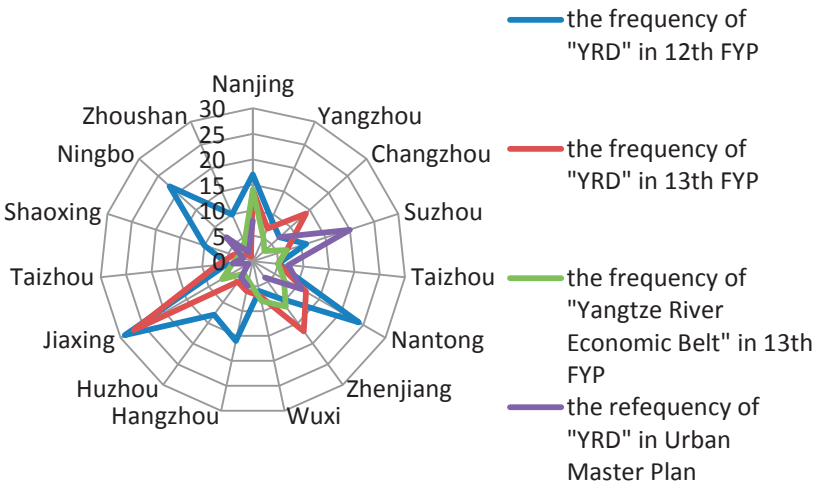


Figure 2. 4 Frequency of “YRD” in municipal level planning documents in YRD cities (see Appendix 3)

Jing-Jin-Ji

All cities adopt the JJJ concept in their urban planning documents in this region (See Appendix A Table A4). The keyword “JJJ” is the most prominent in 13th FYP plan (see Figure 2.5). 11 out of 12 cities even claim to be part of it in key sentences in their plans (except Anyang). Most of them adopt the terms Jing-Jin-Ji, but Bohai Rim and Capital Economic Zone also appear.

There is an increase in their use of the term JJJ in their 13th FYP (as compared with the 12th FYP), which is indicative of their efforts to pursue this developmental opportunity. These cities indicate their positions as “important city or node” in JJJ (Shijiazhuang, Cangzhou, Langfang). As an important city in Jing-Jin-Tang’s industrial base, Tangshan aims to maintain

its historical position as the “centre city” in the Bohai Rim, a “pivot city” in the Capital Economic Zone. Nonetheless, the regional profile JJJ appears less strong in other cities, and they also mention other regions or provinces as being of key importance to them.

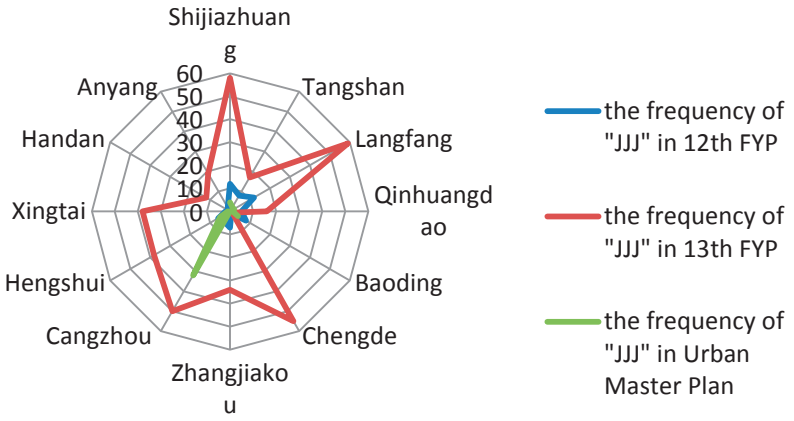


Figure 2. 5 Frequency of “JJJ” in municipal level planning documents in JJJ cities (see Appendix 4)

2.8. Conclusions

Above we have examined how regional profiles for the three MCRs in China have been developed in the interplay across various tiers of government and what territorial, symbolic and institutional shapes have evolved along the way. We have examined how regional profiles were proposed at the national level and accepted and modified by lower tiers of government in urban planning documents, of the (Greater) Pearl River Delta, the Yangtze River Delta and Jing-Jin-Ji respectively.

All three MCRs have moved forward substantially, with the YRD being apparently furthest advanced. The YRD region has existed the longest and has the least deep divide among the involved provinces and cities in terms of wealth and income disparity. Only late comer Anhui province’s adherence has very recently changed its territorial shape. The PRD is also firmly established; but the gap in prosperity is wider than in the YRD and the inclusion of two separate Special Administrative Regions Hong Kong and Macau (of which the former is not always a very eager partner) has made integration harder, especially institutionally. JJJ has traditionally been far

less strong than the other two but has recently received a great push from the national government which has placed it firmly on the agenda of the various involved governments. The steps taken in their territorial delimitation, symbolic conceptualization and narration and institutional stabilization can be seen as a process of multi-level governance in which different government tiers throw in their own interests and agendas.

In the national planning documents, the regional profiles of the three MCRs enjoy solid support. They are invariably seen as economic zones with international competitiveness and/or world-class urban agglomerations that should be able to compete with other similar international MCRs. The symbolic regional profile of the GPRD is even more than a project to realize economic success, but also as a political and institutional master project for the territorial integration of Hong Kong and Macau within the mainland. The stabilization and maturity of the YRD profile can be found in the fact that less emphatic narratives are needed to uphold its relevance. This paradoxically demonstrates that it is in fact already strongly ingrained. The JJJ profile was found to be a strong policy priority receiving massive investment, exactly because its territorial shape and institutional stabilization have remained unsettled for a long time. Its proposed symbolic shape is now one of explicitly safeguarding Beijing's status as the nation's capital city and contributing to that role.

On the provincial level, the general adoption of the respective MCR profiles is equally strong across the three regions, but it is presumably also most institutionally fragmented in the GPRD. In the PRD, the profile of (G)PRD was promoted as a symbolic shape by Guangdong province when it perceived that the national government had shifted its attention to the YRD. The profile of the (G)PRD had enjoyed only weak recognition from Hong Kong for a long time. In fact, it admitted to its relevance only recently, when it sensed its reliance on the mainland was on the increase. Acceptance of the GPRD by Macau has always been strong, but less weighty given its small size. In contrast, provinces located in the YRD all show firm recognition of the YRD as an entity, and are eager to symbolically construe their own regional sub-profiles within it, such as Shanghai (the Grand Shanghai Metropolitan Economic Circle), Jiangsu (Su-Xi-Chang urban agglomeration), Zhejiang (Hangzhou Bay Area), Anhui (Wanbei Urban Agglomeration). Finally, the Beijing, Tianjin and Hebei all adopted the JJJ profile in their urban plans. As for the JJJ, Beijing sees it as a receptacle where the capital's unwanted functions can be transferred and Tianjin as an

axis to Beijing where its industrial profile can be upgraded. Hebei province recognizes the JJJ profile as one offering economic opportunities derived from the regional integration, and little is said about accepting the residual functions from and a subservient role vis-à-vis Beijing and Tianjin. Structural inequalities in this region are consequently symbolically reflected in a conceptualization and narratives reflecting these inequalities.

At the municipal level, the region's profiles are often mentioned, but their meaning depends on the geographic, economic and political positions occupied by the various cities. Most of the municipalities in the YRD designate themselves as being important cities in this region, while this is less true in the (G)PRD and the least in the JJJ. Across the board, more prosperous and powerful municipalities rarely mention the regional profile. They tend to attach less importance to the region they are located in and rather consider themselves international cities in direct competition with their peers elsewhere, while the smaller and less prosperous ones adherent more to and depend more on the region they find themselves in. This is consistent with van Houtum and Lagendijk (2001) in that local government behaviour reflects the interests they have and therefore relative independence or dependence on the region surrounding them.

Overall, regional profiles in the MCRs studied here begin their evolution when the national government recognizes when it acknowledges that they have begun to acquire a functional shape. Various adjacent cities tend to grow together eating up all rural green space between them. Once such functional urbanized conglomerations exist, active national government policies promote the formation of a territorial entity with certain borders (which may change over time), a symbolic name for this entity along with the conception of a particular international and national role it plays and institutional adjustments and reinforcements to make it effectual. After a negotiation and redefinition process among the various tiers of government, recognition and adoption occurs by those various governments, although the importance they attach to this regional profile and the interpretation they have of it may continue to differ. Finally, as we have seen in the YRD, once the regional profile is established and mature, each of the constituent partners may feel encouraged to make creative use of it by creating new specific sub-regions within this broader more comprehensive mega-city region in which they occupy some central position.

This study has contributed in understanding how three different regional profiles in China have been formulated and reformulated in their specific context. It has also spotted the territorial, symbolic and institutional dimensions as utilized in a process of multi-level governance (while taking their functional shape as a given). It has also shown how different initial positions of the various provinces and cities are replicated in the roles they are assigned within the new region. Future study should examine whether these patterns also exist in different political and administrative contexts than the Chinese one and what the general validity is of the patterns found in this contribution.

Appendix A

Appendix A Table A1 Interviewees from planning and research institutes in three megacity regions

	Respondent's host organization	Respondent's position
1	Shanghai Urban Planning and Design Research Institute	Planner involved in Shanghai 2040
2	Shanghai Social Science Academy	Researcher working on coordination within the Greater Pearl River Delta
3	Jiangsu Province Land Survey Planning Institute	Researcher
4	Nanjing Provincial Land Survey Bureau	Professor working on Yangtze River Delta development
5	Tongji University	Professor working on Yangtze River Delta development
6	Peking University Shenzhen Graduate School	Professor studying and involved in Greater Pearl River Delta development
7	Guangdong Urban & Rural Planning and Design Institute	Chief planner involved in the planning at Guangdong and Guangzhou levels
8	Guangzhou Urban Planning and Survey Design Research Institute	Chief planner involved in the planning at Guangdong and Guangzhou levels
9	Planning & Design Institute of Peking University (Shenzhen) Co. Ltd	Chief consultant involved in the coordination of GPRD, especially with Macau and Zhuhai
10	China Academy of Urban Planning & Design Shenzhen	Chief planner involved in the coordination of the Greater Pearl River Delta
11	China Academy of Urban Planning & Design Beijing	Chief planner involved in the Jing-Jin-Ji Coordination Plan
12	Tsinghua University	Professor working on Jing-jin-ji Coordination

Appendix A Table A2 Frequency of "PRD" and city positions related with regional profiles of PRD from municipal level planning documents

City (province)	GPD per capita (RMB)	PRD in 12th	PRD in13th	PRD in Urban Master	City positions related with regional profiles
Guangzhou (GD)	138374	16 (GPRD1)	19	2	None
Shenzhen(GD)	162382	7	9		None
Zhuhai (GD)	125449	12	23	19	Central city in the West Bank of the Pearl River and the coastal tourist city. (UMP) Core City in Pearl River West Bank (LUP)
Foshan (GD)	108875	12	14	14(GPRD 1)	Important node in regional integration development (13th FYP)

Zhongshan (GD)	94278	12(GPRD1)	19	3	Regional central city in the West Bank of Pearl River Area (UMP); to worthy of the name of a PRD city (12th FYP); Ideal city in the Pearl River Bay Area (13th FYP)
Dongguan(GD)	75212		27 (GPRD 1)	4	Regional central city in the PRD (UMP) an important the regional centre of the city in east bank of the PRD (LUP); Becoming an emerging Logistics City in the PRD (12th FYR)
Huizhou (GD)	66432	30	25	85(GPRD 2)	One of the central cities in the PRD; important growth pole in outer circle of PRD, and an important portal to transfer regional radiation to inland areas (UMP) an important node city in National Innovation Demonstration Zone in the PRD (13th FYP)
Jiangmen GD)	49652	17	26	32	One of the central city and portal cities in west of PRD; a modern manufacturing centre in the West Bank of PRD, a regional business centre, tourism, leisure and resort centre and the regional real estate centre and regional transportation hub in the West Bank of the PRD. (UMP) striving to be the Selective Area for Advanced Manufacturing in the PRD (12th FYP); a “convenient bridge” to connect western Guangzhou with the PRD (13th FYP);
Zhaoqing (GD)	48813	39	9	116	The local central city in Guangdong Province (UMP), the manufacturing base in the PRD and an important node in national innovation demonstration zone. Zhaoqing will be an attractive place in PRD for high-quality companies in southwest region, the demonstration area for national low-carbon eco development and the ideal livable city in the PRD (12th FYP).

Appendix A Table A3 the frequency of "YRD" and city positions related with regional profiles of YRD from municipal level planning documents

City (province)	GPD per capita (RMB)	YRD in 12th	YRD in 13th	Yangtze River Economic Belt in 13th	YRD in Urban Master	City positions related with regional profiles
Nanjing (JS)	107545	17	14	14	8	YRD advanced manufacturing base (UMP) YRD advanced manufacturing base, eco liveable city at the river (LUP)
Yangzhou (JS)	82654	9	7	5		A regional central city (UMP) create a cultural heritage city and excellent tourist city with international influence, regional centre and the gateway hub city in the YRD north wing (LUP)
Changzhou (JS)	104423	7	14	3	7	Regional hub city connecting east and west, south and north (UMP)
Suzhou (JS)	129926	11	7	7	20	one of the important central cities in the YRD; secondary commerce, trade, logistics centre of the YRD; one of the innovation and research and development industry base of the YRD region; one of most attractive places to live in YRD; regional political, economic and cultural centre; regional integrated service centre. (UMP)
Taizhou (JS)	72706	5	5	5	7	The central city in the YRD north wing; the important gathering area of the advanced manufacturing industry in YRD (LUP)
Nantong (JS)	77457	24	12	7	11	Regional economic centre; economic centre and gateway city in the north wing of Shanghai (UMP) economic centre in the YRD north wing (LUP) economic centre in the north wing YRD (12^{th} FYP).
Zhenjiang (JS)	102651	9	17	11	4	YRD regional centre city; an important port in the Yangtze River delta (UMP)

Wuxi (JS)	126389	6	7	8		The mega city around the Yangtze River Delta Lake (UMP) the central city of the Yangtze River Delta (LUP) a regional central city (12th FYP).
Hangzhou (ZJ)	129448	16	6	4	5	Central city in YRD; YRD Regional Financial Services Centre (UMP) The most liveable city and the quality city in the YRD (LUP)
Huzhou (ZJ)	74334	13	5	3	4	The YRD Industry and trade, the ecological tourism city, advanced manufacturing base in the YRD area; modern service industry base, to protect the city type agriculture base, provincial historical and cultural city, excellent ecological tourist city and ecological city with good living environment of YRD. (UMP) a modern ecological big city around lake in the YRD, which is the most suitable for living and entrepreneurship. (LUP)
Jiaxing (ZJ)	96607	29	27	7	1	Regional Science and technology innovation sub-centre city of YRD (LUP) innovative economy strong city in YRD (12th FYP). high-tech transformation model of the YRD (13th FYP)
Taizhou (ZJ)	56876	5	7	4	4	The regional centre (UMP) a modern coastal eco city in the Yangtze River Delta, with enough innovative vitality, good entrepreneurial environment, high degree of people's richness and social harmony (LUP) the urban node in the south wing of YRD (12th FYP).
Shaoxing (ZJ)	96437	10	4	3	2	Eco liveable city in the south YRD and characteristic industrial city based on the advanced manufacturing.

						(LUP)
Ningbo (ZJ)	130769	22	2	3	7	Economic centre in the south wing of the YRD; an important foreign trade port in the YRD south wing, (UMP) economic centre in the YRD south wing, important city in the YRD city cluster (LUP)
Zhoushan ZJ)	104239	10	1	4	2	None

Appendix A Table A4 the frequency of "JJJ" and city positions related with regional profiles of JJJ from municipal level planning documents

City (province)	GPD per capita (RMB)	JJJ in 12th	JJJ in 13th	JJJ in Urban Master Plan	City positions related with regional profiles
Shijiazhuang (HB)	99995	12	58	4	Tthe third pole of Jing-Jin-Ji Area (UMP). Except for the current two poles, Beijing and Tianjin, in the Jing-Jin-Ji region, it aims to become the third pole, with a dominant and leading economic role in the Central and Southern Hebei Province (12th FYP).the third pole of Jing-Jin-Ji region (13th FYP). One of the key cities in Jingjinji (LUP).
Tangshan (HB)	105231	8	17	2	One of the centre cities in the Bohai Rim (UMP). Tangshan aims to be a window city of the economic cooperation in the north eastern Asia, a new industrialization base in the Bohai rim, a pivot city in the Capital Economic Zone (12th FYP),a new industrial city in the Bohai Rim (13th FYP).
Langfang (HB)	48701	12	59	2	An important node and a new developing pole in the Jing-Jin-Ji region (UMP). The positioning is to be Jing-Jin-Ji electronic information connection hub , Bohai Rim leisure and commerce centre (12th FYP). Synergetic development with the whole Jing-Jin-Ji Region (13th FYP). Electronic information corridor in Jingjinji (LUP).
Qinhuangdao (HB)	80138	5	16	1	The ecological barrier of Beijing - Tianjin - Hebei region (Greater Beijing area) (UMP) synergic development of Jing-Jin-Ji (13th FYP)
Baoding (HB)	48121	8	1	4	One of the centre cities in Jing-Jin-Ji Region with advanced manufacture and modern service industry (UMP) and the role of core area of Jing-Jin-Ji's synergic development and a regional central city. (13th FYP)
Chengde (HB)	39158	1	55	none	A regional centre city for connecting Jing-Jin-Ji, Liaoning and Mongolia. (UMP)
Zhangjiakou (HB)	26415	7	34	0	A transportation pivot connecting Jing-Jin, Shanxi and Mongolia. (UMP). a regional centre city that connects Jing-Jin-Ji and Inner Mongolia (12th FYP). the water conservation functionality area for

					the Jing-Jin-Ji region (13th FYP)
Cangzhou (HB)	38062	5	50	32	A regional centre city in the Jing-Jin-Ji Region; An important city in Jing-jin-ji city regions (UMP) Cangzhou aims to be the bridge city of the Asia-European continent commerce, economic development centre in the Southern Hebei province, Chinese petroleum city, pipeline equipment city, coastal industry concentration area in the Bohai rim economic zone (12th FYP)
Hengshui (HB)	30513	6	38	5	A major economic development pole in the southern Hebei province and an important transportation hub, a trade and logistics centre for the Jin-Ji-Lu junction area, a new tourist city and cultural and historic city with relatively high recognition (12th FYP); the transportation and logistics pivot in the Jing-Jin-Ji region; the green supply base of agricultural products for the Jing-Jin-Ji region, the ecology protection base for the Jing-Ji area, industrial enterprise base in the Jing-Jin area (13th FYP)
Xingtai (HB)	42486	2	38	1	An important centre city in south part of Jing-Jin-Ji (UMP)
Handan (HB)	25978	0	12	none	A regional economic centre city at the joint of Hebei, Shanxi, Shandong and Henan. (UMP). The positioning of Handan: economic development pole in the southern part of Hebei province and the regional centre city that is the junction of four provinces (12th FYP). A pivot city through which the Jing-Jin-Ji will provide force for the central part of China. (13th FYP)
Anyang (HN)	22696	2	19	none	A centre city in the north of Henan province (UMP); to become a regional centre city in the northern part of Henan province…an important transportation and logistics centre in the Central Plains Economic Region (12th FYP). A regional centre (13th FYP) located in the urban development belt between Beijing and Guangzhou. Local central city in Northern part of Zhengzhou (LUP).

Evolution in city branding practices in the Pearl River Delta after 2000

3

(Lu, H., de Jong, M. Evolution in city branding practices in China; How did self-profiling among municipalities in the Pearl River Delta mature since the year 2000?. Cities, under review.)

3.1 Introduction

Place branding is a growing academic field, and proliferation of studies about place branding has appeared in the literature recently (Brown, 2016; License, 2017; Lucarelli & Olof Berg, 2011). As branding strategy is a core aspect of place branding, and it is debated in a variety of disciplines, such as marketing (Avraham & Ketter, 2008; Braun, 2008; Kavaratzis, 2007a), tourism (Baker, 2012; Morgan & Pritchard, 2004) and public policy (Braun, 2012; Eshuis & Edwards, 2012; Lucarelli & Giovanardi, 2016). Most scholars have come to agree that place branding can benefit from insights in various disciplines.

Inspired by the literature on product and corporate branding, city branding begins with identifying a brand identity, which is then specified for various target groups by means of different labels, and finally conveyed to the outside world through city images. Compared with product brands, city brands also needs to reflect local conditions (Kavaratzis, 2008), such as a city's economic and regional position, and various wishes of stakeholders (Eshuis & Edwards, 2012; Eshuis, Klijn, & Braun, 2014). Stakeholder

management and citizen participation are regarded as essential factors in successful place branding the western countries, as they have often developed formal place marketing policies to improve their image (Eshuis, Braun, Klijn, & Zenker, 2018). Some studies have appeared on city branding in China (Ye & Björner, 2018; Zhang & Zhao, 2009), but how stakeholder involvement and organizational environment around Chinese cities affects their city branding strategies is still understudied. It is necessary to understand the mechanism behind the city branding process in non-western countries, such as China.

In China, more theoretical attention has been paid to place branding in the rapid urban transformation, and some studies focus on public policy aspects. Specifically, Lu et al. (2017) stated city label choices in China are embedded in a planning system, where the national and provincial governments occupy higher positions than local governments. City branding can be considered a response to intensified inter-urban competition (Anttiroiko, 2015; Braun, 2008; Lucarelli & Giovanardi, 2016; Pasquinelli, 2012). The interaction among cities has an impact on city brand identities and labels chosen by municipalities in regions. This is particularly true in megacity regions in China, where city branding is used as a policy instrument in competitive urban agglomerations (Yang et al., 2018).

In this contribution, we examined city branding practices in a highly urbanized and industrialized delta in South-Eastern China, namely the Pearl River Delta (PRD). It has been one of the fastest growing regions in the world in recent years (Bie et al., 2015; Xu & Yeh, 2011). Embedded in large urban agglomerations, cities in the PRD are encouraged to interact more with each other through collaborative networks (Zhao, Derudder, & Huang, 2017b), as well as to compete aggressively (Luo & Shen, 2009; Xu & Yeh, 2005).

In the following sections, we will first introduce the city branding process and raise relevant propositions for city label choices in a theoretical framework. Then, we present the findings on city labels over time in the Pearl River Delta and examine their consistency with brand identity. We subsequently explain their city label choices by propositions based on self-reflection, vertical inspiration, and horizontal imitation respectively. Finally, we conclude and outline the implications of our findings for future research.

3.2 Literature review

3.2.1 Place branding

Place branding can be traced back to the colonial age (early 19th century) when it was used, as to attract residents and investors (Gold, & Ward, 1994). In the early stages of theoretical development on place branding, a city brand is treated as a product (Trueman, Klemm, & Giroud, 2004), and cities used many strategies adopted from marketing (Kavaratzis & Hatch, 2013; Kavaratzis, 2008). Later on, branding largely replaced marketing in the literature. Some scholars regard branding as a general strategic and long-term envelope within which marketing tools can be deployed for the short end medium term (Hankinson, 2010); others consider branding as a tool in place marketing (Braun, 2008). Notwithstanding differences in approach, most scholars agree that place branding and marketing are the central concepts, and they are used interchangeably in some cases. The shift towards place branding can be found in the reimaging of industrial cities (Vanolo, 2008). Against a background of urban transformation in the past decades, some have argued that place branding has become a spatial planning instrument for provincial and municipal governments to change their place image (Oliveira, 2016). Along the way, a growing number of scholars in public policy have chosen to pay their attention to place branding.

In the western context, place branding is viewed as a governance strategy involving various governmental and other organizations. Branding takes place in a network of actors, dependent on stakeholder input to address policy problems (Klijn & Koppenjan, 2015). Eshuis et al. (2014) have argued that place branding and marketing are key governance strategies to manage perceptions about regions, cities, and towns. A consensus has emerged that stakeholder management is essential to deliver our promises in the place branding process (Henninger et al., 2016; Kavaratzis & Kalandides, 2015). In the recent studies, approaches related to a shared view on branding (Braun, 2012), city participation (Eshuis et al., 2014), and open branding process (Braun, Eshuis, Klijn, & Zenker, 2017) have been regarded as the positive factors in the place branding process in the western societies. It is commonly known that different political and administrative system generate different policy processes, but how close this affect place branding is still non-known in the non-western context, such as China.

3.2.2 City Branding Process

Many scholars have regarded city branding as a policy process. Some of them focus on the political dimension, such as the democratic and legal process (Eshuis & Edwards, 2012; Kavaratzis & Kalandides, 2015), and stakeholder participation in this process (Henninger et al., 2016). Others approach the branding process as an urban policy process with economic aims (Anttiroiko, 2014), or one crossing a range of different policy areas (Braun et al., 2017; Oliveira, 2016). In sum, the city branding is a complex process, in which political and economic factors influence each other (Lucarelli, 2017). An alternative view of city branding process offered by Kavaratzis and Ashworth (2005) when they describe the key elements in the process, namely brand identity, brand position and brand image. Specifically, a city brand identity is designed in the initial stage, which is the general self-description and its essence is to differentiate one from others (Kavaratzis, 2008). Brand identities can be a complicated combination of spatial configuration and distinctive cultural characteristics and values (Zhang & Zhao, 2009). Those characteristics need to be carefully considered and creatively synthesized to design a meaningful and irreplaceable identity. City brand identity is crucial to a city's long-term development.

City labels are the various aspects of a brand identity, targeting different stakeholders or customers. It is the step where the identity is elaborated into specific targets or plans. Some scholars also regard brand labels as a relational concept, reflecting its position within the urban administrative hierarchy system (Kresl & Singh, 1999). For example, if a city labels itself as a 'global city', then it will endeavor to enhance its international reputation. In China, city labels are also adopted as policy instruments to convey information to higher governments. Some city labels are related to national city development programs, such as 'eco city' and 'smart city', which are influenced by national policies in China. Within the competitive urban system, cities may also imitate the label choices of their peers in the beginning, and later distinguish themselves from fellow municipal governments based on their strengths.

City images are composed of urban elements, including public spaces, architectures and natural environments (Riza et al., 2012). A city image is the result of the specific implementation of labels on the ground, which also affects the perceptions of residents (Chapman & Lynch, 1962; Hospers, 2010). In a broad sense, these actions include landscape interventions, infrastructure development, organizational and administrative structure and

corresponding behavior (Ashworth & Kavaratzis, 2009). Brand identity, label, and image are the central concepts in place branding (Boisen et al., 2017). This article focuses on changes in city labels, which is less influenced by city images in the final stage in the city branding process. Therefore, images are not further discussed in this article. The city branding process is illustrated in Figure 3.1, and the influence of local conditions on city label choices are explained in the following propositions.

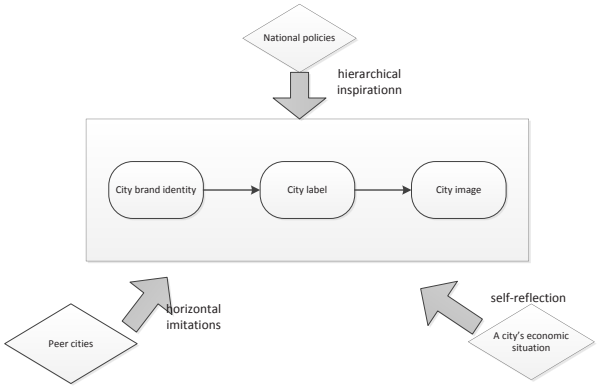


Figure 3. 1 City branding process with Chinese local condition factors

3.2.3 Three propositions to explain choices in city labelling

(1) The self-reflection proposition: choices in line with a city's economic and regional position

City label choices are not made in a void but based on an existing economic context. Ashworth and Voogd (1990) argue that the objective of place marketing is to contribute to the efficient economic and social functioning of a place consistent with the broader goals that have been established for the place. To strengthen advantages or restructure their industrial texture of cities, municipalities use brand labels to attract desired industries. Consequently, city labels can reflect both their status quo and their future ambitions after readjustment (Merrilees, Miller, & Herington, 2012). Nonetheless, when choosing city labels, continuity from past to present and future is required for a brand or label to be taken seriously and be credible to stakeholders and the outside world (de Jong et al., 2018; Han et al., 2018).

Municipal governments also consider the regional factors in their branding to improve visibility and gain more economic opportunities (Goess, de Jong, & Meijers, 2016). As cities or towns serve diverse functions in the region, comparative advantages can be found in relation with counterparts in the

same region (Hamdouch, Demaziere, & Banovac, 2017). Moreover, the central position in China's urban administrative hierarchy can also provide cities with more resources from central and provincial governments (Ma, 2005; Wei, 2015). Therefore, amidst rapid urbanization, cities aim for national or even international fame, networks and influence and prefer these over just regional impact. This tendency can be found both in city branding practices, such as 'national center city' and 'international metropolitan city' as adopted by Guangzhou (Guangdong Provincial NDRC, 2016), and in burgeoning research on global city or global city region development in China (Kong, 2007; Wu, 2000).

(2) The hierarchical inspiration proposition: choices in line with national government policies

In the Chinese context, economic and social five-year plans (FYPs) are a legacy of the planned economy. The national five-year plan establishes the foundations and principles for social and economic development in China and guides local governments each five year period (Wu, 2015). In the FYP system, the provincial and municipal governments are supposed to implement the priorities established by the central government. The national policies regarding urban development are an essential reference point when municipal governments draft their FYPs. Therefore, as national governments sense the importance of sustainable development and industrial transformation (Li & Wang, 2012), these initiatives can also be found in various national urban development programs launched to encourage municipal governments to become demonstration or pilot cities, such as eco city, low carbon city, green city, sponge city and smart city (de Jong et al., 2016; Liu et al., 2014).

For the implementation of national protocols at the local level in planning, governments often use regional strategies and visions as an intermediate step. The PRD has a long history of regional development and studies show that the regional plans and policies adopted for the PRD have a significant impact on cities' growth, development and image (Yang & Li, 2013; Ye, 2014). Ye and Björner (2018) summarize the branding process in China as follows: the national government establishes the direction of place branding, the provincial government follows this in the strategic plans, and the local government implements the decisions in local plans and projects. In sum, city branding can be regarded as a policy instrument in a multi-level governance context with state-led features, where regional policies co-shape the branding through strategic planning.

(3) The horizontal imitation proposition: copying and learning from other municipalities

Interaction among cities should not be neglected in a city's labelling choices. As a result of growing interdependence among cities within their agglomeration and the growth in economic, political and social collaboration among cities (Li & Wu, 2012, 2017; Luo, Shen, & Chen, 2010; Zhao, Derudder, & Huang, 2017a), they exchange knowledge and learn from pioneering cities in the same region. Regional development and place branding emerge at the same time, and cities in the same region adopt analogous goals, urban functions, industrial structures and city images (Lucarelli, 2017). In the PRD, the two Special Administrative Regions, Hong Kong, and Macau may influence the choice of city labels among follower cities in the region.

However, as competition among cities has become intense, municipal governments feel forced to take an entrepreneurial stance and emphasize their city's strengths (Kavaratzis, 2008). The uniqueness of a city brand is a core element in this competition, as the success of a brand results from being able to maintain unique added value in the competition (Chernatony et al., 2000). In China, although city branding practices have been criticized for lacking genuineness (Zhao, 2015), which may partly be explained by unifying national impact or copy-cat behavioral styles, most prefectural-level cities have substantial degrees of freedom to adopt their own city labels, within the overall framework offered by higher governments (Lu et al., 2017). As two powerful Special Administrative Region (SARs) like Hong Kong and Macau are located in the PRD as neighbours, they may also affect the brand identities and labels of mainland cities.

3. 4 Methodological framework

3.4.1 Data collection

To map the use of city brands in the PRD, we first collected the choices of city labels among PRD cities from their economic and social Five Year Plans (FYP) and Urban Master Plans. As for the data analysis, we explored how municipal governments choose their city labels by examining a few different but potentially complementary propositions (See Figure 3.2).

The Land Use plans were not chosen because they address the detailed land use and functional issues rather than branding and strategic development in cities (Wu, 2015). In this paper, we selected the Urban

Master Plan (UMP) in the period from 2000 to 2020, and the 10th (2001-2005), 11th (2006-2010), 12th (2011-2015) and 13th (2016-2020) FYPs as samples.

City brand identities were adopted from the key sentences in the introduction of the UMPs. The Urban Master Plans elaborate on the spatial structure and urban functions of the city for the coming ten or twenty years. City labels were collected from the sentences expressing a city's development targets in the text of the FYPs. The FYPs are comprised of sets of strategies and initiatives for future socio-economic development of cities (Heikkila & Xu, 2014). Issued every five years, they provide the opportunity to study city label changes over a reasonable timeline. We use city brand identities from urban master plan as a benchmark, to check the consistency of city labels in the Five Year Plans. Moreover, we also interviewed government officials and urban planners to understand the reasons underlying city brand identity and label choices in the Pearl River Delta in 2017. The list of interviewees can be found in Appendix B Table A6.

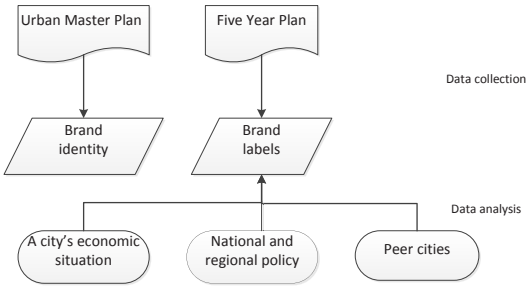


Figure 3. 2 The data collection and analysis on changes in the use of city labels change

The categorization of city labels was derived from previous studies (De Jong et al. 2015; Fu & Zhang, 2017b). According to these authors, city labels are the terms which express a city's promises for the future, such as initiatives to protect their natural environment and improve residents' living conditions. Due to the particularity of Chinese linguistic semantics in expressing city labels, we added some labels that appear in China, and specifically in the PRD, but were not on the earlier list. After reading the 10th, 11th, 12th and 13th FYP of the nine cities in the PRD cover to cover, we identified ten city label categories: advanced manufacturing cities; eco-cities; innovation cities;

livable/green cities; low carbon cities; modern agricultural cities; resilient/sponge cities; service cities; smart cities and tourism cities[2].

To secure methodological robustness, we ran a textual analysis of the document titles, headings and contents by the label keywords (eco, smart, innovation etc.), and counted if they were used as city labels, i.e. if they are followed by 'city', 'pilot', 'center' or the name of the city. Therefore, city labels, such as 'smart city', 'smart Guangzhou', 'smart pilot', were counted in all documents. Finally, all the labels were classified into ten categories. For instance, 'smart city', 'intelligent city', 'information city' and 'digital city' are classified into the city label of 'smart city'. After collecting city labels in the 10th, 11th, 12th, and 13th municipal Five Year Plans in nine cities in the PRD, we describe the city label change for all PRD cities for the period 2000-2017 in Section 4.

3.4.2 Data analysis

In the following sections, we first examine the impact of a city's economic and regional position on brand label choices. For instance, the economic development stage of each city is determined by the dominant GPD contribution and working population in three economic sectors. For instance, if agriculture, forestry, and mining play a crucial role in a city's economy, it is in stage 1 of its economic development. As for its regional impact, we classify three types of regional impact, namely international, national and regional impact. Specifically, the cities with international impact are the ones recognized in the world city list according to the Globalization and World Cities Research Network (Derudder and Taylor, 2016). National impact refers to the ones with influence on the national level, such as provincial capitals. Regional impact refers to the ones influencing their surrounding areas, such as prefectural level cities[3]. To track changes after 2000, we have collected all the above data during the first year of each FYP, i.e., 2000, 2005, 2010, and 2015.

[2] The list of city labels in Chinese and English can be found in the data set City Branding Evolution in China in Pearl River Delta 2000-2017 (The DOI is 10.4121/uuid:efda1301-08dc-4d28-8bdd-76d268948dd4).

[3] Prefectural cities are an administrative unit in China's administrative structure ranking below a provincial capital city and above a county city.

Second, we investigated the impact of the evolution of the Chinese national policies over time on city label choices. From the national Five Year Plans after 2000, we first collected and then decoded the key policies expressed at the national level that targeted the expected urban development at the municipal level. Secondly, to implement national policies at the municipal level, national urban development programs were launched by various ministries setting standards and guidance to be applied by cities. The cities that met the requirements were granted the titles belonging to these programs, such as a national eco city or smart city, and their performance was examined every few years. We further compared the use of city labels in the nine individual cities with the pilot titles they gained at each five years after 2000.

Finally, we tested the impact from their neighbouring cities by collecting the city label choices of Hong Kong and Macau in their Policy Address in 2000, 2005, 2010, and 2015. Then, we compared them with those from the mainland cities. We further identified the cities were the first to adopt certain labels and investigated the learning behavior among the mainland cities. These interpretations were verified in the interviews with municipal officials and planners.

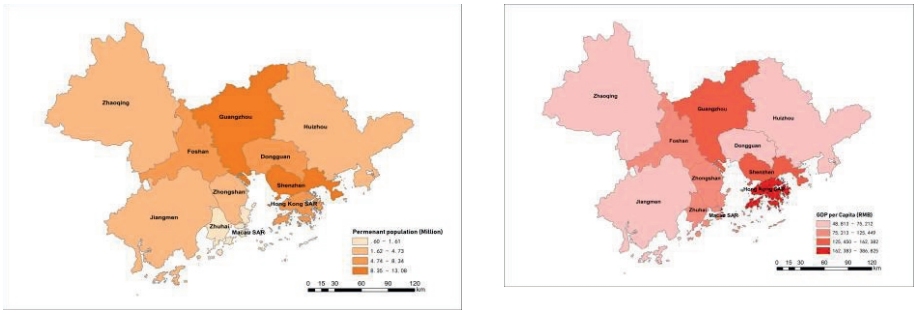
3.5 City labels in Pearl River Delta Region

3.5.1 The Change of City labels

Nine cities are located in this region, and their GDP per capita and permanent population are given in Figure 3.3. Guangzhou and Shenzhen rank first in their GDP per capita, followed by Foshan, Dongguan, Zhongshan, and Zhuhai, with Jiangmen, Huizhou, and Zhaoqing lagging far behind. Guangzhou is the provincial capital city and also one of the largest cities in the Southern part of China. Owning ports on the Pearl River, it has been the cultural and political center of the PRD region for since time immemorial.

In contrast, Shenzhen, as a young city started as a fishing village in 1978 and has since become one of the fastest growing cities in the world. Foshan, closely linked with Guangzhou by its integrated metro system, is home to many large private enterprises. Bordering Shenzhen, the economy of Dongguan is famous for its electronics and communications equipment industries. Compared with Foshan and Dongguan, Zhongshan's economy

has developed stably and is also known for its manufacturing industry. Zhuhai was established in the 1980s by the national government as a Special Economic Zone, with the aim to strengthen the cooperation with Macau. Having limited manufacturing within its borders, it finds an advantage in its tourism industry. Jiangmen, Huizhou, and Zhaoqing are located at the fringes of the PRD. Although their economies are not as strong as those of the rest, these are dominated by the secondary sector industries since 2014.



(a) (b)

Figure 3. 3 Location and demographic data of nine cities in the Pearl River Delta in China

To gain a comprehensive picture of city label changes in the nine cities, Figure 3 demonstrates the average frequency of city labels in nine cities after 2000. We see that the average frequency of city labels reached its peak between 2011 to 2015, and six city labels started to decrease while the other four still kept increasing after 2015, including ‘advanced manufacturing city’, ‘eco city’, ‘resilient city’ and ‘modern agricultural city’. These city labels reflect the visions of local government for their cities in the most recent period (2016-2020). Another notable pattern in Figure 3.4 is that the top three city labels of the PRD cities are ‘service city’, ‘innovation city’ and ‘tourism city’ between 2010 and 2015. However, after 2015, the frequency of ‘advanced manufacturing city’ surged and also joined the top, which is evidence of the importance municipal governments attach to transferring advanced and innovative technologies to the secondary sector.

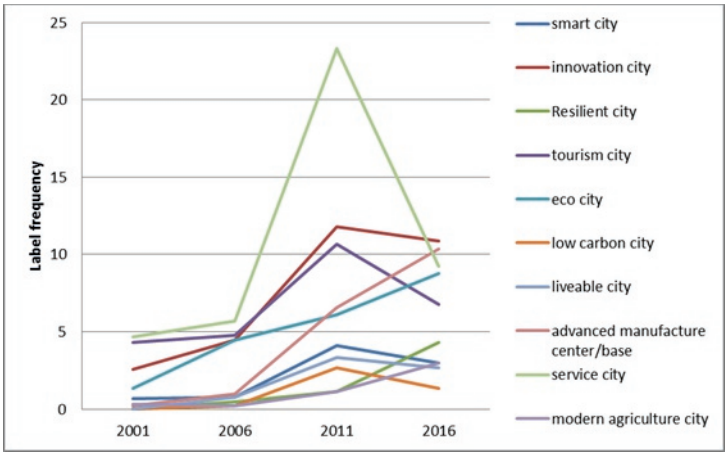


Figure 3. 4 Average frequency in use of city labels in nine PRD city labels from 10th to 13th FYP

Figure 3.5 demonstrates the five city label with the highest frequency in the nine cities in their 10th, 11th, 12th and 13th Five Year Plans (FYP). According to the figure, the frequency of city labels is low in between 2000 and 2010. As can be seen, the frequency of city labels in most cities reached a peak between 2011 and 2015, whereas the frequency of specific city labels in Dongguan, Zhuhai, Jiangmen still increased after 2015. Interestingly, the higher number of labels and the increase in their frequency of use continued in most PRD cities between 2011 and 2015. However, the frequency in use of most city labels in most cities began to decrease after 2015, but from then on one dominant city label struck in each PRD city, such as 'low carbon city for Shenzhen', 'innovation city' for Dongguan, and 'eco city' for Zhuhai.

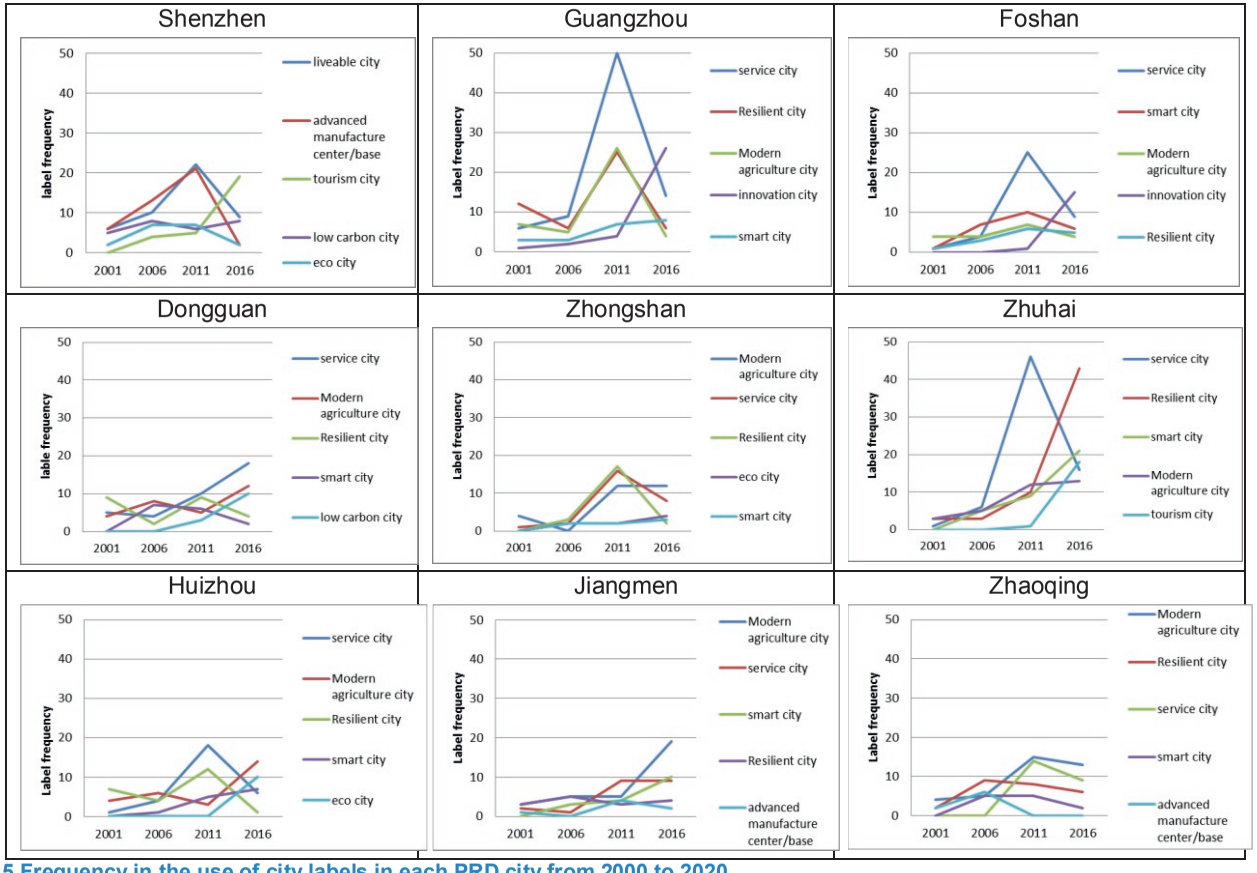


Figure 3. 5 Frequency in the use of city labels in each PRD city from 2000 to 2020

3.5.2 Consistency with city brand identity

The city brand identities of mainland cities are illustrated in Appendix B Table A2. Among the mainland municipalities, the pursuit of the 'livable entrepreneurial city' by Zhongshan, and the 'tourism city' by Zhaoqing and Jiangmen reflects their willingness to improve their living environment for residents and tourists. Additionally, the adoption of 'modern manufacturing technology' in Foshan and 'a modern service center' in Zhuhai show their determination to shift towards stronger service industries and pursue more innovative and service-dominated economic structures. These wishes can be understood since most of them still depend on labor-intensive manufacturing industries with high levels of resource consumption (National Bureau of Statistics of China, 2016).

To compare city labels with city brand identities, we matched a city's developmental pathway with its economic and regional position (de Jong et al., 2018). The city labels and identities can be classified in the developmental pathways of cities in Table 3.1 and characteristics of the five pathways are explained in Appendix B Table A1. For example, cities dominated by the primary sector are supposed to select 'eco city' and 'tourism city' to make use of their key resources, such as open land and green space. Those relying on the secondary sector will choose to focus on boosting technological progress and reducing emission levels, which is shown in 'advanced manufacturing city' and 'low carbon city'. The ones dominated by the tertiary sector will pursue service-oriented functions, which are attracted by labels such as 'knowledge city', 'innovation city' and 'service city'.

Table 3. 1 City labels and identities classified according to developmental pathways (de Jong et al., 2018)

Stage of economic development/ Position within the region	Primary sector dominates	Secondary sector dominates	Tertiary sector dominates
Regional orientation	Pathway 1	Pathway 2	Pathway 4
National orientation	n.a.	Pathway 2	Pathway 4
International orientation	n.a.	Pathway 3	Pathway 5

As for city labels, we pay more attention to the top two because cities tend to focus on their key city labels instead of all of them (see Appendix B Table A5). The pathways as suggested by city label choices are summarized in

Table 3.2. According to the pathways predicted from the brand identities, most of the PRD cities massively choose the hybrid of pathway 2 and 4 in their Urban Master Plan, which is similar to those in the 13th FYP. In the 10th to 12th FYPs, most PRD cities chose pathway 4, which is less influenced by city brand identities. The choices of city labels after 2000 can be further explained with the aid of the three propositions in the following sections.

Table 3. 2 Pathways as indicated by city label and brand identities in Five Year Plans and Urban Master Plans

City labels classified in developmental pathways				Brand identities
10th (2000-2005)	11th (2006-2010)	12th (2011-2015)	13th (2016-2020)	UMP (2000-2020)
4	4	5	5	5
4	4	5	5	5/3
4	4	2/4	2/4	2/4
1	4	4	4	4
4	4	4	2/4	2/4
4	4	4	2/4	1/2/4
4	2/4	4	2/4	2/4
4	4	4	2/4	2/4
4	1/4	4	2/4	4

3.6 Explanation by self-reflection?

Section 3 offered an overview of economic and regional positions for nine PRD cities in the years 2000, 2005, 2010, 2015 respectively. The combination of these features resulted in predicted developmental pathways based on the methodological framework mentioned above. We captured a city's economic and regional positions through its developmental pathway and compared this with its choice of city labels. Specifically, if cities chose their brand labels according to their pathway (see Table 3.1), then they can be expected to utilize labels in line with that pathway. In contrast, if their choice of brand labels does not match the above predictions, this would suggest that either the choice of labels is more or less random or not linked to self-reflection.

The predicted pathways in PRD cities from 2000 to 2020 are outlined in Table 3.3. We can observe that most cities are still on pathway 2, and the only exceptions are Guangzhou, Huizhou, and Zhaoqing. Guangzhou is the

political, educational and cultural centre of Guangdong province, whose tertiary sector has contributed more than half to its GDP growth since 2000. Its ranking in the world city system also improved from gamma to alpha between 2000 and 2015 (Derudder & Taylor, 2016). Huizhou's and Zhaoqing's administrative and public service-oriented tertiary sector contributed to their economic growth in the 2000s. Their secondary sector has grown stronger after 2015.

City labels chosen in the municipal FYPs from 2000 to 2015 are different from the cities' developmental pathways (see Table 3.3). Compared with the economic and regional stages, city labels are more ambitious as to their economic development stage by stating themselves as being strong at services while they are still manufacturing oriented. This 'over-branding' can result from a competitive urban environment (Braun, 2008; Braun, Eshuis, & Klijn, 2014; Lucarelli & Berg, 2011), and as a reaction to future uncertainties in the western countries (Ratcliffe & Krawczyk, 2011). This also applies in the Chinese context, where municipal governments may prefer other city labels over ones reflecting their status quo to attract investors and tourists. This overwhelming pattern may not always positively influence the credibility of the city branding exercise, however.

Specifically, before 2015, Pathway 2 by itself seems to represent an unwanted combination of city labels because it brings the negative image of labor-intensive manufacturing with high emissions. On the contrary, pathway 4 has been popular after 2000, suggesting low emission levels and high economic yields. However, the Chinese government has reconsidered the balance in the economic structure to avoid financial risks from over-reliance on the tertiary sector, especially real estate development (Interviewees 1 and 2). The hybrid of pathway 2 and 4 became a choice for cities in the PRD after 2015, and most cities adopt the label 'advanced manufacturing city', which is also consistent with their city brand identities. Above all, city labels cannot be explained by a city's economic and regional position. The massive preference most cities have for labelling themselves along the lines of pathway 4 makes it tempting to examine whether this can be explained as a reaction to top-down imposed policies.

Table 3. 3 Developmental pathways and pathways according to city label choices in PRD cities from 2000 to 2020

	Developmental pathways based on economic geography				Pathways as indicated by city label choices in FYPs and UMP				
	2000	2005	2010	2015	10th (2000-2005)	11th (2006-2010)	12th (2011-2015)	13th (2016-2020)	UMP (2000-2020)
Guangzhou	5	5	5	5	4	4	5	5	5
Shenzhen	2	2	2	3	4	4	5	5	5/3
Foshan	2	2	2	2	4	4	2/4	2/4	2/4
Dongguan	2	2	2	2	1	4	4	4	4
Zhongshan	2	2	2	2	4	4	4	2/4	2/4
Huizhou	4	4	4	2	4	4	4	2/4	1/2/4
Zhuhai	2	2	2	2	4	2/4	4	2/4	2/4
Jiangmen	2	2	2	2	4	4	4	2/4	2/4
Zhaoqing	1	4	4	2	4	1/4	4	2/4	4

In the Chinese context, city branding is more about future vision, and the perceptive of political leaders is quite important. Pressed by the national government, municipal governments are expected to develop green and low emission images. The city brands drafted in the planning documents have been revised in many rounds to meet the requirements from higher level governments and the wishes of local leaders. The planners have to consider many perspectives, such as the guidelines of national government and the impact from counterparts (interviewee 3).

When comparing the trend in city label changes in Figures 3.2 and 3.3, the brand label changes in most PRD cities are similar to the average level after 2000, featured in the peak of city label use between 2011 and 2015, and the surge of a few new city labels after 2015. That too hints at the necessity to further understand city labels in light of China's planning system and national policies.

3.7 Explanation by vertical inspiration?

Here we collected the corresponding national urban development programs in the period after 2000 (see Appendix B Table A4). The impact these programs have on changes in the use of city labels in the last two decades is also examined in this section.

The national FYPs began to heed more attention to sustainability in urban development after the UN Conference (1992) and the World Summit on Agenda 21 (2002). In the 10th national FYP (2000-2005), sustainable use of natural resources and environmental protection were chosen as developmental strategies in China. In the 11th FYP period (2005-2010), the national government did not merely focus on the pace of economic development, but also on the environmental and social impacts of this growth. In the 12th FYP period (2011-2015), advanced technological development was promoted even more strongly by the national government. In the 13th FYP period (2016-2020), innovation was no longer a new theme, but it obtained even greater significance through the 'innovation-driven development' policy adopted by the national government. The corresponding city development programs demonstrate the pursuit of ecological initiatives, smart technology, innovation-driven development, and low carbon policy (See Appendix B Table A4).

As the national urban development programs are an instrument to promote the delivery of the national policies at the municipal level, their fundamental

concepts are also summarized in Appendix B Table A4. These concepts can be related to the initiatives underlying the city labels in the period 2000 to 2017. Table 3.4 illustrates the corresponding city labels related to national urban development projects launched every five years after 2000.

The city label changes among PRD cities are related to policies adopted in the national and provincial FYPs. The increase in the frequency of certain city labels can at least be partially explained by the promotion of corresponding national urban development programs. Between 2000 and 2005, the development of the tourism city and eco city are the main national goals, which matches the labels chosen in the same period by the PRD cities. Moreover, the peak of the use in city labels correlates with the instigation of national urban development programs in the years 2011-2015.

Table 3. 4 The corresponding city labels related with National urban development projects each five year interval after 2000 in the PRD

	10th FYP (2000-2005)	11th FYP (2006-2010)	12th FYP (2011-2015)	13th FYP (2016-2020)
Shenzhen	tourism city; eco city; liveable city	innovation city; eco city; low carbon city ; service city	innovation city; resilient city; eco city; low carbon city 2; service city	eco city
Guangzhou	tourism city; service city	innovation city; eco city 3; service city	innovation city; low carbon city 3; service city	eco city
Foshan	tourism city; eco city; service city	innovation city; eco city	eco city; service city	low carbon city
Dongguan	tourism city; eco city	eco city	innovation city; eco city2; service city	low carbon city
Zhongshan	tourism city; eco city	innovation city	smart city; eco city; service city2	
Huizhou	tourism city; eco city		resilient city; eco city	service city
Zhuhai	tourism city; eco city			eco city2
Jiangmen	tourism city; eco city; service city	eco city	smart city	eco city
Zhaoqing	tourism city; eco city			

Note: numbers in the table imply a city has more than one two national city development programs.

In addition to the guidance of national policies, the city label choices are also influenced by the policy at the regional level. To promote regional development, the Pearl River Delta Urban Cluster Coordinated Development Plan (2004-2020) was issued by the Guangdong provincial government and the national Ministry of Construction. Furthermore, facing the global financial crisis in 2008, the National Development and Reform Committee approved the Outline Plan for the Reform and Development of the Pearl River Delta (2008-2020). Recently, coordination between Guangdong, Hong Kong, and Macau is a key policy of the national government. However, the Guangdong-Hong Kong-Macau Greater Bay Urban Cluster Coordinated Development Plan has not been issued yet. Within these plans, several city collaboration projects are important, such as the Guangzhou Foshan twin city program in the early 2000s and Guangzhou, Shenzhen, Dongguan Science Innovation Corridor project in 2017. The similarity of city label choices can be found between Guangzhou and Foshan (interviewee 5), while Dongguan has also promoted the innovation as its core brand after 2015 (interviewee 6).

After 2015, the national programs are about eco and low carbon cities, which does not explain the preference for advanced manufacturing labels and the surge of one dominant city label in some cities after 2015 (See Figure 3.4). The adoption of similar city labels between 2000 and 2005 and the variety of labels between 2011 and 2015 can be partly explained by national and regional policies but seems to lose its explanatory value in the face of growing inter-city competition in expanded agglomerations after 2015. This brings us to horizontally derived imitation.

3.8 Explanation by horizontal imitation?

This section examines the impact of horizontal imitation on city labels, including neighboring cities (Hong Kong and Macau) and the PRD cities themselves. As for the impact from Hong Kong and Macau, Hong Kong is the key player in the Greater Pearl River Delta, while Macau's role is less prominent. The top city label in Hong Kong between 2000 and 2005 is 'service city'. Shenzhen clearly expressed its willingness to build a metropolitan area with Hong Kong and to be the service base to support Hong Kong's prosperity and stability. Under the framework of "one country two systems", Shenzhen launched a co-branding strategy, aiming to be an international financial, trade and shipping center with Hong Kong. However,

this initiative failed due to lack of interest from the Hong Kong government (interviewee 3).

Compared with Hong Kong, Macau's brand labels are influenced by the mainland cities rather than the other way around. It relies on resources from the mainland and wishes to cooperate with the mainland to diversify its industrial structure, and to further develop its tourism (interviewees 5 and 7). Therefore, 'Tourism city' is the key city labels of Macau. Moreover, Macau is even influenced by the mainland planning approach, and it drafted its own Five Year Plan (2016-2020), which can be understood as a symbol of institutional integration. After 2015, both Hong Kong and Macau chose the 'smart city' label, aiming to promote innovation and scientific-technological development. The pursuit of a 'smart city' cannot just be explained by the influence of mainland cities, but also from global competition. Still, the official brand of Hong Kong is still "Asia's world city", which is consistent and expresses its vision in a realistic way (interviewee 8).

As for the inspiration among the mainland cities, Table 3.5 shows the cities that chose to adopt city labels in their municipal FYPs from 2000 to 2017. Most city labels existed from 2000 to 2005, and a few were added in the period 2006 to 2010. Seven out of ten city labels were initiated by Guangzhou and Shenzhen, along with one or two other cities. These seven city labels also included the ones with the highest frequency in the municipal FYPs in the PRD region during the past two decades, namely 'smart city', 'innovation city' and 'tourism city'. This highlights the leading role these two cities play in city labels chosen in this region. Since Shenzhen and Guangzhou have more economic and political resources than the others, they can take the lead in promoting certain city labels which are later also adopted by others.

However, imitation behavior from municipal governments became less prominent over time, and most PRD cities have developed unique city labels after 2015. After the peak between 2011 and 2015, the majority of city labels decreased in frequency, and it is clear that Foshan municipality chose the 'service' city label, Dongguan municipality focused on the 'innovation' city label. Zhuhai municipal government regarded 'eco city' as the most important label (interviewee 4). Finally, the municipal governments of Zhongshan, Huizhou, Jiangmen, and Zhaoqing adopted the 'advanced manufacturing' city label as their dominant one. City labelling by most cities in the PRD seems to have matured.

Table 3. 5 PRD cities taking the lead in adopting city labels (2000 to 2017)

10th		11th	
smart city	Shenzhen, Guangzhou, Foshan	low carbon city	Shenzhen, Foshan
innovation city	Shenzhen, Guangzhou, Dongguan	liveable city	Dongguan, Zhaoqing
tourism city	Shenzhen, Guangzhou	Resilient city	Jiangmen, Dongguan, Zhuhai
eco city	Guangzhou, Foshan, Zhuhai, Huizhou, Zhaoqing		
service city	Guangzhou, Dongguan, Huizhou		
modern agriculture city	Guangzhou, Dongguan, Zhaoqing		
advanced manufacture center/base	Zhuhai, Zhaoqing		

Note: if more than three cities adopt a city label in the 10th FYP, then the top three cities will be chosen according to the highest frequency. If the fourth and fifth have the same frequency, they are also listed in the table.

3.9 Conclusion

The goal of this paper is to understand the mechanisms affecting the city branding process of the Pearl River Delta cities since 2000. We first formulated a theoretical framework for explaining the city branding process by considering the local Chinese conditions, including a city's economic and regional position, national and regional policy, as well as peer city pressure. Then, we proposed self-reflection, vertical inspiration, and horizontal imitation as choices in propositions to explain these changes under the impact of local conditions.

In their choice for city labels after 2000, PRD cities encouraged the tertiary sector and pursued a green image between 2000 and 2015. However, the chosen labels emphasized advanced manufacturing industries from 2015 on, which is more consistent with the brand identities these cities have embraced. The number and variety of city labels adopted in the PRD region reached a peak between 2010 and 2015. Afterwards some cities began to embrace one specific label.

Above all, city labels in the PRD are updated quickly, but choices since 2015 are evidence of a growing maturity of cities in their branding practices. First,

city labels have become more consistent with brand identities. Second, cities have highlighted one label rather than grabbing many labels at the same time. Third, municipal governments also imitate their fellow cites less and have identified and focused on their strengths. In sum, mature cities emphasize a consistent brand, focus on a single label, and less imitation behavior.

The self-reflection proposition has low explanatory value for understanding the change of city labels before 2015, since these labels expressed desired images rather than long-term development strategies or existing economic situations. This also demonstrates that changes in brand strategy occur much faster than industrial transformations. Even in this highly urbanized region in China with a GDP growth of over 10%, industrial structures and regional positions of cities change slowly.

Vertical inspiration can partially explain city label choices before 2015 through Chinese national or provincial government policies. This shows that independent wishes of municipal governments are left less free reign than in western countries, also when it comes to branding choices. Criticism remains that the needs and wishes of communities are often not incorporated in the place marketing process (Kavaratzis, 2008) and that local authorities are less responsive to relevant stakeholders (Bennett & Savani, 2003). Compared with the western cities, the branding context in China is decidedly more centralized. On the one hand, the national and regional policies improve the credibility of brands from an outsider's point of view. On the other hand, high-level government intervention also limits the authority of municipal governments in designing their brands and makes them less open to other signals.

As for the impact from peer cities, the mainland cities tend to follow Hong Kong's label choices, while they influence Macau's brand labels. Mainland cities learned especially from pioneering cities (Guangzhou and Shenzhen) in the years from 2006 to 2015, but have begun to stress one independently chosen specific label from 2015 on. It is worth mentioning that the PRD is an economically developed region in China, where gradually a mature approach to city branding evolved and where municipalities have the means to understand and implement it. However, this is still unlikely to be the case in many cities elsewhere in the country, such as the North-eastern cities (Han et al., 2018).

Although this study has helped us to understand the mechanisms affecting branding choices among cities in a centralized political system, such as China, we do not yet know how the maturation of city branding works (as now achieved by some cities) and how actual implementation work in different administrative contexts should still be studied. Future research could throw more light on these issues.

Appendix B

Appendix B Table A1. The characteristics of cities in each pathway (de Jong et al., 2018)

Pathway	Description
P_1	Cities mainly conduct primary industry activities including agricultural or resource extraction.
P_2	Cities herein are of regional or national importance. In terms of economic activity, material processing and manufacturing dominate, although cities seek to shift to more advanced, less carbon-intensive industries.
P_3	Cities herein enjoy international importance. Economically, material processing and manufacturing still dominate, but there is a push towards becoming high-tech innovation cities.
P_4	Cities herein are of regional or national importance. Most people work in trade and service industries; and cities aim to consolidate their position as service industry hubs by offering attractive space and facilities for knowledge-intensive production with cultural facilities.
P_5	Cities herein enjoy international status, with most people employed in trade and service industries.

Appendix B Table A2 Brand identities and pathways from Urban Master Plans of Hong Kong, Macau and nine mainland cities

City	Brand identities	pathway
Hong Kong	The long-term vision for Hong Kong to strengthen its position as Asia's world city. "Asia's world city" is not only about economic growth and competitiveness, but ensuring we have a city that is proud for being Asia's exemplary city in achieving true sustainable development. (HK2030)	5
Macau	With gambling and tourism as its main industries, Macau regards delicacy and pleasance as its development targets, continued prosperity as its goals, and openness and inclusiveness as its characteristic. Macau is a tourism and liveable city, sustainable development city, world vibrant city. (Macau Conceptual Plan 2007).	5
Guangzhou (GD)	Guangzhou is one of National Center Cities, provincial capital, International Commercial Trade center, External Exchange Center, Comprehensive Transportation Hub, and a an International Shipping Center in South China	5
Shenzhen	Shenzhen is the Special Economic Zones, National Economic Center and an International City in China. Shenzhen is the service base to support Hong Kong's prosperity and stability. Under the framework of "one country two systems", Shenzhen aims to be an international financial, trade and shipping center with Hong Kong together. Shenzhen is also the national high-tech industrial base and cultural industry base.	5/3
Foshan	Foshan will be built into an advanced manufacturing base, a service center for industries, a Lingnan Cultural city, a beautiful home with happiness.	2/4
Dongguan	Dongguan is the central city in the PRD. It is an important information technology R&D, an industrial base in China, as well as a modern city	2/4

	with beautiful environment.	
Zhuhai	Zhuhai is a national Special Economic Zone, the central city in the West Bank of the PRD and the coastal tourist city. Zhuhai aims to be a modern service center in the West Bank of PRD. Zhuhai strives to a leading heavy strategic manufacturing base. Zhuhai targets to be a high-tech industry-oriented research and education.	2/4
Huizhou	Huizhou is one of the central cities in the PRD. Huizhou will be a petrochemical base, as well as an important cluster of electronic information industry and light manufacturing in South China, Huizhou will be a scenic coastal city in Guangdong, a historical and cultural city, as well as an important area of tourism base.	1/2/4
Jiangmen	Jiangmen is one of the central city and portal cities in west of PRD.It is a waterfront city led by modern manufacturing, trade logistics and cultural tourism industries (Urban Master Plan).	2/4
Zhongshan	Zhongshan is the regional central city in the West Bank of PRD, a livable entrepreneurial city with an attractive ecological and investment environment for startups in Guangdong Province, a tourist city as the hometown of Sun Yat-Sen.	4
Zhaoqing	Zhaoqing is the local central city in Guangdong Province, a national historical and cultural city and tourist city.	4

Appendix B Table A3 Predicted pathways according to cities' economic development and regional impact (de Jong et al., 2018)

	Primary sector dominates	Secondary sector dominates	Tertiary sector dominates
Regional orientation	PATHWAY 1 Eco-tourism (accommodating manufacturing)	PATHWAY 2 Advanced, low carbon manufacturing	PATHWAY 4 Knowledge and culture-oriented services
National orientation	n.a.	PATHWAY 2	PATHWAY 4
International orientation	n.a.	PATHWAY 3 High-tech innovation	PATHWAY 5 Global advanced producer services

Appendix B Table A4 National urban development programs classified by their corresponding city labels from 2000 to 2017 in China

Period	year	National city development programs	key concept	relevant city label
10th FYP (2000-2005)	2000	China Habitat Environment Award	human-oriented, sustainable development concepts in urban and rural fields	liveable city
	2003	eco city	the coordination of ecological, economic and social development	eco city
	2003	National Green Model City	the green coverage of cities	eco city
	2004	National Forest City	the protection of forests in cities	eco city
	2004	Water-saving city	promoting water-saving activities in cities	eco city
11th FYP (2006-2010)	2009	Service Outsourcing Demonstration City	encouraging the service outsourcing industries in cities	service city
	2010	Innovative city	the cities with strong innovation capability, and advanced technology with regional impact	innovation city
	2010	National Environmental Protection Model City	promoting environmental protection activities in cities	eco city
	2010	Low carbon city	promoting low carbon economy, including production and consumption in cities	low carbon city
12th FYP (2011-2015)	2012	Smart City	integrate information and communication technology into city management	smart city
	2012	city of public bus	encouraging the public transport in cities, which can reduce carbon emission	low carbon city
	2013	Sponge city	improving the resilience of cities to adapt to disasters	resilient city
	2013	Circular economy demonstration city	promoting circular economy in production and consumption in cities, reducing resource use and carbon emission	low carbon city

	2013	National cross-border e-commerce city	encourage cross-border e-commerce development in cities	service city
	2014	intellectual property city	promoting the protection of intellectual property in cities	innovation city
13th FYP (2016-2020)	2016	modern logistics cities	encouraging modern logistics industry in cities	service city
	2016	Internet Plus government service city	encouraging the disclosure of public affairs and establishing e-governance platform	service city
	2017	Ecological civilization demonstration city	promoting the ecological economy and establishing ecological mechanism	eco city

Appendix B Table A5 Top two city labels of Hong Kong and Macau and nine PRD cities from 2000 to 2020

	10th FYP (2000-2005)	11th FYP (2006-2010)	12th FYP (2011-2015)	13th FYP (2016-2020)
Hong Kong	Service		service city 9; advanced manufacturing city 1(policy address in 2011)	service city 8; smart city 11 (policy address in 2016)
Macau	Tourism		tourism city 5; liveable city 3 (policy address in 2011)	tourism city 12; smart city 8 (13th fyp)
Shenzhen	innovation city 6; tourism city 6	service city 13; eco city 10	service city 22; innovation city 21	service city 19; innovation city 9
Guangzhou	service city 12; tourism city 7	eco city 9; tourism city 6	service city 50; innovation city 26	service city 26; innovation city 14
Foshan	tourism city 4; eco city 2	innovation city 7; eco city 4; service city 4	service city 25; eco city 10	service city 15; innovation city 9
Dongguan	service city 9; innovation city 5	service city 8; innovation city 7	service city 10; tourism city 9	innovation city 18; advanced manufacturing city 12
Zhongshan	tourism city 4; innovation city 1	tourism city 3; innovation city 2; eco city 2; advanced manufacture	tourism city 17; service city 16	advanced manufacturing city 12; innovation city 8

		city 2		
Huizhou	service city 7; tourism city 4	service city 6; tourism city 4; eco city 4	service city 18; tourism city 12	advanced manufacturing city 14; resilient city 10
Zhuhai	service city 3; tourism city 3	eco city 6; service city 5; innovation city 5	service city 46; advanced manufacturing city 18	eco city 43; tourism city 21
Jiangmen	service city 3; tourism city 3	service city 5; tourism city 5	service city 9; innovation city 5	advanced manufacturing city 19; tourism city 10
Zhaoqing	tourism city 4; eco city 2; service city 2	tourism city 9; liveable city 2	innovation city 15; service city 14	advanced manufacturing city 13; innovation city 9

Appendix B Table A6 interview information

	The location interview conducted	Interviewee position
1	The Economic and Trade Bureau in Longgang District in Shenzhen	The chief in Development Section in the Economic and Trade Bureau in Longgang District in Shenzhen
2	Guangzhou Urban Planning and Survey Design Research Institute	Chief planner involved in the planning at Guangdong and Guangzhou levels
3	China Academy of Urban Planning & Design Shenzhen	Chief planner involved in the coordination of the Greater Pearl River Delta
4	Planning & Design Institute of Peking University (Shenzhen) Co. Ltd	Chief consultant involved in the development of Zhuhai
5	Guangdong Urban & Rural Planning and Design Institute	Chief planner involved in the planning at Guangdong and Guangzhou levels
6	Planning & Design Institute of Peking University (Shenzhen) Co., Ltd (phone interview)	Planner involved in the regional development of the PRD
7	Zhuhai Planning bureau under the Zhuhai municipality	The Chair in Zhuhai Planning bureau
8	Geography resources Management faculty in the Chinese University of Hong Kong	The researcher working on place branding and marketing

Economic City Branding in China: the Multi-Level Governance of Municipal Self-Promotion in the Greater Pearl River Delta

4

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4.1. Introduction

China, while becoming the second largest economy in the world, experienced quite serious environmental degradation in the last a few decades (Chen, 2015; Liu et al., 2014). Taking account of these mounting problems, the Chinese central government has chosen to prioritize "ecological civilization", which involves a synthesis of economic, educational, political, agricultural, and other reforms towards a sustainable society (He et al. 2013). The term "ecological civilization" first appeared in 2007, in a report to the 17th National People's Congress. At the Third Plenary Session of the 18th Central Committee in 2013, "ecological civilization reforms" were once again stressed by President Xi Jinping. However, although it is a key national policy goal, since China considers it an imperative not to let ecological preservation go at the expense of economic growth, the absorption of environmental considerations into the broader developmental strategy has taken the shape of a discourse along the lines of 'ecological modernization'. It means producing higher economic value with fewer natural resources, thus increasing eco-efficiency in industrial production and

consumption (Bayulken & Huisingh, 2015; Geng, Sarkis, & Ulgiati, 2016; Mol, 1997). In most cases, this does not only include various forms of industrial upgrading, but also a shift from manufacturing to services. Thus far, the desire to transition in this direction has been most notable in the more developed Eastern and Southern regions of China, and in the Greater Pearl River Delta (GPRD) in particular. Most of the eleven cities in the region to which Guangzhou, Shenzhen and Hong Kong belong, are making strong efforts to try and phase out heavy and polluting industries and replace them with lighter and less damaging forms of manufacturing and high-tech services. Alongside this, they promote environmental protection, provide smart infrastructures, and aim to build an attractive liveable environment.

This transformation is far from being an automatic transition: a variety of policy measures has been deployed to encourage it and speed it up. Government communication is conceived as a policy tool or instrument, that is, as a means to give effect to policy goals (Howlett, 2009). In this line of argument, city branding by local governments has been recognized as a policy instrument by various scholars, especially for European cases (Van Den Berg & Braun, 1999). Due to fiercer competition among cities and towns in China, the policies of local governments should be more eco-friendly to attract investors, industry, residents and visitors. In this context, economic city brands, i.e., brands specifically related to the industrial profile, are considered an important instrument to support economic and ecological initiatives undertaken by local governments. In planning documents, the terms “eco city”, “low-carbon city”, “smart city” and “resilient city” are paramount. This begs the following questions:

(1) how is this policy instrument of economic city branding utilized by municipalities?
(2) in which intergovernmental context can its use be explained, given the fact that it is expected to contribute to the broader goals of an ecological civilization, and
(3) to what extent can positive effects of the application of economic city brands be discerned in physical developments on the ground?

Economic city brands are partly chosen by municipalities because they are able to adopt certain profiles by themselves, based on their industrial and cultural background and aspirations for future development. It is also possible that cities choose their brands copying from other cities (de Jong et al., 2016). In this paper, we argue that these choices are partly influenced by guidance from national and provincial governments, as they issue various

national and provincial policies that local governments are supposed to adopt. This inter-governmental relationship of economic city brands has been rarely studied, but is especially meaningful in national administrative contexts that are as top-down and hierarchical as the Chinese one is, at least in name. A multilevel governance (MLG) perspective offers insight in the way local governments navigate between the national eco-civilization objectives and practical urban development needs at the district level. The latter then adds the aspect of actual reflection from the symbolic urban projects on the ground: do the emerging symbolic urban projects in any way live up to the promise of their economic city brands?

In this article, we will address the above mentioned questions. It consists of seven sections, of which this introduction is the first. In Section 2, we will focus on the theoretical debate surrounding city branding, and how multilevel governance (MLG) influences the decision making on city branding. Section 3 subsequently unfolds the methodology which we have used in our data collection. Section 4 provides the evidence as to which economic city brands were chosen by the eleven cities in the GPRD, nine in the mainland part of the Pearl River Delta and two which are known as the Special Administration Regions of Hong Kong and Macau. Section 5 inserts the MLG perspective into the discussion by introducing the urban planning system and its key actors, and examines the impact the national and provincial governments have on municipal economic city branding practices. Section 6 then takes us down to the level of symbolic urban projects. In it, we make an attempt to establish the congruence between chosen economic city brands and their impact on a particular and rather dominant type of urban development projects, new towns. With observations at that level, we have stretched all the way from national eco-civilization goals as formulated from the central government through local economic city profiles accommodating ecological modernization to physical investment projects acting as profit centers for developers. In Section 7, we will wrap up with conclusions.

4.2 City Branding and Multi-Level Governance

4.2.1. City Branding

City branding as a topic has been debated in a variety of disciplines, especially in public policy (Braun, 2008, 2012; Eshuis & Edwards, 2012; Lucarelli & Giovanardi, 2016), marketing (Avraham & Ketter, 2008; Baker, 2012; Kavaratzis, 2007b; Paddison, 2012) and political economy (Anttiroiko, 2014). Recent books also deal with city branding in an interdisciplinary way

(Anholt, 2007, 2010; Berg & Bjorner, 2014; Dinnie, 2011; Govers & Go, 2009; Moilanen & Rainisto, 2009), whereas a more specific and singular focus on the nature of city branding as an entrepreneurial strategy for cities is offered by some scholars (Anttiroiko, 2014; Van Den Berg & Braun, 1999).

In general, a city brand has been defined as the unique, multi-dimensional blend of elements, which provide the city with culturally grounded differentiation and relevance for all of its target audiences (Dinnie, 2011). Branding is thus about conveying a brand or symbolic essence of a city to target audiences for strategic gain (Judith, 2008; Zhang & Zhao, 2009).

In this article, the focus is a broadly defined economic development brand (Baker, 2012), which is in the context of urban economic development policy. As many cities in China strive to obtain international fame, they need to increase and capitalize on their attractiveness (Björner, 2006). With the strong will from city governments to control their city brands, there is always a power struggle between brand creator and brand receiver. Thus, it is necessary to distinguish between desired and registered brands (Anttiroiko, 2016). The idea of the latter includes not only what the city government wants or the perceptions of narrowly defined targets groups, but also inputs from various key stakeholders (Henninger et al., 2016; Merrilees et al., 2012). Brands are diffused when customers, outsiders and the media discuss these cases in an open environment, but they may also risk becoming more diffuse (Askegaard & Ger, 1998; Graby, 1993).

This research will focus on desired economic city branding, which is what governments do in their urban and economic development plans. A number of elements, features and beneficial attributes cities have, are stressed. As the core element of a brand, identity reflects how producers want their brand to be perceived by the outside world. Seen in this way, a branded product requires a brand identity, which differentiates it from others in a defined competitive area (Aaker, 1996). Similarly, city brand identity differentiates a given city from other cities, combining its spatial configuration and cultural values in a complex way (Zhang & Zhao, 2009). Cities benefit from a clear awareness of their major strengths and assets as well as a vision for the future (Trueman et al., 2004).

In a broad sense, city branding not merely refers to city brands as found in brochures and formal policy documents, but also to real life activities. As branding can also be regarded as a mode of communication, both the formal

intentional communication (advertising, public relations, graphic design etc.), and informal ones (word of mouth), rely on the actions of cities in the beginning (Kavaratzis, 2012). In other words, only city branding will not make a better city, but making a better city will create a better reputation.
In our empirical study below, we will focus on the consistency of urban development strategies (brand-related expressions) and the symbolic actions connected to them. In line with Anholt's analysis of national brands, we assume that effective execution of a strategy must be coupled with frequent symbolic actions if it is to result in an enhanced reputation in the end (Anholt, 2007). In the context of cities, brand-related expressions in urban and economic planning documents show the self-perception of these cities. Symbolic actions are a particular species of the effective execution of this strategy that happens to have intrinsic communicative power. They might be innovations, structures, legislation, reforms, investments, institutions, or policies, which are emblematic strategies of city (Anholt, 2010).

The symbolic actions of cities based on their city brands include many aspects, including both spatial and non-spatial interventions (Ashworth & Kavaratzis, 2009; Bai, 2008; Prilenska, 2012). Spatial interventions aim to improve the physical quality of the city, such as large-scale redevelopment and infrastructure projects. Many scholars choose to study the interventions on the ground through urban design, architecture (Ashworth & Kavaratzis, 2009), green spaces and generally public spaces in the city (Gulsrud et al., 2013). New town projects are regarded as the exemplar of urban development strategy in China, and can thus be understood as symbolic urban projects.To conclude, we will be focusing on desired economic city brands as formulated by local governments, and further analyse the intergovernmental context in which they are chosen as well as their impact on the ground.

4.2.2. Multi-Level Governance

City branding is considered a response to intensified inter-urban competition (Anttiroiko, 2015; Braun, 2008; Lucarelli & Giovanardi, 2016; Pasquinelli, 2012). However, city branding practices are complex, due to the variety of rationales behind the brands and the context these brands are embedded in (Lucarelli & Berg, 2011). This is particularly true in China, where economic city brands are used as a policy tool in an intergovernmental context. Policy making is still influenced by the legacy of state socialism, and local governments are influenced in their policy formulation by the central and provincial governments (Wu, 2000).

Multi-level governance has emerged as an approach to understanding the dynamic inter-relationship within and between different levels of governance and government (Bache & Flinders, 2004; Peters & Pierre, 2001). Economic city branding in an intergovernmental context thus refers to the creation of economic city profiles in the interactions between municipal and higher level governments, as well as to the reflection of these profiles in flagship projects, which are urban projects primarily carried out by district governments and developers 'below' the municipal government.

Multilevel governance can typically be analysed vertically (Hooghe & Marks, 2003). It essentially combines top-down and bottom-up actions between interdependent levels of government. This is relevant to China, since its urban planning system is also based on the idea of command and control regulation, inherited from China's planned economy and hierarchical political system (Wu, 2015). Some earlier studies also characterize governance in China as predominantly top-down (from national to subnational), with subnational (provincial and municipal) governments merely being held responsible for implementing national mandates (Miao & Lang, 2014; Wu, 2002).

However, in city branding processes, things are rarely as uncomplicated as that. Municipal governments are not mere automatic executors of national goals, but can make their own economic city brand choices within certain margins. They are required to take national goals and guidelines into account and convert them into targets applicable to their own level, but also take the freedom to consider local economic growth and other needs and wishes when choosing their desired brand identity and city profiles. To attract investors, clean companies and talented workforce, local governments compete with each other and give their economic branding their own specific colour (Ma, 2005; Zhang, 2015). Consequently, guidance provided by higher tiers of governments and local circumstances and preferences intersect when developing economic city brands, and below we will examine how these influences are interwoven with each other in China.

In the context of multi-level governance in China, the most accessible sources for these desired economic brands are the public planning documents at the various governmental levels. To express urban development strategies is one of the main motivations to draft urban and economic planning documents in the Chinese context (Song, 2012). The economic city profiles, which are aggregate city profiles distilled from policy

documents from independent academic researchers, may not necessarily be the same desired brand by local government. However, this illustrates the different aspects that governments focus on and how they deviate from each other. Through relating (1) economic city profile choices made by municipal governments in their own municipal planning documents with (2) the direction higher tiers of government offer for the territories of these respective municipalities in their national and provincial planning documents and (3) the labelling used for brand flagship projects, we can derive a systematic understanding of the multi-level governance on economic city profiles.

4.3 Methodology

4.3.1 Data Source

In Chinese urban planning, three types of plans are important for urban and regional development. These are the Five Year Economic and Social Plan, the Urban Master Plan and the Land Use Plan. Specifically, the Five Year Plan reflects the strategic and comprehensive planning for the economic and social development of a city; it is drafted by the National, Provincial and Municipal Development and Reform Commissions (NDRC). The Urban Master Plan elaborates on the spatial structure and urban function of the city by the Ministry of Housing and Urban-Rural Development (MOHURD) at the various tiers of government. The Land Use Plans aim to control land use by allocating land to different functions in a detailed way by the Ministry of Land and Resources (MLR) at the national, provincial and municipal levels (Wei, 2015; Wu, 2015). All three are relevant to explore the desired brand identity and economic city profiles of GPRD cities. The plans and their issuing institutions in China are shown in Figure 4.1 (These planning documents of mainland cities in China can be found in a database (The doi of the file in 4TU database is: 10.4121/uuid:ddaabf62-530e-4df2-a0b2-30c75679c7e7). As for Urban System or Master Plans, we should add here that they are the most important formal documents in urban planning and guide the drafting of detailed plans.

The National Economic and Social Five Year Plan is issued by the NDRC before its provincial equivalent is issued by its provincial counterpart. Similarly, the municipal Five Year Plan is drafted following the leads of the national and provincial Five Year Plans. The same top-down principles apply to the Urban Plan and Land Use Plan. Therefore, national and provincial plans provide the context within which the GPRD municipalities set their city development targets.

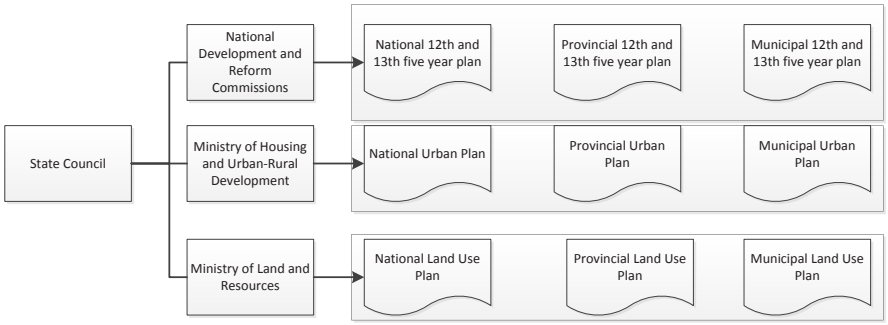


Figure 4. 1 The planning documents and their issuing institutions in mainland China ("City Planning Act," 1989; Song, 2012)).

The planning context in Hong Kong and Macau is different from the one in the mainland cities, which is demonstrated in Figure 4.2. Hong Kong's policies on urban transformation are primarily based on its strategic plan 'Hong Kong 2030 planning vision and strategy', prepared by its Development Bureau and its Planning Department, a policy document similar to that of other global cities like London, New York and Singapore (Development Bureau Planning Department, 2007). Due to political tensions and public sentiments, the five year plan was not adopted directly in Hong Kong as it was in Macao. The Yearly Policy Address can be seen to shed recent direction of its social and economic development. The Policy Address is drafted by the City Executive of Hong Kong and is consulted with other departments (same level). Similar to Hong Kong 2030, Macau issued its Conceptual Plan in 2007 ("Macau Conceptual Plan," 2008). Interestingly, more recently, Macau decided to follow the mainland approach and drafted its own Five Year Plan (2016–2020) (Macau government, 2016), which can be understood as a symbol of emerging integration.

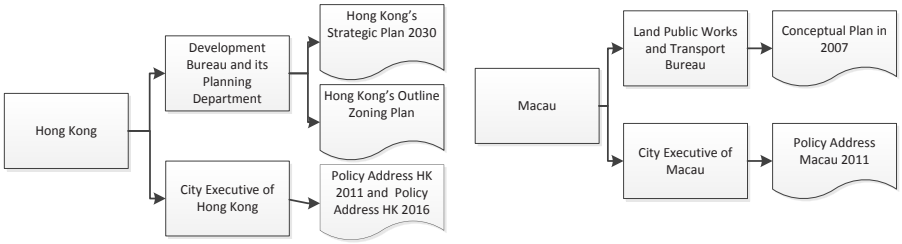


Figure 4. 2 The planning documents and their issuing institutions in its two special administrative regions

Note (a) the planning documents and their issuing institutions in Hong Kong(City Executive of Hong Kong, 2011, 2016; Development Bureau Planning Department,

2007; Planning Department, n.d.) (b) the planning documents and their issuing institutions in Macau(City Executive of Macau, 2011; "Macau Conceptual Plan," 2008).

4.3.2 Qualitative Data Analysis

Our systematic analysis of economic city branding in the Greater Pearl River Delta embedded within the wider intergovernmental practice in China took place in three distinct steps, each described in a separate chapter:

Step 1: Economic city brand identities

Our analysis begins with an economic and demographic introduction of the eleven cities in the GPRD which constitute our entry point in Section 4. We first map how they present themselves in characteristic sentences or quotes that reveal how they see their economic brand identity (see Appendix B Table A1). These economic brand identities were collected from the introduction from Urban Master Plans in the case of the mainland cities. These plans are the most important formal documents in urban planning, undergo several rounds of review from different levels of governments and used as the most important reference to understand city band identities in China. In the case of two Special Administrative Regions, Hong Kong and Macau, we based their ideas on their equivalent planning documents, as illustrated in Figure 4.3. These documents are in English as they are more referred to by local planners.

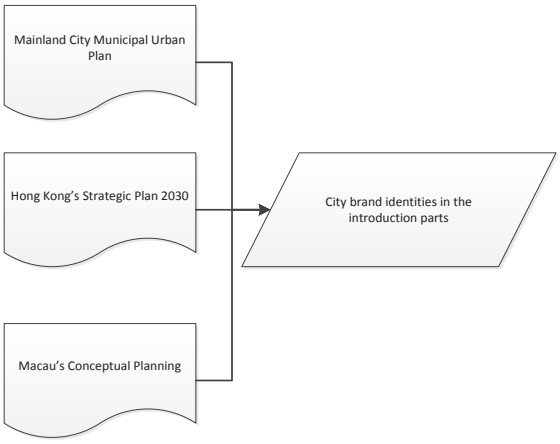


Figure 4. 3 Economic city brand identities from the municipal planning documents.

The result of step 1 is an overview of the city brand identities for all eleven GPRD cities, which may indicate their current self-perception and wished future course of development.

Step 2: National and provincial planning guidance on economic city profiles

We then collected economic city profiles from the sentences expressing city's development targets from three parallel documents mentioned above. At the national level, only crucial sentences about regional development of the GPRD as a whole are given by the central government. At the provincial and municipal levels, a collection of economic city profiles in the GPRD was derived from provincial and municipal planning documents. The analytical procedure is presented in Figure 4.4 and the content of provincial and municipal economic city profiles are shown in the database (The doi of the file in 4TU database is : 10.4121/uuid:ddaabf62-530e-4df2-a0b2-30c75679c7e7).

The results of step 2 make it possible to compare the economic city profiles formulated at the municipal level with the guidance on the national and provincial level, and thus to establish to what extent there is intergovernmental congruence. *Strictu sensu*, higher levels of congruence do not prove causality between national and provincial guidance and municipal adoption, but since national plans tend to precede provincial plans, and provincial plans are drafted before municipal plans, such causality is highly likely. We will also base a number of observations regarding the mechanisms behind multi-level governance in economic city branding in China on these findings.

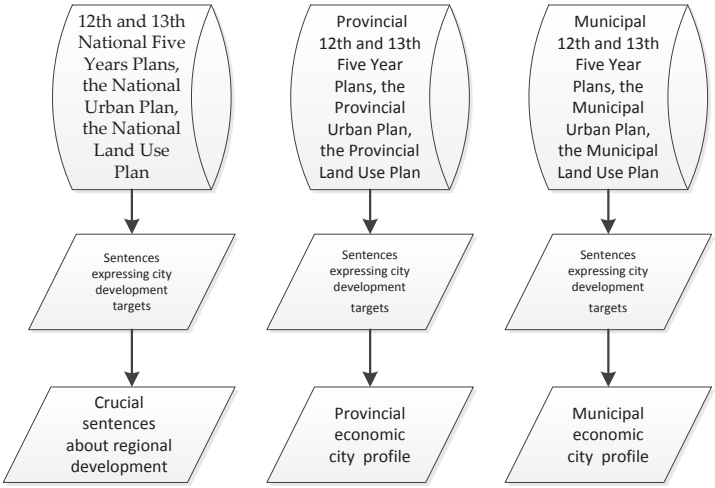


Figure 4. 4 Economic city brand identities from the municipal planning documents.

Step 3: Reflection from symbolic urban projects

As a final step in Section 6, the link with symbolic urban projects at the municipal level is made by relating the economic city profiles chosen by municipal governments with the themes chosen in symbolic urban projects. Urban projects, particularly new towns, are chosen in most of these cities to be flagship projects which can also be the exemplars or pilots for other places.

It was not possible to conduct this third and last step with the same level of analytical rigor and precision as the previous steps. New town projects in each city were collected from lists given in municipal master plans, when a new town was chosen as a targeted development area for the city. We examined how the central ideas in economic city profiles were reflected in the new towns. A field study of four new towns (in Guangzhou, Shenzhen, Foshan and Zhuhai respectively) also provides us their development targets and current status.

The results from step 3 enable us to comprehend to what extent the economic city profiles given in the planning documents at the national, provincial and municipal levels effectively influence development initiatives on the ground and are therefore a preliminary indication whether economic city brands have impact on physical project development.

4.4 Economic Brand Identities and City Profiles in the GPRD

4.4.1 The GPRD and Its Eleven Cities

As the biggest mega city region in the world, the GPRD occupies 39,415 km^2. It had a population of 66.71 million at the end of 2015 (4.9% of China's total population). As a key manufacturing base of the world, the GDP growth rate of the GPRD has been over 11% over the last twenty years. This region contributes about a tenth of the nation's output. It consists of nine cities in the Pearl River Delta (PRD) and two Special Administration Regions (SAR), Hong Kong and Macau.

According to Figure 4.5, Hong Kong and Macau have the highest GDP per capita among these cities. Guangzhou and Shenzhen have the largest population and their GDP contribution in 2014 still lagged behind that of the SARs. Huizhou and Zhaoqing occupy a large territory, but have lower population density, and lag terms of economic development.
Moreover, in spite of impressive economic development in the GPRD region as a whole, marked differences in industrial activity exist across the two

SARs, Guangzhou, Shenzhen and other municipalities. Since the 1980s, manufacturing industries in Hong Kong and Macau have relocated to places with lower land rent and labor costs, most notably the mainland part of the GPRD. Currently, tertiary services represent more than 90% of GDP in Hong Kong and Macau.

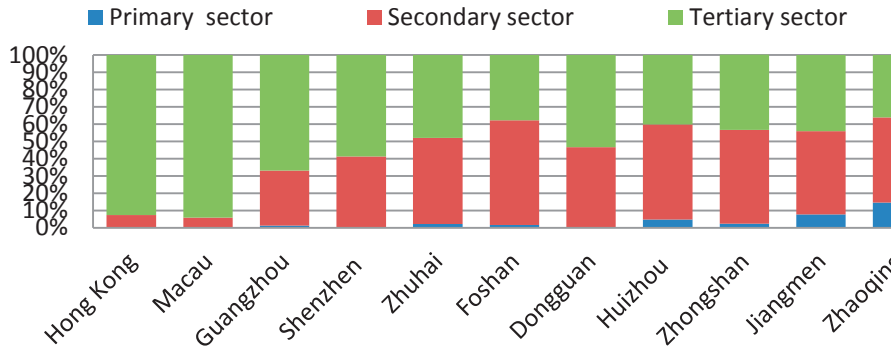


Figure 4. 5 The structure of three sectors in GDP of the GPRD cities by the end of 2014

As for two Guangzhou and Shenzhen, their tertiary sector has also overtaken other industries in terms of their contribution to GDP. Just like Hong Kong and Macau in the last century, Shenzhen and Guangzhou, along with two economically more advanced cities, Dongguan and Foshan, are actively upgrading their industrial structure. Current manufacturing industries in these cities are relocating to inland China and to poorer countries with less costs (Yang, 2012; Zhang & Kloosterman, 2016). The knowledge economy and innovation have become a new form of economic development in the PRD (Björner, 2006; Lu & Wei, 2007). This transition also is made in response to environmental challenges caused by industrial pollution in the last few decades (Liu et al., 2014). As for the other cities, the secondary sector, especially manufacturing, still plays a dominant role in their economy. However, they have tended to seize the opportunity and benefit from the industrial relocation from the leading cities to develop their own economies.

4.4.2 Desired Economic Brand Identity

For each of the eleven GPRD cities, we have taken the desired economic brand identities from their planning documents. The crucial sentences or quotations reflecting economic branding identity are presented in Appendix C Table A1. From this table, SARs, Guangzhou and Shenzhen have come

to adopt sophisticated brand identities, while others have formulated them almost at the level of rather generic policy aspirations. As to Hong Kong and Macau, their identities focus on their regional and global functions, namely "Asia's World City" and "a world tourism and leisure centre". Besides, it is necessary to mention that Hong Kong's emergence as a service centre for local, regional and international companies and it is now predominantly seen as an international city (Bie et al., 2015), and the clear identity is also developed in a long term rather than the catch-up cities.

Guangzhou sees itself as a "Provincial capital" and "International Commercial Trade Center", which can be explained by its key position in the national strategy. Shenzhen describes itself as "Special Economic Zones" and "International City", expressing its desire to maintain its primary role through developing service and high-tech industries, and maintaining the collaborations with Hong Kong. These desired economic brand identities are not stand-alone, but also show the city's strategies in the national background. It suggests that cities like Hong Kong, Macau, Guangzhou and Shenzhen attempt to enhance their visibility and reputation through continued and regular use of particular image and discourse (Bie et al., 2015; Law, Lee, & Poon, 2013; Xu & Yeh, 2005).

The majority of the other seven municipalities adopt the term "advanced manufacturing" to reconfirm that manufacturing is still the dominant industry in their economy, but that they strive for an upgrade. Dongguan claims to be "an important information technology R&D centre", whereas Jiangmen profiles as a waterfront city led by "modern manufacturing". Similarly, Foshan focuses on becoming "an advanced manufacturing base" and also declares its willingness to transform into a "service centre for industries". Huizhou aims to strengthen its economy and focuses on different aspects, such as "petrochemical base", "electronic information industry" and "light manufacturing" in South China. Alongside initiatives to attract and develop advanced manufacturing industries, other mainland municipalities lack of strong industrial base and have to verge towards reinforcing ecological protection and tourism. For instance, Zhongshan states it is "a liveable entrepreneurial city" and Zhuhai profiles itself as "the coastal tourist city". Zhaoqing self-portrays as "a national historical and cultural city" and "tourism city".

To sum up, the less developed mainland cities don't have a clear city identity yet, at least they set their policy goals for future development in rather non-

descript ways. It seems that they feel the urge to respond to the pressure of ecological modernization and incorporate this need in the way they brand themselves (De Jong et al., 2017). To further understand how the economic city brands are influenced by national and provincial government, we further focus on their economic city profiles.

4.4.3 Economic City Profiles at the Municipal Level

We went through the sentences of urban development targets in the municipal 12th and 13th Five Year Plans, Urban Master Plans and Land Use Plans, and made an inventory of all possible brand-related expressions. To ensure the clarity and interpretability of these expressions, we subdivided them according to a generic economic city profile typology based on the main economic sectors (Anttiroiko, 2016) and some sustainable city concepts extensively adopted in city development in China (De Jong et al., 2015; Geng et al. 2009; Khanna, Fridley, & Hong, 2014; Lo, 2014; Taddeo et al., 2017). Referring to the economic development in the GPRD, we chose agricultural city, advanced manufacturing city and service city to represent the main economic activities in the GPRD cities. Based on the brand-related expressions and their corresponding terms widely used in literature, we also included tourism city (Tourism city is prominent in most cities because many cities make use of their existing natural, or cultural resources to attract tourist, benefiting both their economy and reputation.), sustainable city, smart city, innovation city, eco city, low carbon city, resilient city and liveable city. The ones that could not be classified are included under “others”. Appendix C Table A2 offers an overview of all economic city profiles and their variations in municipal planning documents. The summary of economic city profiles of the eleven GPRD cities is given in Table 4.1.

Above all, advanced manufacturing and service are the targets of mainland cities in the GPRD, and agriculture city is not mentioned as the targets in any of these cities. This reflects the fact that industrial upgrading and service-oriented activities are the targets of these cities, instead of agriculture or low-end manufacturing.

Specifically, both Hong Kong and Macau emphasize their green aspects (liveable, sustainable), and their main development direction. Hong Kong values innovation and services, while Macau focuses on tourism. This may well reflect the post-materialistic production and consumption pattern of more prosperous urban economies, which are eager for both a high-quality environment and a knowledge economy. Guangzhou and Shenzhen, on the

other hand, focus especially on innovation, services and tourism (with Shenzhen also referring to advanced manufacturing) and appear to engage in the shift towards a high-end innovation and service driven economy, which are the main features that distinguish them from their neighbours.

Among the other cities, Dongguan clearly expresses its orientation towards innovation and advanced manufacturing, acknowledging its current industrial position in manufacturing and a wish to upgrade it. Foshan pays some attention to ecological aspects in its profile, but cherishes innovation and smartness as well. Zhuhai and Huizhou lean towards banking on their large green space for the exploitation of tourism and eco-friendly services. The others (Jiangmen, Zhongshan and Zhaoqing) arguably have the least specific economic city profiles, since they mention and embrace many profiles at the same time and therefore seem concerned not to lose out on any opportunities. This can probably be best explained in that they have lower GDP and GDP per capita levels, little advanced industry and the disposal of vast areas of agricultural and open land.

Table 4. 1 The summary of economic city profiles of the eleven GPRD cities

City	Modern Agriculture	Advanced Manuf.	Service	Tourism	Sustainable	Smart	Eco	Low Carbon	Resilient	Liveable	Innovation
Hong Kong			*		*					**	*
Macau				*	*	*				**	
Guangzhou			**	*							*
Shenzhen		**	**	**				*			*
Foshan		**	**	***		*	*				*
Dongguan		***	*	*							*
Jiangmen		***	*	**			**			**	*
Zhongshan		**		***			*			**	*
Huizhou		*	*	**				*		*	*
Zhaoqing		**	*	***			***	**		*	***
Zhuhai		*	*	*			***	**		**	**

Note: '*' appears at least once in one type of planning documents. '**' appears at least once in two types of planning documents. '***' appears at least once in all types of planning documents

4.5 Economic City Profiles in an Intergovernmental Context

4.5.1 City Administrative Hierarchy

To understand urban development in China, it is necessary to realize that cities operate within an administrative hierarchy, which impacts their administrative power, resource allocation and institutional arrangements (Wei, 2015). In the GRPD, the eleven cities fall into three different levels, including the special administrative region (SAR), vice-provincial city and prefecture-level city (see Figure 4.6).

In administrative terms, the two SARs (Hong Kong and Macau) fall directly under the jurisdiction of the central government, and have separate institutional arrangements due to their colonial past. Compared with the cities in the mainland, they enjoy the highest degree of autonomy in their economic, social and urban planning and development.

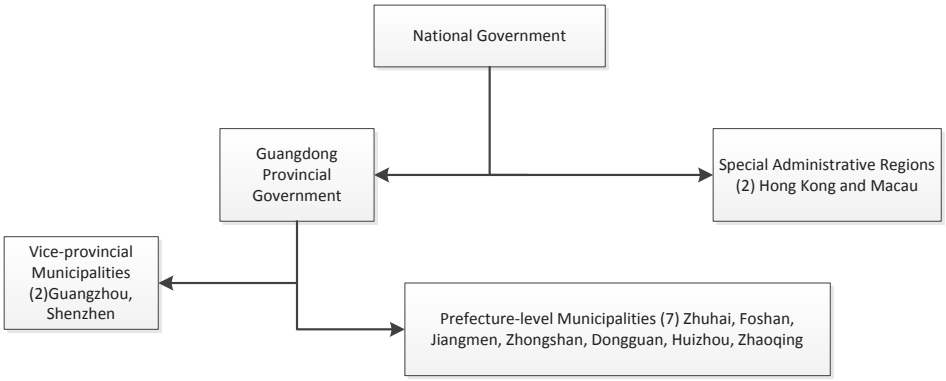


Figure 4. 6 Administrative hierarchy of cities in the Greater Pearl River Delta (Wei, 2015).

Among the nine mainland cities, Guangzhou and Shenzhen are defined as vice-provincial municipalities under the jurisdiction of both the central and the Guangdong provincial governments. Guangzhou is the provincial capital and has a long history of being the center of the Pearl River Delta, and Shenzhen has been a Special Economic Zone since China's economic reform began four decades ago. Being vice-provincial cities implies that their urban master and land use plans need to be approved both by the provincial and central government (the State Council).

The rest of the seven cities are prefecture-level municipalities, which is lower than vice-provincial cities and SARs in the administrative hierarchy. They enjoy slightly different economic and social administrative authority according to their types. Zhuhai is a Special Economic Zone in China and it is treated as vice-provincial city in certain occasions, and one example is that its urban master and land use plans also subject to approval from the State Council. Foshan, Dongguan, Zhongshan, Huizhou and Jiangmen are regarded as somewhat important by the central government, so they are required to submit their land use plan to the State Council. Compared with them, Zhaoqing is paid the least attention, and its urban master and land use are under the supervision of the province government. In general, cities lower in the administrative hierarchy are subject to less supervision from the central government, but also receive less support.

4.5.2. Economic City Profiles as Promoted by Higher Level Governments

Guidance by the National Level

In the four national planning documents (see Section 3.1), we conducted a detailed review of the future development of individual cities. To begin with, in the 12th and 13th Five Year Plan, Hong Kong and Macau receive ample attention from the central government, but the nine mainland cities are hardly mentioned. Hong Kong remains important in its functions for the economic development of the mainland (Lo, 2008). Hong Kong is referred to quite specifically in China's 12th and 13th Five Year Plans as being a global offshore RMB business hub, as well as an international finance, trade, and shipping center. As seen above, Hong Kong brands itself as Asia's World City. Compared with Hong Kong, Macau relies more on mainland guidance, probably because of dependence on growing numbers of tourists from the mainland. Macau is encouraged to become a world tourism and leisure center in the national 13th Five Year Plan, in line with the way Macau brands itself. In the National Urban System Plan and the National Land use Plan, Hong Kong and Macau are not mentioned since they have their independent planning system. As for the mainland cities, they are not mentioned in any of these planning documents at the national level, and only the Pearl River Delta is mentioned occasionally as an important metropolitan region.

Guidance by the Provincial Level

At the provincial level (see Section 3.1), the development targets for the nine PRD cities are discussed in detail, but the two SARs are less often mentioned. This is not surprising, given the fact that Hong Kong and Macau do not belong to Guangdong Province. They are mentioned in provincial and regional planning documents as context information, as an advantage for the nine mainland cities if they cooperate with them.

To illustrate how provincial plans affect economic city profiles at the municipal level, we present the number of economic city profiles in municipal and provincial level planning documents, and the overlap between them in Table 4.2 and 4.3. We collected the economic city profiles from the sentences of urban development targets in these documents. As mentioned above, provincial governments issue their plans first and then municipal governments follow in their wake. Additionally, urban master plans and land use plans of mainland cities must be approved by the provincial government and sometimes even the State Council. Therefore, the overlapping economic city profiles are explained as the municipal governments follow the leads of the

provincial government. The complete list of economic city profiles in above provincial documents can be found in economic city profile database.

As for the Five Year Plans, only Shenzhen, Guangzhou and Zhuhai adopt economic city profiles from the Provincial 12th Five Year Plan. However, in the 13th Five Year Plan, Guangdong and Shenzhen's economic city profiles are less related to provincial documents. Moreover, we can observe that the attention of the provincial Development and Reform Committee centers almost exclusively on Guangzhou and Shenzhen. Table 4.2 also shows that provincial governments release only one or even no economic city profiles concerning the other mainland cities, and it is not surprising that they have put more efforts in key cities instead of the cities without strategic role at provincial level.

In the Urban Master Plans, some of the economic city profiles appear to be imported from provincial documents, ranging from 20% to 44%. Huizhou tops among the nine PRD cities by adopting 44% of its economic city profiles from provincial documents, followed by Guangzhou and Shenzhen with both 38%. The impact of the provincial level can be found in all nine cites in their Urban Master plans. Besides, in the Land Use Plans, we find that only 33% of Guangzhou's and 13% of Shenzhen's economic city profiles come from provincial documents. Here too, other cities than Guangzhou and Shenzhen do not seem to matter much. As the 'leading' cities in the administrative hierarchy and economic development, they are strategic to Guangdong province and even China's future development.

4.5.3 Key Observations on Multi-Level Governance

The two Special Administrative Regions Hong Kong and Macau, operating under China's "One Country, Two Systems" policy, receive more attention from the central government. In contrast, the nine mainland cities are mentioned as one region, and the function and role of individual cities is hardly considered, even for Guangzhou and Shenzhen. Although Hong Kong's chosen profile is not in contradiction with ideas formulated at the national level, it clearly chooses its own language and flavor. Macau, on the other hand, drafted its first Five Year Plan in 2016, which should be considered a big step in increasing its consistency with the planning system of the mainland.

Guangzhou, Guangdong's capital city, and Shenzhen, the most successful of all Special Economic Zones, attract by far the most attention from

Guangdong province and they also adopt more economic city profiles than all other cities in the PRD. They receive more resources from higher governments to further their economic development, but they are also controlled more by these higher governments and give up part of their autonomy in exchange for this support.

All other cities barely figure in both the national and provincial plans and they seem to be left mostly to their own devices. They are seen as not being of strategic importance. They are comparatively free in their adoption of economic city profiles, but they can also count on quite limited attention and support. When reviewing the economic city profiles, the provincial government's impact is more to encourage economic development, such as to be economic or innovation center. It is remarkable that the greener images are proposed by these prefecture-level cities by themselves, such as eco, liveable or low carbon city. The question is whether they truly do so for ecological reasons or whether there are other motives. This will be investigated in Section 6.

Table 4. 2 Consistency of Provincial and Municipal Economic City Profiles in 12th and 13th FYPs.

City	12th Municipal/ Provincial Economic City Profiles (Number)	Their Overlap (Number)	Proportion of Overlap in Municipal Economic City Profiles (Percentage)	13th Municipal/ Provincial Economic City Profiles (Number)	Their Overlap (Number)	Proportion of Overlap in Municipal Economic City Profiles (Percentage)
Guangzhou	7/10	7	100%	6/2	1	17%
Shenzhen	5/9	3	60%	6/2	2	33%
Zhuhai	2/1	1	50%	4/0	0	0%
Foshan	6/1	0	0%	10/0	0	0%
Dongguan	6/0	0	0%	2/0	0	0%
Huizhou	4/1	0	0%	2/0	0	0%
Zhongshan	4/1	0	0%	4/0	0	0%
Jiangmen	2/1	0	0%	5/0	0	0%
Zhaoqing	5/2	0	0%	7/0	0	0%

Note. Proportion of overlap in municipal economic city profiles in Guangzhou is 100%, which is the overlap between municipal and provincial economic city profiles (7), divided by the number of municipal economic city profiles (7).

Table 4. 3 Consistency of Provincial and Municipal Economic City Profiles in Urban and Land Use Plan

City	Urban Municipal/Provincial Economic City Profiles (Number)	Their Overlap (Number)	Proportion of Overlap in Municipal Economic City Profiles (Percentage)	Land Use Municipal/Provincial Economic City Profiles (Number)	Their Overlap (Number)	Proportion of Overlap in Municipal Economic City Profiles (Percentage)
Guangzhou	8/6	3	38%	3/2	1	33%
Shenzhen	8/6	3	38%	8/2	1	13%
Zhuhai	14/4	3	21%	2/0	0	0%
Foshan	4/3	1	25%	2/0	0	0%
Dongguan	5/3	1	20%	1/0	0	0%
Huizhou	9/5	4	44%	1/0	0	0%
Zhongshan	5/4	1	20%	1/0	0	0%
Jiangmen	7/4	2	29%	3/0	0	0%
Zhaoqing	5/4	1	20%	3/0	0	0%

4.6 Economic City Brands and Urban Projects

4.6.1 Project Context and Key Actors

In economic city branding, some symbolic urban projects are selected as promotional tools by governments (Lorenzen & Frederiksen, 2008; Prilenska, 2012; Smith & von Krogh Strand, 2011). As a key type of urban projects in China, eco city, low carbon city, smart city pilot projects have become paramount in China since 2000 (de Jong et al., 2016; Liu et al., 2014). Most of these flagship projects are new towns, characterized by a mix of residential, commercial and industrial clusters in suburban areas (Hsing, 2010). Because of the sheer size of these construction projects, residential buildings, facilities and infrastructures can normally be exploited on such a scale that new towns provide potential markets for green technologies, such as green buildings, waste recycling systems and water purification plants (Caprotti, 2014; Hult, 2013). Besides, industrial parks planned in these new towns can be used as demonstration zones for industrial upgrading (Yu, Dijkema, de Jong, & Shi, 2015).

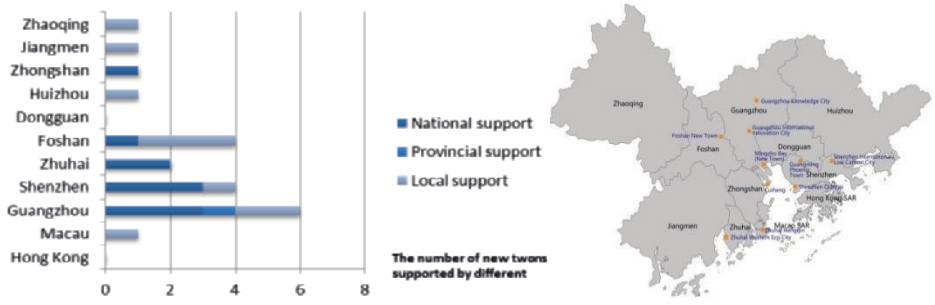
The actors involved in new town projects are various, but the key players tend to be different levels of government, project developers (often state-owned), while banks, architects, designers, and non-governmental organizations operate in the background (Joss & Molella, 2013; Miao & Lang, 2014). Most new town projects are led by management organizations established by either municipal or district governments with the involvement of developers. The economic city profiles are established by municipal governments, but the complexity and uncertainty in the local context of these symbolic projects requires strong involvement and organizational capacity of district governments or even bodies operating at the level of neighbourhoods (Lo, 2014). Some very prestigious new town projects are supported by ministries at the national or provincial level which then also contribute funds, support and knowledge and encourage the consultation of foreign experts with specific technical knowledge (de Jong et al., 2016).

4.6.2 Urban Projects at the Municipal Level

We collected the set of new town projects in the GPRD from the various Urban Master Plans (from 2010 to 2020). Since the Urban Master Plan guides urban development in cities for the next decade or so, these new towns are in the planning or constructing phase. To examine how these new town projects aim to deliver on the promises made in the economic city

profiles, we made an inventory of pilot projects associated with municipal economic city profiles, which is shown in Figure 4.7. Their supporting programs are presented in Appendix C Table A3.

We found no new town projects in Hong Kong's Strategic Plan 2030. Due to its high urbanization level, urban transformation projects are preferred over urban expansion. In Macau's Conceptual Plan, Macau New District stands out in its ambition to help the city become a "World Tourist and Leisure Centre". Guangzhou and Shenzhen have more new towns planned than the rest of the cities, and more than half of their new towns receive support from the national government as demonstration areas. As for the prefecture-level cities, numbers of new towns launched per city vary from 0 to 3, with most have 1. Of those, only one in Foshan, one in Zhuhai and one in Zhongshan receive some form of national support.



(a) (b)

Figure 4. 7 The Number of New towns in each city in the GPRD (a) and the Locations of National support ones (b)

4.6.3 Key Observations on the Local Project Context

National ministries attempt to promote certain economic city profiles not just through planning guidance, but also through supporting symbolic urban projects. Although the province only supports one new town project in Guangzhou, most projects are also allocated financial or other support by the central government. In that sense, the interventions from the central and provincial governments are not restricted to the dissemination of concepts alone; they can also selectively offer funding, expertise and political help. Their selectiveness becomes apparent when we examine which of the eleven GPRD cities benefit from this support and how this affects the economic city profile-related terminology in their project documentation.

Hong Kong and Macau as Special Administrative Regions are not eligible for national support. Hong Kong does not have any urban extension projects,

while Macau has one. That one is fully in line with national and municipal desired brand identities and city profiles. National subsidies do not reach Hong Kong and Macau's local projects. Guangzhou and Shenzhen are both quite active in urban extension and most of their new towns receive support from primarily the national government. In our interviews with staff working in these new towns, we found that the targets of their new towns are also largely consistent with their economic city profiles, although it is hard to identify to what extent actual project delivery honors the expectations evoked by these economic city profiles is 'truly realized'.

The other seven cities essentially draft and organize their new town projects by themselves, only incidentally receiving support from high above. In Foshan and Zhuhai, their actual goals are largely the same: building new residential areas and industrial parks to attract investment and talented workforce in fierce competition with other cities, generate GDP growth through real estate development and enhance the flow of municipal revenue. This also holds for other cities: in their promotion documents they tend to adopt similar city profiles as the SARs and vice-provincial cities. However, because of their limited financial and organizational capabilities, their application of economic city profiles appears to be more ad hoc and untargeted. In fact, if anything, their focus on 'green' rather than 'industrial' aspects of new towns appears to be stronger than in Guangzhou and Shenzhen. This can be explained by the fact their new towns contain relatively more residential property development instead of science and technology parks. Additionally, although they boast to develop service industries, these are limited to real estate development, retail and wholesale and tourism, rather than finance, logistics or other professional services. While the more prosperous cities have negotiation power vis-à-vis developers to push through their own strategic targets and develop more in line with their city profiles, the less developed cities in the GPRD depend heavily on investments in infrastructure from developers and their negotiation power is far weaker. The greenness therefore rather reflects the wish to lure investors and future inhabitants to spend resources in their new towns than anything else.

4.7 Conclusions

Economic city branding is actively used by municipal governments in the Greater Pearl River Delta as a policy instrument to set targets for their economic development. However, it operates as a double-edged sword. Its goal is to promote urban greening in all its different facets on existing urban

land, but it also aims to enhance local attractiveness to investors, inhabitants and (re)locating corporations outside it. The former may make existing urban assets more environmentally friendly, the latter leads to a further expansion of urban territory extremely likely to generate more emissions and to sacrifice growing amounts of unbuilt land.

In this contribution, we have mapped both the desired brand identities for all eleven cities in the GPRD and identified a generic typology of economic city profiles which these cities use. It appears that they all realize the importance of giving themselves a brand identity, but the cities advanced in economic development and high in the administrative hierarchy, such as Hong Kong, Macau, Guangzhou and Shenzhen have adopted more sophisticated brand identities than the other ones.

Among the economic city profiles, we found that to be a tourist city, advanced manufacturing city and/or service city reflects the goals for most GPRD cities. Here the wealthier SARs turned out to have more post-materialist city profiles focusing on liveability. The economically upcoming but more materialist cities Guangzhou and Shenzhen combined a service orientation with tourism and innovation, while the least wealthy ones opted for either primarily advanced manufacturing with other features (Dongguan, Jiangmen), or strong tendency towards tourism (Foshan, Zhongshan, Zhaoqing, Huizhou), or a less distinct mixture of various city profiles (Huizhou and Zhuhai) to ensure they would not lose out on any developmental opportunities.

The economic city profile choices made at the municipal level in China cannot be seen as a stand-alone activity, but occur in a multi-level governance context. The various national and provincial plans have impact on them. The national and provincial plan documents set the tone for development in general. The ecological modernization themes, such as ecological preservation, low carbon development and smartness, are mentioned in both national and provincial documents. As for individual cities, the national plan documents mention Hong Kong and Macau and their ideas on how these SARs should promote themselves. The national plans leave the individual mainland cities in the Pearl River Delta largely undiscussed. At the provincial level exactly the opposite is the case: Hong Kong and Macau are the context, while the focus is on the eleven cities on the mainland. The attention is unevenly divided, however: ‘leading’ cities, Guangzhou and Shenzhen are the province’s main concern and the others receive far less

attention. This extra attention and support is helpful because it places them at the apex of the PRD's future development, but this comes with strings attached: they are required to follow and adopt the urban concepts and targets as elements in their city profiles. The less privileged ones, the prefecture-level cities, tend to enjoy a lot of autonomy in their city profile choices, but also lack most national and provincial support and guidance in going through their ecological modernization pathways. Some of them make relatively clear and recognizable choices, such as advanced manufacturing or tourism city, while others seem to throw in a bit of all concepts hoping to combine the attraction of industrial corporations while still banking on an ecological and tourist-friendly image.

At the level of symbolic urban projects, we find how economic city profiles chosen at the municipal level, but in a multi-level governance context, trickle down in the promotion documents of new town projects. Here, we see largely the same patterns back as above: Hong Kong is mostly on a post-materialist path of development and does not engage in new town projects, Macau has one and brands it fully in line with Chinese national wishes, Guangzhou and Shenzhen develop many new town projects and many of them are actively supported by the national government and their branding is well aligned with national and provincial wishes, while the other cities enact their new town projects mostly by themselves and use their freedom to conveniently replicate city profiles from others they think fit market wishes well. But since these cities depend for their urban revenue and GDP growth more on real estate investment than on anything else, their position vis-à-vis developers and (re)locating companies on the negotiation table is normally weak. Consequently, guarantees that their economic city profiles will indeed lead to real substance of ecological modernization are extremely flimsy. Selecting the right corporations and inhabitants for their new towns and keeping polluting industries and space-wasting residential areas at bay when dependency on project developers is so intense is a difficult and painful process at best.

Appendix C

Appendix C Table A1. Economic brand identities in the GPRD cities.

City	Economic Brand Identity (key elements are bold-faced)
Hong Kong	The long-term vision for Hong Kong to strengthen its position as Asia's world city …."**Asia's world city**" is not only about economic growth and competitiveness, but ensuring we have a city that is proud for being Asia's exemplary city in achieving true sustainable development. (HK2030)
Macau	With gambling and tourism as its main industries, Macau regards delicacy and pleasance as its development targets, continued prosperity as its goals, and openness and inclusiveness as its characteristic. Macau is a **tourism and liveable city**, sustainable development city, world vibrant city. (Macau Conceptual Plan 2007).
Guangzhou	Guangzhou is one of National Center Cities, **provincial capital, International Commercial Trade center**, External Exchange Center, Comprehensive Transportation Hub, and a an International Shipping Center in South China (UMP). It builds into a National Innovation city (12th FYP).
Shenzhen	Shenzhen is the **Special Economic Zones**, **National Economic Center** and an **International City** in China. Shenzhen is the service base to support Hong Kong's prosperity and stability. Under the framework of "one country two systems", Shenzhen aims to be an international financial, trade and shipping center with the development of Hong Kong. Shenzhen is also **the national high-tech industrial base and cultural industry base** (UMP).
Foshan	Foshan will be built into **an advanced manufacturing base, a service centre for industries, a Lingnan Cultural city, a beautiful home with happiness.**
Dongguan	Dongguan is the central city in the PRD. It is an important **information technology R&D, an industrial base** in China, as well as a modern city with beautiful environment.
Jiangmen	Jiangmen is one of the central city and portal cities in west of PRD… It is a waterfront city led by **modern manufacturing, trade logistics and cultural tourism industries (Urban Master Plan)**. Jiangmen strives to be Livable Eco Model city (12th FYP).
Zhongshan	Zhongshan is the regional central city in the West Bank of PRD, **a livable entrepreneurial city** with an attractive ecological and investment environment for startups in Guangdong Province, a tourist city as the hometown of Sun Yat-sen (UMP).
Huizhou	Huizhou is one of the central cities in the PRD. Huizhou will be a **petrochemical base**, as well as an important cluster of **electronic information industry and light manufacturing** in South China, Huizhou will be a scenic coastal city in Guangdong, a historical and cultural city, as well as an important area of leisure base (UMP).
Zhaoqing	Zhaoqing is the local central city in Guangdong Province, a national **historical and cultural** city and **tourist** city (UMP).
Zhuhai	Zhuhai is a national Special Economic Zone, the central city in the West Bank of the PRD and the **coastal tourist city**…Zhuhai aims to **be a modern service center** in the West Bank of PRD. Zhuhai strives to a leading heavy **strategic manufacturing base**. Zhuhai targets to be a high-tech industry-oriented research and education (UMP).

Appendix C Table A2. Economic city profiles and their variations in municipal planning documents.

Economic City Profiles	Their Varieties Found in Planning Documents
Agriculture	None
Advanced manufacturing city	National High-tech Industrial Base and Cultural Industry Base, High-tech Industrial Development and Production Base in South China, First tier manufacturing city in China, Model city of industrial upgrading
Service city	Service Centre for Industry, International Commercial Centre, Regional Financial Centre, Regional Business Centre, Modern Service Centre in the West Bank of PRD, Logistics Centre
Tourism city	National Historical and Cultural City, Famous International Tourist City, Regional Tourist Destination, Cultural City , International Business Travel resort; Coastal Tourist City
Sustainable city	City of pluralistic cultural heritage and sustainable development, Sustainable development, Sustainable Development Capital
Smart city	Smart Foshan
Eco city	Sustainable Development Capital, Model city for ecological restoration, Model City of Coordinated Development with Economic, Social, and Environmental Resources; National Forest City
Low carbon city	Demonstration area for national low-carbon eco development
Resilient city	Sponge city
Liveable city	Liveable high-density city, Travel liveable City, Liveable Eco City with Overseas Chinese Characteristics, the ideal liveable city in the PRD. International Liveable City
Innovation city	National Innovation Centre City, National Innovation Demonstration Zone, Pioneer in innovation-driven city, Important innovation and technology center, Modern Industrial City for Start-ups, National Innovation-type SEZ
Others	A Perfect City in Guangdong Province, International Metropolis, National Center City, City for People's livelihood and Happiness, Model City of Socialism with Chinese characteristics, Modern International Advanced City, Beautiful and Wealthy Home, Harmonious Zhongshan Harmonious Huizhou, Active Zhaoqing

Appendix C Table A3. National or Provincial Support Programs of GPRD New Towns.

City (New town number)	New Town name	Support program
Guangzhou (3)	Guangzhou Knowledge City	Pilot for National Smart City (Ministry of Housing and Urban-Rural Development, or MOHURD)
	Guangzhou International Innovation City	National Modern Service Industry International Innovation Park, approved by National Science Ministry
	Mingzhu Bay in Coastal City in Nansha	National Free Trade Zone; Demonstration area for cooperation between Guangdong, Hong Kong and Macau
Shenzhen (3)	Qianhai	National Free Trade Zone; Modern Service Industry Pilot (Ministry of Finance and Commerce)
	Shenzhen International Low Carbon City	Pilot National Low Carbon City (National Development and Reform Committee)
	Guangming Phoenix Town	Pilot National Sponge City (Ministry of Finance, MOHURD, Ministry of Water Resources)
Foshan (1)	Foshan New Town	Pilot China-EU cooperation urbanization demonstration(MOHURD and EU)
Zhuhai(2)	Hengqin	National Free Trade Zone; pilot for National Low Carbon City (National Development and Reform Committee)
	Zhuhai Western Eco City	Pilot China-EU cooperation urbanization demonstration (MOHURD and EU)
Zhongshan (1)	Cuiheng New District	pilot for National Smart City (MOHURD)

Explaining the variety in smart eco city development in China -What policy network theory can teach us about overcoming barriers in implementation

5

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Lu, H., de Jong, M., ten Heuvelhof, E. Explaining the variety in smart eco city development in China-What policy network theory can teach us about overcoming barriers in implementation? Journal of Cleaner Production, 2018. doi: 10.1016/j.jclepro.2018.05.266.)

5.1 Introduction

The Pearl River Delta (PRD) is one of the largest and fastest growing urbanized deltas in the world. Strong economic growth has unfortunately been accompanied by severe soil, air and water pollution, causing widespread environmental and health problems (Greenpeace, 2010; Oizumi, 2011; Ouyang, Zhu, & Kuang, 2006). The nine responsible municipal governments have prioritized sustainable urbanization and industrial restructuring in their respective policy documents (Lu et al., 2017). Their policy adage is to sustain economic growth and preserve environmental quality through ecological modernization. The policies suggest that a cleaner and more knowledge-intense industrial structure will result in a service economy with higher value added and less physically harmful emissions (Bayulken & Huisingh, 2015; Mol & Spaargaren, 2000). Shenzhen proposes

to become “a modern international innovative city” in Shenzhen 13th Five Year Plan (SZ Municipality, 2016). Foshan focuses on becoming “an advanced manufacturing base” and “a service centre for industries” in the Foshan Urban Plan (2012-2020) (FS Municipality, 2012). Zhuhai states that the various tiers of government have an obligation to develop urban projects that meet the sustainability targets listed in their policy plans and communicated to the public: it is to evolve into “a Beautiful Model City in China” in the Zhuhai Urban Master Plan (2001-2020) (ZH Municipality, 2001).

Fleshing out these ambitions requires a diversity of responses on multiple levels, at multiple scales, and among many actors (Dushenko, Dale, & Robinson, 2012; Hooghe & Marks, 2003). However, although all levels of government have a shared responsibility in ecological modernization, the physical implementation of these initiatives can eventually only be observed at the local level (Frantzeskaki & Loorbach, 2010; Kes, Anderberg, Coenen, & Neija, 2013). Since 1949, China has established a unitary governance system. The power is allocated to various levels of governments, including provincial, prefectural, county, township, and village level (Ma, 2005). To reach the environmental targets through eco city and low carbon city projects, the prefectural level administrative units, such as municipal governments, play a key role in these programs. With the ambition to become eco and sustainable, cities adopted various programs, pursuing sustainable initiatives in eco city, low carbon city and smart city concepts (Anthopoulos, 2017; de Jong et al., 2016; Fu & Zhang, 2017b), while still maintaining the economic growth levels. On the one hand, local governments are supposed to meet the sustainability requirements imposed on them by higher levels of government in China (Lu et al., 2017). On the other hand, since national and provincial policies leave many detailed aspects of sustainable urban development unmentioned, only local governments can fill in these specifics when considering their local context (Rydin, 1997). Municipalities hope to create a name and reputation which allows them to attract those investors, firms, human resources, residents, and visitors. The ecological modernization policies fit their goal while also securing support from higher tiers of government at the same time (Caprotti, 2014; De Jong et al., 2015; Joss, 2011; Joss & Molella, 2013). In one report about eco-low carbon city development in China in 2016, nearly 90% of municipalities in China promoted “eco city” and “low carbon city” in their development targets (Fang et al., 2016).

In the Pearl River Delta, as in many other parts of China, the physical shape these city labels take is best exemplified in the emergence of large new towns at the fringes of existing urban areas (Hsing, 2010). It has been observed that the implementation of the social and environmental ambitions underlying these new town projects faces a host of challenges. The notable ones include the interaction between central and local governments, the governing capacity of less prosperous cities and the overblown expectations of adopting technological solutions from other countries (de Jong et al., 2016; Hult, 2013). More generally, many studies also acknowledge the difficulty of integrating issues of sustainability into governance patterns, such as organizational structures and daily operations and routines (Conroy, 2006; Conroy & Berke, 2004; Jordan, 2008). Although some scholars attempt to study the governance of these smart eco projects under the shadow of hierarchy (de Jong et al., 2016; Khanna, Fridley, & Hong, 2014; Miao & Lang, 2014), few studies to date unearth the policy-making process in eco city and smart city development. It is also unclear to the extent to which actors depend on each other and how the impasses caused by practicalities in the local governance context are resolved.

In this contribution, we examine the specific actors operating within the policy networks involved in three new town projects in the Pearl River Delta, since findings from China are useful due to the size of the under-development eco city and smart city projects. We sketch the organizational constellation in which they operate, their goals, resources and interdependencies and how these evolve. We explain their (sometimes lack of) progress using impasses and breakthroughs resulting from these interactions and interdependencies. We ask ourselves *what is done with the implementation of the ambition underlying the city labels in new town projects on the ground. What are the barriers to realizing the smart eco city ambitions at the local level as seen through the lens of interdependencies among actors in a policy network?*

There is continued academic interest in studying urban governance in China. After 1994, local governments gradually have gained more financial and administrative power through taxation reform (Yang & Wang, 2008; Zhu, 1999). The pursuit for economic growth at different levels of governance and rising competition among municipalities are studied through concepts such as local state corporatism (Hsu & Hasmath, 2014; Oi, 1992, 1995), the entrepreneurial city (Jessop & Sum, 2000; Wu, 2003) and urban growth machines (Wu, 2015; Zhang, 2014). However, these theories only weakly

explain the dynamic positions of actors and organizations in the urban development and focus too much on governments and real estate developers. Complex formal and informal relationships among actors in decision-making processes also triggered scholarly interests. Alongside this trend, policy network theory has been adopted to study urban policy in China, and it has also been used in urban projects more recently.

Here, we lean on their mapping of groups of actors as the first research step but take specific local contexts into account where it appears that specific network settings in which these groups of actors interact are of vital importance to a proper understanding of policy processes and policy outcomes. To the best of our knowledge, this study is certainly not the first attempt to apply policy network theory to understanding decision-making processes in China, but it is the first one to make sense of the impasses and breakthroughs in new town projects.

In what follows, section 2 first reviews the key concepts in policy network theory and formulates an answer to its applicability in the Chinese context. In section 3, we briefly present our research methodology. Section 4 will introduce the impressive phenomenon of new town development in China and which groups of actors play which key roles in it. In section 5, one can read the stories of three different new town projects in three different cities in the Pearl River Delta (PRD) and examine the interdependency among local actors and how this explains project progress so far. In Section 6, a comparative analysis is made of the three cases which allows us to spot the actor dependency map, which illustrates the roles and interdependency of actors in each policy network in three projects and how these affect the impasses and breakthroughs of new town projects. Finally, section 7 concludes.

5.2 Policy network theory and its application to China

Policy Network Theory (PNT) is a cluster of concepts focussing on the formal and informal institutional linkages among various interdependent governmental and other actors sharing a common interest in policy-making (Rhodes, 2006). Policy network analysis began as a metaphor and became a theory by developing along the lines of sociological network analysis (Dowding, 1995). PNT explains why policy concepts often fail to be realized on the ground, or to put it more mildly, why good policy intentions are often diluted or twisted during implementation (Hudson et al., 2007; Klijn & Koppenjan, 2000). PNT has been adopted by a great many scholars in

Europe and North America to analyse urban development (Bache, 2000; Deas & Ward, 2000; McGuirk, 2000). More recently, the adoption of PNT in urban studies can also be traced in Asian countries, including China and South Korea (Woo, 2013; X. Zhu, 2013; Y. Zhu, 2013). Below (1) some essential concepts in PNT are introduced after which (2) its applicability to the Chinese context is examined.

First, policy actors are assumed to have objectives they aim to see realized as if in a game-like network setting and this includes a perception of the problem situation at hand (Van Bueren et al., 2003). These perceptions have evolved based on earlier learning experiences. Both the objectives and strategies are derived from their perceptions. Objectives are concrete (partial) translations of perceptions (de Bruijn & ten Heuvelhof, 1991; Koppenjan & Klijn, 2004).

Additionally, actors require resources or policy instruments to reach their objectives, and some of these resources are owned or controlled by other actors thus creating interdependency (Borzel, 1998; Klijn & Koppenjan, 2000; Marsh & Smith, 2000). These resources include a range of political, legal, financial, organizational, physical and informational instruments or tools that jointly flesh out policy concepts into concrete and visible actions (de Bruijn & ten Heuvelhof, 1991). Hood & Margetts (2007) propose to use Nodality (information or knowledge), Authority (legal approval), Treasure (funds) and Organization (staff and other physical resources to implement) as a typology of government tools. This framework is regarded as the most suitable one in network governance (Vabo & Røiseland, 2012).

By swapping objectives and resources, involved actors develop interactions through which they aim at impacting the behaviour of other actors thus hoping to solve their own problems as well as those of society at large. To map actor interdependency, we use ‘arenas’ to distinguish between various series of interactions. Arenas are places where specific groups of actors interact on an issue and make choices on specific aspects of the issue (Van Bueren et al., 2003). Concrete interactions take place in one or more arenas, and some actors can be involved in more than one arena (Zheng, De Jong, & Koppenjan, 2010). The actors’ resources and their strategic behaviours determine their positions in the arenas (Klijn & Koppenjan, 2000; van Bortel, 2009). In arenas relevant to new town development, these actors have different roles (approver, decision-maker, executor, financier, or resource provider). To reach agreement in each of these arenas, exchanges need to

be made between certain actors (See Figure 5.1). These interactions are not completely free, but at least partly guided by formal and informal institutions or 'rules of the game' (Koppenjan & Klijn, 2004).

While developing strategies and tactics to reach their objectives and fulfil their interests, actors undertake initiatives to build packages of policy measures in collaboration with other actors and see them supported or blocked (Teisman, 2000). Alternatively, they may support or block such initiatives and packages as developed by other actors. While mutual blockages may end, hamper or delay progress and create impasses, mutual support may generate breakthroughs and accelerate changes.

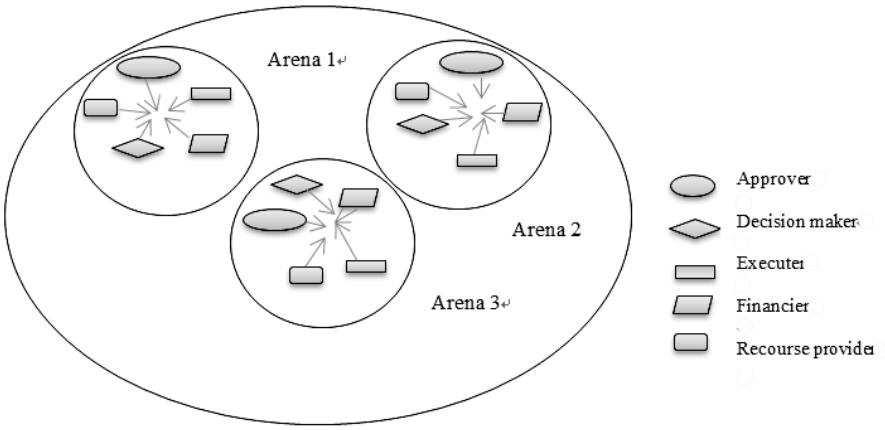


Figure 5. 1The actors and their interactions according to policy network theory

The context of the urban development in China also provides an excellent opportunity to adopt PNT in research. Economic reforms have encouraged private actor participation in the housing and infrastructure development in China. Since 1978, private and foreign investment have continued to flow into the real estate market and played a vital role in urban development (Wu, 2001). Since the amount of governmental expenditure on public facilities is limited, the involvement of private capital is encouraged (Bellier, 2003; Zhan et al., 2017). Although the public sector is still the most influential stakeholder, private sector participates more actively in the housing and infrastructure development. This growing interwovenness between the public and private sectors alongside the already pre-existing connections among various public actors suggests that PNT is as applicable to urban (and new town) development in China as it is elsewhere (Zhang, 2002).

One way to understand the application of PNT in China is through the distinction between the Anglo-Saxon school (Dowding, 1995; Marsh & Smith, 2000; Rhodes, 1990) and the German-Dutch school (Borzel, 1998; Klijn, 1996). The Anglo-Saxon school has embraced more of a stronger micro and meso-perspective, emphasizing the interactions among organizations, even individual actors. The German-Dutch school focuses on the meso-level and macro-level and analyses the national, provincial, municipal policy areas and corresponding policy actors (Zheng et al., 2010). In China, most scholars are inspired by the German-Dutch school to study urban policy in China (Pow and Neo, 2014; X. Zhu, 2013; Y. Zhu, 2013). On the macro-level, some of these scholars explained the national policy failures through the interactions among different governmental tiers under specific institutional contexts. Y. Zhu (2013) studied the paradigm shifts in the housing policies and stated that the relative closure of the policy network delimits policy instruments actors choose from and hinders paradigm shifts. Additionally, de Jong and others (2016) adopted PNT as an analytical framework to investigate the implementation of national eco city policy programs, and the implementation gaps were explained by indicating how national government underestimated its dependence on collaboration with local governments and developers. Nevertheless, there are limitations in these macro-level studies, because they are based on general observations on the national level and making less reference to specific local settings.

Other scholars are also interested in applying PNT on the meso-level to understand urban policy development in China. To study the role of local knowledge in project development, Sun (2015) adopted the concept network governance to describe the inputs from different stakeholders in the governance instead of hierarchy steering. Dai (2015) adopted policy networks and saw them as stable contextual settings to analyse new town projects around high-speed railway stations. In her research, different modalities of actor relations are identified to understand the conflicts and controversies in the policy process. At the meso-level, most of these scholars find that PNT can benefit Chinese governance since private actors have become important in the market economy, and residents and various organizations also participate in the urbanization process. These studies shed light on understanding the policy process of urban project development in China. Nonetheless, most of the discussions remain at the level asking how the government can optimize the resources by involving more stakeholders and selecting the suitable policy instruments generated by

various policy actors. Less attention has been paid to the impacts from the interactions among actors in policy implementation, mainly based on their resources and interdependency.

Although PNT has gained popularity in China and its application there is considered appropriate, in a few respects, it acquires a specific shape. Not only governments have the resources needed for urban development; but so do some other actors. The large state-owned enterprises (SOE)s in China are conspicuous playing the role of investors, project developers and infrastructure providers. The relationship between governments and state-owned enterprises can hamper the resources allocation and exchange among other actors. Therefore, ownership and exchange of resources serve as critical factors in streamlining policy processes. It is worthwhile to take one step further by explaining policy breakthroughs and impasses by the resource exchange among actors.

5.3 Research methodology

Our empirical study will not deploy the entire arsenal of PNT related concepts, but only that subset allows us to sketch the comparative statics of actor network constellations. This implies that we will map the policy actors involved in the policy process of new town projects, examine their objectives and resources and their interdependencies. We will also explore what these constellations and interdependencies looked like at different moments in time and whether this led to impasses and breakthroughs. However, we will not analyse the dynamics of decision-making in the sense that we map the interaction processes over time or analyse changes in the actor perceptions. Not only is this far harder to establish, but also answering the research question underlying this contribution does not require us to use this more elusive part of the conceptual and methodological complex around PNT.

Our empirical work was conducted as follows. First, we took a general glance at new town development and the role of urban greening in China as a whole and then in the Pearl River Delta more specifically. We did this with an actor-centred orientation in line with PNT. The results of this step are reflected in section 4 Then we selected from among a broader population of new town projects listed in provincial and municipal plans described as tending towards ecological modernization. The selection criteria are twofold. First, the cases should be supported by the national or provincial governments to be an exemplar for eco, low carbon or smart city development, which ensures the projects include not only property

developments per se, but also adopt ecological considerations. Second, considering the investment capacity of cities, we initially selected two locations in the prosperous cities Guangzhou and Shenzhen, and two in the less developed cities Foshan and Zhuhai. These cases allowed us not so much to draw a representative sample of the population as a broad variety of new town projects having various network settings where actors perform different roles, and different interdependencies can be identified. Unfortunately, it proved impossible to find enough cooperative respondents for the case in Guangzhou (Sino-Singapore Knowledge City). We have been there twice to organize our fieldwork in 2015 and 2016, but motivated we were to include this case, we eventually had to abandon it.

As for the other cases (Shenzhen, Foshan and Zhuhai), our goal has been to
(1) describe the origin, official goals and status quo of the project
(2) inventory the various involved actors, their objectives, and resources
(3) map their interdependencies based on the resources they owned and their roles in arenas
(4) find out in which arenas decision-making has already been completed and which one(s) still prevent further progress because required exchanges of resources have not occurred
(5) examine how actor constellations and interdependencies affected the passing through the arenas and what effect this had on the implementation of the ambitions regarding ecological modernization

We made field visits to each location and conducted some interviews in each of the three cities with representatives of involved actors in the period April 2015, June 2016 and July 2017. In total, 16 persons have been interviewed during the study, six of whom have been interviewed more than once (See Appendix). To complement these interviews, we primarily relied on official websites and relevant project publications to understand the urban context as well as the involved actors and their objectives, resources and relative positions. As it later appeared that sometimes additional empirical data were required to follow the format of the five steps mentioned above and to verify if there were any updates in the projects, we conducted additional telephone interviews and email inquiries with officials and experts. In section 5, summary descriptions of each of the cases are given after which section 6 presents a comparative analysis of the cases.

5.4 New Town projects in the Pearl River Delta

5.4.1 New town projects in general

Generally, new towns are defined as towns or small cities located near large cities (Tan, 2010). In general, referring to Firman (2004), there are two types of new towns. The first type is new towns built in the periphery of cities. The second type is the urban project within the built-up area within the city through urban renewal or regeneration. The cases studied in this research belong to the former type. In China, environmental pressures have urged local governments to incorporate technological and ecological features in these projects (Fu & Zhang, 2017a). Some new towns were even selected as pilot or demonstration projects for sustainable development or industrial upgrading in cities, such as “eco city”, “low carbon city”, “smart city”.

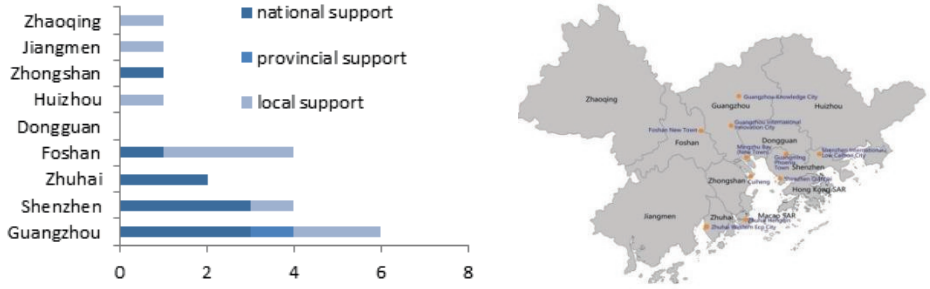
While “eco city” was initially focused on improving environmental quality in general, growing concern about greenhouse gas emissions has led to a rise of “low carbon cities” and “low carbon eco cities”. Green buildings and technologies were introduced reflecting the new mission of carbon reduction. Against a background of Information and Communication Technology (ICT) development, cities in China more recently have begun to explore solving urban problems through information technologies. ICT-facilities have been provided across the territory of cities to flesh out “smart city” projects which embed traffic systems, power grids and even anti-crime policies within the realm of e-governance.

The development of eco-smart new towns in China is an interesting combination of three inputs: national politics, local politics and global policy mobility (Wu, 2012). At the national level, the “eco city”, the “low carbon city” and even the “smart city” are advocated by different ministries in China (de Jong et al., 2016; Liu et al., 2014). At the local level, the local government uses the opportunities created by these new initiatives to promote urban quality and liveability and competitiveness. As “international best practices”, they are quickly adopted as ways to become benchmark cities in the global arena. Global policy mobility, which introduces various eco-city imagineering and environmental technologies from overseas, also brings knowledge and financial input from overseas (Chang and Sheppard, 2013; Miao and Lang, 2014).

As one of the largest megacity regions in the world, the Pearl River Delta (PRD) occupies 56,000 km^2. It consists of nine cities and had around 80.69

million residents in 2016 (nearly 5% of China's total population). As a key manufacturing base of the world, the GDP growth rate of the PRD has been over 11% over the last twenty years. This region contributes about a tenth of the nation's output.

The urban expansion in Chinese cities is written in their urban master plans, which guides the corresponding spatial change for the next decade, After searching the term "new town" (*Xincheng*) in the municipal master plans from nine cities in the PRD, a new town inventory is established by selecting the ones stated as targeted development areas for these cities in the near future. The introductory information for the new town inventory is presented in Figure 5.2. Among ten new towns in the PRD, Guangzhou and Shenzhen have more new towns planned than the rest of the cities, and more than half of their new towns receive support from the national government as demonstration areas. As for the prefecture-level cities, numbers of new towns launched per city vary from 0 to 3, with most having just 1. Of those, only two in Zhuhai, one in Foshan, and one in Zhongshan receive some form of national support.



(a) (b)

Figure 5. 2 The Number of New towns in each city in the PRD (a) and the Locations of national support ones (b) (Lu et al., 2017)

5.4.2 Main actors and their resources

The actors involved in the implementation of new town projects in the Pearl River Delta are the different levels of government (national, provincial, municipal and district), developers and financiers (cloaked either as public or private enterprises), architects and consultancy firms. In some cases, non-governmental actors and foreign governments also participate the project. The general objectives, resources and interdependencies are summarized

below, albeit that in the three cases in section 5 we find that the specific objectives, resources and interdependencies that exist in each case make a vital difference to the project processes and outcomes.

Some new town projects are led by ministries at the national or provincial level through eco, low carbon or smart city development programs. However, these higher level governments are often not directly involved. The projects are funded by municipal and/or district governments and/or developers. Ordinarily municipal governments play the leading role in projects and coordinate with district governments at the early stages (Yin et al., 2016). Although spatial visions come from higher governments, the complexity and uncertainty of the local context for these urban projects requires organizational capacity from district governments. The land is a crucial resource for villagers in new town development. One of the challenges of smart eco new towns is land preparation where local governments need to negotiate with villagers and hammer out the conditions to achieve mutual agreements. Apart from those resources, the development of urban projects also requires financial investment and technical knowledge, which demands the presence of developers. State-owned developers still contribute hugely to China's real estate market, while the private ones also exist. In new town projects, three types of developers can be found. The first type consists of companies founded to take on construction and management, called new town finance and development companies. They facilitate the local government, possibly acquire highly valuable land and they aim to boost their knowledge of running sustainable development projects. The second type of state-owned enterprises evolved from former central or provincial administration units. Last but not least, private developers range from small and medium-sized to large, including both domestic and international companies.

5.4.3 Actor interdependency in different arenas

In most new towns in the PRD, the life cycle is twenty or thirty years, and the construction often started with initial zones, and then expansion zones. The initial zone is the test and preparation step for a new town. Since most cases in the PRD have only reached the initial zone development stage, this paper specifically focuses on the interactions among the main actors in three arenas in the initial zone (1) agenda setting, (2) land preparation and (3) infrastructure provision.

Resources or policy instruments controlled by actors can be analyzed based on the NATO framework (Hood & Margetts, 2007): Nodality (information or knowledge), Authority (legal approval), Treasure (funds) and Organization (staff and other physical resources to implement). Here we connect the resources owned by actors with their positions within the arenas. The actors with Nodality are the organizations with information and knowledge and are called advisors, the actors with Authority have legal power and are approvers, the actors with Treasure contribute funds and are financiers, and the actors with Organizational resources have the people doing the actual organizational and physical work and are called executors.

In the agenda setting arena, national and provincial governments participate in new town projects as approvers, and the municipalities are the primary decision makers, who establish administrative bureaus to lead and manage the development of new towns. In this process, advice from urban planners facilitates the government in their decision-making and drafting of the master plan. In the land preparation arena, land use is quite strict in China, which requires permits from the municipal, provincial and national governments. With the approval from higher governments, district governments are the executor communicating with villagers, which also involves the participation of developers in some cases. Villagers are informed and consulted on the changes in land use relevant to them and their consent is crucially important. In the infrastructure provision arena, developers provide the funding for these infrastructures providers, and they expect an increase in land revenues at a later stage of new town development.

5.5 Three cities, three new town projects

As discussed in the section on research methodology, based on an inventory of new towns in the Pearl River Delta, we selected three projects with national support, one from an Economic Special Zone city, Shenzhen, and two from prefecture-level cities, Foshan and Zhuhai. They can be seen as examples towards ecological modernization: International Low Carbon City (ILCC) in Shenzhen, Foshan New Town in Foshan and Western Eco Central City in Zhuhai (See Table 5.1). These three show a sufficient variety in organizational patterns to verify how different actor constellations affect implementation progress differentially.

Table 5. 1Introductory Information about the three New Town Projects (Shenzhen, Foshan and Zhuhai)

	New town project	Total size	Initial zone size	Starting point	Supporting program
Shenzhen	International Low Carbon City (Shenzhen)	90 km^2	1 km^2	2012	National Low Carbon City Pilot (National Development and Reform Committee)
Foshan	Foshan New Town	88.60 km^2	5 km^2	2003	China-EU cooperation urbanization demonstration Pilot (MOHURD and EU)
Zhuhai	Zhuhai New Town	200 km^2	10 km^2	2009	China-EU cooperation urbanization demonstration Pilot (MOHURD and EU)

5.5.1Case 1 Shenzhen

General project introduction

Shenzhen positions itself as “a modern international innovative city” in its 13th FYP (SZ Municipality, 2016). It is the leader among the innovation cities in China as well as in low carbon development, and it aimed to be the “National Low-Carbon Eco Model city” in its 12th FYP (SZ Municipality, 2011). This low carbon development strategy is shown in one of its new town projects, Shenzhen International Low Carbon City (ILCC). The latter is located in Pingdi, part of Shenzhen’s Longgang district, and supported by the National Development and Reform Committee as a flagship project for national low carbon development in China.

Actors and their resources

ILCC officially kicked off in 2012 with the Shenzhen municipal government as the driver. The principal actors are listed below.

- The national government has approved ILCC to explore low carbon development and as the Pilot EU Sustainable Urbanization project in 2012.
- The Guangdong provincial government supported ILCC to explore a possible model for low carbon development and industrial upgrading in China.
- The Shenzhen municipal government initiated this project to foster economic restructuring of this area in Shenzhen.

- The municipal ILCC Office, operating under the Shenzhen municipal government, is the executive organization of ILCC project.
- The Longgang district government represents the district in which ILCC is situated. It has the knowledge and experience of local conditions.
- The Shenzhen Construction and Development Group (CDG), a State-Owned Enterprise (SOE) and an executive and financing organ of Shenzhen municipal government, is responsible for providing a considerable part of the finance used for ILCC's development.
- Overseas Chinese Town Holdings Company (OCT Group), an SOE developer, with experience in cultural and tourism industrial management, is contracted to provide infrastructure in the 5 km^2 extension zone in ILCC.

Impasses and breakthroughs in arenas

The idea for the ILCC originated from a proposal made by a team of Chinese and Dutch experts in 2011 for an ECO-2-ZONE. However, although the Shenzhen municipal government preferred the government to government cooperation as in Sino-Singapore Guangzhou Knowledge City, the Dutch side was not interested in contributing financially. With inputs from both Dutch and Chinese experts, the master plan was approved in July 2012. The Shenzhen municipal government changed its name to International Low Carbon City to attract more partners from a variety of countries. From then on, annual ILCC forums were organized to attract international attention. The municipal ILCC Office, operating under the Shenzhen municipal government, is the executing organization of the ILCC project. This office was composed of members representing different departments within the Shenzhen municipal government and other key players within ILCC, with the Vice Mayor acting as the office leader. In 2017, ILCC office was placed under the PRD Important Project Office (see in Figure 5.3).

In the arenas of land preparation and infrastructure provision, CDG was responsible for compensating villagers, while the Longgang district government would return the funding later. CDG was also the financier of infrastructure provision in the initial zone (interviewee 2). The Shenzhen municipal government promised to refund CDG by land or other projects or resources but has not done so yet (interviewee 1). As a financial platform, CDG was non-profit oriented, and its risks were borne by the Shenzhen municipal government. From 2012 to 2016, most of the infrastructure in the

initial zone had been completed. In 2017, the Longgang district government began its cooperation with the OCT group, and the 5 km^2 extension zone entered the planning phase (Interviewee 7).

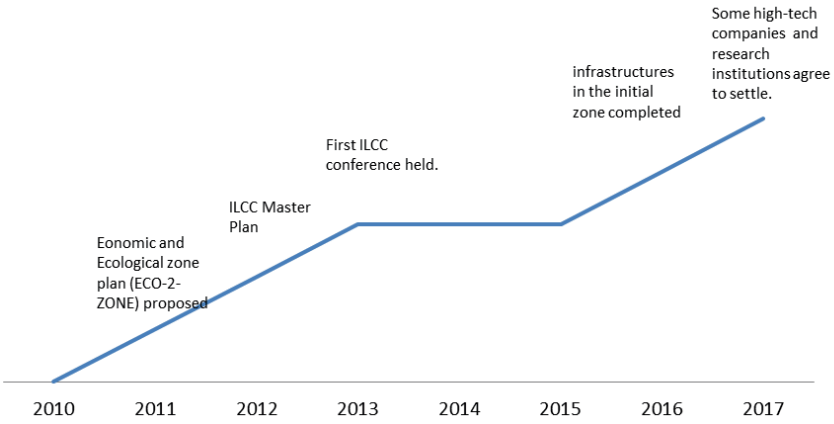


Figure 5. 3 Project progress in Shenzhen's ILCC project 2010 to 2017

Until now, the initial zone has been filled with a conference center and a small number of high-tech institutes. Currently, a few promising projects are in the process, including some high-tech companies and research institutions, but most of the available land for construction is waiting for bidding or auctioning (interviewee 4). It still has not shown significant potential in low carbon development yet, and the enterprises attracted are not as high profile as hoped. Based on the interviews in ILCC, the impasses and breakthroughs of ILCC are concluded in the following arenas, agenda setting, land preparation and infrastructure provision (See Table 5.2). The impasse in agenda setting was the limited involvement of the Longgang district government, and the breakthrough was the restructuring of the ILCC Office. In the land preparation, the villagers were reluctant to give up their land because they were dissatisfied with the offered compensation. A new way to compensate the villagers adopted in 2016 was the breakthrough. The Shenzhen municipal government encouraged the villagers to transfer their land for a better economic benefit based on 30% reserved land (Zhan & de Jong, 2018). In the infrastructure provision, although CDG acted as a financier in the initial zone of ILCC, the impasse lied in the wavering attitude from governments in their cooperation with CDG, because a private developer with more resources and experience was preferred by the Shenzhen municipal government. The breakthrough was an independent state-owned developer, OCT, cooperating with the district government for the 5 km^2 extension area.

Table 5. 2 Impasses and breakthroughs in agenda setting, land preparation and infrastructure provision in Shenzhen's ILCC

Shenzhen arenas	Impasses	Sources	Breakthroughs	Sources
Agenda setting	Less involvement of the Longgang district government	Interviewees 2 and 5	Restructuring the ILCC Office	Interviewees 3 and 7
Land preparation	Dissatisfaction with government compensation	Interviewees 1 and 5	New way to compensate the villagers	Interviewee 3
Infrastructure provision	Wavering cooperation with the developer	Interviewees 2 and 7	Independent state-owned developer cooperates with Longgang district government	Interviewees 3 and 4

5.5.2 Case 2 Foshan

General project introduction

Foshan city is one of the traditional manufacturing centres on the western bank of the PRD. Foshan positioned itself as "an advanced manufacturing base" and "a service centre for industries" in the Foshan Urban Plan (2012-2020)(FS Municipality, 2012). The former expressed its hope to encourage advanced manufacturing, and the latter its desire to grasp the advantage of being adjacent to Guangzhou to provide service outsourcing for both production and consumption in this region. These city profiles are also reflected in the development targets of its new town projects, such as "Guangdong Industrial Service Model Zone" and "National Cultural and Innovation Industrial base".

Actors and their resources

The governments played the leading role in Foshan New Town development. The Foshan municipal government initiated it, and later the leadership was transferred to the Lecong town government and the Shunde district government.

- The national government supported Foshan to be a pilot in China-EU cooperation in urbanization demonstration (MOHURD and EU), and Foshan New Town was part of the pilot package in 2014.
- The Guangdong provincial government considered Foshan New Town one of its key development projects for industrial upgrading and economic restructuring.

- The Foshan municipal government initiated building this area and planned it to become a new town in 2007.
- The Lecong town government represents the township in the area where Foshan New Town is located.
- The Shunde district government is an independent city district under the supervision of the Guangdong provincial government.
- The New Town Management Committee is the management organization of Foshan New Town.
- The developer in Foshan New town is Foshan New Town Company.

Impasses and breakthroughs in arenas

Beginning from an area providing Foshan with some sports gyms and public facilities for the Provincial games in 2003, it became a new district in Foshan in 2007. Currently, most of the infrastructures in the initial zone are completed, and a few institutes are also built, such as a commercial complex named Sino-European Centre (see Figure 5.4).

In 2007, Foshan municipal government planned this area to be a new town and framed it to be a city center, commercial center, headquarter economic zone, as well as a green city center. Until 2011, some cultural, sport and educational facilities had been built. From 2011 to 2013, the Foshan municipal government transferred the steering role to the Lecong town government, and its position was also updated as a Sino-German service zone, Sino-Europe cooperation zone and modern city with (Southern) Lingnan culture. However, these visions had not been realized because of Lecong town government's limited financial capacities (Interviewee 9). After 2013, the leadership of the new town was handed over to the Shunde district government. It is a city district that can submit its tax directly to the provincial government instead of the Foshan municipal government, which is an unusual arrangement allowing it to have more discretion compared with other districts in Foshan. However, the district government was reluctant to invest in this new town to avoid the competition with its own new town projects (Interviewee 10).

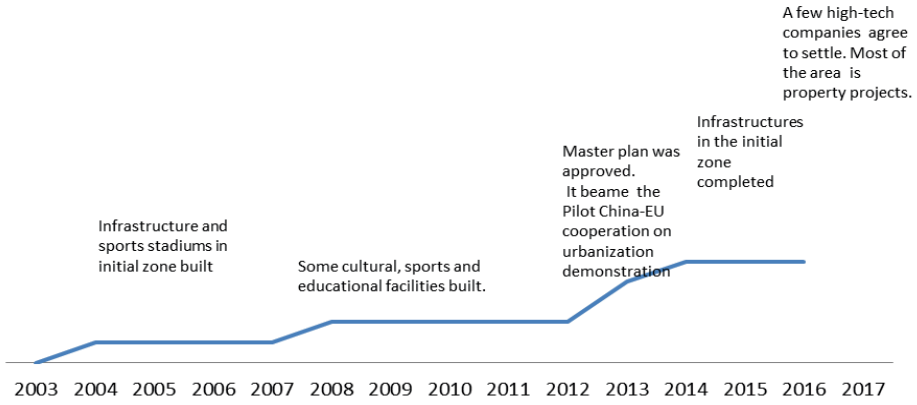


Figure 5. 4 Project progress in Foshan New town from 2003 to 2017

In the arenas of land preparation and infrastructure provision, Foshan New Town Company was the organization responsible for both tasks. As a financial platform, it received loans from banks to pay for the compensation of villagers and infrastructure investment (Interviewee 8). With the frequent change of leadership in this new town project, the ownership of this company was also transferred from municipal government to town, and then to district government. Recently, its role has been to maintain the infrastructures and promote business in Foshan New Town (Interviewee 9). As for the relocation of residents and enterprises, most of the projects in the initial zone are more about property development rather than industrial transformation.

The interviewees pointed to some impasses in Foshan New Town, for which breakthroughs were not apparent yet (see Table 5.3). As for agenda setting, the impasses include limited high-level support and international input, and the frequent change of governments in charge. The impasse in land preparation is similar to the one in Shenzhen's ILCC, but unlike in ILCC because there are no breakthroughs yet. In the infrastructure provision arena, the developer was only a financial tool, and its technical and managerial qualifications and resources were limited.

Table 5. 3 Impasses and breakthroughs in the agenda setting, land preparation and infrastructure provision in Foshan New Town

Foshan arenas	Impasses	Source	Breakthroughs
Agenda setting	Little high-level support and international input; Frequent change in project leadership	Interviewees 9 and 11	None
Land preparation	Dissatisfaction with government compensation	Interviewees 9 and 8	None
Infrastructure provision	Developer is financial tool with limited influence	Interviewee 10 and 11	None

5.5.3 Case 3 Zhuhai

General project introduction

Zhuhai borders the Macau Special Administrative Region and became one of the Special Economic Zones in the 1980s. Zhuhai is a tourist city and enjoys the advantages of neighbouring Macao, the historical and gaming treasures of which are well-known. It has protected its environment rather than fast economic growth from manufacturing since 1980 (interviewee 12). Its new town projects show a strong drive to ecological modernization. Zhuhai Western Central Eco City aimed to be an ecological demonstration liveable new town in the PRD, as well as a waterfront garden with characteristics of overseas Chinese culture.

Actors and their resources

The Zhuhai municipal government initiated Zhuhai Western Central Eco City and invited the private developer China Railway to invest in this project.

- The national government supported Zhuhai to be a pilot in China-EU cooperation in sustainable urbanization demonstration (MOHURD and EU), and its Western Central Eco city was part of the pilot package in 2014.
- The Guangdong provincial government considered Western Central Eco city the initial zone of the province-supported New District strategy in 2014.
- The Zhuhai municipal government fostered economic restructuring and hoped the western part of the city would become more competitive.
- The Jinwan and Doumen district governments represent the districts where this new town is located in.
- The Western City Development Bureau is the executing organization

under the Zhuhai municipal government.

- The China Railways Group is a state-owned developer in this project responsible for funding the infrastructures.

Impasses and breakthroughs in arenas

Zhuhai Western Central Eco City is a 200 km^2 project, with a 10 km^2 initial zone. It was granted the status of provincial eco city by the Guangdong provincial government. The principle of 'sponge city' (similar to resilient city) was also applied to the road construction in this project, and it was the model area for the Zhuhai municipal government to become a national level sponge city in 2016 (interview 13).

From 2010 to 2013, Zhuhai Western Central Eco City had been in the process of agenda setting. After the China Railway Group entered the scene in 2013, its infrastructures have been under construction, including roads, water channels and so on. In the first steps of its development, the China Railways was responsible for financing and construction, and they were paid by 30% of the land revenues. Land preparation and infrastructure construction in this project have seen plodding progress in the past few years (Interviewee 14). The attraction of businesses had not even begun (see Figure 5.5)

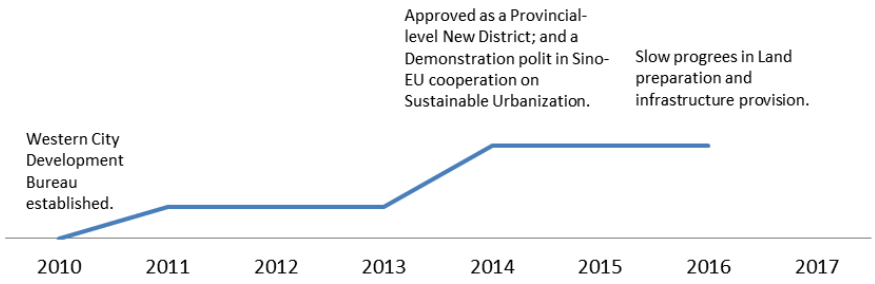


Figure 5. 5 Project progress in Zhuhai Western Central Eco City from 2010 to 2017

According to the interviewees, several impasses and one breakthrough can be found in Zhuhai Western Central Eco City (see Table 5.4). As for agenda setting, the impasses include both limited high-level support and International input, paired with low motivations among the district governments. The breakthrough in agenda setting is the restructuring of the

Western City Development Bureau and the contract signed between the district governments and China Railway Group (Interviewee 15). In Zhuhai, the impasse in land preparation is the same as in the previous two cases. In the infrastructure provision arena, the impasse is an unclear division of responsibilities and rights between the local governments and the developer.

Table 5. 4 Impasses and breakthroughs in agenda setting, land preparation and infrastructure in Zhuhai Project

Zhuhai arenas	Impasses	Sources	Breakthroughs	Sources
Agenda setting	Limited high-level support and International input; Low motivation of district governments	Interviewee 14	Restructuring of Western City Development Bureau	Interviewee 15
Land preparation	Dissatisfaction with government compensation	Interviewee 16	None	Interviewee 15
Infrastructure provision	Unclear division of responsibility and rights between local government and developer	Interviewee 14	None	Interviewee 15

5.6 Discussion based on actor interdependencies

Based on the site visits and interviews in last three years, we map the actor interdependencies in the three cases to understand their breakthroughs and impasses. The impasses can be explained by the failure to realize resource exchanges among actors in these arenas. The decision process in each arena can only be completed if required exchanges have taken place, which leads to breakthroughs. In the following sections, the causes of impasses and breakthroughs in the agenda setting, land preparation and infrastructure provision are explained by the actor interdependency in each new town project.

5.6.1 Actor interdependencies in the agenda setting arena

In the agenda setting arena, the main actors are approvers (the national and provincial governments), decision-makers (the municipalities) and executors (established organizations to manage the new town). The actor interdependency in the agenda setting arena of Shenzhen ILCC has changed during this process (See Figure 5.6). As often observed in China, the national and Guangdong provincial governments are approvers of this project, and municipal government is the decision maker. Their attitudes have a high impact on the development of new towns, including the infrastructure, public services, and resettlement and so on. After the

Government-to-Government (G2G) collaboration between China and the Netherlands failed, the management organization of the ILCC project is called the municipal ILCC Office, which is under the Municipal Development and Reform Bureau. Although it knew more about industrial development, which was the primary task of the Reform and Development Bureau, it did not have a land use permit and real urban planning power, which has remained with the municipal and district governments (interviewee 5). It was difficult to make decisions for the development of ILCC because of its position in such an administrative arrangement. In the past years, project progress had occurred through a 'Conference Memo', signed by the Vice Mayor periodically (Interviewee 2), which increased dependency on the attitude of political leaders. During this period, the urban planning service is provided by Urban Planning Design Institute of Shenzhen, which is owned by Shenzhen Municipality through its investment company (CDG).

In the agenda setting arena, the ILCC project reached an impasse due to a limited engagement of the Longgang district government in the beginning. As the Shenzhen municipal government directed the ILCC Office (the steering organization), it was difficult for the Longgang District government to communicate with the ILCC office as an equal party. In 2017, ILCC office was placed under the PRD Important Project Office, which played an even weaker role in the administrative hierarchy because its was only regarded as one of several 'important' projects (interviewee 3). This organization structure paved the ground for more participation from the Longgang district government in this project. In 2017, the Longgang district government signed a contract with the OCT group to develop the 5 km^2 expansion area, which was a crucial breakthrough event for this project speeding up its progress. The urban planning was still provided by Urban Planning Design Institute of Shenzhen (UPDIS) for the initial and extension areas.

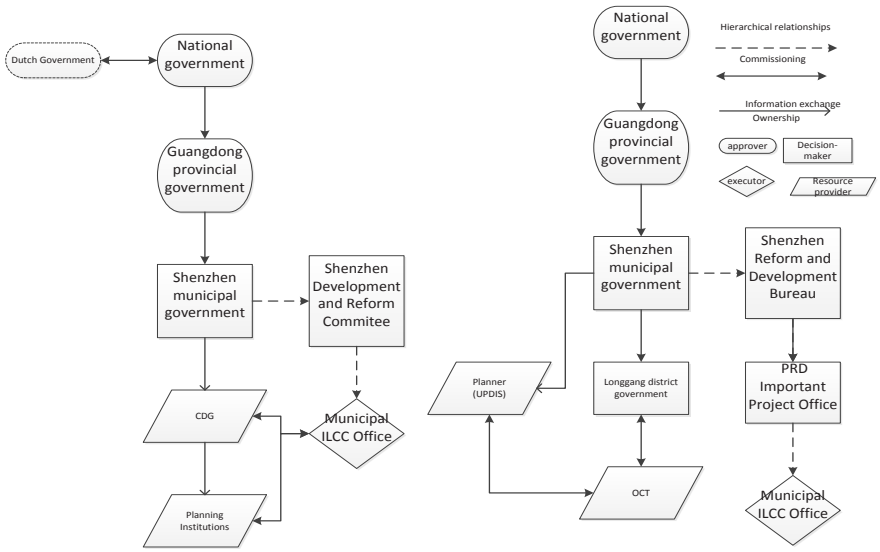
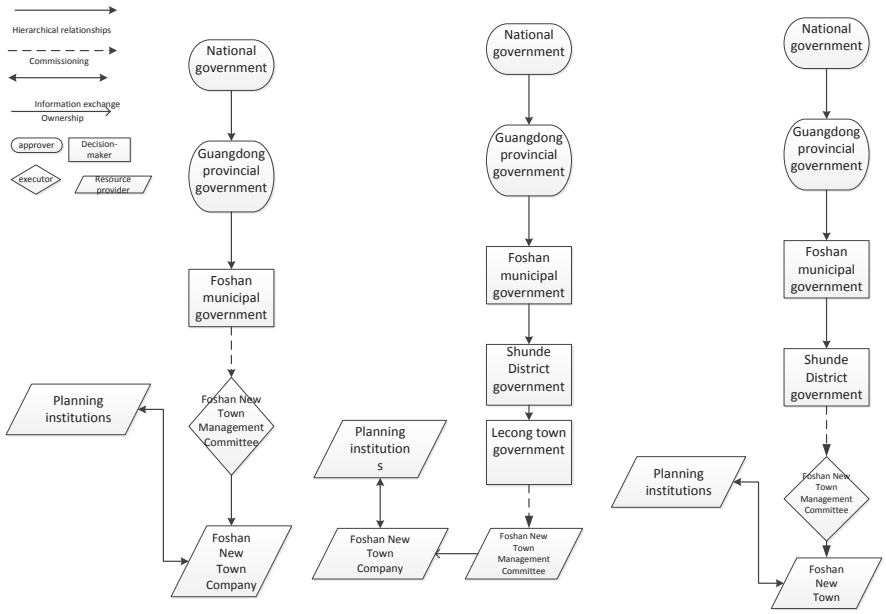


Figure 5. 6 Actor interdependencies in the agenda setting in the ILCC project (a) before 2017; (b) after 2017

Compared with the Shenzhen case, the actors in the agenda setting in Foshan New Town changed more often during its development. In 2007, the Foshan municipal government decided to develop it into a new town and thus established the Foshan New Town Management Committee as the leading organization. From 2007 to 2011, the new town had been transferred to Lecong Town, and the Management Committee was also administered under the Lecong town government (interviewee 9). However, given the limited financial capacity, the leading role of this new town was replaced by the Shunde district government in 2012. The Management Committee was under the Shunde district government then, still responsible for making decisions on the investments for this project. Compared with the town and district governments, the Foshan municipal government has more resolution to develop the new town, such as the efforts to improve the quality of the design and construction in the initial zone.

The leading administration bureau of Foshan New Town has been transferred from the Foshan municipal government to the town and district governments in last decade (see Figure 5.7). The different attitude and financial capacity of these levels of government have resulted in different management styles and cooperation mechanisms with privative actors (interviewee 9). This change led to slow progress and weak implementation.

Currently, with limited outside input and lack of clarity from the Shunde district government, the quality of the extension areas of the new town is questionable. Even in the initial zone, real estate projects have occupied a high percentage of the land, and advanced manufacturing and service industries have not yet been recruited.



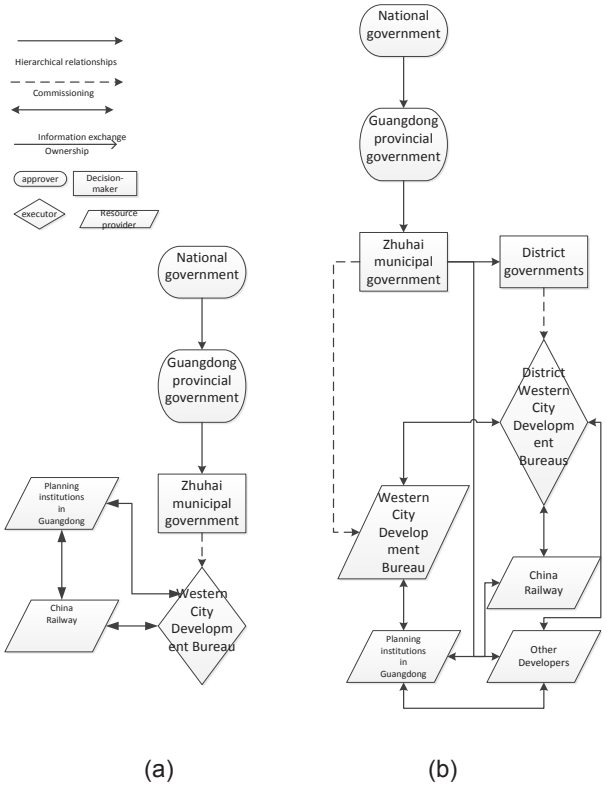
(a) 2003-2007 (b) 2007-2011 (c) 2011-2017

Figure 5. 7 Organizational structure of Foshan New Town (a) 2003-2007; (b) 2007-2011; (c) 2011-2017.

In the Zhuhai case, the Western City Development Bureau steered Zhuhai Western Eco City, which was led by the Vice Mayor. It is an essential strategic project in the Zhuhai municipal government in the beginning (Interviewee 13). The Western City Development Bureau covered seven sub-organizations. In 2016, the number of sub-organizations was reduced to three, including Comprehensive Bureau, Coordinating and Planning Bureau and Monitoring Bureau (Interviewee 16).

At the beginning of this project, the Western City Development Bureau was representing the Zhuhai municipal government (See Figure 5.8). Different from the ILCC Office in Shenzhen, the Western City Development Bureau could organize urban planning, land transfer, and construction through its corresponding functions of these sub bureaus. Several planning intuitions

provided consultancy reports on industrial, environmental and infrastructure development in Zhuhai. Even with this advantage, it still struggled with limited support from the district governments in the land collection, infrastructure provision and business attraction (Interview 14). In 2016, the Western City Development Bureau changed its steering role to a coordinator, which allows more freedom for the district governments to participate. As two district governments also lead the development of different areas in the new town, other planning or consult institutions are also involved in the planning process.



(a) (b)

Figure 5. 8 Organizational structure of Zhuhai Western Eco city (a) before 2017; (b) after 2017.

5.6.2 Actor interdependencies in the land preparation arena

In the land preparation arena, the main actors include approvers (municipal and district governments), financiers (local governments or developers), as well as land providers (villagers).

In the PRD, most villages are wealthy due to the township and village enterprise development. Against the background of fast urbanization, the villages benefit from revenues derived from renting out land to property developers or firms. Therefore, the villagers are hard to satisfy in the resettlement in Shenzhen, Foshan, and Zhuhai. Officials in three cases all mentioned the difficulty of consulting with villagers (Interviewees 1 and 8).

In Foshan and Zhuhai, the villagers were paid compensation for the resettlement (the processes shown in Figures 10 and 11 in Section 6.3). The land collection was troublesome because of complaints from villagers regarding compensation levels. After 2016, the Shenzhen municipal and district government have explored a new land transfer policy. Initially, the villagers kept collectively owned land and could not use it commercially (shown in Figure 5.9 in Section 6.3). The only option was to transfer the land to the government in exchange for compensation, which alters land titles from collectively owned to state-owned. This new land transfer policy promised the villagers 30% of the land for commercial or residential use instead of fixed compensation. The villagers can gain more benefits by in the land revenue increase in the market, which reduces conflicts on land compensation amounts (Interviewee 4).

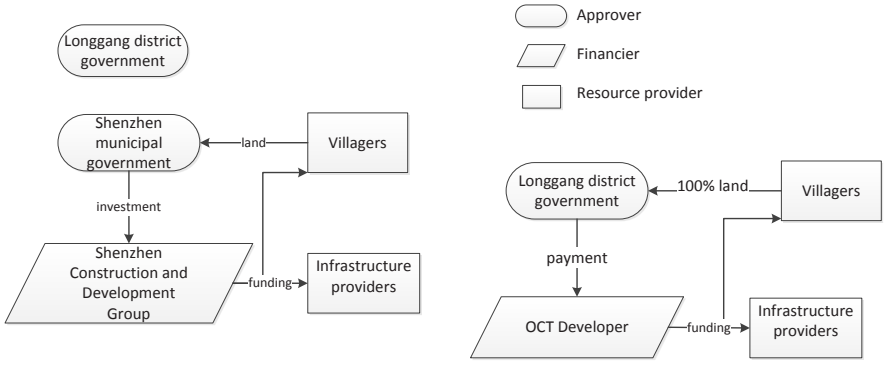
Another actor in the land preparation arena is the district government, who played an essential role in communicating with villagers. As the steering organization is commissioned by the municipal government, district governments are also concerned how they can benefit from new town development, delaying progress in the land preparation arena. In Zhuhai, the new town is located in two districts, and the district governments are responsible for resettlement. The resettlement was much quicker in the areas where district governments can benefit from land development (Interviewee 14), as in Shenzhen.

5.6.3 Actor interdependencies in the infrastructure provision arena

In the land preparation and infrastructure providing arena, the main actors include approvers (municipal and district governments), financiers for the land (local governments or developers), as well as infrastructure providers.

In Shenzhen, the Shenzhen Construction and Development Group (CDG) was chosen by the municipal government as the financier, because it was able as a state-owned financial platform to bear the risks and downplay the importance of profitability. It was established in 2013, thus with limited

experience with infrastructure provision. However, its complicated bidding procedure for infrastructure providers was also proven to be a downside (interviewee 2). Bidding time for infrastructure providers was quite limited and insufficient for international companies to participate. From 2016, fewer opportunities and tasks have been offered to the CDG in ILCC because the Shenzhen municipal government expected private developers with more market experience could provide the boost for the new town (Interviewee 6). Influenced by this tendency, the Longgang district government signed a contract with a state-owned developer, OCT in 2017.



(a) (b)

Figure 5. 9 Actor Interdependency map of Shenzhen ILCC for land preparation and infrastructure provision (a) before 2017; (b) after 2017

In the Foshan Case, Foshan New Town Company was separated from the Management Committee as the financier in this project (See Figure 5.10). It is understandable that it had limited resources related to international companies or other partners. In 2011, the leadership of this new town was transferred from the municipal government to the town and later to the district government. The corresponding ownership change of the new town company also led to paralysing instability. The Foshan New Town Company was effectively a helpless tool controlled by different levels of government, without its own position. It provided compensations to villagers and funding to infrastructure providers by bank loans. When land value increased, the local governments would return New Town Company with the land revenue (Interviewee 8 and 11). The quality of the infrastructure depends crucially on financial input from its owner government.

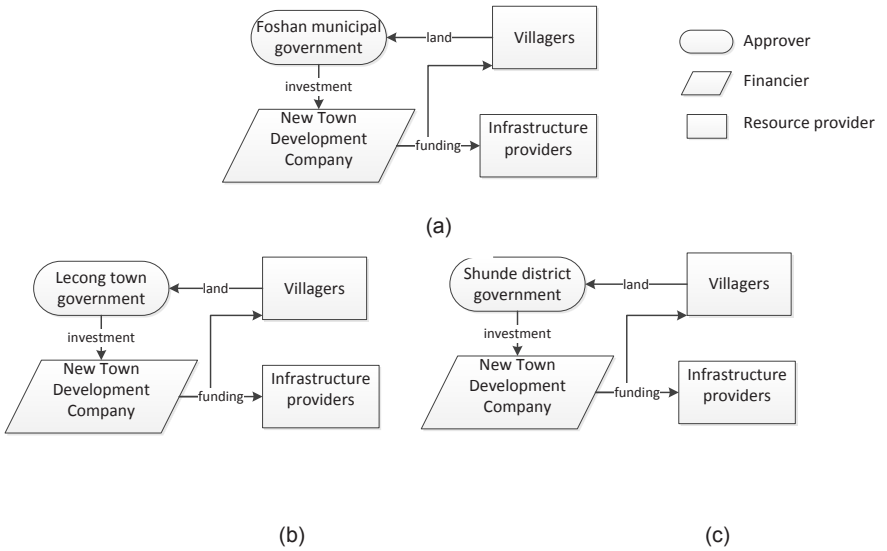


Figure 5. 10 Actor Interdependency map of Foshan New Town Actor Interdependency map of Shenzhen ILCC for land preparation and infrastructure provision (a) 2003-2007; (b) 2007-2011; (c) 2011-2017

Unlike Foshan, a private developer was involved in Zhuhai as the financier, the China Railways Group[4]. Although it is also a state-owned company, it is an independent one not owned by the Zhuhai municipal government (See Figure 5.11). Lack of coordination can be retraced in their contract. The Western City Development Bureau was responsible for the initial design, and China Railways Group was in charge of the detailed implementation of the project. It was clear that China Railway Company paid for the compensation for villagers and infrastructure, and they could benefit 30% from the land revenues. However, decisions on the budget and engineering projects were jointly made by both parties (Interviewee 13), which resulted in conflicts between the demands from Western City Development Bureau and what the China Railways in fact delivered. To reduce construction costs and benefit their group, the construction companies were selected through internal bids inside the China Railways Group (Interviewee 14). The delay and low-quality selection can be seen back in the project, but it was difficult for the Western City Development Bureau to insist on its requirements because the China Railways Group was an equal partner in the decision making. Although they had divided up the tasks, the Western City Development Bureau was not powerful enough to impose its will in a contract.

[4] Separate from the collaboration with China Railways Group, one district government cooperated with a local developer, Huafa Company, to develop one part of the new town, which provided villagers with compensation and funding for infrastructure.

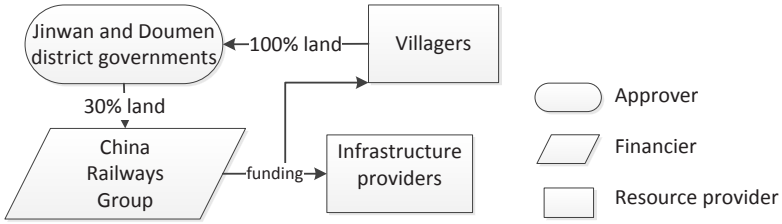


Figure 5. 11 A Interdependency map of Zhuhai New Town for land preparation and infrastructure provision.

5.7 Conclusions

Although eco city, low carbon city and smart city development took off rapidly in China in the past decade, the shortcomings in their implementation have also grown increasingly obvious. In most research this implementation gap is attributed to impasses and complications in realizing overly ambitious visions, unrealistic goals, ineffective policy instruments, and simple reluctance on the part of local governments (Joss and Molella, 2013; Khanna and Fridley, 2011; Yin et al., 2016). Decision-making processes on eco, low carbon and smart city projects as such have however been sadly understudied, resulting in limited understanding of why urbanization processes do not always proceed in the desired direction. Some scholars do offer a general picture of Chinese decision-making and the institutional context in which it occurs, but did not delve into policy-making at the local level (de Jong et al., 2016). In this contribution, three cases in the Pearl River Delta were systematically examined to analyse how specific local network constellations create policy impasses in three important decision-making arenas: agenda setting, land preparation and infrastructure provision. It has laid bare what the effects are of resource exchanges taking place (or not) among actors in these arenas and how differential policy network constellations in the three cities lead to differential project progress by ending impasses through breakthroughs (or not).

Compared with other places, the PRD is famous for its market economy and it benefits from the international communication in history. The new towns in the PRD show more private sector involvement, especially international ones. Moreover, eagerness to import knowledge and technology from private actors, especially ones from ‘developed countries’ is more prominent in the new towns in the PRD, such as Singapore in Guangzhou Knowledge City, and Netherlands in Shenzhen LCC. The variety of involved parties and

the complexity of their interdependencies require a networked approach to policy making rather than a simple command and control attitude. As for the role of the central governments, it appeared less active in the PRD region compared with Northern China, such as funding support (Zhan & de Jong, 2017). The municipal and district governments play a prominent role in funding and leadership in the new town development in PRD. Finally, the active participation of villagers is motivated by sharing benefits from real estate and industrial development, which is also a pilot in China.

The three arenas proved to have different bottlenecks that needed to be overcome. In the agenda setting arena, the foundations for fruitful exchanges among actors in Shenzhen were stronger and impasses either did not emerge much or were overcome more easily than the other two cases. In Foshan and Zhuhai, public sector actors admittedly also disposed of less powerful resources, such as funding, support from higher tiers of government and international players with expertise. In addition, fruitful exchange of resources can be prevented by the absence of district governments where their cooperation for project development, as was real in Zhuhai and Shenzhen. In Foshan, transferring the project from municipal to town and then to an (uninterested) district government still caused further instability.

In the land preparation arena, a potential difficulty was the communication between villagers whose land was required for new town development and local governments and developers who needed this land for new activities. Villagers were rarely eager to move out and change their living conditions. Although this issue emerged in all three cases, Shenzhen seems to have found a solution which directly involved the villagers in the process of new town development and allowed them a financial stake in it. This allowed them to benefit from a portion of the land ownership to be used for commercial use, which ensured legalization of the land titles and profits from land development at later stages.

Funding from developers for infrastructure provision, the third arena, is an indispensable resource in new town development. In many cities, such as Shenzhen and Foshan, local governments establish and own New Town Development Companies. Due to limited experience, these new town companies are often blamed for lacking the required technical and management skills and resources. Private investment is growing increasingly popular in China. Appropriate arrangements can prevent the

problems in the cooperation with private investors, such as explicit responsibilities and benefits in the beginning. Local governments that have the financial clout for this may also compensate developers for extra costs they make and deliver facilities which have higher quality and are environmentally friendly. If local governments do not have these financial resources, as is the case in Zhuhai, very little progress is made.

We believe this contribution has led to greater insight into the local specificities of policy networks in sustainable new town development. Wealthier and stronger cities have more resources to overcome impasses and create breakthroughs because the various types of resources they have make fruitful exchanges easier: this is a fundamental inequality in the Chinese administrative system. We see a significant direction for future research in incorporating these deeper lying institutional aspects in the application of policy network theory in China.

Appendix D

Appendix D Table A 1. Interviewees in Shenzhen, Foshan and Zhuhai new towns (2015 - 2017)

	Their position and organization	The interview topics
1	The Financial Manager in Shenzhen Construction and Development Group (CDG)	The relationship between Shenzhen municipality and stakeholders in ILCC (Shenzhen, 2015); The finance of land and infrastructures in ILCC project (Shenzhen, 2016)
2	The Market Manger in CDG	The relationship between Shenzhen municipality and CGD in the ILCC (Shenzhen, 2016); The operation of CDG in ILCC project (Shenzhen, 2015); and current status of industrial development (Shenzhen, 2017)
3	The Bureau Head of Urban Planning Design Institute of Shenzhen (UPDIS)	The change of ILCC office in the governance of ILCC project (Shenzhen, 2017)
4	The Chief Planner for ILCC in UPDIS	The land transfer mode as a pilot in ILCC (Shenzhen, 2017)
5	The Manager in Design Shenzhen Center (DSC)	The mechanism of ILCC project, including leadership, financial subsidy and organization mode (Shenzhen, 2016)
6	The Deputy Director in ILCC Office in Longgang District	The vision and development strategies of ILCC (Shenzhen, 2015); The involvement of Longgang district in LCC (Shenzhen, 2016)
7	The Chairman in International Low Carbon Research Center	The history of ILCC project (2015 and 2016); The role of public and private actors in ILCC project (Shenzhen, 2016); The progress of ILCC project in the extension zone (Shenzhen, 2017)
8	The Bureau Director in Foshan New Town Company	The cooperation with villagers and funding of new town development (Foshan, 2016)
9	The Manager for Sports and Cultural Complex in Foshan New Town Company	The relationship of new town company with different levels of governments in Foshan (Foshan, 2016)
10	The Researcher in South China University of Technology (SCUT)	The impact of government on New Town (Foshan, 2017)
11	The Professor working on Foshan Urban Plan in SCUT	The History of Foshan New Town (Foshan, 2016)
12	The Chair in Zhuhai Planning bureau	The History of Zhuhai as an Eco city (Zhuhai, 2016)
13	The Chair in Zhuhai Western City Development Bureau	The background of this new town; the relationship between governments and developers in new town (Zhuhai, 2016)
14	The Officer in Zhuhai Western City Development Bureau	The relationship between government and developers (Zhuhai, 2016)
15	The Officer in Construction bureau of Doumen District in Zhuhai	The relationship between Zhuhai municipality, Doumen District and Jinwan District (Zhuhai, 2016)
16	The researcher from Hong Kong City University	The current governance structure of Western Eco City Bureau (Zhuhai, 2017)

Appendix D Table A2. New Towns Located in the Pearl River Delta with National or Provincial Support (Lu et al., 2017)

City (Number of new town located)	New Town Name (from Urban Master Plan)	Support program
Guangzhou (3)	Guangzhou Knowledge City	Pilot for National Smart City (Ministry of Housing and Urban-Rural Development, or MOHURD)
	Guangzhou International Innovation City	National Modern Service Industry International Innovation Park, approved by National Science Ministry
	Mingzhu Bay in Coastal City in Nansha	National Free Trade Zone; Demonstration area for cooperation between Guangdong, Hong Kong and Macau
Shenzhen (3)	Qianhai	National Free Trade Zone; Modern Service Industry Pilot (Ministry of Finance and Commerce)
	Shenzhen International Low Carbon City	Pilot National Low Carbon City (National Development and Reform Committee)
	Guangming Phoenix Town	Pilot National Sponge City (Ministry of Finance, MOHURD, Ministry of Water Resources)
Foshan (1)	Foshan New Town	Pilot China-EU cooperation urbanization demonstration(MOHURD and EU)
Zhuhai(2)	Hengqin	National Free Trade Zone; pilot for National Low Carbon City (National Development and Reform Committee)
	Zhuhai Western Eco City	Pilot China-EU cooperation urbanization demonstration (MOHURD and EU)
Zhongshan (1)	Cuiheng New District	pilot for National Smart City (MOHURD)

Note: the list of Urban Master Plans can be found in the reference. (DG Municipality, 2000; FS Municipality, 2012; GZ Municipality, 2011; HZ Municipality (2006-2020), 2006; JM Municipality, 2011; SZ Municipality, 2010; ZH Municipality, 2001; ZQ Municipality, 2010; ZS Municipality, 2005)

Conclusion and discussions 6

6.1 Introduction

The megacity regions in China have experienced both rapid economic growth and urbanization in the past few last decades. Along with these potentially positive developments, severe problems in soil quality, air protection, water conservation have emerged, causing widespread environmental problems. The Chinese national government has issued several policies to protect the environment while still maintaining high economic growth, such as *Scientific Approach to Development* in 2003 and *Ecological Civilization* in 2007. Furthermore, ecological principles, such as intensive, smart, green, and low-carbon, were further confirmed in urbanization process in the National New Urbanization Plan in 2014 (State Council, 2014). However, the policy scopes are broad and goals are also ambiguous in the corresponding policy documents. In the multi-level governance system in China, provincial, municipal and district governments have prioritized sustainable urbanization and industrial restructuring in their respective policy documents.

This dissertation has studied the reactions from provincial and municipal government through place branding in their planning documents. In the urban planning documents, of region and city brands express their ecological visions and sustainable development targets aligned with national policies. These ecological initiatives underlying place brands are also fleshed out in urban projects on the ground. This dissertation has mapped

the branding practices as they are deployed by the cities in the magecity regions, and further investigated the realization of these proclaimed brands in symbolic urban projects.

In this chapter, section 6.2 will answer each sub research question (in Chapter 1) and give conclusions to answer the central question. Section 6.3 reflects on the limitation of research scope and method. Section 6.4 provides the outlook on future research based on this PhD research.

6.2 Conclusions

This dissertation has answered the central question "How are place brands chosen by provincial and municipal governments? How are place brands aligned with urban projects, given the fact that they are expected to contribute to the ecological initiatives?" These central questions have been answered step by step through four sub-questions, which have been elaborated in previous chapters. Their answers are summarized in the following paragraphs.

Sub-question 1. How do regional profiles emerge and how are they recognized by different levels of governments in China's three main Megacity Regions (MCRs)?

The establishment of regional profiles for the three MCRs tends to go through several stages: (1) the emergence of a regional profile, (2) institutionalization with government promotion, and (3) rising functional significance and declining government involvement. We have examined how regional profiles emerged and became accepted or rejected by tiers of governments in the urban planning documents, of the (Greater) Pearl River Delta, Yangtze River Delta, and Jing-Jin-Ji respectively.

The YRD region has existed the longest and has the least deep divide between the involved provinces and cities regarding wealth and income disparity. Only late comer Anhui province's adherence is still very recent. The PRD is also firmly established; the gap in prosperity is wider than in the YRD and the inclusion of two separate Special Administrative Regions Hong Kong and Macau (of which the former is not always a very eager partner) makes integration harder. JJJ has traditionally been far less strong than the other two but has recently received great emphasis from the national government by putting it firmly on the policy agenda. In this process, stabilization alongside the more fragmented use of the regional profiles can

be seen as a process of multi-level governance in which different government tiers throw in their divergent interests and conceptions.

My findings illustrate that the municipalities higher up in the urban hierarchy rarely mention the regional profile, since they tend to attach less importance to the region they are located in and consider themselves international cities in direct contact and competition with their peers elsewhere, while other ones feel relatively more adherence to and dependency on the region they find themselves in.

Sub-question 2. How have municipalities in the Pearl River Delta branded themselves in their policies after 2000 and what are the possible explanations?

This chapter first attempted to formulate a city branding process by considering local Chinese conditions, including a city's economic and regional position, national policy and peer city pressure. Then, we raised the self-reflection, vertical inspiration, and horizontal imitation propositions to explain brand label changes based on the impact of local conditions.

As for the city label choices in the PRD region after 2000, PRD cities encouraged the tertiary sector and pursued green images between 2000 and 2015 in their labels. The labels have supported advanced manufacturing industries after 2015, which is more consistent with their brand identities. The amount of city labels adopted in the PRD region reached a peak between 2010 to 2015. Afterwards some cities began to embrace one specific label.

The self-reflection proposition has low explanatory value for understanding the change of city labels before 2015, since these labels expressed desired images rather than long-term development strategies or existing economic situations. The vertical inspiration can partially explain the city label choices before 2015 from Chinese national or provincial government policies. However, city labels after 2015 have transferred the focus to advanced manufacturing to avoid over-reliance on the tertiary industry. Since the PRD cities are located near Special Administrative Regions, we observe that mainland cities tend to follow Hong Kong's label choices, but they influence Macau's brand labels. Regarding the interactions between mainland cities, they learned from pioneer cities (Guangzhou and Shenzhen) from 2006 to 2015, but have all emphasized one specific label from 2015 on.

Above all, city labels in the PRD are updated quickly, but choices since 2015 has shown a growing maturity of cities in their branding practices. First, city labels have become more consistent with brand identity. Second, cities have highlighted one label rather than grabbing many labels at the same time. Third, municipal governments imitate their fellow cities less frequently and have identified and their individual strengths. In sum, mature cities emphasize a consistent brand, focus on a single label, and imitate other cities less. Future research can further examine these indicators in other regions in China.

Sub-question 3. In which intergovernmental context can the choices of city brands be explained in the Pearl River Delta region and how are these initiatives aligned with symbolic urban projects?

We further investigated the city branding practices in the Pearl River Delta and found that the municipalities higher in the administrative hierarchy (Hong Kong, Macau, Guangzhou and Shenzhen) have adopted more sophisticated economic brand identities than the others, and the reflection of brand-related targets in their actual projects is also more credible. While China's national plans focus primarily on Hong Kong and Macau, provincial documents place more emphasis on the provincial level cities in the mainland (Shenzhen and Guangzhou). The prefectural level cities attract less attention and have more freedom to adopt any economic city brands they like, but their efforts to live up to their promise are quite limited due to their weak financial position.

At the level of symbolic urban projects, we find city brands chosen at the municipal level, trickle down in the promotion documents of new town projects in a multi-level governance context. Here, we see largely the same patterns back as above. Hong Kong is mostly on a post-materialist path of development and does not engage in new town projects. Macau has one new town project and brands it fully in line with Chinese national wishes. Guangzhou and Shenzhen develop many new town projects and many of them are actively supported by the national government and their branding is well aligned with national and provincial wishes, while the prefectural level cities enact their new town projects mostly by themselves and use their freedom to conveniently replicate city profiles from others they think fit market wishes well. However, since these cities depend for their revenue and GDP growth more on real estate investment than on anything else, their position vis-à-vis developers and (re)locating companies on the negotiation table usually is weak.

My investigation shows that the cities higher up in the administrative hierarchy adopt more sophisticated brands than others. Additionally, the implementation of ecological initiatives in new towns varies according to the local context. The new town projects in the provincial level cities tend to be of higher quality when they can own or gain specific resources, such as funding or national support. As for the prefectural level cities, the real substance in the ecological initiatives in the new town leads to are extremely flimsy due to a lack of financial, information, organization resources.

Sub-question 4. How are the ecological initiatives delivered in the urban projects and how can existing implementation barriers be explained?
As the ecological initiatives underlying city labels are supposed to be implemented in new town projects in the PRD, we examined how concrete policy networks at the local level develop new towns in the Pearl River Delta. Policy network theory was used to map the positions actors have in three different new town projects, in Shenzhen, Foshan, and Zhuhai, respectively. It explains project progress or lack thereof by studying the organizational constellations that structure the interactions among these actors and how the constellations affect the exchange of resources among these actors.

As symbolic urban projects can be seen as the continuation and implementation of brand labels, the support from national and provincial government will increase the credibility of these city development programs. International cooperation or private actor involvement are more prominent in this situation. However, these higher level governments are often not directly involved, and the primary resources are located in the territory of district governments. Although spatial visions come from higher governments, the complexity and uncertainty of the local context for these urban projects requires organizational capacity from district governments. Municipal governments play the leading role in projects and district governments are not participate in the decision-making process at the early stages. In China, low levels of motivation and involvement of district governments can block the urban projects.

My findings show that, in the Chinese urban administrative system, provincial level cities have more resources to pursue these ecological targets in the urban projects, and the project progress is normally faster. In provincial level cities, the actors in new towns have international or national support, more financial capability, which induced fewer impasses and blockades in the policy process. In the prefectural level municipalities, the

impasses can occur due to the weak financial or leadership of municipalities. In some cases, private investors have entered to compensate for financial insolvency, but cooperation problems can be seen in the implicit responsibilities and distribution of benefit between public and private actors.

The central research question: How are place brands chosen by provincial and municipal governments? How are place brands aligned with urban projects, given the fact that they are expected to contribute to the ecological initiatives?

To begin with, I have investigated the brands on the regional and municipal level. The brands of the megacity regions and cities here become mature to some extent in recent years. The YRD has a deeply ingrained regional profile, and that of (G)PRD is also firmly established. Jing-Jin-Ji is less robust than the other two, but received considerable attention from the national level recently. As for city brands, they also matured, as some of them adopted more sophisticated brand identities. Most of the PRD cities also emphasize a consistent brand, focus on a single label, and imitate others less.

In China, place branding is a policy instrument adopted by different tiers of governments, and some brand labels have been adopted to react to environmental problems after 2000. Place branding is a communication policy instrument, and symbolic urban projects can be seen as the continuation and implementation of brand labels. The research on smart-eco new towns in this regions shows the impasses and breakthroughs in project progress in both provincial and prefectural level cities. The implementation of urban projects in the Pearl River Delta region in China demonstrates that barriers exist in resource exchanges to promote the environmental goals in place branding. Other policy instruments have to be adopted and combined to implement the ecological initiatives underlying place brands.

In new town development, specific resources are necessary for the implementation process, such as land, funding, knowledge, and information. One of the challenges of smart-eco new towns is the land preparation process. Municipal and district governments need to negotiate with villagers, which requires some policy instruments to make agreements on land compensation between governments and residents. Additionally, funding is indispensable resources for infrastructure development in new town projects, and its demand varies in different cities. Prefectural-level cities are less wealthy, and government investment is limited. It is necessary to design

policy instruments to attract private investments, and also clarify specific responsibilities and benefits between public and private actors at the outset. Moreover, information and knowledge input is also crutial for the learning and lesson drawing among smart-eco new town projects. The prefectural level cities face the dillima that they demands the input from other partners, but they are less attractive due to their limited resources. The cooperation network or platforms can be established between governments, non-governmental organization or enterprise in these cities to reallocate the resources.

My research contribution is to illustrate the maturity of regional and city brands in Chinese cities in recent years, and how the national environmental policies are picked up on the municipal level through these brand labels. However, this dissertation also shows branding behaviour does not necessarily imply changes on the urban project level. The changes in smart-eco new town development require the exchange of financial, information, knowledge and other resources among actors to achieve the ecological targets. Therefore, a variety of policy instruments should be designed to facilitate these crucial resources exchange between public and private, commercial and non-commercial actors, to reallocate the resources among cities in different hierarchy positions.

6.3 Research Limitations

This research has several limitations. First, the scope of this research is to place branding practices in the megacity regions. The features of branding practices and urban development in these regions may not represent the overall situation in China. The cities in these regions are in more advanced economic development stages compared with the medium and small cities in other regions in China. The industrial cities or the ones with resource extraction as their main industry also demand academic attention since they have repositioned themselves in the last decades to change their images.

Second, due to time limitations, we cannot collect more literature or conduct more interviews to understand the economic and social contexts to interpret the texts. I agree with Fairclough (1995) that researchers need to investigate the relationship between text form, function and writing style with the broader society it is embedded in. Additionally, as this research is written in English, some variations in the semantic meaning of some city labels may occur in the translation process.

Additionally, this research only investigated the implementation of place branding in symbolic urban projects, such as new town projects in China. Other urban projects and activities also demand research to understand the place branding implementation, such as urban megaprojects, or international cultural or sports events. Finally, the influence of the place branding upon the public consciousness of city images is an important research topic, but could not be included in this research due to time limitation.

6.4 Research Outlook

Based on the above limitations, this section provides several recommendations for some future work. The first is to explore the change of urban governance reflected in the place branding practices from a territorial perspective. The organizational mechanism for establishing place branding is bounded in different territorial, political and administrative scales, such as regions and cities. Different government tiers throw their own divergent interests and conceptions to place brands. The acceptance of regional brands shows the mutual trust and cooperation possibilities among governments. For instance, the Jing-Jin-Ji in China is the easiest to accept for different tiers of governments due to the potential economic benefits for cities in this region. Less recognition of regional brands by different government tiers can also result from the resistance against regional integration process, which is imposed in a top-down manner in China. For example, the Greater Pearl River Delta was emphasized by the national government, but became less important for Hong Kong Special Administrative Region, since it is mainly concerned with its own issues under the different political system from the mainland. However, the attitudes from Special Administrative regions towards the Greater Bay Area development has also changed recently because Hong Kong realized the necessity to cooperate with the mainland. The reshaping and repositioning of place brands illustrate the urban governance change of cities within the regional development. The research question can be how the place branding practices reflect the (changing) character of urban governance in China?

Second, further research can examine how policy instruments can facilitate resource exchanges among actors to implement the ecological initiatives underlying place brands. As a communication instrument, place brands can shape the same vision and establish the common ground among stakeholders. The implementation of these place brands demands other policy instruments to facilitate resources exchange among relevant actors. These instruments can be legal, financial, informational, physical and

organizational (Hood & Margetts, 2007). In the selection and combination of policy instruments, governments should also consider the stakeholder management, targeted areas, and operation scales. As for the agenda setting, it is crucial to align place brands with national policies, which can improve the credibility place brands in the Chinese context. Then, promoting place brands through news or social media can attract the attention and involvement from relevant stakeholders. Additionally, financial policies, such as subsidies should be arranged to in the agenda setting attract the main stakeholders, such as residents, tourists or visitors. As for targeted areas, when the strategies are unveiled by the municipal government, it is necessary to motivate and invite district governments to participate in an earlier stage to avoid the blockage from the local level. The organizational capability of district governments is necessary in the land preparation and infrastructure development. As for the operation scales, the governments need to consider the operational complexity, budget limitation, targeting precision to choose certain instruments. The higher the precision of policy instruments, the more complex and costly they will to be adopted (Peters, 1989). The selection and combination of policy instruments should also consider the trade-off among these attributes. Above all, a systematic analysis of existing policy arrangements to apply place branding in specific contexts contributes to the understanding of place branding in the public policy field.

Summary

Introduction

In the past four decades, China has experienced unprecedented rates of urban growth. This remarkable urbanization has also created challenges for China's environment. To protect the environment, the Chinese national government has issued several policies while still maintaining high economic growth, such as *Scientific Approach to Development* in 2003 and *Ecological Civilization* in 2007. Furthermore, ecological principles, such as intensive, smart, green, and low-carbon, were further confirmed in the urbanization process in the National New Urbanization Plan in 2014 (State Council, 2014). However, the policy scopes are broad, and goals are also ambiguous in the corresponding policy documents.

Facing devastating environmental problems, Chinese regions and cities respond by trying to attract economic activity with higher economic value and lower environmental cost. The proliferation of environmental concerns in place brands reveals influence from national government. These place identities and labels should go beyond mere intentions. The regional and municipal governments have an obligation to promote sustainable development initiatives listed in their policy plans. In the process of urban expansion, new towns are archetypes of urban projects to flesh out these sustainable development initiatives in China.

This dissertation studies regional and city branding in China from two angles, i.e., place branding and the intergovernmental context. First, place branding process focuses on the development stages of regional and city brands, which uncovers brand identities and labels in planning documents, as well as city images created around urban projects. Second, the intergovernmental context further addresses the interactions among different levels of governments in the decision-making regarding brand identities and labels, as well as private actors in urban projects.

These two dimensions complement each other to understand regional and city branding in China. The place branding process aspect aims to track the different stages in place branding, while the intergovernmental context dimension explains the interactions among governmental and non-governmental actors in this place branding process. Together they form a complementary theoretical framework to understand place branding practices in China.

Thus, the main research questions are "**How place brands are chosen by provincial and municipal governments? How are place brands aligned with urban projects, given the fact that they are expected to contribute to the ecological initiatives?"**

Specifically, four sub-questions are addressed for a deeper understanding of place branding and its alignment with urban projects in China.
1. How do regional profiles emerge and how are they recognized by different levels of governments in China's three main Megacity Regions (MCRs)?
2. How have municipalities in the Pearl River Delta branded after 2000 and what are possible explanations?
3. In which intergovernmental context can the choices of city brands be explained in the Pearl River Delta region and how are these initiatives aligned with symbolic urban projects?
4. How are the ecological initiatives delivered in urban projects and how can existing implementation barriers be explained?

The contribution of this research is to study place branding as a policy instrument on the provincial and municipal levels in response to national policies. Specifically, this research studied the interactions between different tiers of governments in establishing brand identities and choosing brand labels by multi-level government perspective. Additionally, I also investigated the implementation of the ecological initiatives underlying city labels in symbolic urban projects based on policy network theory.

Empirical research
Chapter 2 and 3 have investigated place brands on the regional and municipal level. Chapter 2 begins with the investigation of the establishment of regional profiles in megacity regions in China by analysing the interactions between national, provincial and municipal governments. The brands of megacity regions and their cities have matured to some extent in recent years in China. The YRD has a deeply ingrained regional profile, and that of (G)PRD is also firmly established. Jing-Jin-Ji is less strong than the other two, but received significant attention from the national level recently. Then, Chapter 3 demonstrates the change of city labels after 2000, and three propositions are raised to explain the choice for brand labels. Municipal governments had tended to follow policies formulated by higher governments and practices of pioneer cities until 2015, but have adopted their unique brand labels in recent years. Most of the PRD cities now

emphasize a consistent brand, focus on a single label, and imitate others less.

Chapter 4 and 5 have investigated the alignment of city brands with symbolic urban projects on the ground. Chapter 4 explored city brand identities and labels in the Pearl River Delta cities and their impact on symbolic urban projects from a multi-level governance perspective. The cities higher up in the administrative hierarchy adopt more sophisticated brands than others, and their new town projects also tend to be of higher quality when they can own or gain resources, such as funding or national support. Chapter 5 further highlight implementation barriers for undertaken with high-profile city branding in urban projects in the Pearl River Delta. It shows the impasses and breakthroughs that result from resources exchanges among actors. The credibility of these city brands and the quality of the new town projects are highly impacted by the engagement of actors and the exchange of crucial resources among actors.

In conclusion, place branding is adopted by different tiers of governments in China, and some brand labels have been adopted to react to environmental problems after 2000. My research contribution is to illustrate the maturity of regional and city brands in Chinese cities in recent years, and how the national environmental policies are picked up on the municipal level through these brand labels. However, this dissertation also shows branding behaviour do not necessarily imply changes on the urban project level also occur. The pursuit of the ecological initiatives in new town projects requires the exchange of resources among relevant actors. To put these place brands into practice, provincial and prefectural level cities have to align different policy instruments with their brands considering their local context. Therefore, a variety of policy instruments should be designed to facilitate the resources exchange between public and private, commercial and non-commercial actors, to reallocate the resources in the Chinese urban hierarchy.

Research limitation and outlook

This research has several limitations. First, the research scope is place branding practices in megacity regions, which cannot represent the overall situation in China. Second, due to time limitations, I cannot collect more literature or conduct more interviews to understand the economic and social contexts to interpret the texts. Finally, this research only investigated the

implementation of place branding in symbolic urban projects, which do not cover other projects and activities.

Based on these limitations, I also provide several recommendations for future research. The first is to explore the change of urban governance reflected from the place branding practices from a territorial perspective. The organizational mechanism for establishing place branding is bounded in different territory, political and administrate scales, such as regions and cities. The recognition or resistance of regional brands can show the change of urban governance among different government tiers in the regional integration process. The reshaping and repositioning of city brands illustrate the urban governance change of cities within the regional development. The research question can be how the place branding practices reflect the (changing) character of urban governance in China?

In the place branding process, brand labels need to be combined with other policy tools based on the resources needed. In the selection and combination of policy instruments, governments should also seek the support and involvement from higher level governments, residents, and investors. It is also necessary to invite district governments to participate in to avoid the blockage from the local level. Finally, the selection and combination of policy instruments should also consider the trade-off among the complexity of operation, costliness, precision of targeting. The higher the precision of policy instruments, the more complicated and costly they will be (Peters, 1989). A systematic analysis of existing policy arrangements to apply place branding in specific contexts contributes to the understanding of place branding in the public policy field.

Samenvatting

Inleiding

In de afgelopen veertig jaar heeft China een ongekende groei van stedelijke uitbreiding meegemaakt. De verstedelijking heeft ook nieuwe uitdagingen gecreëerd, en met name voor het milieu. Om het milieu beter te beschermen en tegelijkertijd China's snelle economische groei te waarborgen, heeft de Chinese centrale overheid verschillende beleidsmaatregelen uitgevaardigd, zoals de *Wetenschappelijke Aanpak van Ontwikkeling* uit 2003 en de *Ecologische Beschaving* uit 2007. Verder zijn ecologische principes – zoals eco, groen, en koolstofarm – aangehaald in het urbanisatieproces dat is beschreven in het *Nieuwe Nationale Urbanisatie Plan* uit 2014 (State Council, 2014). De strekking van het beleid is echter breed, en doelstellingen in de bijbehorende beleidsdocumenten zijn dubbelzinnig.

Chinese regio's en steden, geconfronteerd met verwoestende milieuproblematiek, hebben getracht economische activiteiten aan te trekken die zijn gekenmerkt door een hogere economische waarde en lagere milieukosten. De zorgen over milieuproblematiek die naar voren komen in de *place branding* laat de invloed van de nationale overheid zien. Deze identiteiten en labels van plaats moeten echter verder gaan dan louter intenties. De regionale en gemeentelijke overheden zijn verplicht om de initiatieven voor duurzame ontwikkeling – die zijn opgenomen in beleidsplannen – te verwerkelijken. In het proces van stadsuitbreiding vormen de *new towns* archetypes van stedelijke projecten om China's initiatieven van duurzame ontwikkeling verder in te vullen.

Dit proefschrift benadert de *branding* van China's regio's en steden vanuit twee invalshoeken, namelijk *place branding* en de intergouvernementele context. De invalshoek van *place branding* heeft een focus op de ontwikkelingsstadia van regionale en stedelijke *brands*, die de identiteiten en labels laat zien in planningsdocumenten, evenals stadsbeelden rond stedelijke projecten. De intergouvernementele context gaat in op de interactie tussen verschillende bestuursniveaus en private actoren in de besluitvorming en implementatie van *brand* identiteiten en etiketten.

Deze twee invalshoeken vullen elkaar aan om tot een beter beeld te komen van de *branding* van Chinese regio's en steden. Het proces van *place branding* is gericht op het volgen van de verschillende stadia, terwijl de intergouvernementele context de interacties tussen overheids- en niet-gouvernementele actoren in het *place branding* proces verklaart. Samen

vormen ze een aanvullend theoretisch kader om de Chinese praktijken van *place branding* te begrijpen.

In overeenstemming met deze overwegingen zijn de volgende hoofdonderzoeksvragen opgesteld: "Hoe worden *place brands* gekozen door provinciale en gemeentelijke overheden? En hoe staan deze afgestemd op stedelijke projecten, gezien het feit dat ze naar verwachting bijdragen aan ecologische initiatieven?"

Om de hoofdonderzoeksvragen beter te begrijpen zijn de volgende vier deelvragen opgesteld:
1. Hoe komen regionale profielen naar voren en hoe worden deze herkend door verschillende overheidslagen in China's drie belangrijkste *Megacity Regions* (MCR's)?
2. Welke vormen van *branding* hebben gemeentelijke besturen in de Parelrivierdelta na 2000 gekozen en wat zijn de mogelijke verklaringen hiervoor?
3. In welke intergouvernementele context in de Parelrivier Regio kunnen de keuzes van *city branding* worden uitgelegd, en hoe staan deze initiatieven afgestemd op de symbolische stedelijke projecten?
4. Hoe worden de ecologische initiatieven in stedelijke projecten afgegeven en hoe kunnen de bestaande belemmeringen voor implementatie worden verklaard?

De belangrijkste bijdrage van dit onderzoek is dat *place branding* wordt bestudeerd als een beleidsinstrument op zowel provinciaal als gemeentelijk niveau, en wordt benaderd als een reactie op nationaal beleid. Daarnaast illustreert dit onderzoek de ontwikkeling van *brands* van Chinese regio's en steden in de afgelopen jaren, en toont aan hoe het nationale milieubeleid op gemeentelijk niveau via de *brand labels* wordt aangehaald. Dit proefschrift laat echter ook zien dat het gedrag van *branding* niet noodzakelijkerwijs impliceert dat er ook veranderingen op het niveau van het stedelijke project optreden. Het nastreven van ecologische initiatieven in *new town* projecten vereist financiële, informatie, en fysieke middelen, waarvoor de uitwisseling tussen actoren in het implementatieproces noodzakelijk is. Dit onderzoek toont ook aan dat de *multi-level governance* theorie kan worden toegepast om de interacties tussen verschillende bestuursniveaus te bestuderen bij het vaststellen van *brand* identiteiten en labels in China. Dit toont aan dat de *multi-level governance* theorie in de Chinese context kan worden gebruikt door de vooraf bepaalde schalen uit de Westerse context te vervangen door

endemische overheidslagen. Daarnaast is de *policy network* theorie ook een bruikbaar analytisch hulpmiddel om de interacties tussen verschillende overheidslagen en niet-gouvernementele actoren in de stedelijke projecten verder te onderzoeken.

De empirische studies bieden meer positief bewijs op de vraag of Westers georiënteerde beleidstheorieën kunnen worden toegepast in de Chinese context (Hensengerth, 2015; Zheng et al., 2010). Tot slot, om de *place brands* in de praktijk te brengen moeten steden op provincie of prefectuur niveau de verschillende beleidsinstrumenten afstemmen op hun *brands*, rekening houdend met de lokale context. Daarom moet een verscheidenheid aan beleidsinstrumenten worden ontworpen om de uitwisseling van middelen tussen openbare en particuliere, commerciële en niet-commerciële actoren te bevorderen, om zo de middelen in de Chinese stedelijke hiërarchie opnieuw toe te wijzen.

Empirisch onderzoek
Hoofdstuk twee en drie kijken naar de *place brands* op regionaal en gemeentelijk niveau. Hoofdstuk twee neemt de vaststelling van regionale profielen in *megacity*-regio's onder de loep, en schetst een analyse van de interacties tussen nationale, provinciale, en gemeentelijke overheden. De *brands* van *megacity* regio's en bijbehorende steden hebben in de afgelopen jaren een meer volwassen karakter gekregen. De Yangtzerivierdelta heeft een diep geworteld regionaal profiel, en het profiel van de (Groter) Parelrivierdelta is ook stevig gevestigd. Het profiel van Jing-Jin-Ji is minder sterk, maar kreeg onlangs veel aandacht van het nationale bestuur. Hoofdstuk drie toont de verandering van *city brandlabels* na 2000, waar drie proposities naar voren worden gebracht om de keuze voor de labels uit te leggen. Gemeentelijke overheden hadden tot 2015 de neiging om het beleid te volgen dat werd geformuleerd door hogere overheden en de praktijken van pionier steden, maar in de afgelopen jaren is de nadruk komen te liggen op een eigen en unieke *brandlabel*. De meeste steden binnen de Parelrivierdelta benadrukken nu een *brand* dat consistent is, richten zich op één label, en imiteren minder.

Hoofdstuk vier en vijf onderzoeken de afstemming van *city brands* op symbolische stedelijke projecten op lokaal niveau. Hoofdstuk vier bestudeert de identiteiten en labels van *city branding* in de steden binnen de Parelrivierdelta, en de impact hiervan op symbolische stedelijke projecten gezien vanuit het *multi-level governance* perspectief. De resultaten laten

zien dat steden die hoger in de bestuurs hiërarchie staan meer geraffineerde *brands* gebruiken dan andere steden, terwijl de *new town* projecten doorgaans van hogere kwaliteit wanneer ze over middelen beschikken zoals financiering of nationale steun. Hoofdstuk vijf belicht de belemmeringen van prominente *city branding* in stedelijke projecten binnen de Parelrivierdelta, door het aantonen van de impasses en doorbraken van het implementatieproces. De geloofwaardigheid van deze *city brands* en de kwaliteit van de *new town* projecten worden sterk beïnvloed door de betrokkenheid van actoren en de uitwisseling van cruciale middelen tussen actoren.

Beperkingen en vooruitzichten
Dit onderzoek heeft verschillende beperkingen. Ten eerste is de lens van dit onderzoek gelimiteerd tot de *place branding* van *megacity* regio's, wat niet de algehele situatie in China kan weergeven. Ten tweede kon ik vanwege gebrek aan tijd niet meer literatuur verzamelen of meer interviews uitvoeren om de teksten te interpreteren en de socio economische context beter te begrijpen. Ten slotte belicht deze studie alleen de implementatie van *place branding* in symbolische stedelijke projecten, die verder geen betrekking hebben op andere projecten en activiteiten.

Op basis van deze beperkingen geef ik een aantal aanbevelingen voor toekomstig onderzoek. De eerste aanbeveling is dat het proces van regionale integratie kan worden verklaard door *place branding* vanuit een territoriaal perspectief. Het organisatiemechanisme voor het vaststellen van *place branding* beperkt zich tot verschillende territoriale, politieke en administratieve schalen, zoals regio's en steden. De verschuiving in machtsrelaties tussen verschillende overheidslagen in het proces regionale integratie kunnen beter worden begrepen door te kijken naar de erkenning of juist de weerstand van regionale *brands*. Tevens laat de herpositionering of *rebranding* van steden ook haar houding en perceptie tegenover regionale integratie zien. Toekomstig onderzoek kan daarom verder ingaan op de vraag hoe *place branding* het proces van regionale integratie beter kan verklaren.

In het process van *place branding* moeten de *brand labels* worden gecombineerd met andere beleidsinstrumenten op basis van de benodigde middelen. Bij het selecteren en combineren van beleidsinstrumenten moeten overheden ook de steun en betrokkenheid zoeken van autoriteiten op hoger niveau, inwoners, en investeerders. Het is ook noodzakelijk om districts

overheden een actieve rol te geven ter voorkoming van hindering in het implementatieproces. Ten slotte moet bij het selectern en combineren van beleidsinstrumenten ook worden nagedacht over de wisselwerking tussen de complexiteit van implementatie, de beschikbaarheid van het budget, en de gerichtheid. Een hogere gerichtheid van beleidsinstrumenten gaan vaak gepaard met hogere complexiteit en kosten (Peters, 1989). Een systematische analyse van bestaande beleidsarrangementen om *place branding* in specifieke contexten toe te passen draagt bij om de *place branding* van overheidsbeleid beter te begrijpen.

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Yang, Q., **Lu, H**., Scoglio, C., de Jong, M., & Gruenbacher, D. (2018). A network-based approach to model the development of city branding in China. Computers, Environment and Urban Systems, 72, 161-176.

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Book chapter

Haiyan Lu, Martin de Jong, Yan Jia, Drawing Lessons From Eco City to Eco Port Development In China, a Policy Perspective, in Wim Ravesteijn (eds.):*Port Construction and Expansion along the New Maritime Silk Road: Socio-technological Challenges, Responsible Innovation and Inclusive Development,* WIT press, forthcoming.

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Curriculum Vitae

Haiyan Lu was born on 29 January 1989 in Yichun, Heilongjiang Province, China.She obtained her bachelor degree in English and Accounting at Harbin Institute of University in 2012. In the same year, she was admitted to the master program of accounting at Harbin Institute of Technology. In 2014, she obtained her master degree.

In November 2014, Haiyan started her PhD research at the Organization and Governance Section, Delft University of Technology. Her research focused on how the regions and cities in China have reacted to environmental deterioration from their policies and corresponding urban projects in a multi-level governance system. It explains how the ecological initiatives are adopted in the regional and city brands, and how these eco-smart initiatives further impact the development of new town projects in the Pearl River Delta. During the research, she attended a plenty of international conferences and received positive feedbacks about her presentations. Haiyan also published five peer-reviewed journal articles in Journal of Cleaner Production, Computers, Environment and Urban Systems and Sustainability.

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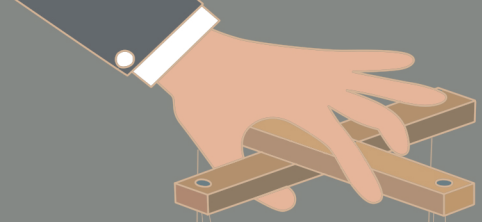

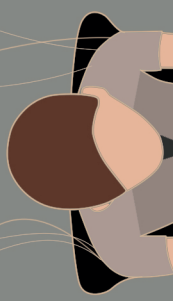

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