

Policy Brief

Number 2, May 2021

**Towards a framework for
solid sustainable urban
development research
cooperation between
the EU and China**



**TRANS-URBAN
EU-CHINA**

Research & Innovation
on Urban Transition

TRANS-URBAN-EU-CHINA POLICY BRIEF

NUMBER 2, May 2021

List of contents

Executive summary

Introduction

TRANS-URBAN-EU-CHINA: Framework of cooperation

Perspectives for future research on sustainable urban development

International research cooperation in a deeply changing world

Annex

*The 14th Five-Year Plan of the People's Republic of China (2021-2025)
and contents with relevance for sustainable urban development*

Elaborated and published by the TRANS-URBAN-EU-CHINA project consortium:



Project coordinator and lead author: Bernhard Müller, TU Dresden

Note: The following text has been written based on an online project workshop in January 2021. The lead author wants to thank all project partners for their contributions and critical review of the text.

Executive Summary

The Project

Between January 2018 and June 2021, the EU Horizon 2020 project TRANS-URBAN-EU-CHINA has dealt with the transition towards urban sustainability through socially integrative cities in Europe and China. With eight European and six Chinese organisations, the project has combined expertise from both worlds to provide new insights, practices and role models in urban sustainability transition in China and Europe. Among other objectives, it has provided urban good practice examples for decision-makers in China and helped urban stakeholders in Europe to increase their knowledge about urbanisation in China, which in the era of the Chinese Belt and Road Initiative has a stronger global reach than ever.

The Policy Brief

This Policy Brief provides ten recommendations regarding contents and modes of cooperation in the field of sustainable urban development. They can be widely generalised. However, the specificities of the TRANS-URBAN-EU-CHINA project should be taken into consideration: the project has dealt with urban planning and development in a comprehensive way, though with a strong social sciences perspective. It has dealt with urban complexity in a transdisciplinary way, and it has operated under the very distinct societal and cultural conditions in Europe and China. Moreover, like many other projects conducted in 2020 and 2021, digital communication has played an increasing role in working together due to the Covid-19 crisis.

Recommendations

The first five recommendations deal with topics which are highly relevant and of joint interest concerning sustainability transitions in Europe and China. The next five recommendations deal with lessons learnt regarding modes of cooperation.

Cooperation topics

1. Promote research on sustainable urban development and link it with policymaking in practice

Research on sustainable urban development is highly relevant for both societies, in Europe and in China. This is strongly supported by a number of recent policy documents and statements, such as *The New Leipzig Charter* in Europe, and China's *14th Five-Year Plan (2021-2025)*. They suggest that there should be more social sciences driven research. There should be close ties between research and policy development on the different politico-administrative levels. This could also help to advance dialogue and action regarding urban issues related to climate change mitigation and adaptation.

2. Strengthen research on urban-rural relations and territorial cohesion

The future of rural areas and the strengthening of urban-rural relations are important topics in Europe and China. This calls for more joint research about a number of topics, including disparities, unbalanced growth and territorial cohesion, the role of small towns, rural revitalisation, the provision of infrastructure and services in rural areas, compensation mechanisms and the integration of externalities, urban-rural migration and access to urban rights, infrastructure and services, as well as social integration of migrants in neighbourhoods. Research should facilitate learning from good practice examples.

3. Support research on efficient land management models

Land is a scarce resource in urban areas in Europe and China. Therefore, efficient land use, land use planning and land management are highly relevant cooperation topics. Joint research should be promoted in this regard, including ways to limit urban growth and to create cities of short distances. With a special view to China, options for reforming land transaction and land quota systems should be discussed. Experimenting with tradeable land use rights is an attractive topic for joint research. Experiences and prospects should be systematically analysed, and recommendations should be derived.

4. Foster research on managing urban finance

Due to rising expenditure and shrinking income at the local level, urban finance is a major issue in Europe and China. Further joint research should focus on ways to improve land and real estate tax systems, and to introduce fair and effective land value capture systems. Experiences with participatory

budgeting should be evaluated. More attention should be given to the integration of external costs and cost-benefit-analyses in decision-making about urban development. Research based peer-to-peer cooperation among municipalities should be fostered.

5. Encourage research on good practices of urban governance and urban planning

Policy documents in Europe and China suggest improving local governance and strengthening integrated participatory urban planning for sustainable urban development. Urban renewal will be of special interest. Joint research should explore the potential of respective good practice examples, including inter-sectoral coordination, cooperation and co-creation, public participation, community building, place-making and transformative and innovation-oriented governance mechanisms as well as potentials of digitalisation and artificial intelligence for sustainable urban development.

Modes of cooperation

6. Conduct critical open dialogue on research cooperation and identify topics of joint interest

Partnership needs to be based on critical dialogue. There should be regular meetings in order to discuss concerns on both sides, on policy as well as on programme and project levels. They should be used to assess critical cooperation issues, including balanced cooperation, win-win situations in research and innovation, access to data and information, balanced flows of researchers in both directions, and independence of research from political intervention and the business community. Intensive debate may lead to better mutual understanding of distinct rationalities and more substantial calls of joint interest.

7. Promote equal partnership with reciprocity and cooperation with long-term perspectives

Equal partnership with reciprocity is a precondition for successful collaboration. It has to be built on trust and mutual understanding of distinct historical, cultural and politico-administrative conditions. Moreover, social sciences projects with a transformative approach are highly context dependent and need to be well embedded in local environments. All this is time sensitive and requires full attention of researchers. Closer linkages between research programmes may help to develop long-term cooperation, and to raise the status of EU funded projects in the hierarchy of research programmes.

8. Establish solid joint transdisciplinary research teams

Successful research cooperation depends on the capabilities and commitment of persons and their smooth and inspiring interaction across disciplines, cultures and frameworks of academia and practice. Thus, establishing solid transdisciplinary research teams between Europe and China is a complex task. Due to different cultural and societal settings cooperation is not free from misunderstanding and resentment. This requires a sensitive project management, flexibility, and a wide framework for discussion and clarification.

9. Foster knowledge sharing on equal terms

The idea behind joint research is to join complementary knowledge in order to create win-win situations for all participating parties through co-creation towards a shared goal. However, partners may have diverging interests and they are not always clearly visible, especially when cooperation is about a rather wide topic and takes place in distinct research environments. Thus, cooperation has to be seen as a rather curvy pathway of mutual learning and comprehension, which only successively facilitates to fully understand and accommodate the respective motivation of partners.

10. Facilitate mutual access to data and information

Mutual access to data and information is the basis for any successful empirical research. In cases, where this cannot be guaranteed from the beginning, the respective national partners play a decisive role in acquiring necessary data and making them accessible for research. Moreover, they play a crucial role as facilitators of local qualitative research, e.g., interviews with local stakeholders who may be difficult to approach. Besides language issues, distinct data collection cultures may pose rather vital challenges for foreign researchers. Mutual trust and intensive collaboration are indispensable here.

Introduction

TRANS-URBAN-EU-CHINA has dealt with the transition towards urban sustainability through socially integrative cities in Europe and China. With eight European and six Chinese organisations, the project has combined expertise from both worlds to provide new insights, practices and role models in urban sustainability transition in China and Europe. The project has been conducted during a period of three and a half years from January 2018 until June 2021.

TRANS-URBAN-EU-CHINA has aimed to help 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 has intended to help urban stakeholders in Europe to increase their knowledge about urbanisation in China, which in the era of the Chinese Belt and Road Initiative has a more global reach than ever, and to reflect and eventually reconsider their approaches towards sustainable urbanisation and related international cooperation. Indirectly, it may also contribute to promoting European urban development thinking, models, and experiences in China.

TRANS-URBAN-EU-CHINA has answered to the Horizon 2020 call *ENG-GLOBALLY-08-2016-2017: EU-China cooperation on sustainable urbanisation*. As emphasized by the call, the joint European-Chinese research project has contributed “to an improved reciprocal knowledge on urbanisation processes between the EU and China.” Research has benefitted “from access to data and expertise from both EU and China, with a view to proposing new models of sustainable urban development adapted to local

socio-economic, cultural and political specificities.” As required by the call, the project has provided in-depth insights on various aspects of urbanisation in the EU and in China, and it has highlighted common challenges and possible solutions that may apply in both parts of the world.

This Policy Brief aims to provide recommendations regarding topics and modes of future European-Chinese research cooperation on sustainable urban development. Future topics of research are derived from the recently published 14th Five-Year Plan of the People’s Republic of China and on the background of what, in the European Union, was agreed in the New Leipzig Charter. Recommendations on modes of research cooperation start from current discussions between Europe and China and take the practical experience of TRANS-URBAN-EU-CHINA over the past three and a half years into consideration.

On this background, this Policy Brief first looks at perspectives for further cooperation in the field of sustainable urban development between Europe and China. They build up on issues described in the first *European Policy Brief* of the project. Moreover, they are based on recently published priorities according to the European *New Leipzig Charter - The transformative power of cities for the common good* and the 14th Five-Year Plan of the People’s Republic of China (2021-2025). In the second part of recommendations, research modes are critically assessed and recommendations regarding future research cooperation between Europe and China are presented and discussed.

Read more:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/eng-globally-08-2016-2017>

www.transurbaneuchina.eu



TRANS-URBAN-EU-CHINA: Framework of cooperation

Before looking at the specific recommendations, it is useful to consider the specific framework of TRANS-URBAN-EU-CHINA, in order to avoid misinterpretation and premature generalisation. Five features need to be mentioned here.

Social sciences orientation. The project topic, i.e., the creation of socially integrative cities, closely relates to social science research. Cities, districts and neighbourhoods are social organisms. Their development is dependent on the interaction of residents and other stakeholders. Consequently, research requires diverse methods of “soft” sciences. This may be an advantage over technology and industry driven research as it makes data security issues less sensitive. However, it may make research more difficult due to ethics issues and distinct research and participation cultures. And it may limit and explain the attention which high-ranking decision-makers may attach to project activities.

Complexity. The project topic is highly complex because of several reasons: (1) The definition of socially integrative cities followed a rather wide and comprehensive approach which allowed for different angles of research. (2) The stakeholders in urban planning and development usually include representatives from all spheres of society. The so-called “quintuple helix” comprises (a) state and government institutions on all levels, including party structures, (b) private businesses, (c) civil society organisations, (d) academia and (e) media. Analysing their roles, interests and interrelations is a complex task for researchers. It requires openness on all sides and the cooperation of the respective stakeholders. (3) Fieldwork in social sciences related projects usually requires the application of qualitative research methods, such as documents’ analyses, observations and interviews. In such an environment, researchers need access to adequate sources of information. Results are open to interpretation and discussion.

Transdisciplinarity. The project has been transdisciplinary in nature. Research on urban sustainability requires the close cooperation between academia and practice with specialists from a number of different disciplines to be

involved. Consequently, the project team consisted of European and Chinese researchers from rather distinct academic fields, such as urban and regional planning, architecture, geography, social sciences, economics, computer science, technology and engineering. Moreover, it included representatives from the business sector and city associations as well as high-ranking state organisations directly involved in decision-making processes. Individual cities in Europe and China were not directly involved as partners. However, they played an important role as knowledge providers, facilitators of field research, e.g., in the form of urban living laboratories, and addressees of knowledge sharing and recommendations.

Diverse societal and cultural environments. The project has been conducted on diverse societal backgrounds and under significant multicultural conditions. Cooperation between China and Europe always has to consider quite distinct historic and systemic frameworks in both parts of the world. Legal and politico-administrative conditions differ substantially. Economic systems sharply contrast. Social norms and behaviour vary enormously. Terminologies as well as the conceptual and symbolic content of terms differ considerably, and may be even misleading if not clarified from the beginning.

For example, the term “city”, one of the basic terms for urban and regional planning, has a very different meaning in Europe and China. The same is true for the terms “urban” and “rural” which in China besides their functional bearing have legal significance. Scales and speed of development are not comparable. For example, the City of Chongqing in China with 30+ million inhabitants cover about the same territory as Austria in Europe. The speed of urban growth in China during the past decades has been unprecedented in history. Experimental pilot projects of sustainable urbanisation in China usually relate to large areas with many millions of inhabitants whereas they are comparatively small-scale in European cities.

Such an environment makes high demands on international research. It requires extensive exchange and debate in order to facilitate joint understanding of concepts and terminologies,

as well as to develop trust, mutual understanding and joint interpretation modes in order to draw robust conclusions and recommendations. Thus, the establishment of closely cooperating European-Chinese research teams, the building up of trust between researchers and all team members, as well as the inclusion of “translators” on both sides seem to be indispensable.

Digital communication due to Covid-19. The Covid-19 crisis has also played an important role in conducting the project. The first two years of the project (2018-2019) were characterised by a high number of personal meetings and intensive direct communication between researchers. Project meetings, conferences, workshops, and joint fieldwork activities were important means to promote a joint understanding regarding project contents, objectives and research methodologies. Moreover, they provided a basis for exploring the deeper meaning and backgrounds of terminologies and concepts, and intensively and critically discussing their comparability.

Read more:

www.transurbaneuchina.eu

The Covid-19 crisis changed this situation since the beginning of the year 2020. The former opportunities for direct personal exchange were sharply limited due to travel restrictions. Thus, the whole project mode of operation switched from one moment to the other. Virtual communication became the backbone of cooperation. Project meetings and conferences were held using video conferencing technology, and even topic related workshops, interviews and urban living lab activities were conducted online.

This was only possible without any friction and loss of quality because of the already existing trust and mutual understanding between researchers. Moreover, video conferences demonstrated the power of technological solutions in communication because, for many stakeholders, especially from city governments, it was much less difficult to attend a two hour virtual meeting than to apply for a business trip to a conference or workshop abroad. Thus, the more intensive use of the internet as a communication tool proved to be positive.

Perspectives for future research on sustainable urban development

Recommendation 1

Promote research on sustainable urban development and link it with policymaking in practice

Sustainable urban development is a topic of high priority in Europe and China. The TRANS-URBAN-EU-CHINA European Policy Brief Number 1 published in January 2020, already pointed to certain topics of potential future research regarding sustainable urban development between Europe and China. They were inspired by the *Leipzig Charter on Sustainable European Cities*, the *Urban Agenda* of the European Union and the objectives of the *Green Deal*, as well as China's 13th Five-Year Plan and the *National New-type Urbanisation Plan (2014-2020)* of the country. Within the framework of the EU-funded coordination and support action URBAN-EU-CHINA, a *Research and Innovation Agenda for EU-China Cooperation on Sustainable Urbanisation* was developed. It recommended focusing on (1) Cities of People & Culture, (2) Ecological Cities, (3) Smart & Innovative Cities, and (4) Collaborative Innovation. These recommendations were intensively discussed between European and Chinese partners, and they are still valid.

Meanwhile, the EU Ministers Responsible for Urban Matters adopted a new strategic document, *The New Leipzig Charter - The transformative power of cities for the common good*, promoting sustainable urban development. In China, the National People's Congress endorsed the 14th Five-Year Plan (2021-2025) in March 2021. It indicates that the basic urban policy principles and directions of the New-type Urbanisation Plan will continue to be a guideline for urban and regional development in China during the coming years.

The New Leipzig Charter focuses on the transformative power of cities for the common good. It urges cities to establish integrated sustainable urban development strategies and ensure their implementation on all levels of government and administration. It calls for an urban policy of the common good providing services and infrastructure, which are inclusive, affordable and accessible for all. Furthermore, it acknowledges cities as places of pluralism, creativity and solidarity, and as laboratories for new forms of problem solving and test beds for

social innovation. It promotes cities, which are just, green and productive at the same time. Furthermore, it highlights digitalisation as a major transformative, cross-sectoral force affecting all dimensions of sustainable urban development. With a view on its implementation, the document calls for an integrated approach towards urban development, participation and co-creation, multi-level governance and place-based urban planning and development.

In China, the 14th Five Year Plan confirmed that attention will be paid to people-oriented development to ensure equity, as well as balanced urban-rural and regional development, intensive and efficient land use, green, recycling and low-carbon development, and cultural continuity to ensure local identity. Following these principles, planning shall be oriented to people, liveability, sustainability and resource efficiency, with quality as the key term. In terms of practice, comprehensive urban renewal will become more significant in future, probably more than urban expansion and new town or new area development. Rural revitalisation will keep its national significance, as well as coordinated regional development. Community building and social governance at grass-root level, in particular the so-called complete daily-life community, will be of increasing importance. The latter is one of the lessons, cities and urban planners have learnt under the impression of the impacts of the COVID-19 crisis since early 2020.

On the general background of guiding concepts of the 14th Five-Year Plan, such as socialist modernisation and ecological civilisation, which underline China's openness towards reform and environmental development, the China Center of Urban Development (CCUD) has identified four major fields of activities with relevance for sustainable urban development (see Annex). They may constitute anchor points for future research collaboration on sustainable urban development between the EU and China, especially as they also correspond with major European considerations expressed in the relevant documents.

Recommendation 2

Strengthen research on urban-rural relations and territorial cohesion

Strengthening urban-rural partnership is an important topic in Europe and China. In Europe, urban-rural relations are often discussed from three points of view.

The functional perspective deals with the mutual provision of infrastructure and services between urban and rural areas. Relevant topics are urban centrality for rural areas, including socio-economic and administrative functions, and eco-system services, including the provision of food, water, fresh air production, and recreational functions which rural areas provide for urbanites. This perspective suggests integrated wise planning and development strategies, fair compensation, and inter-administrative cooperation between urban and rural municipalities.

The spatial justice-oriented perspective looks at two aspects. On the one hand, it focuses on fair deals between urban and rural areas, regarding their services, e.g. by integrating externalities in cost evaluations. On the other hand, it promotes a fair treatment of inhabitants irrespective of their origin and residence, e.g. with regard to the access to education and health services, and the right to acquire all capabilities necessary to shape their own destiny. This perspective is based on the assumption that there should not be any differences between rural and urban population, e.g., in terms of opportunities and civil rights.

A third perspective focuses on inclusion and social integration in neighbourhoods. This topic does not only look at rural migrants but in a broader sense at social mobility and migration as such. It is oriented towards strategies to avoid social conflicts, create harmony among inhabitants and establish social capital. Cities and neighbourhoods are seen as places of pluralism, creativity, solidarity and social innovation.

In China, cohesion policies oriented towards a more balanced regional development and the future role of smaller towns as compared to large metropolitan areas, as well as rural revitalisation strategies, including the modernisation of rural areas while preserving their cultural identities and social cohesiveness, play an important role in urban development policies. Moreover, urban-rural relations are related to

legal issues, i.e., the question how to overcome the negative impact of the inherited household registration system which differentiates between the rights of urban and rural residents. According to the 14th Five-Year Plan, China wants to further increase its efforts to reform the household registration system, including a shift from easing restrictions for rural residents in cities to a full liberalisation of rights in certain areas and under certain conditions, including equal access to public services. This includes aspects of housing and employment for migrant workers from rural areas, and the so-called “citizenisation” of population formerly employed in agriculture. The modernisation of rural areas, rural land management as well as community governance of villages are further topics of major concern.

From the experience of TRANS-URBAN-EU-CHINA, urban-rural relations should be a topic of future cooperation between the EU and China:

Relevant theories and good practice examples should be identified and analysed, e.g., regarding integrated regional and urban-rural planning and development strategies, including steps towards reaching climate neutrality, balanced environmental conditions, modernisation and prosperous rural development, and more self-reliance and cultural identity of rural communities. Advancements in the development and practical use of digital platforms, e.g. regarding the spatiotemporal distribution of air pollution and other climate change related issues, and as a means to intensify urban-rural relations in terms of employment, production and marketization, could be of special interest for both, the EU and China.

Furthermore, good practice examples of urban expansion strategies and projects should be further examined because once cities are built, it takes a lot of time and efforts to undo mistakes. Therefore, the consideration of externalities in urban planning and decision making should be given special attention, as policies and decisions that incorporate externality valuation allow to reduce inequalities and increase fairness, which are inherent features of sustainable urbanisation.

Finally, one should learn from good practice, nationally and internationally, regarding ways to promote community building, inclusiveness and place-making in urban neighbourhoods.

Recommendation 3

Support research on efficient land management models

Land is an important and scarce resource in cities. Therefore, efficient land use, land use planning and land management are highly relevant topics in European and Chinese urban areas. In Europe, the limitation of urban sprawl into agricultural and natural areas, the city of short distances and urban mobility concepts have been high on the agenda of national, regional and local governments for decades. Urban density concepts have been interwoven with approaches to enhance green infrastructure in cities. These aspects are seen as key to urban sustainability. Therefore, the green city approach in *The New Leipzig Charter* is seen as highly relevant for a better urban future.

In China, it has become obvious that the patterns of unprecedented urban growth experienced during the past decades need urgent reform. Auctioning land use rights to private developers over a period of more than two decades has generated considerable income for cities, and has made city governments increasingly dependent on continuing urban growth irrespective of the needs generated by population growth. However, as urban growth is slowing down and the quality of urban development is receiving higher attention, the conditions are changing. Hence, a wise and well-designed system of land administration and land management is critical for high-quality urban development. Moreover, the discussion about wise spatial structures of metropolitan regions, city clusters, and, in particular, the appropriate size of the so-called complete daily-life community and daily-commuting circle are a reflection of this debate.

Recommendation 4

Foster research on managing urban finance

Urban finance is a major topic in Europe and China. In Europe this is related to increasingly

relevant budget shortages due to growing financial burdens of duties of local governments,

On the background of looking at this issue from a comprehensive urban development point of view, the 14th Five-Year Plan of the People's Republic of China promotes a number of reforms, e.g., related to the system of land transactions and the land quota system for urban development, as well as new approaches regarding tradeable land use rights, and stricter control of land use changes. Urban regeneration and rental housing strategies, including issues related to urban-rural migration enjoy high attention.

On this background, research on land use planning and efficient land management models should be supported as a priority topic of EU-China cooperation. This should include the exchange of experiences and the discussion of prospects regarding tradeable land use rights, i.e., an instrument which is still in a conceptualising and experimenting stage in Europe and China. Moreover, research could focus on the development of a comprehensive system of land use planning, land management and land use compensation, and a more case and city specific land quota system.

Besides cooperation in reforming the Chinese land management system, strategies of urban expansion and urban regeneration should be given attention as main pillars of urban sustainability transition processes. This should include issues of justice and equal opportunities as well as social cohesion in order to diminish rising disparities. Concerns regarding the future role of natural areas and open spaces should be taken up. There should be ideas how to deal with constant change and how to develop transformative responses.

especially in the fields of providing services and securing the common good.

In China, a reform of urban finance is closely related to the necessities to reform the land management system. For decades, income from auctioning and selling land use rights has been a prime municipal source for facilitating rapid infrastructure construction and utilities development.

However, this situation has changed. Besides the implementation of already approved projects, the expansion of new urban areas is slowing down. Thus, local finance in urban China is under enormous stress, and an acute challenge for sustainable urban development. The situation becomes even more severe when one considers that expenses of local government departments are constantly rising. Therefore, it is an urgent necessity to explore possibilities to diversify urban finance and generate other sources of local income. This will be key for sustainable and balanced urban development in China in the coming years.

On this background, the Chinese *14th Five-Year Plan* suggests a number of actions, such as intensifying reforms of the urban finance system, developing appropriate medium- to long-term local investment strategies, establishing an appropriate real estate tax system, and reducing the scale of debts on the local level. Based on joint research within the framework of TRANS-URBAN-EU-CHINA, it has been proposed to reform the actual land bidding and auctioning system, to explore possibilities to establish an equitable land tax system between urban and peri-urban areas, to introduce a fair and effective land value capture system, e.g., in urban regeneration projects, and to explore potentials of public-private-partnership models in urban areas.

Recommendation 5

Encourage research on good practices of urban governance and urban planning

Improving urban governance and planning is a constant concern in Europe and China. In the European *New Leipzig Charter* the topic is an underlying concern, e.g., calling for integrated approaches towards urban development, participation and co-creation, multi-level governance and place-based urban planning

Moreover, TRANS-URBAN-EU-CHINA experience suggests giving more attention to integrating externalities, external costs and cost-benefit-analyses in urban development. This will allow to calculate the real cost of urban projects and provide evidence for evaluation, debate and decision-making.

In the EU, research has been focusing for several decades on the quantification of external costs, particularly in sectors like energy and transport, which thus directly feeds into the Social-Cost-Benefit-Analysis (SCBA), where all costs and benefits, including externalities, are monetised. This in turn makes it possible to devise policies based on the internalisation of external costs.

Thus, European cities and research institutions are able to share concrete experiences regarding the implementation of externality-based policies at urban level, including good and bad practices, and fostering mutual learning. In this context, it is possible to transfer knowledge to Chinese scholars and researchers for what concerns methodologies, and to Chinese policymakers and urban planners for what concerns data, in line with the “benefit transfer” approach that allows the application, with the necessary precautions, of externality valuation from one context to another.

Within the framework of further linking urban finance and local governance, models of participatory budgeting could become more interesting for Chinese and European cities. Potentials and the applicability of participatory budgeting tools and their relevance for urban development in Europe and China could be a topic of joint research. On the other end of the politico administrative hierarchy, the value of national and regional financial support policies for urban development and their role in providing incentives for local sustainability transitions should be further explored.

and development. In the Chinese *14th Five-Year Plan*, the topic constitutes another field of activities with relevance to sustainable urban development.

For example, the interplay between national, regional and local governments and better organisation of metropolitan areas are top-

ics of concern. Planning concepts and mechanisms shall be improved, local tax reforms and regional development policies are envisaged, and data management and evidence-based policy making on the local level shall be strengthened.

China, like many countries in Europe, has never been short of plans for urban and regional development. However, experience during the past decades has shown that sectoral and comprehensive plans have not been well aligned, and the different plans have not always been in accordance with each other. Thus, many conflicts have come up along with their implementation. Nowadays, challenges induced by uncoordinated plans are becoming obvious and increasingly serious. Moreover, the general public is usually hardly involved in planning from the very beginning, and the level of participation is often limited to one-sided top-down information. Meanwhile, many cities have begun to introduce some measures to encourage multi-stakeholder participation in community development and the design of urban project areas, both in urban renewal and urban expansion. Nevertheless, if compared with good practice examples in other places, there is still much room for improvement.

On this background, TRANS-URBAN-EU-CHINA suggests giving more attention to urban governance and planning in EU-China cooperation. Urban renewal will be of special interest. Integrated planning approaches as well as research and practice oriented peer-to-peer exchange of experience of how to strengthen holistic governance and planning and to develop integrated city visions should be promoted. This should include ways to develop design standards for developers, which enhance the variety of urban environments, better reflect local specificities, and thus contribute to underline the sense of place.

International experience and policy transfer should be used to better explore ways to strengthen inter-sectoral coordination and cooperation, and to develop transformative and innovation oriented governance mechanisms. Furthermore, it appears that a systemic, comprehensive approach to urban planning and decision-making, i.e., one that considers the wide array of urban activities and the associated range of externalities, is lacking. EU and China

could devise a joint research and innovation programme aiming at developing such a systemic framework, and testing it in different contexts.

A second important field of cooperation could focus on instruments, methods and mechanisms of local governance and public participation, strengthening multi-stakeholder involvement in planning, and further developing and mainstreaming already existing approaches to participation. This is closely related to community building, place-making and collaborative planning on the local level, e.g. in urban neighbourhoods. Planning and development experts from academia should be asked to actively and continuously engage in community development activities. Long-term commitment of local authorities and the active involvement of citizens, as well as, on request, the discussion with experts, need to be constantly ensured.

Moreover, the full set of communication and consensus building tools needs to be explored and applied in order to promote active participation, to constantly update citizens, to report about latest achievements, and to monitor and assess processes and results. Planners should be made familiar with such instruments. Therefore, training and education activities with regard to comprehensive, collaborative and participatory planning should be enhanced.

Furthermore the potentials of digitalisation and artificial intelligence in urban development should be further explored. They constitute a basis for improving transformative capacities in order to facilitate local sustainability transitions. New methods of digital city planning, the use of technology for consultation and communication with citizens, and the further advancement of smart city development should be explored. There are rather high unused potentials for mutual benefits in this field, given the fact that the use of artificial intelligence technologies for decision making in urban planning and development is already rather advanced in both parts of the world. Moreover, the potentials of Internet of Things (IoT) technologies combined with Big Data Analytics, or urban production in the age of Industry 4.0 could be of high benefit for both sides.

Read more:

TRANS-URBAN-EU-CHINA POLICY BRIEF Number 1, January 2020

http://transurbaneuchina.eu/fileadmin/user_upload/tuec/files/Deliverables/TRANS-URBAN-EU-CHINA_D6.10_TUD_EuroPolicyBrief_1.pdf

URBAN-EU-CHINA

<https://cordis.europa.eu/project/id/733571>

EU Ministers Responsible for Urban Matters (2020): The New Leipzig Charter – The Transformative Power of Cities for the Common Good. https://ec.europa.eu/regional_policy/en/news-room/news/2020/12/12-08-2020-new-leipzig-charter-the-transformative-power-of-cities-for-the-common-good

CSET (2020): Proposal of the Central Committee of the Chinese Communist Party on Drawing Up the 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2030. Beijing, China: Center for Security and Emerging Technology.

https://cset.georgetown.edu/wp-content/uploads/t0237_5th_Plenum_Proposal_EN-1.pdf

NDRC - National Development and Reform Commission of China (2021): The Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and the Long-Range Objectives Through the Year 2035. People's Publishing House. http://www.gov.cn/xinwen/2021-03/13/content_5592681.htm

International research cooperation in a deeply changing world

Recommendation 6

Conduct critical open dialogue on research cooperation and identify topics of joint interest

Critical open dialogue is key to successful research cooperation and the identification of joint interest and priorities of research. Recently, such dialogue between European and Chinese stakeholders was organised. In his speech during the session on “How to shape the future of EU-China Relations in R&I Cooperation” on the occasion of the EU’s Research and Innovations Days virtual meeting in September 2020, the European Union’s Director General for Research and Innovation, *Jean-Eric Paquet* said: “Cooperation in science is a no-brainer for us. At the same time, the world is deeply changing and we need to revisit the way this is done in practice” (Kelly 2020). In a world, which has changed and is changing dramatically due to climate change, technological revolution, international competition, and the Covid-19 crisis, this is, of course, highly advisable. However, in his statement, he did not only address research cooperation in general but very specifically the scientific cooperation between the European Union and China.

Besides, in general, emphasising the important role of China as a research and innovation partner for the European Union, he expressed a number of serious concerns, such as difficulties to establish balanced cooperation, to find reciprocity in research and innovation, to access Chinese scientific data, and to facilitate balanced flows of researchers in both directions. *Charlotte Roule*, the vice president of the EU Chamber of Commerce in China, added her concerns that there was no requirement under the EU-China research arrangement to publish results from joint projects, and that Chinese researchers may be reluctant to share data with EU before having first shared them with their respective ministry (Kelly 2020).

Referring to China’s vision for social and economic development over the coming years, as described by the recently endorsed 14th Five-Year Plan, *Smirti Mallapaty*, a senior reporter of *Nature*, comments on the country’s

initiative towards more scientific and technological self-reliance. This move aims at linking high-quality research results more closely with creating useful products by industry, a guiding principle in the United States and Europe for a long time. Nevertheless, according to her enquiry and interviews with researchers from China, there are concerns that the shift to create closer ties between academia and industry could change evaluation criteria for the results of such collaborations, and “both distort incentives for academics and make Chinese science less transparent.”

Whether these comments are based on broad experiences in scientific cooperation, or limited to specifically sensitive disciplinary fields, and whether they really signal a rising general frustration as *Éanne Kelly* or a deeper concern as *Smirti Mallapaty* suggest in their articles, is difficult to say and will have to be left open to future discussions. However, the fact that such critical open dialogue takes place, is a positive element of EU-China cooperation as such. It should be further intensified and more closely linked with concrete research cooperation projects. Past experience should be more systematically revisited. This could contribute to what the Director General for Research and Innovation of the European Commission also acknowledged in the discussion during the EU’s Research and Innovation Days, i.e., that “Europe needs to know and understand China a lot better” (Kelly 2020). Only on the basis of deep mutual understanding is it possible to identify research topics of joint interest.

On the background of the experience with TRANS-URBAN-EU-CHINA, some of these issues can be confirmed as bottlenecks in research cooperation, and some issues can even be added, such as government regulations and the management of research funding, i.e. transnational money transfer. However, the project has also demonstrated that there are ways to tackle the respective challenges.

Recommendation 7

Promote equal partnership with reciprocity and cooperation with long-term perspectives

Equal partnership is a basic precondition for any fair, just and trustworthy collaboration. Long-term scientific cooperation can only be established and robustly sustained if it is built on reciprocity and mutual understanding. In an equal partnership, all concerned stakeholders can expect and are able to derive benefits from working together. Mutual trust is an important resource of successful cooperation. It has to be built through continuous collaboration and exchange based on an openly discussed and jointly agreed vision and a consistent set of objectives and goals of partnership.

Partnership on a *macro-level* should have a strategic perspective. It provides all stakeholders with a wide array of opportunities to bring in their views on establishing a cooperation programme for research and its priorities, and to have a substantial say in decision-making. Priority areas should be determined jointly. Experts from both sides, in this case Europe and China, should participate in the formulation of guidelines for co-funded programmes with a long-term strategic perspective.

As the establishment of well-functioning inter-cultural partnerships is not an easy-to-reach item, successful research partnerships should be encouraged and incentivised to continue joint research on a longer-term basis by linking research activities of the European Commission closer with respective activities of others, e.g. the European Science Foundation (ESF), the National Natural Science Foundation of China (NSFC) and national research foundations in European countries. As long as such long-term programmatic windows for continuing research are not opened, the “investment” of mixed consortia in well-functioning cooperation structures will be lost at the end of EU-funded projects.

Based on the societal relevance of sustainable urban development, more social (“soft”) sciences oriented projects should be initiated in the research cooperation between the EU and China. Until now, they are more the exception than the rule. They should also be better funded as poorly funded research is not very attractive for research institutions, especially if a certain fixed budget has to be divided by a

large number of partners in a transdisciplinary research team.

Such projects could be the basis for long-term cooperation between partners from both parts of the world as they are more process than product oriented. A project duration of three years may open doors and may lead to first scientifically based insights in this regard. Societal transformations, however, usually require longer periods, and they are highly context dependent. In order to successfully conduct research activities like in the field of sustainable urban development, deep knowledge about societal processes under the respective historic and cultural conditions is extremely important.

A long-term strategic perspective of research in social sciences requires a harmonisation of international research programmes, and eventually, a closer connection between general international policy cooperation and multi-national research funding. Respective EU and Chinese institutions, e.g., the Delegation of the European Union to China and the Mission of the People’s Republic of China to the European Union, as well as professional bodies, such as associations of cities and urban planners should be more closely involved.

Partnership on a *meso-level*, i.e., in the implementation of strategic cooperation through concrete research programmes, needs sufficient flexibility. Contingency planning is important, especially in a highly dynamic field such as urban development in China. Consistent monitoring and evaluation of activities are basic for success. Elements of research and innovation actions should be combined with those of coordination and support actions, like in the case of TRANS-URBAN-EU-CHINA and URBAN-EU-CHINA.

When it comes to policy relevance of research, policy objectives as well as the question in which way applied research can feed into decision-making play an important role. Especially, from the point of view of those Chinese institutions that are closely involved in decision-making on the national level, it is helpful to organise scientific forums on sustainable urban development, as well as dialogues be-

tween academia and practice and among practitioners for the exchange of concrete experiences. Topics of interest are related to urban-rural integration, urban planning and design, urban infrastructure, social and economic development of cities, smart cities, low-carbon cities or cultural cities, just to name a few. Moreover, the integration of externalities in decision-making and the establishment and experiences regarding participation procedures involving stakeholders from the public and private sectors as well as civil society are relevant.

On a *micro-level*, i.e. on the level of concrete projects, partnership has to be built on mutual trust and understanding between persons. It cannot be established merely through a formal act, e.g., the signing of an agreement, but it has to grow and be further intensified over time through constant, frequent and intensive exchange. Such partnership needs constant care, patience and understanding for the different framework conditions, which influence partners' activities. It will only work on a mutual basis if all partners can expect that information is shared immediately and without restrictions, e.g., from governments.

Project management has to be sensitive to the given conditions and flexible enough to deal with disturbances and outside influence without losing direction. As societal frameworks, historical experiences, cultural settings and politico-administrative conditions vary considerably between Europe and China, any misunderstanding has to be detected and clarified as early as possible. This requires open and trustful dialogue between partners.

In order to enhance the constant attention of all concerned partners for project activities and to give them priority over other activities, EU-China collaborative research should enjoy a

higher status in national research evaluation systems. On the one hand, in many European countries, EU-funded research and innovation projects are not always on the top of scientific rankings. On the other hand, in China, such research projects are often given less relevance than national and provincial projects in the evaluation systems of research institutes and departments.

In research about sustainable urban development, the collaboration with cities, i.e. city governments and other stakeholders is of high relevance. Cities may play different roles. (a) They may be study objects regarding urban planning and development. (b) They may take the role of living laboratories where new ideas can be developed and tried out. (c) They may become good practice examples for others that may want to learn from their experience.

However, the cooperation with city governments is not at all trivial, e.g., due to time constraints or the low added value they often attach to international comparative research for their own pressing challenges. Thus, locally connected project partners and their political anchoring are extremely important for the success of urban development research activities, as well as a broad anchoring of research across decision makers and other stakeholders.

Cooperation in this regard can only be successful if it aligns with the "local DNA" and local priorities, and if it can rely on stable long-term relations. This is especially important if the aim of a project is to promote participatory mechanisms, empower local community in the management of public goods, promote shared responsibilities for obtaining the best possible environmental, social and economic outputs, and foster new models of co-decision-making and co-governance in the local community.

Recommendation 8

Establish solid joint transdisciplinary research teams

Formally, EU-China research cooperation within the framework of EU funded projects happens between institutions. They are the ones that express their interest to cooperate, they form research and innovation consortia, and they have the function to guarantee commitments and the success of a project. How-

ever, in fact, it is people, i.e., researchers, officials and other stakeholders, who cooperate in a project, and they interact within the limits of given frameworks of their own organisations as well as of outside societal and institutional conditions.

This is especially relevant in urban research where interdisciplinary perspectives are highly

relevant and where transdisciplinary cooperation between academia and practitioners from national, regional and local government institutions, businesses and civil society organisations makes high demands. Inter- and transdisciplinarity are an asset in research. However, they make research processes also more complex and susceptible to misunderstanding and resentment.

Whereas the cooperation between researchers even from different disciplinary background may be rather easy, as it is based on similar value, reward and control systems, the cooperation between researchers and high-ranking state institutions may become more difficult. On the one hand, government institutions may be important door openers for researchers, they may provide important background information, if they are willing to do so, and they are relevant as addressees of recommendations. On the other hand, they are bound to their hierarchies, institutional rules and procedures, and usually have less flexibility to move than research institutions. In such a situation, project management has to be transparent and flexible without losing track in pursuing agreed objectives.

Developing mutual trust and understanding between those who act is of utmost importance. This includes not only mutual assumption of highest expertise among partners in the respective fields, but also readiness to learn from each other and continued willingness to focus on jointly developed and agreed objectives over the whole project period. At the same time, in multi-cultural environments, it is important to count with higher demands on mutually explaining institutional settings, argumentation rationales and eventual limitations of research, communication and dissemination.

For example, national rules may impact international travelling and meeting possibilities, ways of virtual communication, dissemination practices, and participation in international online conferences. Publication practices may differ, e.g., regarding open access and online accessibility. Feedback from responsible institutions may have to be sought before the involvement in certain activities. Policy orientations may have to be mutually explained, and the interpretation of facts has to be discussed within the different cultural contexts.

All this requires time and efforts. It has to be based on mutual readiness and interest to learn from each other. And it needs a lot of explanatory input from all sides. The probability of misunderstanding and misinterpretation is higher than in research environments with less cultural difference. Therefore, clarity regarding goals and terminology is extremely important in all stages of cooperation.

Efforts to broadly discuss central concepts and terms of a project are worthwhile investments in smooth cooperation. For example, the concept of a “city” differs widely between Europe and China. Urban development is based on different concepts. Urban pilot projects in Europe and China contrast in scope, size and speed of implementation. And whereas “gentrification” is seen as a severe problem of urban regeneration in European cities, it has been regarded by a large number of authors of scientific publications from China as a useful strategy of successful urban development.

In order to avoid misunderstanding, EU-Chinese research projects should plan for sufficient possibilities to gain experience in the different cultural environments, especially for young researchers in order to mutually understand urban structures and development processes. Frequent face-to-face meetings supported by constant online communication, especially in the beginning of a project and at the doorstep to a new project phase, can help to clarify concepts, objectives, methodologies and results, and to gradually establish trust and understanding. The better partners know and trust each other, the better the results will be.

Especially in research environments with rather distinct cultural settings, long-term cooperation is a very valuable asset. Research projects of three years’ duration may be too short to achieve lasting effects. Cooperation with perspectives of continuity may be more effective than limited one-time research activities. Possibilities to continue research activities of successful consortia, even under new framework conditions and with new objectives, could help to create stable research teams.

European and Chinese universities with long-standing bilateral collaborative relationships could become instrumental here. Their joint research centres could be activated as lead partners for establishing solid research terms with a long-term perspective. However,

this would also require them to become more active, and mobilise their research as well as education and training capacities for facilitat-

Recommendation 9

Foster knowledge sharing on equal terms

The idea behind joint research is to join complementary knowledge and potentials, and to create win-win situations for all participating partners through co-creation towards a shared goal. On the one hand, this requires clarity about research potentials of each partner, the need to be able to use these potentials for achieving joint research objectives and the expected research results, and the fitting of research capacities and respective knowledge to cover all fields necessary for successful research. On the other hand, it is important to clarify from the beginning which objectives and expectations each partner has, and how win-win-situations are defined and perceived by the different cooperating parties. Moreover, already the programming of research in specific fields may be biased, e.g., when one partner dominates the agenda setting.

Such clarity does not always exist within research consortia, and looking at sustainable urban development, interests of different stakeholders may vary considerably. The topic as such, i.e. sustainable urban development, with its different facets provides a lot of leeway and room for interpretation. Objectives of cooperation are not always outspoken and sometimes they change over time due to changing research interest and preferences, or because of varying policy directions and directives.

Moreover, when academia and practice work together, one has to take different incentives and award systems into consideration. For example, while academia is interested in producing high quality publications, creating

ing and improving the quality of long-term research cooperation between Europe and China, and put forward appropriate proposals.

scientific knowledge about and on the background of local practices, developing educational programmes, e.g., for doctoral students, and academic networking and sharing of know-how, urban practice may be mainly interested in concrete improvements for the betterment of living conditions of citizens.

Usually, it is not easy to find the right balance between diverging interests, especially if stakeholders work in rather distinct cultural environments like Europe and China. Sharing of knowledge may be a highly relevant goal. However, it unfolds its real value only if it is taken up and applied in concrete situations in the different cultural environments. Nevertheless, it is already highly valuable to understand the differences between urban Europe and China and their specific contexts and conceptualities.

Thus cooperation should be respected as a process of mutual learning and understanding. It entails (a) comprehending different dynamics of urban development and the rationalities behind, (b) becoming aware of different modes of dealing with the innovation pipeline, from identifying a new opportunity to marketability and application, (c) understanding how similar goals are being pursued in different ways in the two world regions, and (d) identifying areas (i) where one can learn from each other, e.g., regarding technological advancement and its application in urban innovation, and (ii) where sharing and joining efforts can improve and accelerate the pathway towards urban sustainability in general.

Recommendation 10

Facilitate mutual access to data and information

Access to data and information is the basis for any cooperation. If there is no or not sufficient access to data, empirical research is not possible. If data and information is missing or incomplete, evidence-based research results cannot be achieved. This is true for any field of

scientific research, and it may become an especially serious bottleneck for international cooperation projects.

Urban research requires quantitative and qualitative data and information. Statistical

data are a backbone of analyses of urban structures, functional relation and the development of urban areas, and they may allow modelling future urban sustainability scenarios. Surveys may help to detect details which are not covered by statistics, and they may shed light on cause-impact relations. Documents' analyses may help to decode urban development plans and related justifications. Interviews and focus group discussions may help to understand rationalities of stakeholders and to test hypotheses and preliminary research conclusions.

In some cases, statistical data can be acquired from international data providers. This may lead to valuable analyses and new insights regarding urban challenges. In many cases, however, other sources of data and information are indispensable. Besides language issues, different data collection cultures may pose rather vital challenges for foreign researchers.

In Europe, researchers may approach potential interview partners directly and depend on their willingness to agree to an interview, to participate in focus group discussions, or to provide further documents for analysis. Whether they get access to more detailed internal documents is often left to the decision of interview partners.

For European researchers who want to conduct research in China, the rapidly growing number of publications about urban development in the country in English, including those critically assessing strengths and weaknesses

of concepts, plans, development projects and their impacts, provides an important first source of information. Further qualitative research is rather dependent on Chinese counterparts and their ability to pave the way for meetings and to acquire documents for further analysis. In many cases, lists of questions have to be prepared and submitted to interview partners beforehand in order to allow an efficient way of providing the respective information. However, this may also limit spontaneity. Prepared lists of questions also allow the respective addressees and organisers to assemble rather efficient formal focus group meetings where individual members often provide prepared statements with little time for open discussion.

Foreign researchers have to deal with such research contexts, and find their way through. Thus, valuable qualitative research without the strong support from locally well connected researchers and facilitators with local anchoring is rather difficult to conduct. They usually do not only play an important role in conducting research but also interpreting and explaining research results embedded in their cultural contexts and the respective planning philosophies. From that point of view, it may be less an issue of who owns the data at the end and how to anonymise sensitive data for ethics reasons than how to jointly generate data and related research results. Solid EU-China cooperation, based on mutual trust and understanding is indispensable here.

Read more:

Session on "How to shape the future of EU-China Relations in R&I Cooperation" with Jean-Eric Paquet, Yutao Sun, Gu Xingfa and Charlotte Roule. <https://player.freecaster.com/embed/1364937>

Éanna Kelly (2020): Paquet: China needs to open up more to European researchers. EU research chief spells out the frustrations of an 'unbalanced relationship'. In: Science/Business, September 24, 2020. <https://sciencebusiness.net/news/paquet-china-needs-open-more-european-researchers>

Smriti Mallapaty (2021): China's five-year plan focuses on scientific self-reliance. Global tensions, limits on international collaboration and an emphasis on real-world applications drive the nation's vision for research. In: Nature 591, 353-354 (2021). doi: <https://doi.org/10.1038/d41586-021-00638-3>. <https://www.nature.com/articles/d41586-021-00638-3>

Annex

The 14th Five-Year Plan of the People's Republic of China (2021-2025)

and contents with relevance for sustainable urban development

Promote the “citizenization” of rural population with high quality	Promote the reform of household registration system, shift from easing restrictions in cities to full liberalisation except for certain areas
	Integrate the household registration system in urban agglomerations and metropolitan areas, promote intra-city clusters’ mutual recognition of the accumulative number of years for household registration
	Promote a series of reforms based on long-term residents instead of household registered population (Hukou), allow permanent urban residents without Hukou to gradually enjoy the same basic public services and social welfare insurance system
	Implement medium- and long-term housing and employment system reforms with regard to migrant workers
	Formulate incentive policies for the “citizenization” of population formerly employed in agriculture, link it directly to the transfer payments and the land designated for urban development granted to local government
Promote the efficient and scientific allocation of land resources	Promote the reform of the national land transaction regime, establish a national mechanism for cross-region trading of construction land quotas and supplementary quotas for arable land
	Improve homestead utilisation efficiency, explore voluntary reclamation of idle homesteads with compensation or an appropriate release of homestead and farmers’ rights to use houses
	Promote possibilities to use collective construction land for building rental housing
	Revitalise the use of rural collective construction land stock, encourage local employment of agricultural transfer population
	Implement a system of controlling annual aggregate land for construction to improve flexibility in land administration. Provincial governments shall manage the use of quotas for construction land in urban and rural areas
Promote a sustainable mechanism of investment and financing for urbanisation	Intensify reforms under the framework of medium and long-term investment and financing mechanisms
	Establish real estate tax in national central cities which provides a stable source for local governments to repay their debts and promote a virtuous financial cycle
	Reduce the scale of debt, especially optimise the debt structure
	Promote the extension of real estate investment trusts (REITs) in many fields, including the large-scale expansion of long-term rental apartments, the development of senior housing and senior care chains, the promotion of urban regeneration, etc.
	Establish cross-region natural resources compensation and trading mechanisms to improve the environmental protection in ecoregions
Develop an efficient and collaborative urbanisation governance system	Develop a new central-local governance structure, formulate a metropolitan area development law of China based on foreign experience
	Improve the market-based allocation mechanism of “production factors” (land, labour, technological knowledge, capital and data) in central cities and urban agglomerations
	Improve procedures of joint planning in metropolitan areas and urban agglomerations, establish a regional planning coordination mechanism
	Explore district-sharing fiscal and tax reform, establish joint regional development mutual funds, create a regional sharing business environment, scientific innovation resources and ecological governance
	Explore a major reform of new spatial data governance
	Collect scientific statistics on the development indicators of urban agglomerations

Source: Compiled by China Center for Urban Development (CCUD) 2021, translated by Mengfan Jiang (TU Dresden)



Further information
www.transurbaneuchina.eu

This Policy Brief has been elaborated and published online by the TRANS-URBAN-EU-CHINA project consortium. The material reflects only the authors' views. The European Union is not liable for any use that may be made of the information contained therein. The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 770141.

Elaborated and published by the TRANS-URBAN-EU-CHINA project
Project coordinator and lead author: Bernhard Müller, TU Dresden
Note: The following text has been written based on an online project workshop in January 2021. The lead author wants to thank all project partners for their contributions and critical review of the text.