



# TRANS-URBAN-EU-CHINA

Transition towards urban sustainability through socially integrative cities in the EU and in China

Deliverable

**D 3.1 Report on the current framework and situation of urban renewal, urban expansion as well as land management and banking (incl. land administration) in China and Europe**

WP 3 Land Use Planning and Land Management



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## EXECUTIVE SUMMARY

During the past decades, Chinese cities have grown in an unprecedented way. While the urbanisation level was less than 20 % in 1978, in 2011 the urban population exceeded the 50 % threshold, and it is expected to reach more than 80 % in 2050. Rapid urbanisation has been closely linked with fast economic growth and the relaxation of rural-urban migration regulations in order to meet employment demands in major cities. However, the rather strict residents' registration system ("*Hukou*") dating back from the 1950s through which urban and rural residents were clearly separated, has made it difficult for migrants, including "young talent", to become "urban citizens" and to enjoy the privileges of the place where they live, such as education and health. This causes a number of problems regarding social integration and urban sustainability.

Rapid urbanisation also induced a very fast spatial expansion of cities, which has been mainly based on massive land conversion stimulated by fiscal reasons. As land lease is one of the principal sources of income for local authorities, land in urban fringes was rezoned, and land use rights were sold to real estate developers at high rates. In many cases, this has resulted in faster land-led rather than population induced urbanisation despite high rural to urban migration rates. In a number of cities, large "*ghost cities*" with high vacancy rates have emerged. Parallel to urban expansion, many older urban districts are threatened to lose or have lost their vitality and have turned into socially disintegrated and economically distressed areas in need of upgrading. However, in the past, urban renewal was often characterised by massive demolition of old neighbourhoods and relocation their inhabitants. Only recently, there have been strong efforts to search for new approaches fostering in-situ urban renewal and regeneration.

On this background, this report (Deliverable 3.1 of the TRANS-URBAN-EU-CHINA project) deals with the mentioned three major issues, i.e. urban renewal, urban expansion and land management, and looks into their role in creating socially integrative cities and contributing to sustainable urbanisation in China. Based on literature and official documents, it describes and explains current challenges of cities in China, and it explores potentially useful practices in Europe. With more detail, we first provide an overview of the current frameworks for urban policies and programmes in the European Union and in China. Second, we look into challenges regarding urban renewal, urban expansion and land management in cities and their fringes in China, and we identify good practice experience in Europe, which may be useful to nurture the discussion about appropriate solutions to overcome the described challenges. Third, we link urban challenges in China and practical experience in Europe with the concept of the socially integrative city, and we point out how we intend to explore the urban transformative capacity of cities in China towards sustainable urbanisation during the further course of the TRANS-URBAN-EU-CHINA project.

We define the "socially integrative city" here as socially mixed, cohesive, liveable and vibrant. Compactness, functional mix, and intra-urban connectivity play an important role. Environmental quality, the quality of public spaces and the quality of life contribute to the well-being of the population. Strengthening a sense of community and fostering a sense of place as well as preserving cultural heritage shape the city's in- and outward-bound image. Investments into neighbourhood improvement, service delivery, infrastructure and the quality of housing are important supportive measures. Empowerment and participation of the population as well as social capital are indispensable.

We explore twelve characteristics of the socially integrative city regarding urban renewal and urban expansion. We implicitly consider land management as a crosscutting issue, which is closely linked to both. The twelve characteristics of the socially integrative city can be grouped into five topics: collaborative urban planning and design, urban environment and living conditions, local economy and labour market, socio-cultural development and social capital, and institutional development and urban finance. Our analysis shows that cities in China face many challenges regarding all of these topics, and that European and Chinese forerunner cities regarding sustainable urbanisation can provide vast experience on how to best deal with challenges to build socially integrative cities in the future.

Three aspects become especially important here:

First, the National Government in China has initiated a fundamental transformation process concerning sustainable urbanisation, and has put in place relevant policies, strategies and programmes. It appears to be at least as far reaching as comparable approaches in Europe. However, whereas programmes in Europe are strongly influenced by national and local initiatives and experiences, i.e. bottom-up initiatives, the Chinese transformation approach looks more top-down, and it still has to trigger down to the provincial and local levels.

Second, there are a number of very promising local pilot projects in China regarding ways how to best promote sustainable urbanisation and socially integrative urban development. The discussion coming out of these projects can be well enriched by the corresponding experiences from European countries and cities, e.g., regarding the development of sustainability oriented policies and strategies, the design of integrated urban development approaches, and the use of related planning and implementation tools, which promote the socially integrative city.

Third, it becomes clear that the central government initiatives and the local experiences in China can become fertile grounds for developing a productive interplay between top-down policy guidelines and bottom-up experience. They are based on an understanding of “transition towards urban sustainability” as a systemic (paradigmatic) change of how urban affairs are handled in an urban-rural system by the respective stakeholders on the different politico-administrative levels, including a new understanding of the needs of priorities of future urban development within the society. TRANS-URBAN-EU-CHINA will nurture the related discussion.

On this basis, we will especially look into the urban transformative capacity of cities in Europe and China during the further course of the project. This includes the analysis of agency components (inclusive and multi-form urban governance, transformative leadership, empowerment communities of practice), capacity development processes (system awareness, sustainability foresight, disruptive communities of practice experiments, embedding of social and technological innovation), learning and reflexivity (in terms of translation, monitor and revision of processes), and the cooperation between institutions (working across human agency levels, and across tiers and scales). Working in two urban living labs in Jingdezhen and Wuhan and with a number of reference cities in Europe and China, we will explore ways how to accelerate the integration of top-down and bottom-up approaches and to speed-up transition processes on the local level.



## 1 INTRODUCTION

*“Transition towards urban sustainability through socially integrative cities in the EU and in China (TRANS-URBAN-EU-CHINA)”* is the name of the EU funded R&I action (Grant Agreement Number: 770141) that aims to help policy makers, urban authorities, real estate developers, public service providers and citizens in China to create socially integrative cities in an environmentally friendly and financially viable way. It also aims at helping urban stakeholders in Europe to reflect and eventually reconsider their approaches towards sustainable urbanisation.

Within this framework, land use planning and land management in European countries and in China form a key area of research. They shape cities, and they are decisive for future urban development and related sustainability issues. These issues are contained in work package (WP) 3 of the TRANS-URBAN-EU-CHINA project description.

As a whole, the WP has three aims: First, it aims at promoting a discussion about alternative solutions regarding sustainable urban development in new urban expansion and traditional urban areas in need of urban renewal in Chinese cities under the given legal, institutional, demographic and social framework conditions. Second, the WP wants to provide evidence-based and tested knowledge about the feasibility and acceptance of measures to accelerate urban transition and possible transition pathways towards sustainable urbanisation related to land use planning and land management in Chinese cities for further decision-making in China. Third, it aims at nurturing the discussion in Europe about future forms of land use planning and land management, e.g. in the framework of JPI Urban Europe through UERA.

On this background, this report (Deliverable 3.1) first provides an overview of the current frameworks for urban policies and programmes in the European Union and in China. Second, it deals with the situation of (a) urban renewal, (b) urban expansion as well as (c) land management and land banking in cities and their fringes in Europe and in China. According to the project description, we have considered the following aspects:

(a) Regarding urban renewal, we look at challenges in China, and we screen experiences both in Europe, which could help to find appropriate solutions for overcoming the existing challenges. We base our analysis on a number of sources, mainly the available literature as well as research results of the authors and the institutions they work with.

More specifically, we cover a range of issues, such as

- discussing the different comprehensions of approaches in relation to the relevance of land use planning,
- identifying drivers and characteristics of urban renewal approaches,
- looking at stakeholders and their interests,
- looking at major urban policy challenges and strategies as well as projects and measures regarding urban renewal in China and Europe,
- drawing conclusions and laying out further steps regarding social integration and urban transformative capacity.

(b) Regarding urban expansion, we elaborate an overview of planning and land development issues, which drive the extension of existing urban areas. We also show and analyse major trends towards

urban expansion and their driving forces. We also scrutinize approaches for enhancing social integration, connectivity, environmental quality and quality of life in expansion areas at the fringes of cities in Europe and in China.

More specifically, issues to be raised include

- strengths and weaknesses of urban expansion areas and identify major challenges regarding sprawl and compactness, connectivity and quality of life in new peri-urban expansion areas of Chinese cities, e.g., by looking at drivers of urban growth and rural-urban migration in China, and at the institutional, land use planning, land development and fiscal framework for urban expansion in Chinese cities,
- an overview of policies and approaches, including fiscal instruments, for improving the functional mix, social integration and quality of life in Chinese and European cities, e.g., by screening relevant policy documents, and providing some information related to good practice examples from Europe,
- drawing conclusions concerning the impact of urban expansion areas on social integration.

(c) Regarding land management, we establish an information pool of good practices from Europe regarding solutions for land banking, land administration and changes of LUR values, which are conducive to a more sustainable urbanisation. Furthermore, we identify strengths and weaknesses of the existing land banking and land administration systems in China, and we look at current trends. Finally, we derive potential land banking tools related to respective land administration systems.

More specifically, we look at

- strengths and weaknesses of the current land banking system and land administration in China, e.g., on the basis of legislative texts, strategic documents, and literature review, and assessment of land administration systems,
- good practices from Europe regarding land banking, e.g., based on documents analysis and literature review,
- drawing conclusions concerning the impact of land management and land banking for urban renewal and urban expansion.

On this background, this publication contains major findings of research activities conducted during the first year of research. It is structured as follows: In Chapter 2 the urban policy frameworks in Europe and China are presented. A comparison shows a number of differences but also some similarities between programmes and policies in China and in the EU. Chapter 3 deals in detail with the three major research issues, urban renewal, urban expansion and land administration and land banking. In Chapter 4, we especially highlight the relation between urban renewal and urban expansion (and implicitly land management) on the one hand and the socially integrated city on the other. Finally, chapter 5 points out further steps, especially regarding linkage between the identified possibilities to make cities more socially integrative on one side and transition to urban sustainability and urban transformative capacity on the other. These steps of research are to be carried out in close cooperation with local stakeholders in Chinese cities during the coming phases of the project.

## 2 POLICY FRAMEWORK

In this chapter, the policy background for urban development in Europe and China is summarized and discussed in order to better understand the framework for the specific challenges of urban development, i.e. urban expansion and urban renewal. Policies, strategies and a variety of programmes on European level, of European national states and for China are shown, which address several issues of urban development in the last decades.

### 2.1 PROGRAMMES AND POLICIES ON THE LEVEL OF THE EUROPEAN UNION

#### 2.1.1 URBAN DEVELOPMENT AS AN EMERGING POLICY FIELD IN EUROPE

Since the beginning of the first industrial revolution, Europe has rapidly transformed from largely rural and agricultural communities to a primarily urban society. While in 1950 just about more than half of the population was living in urban areas, in 2015 the figure had risen to 75 %. Urban population will continue to grow slowly, and by 2050, 80% of European will live in urban areas (Eurostat, 2016).

European urban population is distributed in diverse sizes of cities: on the one hand, only two global metropolises exist in the European Union (EU) - London and Paris - with more than 10 million inhabitants; and on the other hand, approximately half of the EU cities are relatively small with population sizes between 50.000 and 100.000 inhabitants (Eurostat, 2016).

While urban areas<sup>1</sup> accounted for 22.5 % of the total territory in 2014, the share of total area accounted by cities was considerably lower, at 3.9 % (Eurostat, 2016). However, in larger urban areas commonly towns and cities are integrated into the larger metropolitan region. As a result, urban sprawl and the spread of low-density settlements is one of the main threats to sustainable development as car dependence is higher in smaller towns and suburbs and public services are more costly and difficult to provide (EU, 2011).

European cities play a crucial role as motors for regional growth, innovation and employment creation. Accordingly, there is a shared vision of the “*European city of tomorrow*” (EU, 2011):

- a place of advanced social progress with a high degree of social cohesion, socially-balanced housing as well as social, health and 'education for all' services;
- a platform for democracy, cultural dialogue and diversity;
- a place of green, ecological or environmental regeneration;
- a place of attraction and an engine of economic growth.

Successive EU presidencies have recognized the importance of urban issues, however, “*urban policy is not of itself an EU level responsibility under the treaties of the European Union but, in the Lisbon treaty of 2009, the notion of territorial cohesion appeared for the first time. This reflected a steady*

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<sup>1</sup> According to EUROSTAT (2016), the „degree of urbanisation is a classification of local administrative units (LAUs) that indicates the characteristics of a particular area, based on a population grid composed of 1 km<sup>2</sup> cells (and clusters thereof)“, identifying: (a) urban areas - defined here as the sum or average of cities and towns and suburbs; (b) cities (densely populated areas) - where at least 50 % of the population lives in urban centres; (c) towns and suburbs (intermediate density areas) - where at least 50 % of the population lives in urban clusters, but is not classified as a city; (d) rural areas (thinly populated areas) - where at least 50 % of the population lives in rural grid cells.

*progression of steps over the past quarter century to reinforce the urban and territorial agenda*"<sup>2</sup>. Nevertheless, an urban dimension has been implemented in the early 1990's with setting strategies, programmes, and funding opportunities. Since urban expansion has never been in the focus of any policies and strategies, the documents and programmes are mainly related to urban development in general, and to urban renewal in particular.

Within urban renewal programmes, at the beginning a focus was on providing financial support for single projects. During time it shifted towards a more knowledge based, network-oriented approach. That means, funding is more and more provided for network actions etc. Currently, there is no explicit funding programme for physical measures of urban renewal. Nevertheless, urban issues can be covered by the European Regional Development Funds (ERDF), applied by INTERREG-programmes<sup>3</sup>, the research programme HORIZON 2020, and specific programmes such as LIFE, the EU's financial instrument supporting environmental, nature conservation and climate action projects. In terms of mainstreaming urban issues by the structural funds (ERDF), this means it is up to the national states to define urban priorities (EUKN, 2011).

Regarding urban renewal, different pathways and also *"path dependencies"* must be considered in national states (Couch et al., 2011). *"Urban renewal policies have taken firm root in many Western European countries. In the last three decades urban renewal policies have grown in complexity due to the multi-dimensional character of urban problems such as deteriorating housing quality, poverty, unemployment, social exclusion, segregation, low quality of public space, etc. The content and implementation of urban renewal policies differs greatly between countries, depending on, for example, the welfare system and political forces as well as physical, social and economic structures of urban areas. There are, however, also similarities between national renewal policies"* (Kleinhans, 2004).

The individual urban regeneration policies developed at different speeds and on different trajectories (Couch et al., 2011). There are some states with a long history of urban renewal, influencing also the European policy process. On the contrary, particularly the new member states of Eastern Europe started their urban renewal activities just around 2000. Their approaches are strongly influenced by urban policies and programmes of the EU.

Although a number of similarities can be observed across the European states, the context, the political preferences, and the policy conventions lead to different approaches and results of urban renewal (from France, the UK and Germany, studied by Couch et al., 2011). The context is strongly influenced by the patterns of urbanisation, housing types, tenure types as well as the patterns of governance, defined by the administrative system and institutional structures (Couch et al., 2011).

Research for Central and Eastern European countries (CEECs) showed that important territorial differences exist. In general, the involvement of local communities in regeneration projects is still low. *"It is also shown that the regeneration projects in post-communist cities are not resolved comprehensively, i.e. that the structures, which are subject to regeneration, are addressed individually with weak relation to community needs and to the surrounding areas of a city"* (Hlaváček et al., 2016).

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<sup>2</sup> <http://urbact.eu/rough-guide-european-urban-policy>

<sup>3</sup> INTERREG consists of programmes to stimulate cooperation between regions in the European Union. It was introduced in 1989, and it is funded by the European Regional Development Fund ([www.interregeurope.eu](http://www.interregeurope.eu)).

### 2.1.2 THE EMERGENCE OF THE EUROPEAN URBAN POLICY: TIMELINE

In the following, we present an overview about the relevant documents and processes addressing urban issues. The major characteristics are:

- The *Urban Pilot Projects* were launched in 1989 financing small-scale based actions to support innovation in urban regeneration for promoting economic and social cohesion in the old EU Member States (Figure 1). The funding programme was implemented in two phases during the 1990s, addressing a wide range of urban problems in the field of urban disadvantage, unemployment, poverty, and deprivation.
- The experiences which have been made with the Urban Pilot Projects have been consolidated in the programme URBAN, which has been implemented in two phases (1994-99 and 2000-2006). This programme followed an integrated approach to tackle a high concentration of social, environmental, and economic problems in neighbourhoods in extreme deprivation, characterized by high unemployment, poor housing conditions, run-down urban fabric, lack of social amenities, and also isolation, poverty and exclusion of the inhabitants. The funding measures, which have been co-financed by the European Regional Development Fund (ERDF) and the European Social Fund (ESF), support projects, which combine rehabilitation of infrastructure and housing with economic and labour market actions and are complemented by measures to combat social exclusion and improve environmental quality. To reach social and economic regeneration three major areas of intervention are supported: physical and environmental regeneration, fight against social exclusion, promotion of enterprise and employment.

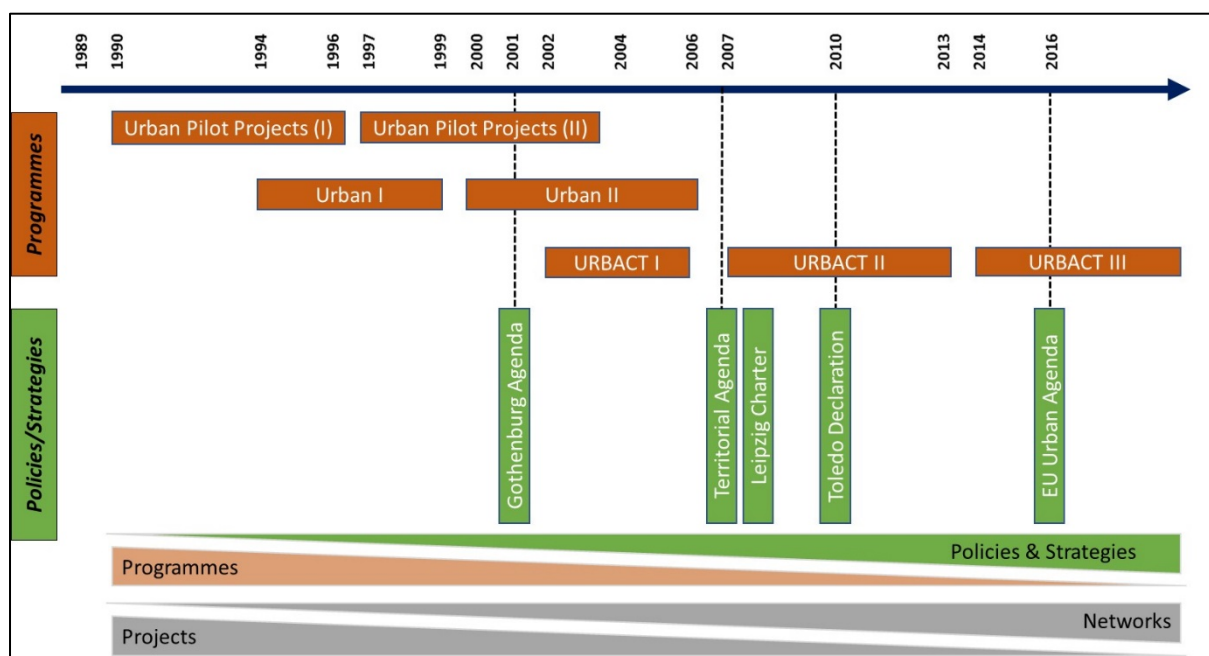


Figure 1: Overview about European policies, strategies and programmes (own compilation)

- At the end of 1990s, the European Commission published two crucial documents concerning urban development: “*Towards an urban agenda in the European Union*” and “*Sustainable Urban*”

*Development in the European Union: A Framework for Action*". The documents recognize the existence of an urban dimension which is necessary to address in a coherent and integrated manner at European, national, regional, and local levels (Atkinson, 2001).

- The *"Gothenburg Agenda"* of 2001, agreed upon at the Gothenburg European Council, added a third - environmental - pillar to the economic and social reform pillars of the EU's agenda. The four priorities were: climate change, sustainable transport, public health, and resource management.
- In 2001, the European Council adopted the first EU *"Sustainable Development Strategy"* with the aim of improving the quality of life on earth for both present and future generations. The strategy introduced and modified the understanding of sustainability as a broader framing concept (Zwart et al., 2012). The strategy underlines how to deliver sustainable development commitments, while reaffirming the need for global solidarity, in order to achieve smarter, more sustainable and socially inclusive urban development, which later became a key element in the *"Pact of Amsterdam"*.
- The *URBACT programme* was established as part of the URBAN II community initiative. It supported exchange and learning activities in and between cities that were active in URBAN I and II and in Urban Pilot Projects by introducing local support groups and local action plans along with a strengthened approach to capacity building and capitalization. It has been run in three phases (2002-2006, 2007-2013, and 2014-2020).
- The *"Bristol Accord"* (2005) stressed the importance of sustainable communities for Europe's development. It introduced eight characteristics of sustainable cities: active; inclusive and safe; well run; well connected; well served; environmentally sensitive; thriving, well designed and built; fair for everyone.
- The *Territorial Agenda of the European Union* (2007) introduced the idea of territorial cohesion and situated the issues faced by cities. The promotion of a balanced and polycentric development to ensure equal opportunities addressed also urban development. To complement the Territorial Agenda, in 2007 the EU adopted the *"Leipzig Charter on Sustainable European Cities"* (Table 1). It calls for the sustainable development of European cities through the use of integrated policy approaches with the goal of ensuring that cities become healthy and pleasant living places. The charter particularly focused on deprived neighbourhoods in order to social cohesion and integration.

*Table 1: Recommendations of the Leipzig Charter on Sustainable European Cities (2007)*

<p>➤ <i>Making greater use of integrated urban development policy approaches</i></p> <ul style="list-style-type: none"> <li>• Creating and ensuring high-quality public spaces</li> <li>• Modernizing infrastructure networks and improving energy efficiency</li> <li>• Proactive innovation and educational policies</li> </ul> <p>➤ <i>Special attention paid to deprived neighbourhoods within the city context</i></p> <ul style="list-style-type: none"> <li>• Pursuing strategies for upgrading the <u>physical environment</u></li> <li>• Strengthening the <u>local economy</u> and labour market policy</li> <li>• Proactive <u>education</u> and training policies for children and young people</li> <li>• Promotion of efficient and affordable urban <u>transport</u></li> </ul>
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- The “*Marseille Declaration*” (2008) brought forward the challenges for European cities including environment and climate change, competitiveness, social cohesion and citizenship in order to implement the Leipzig Charter. It particularly called for a common European Reference Framework for Sustainable Cities (RFSC).
- The “*Toledo Declaration*” (2010), especially the “*Reference document on integrated urban regeneration and its strategic potential for smarter, more sustainable and socially inclusive urban development in Europe*”, highlights the role that cities might play for developing a smart, sustainable and inclusive economy through urban regeneration projects (Table 2). It links the Leipzig Charter to the objectives of the EU’s strategy “*Europe 2020 – A strategy for smart, sustainable and inclusive growth*” and the *EU Sustainable Development Strategy*. The declaration highlights the strategic role of integrated urban regeneration in the future of urban development by addressing different perspectives (environmental perspective; social perspective; urban planning, architectural and cultural viewpoints; governance perspective). This approach also aims to optimise, preserve or revalue all the existing urban capital (social, built environment, heritage, etc.) in contrast to other forms of intervention that only prioritise the value of land.

*Table 2: Toledo Declaration (2010)*

A. On addressing current urban challenges and implementing the Europe 2020 strategy by achieving smarter, more sustainable and socially inclusive urban development
A.1 The suitability of the integrated approach in urban development policies and the need for a common understanding
A.2 The importance of integrated urban regeneration and its strategic potential for a smarter, more sustainable and socially inclusive urban development in Europe
B. On supporting the continuation of Marseille Process and the implementation of RFSC
C. On the need to consolidate a European Urban Agenda in the Future
C.1 Strengthening the urban dimension in cohesion policy
C.2 Supporting a greater coherence between territorial and urban issues and agendas and fostering urban dimension in the context of territorial cohesion
C.3 Continuing to promote research, comparative studies and statistics, exchange of best practices and dissemination of knowledge on urban topics, and strengthening coordination of them all
C.4 Promoting sustainable urban development and integrated approaches by reinforcing and developing instruments to implement the Leipzig Charter at all levels
C.5 Considering the most important challenges that European cities will face in the future

- In 2012 the European Commission’s Directorate for Regional Policy changed its name to General Directorate for Regional and Urban Policy with the goal of ensuring that cities would play their full part in EU economic, social and territorial developments (Eurostat, 2016).
- The *European Sustainable Cities Platform* was launched in 2016 during the 8<sup>th</sup> European Conference on Sustainable Cities & Towns. The initiative offers tools for supporting policy makers in European cities to mainstream local sustainability throughout Europe by implementing the Aalborg Commitments (Zwart et al., 2012).

- The *Basque Declaration* (New Pathways for European Cities and Towns, 2016) outlined new pathways to create productive, sustainable and resilient cities for a liveable and inclusive Europe.
- The “*Urban Agenda for the EU*” (*Pact of Amsterdam*, 2016) aims to stimulate growth, liveability and innovation in European cities and to tackle social challenges (Table 3). It is an integrated and coordinated approach to deal with the urban dimension of the EU in a new multi-level working method, promoting cooperation between Member States, cities, The European Commission and other stakeholders (Olejnik, 2017).

*Table 3: EU Urban Agenda – Priority themes and cross cutting issues*

➤ <u>Priority themes</u>
<ul style="list-style-type: none"> <li>• Inclusion of migrants and refugees</li> <li>• Air quality</li> <li>• Urban poverty (aims at reduce poverty and to inclusion of people in poverty, also by place-based solution, that means urban regeneration in deprived neighbourhoods)</li> <li>• Housing</li> <li>• Circular economy</li> <li>• Jobs and skills in the local economy</li> <li>• Climate adaptation (including green infrastructure solutions)</li> <li>• Energy transition</li> <li>• Sustainable use of land and nature-based solutions (aims at that regeneration both addresses environment and quality of life)</li> <li>• Urban mobility</li> <li>• Digital transition</li> <li>• Innovative and responsible public procurement</li> </ul>
➤ <u>Cross-cutting issues</u>
<ul style="list-style-type: none"> <li>• Effective urban governance (participation and new models)</li> <li>• Governance across administrative boundaries</li> <li>• Sound and strategic urban planning and balanced territorial development</li> <li>• Integrated and participatory approach</li> <li>• Innovative approaches, including smart cities</li> <li>• Impact on societal change (behavioural change, equal access to information, gender equality and women empowerment)</li> <li>• Challenges and opportunities of small and medium sized urban areas and polycentric development</li> <li>• Urban regeneration, including social, economic, environmental, spatial and cultural development, linked to brownfield redevelopment with the objective of limiting greenfield consumption</li> <li>• Adaptation to demographic change and in – and out migration</li> <li>• Provision of adequate public services of general interest</li> <li>• International dimension: link with the New Urban Agenda, the SDG and the Paris Agreement on climate change</li> </ul>



### 2.1.3 CONCLUSIONS

Regarding the numerous policies and programmes, we can conclude the following:

- Since the 1980s, the European Commission focuses on urban development from a sectoral perspective. Urban issues started to be reflected in a number of policies explicitly targeting urban areas: education, transport, energy, the information society, the environment and climate change (Eurostat, 2016). In parallel, the profile of cities in the EU was raised through a number of other initiatives: the European capital of culture, the European capital of innovation and the European green capital.
- Urban Acquis, URBAN I and II, the Leipzig Charta and the Toledo Declaration laid the ground of principles necessary for promoting an integrated urban development in Europe (Table 4). However, different speeds and activities can be recognized as there is no single European model and problems and potentials differ from city to city.

*Table 4: A holistic model of sustainable urban development (adapted from European Union, 2011)*

- |   |
|---|
| <ul style="list-style-type: none"> <li>• Deal with challenges in an integrated, holistic way;</li> <li>• Match-place and people-based approaches;</li> <li>• Combine formal governments structures that correspond to the scale at which challenges exist,</li> <li>• Develop governance system capable of building shared visions reconciling competing objectives and conflicting development models;</li> <li>• Cooperate in order to ensure coherent spatial development and an efficient use of resources</li> </ul> |
|---|

- Only in 1997, the European Commission highlighted the necessity to include an urban dimension into the EU Cohesion Policy, triggering an important debate regarding the way of funding and implementation. However, the policy approach to urban development continues to be handled rather sectoral.
- The EU Urban Agenda (Table 3) proposes a coordinated approach among European institutions, member states, regions and cities, increasing inefficiency in the use of both European and national resources. The creation of partnerships can be an important innovation. The intention is not imposing new rules, but supports multilevel groups, working under voluntary arrangement (Olejnik, 2017).
- While urban development was addressed in a rather general way, urban renewal and urban regeneration were highlighted in manifold ways in policies and programmes. The EU followed an integrated approach from the beginning. Participation of stakeholders and affected groups early became a priority. The approaches focused on specific types of neighbourhoods characterised by physical decline, social deprivation, and socio-economic distress.
- Today, national policies and programmes especially address the neighbourhood level, often based on the definition of priority areas. They see governance issues, such as partnerships, and multi-stakeholder approaches, in the core of successful renewal approaches. In general, there is a strong linkage with growth policies and competitive approaches.

## 2.2 PROGRAMMES AND POLICIES IN CHINA

### 2.2.1 THE CHALLENGE OF PROMOTING A FASTER URBANISATION

China's urbanisation is unprecedented in scale and speed In China (OECD, 2015). While the urbanisation level was less than 20 % in 1978, in 2011 the urban population exceeded the 50 % threshold, and it is expected that the urbanisation rate will reach 60.3 % in 2020, 68.4 % in 2030, 75.4 % in 2040, and 81.6 % in 2050. Fast economic growth and the relaxation of rural-urban migration regulations are the main driving forces behind this accelerated urbanisation. However, urbanisation is also an important contributor to growth (OECD, 2015). In 1988, since development was prohibited on non-state land, the central government introduced a system of leasing long-term rights for the use of state-owned land, allowing most revenues to be retained by municipalities. The result was a massive redevelopment of the inner cities, and residential as well as industrial development in peri-urban areas (Kamal-Chaoui, Leman & Rufeï, 2009). As a consequence of this reform, from 1996 to 2006, the developed areas of Chinese cities experienced a growth rate of more than 50% (Hui & Bao, 2013).

The accelerated urban sprawl led to the loss of a substantial amount of high-quality arable land, putting the red line of 0.12 billion hectares of arable land considered to be necessary for food production at risk (World Bank Group & Development Research Centre of the State Council, 2014). It is estimated that 1.5 million farmers lost their farmland annually in the 1990s (Lu, Li & Tan, 2003).

Along with land speculation, the rapid urban sprawl led to an excessive housing supply outpacing the demand of rural-to-urban immigrants. “Ghost cities” emerged as a result of the land-centred urbanisation, giving rise to resource waste, societal unrest and the financial risk of the real estate sector (Hui & Bao, 2013), particularly in third tier cities and lower ranked agglomerations.

At the same time, there is a deep rural-urban socioeconomic gap. It reflects legacies from the 1950s where urban and rural residents were clearly separated through a strict residents' registration system (“*Hukou*”) promoting rapid urban-industrial development. This system makes it difficult for the population registered in rural areas to become “urban” citizens and to enjoy urban privileges. Thus, harsh differences exist in the living standards of urban and rural residents. Although the original rationing entitlements have largely disappeared, the “*Hukou*” influences in China's largest cities remain strong. Additionally, there is a low social integration of rural immigrants both in inner cities and in peri-urban areas resulting in significant conflicts (Hui & Bao, 2013; Wang, Hui, Chogill & Jia, 2015).

### 2.2.2 POLICY TIMELINE IN CHINA

In the following, we present an overview about the emergence of urban concerns in the overall policies in China. Major characteristics are:

- Between 1949 and 1984, the change from rural residency to urban citizenship was restricted, resulting in an extremely low urbanisation rate.
- In 1980, the State Council approved the Summaries on National City Planning of “*controlling the size of big cities, developing reasonably the middle cities, and promoting actively the growth of small cities*” (Gu, Wu & Cook, 2012, p. 111).
- After 1984 rural residents were allowed to move to small cities and towns for work without receiving an urban “*Hukou*” status. They were regarded and statistically counted as urban residents without urban rights, e.g., the right to education, housing security, or medical insurance.

- Since 1988, urbanisation has become the main source of income for city governments through selling land use rights, much of it expropriated from rural people, to expand urban areas by establishing new towns, development zones and industrial areas (Griffiths & Schiavone, 2016; Tsui, 2011). In this case, peasants can become urban citizens when rural collective land is successfully acquired (Zhou & Ronald, 2017).
- The Law of City Planning was adopted in 1989. Accordingly, *“the State shall guide itself by the principle of strictly controlling the size of large cities and towns to an appropriate extent in the interest of a rational distribution of productive forces and of the population”* (Gu et al., 2012, p. 112).
- In 1994, the 14<sup>th</sup> National Congress of the Chinese Communist Party (CCP) established the *“General framework of socialist market-oriented economic system”*.
- In 1998, the Ministry of Construction of China organized a Seminar on *“Urbanisation and Urban Development Strategy in China”* including the participation of members of the State Planning Committee, the Research Office of the State Council, the State Ministry of Civil Affairs, the Ministry of Public Security, the Environment Protection Bureau, the China Academy of Sciences (CAS), Beijing City Planning Bureau, City Planning Institute and Tsinghua University. The main conclusion was that *“a reasonable and orderly urbanisation will actively promote the healthy and sustainable economic and social development in China, and will help to solve the structural conflicts formed during a long period of time”* (Gu et al., 2012).
- In the late 1990s, China’s Agenda 21 proposed new urbanisation goals: to moderately control the fast growth of the population in big cities, to develop satellite cities of large cities, to actively and moderately develop medium-sized and small cities, and to greatly promote the growth of towns (Gu et al., 2012, p. 112).
- Under the Land Administration Law (2004) local governments can acquire rural land from the collective in case of *“public interest”*. However, the understanding of public interest is unclear, allowing local governments to acquire land and sell it on to private developers at a lower price than the compensation paid to communities (Wilmsen, 2016).
- In January 2008 the government issued the circular on *“Promoting Efficient and Intensive Land Use”*. The document aimed at reducing the stock of vacant land, facilitating better and more efficient land use.
- In 2009, Guangdong Province was selected as pilot area for implementing an efficient and intensive land use, through the effective redevelopment of the three *“old”* communities, i.e. *“old towns”*, *“old factories”* and *“old villages”*. Shortly thereafter, Shenzhen, the Special Economic Zone (SEZ) and one municipality in Guangdong Province, took the lead in promulgating urban renewal policies that put forward, for the first time, certain institutional reforms.
- In 2012, the Third Plenary Session of the 18th National CCP stated that *“the basis and necessity of modernisation”* lay in a *“new urbanisation”* process. The national government sees the necessity to count with a strategic tool to tackle the problems of the previous urbanisation model, where quantity expansion was dominated in city development, and to stimulate economic growth with high productivity and high quality.
- In 2013, the level of urbanisation in China was 36% if only urban Hukou residents, i.e. citizen with permanent residence permission, were counted (Wang et al., 2015). Urban infrastructure has been far from satisfaction, as little or seldom concern was given to the immigrants’ needs in city

master planning. This has partly led to a number of urban problems, including traffic congestion and housing shortages (Chan, 2014).

- In 2014 the National New Urbanisation Plan (2014-2020) was launched (Table 5). Accordingly, urbanisation is the road that China must take in its modernization drive, serving as a strong engine for sustainable and healthy economic growth. The Plan comprises eight chapters, four strategic tasks, five domains 'reform' ("Hukou", land, fiscal and taxation, housing and environment), institutions in charge and the path of future urbanisation.
- In July 2014, the State Council advised that rural-urban disparity shall be reduced, through the reform of the household registration system and encouraging urban-rural integration. Accordingly "the conversion of rural immigrants into urban citizenship shall be promoted" (Zhiua, 2015; Document No.25, 2014). Some provinces had issued regional measures to relax the Hukou system. For instance, in Guangdong province (China's largest manufacturing hub) migrants who worked in factories can move with their children into cities. The decision created new needs (schools, child-care playgrounds, etc.) in urban places, because these places weren't set up for families in the original city planning (Fish, 2017). Sichuan province extends the application of this policy to big and medium-sized cities. Guizhou Province plans to remove the "Hukou" restrictions in medium-sized cities, besides in towns and small cities (Wu, 2016)

*Table 5: China's New-Urbanisation Plan (2014-2020) – Government Targets  
(adapted from Wang et al. (2015))*

Indicator	2012	2020
Urbanisation level		
Urbanisation (%)	52.6	60
Peasant worker's children along with parents receiving mandatory education		≥ 99
Basic social-security coverage for urban and town population (%)	66.9	≥90
Basic medical insurance coverage for urban and town population (%)	95	98
Infrastructure		
Travel mode shared by public transport in cities with > 1 million people (%)	45	60
Public water supply coverage in cities and towns (%)	81.7	90
Wastewater treatment rate in cities (%)	87.3	95
Solid waste decontaminated in cities (%)	84.8	95
Resource and environment		
Per capita urban land area (m <sup>2</sup> )		≤100*
Renewable energy consumption in cities and towns (%)	8.7	13
Green building in new constructions in cities and towns (%)	2	50
Meeting air quality standards in prefectures and above level cities (%)	40.9	60

\*standard is 65-115 m<sup>2</sup> for urban built-up areas, and 85-105 m<sup>2</sup> in newly developed cities

- In April 2015, the State Council launched the Plan for the coordinated development of the Beijing-Tianjin-Hebei (Shijiazhuang, Baoding, Qinhuangdao, Langfang, Cangzhou, Chengde, Tangshan, and Zhangjiakou) as a strategic national priority (Document No.37, 2015). The objective of this coordinated plan is to develop a world-class megalopolis through the transfer or re-location of population and industries from metropolitan cores of surrounding cities and towns (Zhu, Chen & Chen, 2017).

- In June 2015 the State council announced the intention to renovate 18 million shanty housing units in the urban areas (shanty towns or communities) and 10.6 million units in the rural areas between 2015 and 2017 (Zhihua, 2015). The Ministry of Land Resources started in 2015 a new rural land reform to develop mechanisms to transfer rural land use rights on markets, allowing rural residents to trade their land to alleviate poverty and to create larger and more efficient farms in rural areas. The Ministry designated 33 counties (out of nearly 3,000) as the pilot locations for the reform (Brown, 2015).
- In 2015, Guangzhou established China's first urban renewal authority (Liu, Yi, Zhang, Shrestha, Martek & Wei, 2017).
- On May 2016, the construction of Beijing's administrative centre, in the eastern suburb district Tong Zhou, (located between Beijing and Tianjin) was approved. From the end of 2017, Beijing municipal administrative organisations and institutions began moving to Tong Zhou. Chinese government plans to make Tong Zhou a city with a population of 1.3 million residents by 2030 (Soon-do, 2017).
- On April 2017, China announced that Xiong'an New Area would be established in the northern province of Hebei to advance the coordinated development of the Beijing-Tianjin-Hebei city cluster. Xiong'an will span three counties at the centre of the triangle formed by Beijing, Tianjin and Shijiazhuang, the capital of Hebei (China Daily, 2018).

### 2.2.3 PROGRAMMES AND POLICIES ON URBAN RENEWAL IN CHINA

In the current 13<sup>th</sup> 5-year-plan (2016-2020), the urbanisation target in China will be focused on the three *"100 million missionary tasks"* (Compilation and Translation Bureau and Central Committee of the Communist Party of China, 2015):

- Make progress in granting or entitling approximately 100 million former in-migrants without urban household registration the urban residency or urban Hukou status;
- Accelerate the redevelopment of *"urban villages"* and rundown urban areas to be able to accommodate approximately 100 million urban population;
- Guide and support around 100 million rural population in the central and western regions to move to various urban places, including city clusters, medium and small-sized cities, county seats, and key towns near their places of origin.

China will *"redouble"* its *"efforts to improve urban planning, development, and management"* and to *"improve living environments so that people can enjoy a more secure, relaxing, and satisfying city life"*. In particular, *"rundown areas and dilapidated housing"* shall be rebuilt with urban renewal and industrial transformation and upgrading. Furthermore, *"headway in organic urban renewal"* should be made and the regeneration and transformation of cities should be encouraged.

In 2017, issued by Ministry of Housing and Urban-Rural Development, China will promote urban development quality through city betterment and ecological restoration programs on a nationwide scale to accelerate transformation of urban development to ensure quality upgrades and sustainability. 58 pilot cities have been selected by the Ministry of Housing and Urban Development (MOHURD, 2017).

Besides, some of main strands of policy setting in China (Figure 2) are also described as followings<sup>4</sup>.

### 2.2.3.1 The Land Expropriation, Compensation and Housing Removal on State-owned Land

“Ningbo Collective-owned Land Requisitioned House Demolition for Urban Construction Administrative Methods” (1996) is the first local directive regulating the expropriation and housing removal on state-owned land (URBAN ZHEJIANG, 2003). Started from 1999 to 2004, the Ningbo City Programme demolished 7,665,000 square meters of houses on state-owned collective land (Xu, 2006).

In 2004, the State Council issued the document “Decision on Deepening Reform and Strict Land Management Control”. This Decision only gives a framework on reforming land acquisition practice and does not provide operational details. In November 2004, the Ministry of State and Land Resources issued the document “Instructive Opinion on Improving the System of Land Acquisition Compensation and Resettlement” to provide further guidelines for implementing the requirements of the Decision (Chan, 2006).

In order to cope with the legislative demands posed by new situations, China’s State Council made amendments to the “Administrative Regulations on Urban Housing Demolition and Relocation” (State Council, 2011). It is regarded as the main legal basis for expropriation and compensation. Finally, on January 2011 the State Council promulgated the “Regulations on Expropriation and Compensation of Housing on State-owned Land” (Figure 2) (Jun and Haiting, 2011).

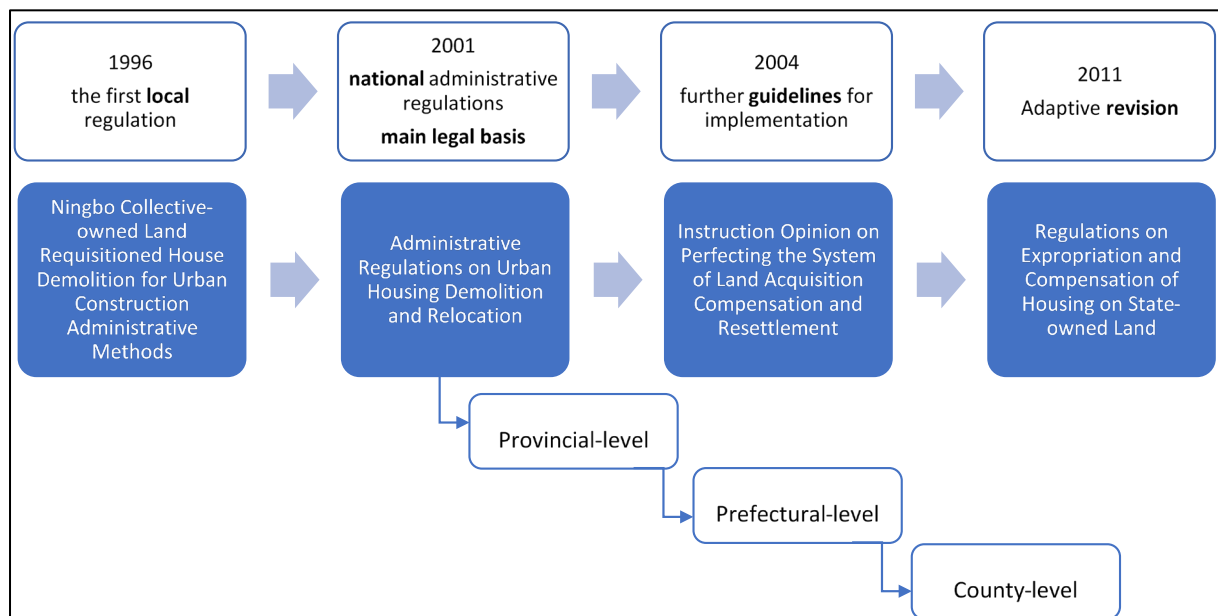


Figure 2 The Progress of Land Expropriation, Compensation and Housing Removal Policies (adapted from Infrastructure Development Office, 2003)

<sup>4</sup> The following is partly based on a forthcoming dissertation by Ms. Mengfan Jiang (Dresden Leibniz Graduate School)

### 2.2.3.2 Shantytown Redevelopment Projects (SRPs)

In 2005, Liaoning Province firstly initiated the Shantytown Redevelopment Projects (SRPs, *Peng-hu-qu Gaizao*)<sup>5</sup> at the provincial level in China (Figure 3). As the capital city of Liaoning Province, Shenyang had initiated large-scale demolition and forced relocation of residents during the years 2005–2006, involving about 130,000 households and accounted for 37.7% of the total share of affected households in the Liaoning province LNJST, 2008. Due to the success of the Shenyang Mode' programme, the MOHURD promoted "the replication of SRPs in other parts of the country"<sup>6</sup>.

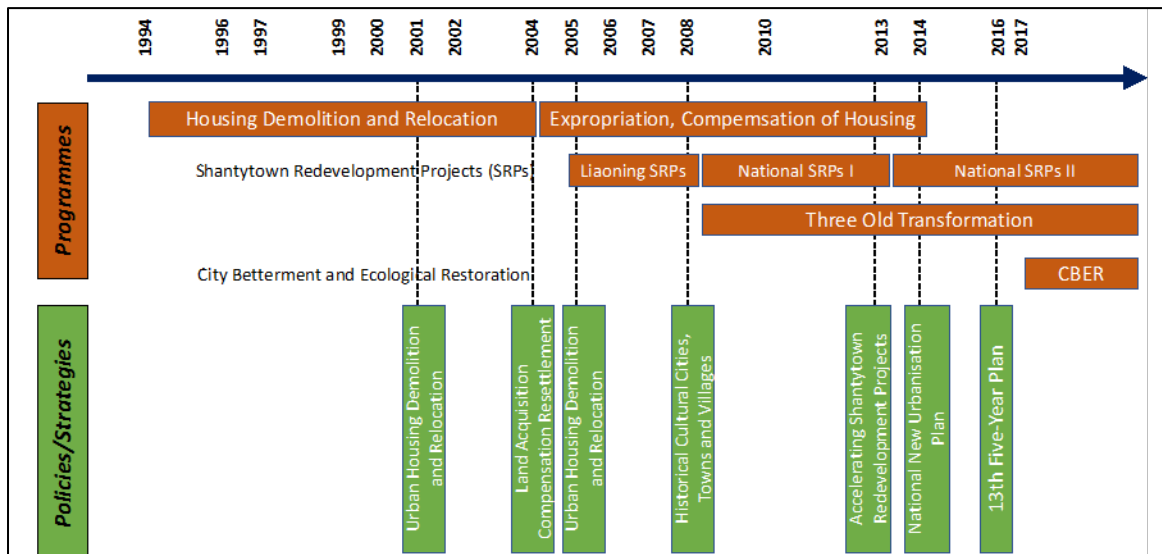


Figure 3: Overview about urban policies and programmes regarding urban renewal in China

In 2008, parallel to the local government-initiated residential redevelopment projects, the Central Government initiated the first round of national SRPs. Their aim was to improve the living conditions of low-income residents and to stimulate the depressed housing market.

In 2013, the central government triggered a second round of SRPs, which focused especially on improving the living conditions of vulnerable residents in undesirable small-scale urban areas. Meanwhile the State Council published the first national-level policy "Several Opinions on Accelerating Shantytown Redevelopment Projects" State Council of the People's Republic of China, 2013.

### 2.2.3.3 Shequ (Community) Construction

The administrative area under the jurisdiction of a residents' committee is referred to as *shequ*, or "neighbourhood community". The reform of the residents' committee is officially referred to as *Shequ Jianshe* or "Community Construction". The shequ policy is premised on the principle that residents'

<sup>5</sup> In China, the term shantytown (Peng-hu-qu) is widely used in government policies and refers to the dilapidated housing or illegally constructed shanties in old inner cities, office communities, or rundown villages in (sub)urban and rural areas (Li, Kleinhans & van Ham, 2018).

<sup>6</sup> Shenyang Daily (2016). SRPS –Penggai Shenyang moshi quanguo jiaoxiang ('Shenyang Mode' becomes well-known nationwide). <http://news.syd.com.cn/system/2016/11/03/011217153.shtml>.

committees can and should play an important role in urban governance and be part of the solution to the unprecedented social challenges accompanying the country's transition to a market economy (Shieh, 2011).

In 1989, the State Council passed the *"Law on the Organization of the Urban Residents' Committees"*, recognizing the committees as managers of public affairs and providers of services rather than merely as keepers of social order (Choate, 1998).

In 1999, under the *"National Shequ Construction Experimentation Work Realization Plan"*, the Ministry of Civil Affairs (MCA) chose 26 urban districts that had built a tested foundation in community services to be pilots for shequ construction. What has been tried in Shanghai, Shenyang, Wuhan, and Qingdao is often quoted as the four models for shequ construction.

In 2000, the Central Committee and State Council endorsed the first formal document concerning shequ construction: *"Memorandum from the Ministry of Civil Affairs on Promoting Urban Shequ Construction throughout the Nation"*. Two years later, MCA selected 27 cities and 148 districts from the national programme as Shequ construction demonstration sites (Kojima & Kokubun, 2002).

#### 2.2.3.4 From the "Urban Redevelopment" to the "Three Old Transformation" Policy

In 1953, the Beijing Municipal Party Committee reported to the Central Government the first urban master plan – *"Key Points of Planning Draft for Reconstruction and Expansion of Beijing City"* Beijing Municipal Party Committee, 1953. For the first time, the concepts of "Old City Protection" and "Old City Redevelopment" were established in official documents, to guide the construction of the old Beijing city as well as the new capital of the country (Ying, 2010).

The later provincial-level policy, the *"Three Old Transformation"* can be classified as urban redevelopment. The word *"three old"* was first produced in Guangzhou in 2008, and it was used to refer to the old town, the old village and the old factory Guangzhou Municipal People's Government, 2009:

Guangdong government published *"Some Opinions on Promoting the Reform of 'Three Old' to Promote the Intensive Land Use"* in 2009, to promote collaboration between urban and rural areas, and to achieve strict protection of arable land and intensive land use. The *"Three Old Movement"* (2010-2015) aimed to enhance urban land value while protecting the original residents' property and redevelopment rights and heritages (Wang, 2016).

#### 2.2.3.5 Historic Cities Conservation Code

In 2005, the *"Code of Conservation Planning for Historic Cities"* specifies that the historical appearance and the spatial city layout should be protected. The planning of historical urban area protection should include the improvement in the living conditions of the local residents and the maintenance of community vitality (Wang, 2012).

According to the *"Regulation for Protecting Historical Urban Areas"* issued by the Ministry of Construction and State Administration of Cultural Heritage, measures should be taken to protect the authenticity, integrity, and functional continuity of historical urban areas. Moreover, the government should play a leading role in improving the local infrastructure and living environment, with the participation of the local residents (Wang, 2012).

In 2008, *"The Regulation on the Protection of Famous Historical and Cultural Cities, Towns and Villages"* was adopted. This regulation is formulated for the purpose of strengthening protection and



administration of “*famous historical and cultural cities, towns and villages*” (a list of cities, towns and villages designated by the State Council), and preserving the fine historical and cultural heritage. To this end, the regulation sets substantial and procedural requirements on the application, approval, planning and protection of these heritages. The regulation further stipulates the qualification and procedure for the application of the “*famous historical and cultural cities, towns and villages*”. Once the application gets approved, the government of the city is required to formulate a specific protection plan (State Council, 2008<sup>7</sup>).

#### 2.2.4 CONCLUSIONS

Regarding the numerous emergence of the urban discussion, we can conclude the following:

- China's urban policies began to change in line with the country's economic transition. Public policy shifted from a “*profoundly anti-urban*” and control perspective prevailing before the 1980s (Kamal-Chaoui, Leman & Rufe, 2009) to an approach, which clearly promoted urbanisation.
- Urbanisation has raised the living standards of the population but also has generated important socio-economic and environmental challenges (OECD, 2015).
- Central state planning, modernisation schemes and mega-projects have been always present in the Chinese policy agenda. An embedded culture of experimentation (eco-cities; smart cities, etc.) precedes the enactment of many national policies (Heilmann, 2008).
- The latest National Urbanisation Plan for 2014-20 promotes a “*quality – focused*” and a “*people centred approach*”. Rather than depending on physical construction and spatial expansion, the Plan gives priority to equity, environmental protection and quality of life in cities.
- Policy towards migrants' inclusion is changing but much remains to be done. Land conversion is one of the most needed reforms (OECD, 2015). Local governments still sell urban land use-rights to developers, having strong incentives to manipulate the market throughout unfair treatment to peasants, inflating housing costs and conducting inefficient urban land use.
- Despite China has made remarkable achievements in economic development, many built-up areas in large cities continue to deteriorate. To this date, urban development unfolds as discrete projects without a broader consideration for city planning or long-term sustainability (Yi, Liu, Lang, Sherestha & Martek, 2017).
- Additionally, no national strategic document has emerged to direct sustainable urban renewal as a whole despite many cities have recognized urban renewal as development strategy (Yi et al., 2017).

### 2.3 COMPARATIVE PERSPECTIVE AND RELEVANCE FOR THE PROJECT

Table 6 provides an overview over the different characteristics of urban development in the European Union and in China.

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<sup>7</sup> UrbanLex, 2008. Regulations on Protection of Famous Historical and Cultural Cities, Towns and Villages (2008) <http://urbanlex.unhabitat.org/law/289> (accessed 7.9.18).

Table 6: Characteristics of Urban Development in the European Union and China (adapted from China's New Urbanisation Plan, 2014; Eurostat, 2016; Zhan, 2013)

Characteristics		European Union	China
General	Level of urbanisation	75,0% <sup>2</sup>	53.7% - residents; 36% - citizens <sup>1</sup>
	Pace of urbanisation	Constant and slow	Recent (3 decades) and fast
	Spatial distribution	Small cities and towns with a polycentric distribution	19 designated city clusters with three super large ones including Beijing-Tianjin-Hebei; Yangtze River Delta; Pearl River Delta; plus many standalone cities and towns in less populated areas
	Megacities (≥ 10 million inhabitants)	London; Paris	Shanghai; Beijing; Guangzhou, Tianjin; Chongqing; Chengdu; Shenzhen; Harbin; Wuhan; Hangzhou
	Driving forces	Migration and natural growth	Explicit socioeconomic policies (industrialization), market forces ("floating population") and <i>Hukou</i> system
	Socio-economic Disparities	Intra-urban	Intra-urban (social classes) and urban-rural ( <i>Hukou</i> )
Policy Approaches	Institutional view on urbanisation	Adapt and prepare	Promotion as important symbol of modernization and new engine for China's upcoming transition
	Urban expansion	View as a problem and constant challenge	View as an opportunity and political goal for municipal governments and as a challenge for central governments
	Urban renewal	Strategic and comprehensive tool of public policy	Neglected in political agendas for long time. Randomly implemented in last decade: from massive demolition to experimentation (pilot projects). No national policy available yet
	Urban culture	Common sense of protecting and preserving by regulation and population.	Individual success (Hutong-Beijing; Yuyuan – Shanghai; Tanhualin-Wuhan; Sanfang Qixiang – Fuzhou; Tunxi-Huangshan). Increasingly recognized, although no systematic regulation available
	Urban-rural interconnection	Growing importance in regional policies	Included in transportation and metropolitan regional planning
	Development Visions	Balance urban system; urban-rural partnership; access to infrastructure and knowledge; protection of nature and the cultural heritage	Urbanisation implemented in parallel with industrialization, information and agricultural modernization Eco-civilization promoted in recent years for new urbanisation
	Path to urban sustainability	Concrete political and financial support.	Boost experimentation (green/smart/eco-cities). No clear road map yet

### 3 CURRENT SITUATION IN CHINA AND EUROPE

#### 3.1 URBAN RENEWAL

##### 3.1.1 INTRODUCTION

###### 3.1.1.1 Background

Urban renewal<sup>8</sup> is both in China and Europe one central strategy of sustainable urban development. In Europe, there is almost 40 years of experience in urban renewal, or like it is often called urban regeneration. A number of European and national policies and programmes exist to support urban renewal both strategically and through funding. Over the years, different challenges have been addressed, and lessons have been learnt from the different approaches. Nowadays manifold examples show the success of the approaches but also the need for improvement in regard to socially integrative renewal and addressing current challenges. Also in China, we can observe a number of approaches of urban renewal.

The knowledge base about the current framework, challenges and experiences of urban renewal, both in China and Europe, has been derived from policy documents and strategy papers on different levels of policy making, from specific programmes, as well as from the review of scientific literature and practical experiences. Interviews were not used as an information base<sup>9</sup>. As a general basis for a joint understanding of urban renewal within the project and the reliability of the findings, a review about the policy framework (see chapter 2), both in Europe and China, and about the terms and definitions being used in the context of urban renewal (see chapter 3.1.1.2) was compiled in the beginning. The specific challenges of urban renewal in China are discussed in chapter 3.1.2. Following this, the dimensions of urban renewal, which can be distinguished in drivers, patterns, topics and measures, have been analysed separately. Starting from the manifold drivers, urban renewal approaches in terms of good practice experiences can be described (see chapter 3.1.3). In chapter 3.1.4 some conclusions are formulated reflecting on the transformative capacity of the experiences.

###### 3.1.1.2 Terms and definitions

Both in China and Europe, there is a broad variety of terms used, describing the concept of urban renewal. These terms are to certain extents comparable, but they can also be understood in order to differentiate several aspects of urban renewal approaches. *“Urban renewal, urban regeneration, urban redevelopment, and urban rehabilitation share similar meanings, but are used in different countries or regions”* Zheng et al., 2014. *“Urban regeneration comes by a variety of names, including ‘urban renewal’, ‘urban refurbishment’ and ‘urban retrofit’ and can take many forms”* (URBACT, 2014). Although the terms being used share similar meanings to some extent, scale and scope may vary (Zheng et al., 2014).

The most common and sometimes synonymously used terms are *urban renewal* and *urban regeneration*. While renewal is more explicitly addressing physical aspects, regeneration is associated in general terms with *“a comprehensive integration of vision and action aimed at resolving the multi-faceted*

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<sup>8</sup> Some of the following texts in chapter 3.1 are based on the forthcoming dissertation by Ms. Mengfan Jiang (Dresden Leibniz Graduate School).

<sup>9</sup> Thus, ethical issues were not involved here.

problems of deprived urban areas to improve their economic, physical, social, and environmental conditions” (Ercan, 2011 in Zheng et al., 2014). In the context of this work, the spatial/physical/building/infrastructure perspectives of urban renewal were linked to social and economic aspects. The term urban regeneration is commonly used in EU-documents (URBACT, 2014). Its definition includes drivers, topics, patterns and measures. Nevertheless, different approaches share a comprehensive and integrative perspective regarding both topics to be addressed, including governance (Colantonio and Dixon, 2009). Regarding sustainability, also notions to environmental aspects can be identified: “[...] we understand sustainable urban regeneration as regeneration policies and processes within a city, which seek to address inter-related problems in order to consider, reduce and mitigate their environmental impact” (URBACT, 2014).

The different origins and initiating drivers behind need to be understood and reflected in order to apply different concepts: “The definition of the ‘urban’ being ‘regenerated’ and, indeed, the understanding of ‘regeneration’ have varied according to the initiative being pursued, even if this has rarely been acknowledged by those making or implementing the policies” (Cochrane in URBACT, 2014, p. 6 f.).

In summary, urban regeneration and urban renewal are the most widespread approaches (Figure 4). Besides, particular approaches as urban redevelopment, urban reconstruction, reuse, urban rehabilitation and conservation are being used. The latter can be summarized within urban renewal. Although both main terms have different origins, history and initiators, in the meantime they seem to be used as interchangeable.

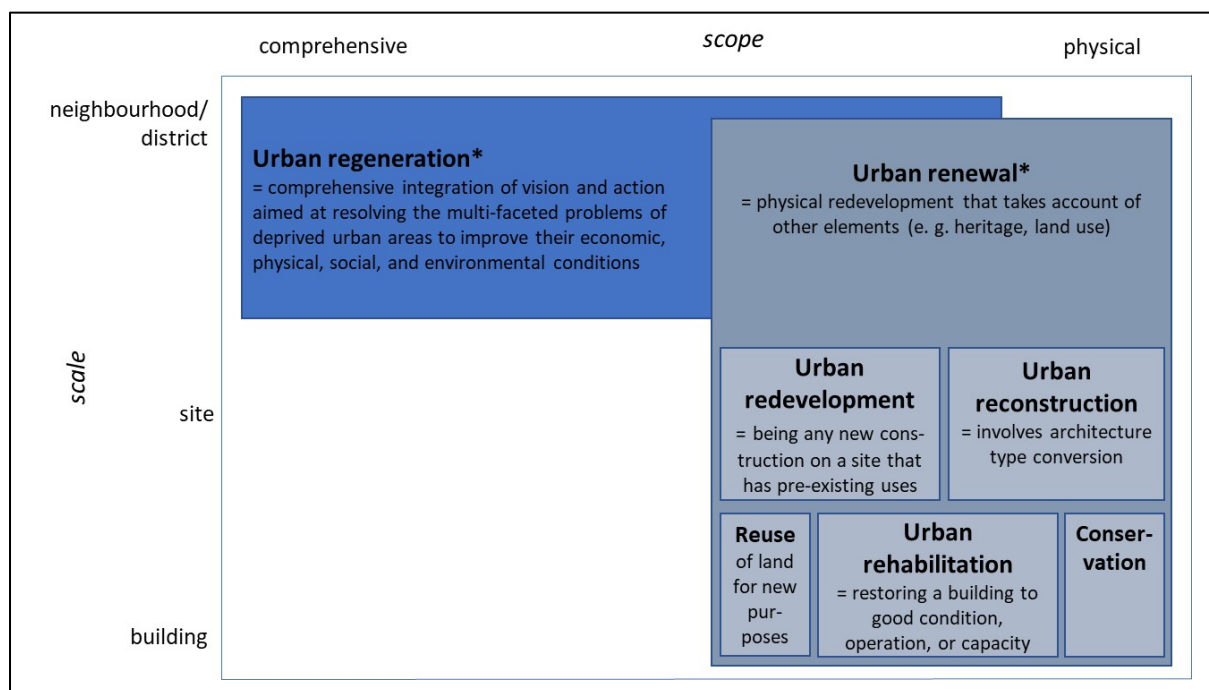


Figure 4: Terms and definitions (own compilation after: Zheng et al., 2014, Xue et al., 2015, Couch et al., 2011, Wu, 2011, Colantonio and Dixon, 2009, added by <https://www.britannica.com/topic/urban-renewal>). \* Some authors/sources don't differentiate these two approaches

Terms and definitions on urban renewal in China might be different from those in Europe due to its unique historic background, drivers and characteristics. The definition and meaning of “*urban renewal*” was literally taken from European context, while the understanding of urban renewal (direct translation in Chinese as “*Cheng shi geng xin*”) has a number of differences and deviations. Urban renewal, used as a generic term, together with urban redevelopment, rehabilitation and conservation, was firstly introduced and used in China by Wu Liangyong, a professor and worldwide famous architect in Qinghua University (Wu, 2011).

Table 7 summarizes the understanding and practice of urban redevelopment, urban rehabilitation and urban renewal in China. These three terms are basically referring to similar practice but having differences in dimensions of background, scale, time, drivers and objectives.

*Table 7: Differences of terms being used in Chinese context*

<i>Description</i>	<b>Jiu Cheng (Old City) Gai Zao</b>	<b>Jiu Cheng (Old City) Zheng Zhi</b>	<b>Cheng Shi (City) Geng Xin</b>
<i>Corresponding in English</i>	Urban Redevelopment	Urban Rehabilitation	Urban Renewal (Regeneration)
<i>Source</i>	China	China	Western
<i>Time</i>	After Reform and opening up	Early after the foundation of the PRC	After World War II
<i>Scale</i>	large-scale, wide ranging	small-scale, specific targets	large-scale in general with multi-objectives
<i>Historical background</i>	Rapid economic growth and urban development, land value increase, old city functions need to be adjusted.	Post-war recovery, limited resources, political decisions to fully use the existed urban assets for building a new city	Central area decline, unemployment raised, economic depression, deterioration of social security and living conditions.
<i>Drivers</i>	Economic-oriented process	Politic-led social improvement	Mixed and comprehensive orientation
<i>Main target</i>	Renovate the old city, based on urban planning to adapt to the new economic situation by taking old cities’ location advantage in attracting new development	Modify and reuse the existing buildings and environment in old cities to improve residents’ living standard there	Revitalize city centre and urban nodes to boost overall urban economy, stabilize the society, and attract middle and upper-middle class to return to once run-down urban areas.

### 3.1.2 CHALLENGES OF URBAN RENEWAL IN CHINA

#### 3.1.2.1 Development of urban renewal strategies in China

China has successfully experienced a fast urbanisation over more than 3 decades mainly through urban expansion, both in population and in land. On the contrary, China’s older urban districts were seriously threatened to lose their vitality and turned into socially disintegrated and economically distressed areas in the urbanisation process. To address this issue, China began to implement its pilot urban renewal projects in the early 1990s.

However, urban renewal practices were mainly carried out through massive demolition of buildings, and the relocation of inhabitants in the early stage of 1990s when the former public housing areas and old industrial sites, characterized by a spiral of decline and lack of investment, required urban redevelopment badly (Hui, 2013). The “*Three Old Movement*” during 2010-2015 was oriented towards adjusting the initial practice by aiming to enhance urban land value through protecting the original residents’ property and redevelopment rights and heritages (Wang, 2016). As the land value in urban core areas is becoming more lucrative, traditional urban areas are increasingly challenged by more conflicts of interests among different actors and tensions between individuality and collectiveness (Wang, 2016).

The high cost of relocation, less desirable redevelopment due to lack of social inclusiveness, ‘*organic*’ environmental improvement and the value of living-culture embedded amenities to redeveloped communities is imposing new challenges in the coming transitional period. A more balanced redevelopment approach needs to be identified and effectively implemented.

The main motivation for Chinese urban regeneration is to prevent the ageing of urban infrastructure, for example, by removing dilapidated buildings and improving living conditions. Currently, urban regeneration is mainly driven by China’s profound social and economic changes and the population’s increasingly sophisticated infrastructure requirements (Xue et al., 2015).

In the regeneration process, China is dealing with *five related issues*, i.e. 1) *deindustrialization and tertiarization in big and industrialized cities*; 2) *suburbanisation and gentrification* in central cities; 3) *urban community construction and employment provision*; 4) *cultural heritage protection and maintenance*; and 5) *institutional reforms for urban planning and management* (Zhang, 2004).

From the perspective of fostering socially integrative cities and in response to the new urbanisation process, the following issues are among the challenges of urban renewal in China.

**In terms of reducing urban sprawl and promoting well balanced land conversion and appropriate access to urban land:**

- The economic slow-down in China increases uncertainty regarding the planned key infrastructure in old urban areas;
- Following the above trend, the decreasing number of in-migrants from rural to urban areas requires higher accessibility of the existing urban areas to meet the demand of new migrants, which in turn increases the demand for urban renewal;
- The Millennials and Generation Z prefer to live in a more urban and cosmopolitan environment and thus increase the demand for urban renewal;
- Imbalanced social welfare and public services between the urban core and the urban periphery increase the difficulty for an equal population distribution.

**In terms of improving the environment and living conditions in urban areas:**

- High density, poor environmental conditions, such as lack of green spaces, rundown roads, inadequate urban facilities, in existing historic neighbourhoods make the relocation more and more difficult;
- Relocation costs are increasingly getting higher and higher in financial terms;

- Humanity-oriented relocation regulations (e.g., an 85 % majority vote of local residents is required for an agreement before a relocation project can be kicked off) make urban renewal processes very time consuming;
- Continuous debate on urban gentrification vs. urban redevelopment with general improvement among policy decision-makers;
- Priority choice of social integration objectives vs. affordability of redeveloped communities.

**In terms of upgrading the physical environment in distressed areas:**

- Protection and preservation of cultural heritage in built-up areas vs. urban functional adjustment;
- Less viable local environment and run-down conditions in old buildings in distressed areas make the physical upgrading more difficult and costly in terms of increasing energy efficiency.

**In terms of promoting efficient and affordable urban transport:**

- Gated communities in most urban cores areas hinder the enhancement of accessibility and connectivity of the urban fabric;
- Essentially no policies on Transit Oriented Development (TOD) implementation in urban core; the poor connection in stations with surrounding areas or buildings waste vast human energy and time;
- Less standardized public-private-partnership practices, particularly when State-Owned Enterprises (SOEs) play the role as private sector in the process, which slows down the provision of needed transportation infrastructures.

**In terms of assuring equal access to municipal services:**

- Most shantytowns and urban villages have poor infrastructure and sub-standard urban facilities due to their informal status;
- The Hukou system creates an invisible wall hindering people who don't hold a permanent urban residence permission, mainly rural in-migrants and young graduates, from reaching the municipal services particularly in education, health care, and bank loan for housing, etc.

**In terms of strengthening the local economy and labour markets:**

- The high-end urban redevelopment may result in the loss of some labour-intensive sectors and enterprises and therefore limit the job opportunities for local residents;
- Regulations prohibiting any kinds of business in residential apartments hinder start-ups that may not cause pollution and noise effect.

**In terms of fostering proactive education and training policies for children and young people in disadvantaged neighbourhoods**

- Lack of diversified education and training systems on community or neighbourhood scale through formal channels, while private ones could be less affordable by most local residents in disadvantaged areas;
- While government encourages communities to strengthen or provide possible education and training services locally, the high cost for customized education or training demand is difficult to be met, as neighbourhoods usually do not have their own budget.

### **In terms of preserving cultural heritage and fostering the identity of neighbourhoods and their inhabitants**

- Less awareness raising and multi-stakeholders participating;
- How to mobilize more players to involve in, and kick off the initiatives of local residents;
- Lack of related events and activities to branding the heritage and its multiple values.

### **In terms of fostering social capital and participation in neighbourhoods**

- Lack of awareness and appropriate approaches to integrate local inhabitants in renewal processes.

### **In terms of supporting adequate institutional mechanisms**

- The good practices piloted by some cities, such as Shenzhen and Guangzhou in terms of institutional reforms in urban renewal cannot be effectively replicated into other cities, as the experience in pilot cities may be unique and share less common ground to be applied by other cities.

#### **3.1.2.2 Local experiences of urban renewal in China**

Besides the national efforts to cope with the challenges of urban renewal, a number of local initiatives can be observed in order to develop strategies to urban renewal. Following some representative examples are presented.

**Shenzhen** may be considered as a frontier city in urban renewal. A “*general old village’s office*”, addressing the renewal of Shenzhen’s original ten villages, was established as early as 1990. Sequentially, over the years to 2004, renewal plans for the old villages and old factories were published (Liu et al., 2017). By 2009, Shenzhen emerged as the first Chinese city to promulgate urban renewal legislation that specifically dealt with urban socioeconomic development problems arising from a lack of available land, which is “*Urban renewal measures of Shenzhen Municipality*” (Shenzhen Municipal Government, 2009). The concept of “*urban renewal*” was officially proposed for the first time in Chinese policy. Thereafter, in 2012, more land was released by the Shenzhen government to accommodate growth projects, systematically set out in the urban renewal policies adopted. Because of long-term urban renewal policies, especially since 2009, there have been more than 270 urban renewal projects completed, with around 461 projects being incorporated into urban renewal plans.

As there were many decayed neighbourhoods in the urban centre, the mayor of **Guangzhou** put forward the “*Zhong Tiao (Downtown adjustment)*” strategy to achieve the revival of old town of Guangzhou. One of the important tasks of “*Zhong Tiao*” strategy was to redevelop urban villages. The redevelopment policies can be divided into two groups: the redevelopment policies before “*Zhong Tiao*” strategy and the redevelopment policies (after Zeng, 2016). Before “*Zhong Tiao*” strategy (2000-2006), on the management side, the policies indicate that urban villages’ institutional reforms would be implemented, including the reform of administrative and economic functions of the villages, and the reform of land use and urban construction system. On the implementation side, government or village collective would be the principal actors to implement the reconstruction of urban villages and no private developer would be allowed to get involved into the reconstruction process. However, the urban village redevelopment process was totally deadlocked because private developers were excluded (Tian, 2008). After the “*Zhong Tiao*” strategy, Guangzhou government began redevelopment projects in some experimental urban villages. During the process, Guangzhou government identified several important principles for the redevelopment of urban villages. The principles include: (a) each village will have its specific redevelopment plan (one village one policy); (b) the redevelopment must be led



by the state (state-led); (c) private developers are allowed to participate in the redevelopment; and (4) an urban village redevelopment plan (including its compensation arrangements) must be endorsed by at least 80 % of the indigenous villagers (Chung and Zhou, 2011).

“The process of urban renewal in **Shanghai** began in 1978 after the reform and opening up policy. After 1949, the basic task of Shanghai's urban planning and construction is to upgrade and adjust old urban industrial lands, gradually build satellite towns on the periphery, arrange necessary new construction and relocation of industrial land, and gradually cut down about 3 millions of population in old town, renovate old houses and build new ones, and increase green areas together with public buildings in order to make people live a better and more comfortable life” (Chen, 2008). From 1980-1990, Shanghai was dealing with rapid population growth by housing remodelling and villa developments (Gaubatz, 1999). With Shanghai stepping into the 21<sup>st</sup> century, the Central City has embarked on its overall waterfront redevelopment plan, historical conservation program, creative industry-led adaptive reuse of old industrial spaces and a series of initiatives to develop relevant ‘software’ needed, from basic infrastructure to city administration, in preparation for the 2010 Shanghai EXPO (Yan et al., 2017). After 2010, Post-Expo Shanghai will optimize the functional positioning of the Expo site and propel its secondary development by market mechanism and market subjects. The regeneration goal is to turn the Expo site into a centre for conferences and exhibitions, tourism and leisure, external exchange activities and high-end internationally-focused service sectors (Yang, 2010).

### 3.1.3 GOOD PRACTICE EXPERIENCES OF URBAN RENEWAL IN EUROPE

#### 3.1.3.1 Drivers of urban renewal in Europe

Urban renewal is influenced by several drivers, which can be ordered in different categories. We see the following four dimensions of drivers:

##### a) Local situation, problems and challenges

The starting point to act both for concrete urban renewal processes on site and setting the overall political agenda are local problems regarding the social and economic stability, environmental quality and liveability (Figure 5).

Economically	Social	Physically	Environmental
impacts of demographic change (shrinkage and ageing; migration)		vacancies and abandoned buildings	climate change
poverty, unemployment	security issues	transport issues	land take
deindustrialization	social inequalities manifested in building structures		unhealthy living conditions
image	problems of cohabitation and ethnic as well as social integration, “parallel societies”, social and ethnic segregation	rundown infrastructure, public facilities and residential buildings, need for modernization/rehabilitation of housing stock	
uneven urban development, concentration of disadvantaged population, disparities, unbalance in and of cities		rehabilitation of historical/listed buildings	
		brownfield development	

Figure 5: Overview about local challenges, which might be addressed by urban renewal (own compilation based on experiences in Europe)

## **b) Policies, strategies, objectives**

The policy framework is on the one hand influenced by local problem descriptions and awareness. On the other hand, global and general debates and trends (above all sustainability) are reflected and transferred into national or supra-national goals. By corresponding policies, overall strategies and dedicated objectives addressing urban/urban renewal issues, the societal relevance of certain challenges is represented and the political awareness is showed.

For Europe, on a meta-level the following objectives for any urban renewal activities can be identified: Improving living conditions, foster sustainable development and following a growth strategy, economic stabilization, competition of cities in a globalized world, and cities as growth engines. From a dedicated urban perspective, the following factors underlying the adoption of urban regeneration policies and projects include *“pressures from major short- or long-term economic problems, deindustrialisation, demographic changes, underinvestment, infrastructural obsolescence, structural or cyclical employment issues, political disenfranchisement, racial or social tensions, physical deterioration, and physical changes to urban areas”* (URBACT, 2014, p. 6). Addressing particularly environmentally sustainable urban regeneration in European cities today, three thematic clusters of challenges are named (URBACT, 2014): climate change, carbon emissions and resource use (physical perspective); social justice, inequality and health (socio-economic perspective) also caused by ageing, diversification, socio-spatial segregation, socio-economic inequalities; and governance and geographical disparities (climatic, institutional, historical, etc.) (geo-institutional perspective).

## **c) Public steering approaches**

Steering approaches are provided and developed based on the overall international and national policy frameworks and the particular challenges to be addressed in the relevant neighbourhoods. To implement policy objectives, they are supplemented by programmes, funding opportunities, legal regulations etc., which empower local stakeholders, set incentives for real estate owners and investors to act in the affected neighbourhoods, and to allow public funding for measures in the public space or infrastructure. These steering approaches might come from different arenas and scales. In the European context (1) European (co-)funding programmes, (2) national funding regulations, and sometimes (3) additionally regional/federal funding programmes can support local activities.

## **d) Individual (economic) interests**

In addition, individual (economic) interests play a role in urban renewal. Local inhabitants, stakeholder initiatives and communities formulate their specific demands, objectives and expectations for urban renewal. Real estate owners, which are partly represented by inhabitants, and potential investors have particular interests, which may be dominated by economic interests. These interests may be addressed by tailored public steering approaches to empower and enable single stakeholders to act by parallel avoiding processes, which only serve particularly individually economic interests.

Figure 6 shows the relation between the four dimensions of drivers. Within this framework it becomes clear, that urban renewal approaches are characterized by several drivers and steering opportunities.

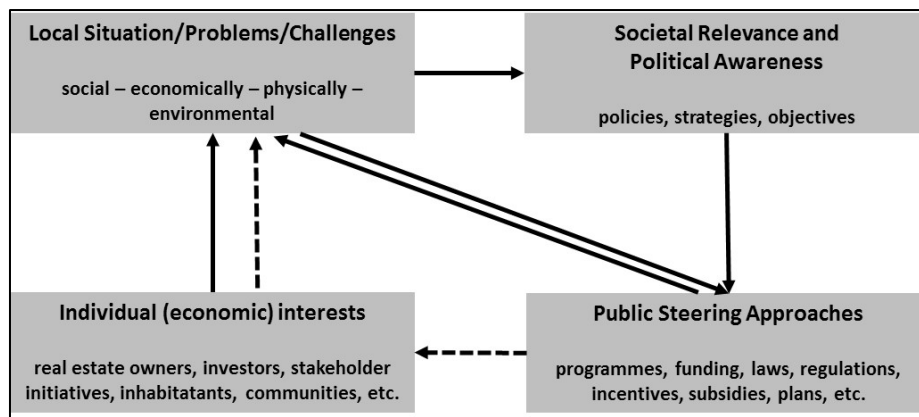


Figure 6: Framework of drivers for urban renewal processes

### 3.1.3.2 Examples and experiences in Europe

In the following section, approaches of selected European countries are presented, to show different strands of urban renewal strategies.

#### Germany: National Framework of “urban development assistance programmes for sustainable urban development structures” - a framework for financial support of municipalities to address changing challenges and demands of urban renewal

Since the 1970s, a dedicated funding programme to support urban renewal activities has been in existence, based on the German constitution, which allows the national state to support the federal states in challenges of urban development. It was initiated by the awareness of the need of physical refurbishment of existing neighbourhoods and socio-economic stabilization to avoid deprived areas (Couch et al., 2011). The framework is embedded in national policies and the planning and building code. Based on yearly negotiations the national state and the federal states adopt a joint agreement on “Urban development assistance programmes for sustainable urban development structures”<sup>10</sup>. In this agreement the funding objectives, principles and procedures are defined. The financial subsidies are provided from the national state, the individual federal state, and in addition from municipal budget (regularly one third by each entity). Based on this, the municipalities can apply for funding of several projects and activities, which need to follow the objectives and requirements of the programme and being strategically planned based on integrated urban development concepts.

The main objective is to strengthen cities and towns as places for economy and life by resolving obstacles hindering this. Projects shall address the following objectives:

- strengthening inner cities and town centres regarding their urban functions, while at the same time considering the demands of provision of residential buildings and protection of historic buildings;
- creating sustainable urban structures in areas affected by a loss of significant urban functions; the principle indication of such functional losses is a permanent oversupply of structures such as vacant dwellings or derelict sites in inner cities; particularly industrial sites, former military sites, and railway sites are to be converted for appropriate re-use;
- urban development measures to eradicate social deprivation;

<sup>10</sup> [https://www.staedtebaufoerderung.info/StBauF/DE/Home/home\\_node.html](https://www.staedtebaufoerderung.info/StBauF/DE/Home/home_node.html)

- ensuring provisioning functions of small towns in rural, peripheral areas;
- addressing environmental challenges, such as climate change and biodiversity loss.

Reflecting the main challenges of urban renewal, several programmes are defined, which are being adapted over the years. The initial and main programme has been the programme “*Urban renewal and development measures*”. This was implemented from 1971 until 2012. Over the years, this has been accomplished by programmes addressing particular challenges as social integration, urban restructuring in shrinking cities, rehabilitation of historic cities, challenges of small-sized towns, and green space development. While some programmes are focussing on physical challenges (abandonment and vacancies, retrofitting, infrastructure provision), others address social challenges explicitly. Since 1999, the programme “*Socially integrative cities*” has been supporting the stabilisation of neighbourhoods, which are physically, economically, and socially deprived. It aims at the improvement of the public space, the infrastructure and the living quality as a basis for intergenerational equity, vivid neighbourhoods and social cohesion to strengthen participation and integration.

The programmes are regularly evaluated. National contact points (network activities, consultation, and good practice knowledge) support the implementation in order to ensure the best benefit for the municipalities. Besides the funding, legal regulations for the implementation based on the building and planning code need to be applied. In the following, a concrete example is presented (Table 8).

**Denmark: Kvarterløft - focus on communities, inhabitants, cooperation, and bottom-up approaches**

In Denmark, there is a long history of urban renewal. In the beginning, the focus was on physical refurbishment of existing neighbourhoods (including clearance). Already in the 1970s, the need for participation of local inhabitants became clear, and the renewal programmes later reflected this. Starting in the 1990s, socio-economic challenges and segregation processes in neighbourhoods from the 1960s to 1980s (mostly large high-rise estates in non-profit housing areas) and historical inner-city neighbourhoods became evident (Franke and Strauss, 2005). To combat the spatial concentration of socio-economic problems the programme “*Kvarterløft*” (Integrated Urban Regeneration) was introduced by the national government in 1996 (1997-2007). The programme is focused on neighbourhoods and is based on cross-sectoral combination of supporting activities addressing both communities (people) and neighbourhoods (places). Besides physical renewal, also social and economic issues are addressed. Emphasis is laid on collaboration of local authorities, other stakeholders, and local residents. Meanwhile the Kvarterløft experiment has been mainstreamed in the legislation as area renewal (EUKN, 2011).

Table 8: Example Germany/Dresden-Löbtau (LUDA, 2006; LHD, 2012; LHD, 2015; EUKN, 2011; <https://www.dresden.de/de/stadtraum/planen/stadtentwicklung/stadterneuerung/sanierung/Sanierungsg-Loebtau.php>)

	<b>Example Germany/Dresden-Löbtau</b>
<b>Drivers</b>	<p>Type: deprived neighbourhood</p> <p>Period: 1993-2018 (ongoing)</p> <p>Inhabitants: 13.300 in 2015 (7.500 in 1993)</p> <p>Size: 127 ha</p> <p>Funding: 26,2 Mio € (including 18,4 Mio € for public measures)</p>
<b>Local Challenges</b>	<p><b>Economically:</b></p> <ul style="list-style-type: none"> <li>- shrinking and ageing population</li> <li>- low capital resources prevent investment by local enterprises</li> <li>- local service business suffers from a low attractiveness of public space and a relative</li> <li>- low purchasing power within the area as well as from the competition with the shopping centres at the urban edge</li> <li>- uncertainty regarding future housing demand prevents investment in buildings</li> <li>- negative image</li> </ul> <p><b>Social:</b></p> <ul style="list-style-type: none"> <li>- shrinking and ageing population</li> <li>- rates of unemployment and recipients of social welfare are beyond average of the city</li> <li>- high fluctuation of tenants in the area</li> <li>- poor socio-cultural infrastructure in the entire area</li> </ul> <p><b>Physically:</b></p> <ul style="list-style-type: none"> <li>- poor and insufficient public infrastructure (streets, pavements)</li> <li>- run-down residential buildings, including lacking modern sanitation and heating (1990: 15 % of the residential buildings were dilapidated, 50 % were damaged)</li> <li>- vacancies in residential (1990: one third of vacant flats) and industrial/commercial buildings</li> <li>- brownfields, derelict sites and inaccessible wasteland</li> </ul> <p><b>Environmentally:</b></p> <ul style="list-style-type: none"> <li>- qualitative and quantitative deficits of open and green space (lack of playgrounds and sports facilities)</li> <li>- contaminated grounds lower the soil and ground water quality</li> <li>- risk of flooding</li> <li>- unsatisfied accessibility (recreational use) of the river e.g. through brownfields</li> <li>- negative effects of traffic, like noise and pollution lower the quality of life</li> </ul> <p>→ Objectives:</p> <ul style="list-style-type: none"> <li>- protection of urban structure</li> <li>- development of social facilities and technical infrastructure</li> <li>- improvement of public realm</li> </ul>

Policy Framework and further activities	<p><b>European Programme URBAN II</b> (2000-2006): following an integrated approach to tackle a high concentration of social, environmental, and economic problems in neighbourhoods in extreme deprivation, characterized by high unemployment, poor housing conditions, run-down urban fabric, lack of social amenities, and also isolation, poverty and exclusion of the inhabitants.</p> <p><b>German “National Urban Development Policy”</b> (2007): focus on maintaining social stability in cities, promoting innovation and economic development, combating climate change, designing the physical environment (Baukultur and heritage conservation), incorporating urban development in a city-regional context and harnessing civic engagement.</p> <p><b>LUDA Project</b> (2004-2006) LUDA was an EU-funded research project of key action 4 "City tomorrow and cultural heritage" of EESD with the title "Improving the quality of life in Large Urban Distressed Areas (LUDA)". Dresden-Löbtau was one of the European cases. (<a href="http://www.luda-project.net/ref-cit.html">http://www.luda-project.net/ref-cit.html</a>).</p>
Public Steering Approaches	<p><b>Subsidies:</b></p> <p>Subsidies have been granted of the programme “Urban renewal and development measures” of the national Framework of „urban development assistance programmes for sustainable urban development structures” (see above). Measures, which have been funded by this programme and implemented in the area:</p> <ul style="list-style-type: none"> <li>- development of a renewal concept for the defined area (including objectives and measures), to become binding for the municipality by decision of the city council (statute)</li> <li>- support of private investments in measures to refurbish the buildings (around two third of the subsidies)</li> <li>- implementation of measures in the public space (playgrounds, green spaces, streets and places; around two third of the subsidies), including purchase of private plots by the municipality to build green spaces and social infrastructure facilities</li> <li>- disposal of vacant industrial sites and wastelands</li> <li>- participation of residents and local stakeholders within planning processes for measures in the public space</li> </ul> <p>Additionally, financial aid of around 20 Mio Euro by the European Regional Development Fund (ERDF) has been used (within the programme URBAN II).</p> <p><b>Land use planning and management:</b></p> <p>Measures being funded within the programme “urban renewal and development measures” needs to follow the regulations of the German planning and building code. There, two opportunities are provided: (1) comprehensive procedure and (2) simple procedure. Within (1) some specific regulations need to be followed, particularly this provides the opportunity to determine the (partial) financial return of profits of private owners to the municipality. If this instrument would have been applied also accompanying detailed zoning plans would have been necessary. In the case of Dresden-Löbtau the (2) simple procedure has been applied as here no general restructuring measures have been planned and the initial building structure of the site should be preserved. Here, the focus should be on refurbishment of residential buildings and public realm. Additionally, neither considerable profits from rising real estate values were expected nor zoning was necessary.</p> <p>A crucial part of the renewal concept is the so called “<i>social plan</i>” to balance hardships, which is established before any retrofitting measures are implemented. By this, displacement of the original inhabitants should be avoided (e. g. by coordination of movement in case of refurbishment measures, fixed rents).</p> <p>As also listed buildings are in the area, additionally the rules of the heritage preservation code of the federal state must have been applied when retrofitting single buildings.</p>

Individual activities	<p>As the biggest ratio of residential buildings is privately owned, the focus of the renewal activities was to enable and support private real estate owners in retrofitting their run-down, damaged and often vacant houses. The first step was to safeguard the houses from ongoing damaging. Based on this, comprehensive retrofitting measures have been realized. As an incentive for private owners to implement measures, they had the possibility of extraordinary depreciation. Additionally, they gained benefits from the raising attractiveness of local infrastructure and environment, as they demand for their flats increased. Finally, the public subsidies in the area were complemented by nearly tenfold private investments. The refurbishment of buildings (including areas for offices, stores etc.) and the growing number of inhabitants led to new opportunities for small enterprises, retail and commerce. Thus, also job opportunities increased and the local economy has been improved.</p>
Stakeholders	<ul style="list-style-type: none"> <li>- city council and local political decision makers</li> <li>- departments of the Dresden city administration</li> <li>- superior authorities of the federal state of Saxony</li> <li>- local associations and non-profit organisations</li> <li>- private enterprises</li> <li>- property owners</li> <li>- residents</li> </ul>
Evaluation of aspects of socially integrative urban renewal	<p><b>Objectives being reached:</b></p> <ul style="list-style-type: none"> <li>- improvement of public realm/space (streets, pavements, bicycle tracks, green space development, establishment of playgrounds)</li> <li>- improvement of housing conditions by generating additional private investments in housing (more than 90 % of residential buildings are refurbished)</li> <li>- improvement of the environmental quality (green space development on brownfields, planting street trees, noise reduction by street refurbishment)</li> <li>- improvement of social infrastructure (refurbishment of public schools, building of kindergartens)</li> <li>- improvement of public services and retail</li> <li>- socio-economic stabilization of the area (growing population, growing local economy)</li> <li>- participation of local inhabitants (green space development, playgrounds, street refurbishment)</li> </ul> <p><b>Criticism:</b></p> <ul style="list-style-type: none"> <li>- risk of gentrification (displacement of inhabitants by higher rents)</li> <li>- high fluctuation of citizens in the area leads to a minor identification and consequently to a less participation level</li> <li>- existing initiatives get relatively low assistance by the municipality</li> <li>- lack of adequate structures/instruments/resources to handle the lack of consent between the estate owners and the city administration</li> <li>- no institutional structures that involve all internal and external stakeholders in the regeneration process</li> </ul>
Reflection of transformative capacity	<p>The following success factors can be summarized:</p> <ul style="list-style-type: none"> <li>- To push activities in the public space and privately-owned buildings, complementary subsidies for public measures and private investments are necessary. The focus of public efforts should be on public spaces, facilities increasing the quality of life and environment. Parallel private (economic) interests should be addressed by financial incentives for private real estate owners. Partially, financial return of profits to the public could be envisaged.</li> <li>- Financial support for single measures should be embedded in legal regulations and planning.</li> <li>- The combination of informal instruments (urban development concepts, renewal concepts) and formal instruments (zoning plan) is useful to allow both strategic and incremental development as well as legally binding steering.</li> <li>- Standardized and transparent procedures support fair and gentle processes without displacement.</li> <li>- The participation of all stakeholders and inhabitants enables to react on demands and rises understanding.</li> <li>- Renewal need a long-term perspective and continuous processes.</li> </ul>

**Great Britain: New Deal for Communities programme (NDC) – an approach to encourage local partnerships to address local regeneration demands over a well-defined period within a given financial framework**

In Great Britain, urban renewal was and is strongly driven by economic demands and interests. The focus of activities is to tackle economic challenges underlying deprivation and strengthen the regional economic performance. Thus, urban regeneration means improving economic performance and tackling unemployment, creating good conditions for business growth and creating places where people want to live and are able to work. The strategies are mainly based on support for enterprises and investments of the private sector. A number of tailored programmes have been implemented addressing specific challenges as affordable housing, functioning property markets, abandonment of housing, or challenges in coalfield communities (EUKN, 2011). In the 1990s the awareness of integrated approaches, involving local authorities and inhabitants raised (Couch et al., 2011).

In 1998, the “*New Deal for Communities (NDC) programme*” was introduced as a ten-year programme (until 2011) of funding for 39 neighbourhood-led activities in specific neighbourhoods, addressing six key themes: high unemployment and poor job prospects, high crime rate, educational under-achievement, poor health, housing problems and problems with the physical environment (EUKN, 2011). Within the programme, limited funding for implementing local regeneration schemes in a limited number of areas was provided. The implementation is based on partnerships, developing their own, community-led agenda for the respective neighbourhood. Thus, these are area-based initiatives, where the community is placed in the centre of activities. Main efforts have been made to engage residents and to enhance the capacity of the local community (Batty et al., 2010).

**3.1.4 CONCLUSIONS**

Comparing the background and the need for urban renewal in Europe and China some similarities and also differences due to the challenges and experiences become clear:

In Europe, the challenges for urban renewal changed from merely physical demands to social and socio-economic demands in deprived neighbourhoods. As often these issues are interrelated to each other, recent approaches to renewal focus on integrated concepts and activities, addressing physical, environmental and socio-economic issues.

Active urban renewal in European cities is addressed by both top-down and bottom-up approaches. National states provide funding, regulations, and they define the main targets. They are supported by European (financial support and research) programmes. The implementation is strongly influenced by the affected municipalities/communities regarding the definition the neighbourhoods, priority topics and measures to be undertaken. Looking at the several European national programmes addressing urban renewal in municipalities, two main components seems to be crucial: First, funding schemes initiate actions in neighbourhoods where private and public finances are lacking in order to address individual economic interests and socio-economic demands of communities. Second, to regulate the processes and to avoid segregation and displacement, accompanying legal regulations for implementation are crucial. All recent approaches are characterized by a large awareness of the role of local communities, inhabitants and other stakeholders for implementing successful and particularly socially integrative urban renewal projects.



Summarizing, the observed governance modes of urban renewal in Europe do address the components of transformative capacity (Wolfram 2015) to certain extents. Particularly the agency components as inclusive and multi-form urban governance and empowered communities of practice are addressed. Additionally, components as learning and reflexivity play a role.

With regard to the characteristics of a “*socially integrative city*” nearly all European urban renewal strategies and approaches aim at addressing the relevant features. Nevertheless, looking at the realities not all of the initial objectives can be reached. Successful renewal in terms of economic growth and improved living conditions often leads to gentrification and displacement of economically weak persons.

The review of the urban renewal practice in China indicate the complexity of this issue within the Chinese urbanisation framework, while some key conclusions and policy implications can be highlighted as followed:

- The scientific definition of urban renewal related concepts is still under development and evolution. However, practices in urban renewal, regeneration and redevelopment have been going on since a long time. This happened whenever there was a need. For example, in the case of Beijing, urban redevelopment started as early as in the 1950s when New China wanted to rebuild its capital city as a model for other cities China.
- Along with the various terms and definitions, there is no consensus in understanding the concepts of urban renewal practice in China across different city governments. Therefore, municipal governments usually were pro-active in undertaking pilot and demonstration projects. However, they did this based on their individual understanding and the different local settings in their specific cities. This has brought forward many good practices and models on the one hand. However, it has also created confusion for other cities in their urban renewal commitment on the other hand.
- Given the vast regional disparities in China, the above practice has its logic and reason in ground, while the policy in this regard is usually lagging behind the practice. Policies in many ways play a role of legalizing what has been done and achieved rather than guiding what should be done. Because of the fact that policy is rather following than leading, the change of policies tends to be more frequent than it may be useful to be. In other words, the empowered life span of policies may be too short to ensure the practical implementation to stay in a more reasonable way or right track.
- Government-led urban renewal practice is still dominant in most cities in China, although in large cities such as Beijing, Shanghai, Shenzhen and Wuhan, other stakeholders such as big real estate developers are getting increasingly an important role to play in urban renewal. In such cases, the involvement of private developers has often speeded up urban gentrification due to their need for return on investment. This implies that urban finance is becoming a crucial challenge for overall urban renewal practice.
- In the future, we can expect that the preconditions for urban financing of urban renewal projects will further decrease. This is mainly due to the following trends: 1) The slowdown of economic growth makes it more difficult to generate income. 2) The demand for urban renewal in China is increasing in future. The Millennials and Generation Z as the backbone and pool of city innovation prefer to live in cosmopolitan urban environments that are usually found within the older urban

- cores. 3) The ever increasing land and housing prices cause that the cost for the relocation of inhabitants becomes so high that it is almost impossible for private developers to earn sufficient income by carrying out general urban renewal projects in large and high density urban core areas.
- The new urbanisation approach in China emphasizes quality development with many concrete quantitative objectives. However, there is still no clear roadmap yet in guiding urban renewal practice. More explorative and pilot approach will be badly needed in the coming years in terms of strategic integrated planning and land use regulations, resilient urban spatial arrangements and place making, participatory budgeting and PPP practice, multi-stakeholder participation in commitment, nature-based solution oriented eco-environment restoration, and culture-embedded and socially inclusive community building, etc. Any good practices in the EU and other developed countries in all these regards can be valuable references, and may have useful implications for China's new urbanisation pursuit and transition.

## **3.2 URBAN EXPANSION**

### **3.2.1 FOSTERING URBAN EXPANSION AREAS**

#### ***3.2.1.1 Challenges for social integration in Chinese cities***

The following section highlights major future challenges of Chinese cities regarding processes of urban expansion and ways to limit growth. First, main drivers of urban growth, including rural-urban migration are identified. Second, forms and mechanisms of land use planning, and land development, are characterized, and the fiscal framework for urban expansion is discussed. Moreover, their impacts on the social fabric of cities and social integration within cities and neighbourhoods are analysed in the third part. And finally, based on the preceding considerations and official policy documents of the Chinese National Government, major challenges of urban development with special consideration of urban expansion are characterized.

In 2011, the urban population in China exceeded the 50% threshold. It is expected that in 2030 the urbanisation rate would reach around 70% (Zhang and Lin, 2012). Achieving urbanisation in such scale in a limited time and space has never been experienced worldwide before. China's urban development consists of formal and informal development, including urban function transfer, new district construction, urban renewal, shantytown renovation and informal settlement construction. Land use/cover changes with the dynamic interaction between supply and demand of urban space on the march. Figure 7 shows the built up area expansion in China during 1990-2015. The urban expansion mainly takes place in the eastern region, especially along the coastal line. The most significant urban expansion is observed in the city clusters of Beijing-Tianjin-Hebei, the Yangtze River Delta and the Pearl River Delta.

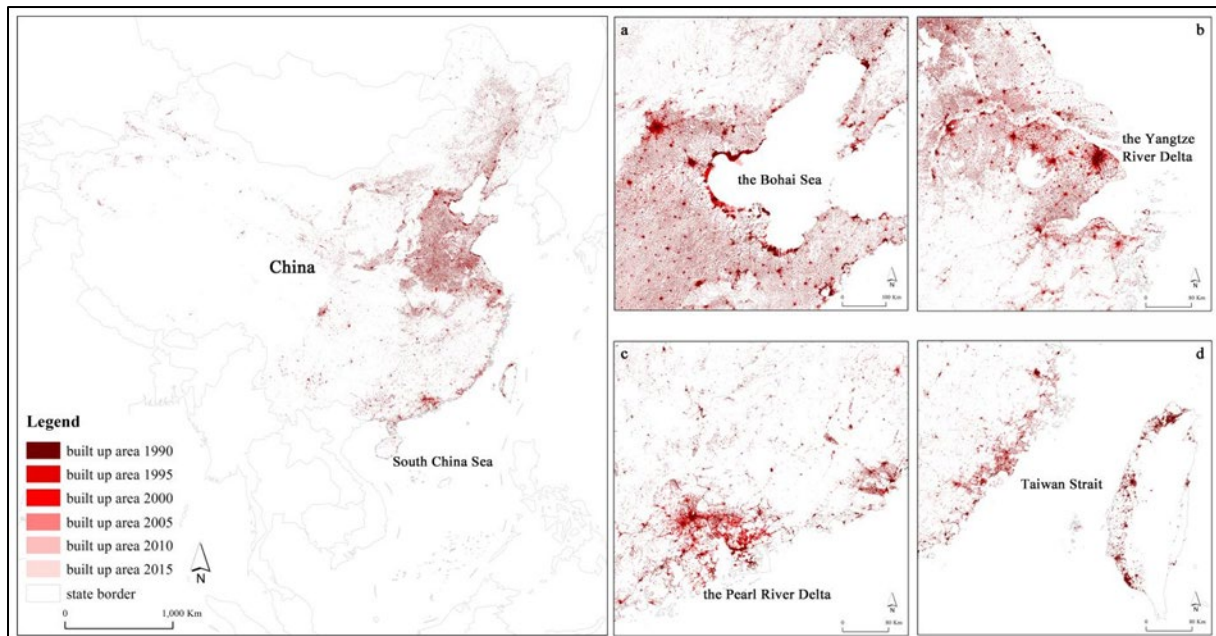


Figure 7: Built up areas expansion in China for urban and rural settlements, 1990-2015 (Source: image interpretation data is from Chinese Academy of Sciences Resource and Environmental Science Data Centre)

Detailed maps: a: built up areas expansion in the Circum-Bohai-Sea Region; b: built up areas expansion in Yangtze River Delta; c: built up areas expansion in Pearl River Delta Region; d: built up areas expansion in Fujian-Taiwan region.

### 3.2.1.2 Main drivers of urban growth

Since 1978, institutional policies and market forces have become two major factors, which intertwined in China's urbanisation process characterized by 2 forces (Figure 8):

- Rural population transferred to industries with higher wage rates, and
- Non-construction land was converted into higher-margin uses.

Urbanisation is driven by fast economic growth. But it is also an important contribution to growth as large cities present a high level of income and productivity (OECD, 2015). Specifically, after China's Reform and Opening, with the implementation of the *Household Contract Responsibility System*<sup>11</sup>, a large number of agricultural surplus labour force was formed in rural areas. As a result of higher income, there was an increasing demand on better entertainment, education and living environments, which are often better met in larger cities (Wang, Zhong & Chen, 2004). Meanwhile, after the Tax Sharing Reform in 1994<sup>12</sup>, most of the tax revenues for the paid use of state-owned land were left to

<sup>11</sup> Launched in the early 1980s, the contract allowed households to lease land, machinery and other facilities from collective organizations

<sup>12</sup> The previous fiscal contracting system was replaced by a tax sharing system. The shift changed the relationship between central and local governments in three ways: it ensured the credibility of the proportion of central sharing; it reduced the incentive of local governments to conceal income; and it allowed the central government to carry out macro-regulations and balanced regional economic differences (Fan & Wan:4).

local governments coupled with the incentives of the “*GDP tournament*”<sup>13</sup> under the government performance assessment system (Fan & Wan, 2016; Li, 2012; Wu, 2014).

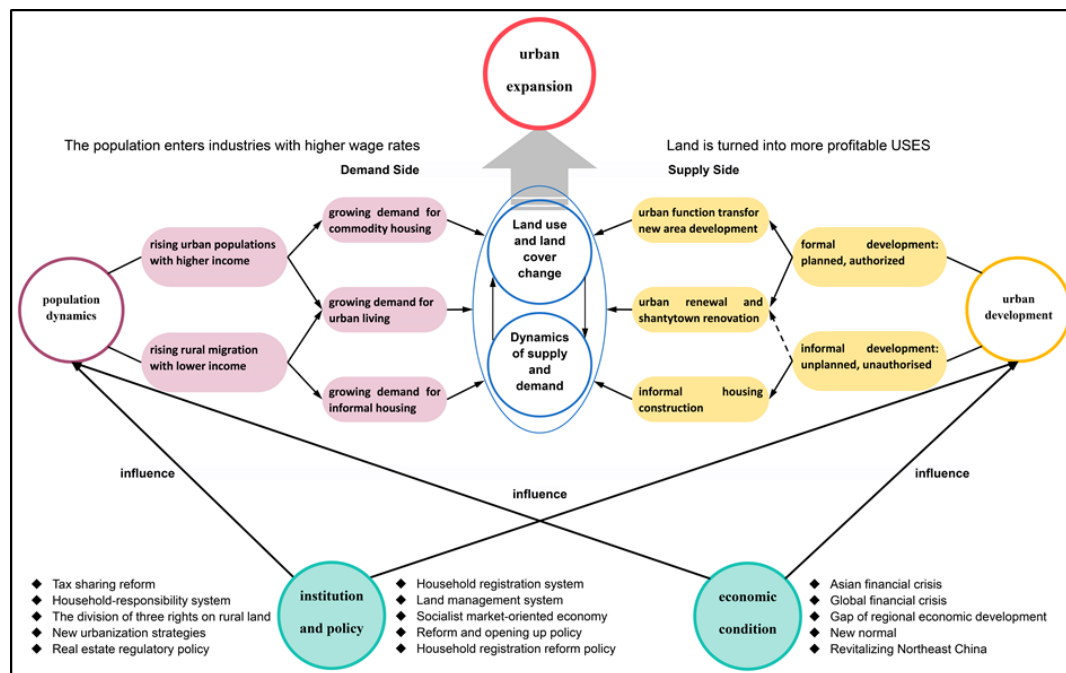


Figure 8: Main drivers of urban expansion in China (Chinese Academy of Sciences)

In short, urbanisation proceeded along two different coexisting pathways:

- The traditional urbanisation promoted by the government, because of the role of large cities as engines of regional economic growth: since the 50s, urban-industrial development has been the main objective of the government;
- The spontaneous urbanisation driven by local economic development and market forces (“*floating population*”): millions of migrants move to urban areas (*Nongmingong*) in search of more productive and higher paying jobs. Per capita annual income disparities of 1:2.4 (rural: urban) make it highly attractive for rural people to migrate to cities (Yusuf & Saich, 2008).

### 3.2.1.3 Land use planning, land development and fiscal framework

Land plays a crucial role in China’s policy agenda as an instrument to achieve social, economic and environmental development goals. Consequently, land reform has gone through successive stages of “*individualisation, collectivisation, de-collectivisation, and apparently re-individualisation*” (Zhao, Wen, Yan, Sit, Yang & Xia, 2014, p. 24). As a result, the country has a unique institutional land management structure (Ding, 2014, p. 343) reflected by the following characteristics:

- In urban areas, land is owned by the state while in rural areas, it belongs to residents’ cooperatives (villages). Individuals and private investors have access to urban land through the land use right

<sup>13</sup> Chinese regions compete strongly for better performance rankings and regional official’s careers are linked to “*tournaments*” performance (Wu, 2014:4).

system (LURs) that separates land use rights from land ownership. This separation is not applicable to collectively owned land in rural areas;

- Rural land can be rented, exchanged, transferred, and even used to obtain bank loans, although ultimately it remains with the village collective (Zhao et al., 2014);
- In 1988, recognizing local governments' need to upgrade infrastructure, the central government introduced the system of leasing long-term rights for the use of state-owned land<sup>14</sup>, allowing most revenues to be retained by municipalities. As the achievements of local governments are evaluated by GDP growth, land conversion from rural to commercial and residential purposes has been highly attractive as the main revenue means (World Bank Group & Development Research Centre of the State Council, 2014);
- Since the Tax Reform from 1994<sup>15</sup>, local authorities had to take on new tasks (education and health) while central governments holds most of the taxes (Huang, 2014). Local governments are mainly financed by transforming collective into public land, sold then by auction to real estate developers;
- Cities and counties monopolize land leasing in their jurisdiction. Prior to land development, land ownership conversion (from rural to urban) must take place. Fully charged land leasing applies only to commercial and real estate development as industrial development is heavily subsidized;
- Land uses are strictly regulated and managed throughout national land use planning (Figure 9). The State Land Administration was established in 1986, and since then, three land use plans have been implemented to control urban growth and protect arable land (Zhou, Huang, Chen, Zhong, Xu, He, Xu & Meng, 2017). The National State Council approves land use master plans for cities of more than one million inhabitants, while provincial governments approve land use master plans for cities of less than one million population (Ding, 2014, p. 3). Additionally, the State Council must approve the conversion of cultivated land. This land loss should be compensated by land reclamation from other types of land uses;
- Land use planning establishes land use quotas (Figure 9) like maximum amount for construction on cultivated land, minimum protected farmland, etc. Quotas are allocated top-down through administrative levels (Li, 2017, p. 57);
- The third "*National Land Use Master Plan (2006-2020)*" was designed "*to rigorously control land expansion*" (Zhou et al., 2017, p. 38). Although there is a strict arable land protection policy, it has not been possible to stop the growth of urban built-up land (Chen & Lu, 2015). Urban land expansion increased by 7, 73% annually during 1990-2012 totalling 3.43 million ha. during the period, exceeding the goal defined by the General Use Plan (Zhou et al., 2017, p. 37). It is expected that the target of farmland protection outlined in the current Land Use Master Plan will be broken, signalling the ineffectiveness of the plan to control urban expansion and protect farmland (Shao, Spit, Jin, Bakker & Wu, 2018, p. 512).

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<sup>14</sup> While residential leases are 70 years, leases for commercial development run 50 years and for commercial projects 40 years.

<sup>15</sup> The tax reform divided tax revenue into 3 groups: a) consumption, vehicle purchase and tariffs taxes go to central government; b) revenues from business resources and land use property taxes goes to local government and c) revenue from value added and income taxes is shared by the central and local government (Huang, 2014)

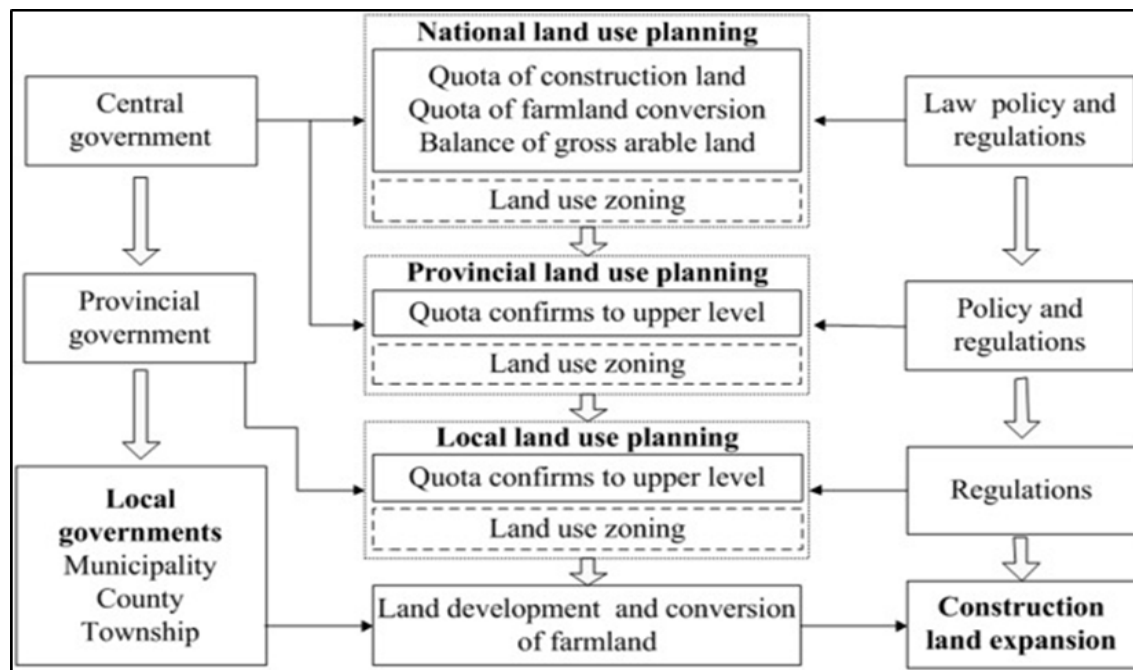


Figure 9: Framework for land use planning's effect on controlling land growth in China (Zhou & Cheung, 2017)

#### 3.2.1.4 Impacts of urban expansion on social integration

In the following, major impacts of urban expansion on social integration are described:

- As a result of subsidies oriented to promote rapid industrialization, sharp differences in the living standards of urban and rural residents exist. Urban residents with higher incomes enjoy a range of social benefits while low-income rural migrants living in cities have little or no access to social support (Griffiths & Schiavone, 2016). Since 1985, feelings of resentment have increased because of abuses like the expropriation of farmers rights (Cao, Feng & Tao, 2008; Zhao *et al.*, 2014);
- The unexpected consequence of land reform was that the urbanized land augmented faster than the urban population (Henderson, 2014, p. 225). From 2000 to 2011 urban areas increased by 76.4 %, far exceeding the 50.5 % growth rate of urban population. Along with the business speculation on property demand in the urban fringe, the rapid urban sprawl has created an excessive housing supply outpacing the demand of rural-to-urban immigrants. Many newly developed commercial houses are too expensive, exceeding the purchasing power of rural migrants, leading to a mismatch between market demand and effective demand. Parallel, rural land remains underused and fragmented because property rights remain unclear (World Bank Group & Development Research Centre of the State Council, 2014);
- Urban sprawl has also led to the loss of a substantial amount of high-quality arable land for construction purposes in the two decades of 1990-2010 (Liu, Kuang, Zhang, Xu, Qin, Ning, Zhou, Zhang, Li, Yang, Wu, Shi, Jiang, Yu, Pan & Chi, 2014) putting the red line of 0.12 billion hectares of arable land for food producing at risk (OECD, 2015);
- “Ghost cities” have emerged as a result of the land-centred urbanisation, giving rise to waste of resources, societal unrest and financial risks in the real estate sector (Hui *et al.*, 2015; Hui and Bao, 2013);

- Urban-rural interaction in China has a cross-regional impact on land use and social integration. On the one hand, many migrant workers have to live temporarily in the villages left behind by urban sprawl. However, integration into urban society is hard in most cases due to remaining socio-economic, cultural and urban policy barriers. On the other hand, with the emigration of young and middle-aged people, rural areas, which are anyhow affected by the consequences of the former one-child-policy, are aging fast (Figure 10);

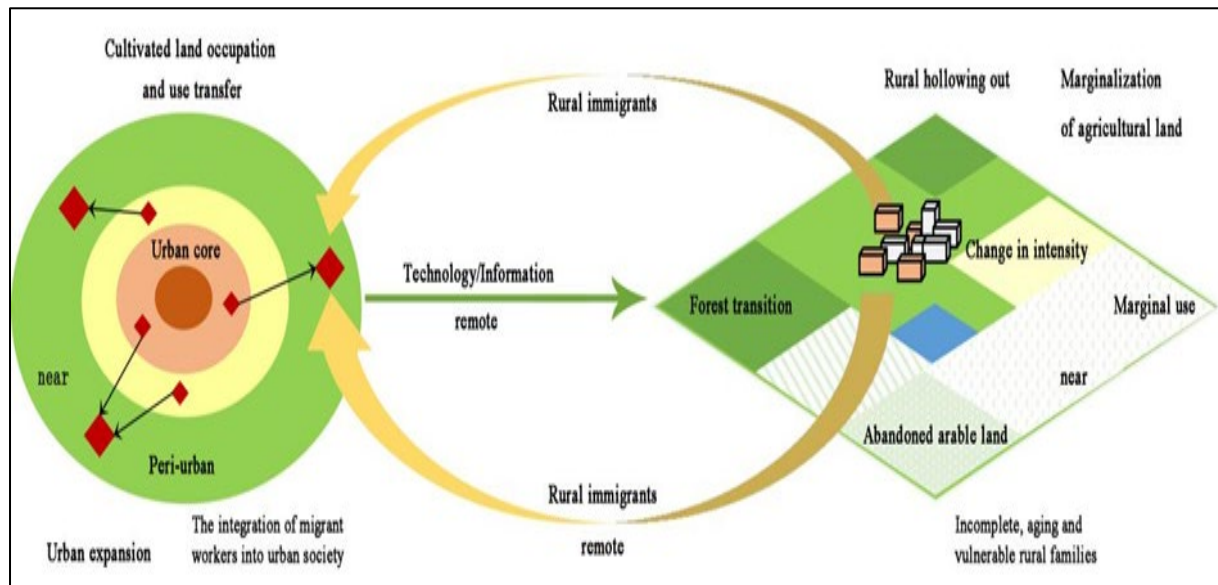


Figure 10: Cross-regional impacts of urban-rural interaction on land use (Chinese Academy of Sciences)

- City governments pay farmers for their land “*substantially lower*” prices than land conveyance fees charge to developers (Ding, 2014). Social conflicts associated to the rapid conversion of rural land at below market prices and to the integration of traditional farmers, are taking place (Cao et al., 2008);
- Still in place, the “*Hukou*” system is a direct cause of economic and social inequality (Henderson, 2014). Although the original rationing entitlement has largely disappeared, new *Hukou* rules introduced by local governments in China’s largest cities have not changed segregation patterns. According to the New Type Urbanisation Plan (2014-2020), approximately 234 million rural migrant workers and their families have difficulties in getting urban residence. Consequently, they are “*residents with no access to urban rights*” (Wang, Hui, Chogill & Jia, 2015) such as the right of access to education, employment, health care, pensions and housing security;
- Current institutional mechanisms, including household registration, land management, social security and fiscal, financial and administrative systems, perpetuate urban-rural imbalances, restricting migration and hindering the integrated development of rural and urban areas. The deregulation of household registration and migration restriction is a process of marketization, continuously affected by governmental policies related to household registration, land, and social security (Liu, Qi, Cao & Liu, 2015, p. 238).



### **3.2.1.5 Major challenges for urban expansion**

Rapid urbanisation has posed enormous challenges in China, especially as it proceeds quickly while policy structures, planning and fiscal mechanisms adjust slowly. Based on the priorities of the “*New Urbanisation Plan*” (2014) the following challenges are recognized:

- Reform of the *Hukou* system. The objective of this reform is to promote “*the registration of the population capable of owning stable employment and living in cities as permanent urban residents in an orderly manner*” (Qizhi, Yisheng, Nan, Jianguo, Taofan, Zhiguo, Lin, Xiaohui, Changhong, Jian & Guobiao, 2014, p. 3);
- Reform of the land management system through stronger property rights for farmers, higher compensation for land requisition, new mechanisms for converting rural land to urban uses, and market-driven prices for land allocation (Griffiths & Schiavone, 2016);
- Reform of urban planning and design. Promoting a better use of existing urban land through flexible zoning, with smaller plots and more mixed land use, which lead to denser and more efficient urban development (Griffiths & Schiavone, 2016). Master/zoning plans could be approved by the local People’s Congress to give them legal status, so as to better regulate land allocations to coordinate public and private land use and transport systems (Henderson, 2014);
- Fostering a green and low-carbon economic development through more rigorous enforcement of existing environmental laws, regulations and standards. This would mean that, following the model of cities of short distances, commuting distances should be reduced which would also have a positive effect on the energy consumption and the emissions from vehicles;
- Promoting financial discipline of local governments, moving to a revenue system that would ensure that a higher proportion of expenditures is financed by local revenues like property taxes and higher charges for urban services instead of mainly generating their income from land use conversion (Griffiths & Schiavone, 2016).

China’s efforts to shape new patterns of urbanisation are definitely ambitious. The country has achieved to raise urbanisation rates and to improve urban infrastructure. However, and according to Chen, Liu and Lu (2016), the New Urbanisation plan pays little attention to implementation. Within this framework, there are some highly relevant approaches, which can help to overcome the described challenges:

- Accelerating the process of “*citizenization*” of rural migrants. The “*citizenization*” would increase the number of potential buyers and would contribute to harmonising land and people-oriented policies;
- Encouraging redevelopment of brownfields within the city instead of the urban conversion of land in the periphery. The mobilisation of inner urban brownfield sites for new urban development and housing would decrease the land conversion interest of developers;
- Giving priority to employment in urban areas. Cities have to provide enough quality oriented employment possibilities. Therefore, a link between economic and urban expansion needs much higher attention in the future. Additionally, it is necessary to provide low-income groups with employment opportunities compatible with their skills and to regularize informal employment (street vendors);



- Promoting the active participation of stakeholders. An active civil society will have positive effects on the functioning of cities. Therefore, more public dialogue should be established regarding the development and expansion needs of cities;
- Accelerating institutional reforms including the urban administrative hierarchical system, a new role for mayors (service delivery), and the restructuring of urban finances;
- Also, the potentials of online services for the urban-rural system are analysed, and related concepts are developed.

### 3.2.2 GOOD PRACTICE APPROACHES ON URBAN EXPANSION IN EUROPE

In this section major approaches to limit and control urban expansion in Europe are discussed. First, the understanding of urban sprawl and the principles behind European urban development are presented. Second, strategies, policies and approaches to tackle urban expansion are analysed, making a differentiation between those addressing the urban form and those influencing the internal composition of sprawl (Arribas-Bel, Nijkamp & Scholten, 2011).

#### 3.2.2.1 Understanding European sprawl

Urban expansion, the enlargement of peri-urban areas and urban sprawl<sup>16</sup> are typified as the spreading of a city and its suburbs over rural land at the fringe of an urban area (Patacchini & Zenou, 2009; Stan, 2013). The most common variables defining sprawl are the urban morphology (scattering of development, connectivity and availability of open space) and its internal composition (density, decentralization and land use-mix), (Arribas-Bel et al., 2011). Accordingly, quite different types of definitions can be recognized (Maier, Franz & Schröck, 2006).

*Table 9: Principles behind urban development in Europe (adapted from Salvati & Morelli, 2014)*

Sector	Principle
Territorial policy and governance	Market intervention and regulations are encouraged, giving less freedom to the market in directing urban development.
Local government structure	Robust local government structures subordinated to the central state and regional authorities. This gives governments more control over local authorities and brings direction to public policy.
Sustainable development energy	Compact and semi-dense cities in Europe feature lower energy consumption rates. Policies promoting public transportation and green infrastructure developed especially in Central and Northern Europe.
Land availability	Europe covers about 6.8% of the world's land area with an overall high population density especially concentrated on lowlands and hilly areas. Limited land availability is an indirect cause of compact and semi-dense urban expansion.

In Europe, the concept is often used negatively to describe low density with high losses of non-urban cover and inefficient development in the periphery of cities (Stan, 2013). Compared to the Anglo-American cultural preferences for low-density residential-neighbourhoods, European societies are

<sup>16</sup> The terms are often synonymously used (Stan, 2013).

generally characterized by a “*pro-urban*” ideology (Table 9) manifested in a high desirability for residential space within the urban area (Salvati & Morelli, 2014).

Despite the European city reputation of dense, multifunctional and compact areas with a strong historic background, since the mid-1950s, cities have expanded on average by 78 %, whereas the population has grown by only 33 % (EEA, 2006, p. 11). This was the consequence of the urban ideology of the 30s characterized by the Athens Charter<sup>17</sup>, the modernism of that time (Table 10).

Table 10: The CIAM<sup>18</sup> (The Athens Charter) approach (Mumford, 1992)

The perspective of urban development, “*divided each urban agglomeration into four 'functional categories': dwelling, working, recreation, and circulation. For each category the 'requirements' proposed a solution: residential areas, designed for maximum light and air in each unit, must be sited in the most favorable parts of the city topographically and climatologically, with no housing sited along arterial roads. Workplaces should be located so as to allow the shortest possible commuting distances, yet should remain separated from residences by greenbelts. Parks should be distributed throughout the city, and high-rise buildings could be used to free more ground area for recreation. Pedestrian, local and high-speed traffic channels should be separated, with pedestrian-vehicular crossings minimized or eliminated through the use of superblocks and multiple-level crossings*”.

There were many investments in planned urban extension, for example in order to absorb the overspill from post-war reconstruction. Also slum clearance programmes were conducted in central areas, and or there were actions to accommodate people searching for a home (Couch, Leontidou & Arnstberg, 2007). Massive buildings programmes in the form of hundreds of tower blocks were constructed in the UK (“*New towns*”), in France (“*Banlieue*”), in Sweden (“*One million programme*”), in the Netherlands (new housing states) and in peripheral urban expansion areas all over Europe. The early cases were followed by projects constructed during the 1960s and 1970s on the fringes of the cities. Later, similar projects were built in Eastern European cities recognized as “*socialist new towns*” (Dekker, Hall, Kempen & Tosics, 2005). For example, in West Germany, they were often linked with social housing programmes. In East Germany, such areas belonged to the most modern housing facilities. Although considerable differences between countries, projects were characterized by a simple architecture considered quite revolutionary. Shaped by large blocks (medium, to high rise), open spaces between blocks and the separation of functions, apartments were considered spacious and affordable, and many residents were involved in community activities (Dekker et al., 2005).

This positive picture changed during the 1970s when the relative position of these new extension areas within the housing market hierarchies fell. Additionally, almost everywhere in Europe, because of demographic decline, urbanisation was accompanied by immigration from less developed countries. The working class started to be “*deliberately allocated*” in these areas and ethnical and social spatial

<sup>17</sup> Manifesto written in 1932 by Le Corbusier summarizing the discussions of the 4<sup>th</sup> International Congress for Modern Architecture (CIAM).

<sup>18</sup> CIAM was founded in 1924 by 24 European architects. It was a forum oriented to provide solutions to the housing, circulation and health problems of the modern metropolis (Mumford, 1992).

segregation became visible in Europe. As a result urban policy shifted to urban renewal, and heritage conservation and gentrification of the inner city became a priority.

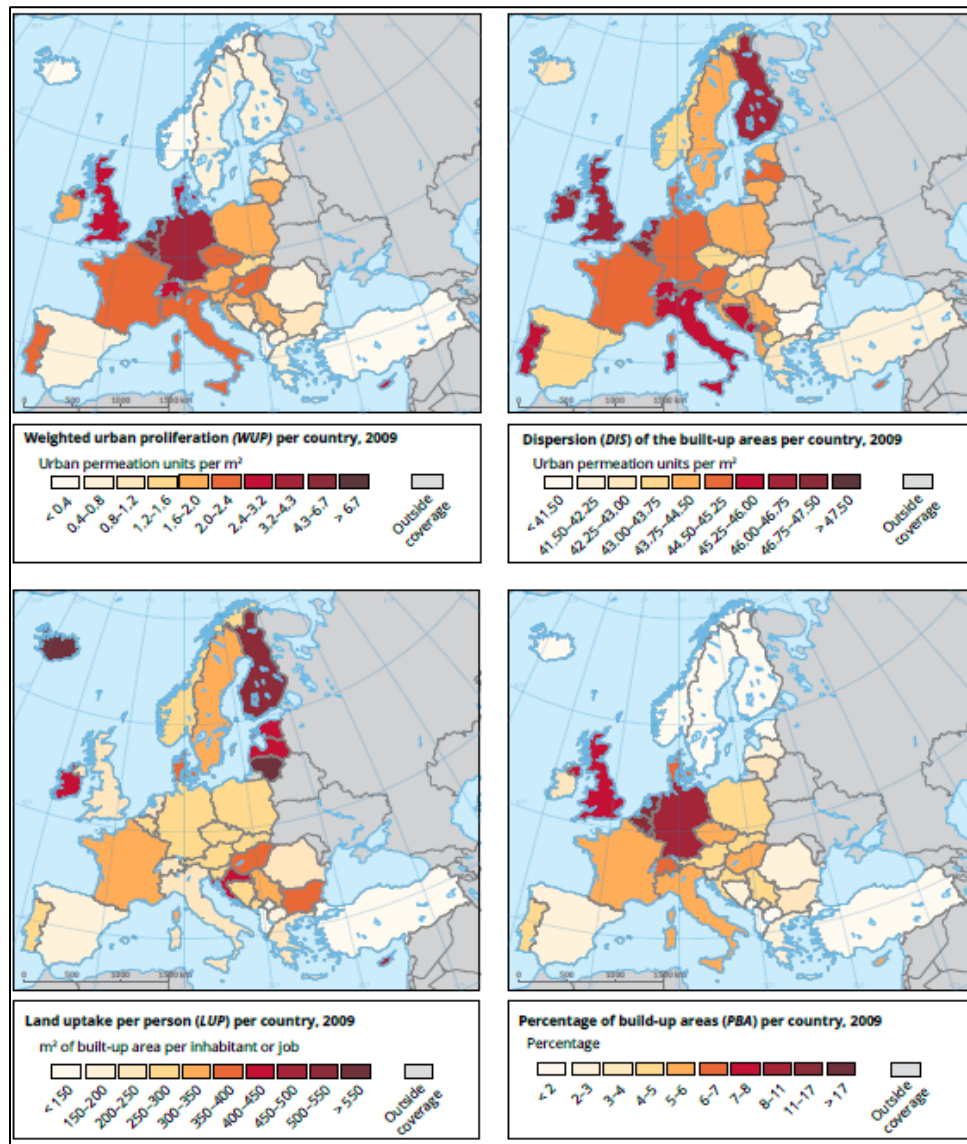


Figure 11: Maps of urban sprawl per country in 2009 for weighted urban proliferation (WUP), dispersion of the built-up areas, land take per person and percentage of built-up area (PBA) (EEA, 2016).

Nowadays, and despite the urban policy shift and the relative low population growth, urban areas continue to expand across Europe (Figure 11). In 2014 they accounted for 22.5 % of the EU' total area (Queslati, Alvanides & Garrod, 2015). Moreover, the amount of urbanized land consumed per person has more than doubled during the last 20 years leading to both *“new edge cities around traditional urban centres and scattered residential developments on the urban fringe”* (Gómez-Antonio, Hortas-Rico & Li, 2016). This rapid increase of non-agricultural land led to serious socio-economic and environmental consequences such as surface sealing, ecosystem fragmentation, land erosion, arable land loss, traffic congestion, transport emission, social segregation and housing shortages (EEA, 2006; EEA,

2016; Foley, Defries & Asner, 2005; Schetke, Haase & Kötter, 2012). However, the examination of European sprawl made by Couch et al. (2007) shows that there are many prejudices concerning the environmental impacts of sprawl, as the quality of life in most European expansion areas is often better than in inner cities. Moreover, in southern Europe sprawl is not seen as economic decline, poverty and insecurity, but rather linked with economic prosperity (recreational homes).

### 3.2.2.2 Tackling urban sprawl

The first major concerns regarding sprawl were visible in Europe on a policy level by the late 1980s in the Green Paper on *“Urban Environment”* published by the European Commission. The document states that *“urban growth has spawned vast built-up areas which lack of essential qualities we associate with cities: history, functional differentiation, cultural and other forms of infrastructure....These monotonous areas often harbour poverty, crime and drug abuse, problems subject to increase attention from authorities at all levels”* (European-Commission, 1990, p. 3). By then, controlling sprawl had become a major policy consideration in most European countries. For instance in 1994, the UK Government published the *“Strategy for Sustainable Development”* calling for a more compact urban development that would use less land and enable reduced energy consumption (Couch et al., 2007). In the last years different projects and programmes at the EU level have already proposed concepts and measures to cope with urban sprawl and to promote sustainable land use (EEA, 2016, p. 18-19):

- The European Spatial Development Perspective towards balanced and sustainable development of the territory of the EU (1999) includes a Policy Option (Number 12) on the *“support for effective methods for reducing uncontrolled urban expansion: reduction of excessive settlement pressure, particularly in coastal regions”*. the European Commission called for planning strategies to avoid further urban sprawl, emphasising a compact city development (the city of short distances) in order to have better control over future expansion within a regional context. *“For this purpose co-operation between the city and the surrounding country side must be intensified and new forms of reconciling interest on a partnership basis must be found”* (European-Commission, 1999, p. 22).
- The European Landscape Convention entered into force in 2004 agreeing to identify and evaluate landscapes, analyse their characteristics, the forces and pressures transforming them, and defines landscape-quality objectives (including those related to urban sprawl) after public consultation.
- The EU research project *“Sprawling cities and transport: from evaluation to recommendations”* (2002-2005) includes 4 policy measures to counteract sprawl:
  - Fiscal measures to control land use by putting a tax on suburban residential developments and on offices in areas poorly served by public transport;
  - Road pricing through a congestion tax;
  - Transport pricing measures to lower public transport fares in city centres; and
  - Measures to control housing prices.
- The EU research project *“Urban sprawl: European patterns, environment degradation and sustainable development”* (URBS PANDENS, 2002-2005) provides an integrated impact assessment of regulations, incentives, economic instruments and infrastructure measures on urban sprawl.
- The Leipzig Charter on Sustainable Development from 2007 sets important basis for the efficient and sustainable use of resources highlighting the role of spatial and urban planning in preventing sprawl through a strong control of land supply and of speculative development.

- The EU research project “*Peri-urban land use relationships*” (PLUREL, 2007-2011) aiming to develop new tools for sustainable rural-urban land use relationships.
- The Toledo Declaration issued in 2010 supports the suitability of urban recycling and compact city planning as strategies to minimize land consumption.
- The Roadmap to a resource efficient Europe (2011): as part of the Resource Efficiency Flagship of the Europe 2020 Strategy proposes ways of increasing resource productivity and decoupling economic growth from resource use and its environmental impacts.
- The Territorial Agenda 2020 adopted in 2011, promotes compact and sustainable cities with controlled urban sprawl.
- The EU Cohesion Policy (2014-2020) includes increased resource efficiency and contains an urban dimension to tackle environmental challenges in cities.
- The EU research project “*Paradigm*” shifts modelling and innovative approaches shows that urban sprawl could be counteracted by adjusting planning strategies, which could lead to sustainable land use patterns and a shift in the transport of people from individual to public modes.

Despite the European Union concerns and efforts to tackle urban sprawl, there is no common policy, as land use relationships and the levels of decentralization (administrative and financial) differ considerably among countries. Each country has dealt with sprawl in different ways, like fixing specific targets for the middle and long term, introducing containment policies and “*by either using a strategy of binding legislation (command and control) or applying a market based approach*” (Colavitti & Serra, 2017, p. 4). Approaches to tackle urban sprawl can be divided into those addressing urban morphology and those influencing the internal composition (Arribas-Bel et al., 2011).

#### 3.2.2.2.1 *The urban morphology of sprawl*

This perspective targets “*the spatial configuration and the existing linkages between the different components of a city*” (Arribas-Bel et al., 2011, p. 265) encompass urban, suburban and rural areas. Two main categories tackling the urban morphology of a city region can be recognized: a traditional and a new perspective (Couch et al., 2007; Pichler-Milanovic, 2007):

A. The traditional perspective includes two views: controlling urban extension and promoting urban renewal

A1. Land use zoning and the prohibition of urban development through specific instruments like green belts or the protection of rural land

Zoning and land use planning are cheaper measures to influence the urban form. However, they require law enforcement and commitment to be useful in controlling urban growth (Fertner, Jorgensen, Nielsen & Nilsson, 2016). The green belt was part of the post-WW II package of English regional policies to protect farmland and separate conurbations (Horn, 2015). They are defined as a continuous and undeveloped open space that surrounds urban areas, establishing a spatial barrier to urban expansion by means of planning control. The construction of buildings is prohibited unless for agriculture, forestry or recreation reasons. These policies support compact urban development, encouraging developers to recycle derelict urban land. They are considered, “*one of the most restrictive policy instruments of urban containment*” (Siedentop, Fina & Krehl, 2016, p. 72). A number of European cities have adopted the greenbelt approach like London, Copenhagen and Amsterdam (Horn, 2015). Research findings show that the success of the greenbelt approach for containing development is very

dependent on the relationship between the central government and the market, as well the prevailing conditions for land development (Horn, 2015).

Results of a European project (PLUREL 2010) show that Denmark, the U.K, Germany and the Netherlands, have higher control levels on land use change due to their consolidated local government system, while southern countries (Cyprus, Greece and Portugal) have a higher potential because they count with stronger land use control by supra-local levels. Finally new member states have, in general, poor control on land use change (Tosics, Szemző, Illés, Gertheis, Lalenis & Kalergis, 2010). Christiansen and Loftsgarden (2011), stress the fact that a decentralized system along with a laissez-faire land use policy might weaken the potential to control land use development. For instance, the use of green belts in England as a centralized planning instrument has helped to contain urban expansion and encouraged building on brownfield sites. On the contrary, in Germany, a federal system where local authorities are responsible for the majority of planning decisions, green belts are not considered effective in containing sprawl. Anyhow, local authorities have rather powerful instruments to restrict sprawl, if they are interested in it, as building is prohibited in areas outside of the designated areas for construction in land use plans. However, as communes benefit from more residents and industrial areas, there are limited incentives to limit urban growth (Schulze-Baing, 2010).

Accordingly, the role that municipalities might play in promoting or restricting sprawl has received considerable attention in Europe. On the one hand, some authors argue about the importance of local restrictions to prevent expansion. In this context, the structure of public finances and revenues becomes crucial, especially when local entities have limited instruments to raise revenues (Gómez-Antonio et al., 2016, p. 221). On the other hand, and as a reaction to the consideration of municipalities as isolated entities, researchers stress the relevance of regional governments and planning, as fragmented responsibilities may contribute to urban sprawl. For instance, municipal competition for the creation of new residential areas might generate early development and lead to inefficient spatial growth (Heubeck 2009 in (Gómez-Antonio et al., 2016)).

A2. Urban revitalisation through specific taxes, relaxed planning controls and/or the creation of special agencies to promote revitalisation processes

This topic has already been discussed above (see section 3.2.1).

## B. New approaches

B1. Regional planning agencies which can apply a strategic vision and control the competing development

Sprawl does not respect administrative boundaries, and regional coordination is necessary in growth management. The challenge is that municipalities cannot influence land development in the region as a whole (Christiansen & Loftsgarden, 2011). In this context, regional agencies might play a crucial role conducting efficient planning. To fulfil this objective, they must have at least three conditions: a legal body with regional competences, compliance among different levels of planning, and a consensus on strategies and visions. Well-known examples are “*Haaglanden*” in the Hague Region, the “*Greater Manchester Combined Authority*”, the “*Montpellier Agglomeration*” and the “*Regional Plan Leipzig-West Saxony*” (Dieleman & Wegener, 2004; Fertner et al., 2016). The Randstad in the Netherlands has managed to prevent a rapid development of urban sprawl despite the fact that land use planning must be coordinated among 4 different regions and more than 150 municipalities (Christiansen & Loftsgar-

den, 2011). The regions of Stuttgart, Frankfurt and Hannover are also interesting cases to look at because of their rather effective regional planning instruments and innovative inter-municipal cooperation models.

#### B2. Urban revitalization schemes aiming to re-establish the attractiveness of inner areas

Many cities implement or support urban renewal projects, installing long running programmes for deprived areas. In Copenhagen huge investments in urban renewal, through designated urban development corporations, have changed the city considerably (Fertner et al., 2016) transforming it in one of the wealthiest in the world. The approach shows an innovative institutional vehicle, i.e. a publicly owned but privately run corporation, to achieve the high-level management and value appreciation of assets while retaining developing profits for public use. It combines strategic zoning, land transfers and revenue-regenerating mechanisms (Katz & Noring, 2017).

#### B3. Changes in land taxation laws to achieve specific goals (control sprawl)

Taxes and transferable or even tradable development rights mechanisms have the potential to shift development pressures containing sprawl. For instance a Land Value Tax system - in which only the value of land functions are considered as tax base and not the improvements on it – may help to increase land use efficiency and reduce land speculation (Wenner, 2014). However, these instruments are not common in Europe – in fact, they are only incorporated in Estonia – because many local administrations are more actively purchasing and controlling land (Wenner, 2014). For instance, Dutch municipalities can borrow money from the national level to assume the costs of land acquisition and servicing. In the Copenhagen Region, agricultural plots which are already transferred to urban use are almost always bought by the municipality before they are sold to private investors (Fertner et al., 2016).

However, the correction of market failures using land zoning and land acquisition procedures to preserve land, have demonstrated to *“be extremely expensive, prone to legal challenges, and has not lived up to the expectations in accomplishing these preservation goals”* (Tavares, 2003, p. 2). As a reaction, many countries (UK in 1947, France in 1975 and Italy in 1977) have redefined the concept of property separating building rights from other rights (Colavitti & Serra, 2017). Germany recently showed interest in tradable planning permits supporting environmental preservation policies allowing each municipality to have a quantity of planning permits to implement urban development plans (Colavitti & Serra, 2017). The Netherlands recently allowed the adoption of transferable development rights (TDR). TDR assumes that the development rights of a lot, as part of the right to convert, can be sold and used in another tract of land. They have been implemented in Italian cities, and the Florence experience *“represents an example of successful planning for what it concerns the management of urban development and the introduction of the transfer of building rights”* (Colavitti & Serra, 2017, p. 16). Mandatory programmes forcing preservation of land threatened by development are more effective than voluntary programmes (Tavares, 2003).

#### B4. Restrictive planning rules – from urban boundaries to spatial planning

Restrictive planning has two main objectives: to promote compact, contiguous and accessible development, and to preserve open space, agricultural areas and environmental sensitive areas that are not suitable for development (Nelson & Sanchez, 2005). The three major forms of restrictive morphology planning are greenbelts (described above), urban growth boundaries (UGB) and urban service boundaries (USB) (Pendall, J & W.Fulton, 2002). In contrast to green belts (physical space), a UGB is a

line drawn around a municipality or a city-region with urban uses accommodated inside the boundary and rural uses (cropland, forest, open space, low density) outside. Land zoning is commonly used to implement an urban boundary. Limits are not permanent and they can be reassessed and extended to accommodate expected growth (Zacharoula, 2013). In the Netherlands, cities and local authorities apply a system of red and green contours to accommodate future development for a time horizon (2030). Local authorities recommend the line's location to the provincial governments who have the final decision (Horn, 2015, p. 134).

There are other concepts used interchangeably with UGB like designated growth areas, urban service districts and urban service boundary. However, a USB boundary is a different concept, defined as an area beyond which no city services (sewer, water, and transportation lines) will be extended (Zacharoula, 2013). USB are more flexible than UGB, because they are often drawn consistent with the planned urban facilities while UGB respond more to policy objectives.

While these instruments are commonly used in the U.S, in Europe, the main instrument to control urban sprawl is spatial planning. Legally binding spatial planning takes place at different levels of governance (local and regional). Municipalities define a land use plan that covers the whole territory, defining future development. In countries like Germany and the Netherlands, detailed plans describing the form of future development are prepared (Couch et al., 2007). Nevertheless, according to Halleux, Marcinczak and Krabben (2012), some European countries are better able to manage sprawl because they have a flexible spatial planning policy that can easily adapt to changes. For instance, Belgium has had limited success containing sprawl because formal land use regulations were developed during the second half of the 20<sup>th</sup> century, resulting in limited financial and economic experience of spatial planner in municipalities and a difficult relationship between local planning agencies and private developers.

#### B5. Setting targets limits and benchmarks

Targets to limit urban land extension can contribute to higher resource efficiency. Many European countries have experience in solving problems through setting limits and benchmarks for sprawl. However, so far, no country has established an effective quantitative limit for sprawl (EEA, 2016). For instance, since the early 1990s, a target with regard urban development has been discussed in Germany as a path to promote land preservation. The German National Sustainability Strategy for 2020 includes a quantitative indicator fostering to reduce land consumption from 114 ha/day between 2002 and 2005 towards 30 ha/day in 2020.

#### B6. Public financing reducing the municipal dependency on local tax base

According to Razin (1998), the more effective way to confront sprawl is to modify the interest of local agents involved on development. Especially crucial can be the transformation of the specific interests guiding local governments. The author emphasises two mechanisms determining the local government's influence on urban sprawl: the financial structure and the transfer of land from rural to urban. Most states enable local governments to raise revenues through property taxation, sales taxation, income taxation, and user fees. Moreover some central governments share sales taxes with local governments, creating a powerful incentive to urban sprawl (Knaap, Talen, Olshansky and Forrest Government policy and urban sprawl).



## B7. Change of size and functions of local governments

Institutional local reforms, like the addition or the establishment of upper-tier regional-metropolitan municipalities is considered another approach to control urban development as they might contribute to efficiency, effectiveness and equity. However, experience indicates that metropolitan municipalities not necessarily contribute to the protection of open spaces and/or controlling sprawl (Razin, 1998).

The different policies tackling urban sprawl are summarized by (Couch et al., 2007) in 3 main groups: regulation, economic intervention and institutional change (Table 11).

*Table 11: Policy types concerning urban sprawl (Couch et al. 2007)*

Policy type	Examples
Regulation	<ul style="list-style-type: none"> <li>• Spatial and land use planning</li> <li>• Restriction on specific land use</li> <li>• Density controls</li> </ul>
Economic intervention: direct investment, Taxation or subsidy	<ul style="list-style-type: none"> <li>• Provision of infrastructure: transport, utilities and social facilities</li> <li>• Subsidies (mainly urban regeneration)</li> <li>• Development taxes</li> <li>• Property taxes</li> <li>• Trading in development permits</li> </ul>
Institutional change, management and advocacy	<ul style="list-style-type: none"> <li>• Change of size and functions of municipalities</li> <li>• Special agencies (mainly urban regeneration)</li> <li>• Advocacy, partnership and policy dialogues</li> <li>• Information, targets and league tables</li> </ul>

### 3.2.2.2.2 The internal structure of urban expansion

The above analysis shows that urban forms are not the only factor responsible for the problems related to expansion areas. The physical arrangement of buildings and the people who inhabit these areas play a crucial role. As many physical/architectural arrangements of urban sprawl can be identified in Europe, the analysis of good European practices concentrates on European new towns (Table 12), specifically on “*large housing states*” due to its similarities with the Chinese new town development.

While the establishment of these new towns has come to a near halt in Europe, its development is booming in China as a reaction to a growing urban population, the provision of better homes and to solve urban congestion. Even though, the extreme compactness of new districts (located in the urban fringe) and cities in China seems relatively efficient, the country is suffering with scarcity of fertile land. Additionally, new urban areas are built very fast and construction is taking place without always taking into account service provision, financial operations, zoning planning and the image and identity of the place (Gaborit, 2014). Moreover, social inclusion and social capital are usually not taken into consideration.

*Table 12: Characteristics of European New Town Development (Dekker et al., 2005; Merlin, 1980)*

European “new towns”, satellite cities or large housing states, were built 60 to 40 years ago, following government decisions (national policies in France and Britain, municipal decision in Sweden and the Netherlands). They materialized in quickly built large-scale metropolitan expansion. Even if the policies were much more diversified among countries, common trends can be identified (Dekker *et al.*, 2005; Merlin, 1980):

- Origin: post war poor housing situation. Social and economic stability created by the Fordist industrial process, the welfare state in West Europe and socialist central planning in East Europe.
- Planned (State or City): through public housing companies, cooperatives, private and semi-public investors, with sizes from 100.000 inhabitants (The Netherlands), to 250.000 (Great Britain to 500.000 (Paris region). In East Europe some projects were even larger, and the period of construction prevailed longer (late 1980s).
- Design principles: medium to high-rise apartment blocks (3 to 12 storey), sometimes interspersed with single family dwellings. In West Europe, they were built for a car-oriented society, with low densities in neither rural nor urban areas with large roads not connected with public transportation.
- Role of employment: jobs were created in new areas but a balance with the population was not a goal. While in Great Britain one could not be eligible for a dwelling without a job (corporation provided units to the firms), in Scandinavia, the Netherlands and Germany, commuting times were not considered. Socialist new towns were built often in the periphery, but close to major industries (e.g., steelworks).

*Table 13: Key current challenges of European New Town Development Areas (Dekker et al., 2005; Gaborit, 2014)*

- Mobility and accessibility: developments are not adequate for a shrinking and aging population and citizens cannot access to schools and work places with public transportation.
- Physical decay because of shoddy construction work, rapid attrition and dereliction, and increasing amounts of litter and rubbish in open spaces.
- Property speculation and empty buildings: if there are investors interested on buying these old buildings, they usually wait for higher prices.
- Concentration of households with low incomes.
- Visible anti-social behaviour: crime, vandalism, drugs and alcoholism.
- Social and racial tensions and conflicts among residents.
- High turnover leading to partial breakdown of social cohesion and reduced resident activity.
- Education problems because of a high concentration of children from poor families or minority ethnic groups in local schools.

Key challenges of this type of housing development are discussed in Europe since the 1980s (Table 13), as these urban areas must confront and respond to the current socio-economic and demographic conditions (depopulation, aging and immigration) and to the European Union and countries' visions

regarding urban sustainability. The experience of Europe shows that the risk of failure in newly developed areas is huge and must be considered.

To tackle the problems associated to European large housing states (Hall & Rowlands, 2005), three approaches are proposed:

### 1. Place Making

Place making is *“the set of social, political and material processes by which the people iteratively create and recreate the experienced geographies in which they lived- is an important and often neglected part of political theory”* (Pierce, Martin & Murphy, 2010, p. 54). According to the perspective, improvement takes place through a collective, consensus-building decision-making process based on the progression through argument and discussion. More than just promoting better urban design, place making pays particular attention to the physical, cultural and social identities that define a place and support its ongoing evolution. Based on Healey’s ideas, Hall and Rowlands (2005, p. 51) propose the following dimensions:

- Integration in policy making: The idea is to integrate and coordinate the different sectoral and fragmented *“policy communities”* (planning, housing, health, education, social services and transportation). This stage implies the necessity to acknowledge the distinction between spatial policies (physical upgrading) and primarily a-spatial policies with a potential spatial impact.
- Collaboration in policy making: This implies cooperation on the development of long-term strategies for areas rather than the development of time-limited, project specific partnerships and networks.
- Stakeholder involvement: Networks need to acknowledge the necessity to include new types of stakeholders (local residents) and not just the old ones (public authorities).
- Local knowledge: Knowledge is a key resource, implying the construction of mechanisms that are sensitive to cultural differences between stakeholders in ways of thinking, valuing and communicating.
- Building relational resources: This approach stresses the relevance of constructing positive relations among government, citizens and businesses where information, knowledge and understanding can flow. *“Capacity building needs to be combined with institutional reform, otherwise, the onus is placed on the excluded”*, i.e. inhabitants of new towns (Pierce et al., 2010)

### 2. Collaborative Planning

Collaborative planning is a model for the development of different places in an inclusive manner. New urban developments are experienced in different ways by different people and this diversity gives rise to multiple images. As such, the fundamental aim of collaborative planning is to set out an agenda for city planning that is inclusive, environmentally sensitive and accepts the notion of a mixed economy (interdependence of state and market).

According to this approach, planning should be done through face to face discussions among those who have interests in a new development. Following Innes and Booher (2000, p. 18-19), dialogue, networking and institutional capacity are key factors to maximize the effects of collaborative planning.

Since the last decades of the 20<sup>th</sup> century, collaborative planning became increasingly popular in Europe, especially in the UK (and governance more recently). Nevertheless the approach presents weaknesses that can be summarized in the following aspects (Holvandus, 2014, p. 9):

- The assumption that if only specific people were reasonable, deep structural conflicts would fade away.
- The role of the planner has been made the central element of the discussion.
- Communication theorists warn that open processes may produce unjust results.
- Different perceptions of interests held by those in different structural positions are not resolved simply through exchange of ideas.
- Agreement on a document does not necessarily mean that it will be achieved in practice.
- Long-time process involved.
- Scope on which the process takes place (administrative boundaries, diversity of participants).

### **3. Integrated model for rural-urban regions**

The EU project PLUREL – Peri-Urban Land Use Relationships – (Piorr, Ravetz & Tocsics, 2011) was developed to provide a systematic overview about the capacity of European planning and administrative systems to control and regulate land development. The proposal to manage the peri-urban area includes the development of 5 different strategies (Piorr et al., 2011, p. 16):

- Spatial: oriented to coordinate peri-urban development and low impact infrastructure and to set up the controls and incentives to avoid sprawl.
- Economic: involving rural diversification and multifunctional land-based activity and urban regeneration with improved urban-rural links.
- Social: concentrates on the needs and opportunities in different settlement types and on social functions and values.
- Environmental: promotes diversified, resilient and multifunctional agriculture and forestry.
- Governance: focuses on the capacity for strategic and cross-border coordination at the level of the rural-urban region.

#### **3.2.3 CONCLUSIONS**

The following conclusions can be drawn:

- The main drivers of urban expansion in China lie in the interaction of population dynamics, urban development, institutional reform, government policies and economic conditions. The uniqueness of this process is that, on the surface, government promotion seems to dominate China's urban development, but in fact, the central government's institutional and policy design has created a competitive development environment at the local level, which also attracts the participation of market players by preferential policies of local governments.
- In China, urbanized land augmented faster than the urban population. Land use planning exerted some positive effects on farmland protection; however, massive farmland is still converted in non-agricultural uses. The reasons behind this fact are twofold: on one hand, land use planning has not adjusted with socioeconomic development and it is not complied in practice. On the other, land use is managed by different levels of government and agencies and control schemes are divided into two spheres: the urban planning area and the non-urban planning area (Zhou, Tan & Zhang, 2015).

- Rapid urban sprawl has created an excessive housing supply outpacing the demand of rural migrants. Simultaneously there is a huge demand for affordable housing with many migrants forced to live in dormitories or shared houses. Local governments pursuing land financial revenue tend to develop commercial housing estates, while the growing low-income rural migrants are in urgent need of affordable housing. This structural imbalance has turned out to further promoted informal development activities in urban and peri-urban areas.
- Concerning the internal composition of China's urban extension, population density is increasing but the living space for residents is very limited leading to problems such as lack of public space, the decrease of family size, an increased number of empty nest families and elderly people.
- Generally, in order to save demolition costs and to shorten the development cycle, the government tend to only expropriate the cultivated land of local villagers, allowing some villages to be retained by the local collective when the cost of land acquisition is too high. Such practice leads to a dual structure and a fragmentation of land ownership in peri-urban areas (Ma, Li & Wei, 2016; Wu & Zhang, 2013). In areas with this dualistic land ownership (such as urban villages or urban fringe), informal development activities for low-income rural migrants emerge rapidly, forming the landscape of low-rise and high-density settlements embedded in cities or spreading in the urban fringe (Ma et al., 2016).
- Rapid urbanisation has posed enormous challenges in China, especially as it proceeds quickly while policy structures, planning and fiscal mechanisms adjust slowly. Current institutional mechanisms, including household registration, land management, social security and fiscal, financial and administrative systems, perpetuate urban-rural imbalances, restricting migration and hindering the integrated development of rural and urban areas.
- Despite the European city reputation of being dense, multifunctional and compact areas, since the mid-1950s, cities have physically expanded on a higher rate than population growth, through the implementation of pilot cities (new towns, large housing states). European new towns were built following government decisions.
- Urban sprawl is considered a main threat to European sustainable territorial development; public services are more costly and difficult to provide, natural resources are overexploited, public transport networks are insufficient as car reliance in and around cities increased.
- The sprawl context in China is markedly different from Europe; however, both share the hope of finding a path towards more environmentally friendly cities reflected in the EU-China partnership on green urbanisation.
- Since the 1980s, controlling sprawl has become a major policy consideration in most European countries. Approaches to tackle consequences of urban sprawl can be divided into those addressing urban morphology and those influencing the internal composition.
- During last years, urban growth management in Europe has evolved shifting from containing urban growth to guiding it. Most recent approaches share three elements: a city-vision (strategic planning), multi-level governance and co-responsibility. It is necessary to make a clear distinction between strategy and planning, to join efforts of all stakeholders from different levels and to define co-responsibilities.

### 3.3 STREAMLINING LAND BANKING AND LAND ADMINISTRATION

#### 3.3.1 INTRODUCTION

The transition towards urban sustainability through socially integrative cities is closely linked to land use planning issues. Regardless of whether urban renewal or urban expansion activities take place, the legal framework defines the respective process of land development. In accordance with the existing requirements, the different instruments and measures of land management control the urban and rural developments. Land management is understood as the implementation process that manages the development and use of land resources. Land Banking and Land Administration (Systems) are important instruments for embellishing planning targets.

Table 14: Terms of Land Administration (Williamson et al. 2009, pp. 119)

Term	Definition
<b>Land Development</b>	<i>"The processes and institutions related to the building of new physical infrastructure and utilities; the implementation of construction planning; public acquisition of land; expropriation; change of land use through granting of planning permissions and building and land use permits; and the distribution of development costs."</i>
<b>Land Use</b>	<i>"The processes and institutions related to control of land use through the adoption of planning policies and land use regulations at national, regional and local level; the enforcement of land use regulations; and the management and adjudication of land use conflicts."</i>
<b>Land Tenure</b>	<i>"The processes and institutions related to securing access to land and inventing commodities in land, and their allocation, recording and security; cadastral mapping and legal surveys to determine parcel boundaries; creating new properties or altering existing properties; the transfer of property or use from one party to another through sale, lease or credit security; and the management and adjudication of doubts and disputes regarding land rights and parcel boundaries."</i>
<b>Land Value</b>	<i>"The processes and institutions related to the assessment of the value of land and properties; the calculation and gathering of revenues through taxation; and the management and adjudication of land valuation and taxation disputes."</i>

Land Banking is a control instrument for land use management. Public authorities like municipalities invest in land in certain areas for public ownership. That allows the regulation of developments and uses on this land (Williamson et al. 2009, p. 199). As a strategic decision, the land on the periphery of urban centres is often land banked with the intention of selling it profitably at a future date (Carr & Smith 1975, p. 316). Closely connected are the Land Administration processes. The government is responsible, and it delegates special issues to public authorities or private-sector agencies, such as land development, land use and land tenure as well as land value (Table 14). A set of rules starting from policies (e.g. land policy framework) and regulations (e.g. institutional arrangements, management and dissemination systems, land information infrastructures, standards and technologies) form the Land Administration System of an administrative unit (Williamson et al. 2009, p. 453). The most nations try to manage land by formal systems. Associated with this are several tenure processes like formally titling land, transferring land by agreement (e.g. buying and selling) or social event (e.g. marriage and divorce), forming land parcels or properties in the cadastre (e.g. subdivision and consolidation) and determining boundaries (Williamson et al. 2009, p. 98).

Land development focuses on the implementation of land use planning according to formal laws and the use of different urban development strategies and instruments such as transactions, (re-)allocation, expropriation and the related development costs. Land use asks for the purpose and function of the land. It restricts the owner in the freedom of built and free disposition of his/her land. Land tenure answers the question of securing of land by ownership or land use rights. For land tenure, the registration of land plays an important role. Land value deals with the determination of market values and maybe taxation values for land.

### **3.3.2 IDENTIFICATION AND SYSTEMATIZATION OF GOOD PRACTICES FROM EUROPE**

The countries of Europe have miscellaneous experiences in the field land management related to land banking, land administration as well as land administration systems. Even if the systems of the individual countries differ in detail from each other, nevertheless generally valid statements can be made to good practices. Important parameters of comparability help to systemize.

#### **3.3.2.1 Parameters of Comparability**

##### *3.3.2.1.1 Land Development Process*

The land development process has multidisciplinary dimensions and includes a wide range of tasks from the project development, the acquisition or subdivision of land, the legal assessment and planning consent, the construction works to the allocation of the development incentives and costs. Based on planning permissions or land use permits the process of land development is managing the change (e.g. in land use) of existing rural or urban areas and is also realizing new building areas (e.g. urban districts) with new physical infrastructures (Williamson et al. 2009, p. 194). In general, the land development process can be divided into three main stages:

- Initial Stage: Current land use (e.g. arable land as ‘undeveloped land’),
- Land Development Stage: Extension of property rights (plans and permits required for building land) and reallocation as well as preparation of infrastructure (change of borders and preparation of external/internal infrastructure as well as public services), and
- Stage of Use: Private investments (construction of buildings) and economic developments (changes of the market, quality of building etc.) (e.g. urban land as ‘developed land’).

The land development process is usually associated with the change in land use, land tenure and land value. Every step in the development process causes an increase in the land value (realised in purchase prices) and is determined by the market forces (supply and demand).

##### *3.3.2.1.2 Development Costs, Beneficiary and Cost Unit*

The development of new building areas causes considerable costs with consequences for the cities and their inhabitants. Not only the initial development of the areas and the production of the necessary infrastructures are to be financed, but also the permanent maintenance of the facilities. Important is, that the development costs of new building areas (e.g. for the living) are significantly influenced by regional and local standards. Therefore, all location-specific costs and follow-up costs, as well as income for the development of (residential) land, must be systematically recorded (Table 15). Supra-local public cost (for the welfare of the whole city), as well as external costs of the builder (e.g. mobility costs, environmental costs), are often borne by the public or private households and therefore are not included in the development calculation (Kötter & Frielinghaus 2012, pp. 2).

*Table 15: Costs for Residential Land Development (Kötter & Frielinghaus 2012, p. 6)*

Cost Position	Activities
Preparation and execution	Urban planning, appraisal, surveying, project management
Land acquisition	Land purchase: land price, additional costs, compensation
Regulatory measures	Exposure, contaminations, old deposits, landfill, reorganization, parcelling
Site-development facilities	Facilities of external and internal exploitation
Public facilities	Required public utilities of public and private institutions
Compensatory measures	Compensation for interventions in nature and landscape
Financing costs	Credit costs for the interim financing

### 3.3.2.1.3 Security Level of Ownership Rights

The precondition of land development is the access and the power of disposition of the land. Therefore, the ownership and also the long-term leaseholds are two very important rights in land, which include the right of use of land. Nevertheless, the content interpretation of the rights differs internationally and also between the European countries. They are limited through land use regulations or restrictions (Williamson et al. 2009, pp. 173). For the security level of ownership rights, the functionalities of land registration systems as well as of the cadastre are important instruments.

The land registration is a procedure for determining land rights. In general, there are two ways to secure property: the private security and state registration. Nowadays, there is a state registration in most countries. The land rights are saved as deeds registration (registration of the certificate) or as title registration (registration of the property rights) (Hanstad 1998, p. 650 f.). In most European countries, an official book (the land register) of land rights exists, which also captures changes in land rights. The land register gives an answer to the questions who and how. The cadastre describes the owned area and the gives the georeference of the property. Often, the borders of the property and the parcel identification are presented as (digital) maps. Cadastre and land register are often connected or information is exchanged, so for each parcel, the type, size, value and legal rights are provided. The countries have decided if they wanted to maintain two separate registers or one common one. The main content of land registration are the parts: Person (as subject), ownership (the right to use, manage and exclude; right to added values; right to transfer) and land (as object).

There are also different types of transaction evidence existing. Zevenberger (2002, p. 32) divided four groups of how the transaction is confirmed or documented (Table 16).

*Table 16: Types of Transaction Evidence (adapted from Zevenberger 2002, p. 32)*

Level of Security	Transaction	Evidence
<b>Low</b>  ↓  <b>High</b>	Oral agreement	Witnesses
	Private conveyance	Deed (No registration)
	Deed registration	Registration (No guaranteed)
	Title registration	Registration (Proof of title)



From an international perspective, in many countries, the registration began with a deed system and evolved into a title system (Williamson et al. 2009, p. 340). Figure 12 shows that the countries in Europe largely follow one system per state. But there are also other countries in the world which follow several registration systems (mixed systems).

In the Deed system, the transfer document is registered, but titles are not guaranteed. The documents are lodged in a register (registered deeds) as evidence of a chain of transaction back to the valid title (chain of conveyance). The deed includes a description of meters, bounds and a sketch, which is not necessarily the same as in the cadastre. This land registration system is called the French/Latin/U.S. Style and is used e.g. in Italy, Portugal or Spain.

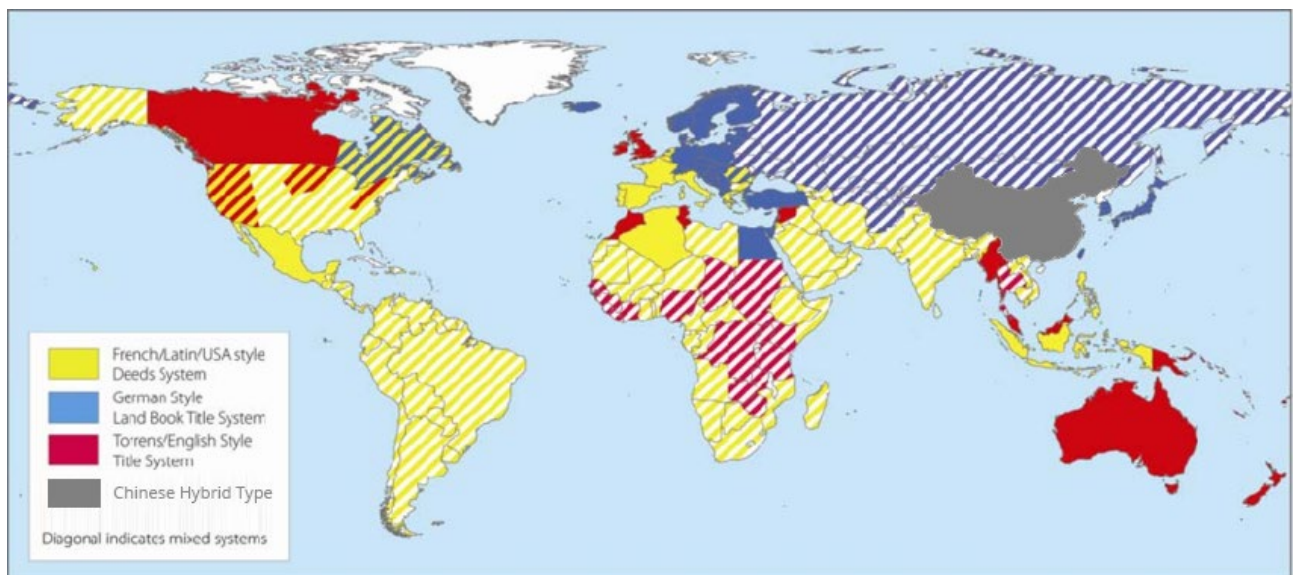


Figure 12: Land Registration Systems across the World (extended according to Enemark 2014, p. 4)

The land book title style for land registration is used e.g. in Austria, Germany and Switzerland. It is called the German style. This system registers the property rights and titles. Afterwards, state guarantees for them. Land registration system offices and cadastre offices are combined or closely linked. Licensed surveyors or government officers determine the fixed boundaries in cadastral surveys. In Ireland and the United Kingdom (UK) use the Torrens registration. It is a variant of the Title system. If the land is already registered, the following transfer of the ownership must be registered. The registered titles usually guarantee the ownership.

China has a lot of types of real land ownership and tenure rights on diverse administration level, such as State, state-owned enterprises (SOEs) and various local governments on behalf, Collectives and farmers. Therefore, there is no unique Chinese registration system like Enemark (2014) systemized. As a result, Figure 12 shows for China an own mixed system (Chinese Hybrid Type).

In summary, it can be stated that the title system gives the highest security level of ownership rights and could be derived as good practice in land administration.

#### 3.3.2.1.4 Participation of Stakeholders and Transparency of the Land Development Process

Most European countries are following an integrated land management approach with the goal of sustainable development. Williamson et al. applied three key principles (2009, p. 192):

- Decentralisation of planning responsibilities: Local representatives are responsible for local need, Decision making with accountability in terms of economic, social and environmental impacts, Implementation of monitoring and enforcement procedures;
- Comprehensive planning: Combining relevant aspects in one planning document under consideration of the interaction effects (e.g. aims and objectives, land use planning structure and land use regulation with the entire jurisdiction);
- Public participation: Creating an understanding of the needs and benefits of planning regulations as well as giving a basis for the dialogue between government, public authorities, stakeholders, citizen about the land management processes.

*Table 17: Stakeholders in the Land Development Process (Williamson et al. 2009, pp. 197)*

Stakeholder	Properties
<b>Land owners</b>	<i>"Whether a private party or a legal person and whether public or private, play an important role since they hold the legal rights for any development or change of land use."</i>
<b>Developers</b>	<i>"Such as private-sector development companies, may act as an entrepreneur taking the risk to produce a development project for a profit, or they may act as a project manager controlling and coordinating the project throughout its various phases."</i>
<b>Financial institutions</b>	<i>"Such as banks, insurance companies, and investment funds, play an important role in lending capital for financing developing projects based on relevant risk analysis."</i>
<b>Planning and building authorities</b>	<i>"Should ensure that the development proposal is in line with adopted planning policies and regulations and thereby prevent 'undesirable development'. They also act as facilitators to ensure that 'desirable development' appears at the right place and the right time. These roles may include negotiations with the landowners or developers to achieve optimal results."</i>
<b>Building contractors</b>	<i>"Undertake specialised activities within the construction process based on a contract with landowners or developer setting the terms for delivery, quality and risk management, and payment."</i>
<b>Professional advisers</b>	<i>"May include a whole range of professionals to support and advise the landowners or developers on specific issues. These professionals include lawyers, architects, engineers, surveyors, accountants, etc."</i>
<b>Third parties</b>	<i>"May play an important role in the development process in the form of objectors who may delay the whole process through appeals and public inquiries. Objectors may be neighbours or specialised NGOs defending specific interests such as heritage and nature protection."</i>

The range of stakeholders in the process of land development is wide. There are a lot of systematizations of the stakeholders, which characterize more or fewer types. A common typology is a differentiation in landowners, developers, financial institutions, planning and building authorities, building contractors, professional advisers and third parties have to be involved in the coordination process about planned activities (Table 17).

The involvement of many stakeholders in the land development process means a relatively tedious and complex procedure of participation, because of the high coordination demand. However, it also achieves transparency and awareness for the land developments. Especially professional stakeholders claim for a high transparency.

### **3.3.2.2 Good Practices in Europe**

The identification and systematisation of European good practices regarding land banking are made in the context of land administration systems (LAS). Framework conditions are chosen which are comparable to those in China (e.g. regarding land tenure, land value, land use, land development). The investigation based on a documents' analysis (e.g. regulations and practices) and a literature review.

After giving an overview of the European and worldwide situation regarding land management and land administration, two concrete examples are presented below. Picking up the conclusion, that title system gives the highest security level in land administration, Sweden and Germany were identified as good examples of land banking and land administration in Europe. First, in this report, the countries will be introduced. Countries are considered in terms of their design of title systems, property transactions, benefits and costs in these processes and their land development actors.

#### **3.3.2.2.1 Germany**

Germany is a state in central Europe and consists of 16 federal states. The governmental system is structured as a parliamentary democracy. Germany is a founding member of the EU and member of the UN, NATO, G7, G20 and Council of Europe (Europäische Union 2018 a).

According to the German Federal Building Code, the municipalities are the responsible bodies of urban land use planning. There are two local land use plan, which steer the local development and allocation of land. The subordinated plan is the preparatory land use plan of the whole municipality. It is binding for the administration but has no direct external impact. Beneath, there are legally binding land use (or zoning) plans, which have to be developed out of the preparatory land use plan and embrace in general the number of quarters. The plan consists of plot-specific regulations concerning land use and building density and the determination of those parts of a plot where the buildings may be realized (Hendricks et al. 2017, p. 269).

In the period between 2011 and 2017, the population has increased especially in German cities. Germany had over 82 million inhabitants in 2017 (Eurostat 2018). The concentration of the population varies regionally. The population of large cities often strongly increases, but there is also a declining of the population in rural areas (Weitkamp et al. 2017, p. 330). The largest cities according to inhabitants are Berlin, Hamburg and Munich.

The real estate market is regionally different. In shrinking (often rural) regions, purchase prices of real estates are usually lower and the vacancy rate is higher. On contrary, there are high land and real estate prices in fast-growing cities (Spars et al. 2015, p. 208). In these cities, the focus is once again on steering through land policy in land development processes with their increase in the value of land and in land transactions (Gesellschaft für Geodäsie, Geoinformation und Landmanagement e. V. 2014).

Germany is one of those countries where individuals or entities can own both, land and buildings. The following chapter is about the security level of ownership rights (cadastre, land register and property transaction). Also, it gives an overview of the costs and benefits in the land development process for the different stakeholder. They differ especially for privates and the public and are depended on the quality of the land.

#### **Security Level of Ownership Rights**

Germany's land registration system has a long history. Since about 1800, the registration system in Germany has constantly developed. In the beginning, the system was established as a tax system. The

aim was the taxation of the land of the owners. In the 1900s with the introduction of the BGB and the verdict of the German Empire, new rules for land registration were established with another the aim. Ownership got an important value. Nowadays, the ownership is defined in the fundamental rights of the German constitution. This embraces the state property guaranty, the scopes and limitations of ownership rights, the inheritance and the permit for expropriation to the purpose of the public good. Since 1900, the newly established land register and cadastre should secure the property with a stately guarantee. While the land register focuses the ownership rights, the cadastre takes care of the georeferenced. As hedging instrument, the public belief is launched. Thereby, the state guarantees for the correctness of the information in the registers. Since the 1930s, the cadastre is more than an instrument of taxation and ownership guaranteeing. As multi-purpose cadastre, it should also serve planning and economy issues of land (Torge 2007).

The land register is a digital public register managed by the district courts (land registry/land office). There are recorded the land itself, leasehold rights, the ownership and the burdens of ownership. But also, entries such as a lien, easement and mortgages and land charge (from both different kinds). In addition, remarks on certain juridical considerable facts can be registered. The registry is structured in different parts. It consists of a title page and an inventory with cadastre specification. There are also the three departments and an additional part with verifications and documents for the entries (Rink 2006, pp. 8). Unlike the cadastre, the land register does not embrace all parcels. In general, there is the compulsion to registered land. It means that every plot must be kept in the land register except for public land (e.g. land of state, municipalities, public roads, waterways and railways).

Public belief plays a big role in Germany in relation to land registration. State guarantees for property rights (Enemark 2014, p. 4). This has the advantage, that the registered person or entity is considered as the rightful owner. Everybody can trust on the correctness of the land register with the registered legal proceedings (Rink 2006, pp. 8).

The correctness of the land register and public belief is only questioned out in the following cases:

- If the acquirer of the right or property has knowledge of the incorrectness,
- If in the land register a contradiction is put down,
- The cadastral proof fails, and
- The owner's crossing through contractual acquisition (e.g. with the case of inheritance) or through forced sale does not occur.

### **Land Development Process**

Especially in cities with limited space potential and a high demand for housing leads to the question of steering requirement. The question arises, to what extent the municipality should intervene to manage the urban development and mobilise land. There are different approaches and methods for mobilizing land. In some cases, investors and owners are involved in the development of the land process (e.g. within contract models) (Hendricks et al. 2017, p. 261). In the following, it is shown which steps of land development exist and which benefits and costs burdens to the public and the developers in Germany.

In general, the participation of planning beneficiaries and the refinancing of certain measures in land development is possible. Some public costs e.g. for infrastructure can be passed on the investor. The

increase in the land value and the realized housing stock provide revenue for the developer. The revenue from rent or sale stays with the beneficiary. Therefore, it is legitimate to transfer an appropriate part of (public) costs to the developer. Table 18 gives a view of the stages in the land development process, the change of land, the cost unit and the beneficiaries of added value.

*Table 18: Cost Unit and Beneficiary of Development Process in Germany*  
(adapted from Hendricks et al. 2017, p. 273)

Stage	Change	Cost unit	Beneficiary of added value
<b>Arable Land</b>	-	Old owner	Old owner
<b>Extension of Property Rights</b>	Plans and permits Required for building land	Planning: Municipality Permits: Owner	Owner
<b>Reallocation, Preparation of Infrastructure</b>	Change of borders, Preparation of external/internal infrastructure, Public services (tight definition in a restricted area context)	Private development: Owner has to overtake costs up to 2/3 of land value (legally limited) Public measures: capture of added value	Owner
<b>Private Investments</b>	Construction of buildings	Owner	Owner: Rents or purchase price
<b>Economic Development</b>	Changes of market, Quality of building etc.	Owner	Owner

One way to involve the investors (cost unit) in urban development is with an urban development contract in accordance with § 11 German Federal Building Code (BauGB). This paragraph legitimate municipalities to transfer costs in an appropriate scope the developer (cost unit). § 11 BauGB contains an exemplary list with possible contents like Planning costs (e.g. expert opinion), Measures of land/property reorganization, Measures preparation of land, The assumption of development costs and of infrastructure costs (e.g., social and technical infrastructures), partially preparation and free transfer of public land to the community, Renewable energy and coverage of housing needs and the realization of affordable housing for low budget households.

However, the contracts between developer and municipality must comply standards. The municipality cannot arbitrarily transfer costs. The charges must be correlated to the urban development measure (so-called causality principle). The municipality may not transfer any costs that they would have had to carry out themselves without the measure (so-called prohibition of coupling). Besides that, charges and considerations must be appropriately weighted (so-called appropriateness) (Burmeister 2014, p. 19). From practice, as the threshold is established of 2/3 of the increase in value. If the transferred cost lies beneath this threshold, this is judged as appropriate. The composition of costs based on urban calculations. In most contracts, in addition to the costs, the process steps and a building obligation are secured (Burmeister 2014, pp. 144).

### 3.3.2.2.2 Sweden

The Kingdom of Sweden is a parliamentary monarchy in Northern Europe. The system of government is structured as a parliamentary democracy (Europäische Union 2018 b). The country is divided into different government authorities: The State, the County Administrative Boards, the County Councils and the Municipalities (Hendricks et al. 2017, p. 274). Sweden is a member of the Nordic Council and since 1995 a member of the EU (Europäische Union 2018 b). According to the Planning and Building

Act, land use planning is a municipal issue. But the State is authorized to order for the municipality to adopt, revise or cancel plans if it is necessitated by national well-being. The municipal planning and development control are carried out through the Comprehensive Plan, Detailed Plans and, finally, Building Permits (Hendricks et al. 2017, p. 274).

Between 2008 and 2017, the total population in Sweden has increased and since 2016, Sweden has over 10 million inhabitants. In 2017, the population in Sweden grew by about 1.45 per cent over the previous year. The population density in the provinces is decreasing from south to north. The city of Stockholm has most inhabitants (2.1 Mio.) and the highest population density (323.41 people/sq. km) (Frommert 2018). In fast-growing cities, such as Stockholm or other university cities, the supply exceeds the demand in the real estate market. As a result, land, real estate and property prices have risen in recent years (Handelsblatt 2018).

### **Security Level of Ownership Rights**

Like other countries, the purpose of property and land registration is to provide property and land security in Sweden. But also, a detailed registration guarantees a fair property transaction. The register has to be classified as a highly reliable system. The Lantmäteriet is the Swedish mapping, cadastral and land registry bureau with information about the country and guarantees the security of the property of Sweden's real estate (Frank et al. 2015, p. 1282). The ownership includes the right to own and to sell the property (land and buildings). State guarantees the content of the register. The Swedish land registration system is similar in the Torrens system, but without the use of title documents (European Land Registry Association). The register contains information about real estate, for example title, site leasehold grant, site leasehold right, encumbrances such as mortgages and rights of use, official notifications and history (Johansson 2002, p. 5).

The purpose of the registration is to ensure that the right also remains against the new owner and the registration of the incriminated property. The amount of money paid for the property must be clear when the property is sold or bought. The land register shows what the appreciated value of the property is. If the purchase amount is lower than the appreciated value, a tax is charged. In other cases, the purchase tax is based on stamp duty (Johansson 2002, p. 5). If an owner wants to take out a mortgage, the registration is necessary and the owner receives a certificate of the amount. When the debts are settled, the certificate is returned to the owner (European Land Registry Association).

In Sweden, the real estate transaction is divided into three phases: Pre-contracting, Contracting and Registration. In these phases, the purchase contracts must comply with certain formalities such as a statement that ownership is transferred to the buyer. Transactions must be in written form and sign by both parties. An authentication of the document is not necessary. However, the seller's signature is usually certificated by at least two witnesses over 15 year's old persons with no mental impairments. A purchase contract is effective without certification. For registration, a certification is a requirement. The purchase contract must have the minimal content of (Frank et al. 2015, pp. 1284) names of contractors, signatures, exact tab names of the property, agreed purchase price and statement by the seller of transfers land to the buyer.

The expropriation of property is permitted if there is a public interest and the land is required for the public purpose and a purchase on the open market is not possible (examples for public purpose are roads, railway lines). It is also allowed if the owner agrees on the purchase but requests an inappro-

appropriate purchase price or if the company is classified as 'important' or if the project is considered profitable from the public point of view. The criteria can be met by both, public and private sector projects. Compensation has been in the amount of market value.

### **Land Development Process**

In terms of land development in Sweden, two factors play an important role: the question of who owns the land and who actively realize the land. Land can either be owned by the municipality or owned by developers. There are four possible cases regarding the role of the developer and the owner. In the first case, the developer owns the land, but he/she not actively involved in plan preparation. In the second and most common case, the developer owns the land, too. The developer and municipality work out together a detailed plan. In this case, there is a development agreement with negotiations between the developer and municipality regarding finances fees for municipal infrastructures for each construction project. In the third case, the municipality owns the land. The municipality allocates a developer to mobilize land after the detailed plan is passed. The allocation takes place at a late stage of the planning process. In the fourth case, the municipality owns the land. But the municipality names a developer in the early planning process. The plan is worked out together. A land allocation agreement is settled. The agreement includes land transfer and financial issues (Hendricks et al. 2017, p. 275).

Sweden uses contracts, taxes, and contributions for development. There is the direct value capture. When a municipality develops land, it is usually responsible for the construction of the following facilities: roads, green spaces, water and sewerage, power supply, etc. (all designated as 'Public Interest'). The municipality is allowed to transfer fees for these infrastructures to the developer in order to reduce the public development cost. The amount of the fee may not exceed the amount of the actual construction costs. Maintenance costs cannot be transferred and are financed from municipal tax revenues. The inhabitants of the area mostly pay costs for private roads. The citizens pay fees for water, electricity, and telecommunications charge. These are mostly connection and annual fixed fees. The financing will be transferred to the public sector in the construction of main roads and green spaces on a larger scope. Since 2015, there is a new development agreement for external and social infrastructure in Sweden. According to the new agreement, if the measure releases the need for roads, electricity and water supplies (technical infrastructures only), it is now permissible to transfer these costs to the developer. This does not include the bearing of costs of social infrastructures (as schools) by the developer (Hendricks et al. 2017, p. 276).

Swedish cities do actively land banking for many years. They own much land which is appropriate for housing. This land is supplied to developers through the use of 'land allocations'. Through the land transactions from municipality to the developers at actual market prices, the municipality can assimilate the value increase due to the extension of property rights and public investments (Hendricks et al. 2017, p. 276).

A furthermore, through the Swedish tax system, state capture a part of the land value increase. The real estate taxation consists of three parts. The Property Tax a 'taxation value' of property tax corresponds to 75 per cent of the estimated market value. The capital gains (sales) tax is valid when privately owned properties are sold. The tax rate is 22 per cent of the capital gain – the difference between the buying and selling price with a deduction of improvement costs. Through the company tax professional developers – development companies – are paying 22 per cent of the annual business profit (Frank et al. 2015, p. 1297 f.; Hendricks et al. 2017, p. 277).

### 3.3.3 IDENTIFICATIONS OF STRENGTHS AND WEAKNESSES OF LAND MANAGEMENT IN CHINA

#### 3.3.3.1 Practice Process and Mechanism

Land management system in China during the urbanisation process has generally been improving in terms of land legislation, land registration, transfer of land rights and land use efficiency. Although land legislations are frequently adjusted with the changes of the relationship between urban and rural, while due to the path dependence effect and the historical legacy of urban-rural dual structure, the current land legislation in China is still divided into two parts: urban and rural. Therefore, the keep-on-going reform on transfer of land ownership and tenure rights remain the important instruments for urban-rural land management and land development in China for the coming years.

##### 3.3.3.1.1 Rural land management: Expropriation of collective-owned land and transfer

**Land expropriation:** Refers to the legal act that the government expropriates the collectively-owned (rural) land and transfer it into state-owned (urban) land for the sake of public interests. In accordance with the procedures, reasonable compensation and proper relocation/resettlement should be given to the expropriated rural collective organizations and the due farmers according to the related regulations and bylaws. This type of land transfer consists the main source of urban land increment in China in the past three decades.

Local governments usually pay the compensation fee for the land expropriation, which takes three elements into account, (1) compensation for the land by area size; (2) resettlement allowance for the displaced peasants; and (3) compensation for the lost harvest either crops or woods (Lin et al. 2015). Compensation principles and standards in most cities are usually decided by discussion and negotiation between those demanding land (local governments in most cases, either directly for public interest or indirectly for developing primary land market for land bidder later) and farmers (Cao et al. 2018).

The total amount of compensation payable to these collectives cannot be higher than 30 times as much as the value of the land's average output over the previous 3 years (Tan et al. 2009). Unlike the Netherlands and Germany in which private participations in farmland conversions are permitted, the government is the sole buyer in the farmland acquisition market and the sole supplier in the urban primary land market (Hui et al. 2013).

Table 19: Evolution of rural land expropriation in China

Year	Legislations and policy document	Content and practices
1982	Constitution of the People's Republic of China.	The state may expropriate land in accordance with the provisions of law for the sake of public interests.
2013	<i>"Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning the Comprehensive Deepening of Reform"</i> .	It is urgent to narrow the scope of land expropriation, standardize the procedures of land expropriation, and improve the rational, standardized and pluralistic safeguard mechanism for land expropriated farmers.
2014-2017	<i>"Opinions on the Pilot Work of Rural Land Expropriation, Market Entry of Collective Operational Construction Land and Reform of Homestead System"</i> .	Making 33 pilots for Land Expropriation.



Table 19 summarizes the development of rural land expropriation in China in the past 35 years in terms of its contents and practices. It is shown that the land expropriation in rural China has been relatively simple and straight forward, with relatively low cost given the ceiling compensation. This is also partly explaining why most local governments and developers like to take the rural converted land for urban expansion and housing development.

**Collective-owned land transfer:** It usually doesn't change the land ownership which still belong to the collective. The land use rights of farm land and collective construction land can be transferred to other people or organization. Farm land transfer refers to that rural households with land contractual management rights will be converted their land management rights (use rights) to other rural households or economic organizations. In this case, the nature of land use remains as farmland for agriculture use.

*Table 20: Evolution of collective construction land transfer and redevelopment in China*

Year	Legislations and policy document	Content and practices
1998	Land Management Law.	The usage right of land collectively owned is not permitted be transferred, conveyed or leased for non-agricultural industry.
2004	State Council Document No. 28.	Under the plan, the usage right of collectively owned construction land in villages, market towns and structured towns can be transferred according to law.
2013	<i>"Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning the Comprehensive Deepening of Reform"</i> .	On the premise of conforming to the planning and use control, the transfer, conveyance, lease and share of rural collectively owned construction land is allowed to transfer, lease, and share, which has the equal rights and prices with state-owned land.
2014-2016	<i>"Opinions on the Pilot Work of Rural Land Expropriation, Market Entry of Collective Operational Construction Land and Reform of Homestead System"</i> .	It marks that the collectively owned construction land has formally entered the pilot stage.

Collective construction land transfer refers to that *"rural collective construction land can enter the market, and has the equal rights and prices with state-owned land"* according to the latest regulations (Huang, 2018). In order to break the dual system of urban and rural, 33 pilot projects were given to the right to transfer collective construction land into market based on the market price (Xie et al. 2019). Up to Now, there are still some restricts or limitation for collective construction land transfer, as according to the past practice, the collective construction land can basically be used for industrial and commercial development but seldom allowed for real estate development.

Table 20 summarizes the evolution of collective construction land transfer in China, which demonstrate how the rural construction land has been treated in the urbanisation process. The major orientation is to relax the regulations on rural construction land redevelopment under the more strict urban planning implementation and boost the integration of urban-rural linkages to realize a more efficient, fair and healthy urbanisation.

### 3.3.3.1.2 Urban land management: Land banking and state-owned land transfer

**Land banking:** It is a prevailing mechanism of urban land management in China. In order to regulate and balance the supply-demand relationship of urban construction land market, local and municipal governments in China like to bank or pre-develop the planned land area, and arrange land acquired through recovery, acquisition, expropriation or other means to form a primary land market (Ming-Chao 2017). The government continuously strengthens the monopoly of Primary Land Market and obtains monopoly income accordingly due to the pursuit of getting more off-budget for local development through selling the land.

The practice of land banking in China was relatively late. The policy of “*Regulations on Management of Land Banking*”, jointly made by Ministry of Land and Resources, Ministry of Finance and People's Bank of China, was just issued in 2007 (Huang et al. 2018). Figure 13 shows the four stages of land banking mechanism in China, while Table 21 elaborates the development process of land banking practice in the country.

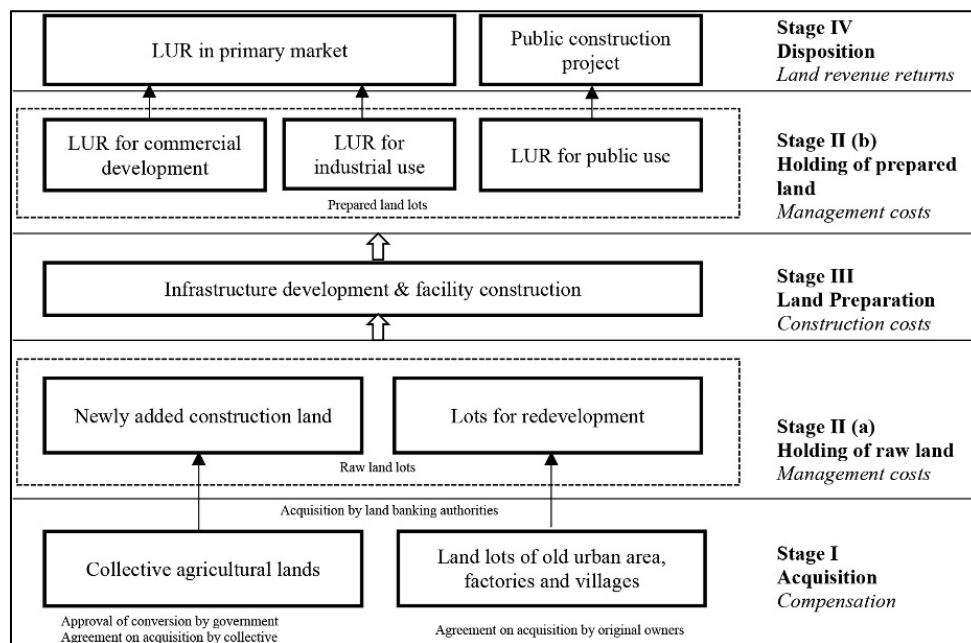


Figure 13: The four stages of land banking mechanism in China (Huang et al., 2018)

**State-owned Land Transfer:** It refers to the legislation of state-owned land management. There are three ways of transferring state-owned land use right in China: Tender (Zhaobiao), Listing (Guapai) and Auction (Paimai) (Wang et al. 2018). State-owned land transfer means that local governments transfers the state-owned land right to the land users within a certain period of time, and the land users need pay land-transferring fees to the local government through the above three ways from the primary land market (Gao et al. 2014).

Table 21: Development process of Land Banking practice in China (Huang et al. 2018).

Year	Related background and policy document	Practices
1992-1999	Introduction of the concept of land banking and the experience of Northern Europe.  Gradual formation of urban land market in China.	Pilot practice in Guangzhou in 1992.  It was extended to over 40 cities, including Hangzhou, Shanghai and Wuhan.
1999-2003	Based on Hangzhou model, which was commended by Ministry of Land and Resources in 1999, land banking was further promoted.  The State Council recommended “cities with suitable conditions to implement land banking to strengthen the ability to adjust the land market”.	Practiced in over 1600 cities and counties/districts.
After 2003	In November 2007, Ministry of Land and Resources (MLR), Ministry of Finance (MOF) and People's Bank of China (PBC) jointly issued the Regulations on Management of Land Banking which place land banking operations under a set of unified regulations.	By 2015, the practice was adopted by 2691 authorities in prefecture and county levels throughout all the 31 provincial level administrative regions in mainland China.

Table 22: Development process of State-owned Land Transfer and practices (Hu 2018).

Year	Legislations and policy document	Content and practices
1988	Amendments to the Constitution.	The usage of land can be transferred in accordance with the provisions of the law.
1990	Provisional Regulations of the People's Republic of China on the Assignment and Transfer of the Usage Right of State-owned Land in Cities and Towns (Decree No. 55).	It changed the past single system of administrative allocation of land supply, announcing the establishment of land transfer system in China.
1994	Law of the People's Republic of China on the Administration of Urban Real Estate.	The way of land transfer is clearly stipulated: land usage right transfer can be carried out by auction, tender or negotiation between the two parties. By the first half of 1994, all provinces, districts and municipalities in China had tried out the land transfer fee system.
2001	“Notice on Strengthening the Management of State-owned Land Assets” promulgated and implemented by The State Council.	Land for commercial real estate development must be provided by the land administrative departments of the municipal and county people's governments by means of tender and auction according to law.
2002	Ministry of Land and Resources promulgated “Regulations on Tendering, Auction, Listing and Transfer of State-owned Land Use Rights” (Decree No. 11).	Negotiation was stopped by it. The system of <i>Tender</i> (Zhaobiao), <i>Listing</i> (Guapai) and <i>Auction</i> (Paimai) began to prevail.
2003	The Ministry of Land and Resources promulgates the “Agreement on the Transfer of Land Use Rights”.	The procedure, scope and price of agreement transfer should be strictly and specifically stipulated.
2007	Ministry of Land and Resources promulgated the “Regulations on Tendering, Auction, Listing and Transfer of the Right to Use State-owned Construction Land”.	The transferee may apply for land registration and obtain the certificate of the right to use the state-owned construction land only after paying all the land transfer fees in accordance with the agreement of the contract.

China’s national land policies have two main periods: a stage (1949-1977) associated with traditional planning involving public ownership, free land use and non-transferable land-use rights; and a stage (from 1978 to the present) of gradual conversion from a centrally planned system to a dual-track system (Gao et al. 2014). State-owned land transferring fees are a main sources of local public finance

income, but given its fluctuation, it cannot be regarded as a regular budget source but an important off-budget channel. This off-budget practice is therefore more favourable to those fast expansion cities while could bring serious challenges for the successors of urban government and the urban sustainable development due to the low efficiency and low quality of land use in the enlarged urban area. Table 22 elaborates the development process of the state-owned land transfer and practices in China.

### 3.3.3.2 Property Transaction vs. Land Use Rights Transaction

In addition to the processes of land development, the power of disposition plays a major role. While in most countries, the ownership right secures the power of disposition, in China, the collectives (in rural areas) or the state (in urban areas) own the land. The developing stakeholders possess only a limited power of disposition in form of land use rights for a defined time span. The development process starts with a property transaction from rural (collective) to urban (state). Beneath, there are land use rights transaction from state to private users combined with changes of the allocated land. The transactions include the allocation or transfer of the land use rights and ownership changes of the buildings (if it is already built land) (Lai et al. 2017, p. 485).

The people to whom the land was allocated manage the land. They hold the land use rights for the cultivation of the farmland. Therefore, they have to pay fees to the collective (Li et al. 1998, p. 64). Highest level officials determine the allocation of land. The rules for allocation and regulations for the control of use vary from village to village. These different rules make consistent viewing and registration difficult (Li et al. 1998, p. 64). For many years, the land use rights in rural areas could not be transferred. They also could not be used for non-agricultural purposes. In 2016, the transfer of land use rights was simplified. Meanwhile, it is possible to transfer rights to other people or companies. The ownership rights are held by the collectives or the state furthermore (Li et al. 1998, p. 64). Even with a third-party contract fee are paid. Partially, in some regions nearer metropolises, a large land occupation began, and collectives were forced to sell their land to the state, so land is changed from rural to urban land (Tan et al. 2014, p. 3404).

The term ‘land use right’ varies on the purpose. The state as the owner takes a fee. The law does not regulate whether after the expiration of this time a new fee is outstanding or tried other conditions. The longest time for land use rights are intended for residential purposes. The period for residential purposes is usually extended automatically. The right of use may be restricted or suspended if the state requires the land for public good. So, land can be expropriated under certain situations and facts by law (Zhang a 2015, p. 1).

Table 23: Types of Land Use Rights (Zhang b 2015, p. 3).

Granted use right	Allocated land use right
Limited in time, e.g. 70 years for living	Without time limitations
Beneficiary has to pay for the use: an amount proportionate to the land's expected return, namely land prices	Free, without fee
Freely assigned, sold and resold, leased or mortgaged	Limited assigned, sold and resold, leased or mortgaged
Held by private individuals and entities	Not held by private individuals and entities
Private land use	Public land use

Comparable with the differentiation of public and private land ownership, Chinese land use rights are distinguished between 'Granted land use right' and 'Allocated land use right'. Table 23 shows the main differences. Areas of the type 'Granted land use right' are accessible to private individuals/entities and limited in time. For example, houses for private use can be built on these areas. 'Allocated land use right' are not for private individuals/entities and have no time limitations. On these areas, public infrastructure like schools or hospitals can be built (Zhang b 2015, p. 3).

In China, there are different, partially regionally, different regulations for land ownership and land tenure. The government gives the superordinate laws. The implementation of the decisions varies in the areas. Most of the collective land has been allocated to households. People manage the land for a certain period of time (Gao et al. 2017, p. 246). There are land registers to secure the transaction and the ownership and land use changes. Land registration also monitors the lands. In China exist different approaches to registration. On the one hand, households themselves are registered. On the other hand, there are also different land registration systems. The most important registration systems are presented (Ho 2015, p. 352-364).

### **3.3.3.3 Good Practices in China (on example of Chongqing and Nanhai)**

#### **3.3.3.3.1 Land Banking: Chongqing**

##### ***Land Banking System in Chongqing***

The hierarchical top-down system of land banking in Chongqing mainly is consist of three levels. The highest level is land administration department and the planning department in Chongqing Land Resources and Housing Administration Bureau. The two departments jointly decide the scope of land banking together, and then submits the proposal for land quota distribution and development sequence to the municipal government for evaluation and approval. After approval, the land administrative department will authorize the land banking institutions to carry out the daily work for establishing the primary land market.

The second level is various land banking institutions which can be largely divided into two types. The first type is the large-scale wholly state-owned companies, and the second one is the original land banking centres in each district and county. Chongqing has basically adopted the market-oriented land banking model of Shanghai and taken the first type in dealing with their majority of land banking practice. More than ten companies have been authorized with land banking functions, including Chongqing City Construction Investment Company, Chongqing Real Estate Group, Chongqing Yufu Asset Management Company, Chongqing Water Resources Investment Company, Chongqing Highway Development Co., Ltd., Chongqing High-grade Highway Construction Investment Company, Chongqing Water Group Co., Ltd. and others. These companies bank different types of land according to their own business. Additionally, Chongqing has also retained the land banking centres in each district and county to carry out the land banking function continually.

The third level is land and mineral rights exchange centre, which is responsible for making the second land market deal through either transfer, negotiation or auction/ bidding process based on the land use function plan and the needs of local social and economic development. Transfer occurs usually when land is designated for public utility construction such as urban road, parks, and water treatment facilities. Invited negotiation is usually for public interest land use such as university, hospitals, and public spaces. All the land for commercial development purposes must be through auction or bidding

process. For manufacturing land use, a combination of negotiation and bidding process is becoming prevailing in most big cities in China nowadays, as manufacturing is no longer necessarily to be chased by big cities in China as in the past. Relocating these polluted manufacturing sectors to outside of big cities has become a new normal or fashion in recent years, such as the case of Beijing in relocating its non-capital city functions to surrounding areas.

#### ***Development Process of Land Banking System in Chongqing***

Table 24 summarized the evolution of land banking system in Chongqing municipality in its key stage of system formation. The case of Chongqing clearly demonstrates that the adjustment of institutional organization in land banking and administration system was based on the city's development emphasis and the related requirement for land supply. Initially the land banking and administration was to stimulate the land use efficiency by mobilizing SOEs' land assets, which have much more land than their need due to free land acquirement in the planning economy time. The land use was basically operated by SOEs themselves under the municipal land use planning. As the marketization of urban economy was well implemented, the land banking and administration tends to be more market-oriented, and the function of land banking is no longer for manufacturing economy itself but the whole city's economic adjustment. Accordingly, land banking and administration changed its role into a source of urban off budget for city's infrastructure construction.

#### ***3.3.3.3.2 Land Management: Nanhai District of Foshan City, Guangdong Province***

Land shareholding system of Nanhai is an innovative land management system in China. The land market in Nanhai has changed from a monopolistic market with one supplier (local government) to an oligopolistic market with two providers (local government and rural collective).

When the surge wave of Township and Village Enterprises (TVEs) initially swept over the whole country, Nanhai established a land shareholding system in 1992 to share the incremental value of land rents to rural households, where rural land, including agricultural land and construction land, was collected by collectives, leased to enterprises, and then the earnings would be returned to peasants upon shares. In 2005, the Guangdong provincial government established a management plan that outlined the rights of those involved in rural land use conversions, which stated that rural development land could enter the land market in the form of leases. In 2010, the government of Nanhai district began to regulate the transaction of rural collective assets—representing the first instance of rural land entering the Chinese land market in the form of public listings. It is a milestone in China's land market because Nanhai built a transaction platform for legal transaction of rural construction land (only for profit-oriented land, like commercial and industrial land) for the first time, which contributes to the comprehensive market opening up in 2015 when 31 places, including Nanhai, have been chosen as pilots by central government to build a unified rural-urban construction land market. The operation mechanism of construction land market in China in general and Nanhai in particular can be summarized and shown as Figure 14.

Land shareholding system of Nanhai includes two integrated approaches:

- 1) "*Three-zone planning*" set up a clear guideline for land use transaction and distribution pattern. Under the land functional zoning plan conducted by local government, collective-owned land firstly is designated into the three categorized zone code, i.e. agricultural protected zone code, industrial development zone code, and administrative and residential zone code. Based on the bylaws of land use

in China, each categorized zone has its clear role and regulations for land use right, transaction process, and limitation requirements. Any developers and investors can have transparent guidelines in their land bidding and the following development.

Table 24: Evolution of land banking system in Chongqing (Kong 2015).

Year	Legislations or practices	Contents
2002.8	General Office of Chongqing Municipal Government promulgated the <i>"Notice on Promoting the Development of Land Market"</i> .	Detailed regulations had been made on the management system of land acquisition, banking, supply, and transfer fee.
2002.10	Chongqing Municipal Government promulgated the <i>"Regulations of State-owned Land Banking in Chongqing"</i> .	It marked the formal establishment of land banking system in Chongqing. In the regulations, the institutions, scope, procedures and fund management for the implementation of land banking were stipulated.
2003.2	Chongqing Real Estate Group was established and funded by Chongqing Municipal Government.	Chongqing Real Estate Group was a market entity responsible for land acquisition, banking, development, consolidation, transfer and investment. At the same time, Chongqing Municipal Government subordinated the former city-level land banking centre and land consolidation centre into the real estate group, implementing the operation mode of <i>"two designated titles with one same set of team member"</i> .
2005.4	Chongqing Municipal Government published the <i>"Approval on Chongqing Yufu Asset Management Co., Ltd. to Increase Land Banking and Land Regulation Function"</i> (Yu Gov 2005, p. 66).	It increased the functions of land banking and land consolidation for Chongqing Yufu Asset Management Co. The land banking scope of Chongqing Yufu Asset Management Co. included land for adjusting industrial structure, land purchased because of state-owned enterprises <i>"reduced manufacturing land but increased the tertiary industrial land use"</i> (tui er jin san), enterprise relocation and enterprise bankruptcy, and other idle land.
2005.4	Chongqing Municipal Government published the <i>"Approval of Land Banking for Key Water Conservancy Projects"</i> (Yu Gov 2005, p. 70).	It agreed Water Investment Group (Group) Co., Ltd. to establish a second-level wholly-owned subsidiary company of <i>"Chongqing Water Investment Group Land Reserve Regulation Co., Ltd."</i>
2006-2007	Many state-owned companies were granted to have the land banking function, including Chongqing Municipal Construction Investment Company, Chongqing Real Estate Group, Chongqing Yufu Company and others.	Land banking no longer functioned to reserve space for urban expansion and enhance the value of land, but became an important means for the municipal government to raise funds for infrastructure construction and promote the social and economic development.
2008	Chongqing Land and Housing Administration (LHA) promulgated <i>"Notice on Further Strengthening Land Banking Regulation"</i> (Yu LHA 2008, p. 110).	Detailed regulations are made on subject, approval authority, procedure and demolition of land banking, marking the further improvement of land banking in Chongqing.

2) The collective property, land and farmer's tenure rights are counted into shares based on the evaluation and market assessment. Accordingly, a set of regulations of stock setting, dividend distribution and stock right management are designed in order to protect farmer's interests and make the shareholding process be smooth and sustainable. By so doing, rural industrialization and peri-urban in-situ urbanisation are then promoted and accelerated through the proper land management and administration in the land shareholding practice.



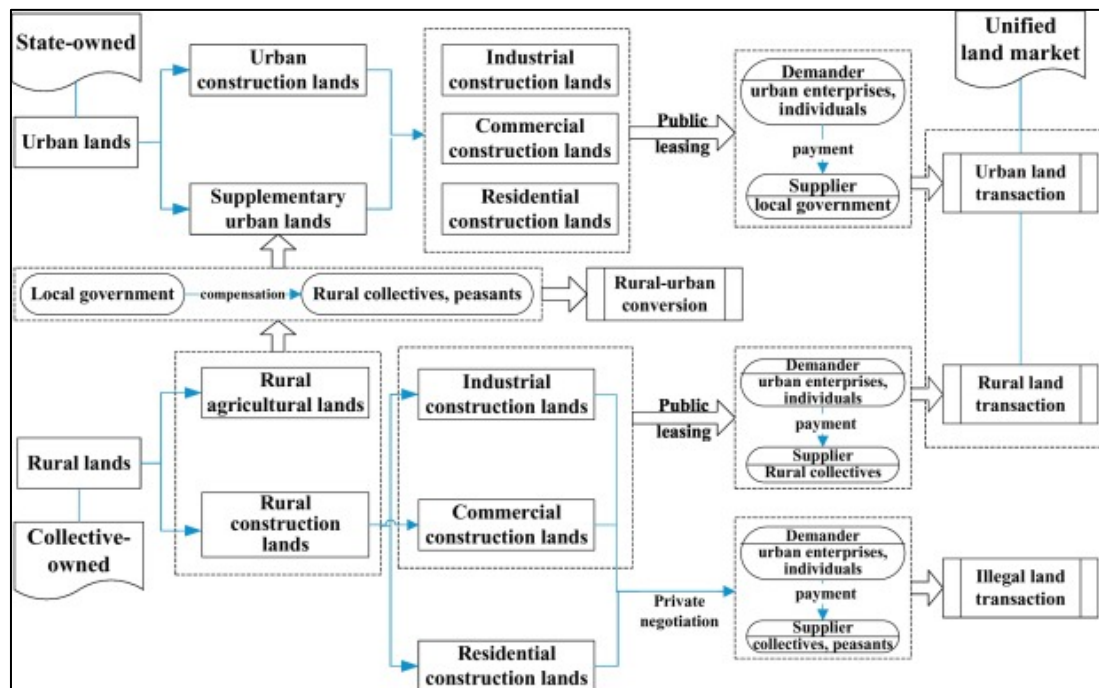


Figure 14: Operation mechanism of construction land market in Nanhai.

### 3.3.3.4 Problems and Challenges

Based on the foremost review, out of many problems and challenges in land management in China, the following are the serious and critic ones in practices. More theoretic and applied research need to be done before more appropriate policies are put forward and better implementations can be carried out. Particularly, more implementable regulations customized to the various local situations and settings need to be carefully designed and planned for the future urbanisation development in different regions and different scale of cities in China. Some of European good practices can be very good references in this regard.

The key problems and challenges in land administration and management in China can be summarized as follows:

#### In the rural domain

(1) *The supply and withdrawal mechanism of rural construction land is unclear.* The existing system clearly forbids individual non-collective members to acquire and use rural residential land for their housing or second home construction, even for those who have already retired and willing to live in rural area for the rest of their life. This stops the mutual flows of production factors between urban and rural in terms of people, investment and technology transfer, and limits the active utilization of rural residential land and the effective integration process through the urbanization process. The single direction flow of production factors from rural to urban hinders the development potentials and rights of rural areas, particularly the peri-urban rural areas where the better location and local settings could otherwise attract more investment and development opportunities.

(2) *The scope of land expropriation is too wide and the compensation is unreasonable.* Land expropriation, central to the government's strategies of development and capital accumulation, has generated



widespread discontent and has become the most important source of social conflict in rural and peri-urban areas due to low level of compensation (Cai 2016). Current laws and regulations do not clearly define which types of construction projects belong to the category of "*public interest*". Within the scope of land planning, the land expropriation is often arbitrary in implementation and practices. For example, large rural lands had been expropriated for the development of foreign-funded enterprises in coastal cities in China in their early urban development period.

(3) *There are problems in the market entry of collective-owned construction land.* How collective-owned construction land enter the market is not clearly stipulated and guaranteed by law, which makes it difficult to manage the land entering the market. None clear legalized land transfer process in various level of governments bring future uncertainty and risks to investors and other related stakeholders such as the housing purchasers. Therefore, this type of development in China is still somehow in chaos, and badly need to find the road map to make the development in a fine regulated pipeline.

#### In the urban domain

(4) *The current land use right transfer system is the main cause of high housing prices.* There is a high positive correlation relationship between land price and house price in China, which are mutually reinforced each other in a return cycle. Figure 15 shows the mechanism of this relationship from the perspective of stakeholders, which indicating that local government has some level of responsibility for the high housing price (Hu 2018).

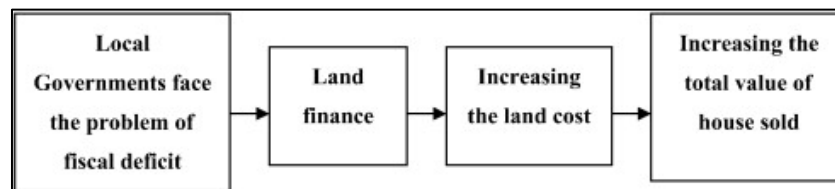


Figure 15: The Relationship among local governments, land finance and real estate markets in China (Pan et al. 2015)

(5) It is unreasonable that most municipal governments *highly rely on the land finance for investment of urban infrastructure and other public utilities*. This practice is highly risky for a sustainable urban development. It combines various sequential problems, such as urban sprawl, scattered urban services and high carbon emission by long commuting transportation, as well as the danger of lowering government accountability in paying the private services and in keeping its promises to investors for timely providing the required facilities such as metro stations and power supplies, etc. (Zhang et al. 2017; Liu et al. 2018).

#### 3.3.4 CONCLUSIONS

In the direct comparison between Europe and China, there are differences regards land banking, land administration and land use rights. In rural areas of China, main problems are the supply and withdrawal mechanism of rural construction land is unclear, the scope of land expropriation is too wide and the compensation is unreasonable and there are problems in the market entry of collective-owned construction land. In Europe, the situation in rural areas is left to the free market. Against the

background of the increased abandonment of agricultural farms and the consolidation to larger farms, it is more a scientific and sustainable discussion to reduce the land consumption.

In urban areas of China, the current land use right transfer system is the main cause of high housing prices with a highly rely on the land finance for investment of urban infrastructure and other public utilities. Therefore, a comparison with European urban developments is done in Table 25.

*Table 25: Comparison for urban land development between China and Europe*

	Europe	China
<b>Beneficiary</b>	Cost Unit	Government
<b>Cost Unit</b>	Beneficiary	Holder of the land use right
<b>Amount of Development Costs</b>	Tight approach of infrastructure definition (lower costs)	Broader approach of infrastructure definition (higher costs)
<b>Security Level of Ownership Rights</b>	Mostly homogenous in country	Heterogeneous, regionally different
<b>Transparency of Process</b>	High for involved stakeholders	High for government
<b>Stakeholders</b>	Owner  Municipality	Holder of the land use right and government are sharing the access to land  Municipality
<b>Strengths</b>	High security of ownership rights  Infrastructure costs cannot be financed by public  Demand and hence the prices are lower than in China	Realization of a high amount of infrastructure by private investors  Low/no costs for municipality
<b>Weaknesses</b>	Mostly balanced costs and benefits	Holder of the land use right (investor) must carry high costs → spread the cost to the tenants  High demand leads to high prices

In the countries of Europe, generally uniform rules apply to the respective land development process (largely legally binding). In the process, the costs for infrastructures are clearly defined. In most cases, the beneficiary of the charge is also the cost unit, with the possibility of offsetting the investment costs after completion of the development process through rental and sale (mostly balanced costs and benefits). Stakeholders are involved in planning at an early stage, resulting in a high degree of acceptance and transparency, especially for Real Estate Developers. Land banking initiatives are existing generally in both, Europe and China, but the approaches differ especially caused by the different ownership systems. In summary, the strength of the development process lies in the high security of ownership rights and the involvement of the stakeholders.

In China like in Europe, the development costs are also transferred to the developer, but in China, in most cases, the benefits are assigned to the government while in Europe, the developers benefit from development. The Chinese developer is obliged to realize a large extent (e.g. police stations) of infrastructures. One strength lies in the low costs that municipalities only have to assume for infrastructure measures. Due to local divergent legal practices, stakeholders are treated differently. As a result, only

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limited transparency of the development process is given in China. Generally, the government has a strong influence on the development processes. The challenge is that in most cases, investors must carry high costs which lead to higher costs for future land users (e.g. by increasing the rents or selling prices).

While most European Countries have only one land administration system, China presents itself heterogeneous with a regionally different system. A lot of European countries have a very high-security standard (title system). The challenge in China will be to derive an equal system for each region. This system has to record beneath the ownership also the land use rights. For safeguarding urban development and an increase of economic investments, a guarantee system for the registered land use rights should be derived (public belief in land register). In conclusion, land banking, land administration and land use rights play a major role in the planning and implementation processes of Urban Renewal and Urban Expansion.



## 4 URBAN RENEWAL, URBAN EXPANSION, LAND MANAGEMENT AND THE SOCIALLY INTEGRATIVE CITY

Irrespective of theoretical discussions about differences between “*integration*” and “*inclusion*” (Berger-Schmitt, 2000; UN Research Institute for Social Development, 1994; Fergunson, 2008), socially integrative cities are understood in our context as socially mixed, cohesive, liveable and vibrant communities. Compactness, functional mix, and intra-urban connectivity play an important role. Environmental quality, the quality of public spaces and quality of life contribute to the well-being of the population. Strengthening a sense of community and fostering a sense of place as well as preserving cultural heritage shape the city’s in- and outward-bound image. Investments into neighbourhood improvement, service delivery, infrastructure and the quality of housing are important supportive measures. Empowerment and participation as well as social capital are indispensable.

It has been widely acknowledged that such defined socially integrative cities and neighbourhoods are crucial to foster urban sustainability (UN-Habitat 2013, United Nations 2017). Based on available literature discussions and respective policies, programmes, and projects, the TRANS-URBAN-EU-CHINA Concept Group (2018) has proposed to understand the “*socially integrative city*” as a city with twelve (partly overlapping) characteristics. They are presented in Table 26. In the following, we analyse how urban renewal and urban expansion relate to these characteristics of the socially integrative city in the Chinese and European contexts. Land management is seen here as an underlying issue. It is mentioned when it becomes relevant, for either urban renewal or urban expansion.

We base our analysis mainly on results of chapters 2 and 3 of this report although we also include some issues, which we did not explain in detail above. Regarding each of the above-mentioned twelve characteristics, first, we look on pressing challenges in China in general, and second, we mention useful approaches and practices in Europe. The more generic challenges, approaches and practices are repeated wherever useful.

### REDUCING URBAN SPRAWL AND PROMOTING WELL-BALANCED LAND CONVERSION FROM “*RURAL*” TO “*URBAN*” AND APPROPRIATE ACCESS TO URBAN LAND

This aspect is mainly related to urban expansion and land management. However, urban renewal plays also a certain role as in many cases the population living in renewal areas has been relocated, often to new urban (expansion) areas, so far.

#### Urban renewal

##### *Challenges in China*

Due to changes of lifestyle, new generations prefer to live in areas with high urbanity. This increases the demand for urban renewal.

- There are imbalances regarding public services and social welfare and well-being between urban core areas and the urban periphery. This raises demands for upgrading existing urban areas.
- The actual economic slow-down limits the possibilities to upgrade the infrastructure in urban renewal areas as planned.
- Relocation approaches in urban renewal have become more costly, and financial resources have become scarce.
- Registration systems of land use rights are deficient.

Table 26: Characteristics of the socially integrative city (*TRANS-URBAN-EU-CHINA Concept Group 2018*)

<p><b>Collaborative urban planning and design</b></p> <ol style="list-style-type: none"> <li>1. Reducing urban sprawl and promoting well-balanced land conversion from “<i>rural</i>” to “<i>urban</i>” and appropriate access to urban land</li> <li>2. Involving the different stakeholders in collaborative and participative planning and design processes on the different politico-administrative levels</li> </ol> <p><b>Urban environment and living conditions</b></p> <ol style="list-style-type: none"> <li>3. Improving the environment and living conditions in urban areas</li> <li>4. Upgrading the physical environment in distressed areas</li> <li>5. Promoting efficient and affordable urban transport</li> <li>6. Assuring equal access to municipal services</li> </ol> <p><b>Local economy and labour market</b></p> <ol style="list-style-type: none"> <li>7. Strengthening the local economy and labour market</li> <li>8. Strengthening (technical and social) innovation in cities and neighbourhoods opening up new possibilities for the local population</li> </ol> <p><b>Socio-cultural development and social capital</b></p> <ol style="list-style-type: none"> <li>9. Fostering proactive education and training policies for children and young people in disadvantaged neighbourhoods</li> <li>10. Preserving cultural heritage and fostering the identity of neighbourhoods and their inhabitants</li> <li>11. Fostering social capital and engagement of local stakeholders</li> </ol> <p><b>Institutional development and urban finance</b></p> <ol style="list-style-type: none"> <li>12. Supporting adequate institutional and financial conditions and mechanisms</li> </ol>
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### ***Approaches and practices in Europe and China***

- There are many strategies and regulations to foster compact urban inward oriented development by making use of densification potentials, converting inner-urban brownfields, re-using vacant industrial and commercial buildings and existing infrastructures in the context of urban renewal. This has a long tradition in Europe, and it is becoming more and more prominent in Chinese cities.
- Security regarding ownership and land use rights (in sense of property-equivalent rights) for investors has proven to be one of the crucial factors for a well-managed urban renewal.
- In situ urban improvement is preferential compared to urban relocation approaches in urban renewal.

## Urban expansion

### *Challenges in China*

- During the past decades, the conversion of collective (rural) land into public (urban) land has been a major source of income for local governments. After the land transfer, local governments sold land, i.e. land use rights, by auctions to developers.
- Due to the growing interest of local governments and developers, urbanised land augmented faster than the urban population. In many cities, this has resulted in an oversupply of housing facilities and the emergence of what is called in literature “ghost cities” or “ghost towns”, i.e. urban areas with excessive housing supply and high vacancy rates.
- The fast urbanisation process has caused high losses of arable land, especially near major cities.
- The expropriation of farmers was not always smooth and wise, as in many cases, farmers were forced to give up their farming activities due to the lack of arable land, and to make their living based on rental incomes from housing facilities with which they were compensated. This, however, has become especially difficult in ghost cities.
- The balance between beneficiaries of land value increases and bearers of the development costs is disturbed.
- Registration systems of land use rights are deficient.

### *Approaches and practices in Europe and China*

- Increasing the intensity and compactness of land use both in urban and rural areas reduces the demand from urban expansion, and supports balancing urban and rural development.
- Regional planning and strategic visioning may help to reduce urban expansion or make it viable. This requires integrated models for managing rural-urban relations.
- The revitalisation of urban areas (see above under urban renewal) helps to limit urban spatial growth. This may require special tax arrangements, modified planning control systems, and the creation of special agencies in charge of managing the revitalisation process.
- Changes in land taxation laws and the land value tax system may support the compactness of cities and the affordability and access to urban land for poorer parts of the society. Capturing of unearned land value increases may also be discussed.
- Setting targets, limits and benchmarks using quantitative indicators (growth boundaries, urban population growth limits) may lead to less land consumption and urban sprawl.
- Tradeable zoning certificates have been discussed in Europe as a means to limit urban sprawl.
- In China, changes of the public finance system should reduce the dependency of local governments on land conversion and land auctioning as a major local tax base.
- Empty units and speculation have been reduced in Shanghai with new regulations restricting multi-ownership for individuals.
- Reforms regarding the size and functions of local governments could help to reduce excessive urban expansion.

## **INVOLVING THE DIFFERENT STAKEHOLDERS IN COLLABORATIVE AND PARTICIPATIVE PLANNING AND DESIGN PROCESSES ON THE DIFFERENT POLITICO-ADMINISTRATIVE LEVELS**

Collaborative planning and public participation has been discussed since a long time in Europe and in other parts of the world (Healey, 1998; Innes & Booher, 2003). In addition, it has been frequently practised though with different intensities and on different levels of involvement (information, consultation, joint decision; [www.partizipation.at](http://www.partizipation.at)). Whereas public consultation is rather widely spread in urban planning in general, joint decision making and different forms of public-private-partnerships are more easily applicable in urban renewal projects.

### **Urban renewal**

#### ***Challenges in China***

- Top-down planning and decision-making makes public participation difficult and delicate.
- Transfer of land use rights in urban renewal is difficult. Compensation is highly disputed.
- Until now, private developers have often driven urban renewal activities. In many cases, they relocated the population living in these areas. Compensation practices have been highly disputed.

#### ***Approaches and practices in Europe and China***

- There is a wide experience in Europe regarding collaborative planning and public participation in urban renewal. IT based approaches have made planning and renewal projects more easily accessible to larger parts of the population, and they have fostered the communication between planning authorities and the public. Nevertheless, more efforts need to be undertaken to reach certain parts of the population (i.e. young people, migrants).
- Besides legal stipulations, which require participation in formal planning processes, a variety of instruments, have successfully been applied in Europe, such as joint brainstorming sessions, citizen panels, round table discussions, workshops, citizen jury and mediation.
- Private developers or owners partly finance the urban renewal measures in a lot of European countries through capturing unearned land value increasements.
- In China, urban planning exhibition halls bear great potential for fostering public participation in urban renewal.
- In China, strong neighbourhood organisations bear a potential for strengthening public participation in in-situ urban renewal projects.
- In China, the prerequisite demand in some large cities such as Shanghai and Beijing for kicking off urban renewal projects that 85% of related local residents should agree first bear potential as a good practice to further improve the participation of local residents and protect their interests.

### **Urban expansion**

#### ***Challenges in China***

- Top-down planning and decision-making make public participation difficult and delicate.
- The transfer of land use rights for urban expansion is difficult. Mechanisms for the compensation of farmers are highly disputed.
- Planning for urban expansion is seen as a technical task. Social considerations, if at all taken up, usually stay in the background.
- Private developers are mostly driving urban expansion projects. They are usually very large scale.



### ***Approaches and practices in Europe and China***

- There is a wide experience in Europe regarding collaborative planning and public participation in urban expansion. IT based approaches have made information about planning and new urban development projects more easily accessible to larger parts of the population, and they have enormously fostered the communication between planning authorities and the public, e.g. regarding commenting plans and projects. Nevertheless, more efforts need to be undertaken to reach certain parts of the population (i.e. young people, migrants).
- Regional planning plays a role in bringing different stakeholders together as well as negotiating and defining limits to urban growth in a collaborative way.
- Besides legal stipulations, which require participation in formal planning processes, a variety of instruments, have successfully been applied in Europe, such as joint brainstorming sessions, citizen panels, round table discussions, workshops, citizen jury and mediation. This has often led to substantial modifications of plans and projects.
- Urban expansion measures are normally done by private developers in Europe. In lot countries, the expansions are mainly or totally financed on capturing unearned land value increasements. The land value increases normally limit the height of the costs for public infrastructure the developer has to raise.
- In China, urban planning exhibition halls bear great potential for fostering public participation in urban development in general. They may encourage the visitors and provide more possibilities to give their opinion about plans and especially raise their concerns.
- In China, strong neighbourhood organisations bear a potential for strengthening public participation. However, they only become active after urban expansion projects are in place and new inhabitants have moved in. Nevertheless, they can be relevant partners for discussing further planning and development activities.

### **IMPROVING THE ENVIRONMENT AND LIVING CONDITIONS IN URBAN AREAS**

Environmental concerns and good living conditions are crucial for the well-being of the population in cities. They have become of focus of public policy in Europe and in China.

#### **Urban renewal**

##### ***Challenges in China***

- Due to high density, there are poor environmental conditions in existing, historic neighbourhoods. The areas particularly suffer from a lack of green spaces, rundown roads, and inadequate urban facilities.
- Urban renewal areas undergo fast gentrification processes. This is especially the case when private developers create new high-end commercial and housing districts with a complete re-placement of the original population.
- In urban renewal areas redeveloped by private developers, social integration is not a priority. In many cases, such areas are exclusive and not affordable for a large part of the population.
- In-situ urban renewal with general improvement and without the relocation of the original population is slow and difficult. It leads to general improvements but it does not necessarily change the living conditions of the population. Environmental conditions are not substantially improved.

- Land use rights between urban citizens and rural migrants differ. Thus, interests and action capacities of the population in neighbourhoods, e.g., concerning the environment and general living conditions, become heterogeneous.

#### ***Approaches and practices in Europe and China***

- In Europe, there is a lot of experience where urban renewal is closely connected with environmental improvements and an improvement of general living conditions of the population. Integrated approaches of urban renewal address also environmental challenges. That is why the municipality has a great influence in the renewal or is responsible for it.
- There are many European examples with serious public efforts to improve the provision of green and public spaces in urban renewal areas.
- Urban renewal often includes prohibiting heavy industries and disturbing commercial facilities in the renewal areas. There are land reallocation measures for relocating the properties.

#### **Urban expansion**

##### ***Challenges in China***

- Urban green is popular in new development areas, e.g. along wide roads, in parks and new man-made nature reserve areas. This causes high maintenance efforts and costs.
- Ecological functions of urban green are not always obvious and clear.
- Car-oriented development in new expansion areas causes air pollution and stress for the inhabitants.
- The integration of rural migrants in urban areas is difficult and slow.
- Affordable housing is becoming scarce.
- The ageing and maintenance of buildings becomes a financial burden.
- Population ageing requires new design approaches (elevators within buildings). Accessibility is becoming more important.
- Differences in land use rights (allocated and granted) lead to difficult planning and management conditions.

##### ***Approaches and practices in Europe and China***

- Many new expansion areas in China provide for improved environmental and living-conditions. Accessibility and walkability should, however, be further improved.
- European cities try to limit car use by limiting free parking areas. Some pilot projects exist in China (Shenzhen).
- There are many examples in Europe where urban green fulfils ecological and social functions in terms of “green infrastructure”, and is well accessible.
- Urban design of new expansion areas provides for multifunctional public green spaces. Place making in public spaces becomes important here in order to support social integration.
- There is a lot of experience in Europe, especially in former socialist countries, on how to upgrade former new expansion areas and to improve the environmental and living conditions with the integration of affordable housing.
- Universal design has become a topic in urban planning and development. This will make cities more accessible for families with children, elderly people and handicapped persons.

## UPGRADING THE PHYSICAL ENVIRONMENT IN DISTRESSED AREAS

Upgrading the physical environment in distressed areas is mainly relevant for urban renewal areas. However, we also have to consider that once new expansion areas age they become distressed and need upgrading.

### Urban renewal

#### *Challenges in China*

- Functional and technical requirements usually play a dominant role in upgrading the physical environment in distressed areas. In comparison, the protection and preservation of cultural heritage in built-up areas is not always a priority.
- The traditional approaches of upgrading the physical environment in urban renewal areas, e.g. by developers, do not work well anymore as relocation costs are increasingly getting higher and higher in financial terms.
- Human-oriented relocation regulations, e.g. that an 85% majority of local residents is required for an agreement before a relocation project can be kicked off, makes urban renewal processes very time consuming. New approaches in terms of a general understanding of urban renewal, e.g. as a process involving the population and all stakeholders instead of a project by developers, and in terms of moderation and management are needed.
- A less viable local environment and the poor state of old buildings in distressed areas makes it difficult and costly to upgrade the physical environment, e.g. in terms of increasing energy efficiency.

#### *Approaches and practices in Europe and China*

- There is a lot of experience in Europe regarding in-situ urban renewal processes, including organisational issues, e.g. collaborative planning, and technical solutions, e.g. related to sanitation, building refurbishment etc.. Meanwhile there are also interesting pilot projects in China.
- Many urban renewal projects in Europe embed upgrading activities oriented towards the physical environment into integrated development approaches, including social, economic and environmental components. Such urban renewal projects also address the refurbishment both private buildings and public infrastructure. They are often linked with public funding programmes and incentives as well as where applicable the captured land value increases.

### Urban expansion

#### *Challenges in China*

- When demolition compensation is too high, some peri-urban villages are preserved. However, this does not mean that the physical environment will be improved in these areas.
- Former expansion areas have become distressed. They are in need of upgrading.
- There is an increasing concern for better energy standards in the construction sector as the cost of retrofitting the ageing buildings in former expansion areas will be higher in the future.

#### *Approaches and practices in Europe and China*

- There is a lot of experience in Europe, especially in former socialist areas, on how to upgrade former new expansion areas and to improve the physical and social environment. In some

European countries, there are specific programmes, which also provide funding and financial incentives for the private sector.

- Many upgrading programmes require that local governments embed their upgrading projects into a strategic vision and an integrated multi-sectorial development approach.
- Low energy buildings were created in Shanghai but the prices were dissuasive for investors as the energy prices are not regulated by the market (Gaborit, 2014).
- In Quinpu district (Shanghai) new houses need to respect strict regulations (50% efficiency rule) and older houses built during the last decades are being renovated accordingly (Gaborit, 2014).

### **PROMOTING EFFICIENT AND AFFORDABLE URBAN TRANSPORT**

Urban transport is one of the most pressing problems in urban development. Congestion in inner-urban areas leads to stress. Car orientation in new urban expansion areas leads to negative environmental consequences and the exclusion of poorer parts of the society. Public transport and an appropriate modal split are therefore crucial for achieving maximum mobility and connectivity in the socially integrated city.

#### **Urban renewal**

##### ***Challenges in China***

- Many neighbourhoods in Chinese cities are gated. They provide access for cars and pedestrians but they do not provide possibilities for thoroughfare. Their accessibility needs to be improved and the connectivity of the urban fabrics needs to be enhanced.
- Essentially, there are no policies on Transit Oriented Development (TOD) implementation in urban cores of Chinese cities. Poor connections between main stations and surrounding areas waste vast human energy and time.
- Public-private-partnerships are not common, particularly when State Owned Enterprises (SOEs) play a role as private sector entities. This slows down the provision of needed transportation infrastructures.

##### ***Approaches and practices in Europe and China***

- There are many European cases and good practice examples regarding efficient mobility approaches, e.g., CIVITAS (see below). They may be useful for Chinese cities.
- The further implementation of Bus Rapid Transit (BRT) approach in China may be instrumental for encouraging better public transport systems in big cities.

#### **Urban expansion**

##### ***Challenges in China***

- Urban expansion and urban sprawl cause longer commuting distances, especially in large cities. Increasing travel times diminish the available time for activities, which are not related to work, e.g., for leisure, community engagement or social activities.
- Urban plans, e.g., the urban spatial plan, the urban master plan and the urban transport plan, are often not well coordinated. This results in inefficient road networks and causes inconvenient and unreasonable traffic flows.
- Metro stations, especially in peri-urban areas, are usually only regarded as transportation hubs without considering proper TOD development. This increases the last mile difficulty for daily

commuters, i.e., the difficulty to reach home from the respective metro station. The lack of parking facilities for cars and bicycles creates chaos in on-site parking and nuisance.

#### ***Approaches and practices in Europe and China***

- There are many European cases and good practice examples regarding efficient mobility concepts and their application, especially in large cities and their hinterland. For example, the EU co-funded CIVITAS initiative “*is a network of cities for cities dedicated to cleaner, better transport in Europe and beyond. Over 800 innovative urban transport measures and solutions in over 80 Living Lab cities across Europe since 2002 show why CIVITAS stands for City VITALity and Sustainability*” (<https://civitas.eu/>). Their experience may be useful for Chinese cities.
- Co-sharing a special shuttle bus system during rush hours is applied in many big cities in China, e.g., in Beijing. Passengers who share same commuting destination organise a group in order to apply for a special commuting shuttle bus from the respective public transport authority for their daily commuting purposes during rush hours.
- The metro connections linking new towns with Shanghai Centre have positively influenced the development and transformation of expansion areas.

#### **ASSURING EQUAL ACCESS TO MUNICIPAL SERVICES**

Assuring access to municipal services is crucial for the well-being of the urban population. This includes both, ways to create cities of short distances as well as the affordability of municipal services for all inhabitants.

#### **Urban renewal**

##### ***Challenges in China***

- Most shantytowns and urban villages have poor infrastructure and sub-standard urban facilities due to its informal status.
- The Hukou system creates an invisible wall hindering people who don't hold a permanent urban residence permission, mainly rural in-migrants and young graduates, from reaching municipal services particularly in education, health care, and bank loans for housing.

##### ***Approaches and practices in Europe and China***

- There is plenty of experience in Europe how to assure equal access to municipal services to all in urban renewal approaches. For example, in urban renewal areas there are contact points or liaison bureaus within neighbourhoods supporting migrants or the urban poor.
- In China, many efforts have been made towards reforming the Hukou system and preventing its negative side effects.
- There are many public efforts to improve the provision of social infrastructure facilities in urban distressed and renewal areas.

#### **Urban expansion**

##### ***Challenges in China***

- It will be more and more difficult for the poorer parts of the urban population to participate in the benefits, which new expansion areas provide.
- Rural migrants are important for the economic prosperity in cities but they still do not have equal rights regarding the access to municipal services. The Hukou system creates an invisible wall

hindering people who don't hold a permanent urban residence permission, mainly rural in-migrants and young graduates, from reaching municipal services particularly in education, health care, and bank loans for housing.

#### ***Approaches and practices in Europe and China***

- There are examples in Europe how to reach a social mix in neighbourhoods and how to assure equal access to municipal services for all.
- There are intentions on the national level to reform the Hukou system. This would be a step forward towards assuring equal access to all regarding the acquisition of housing facilities and making full use municipal services. This could also have positive repercussions on the further development of urban expansion areas.

### **STRENGTHENING THE LOCAL ECONOMY AND LABOUR MARKET**

Fostering the local economy and close-by employment possibilities is an important precondition for vigorous and lively neighbourhoods. Therefore, many programmes related to the socially integrative city put a lot of emphasis on this issue.

#### **Urban renewal**

##### ***Challenges in China***

- High-end urban renewal may result in the loss of some labour-intensive job opportunities for local residents.
- Regulations that do not allow residential apartments to operate any kind of business hinders start-ups that do not cause pollution and noise.

##### ***Approaches and practices in Europe and China***

- Integrated approaches of urban renewal in European cities usually address also economic conditions and look for establishing new business opportunities, e.g., through the support of local enterprises and the improvement of job opportunities. With land management measures like land reallocation, new areas could be provided for the companies.
- Many second tier cities such as Wuhan, Chengdu, Chongqing, and even first tier cities such as Tianjin and Shenzhen, are starting to encourage and attract young graduates and talent to work and live in their cities by offering attractive incentives beyond Hukou barriers.
- Many cities have started to develop so-called maker spaces in their urban renewal areas. The approach, which originated in the USA is meanwhile successfully adapted to the Chinese environment and very prominently implemented in many Chinese cities.

#### **Urban expansion**

##### ***Challenges in China***

- The strengthening of the local economy and the local labour markets and employment opportunities do not provide many benefits for private land developers. Therefore, such considerations do not play a major role in the development of new expansion areas so far.
- Building sleeping towns at the urban fringes causes additional commuting and reinforces the functional segregation of cities. Compact cities with short distances, however, require as much functional mix as possible.

***Approaches and practices in Europe and China***

- Integrated urban development approaches and concepts in many European cities address all functions of cities, and they lay a fundament for mixed-use developments, including the provision of promising economic conditions and new business opportunities.
- In many cities, business incubators are geared towards speeding up the growth and success of start-up and early stage companies. In China, the approach to develop maker spaces has become prominent.
- New developer models, e.g. private-public-partnerships, are being discussed in China. For instance, in 2015, the Zhejiang provincial government put forward the strategy of building “Characteristic Towns” based on a certain industry (Wu, 2018). The towns are considered new carriers for accelerating industrial restructuring and upgrade (Wu et.al., 2018).
- Many second tier cities such as Wuhan, Chengdu, Chongqing, and even first tier cities such as Tianjin and Shenzhen, are starting to encourage and attract young graduates and talent to work and live in their cities by offering attractive incentives beyond Hukou barriers.

**STRENGTHENING (TECHNICAL AND SOCIAL) INNOVATION IN CITIES AND NEIGHBOURHOODS OPENING UP NEW POSSIBILITIES FOR THE LOCAL POPULATION**

The promotion of technical innovation in cities may foster their economic prosperity and attract creative persons and young talents. Social innovation may contribute to strengthening social capital and the engagement of inhabitants in a city. Furthermore, it may also motivate local civil society initiatives to develop.

**Urban renewal*****Challenges in China***

- There is a strong focus on technical, especially IT-based innovation. In the contrary, the interest in social innovation is rather limited.
- Social innovation can only become a decisive driving force for urban renewal if it is accepted and has promoters.

***Approaches and practices in Europe and China***

- European cities have undertaken many efforts and have vast experience in how to mobilise innovation. With regard to social innovation, the role of local initiatives has been discussed since a long time. Many local initiatives have become powerful movements aiming at accelerating the transition to more sustainable urban development.
- Many cities in China have started to develop so-called maker spaces in their urban renewal areas. This is a promising approach to attract young talents.

**Urban expansion*****Challenges in China***

There is a strong focus on technical, especially IT-based innovation. In the contrary, the interest in social innovation is rather limited.

***Approaches and practices in Europe and China***

- There are many examples in Europe, which demonstrate how cities foster technical and social innovation through well balanced, mixed use urban expansion. In many occasions, civil society initiatives have been given priority over developers, and they have created innovative and appealing new urban areas.
- Many cities in China have started to develop so-called maker spaces in their new urban expansion areas. This is a promising approach to attract young talents and to foster economic development.
- Many cities in China have demonstrated how to provide most modern technological solutions in new urban expansion areas. This is a sound basis for further strengthening the discussion about technological innovation all over the country.

**FOSTERING PROACTIVE EDUCATION AND TRAINING POLICIES FOR CHILDREN AND YOUNG PEOPLE IN DISADVANTAGED NEIGHBOURHOODS**

Education and training programmes are especially important in distressed areas in order to help children and young people from underprivileged poor families to develop their skills and to gain equal opportunities in life. This aspect is more relevant in urban renewal than in urban expansion areas.

**Urban renewal*****Challenges in China***

- Lack of a diversified education and training system on the community and neighbourhood scales through formal public channels, while private ones may be less affordable for most local residents in disadvantaged areas.
- High cost for customized education or training demand is difficult to be met, as neighbourhoods usually do not have their own budget.

***Approaches and practices in Europe and China***

- There are European examples concerning proactive education and training policies for children and young people in disadvantaged neighbourhoods. Local administrations have a lot of experience regarding the difficulties of such approaches as well as success factors.
- In China, the government promotes compulsory education for all children and continuous vocational training of adults.

**Urban expansion*****Challenges in China***

- Million school age children live in cities with parents from the countryside but unable to access the education system. There are few middle schools for migrant children, however, hardly they are able to meet the entrance requirements.
- As the strengthening of the local economy does not provide many benefits for private developers, the provision of training facilities is not considered a priority in new urban expansion areas even if the percentage of less privileged families is high.



***Approaches and practices in Europe and China***

- Cities in Europe have a lot of experience with education and training strategies in social housing areas. This may be instructive for local governments in China.
- In China, the government promotes compulsory education for all children and continuous vocational training of adults.
- There are initiatives in China to develop education and training related new expansion areas. For example, it is planned to move universities out of Beijing to Xiong'an (Roxburgh, 2017). Moreover, the main objective of Songjiang New city (close to Shanghai) is research and education.

**PRESERVING CULTURAL HERITAGE AND FOSTERING THE IDENTITY OF NEIGHBOURHOODS AND THEIR INHABITANTS**

Cultural heritage is part of the memory of a society. It strongly contributes to identity and self-esteem of the population. It is more relevant for urban renewal than for urban expansion areas. With regard to urban expansion, it becomes relevant when old villages or monuments are part of new developments.

**Urban renewal*****Challenges in China***

- Besides the preservation of exceptional monuments of high cultural value, there is comparatively little awareness regarding the value of cultural heritage, particularly building heritage for urban development. The participation of stakeholders is difficult to activate.
- It is an open question how to mobilise stakeholders, and especially local residents, to become involved in issues related to cultural heritage.
- There is a lack of events and activities related to branding cultural heritage and its multiple values.

***Approaches and practices in Europe and China***

- In European cities, the awareness for cultural heritage is rather high. In many countries, local cultural heritage preservation offices play an important role in urban development and urban renewal. Chinese cities could profit from this experience in order to raise the awareness for the relevance of cultural heritage and local identity.
- There are binding legal stipulations regarding the preservation of cultural heritage. Special departments in the administration are responsible for their implementation. Owners may receive financial support for refurbishing listed houses.

**Urban expansion*****Challenges in China***

- Cultural heritage and local identity do not play an important role in urban expansion projects. The most striking example is "One City, Nine Towns", a model launched by the Shanghai Planning Commission in 2001, shaped by western European culture (Italian Town, German Town, Scandinavian Town, etc.). Identity may be expressed in the way developers name their projects and the new sites. This is often based more on phantasy than on local conditions and heritage.
- In cases where villages become part of expansion areas, their preservation or (partly) integration into urban expansion projects is not given much attention.

***Approaches and practices in Europe and China***

- In Europe, there are approaches where urban expansion projects have integrated valuable old structures depending on arrangements with the property owners. For example, in many early urban expansions, village cores have been preserved and are visible until today.
- In urban design, the “genius loci” plays a role. Cities promote typical regional building styles and ban those which do not fit to the area. This preserves cultural heritage, strengthens identity and contributes to regional differentiation and attractiveness.
- The Chinese “Characteristic Town” (Tese Xiaozhen) is a spatial development platform with both and industrial and cultural orientation aiming to protect the economic transition of small villages and break down the urban-dual structure (Wu et al., 2018). Zhejiang Province pioneered the idea with Wuzhen (Internet town) and Lishui (Photography City) (Modu Team, 2018).

**FOSTERING SOCIAL CAPITAL AND ENGAGEMENT OF LOCAL STAKEHOLDERS**

Social capital (Putnam 1995 and 2000) can be understood as the glue within the society. It broadly refers to factors, which contribute to the well-functioning of social groups. For example, they include interpersonal relationships, a shared sense of identity, a shared understanding, shared norms, shared values, trust, cooperation, and reciprocity. It is usually more pronounced in traditional neighbourhoods where inhabitants have live together for a long time, and it needs to be developed in new urban expansion areas where people from different parts of a city, a region or a country may start to live together.

**Urban renewal*****Challenges in China***

- There is a lack of awareness and appropriate approaches to integrate local inhabitants in urban renewal processes.
- There is a need to explore how the experience with old practices of local engagement in neighbourhoods can be used a modern, more open and diversified society.

***Approaches and practices in Europe and China***

- Integrated approaches of urban renewal address particularly inhabitants as local experts and partners for implementation.
- There are incentives and support for local stakeholders to proactively initiate renewal process.
- In Europe, public participation is a binding element of nearly all planning and implementation processes. Priority is given to consensus in urban development procedures. This may also mobilise active engagement of the population.
- Corporate social responsibility (CSR) may promote and support urban renewal activities.

**Urban expansion*****Challenges in China***

- In new urban expansion areas, social capital and public engagement are still to be developed. Institutional arrangements have to be found.
- In cases where the former local rural population lives in a new expansion area, there may be a split society with the old residents on the one hand, and newcomers on the other. This may cause friction and disturbance.

***Approaches and practices in Europe and China***

- Integrated urban development approaches address particularly inhabitants as local experts and partners for implementation.
- Public participation is a binding element of nearly all planning and implementation processes in Europe. Priority is given to consensus in urban development procedures. This may also mobilise active engagement of the population.
- Neighbourhood centres, meetings points and other local public social facilities may help to develop social capital and motivate inhabitants to become involved in shaping their new neighbourhood.

**SUPPORTING ADEQUATE INSTITUTIONAL AND FINANCIAL CONDITIONS AND MECHANISMS**

A supportive institutional and financial environment may help to make urban renewal and urban expansion more socially integrative. This requires appropriate authority and decision-making power of local governments, adequate political priority setting, and secure sources of municipal income.

**Urban renewal*****Challenges in China***

- Good practices piloted by some cities, such as Shenzhen and Guangzhou in terms of institutional reforms in urban renewal cannot be effectively replicated into other cities, as the experience in pilot cities may be unique and share less commonplace to be applied by other cities.
- The slowdown of land conversion from rural to urban land may affect budgets of local governments.

***Approaches and practices in Europe and China***

- In Europe, there are many examples for the benefits of clear political strategies. This is true for the European, but also for the national levels.
- It is necessary to underpin political strategies by programmes, providing technical assistance and financial support to cities.
- A mixture of legal and financial elements has proven to be effective for initiating, supporting and steering integrated, socially integrative urban renewal. Land management measures can be used for realising public or green space in the quarter.
- There are good practice examples regarding institutional reforms in urban renewal in Chinese cities. This is a solid base for nurturing the nationwide debate about socially integrative urban renewal.

**Urban expansion*****Challenges in China***

- Cities are evaluated on GDP indicators and there is a poor recognition of social and environmental aspects in ranking cities.
- Land conversion practices need to be reformed. This may also have repercussions for the budgets of local governments.
- The Hukou system limits internal movements and is in many ways a barrier for urban development.

***Approaches and practices in Europe and China***

- In Europe, different frameworks for sustainability indicators exist. They are a proven method for driving sustainable urban development (European Commission, 2015).
- The vertical interplay between the regional level and the municipal level as well as the horizontal cooperation between local governments play a decisive role in adequately steering urban expansion processes.
- Adequate land management and land banking policies can support a well organised urban expansion process against the background of balanced costs and revenues.
- The management of new expansion areas is decisive for promoting socially integrative urban expansion.

## 5 OUTLOOK AND FURTHER STEPS

TRANS-URBAN-EU-CHINA aims at supporting the transition towards urban sustainability in China by helping policy makers, urban authorities, real estate developers, public service providers and citizens to create socially integrative cities in an environmentally friendly and financially viable way. Moreover, it intends to help urban stakeholders in Europe to reflect and eventually reconsider their approaches towards sustainable urbanisation based on related experiences in China.

In chapters 2 and 3 of this report, a systematic knowledge base regarding urban renewal, urban expansion and land management has been elaborated, and transition experiences in Europe and China have been reflected. In chapter 4 we have discussed the relation between urban renewal, urban expansion and land management on the one hand and the socially integrative city on the other.

Based on our notion of transition, we will now outline how we intend to integrate key components of urban transformative capacity into our concept in the future, and how we want to drive transformative knowledge forward. With this, we summarise future steps to be undertaken during the course of the TRANS-URBAN-EU-CHINA project.

In the TRANS-URBAN-EU-CHINA context, transition refers to the scientific discussion and practical applications regarding fundamental and lasting changes in urban societies on the way to sustainable development. According to Loorbach (2016), transition refers to *“locked-in regimes that are challenged by changing contexts, ecological stress and societal pressure for change as well as experiments and innovations in niches driven by entrepreneurial networks, and creative communities and proactive administrators”*. Cities that are confronted with fundamental challenges look for unconventional solutions. They unlock their innovative potential and encourage niche-innovations in dealing with opportunities and threats. They are open to establish new institutional structures, practices and modes of action that have greater potential to lead successfully to more sustainable urbanisation (Frantzeskaki et al., 2016; Loorbach, 2016; Wolfram, 2016; Wolfram & Frantzeskaki, 2016).

According to the TRANS-URBAN-EU-CHINA Concept Group (2018), a conceptual project think tank with members from all work packages, transition is a multi-faceted term, which is used in many disciplines in different ways. Following the above discussion, we understand transition towards urban sustainability as a systemic change of how urban affairs are handled in an urban-rural system by the respective stakeholders on the different politico-administrative levels. Transition includes a new understanding of the needs and priorities of future urban development within the society. Transition towards urban sustainability is supported by social integration as well as through urban economy and urban environmental policies (Figure 16). They are linked with social integration. We, however, focus on social integration looking at transition processes leading to integration that is more social.

The mentioned systemic change can be discussed at different politico-administrative levels, i.e. national, provincial, city, district, and neighbourhood levels in China, and EU, member state, *“region”*, city, and neighbourhood levels in Europe. The different levels of autonomy of cities in Europe and China play an important role regarding whether individual cities and local initiatives are able to bring about change, and to initiate a transition process. The initiative towards transition may come *“from below”*, i.e. cities and civil society initiatives in cities, or *“from above”*, i.e. from the national government or national NGOs. There are many examples of good practices in European and Chinese cities but they are not yet applied or replicated at large scale. In Europe, sustainability transition is mainly driven by civil society initiatives whose challenge is to connect with each other and develop enough

strength to bring about a change of the way handling urban affairs (bottom-up). In contrast, a systemic change in China seems to be strongly supported or even initiated by the central government, and needs the support from cities and the help of local initiatives to make sure that new approaches can be understood by the society (top-down). This is a special challenge for the project, and it has to be dealt with in the future.

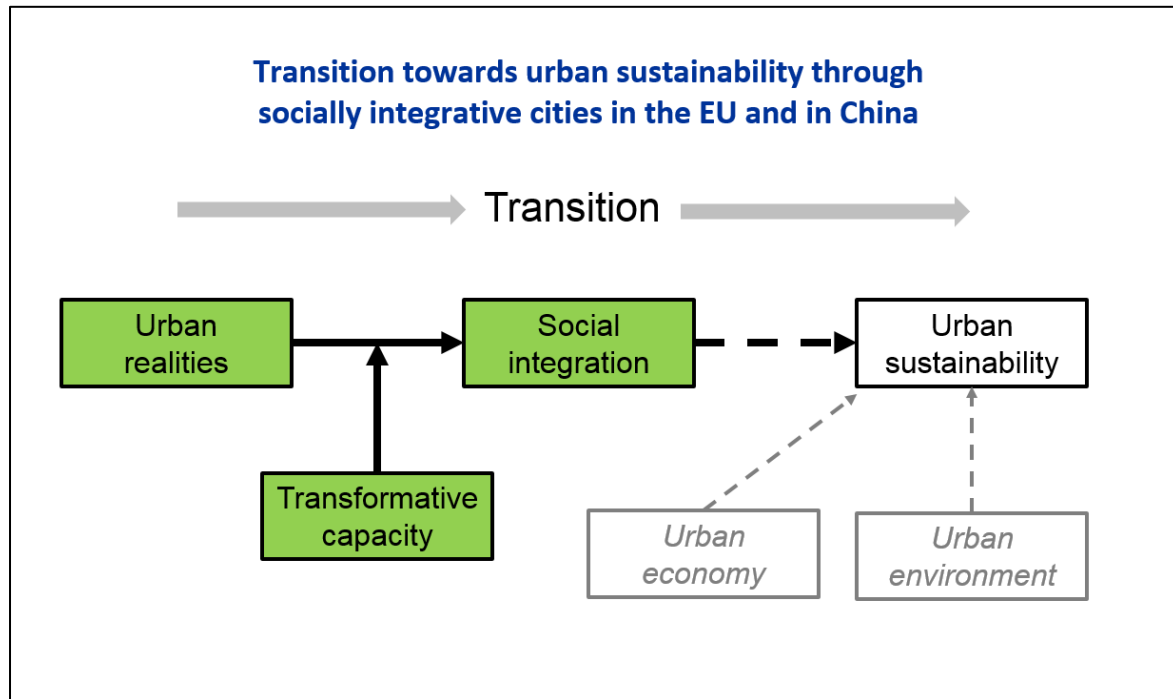


Figure 16: Transition towards urban sustainability through socially integrative cities (Design: B.Müller, 2018)

Whether transition takes place or not, depends to some extent on the urban transformative capacity. According to Wolfram (2016), urban transformative capacity is characterised by the ten key components, contained in Table 27. These components cannot be analysed in a general way without local embeddedness and case study work. In fact, they need to be discussed in concrete cases. This will be done during the coming years within the framework of Urban Living Labs (ULL) in China in the two cities of Jingdezhen (in autumn 2019) and Wuhan (in Spring 2020).

In order to make scientific contributions, which are useful for the local authorities, the above issues of the socially integrative cities will be discussed with local stakeholders. According to their interest and further local needs, approaches oriented towards socially integrative cities and related good practice examples will be chosen and presented. Based on this, we will derive tools and measures to support transition. While doing this, the ten components of transformative capacity will be analysed regarding their (potential) influence on accelerating urban transitions. Their influence in the good practice examples to be chosen will be demonstrated, and their relevance in the ULL cities will be discussed with the local stakeholders. With this, we will advance the tools and measures to support transition towards urban sustainability in cooperation with local stakeholders and citizens, and derive operational and evidence-based knowledge about urban transformative capacity. Finally, this will lead to the elaboration of related recommendations to support transition towards socially integrative cities.

*Table 27: Components of urban transformative capacity***Agency components**

1. Inclusive and multi-form urban governance
2. Transformative leadership
3. Empowered communities of practice

**Capacity development processes**

4. System awareness
5. Sustainability foresight
6. Disruptive communities of practice experiments
7. Social and technological innovation embedding

**Learning and reflexivity**

8. Learning and reflexivity in terms of translation, monitor and revision

**Cooperative institutions**

9. Working across human agency levels
10. Working across tiers and scales

Source: Wolfram (2016)

The findings of this report and the upcoming work in the near future will be used for a book about urban transition in Europe and China, and for scientific articles. Moreover, an online compendium will contain findings of this report, as well as guidelines, methods, and good practice examples for the development of socially integrative cities and for strengthening transformative capacities of local stakeholders. Two policy briefs will be addressed to the European Union and to the Chinese government.





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