

TRANS-URBAN-EU-CHINA

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

Deliverable

D5.3 Urban Living Labs transformative knowledge

WP 5 Living Labs, Exploitation & Dissemination



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ACRONYMS AND ABBREVIATIONS

| AIT | Austrian Institute of Technology |
|----------|---|
| CAS | Chinese Academy of Sciences |
| CAUPD | China Academy of Urban Planning and Design |
| CCUD | China Center for Urban Development |
| CIUC | China Intelligent Urbanization Collaboration Co-creation Center for High Density Region |
| EU | European Union |
| EUCCC | European Union Chamber of Commerce in China |
| HUST | Huazhong University of Science and Technology |
| IOER | Leibniz Institute of Ecological Urban and Regional Development |
| ISINNOVA | Institute of Studies for the Integration of Systems |
| ISOCARP | The International Society of City and Regional Planners |
| MoHURD | Ministry of Housing and Urban-Rural Development |
| NDRC | National Development and Reform Commission China |
| NTNU | Norwegian University of Science and Technology |
| POLITO | Politecnico di Torino |
| THU | Tsinghua University |
| TUD | Technische Universität Dresden |
| WP | Work package |
| WU | Wuhan University |
| ULL | Urban Living Lab |

SUMMARY

This report presents the experiences gathered in the TRANS-URBAN-EU-CHINA Living Labs in Chinese cities. These experiences are based on Urban Living Lab activities organised by, or in interaction with, the individual work packages of the TRANS-URBAN-EU-CHINA project, to extract relevant priorities, to test assumptions, and to gain expert feedback from local stakeholders. These experiences have been documented and analysed for their transferability and scalability to produce transformative knowledge on pathways to urban sustainability.

Due to COVID-19, many on-site activities in the Chinese Living Labs needed to be postponed and/or transformed into digital activities. This report is hence a preliminary report based on the activities concluded thus far. A final report, including additional feedback from the Living Labs and the reference cities from Europe and China, as well as reflections from each of the Work Packages, will be issued in December 2020.

1 TRANS-URBAN-EU-CHINA Living Labs

In the TRANS-URBAN-EU-CHINA project, Urban Living Labs are the physical locations in selected Chinese cities, in which TRANS-URBAN-EU-CHINA researchers involved in Work Packages 1-4 cooperate with local urban and regional authorities, developers, planners, citizens and other stakeholders. The Living Labs serve as testing grounds for the development and implementation of research results, created in WPs 1-4 to promote socially integrative cities. Chapter 1 provides a concise overview of the TRANS-URBAN-EU-CHINA Living Labs; for a more detailed overview of the TRANS-URBAN-EU-CHINA Living Labs, please refer to (TRANS-URBAN-EU-CHINA 2019).

1.1 URBAN LIVING LABS OVERVIEW

The preparation phase towards identifying Chinese TRANS-URBAN-EU-CHINA Living Labs was composed of three parallel tracks. The WP5 team hosted a series of meetings and workshops with WP1-4 in order to make an action plan with each work package on what kind of knowledge that WP plans to share with ULL cities, what kind of activities should be taking place, and what type of stakeholders should be involved in ULL cities. In the meantime, theories and practices about ULLs in Europe and China were collected from professionals and literature, and analysed to create selection criteria and action plans for the TRANS-URBAN-EU-CHINA project.

Together with the Chinese and European TRANS-URBAN-EU-CHINA partners, potential ULLs were mapped and analysed for their relevance for the project. CCUD and CAUPD as project partners and national urban study research institutes have a long history and rich experience of working with Chines cities. Based on CCUD's and CAUPD's recommendations regarding candidate ULL cities, WP5 shared the candidate ULL cities with WP1-4 experts and tried to find the best match for cooperation for each individual WP. The ULL candidate cities also expressed their expectations regarding becoming a TRANS-URBAN-EU-CHINA Living Lab. Those requests were evaluated by WP1-4 before deciding on their preferred ULL for further cooperation.

1.2 URBAN LIVING LAB CITIES

In 2018, the TRANS-URBAN-EU-CHINA project identified four Urban Living Labs for further cooperation.

Wuhan is the capital city of the Hubei province and one of 9 national central cities located in the middle of the Yangzi River. As Living Lab, Wuhan will work both with an urban regeneration project in the former colonial area of the city, as well as an urban expansion area, guided by TRANS-URBAN-EU-CHINA partners CAS and Advisory Board member UN Habitat. The Wuhan Living Lab is further explained in Chapter 2.

Tianjin is a mega city and one of 9 national central cities located in the North of China. The Tianjin Living Lab will be located in the Tianjin Port Free Trade Zone, a new industrial area that aims to develop a become more liveable environment with mixed use facilities, guided by TRANS-URBAN-EU-CHINA partner CCUD. The Tianjin Living Lab is further explained in Chapter 3.

The Xiong'an New Area is a newly planned ongoing national project nearby Beijing. The Xiong'an New Area will be the 'prototype' to future cities in China; using Xiong'an as Living Lab will give an opportunity to observe the process of constructing the new generation of city development in China. The cooperation with Xiong'an was guided by TRANS-URBAN-EU-CHINA partner CAUPD. The Xiong'an Living Lab is further explained in Chapter 4.

Jingdezhen is a historic and ceramic industrial city in Jiangxi province. As Urban Living Lab, it provides a heritage area in the old city that requires regeneration and community building as well as the Changan expansion area. The cooperation with Jingdezhen is guided by TRANS-URBAN-EU-CHINA partner CAUPD. Jingdezhen was operational as Living Lab only in 2018. The Jingdezhen Living Lab is further explained in Chapter 5.

In 2019, a new TRANS-URBAN-EU-CHINA Living Lab was added. Wenjiang is a district in Chengdu, the capital of Sichuan Province. Wenjiang aims to become a liveable city serving the Chengdu metropolitan area and is particularly interested in becoming a TRANS-URBAN-EU-CHINA Living Lab on community building and multi-stakeholder neighbourhood governance, guided by TRANS-URBAN-EU-CHINA Tsinghua University. The Wenjiang Living Lab is further explained in Chapter 6.

2 WUHAN

Wuhan is the capital of Hubei province, and one of the nine National Central Cities¹ of China. As of 2015, the city of Wuhan had an estimated population of 10,607,700 people. Wuhan is recognized as the political, economic, financial, cultural, educational and transportation centre of central China. Wuhan counts 88 higher educational institutions, which makes it a leading educational hub for China and the world largest city in enrolled college students. Recognized institutions include Wuhan University and Huazhong University of Science and Technology. As the renowned newspaper China Daily writes, in 2017, Wuhan's GDP reached 1.34 trillion Yuan, which was the ninth highest in China (China Daily, 2018; TRANS-URBAN-EU-CHINA, 2019).

¹ The National Central Cities are described as a group of cities in charge of leading, developing, and performing tasks in political, economic, and cultural aspects. Their sphere of influence has great impact within the surrounding cities on modernizing and integrating services in fields such as infrastructure, finance, public education, social welfare, sanitation, business licensing and urban planning.

TRANS-URBAN-EU-CHINA partners have made a series of ULL activities in Wuhaninvolving different stakeholders since 2018. Through those chain of events the project is able to share the results of the project with stakeholders and gain the feedbacks from Wuhan which will help TRANS-URBAN-EU-CHINA to validate its result in the context of China's urbanization. Those events are: 2018 UN-HABITAT Placemaking Week in Wuhan, UN-HABITAT International Rural Enabling Innovation Summer School, TRANS-URBAN-EU-CHINA – Wuhan University workshop, TRANS-URBAN-EU-CHINA – WLSP workshop, WLSP staff exchange to NTNU, 10th Session of World Urban Forum: Special event to Wuhan, Online interview to Urban Innovation Lab at Wuhan University and a series of webinars between Wuhan stakeholders and TRANS-URBAN-EU-CHINA consortium (future plan).

2.1 UN-HABITAT PLACEMAKING WEEK IN WUHAN (DECEMBER 2018)

2.1.1 EVENT DESCRIPTION

UN-Habitat has been globally sponsoring Placemaking Weeks (UN Habitat 2016). As part of advocacy on improving streets and public spaces, the "Placemaking Week" initiative was created as a meeting, advocacy and action event for *placemakers* – i.e. officials, professionals and citizens wanting to enhance the quality of open and public space. Placemaking Weeks are weeklong global gatherings of *placemakers* emphasizing hands-on learning and innovative social events, while leaving behind a public space legacy in host cities.

The Wuhan Placemaking Week (UN Habitat 2018) took place in the week of 9-13 December 2018. For this event, UN-Habitat and the Wuhan Land Use and Spatial Planning Research Institute (WLSP) sought the participation of international and Wuhan-based partners including ISOCARP (The International Society of City and Regional Planners), Wuhan University and Huazhong University of Science and Technology etc.

The theme of the Wuhan Placemaking Week (WPW) was "Shaping better public spaces: Remaking places – Transforming cities". WPW was organized around 4 partnerships and 4 sub-themes:

- Waterfront Placemaking (WPDI ISOCARP)
- Historical Street Placemaking (WLSP PPS UN-Habitat)
- Placemaking with Communities (WU UN-Habitat Global Public Space Programme)
- Placemaking for Healthier Cities (HUST UN-Habitat IG-UTP Programme)

In addition, UN-Habitat cooperated with the Asia Habitat Society (AHS), which organized two preevent trainings on public space assessment and design: one for placemaking professionals from the region and one for selected university students from the region.

2.1.2 TRANS-URBAN-EU-CHINA ACTIVITIES

UN-Habitat forms part of the Advisory Board of the TRANS-URBAN-EU-CHINA project. The opportunity to cooperate on the Wuhan Placemaking Week hence formed a dual opportunity to strengthen the range of activities with local stakeholders in TRANS-URBAN-EU-CHINA Living Lab Wuhan, as well as project cooperation with UN-Habitat.

Representatives of NTNU, EUR, CAS, IOER (now TUD) and AIT participated in various activities of the Wuhan Placemaking Week. NTNU in addition sent 6 master students from various disciplines, including urban planning, economy, project management and civil engineering, to take part in the WPW together with other Chinese and international students and teachers. NTNU formed the main contact with UN-Habitat for this event, based on their long-standing cooperation with UN-Habitat as a Habitat university and, more recently, the URBAN-EU-CHINA (URBAN-EU-CHINA 2017) project.

People Oriented Urban Public Space: Sharing the Experience (8 - 9 December 2018)

On 8-9 December, UN-Habitat organised a 2-day training course for students under the header of "People Oriented Urban Public Space: Sharing the Experience". In total, 90 Chinese and international students, including six students from NTNU, participated in the course at Wuhan University.

During the training course, the state of art of public space placemaking was presented and discussed. This included, amongst others, principles and theories for designing sustainable and high-quality people-oriented public space placemaking, as well as a discussion on Wuhan as a case for implementing the method of people-oriented urban public space.

Wuhan Placemaking site visit (10 December 2018)

Partners from NTNU, EUR and IOER (now TUD) participated during a site visit under the theme of historical street placemaking. This site visit showed how the public space has been reshaped in the traditional districts of Wuhan.

As an important city in the middle of the Yangzi River, Wuhan has several colonial-era districts. Wuhan Municipality has identified a group of historical buildings and public spaces which have been upgraded and repurposed, with reduced-traffic or even car-free zones.

The guided site visit gave the TRANS-URBAN-EU-CHINA team an excellent opportunity to experience the historic areas first-hand, which gave a better understanding of the urban fabric and its residents and professional stakeholders of Wuhan. The site visit was also very informative as to the methods and results of multiple public space placemaking projects in historical areas of Wuhan.

Wuhan Placemaking week plenary session (11 December 2018)

WPW held its plenary session on 11 December 2018 in the Wuhan Conference Centre with the contribution of all participants of the Placemaking Week. During the session, the Wuhan Declaration was launched. The Declaration announced, amongst others, that "Everyone has the right to live in a great place, and the right to make the place where they already live better" (UN Habitat 2018), which is directly aligned with the social integration target of the TRANS-URBAN-EU-CHINA project.

Furthermore, the Declaration commits to create connected and accessible spaces, create healthy places that encourage social support and interaction, support a community-based visioning process for public spaces and support innovative statutory planning and budgeting policies.

Meeting with local stakeholders (11 December 2018)

During the WPW, the TRANS-URBAN-EU-CHINA representatives were able to have a meeting with local real estate developers, the Shui On Land group. The meeting was kindly organised by CAS. The developers informed on their project portfolio, including urban renewal and expansion projects, followed by a site visit of the Wuhan Tiandi project (Wuhan Shui On Ltd. 2014). Wuhan Tiandi is a redevelopment project from a former Japanese concession area, including residential, office, hotel, retail, dining and entertainment facilities.

During the meeting and site visit, the Wuhan Shui On group introduced its new projects in Wuhan, while TRANS-URBAN-EU-CHINA experts presented the latest progress of the project. Based on these presentations, discussions were held on opportunities for including socially integrative measures in the projects of Wuhan Shui On, and how to cooperate on implementing these ideas in Wuhan as Urban Living Lab.

2.1.3 OUTCOMES AND LEARNING

During the Wuhan Placemaking Week, the TRANS-URBAN-EU-CHINA team made its first-time official visit to the city of Wuhan and interacted with local professional stakeholders and citizens. During the event, key partners for ULL activities in Wuhan, i.e. UN-Habitat, the Wuhan Land Use and Spatial Planning Research Centre, real estate developer Wuhan Shui On and Wuhan University have been identified as relevant partners for the Living Lab.

The TRANS-URBAN-EU-CHINA team was able to present its initial ideas for priorities for each work package to these stakeholders and received feedback and tailored suggestions for further work. Last but not least, it was a unique opportunity to learn first-hand about current challenges and opportunities related to Wuhan development from professional urban planning experts.

These ideas and connections were further developed towards the Summer School, local workshops and a Knowledge Café in Wuhan in 2019.

2.2 UN-HABITAT SUMMER SCHOOL IN WUHAN (AUGUST 2019)

2.2.1 EVENT DESCRIPTION

Nearly 600 million people in China live in the vast rural areas, where there is a distinct gap in urbanrural development. Rural revitalization is a critical strategy to balance urban and rural development. To promote rural revitalization, the United Nations Human Settlements Programme (UN-Habitat) and the Wuhan Land Use and Urban Spatial Planning Research Centre (WLSP) jointly initiated the 2019 UN-Habitat International Rural Enabling Innovation Summer School. The Summer School took place 5-14 August 2019, in collaboration with Norwegian University of Science and Technology (NTNU) and six Chinese universities: Wuhan University, Huazhong University of Science and Technology, Tongji University, Tsinghua University, Fudan University and South China University of Technology. In total 40 students from these six universities were invited to join the 2-week international innovation Summer School.

The Summer School aimed to gather young talents to cooperate on developing innovative solutions on rural revitalization and development. Two rural villages of the Wuhan area: Bawu Village and Chenzhulin Village were identified as case studies. The students and teachers that were invited to join the Summer School were selected among a wide range of disciplines: urban and rural planning, architecture, landscape and economics. Combined in interdisciplinary groups, the students were asked to:

- develop innovative solutions based on rural industry, ecology, culture and other resources;
- effectively combining rural planning and construction with rural economy;
- reshaping the value of the case villages;
- stimulating the vitality of rural development;
- exploring more sustainable rural development mechanisms;
- and providing new references for the revitalization of rural areas in Wuhan.

2.2.2 TRANS-URBAN-EU-CHINA ACTIVITIES

The Summer School in Wuhan gave an opportunity to the TRANS-URBAN-EU-CHINA team, for this occasion composed of NTNU and ISCI experts, to work with Wuhan stakeholders directly for two weeks. During the Summer School, the TRANS-URBAN-EU-CHINA team cooperated closely with the other universities and their students to examine municipal policies and action plans for urban-rural intergradation, for the benefit of TRANS-URBAN-EU-CHINA work on urban expansion, community building and storytelling.

During the fieldwork in two villages in the Wuhan area, the impact of the urban expansion plans of Wuhan on the local communities in the two case villages was investigated. Not only will the urban expansion absorb the villages' labour force by migrating to Wuhan; the two villages are already being absorbed into the expansion of Wuhan and play a new role in the development of the urban fabric.

The students used the material and methods developed by TRANS-URBAN-EU-CHINA and applied them to their fieldwork. Based on their fieldwork, the student groups used different approaches to propose plans for sustainable development and community building of the rural villages. The plans included, amongst others, strategies to strengthen community building via identity, cultural heritage and social collective memory, action plans to make seamless connections between different levels of urban planning, win-win land management plans for the villages to gain local benefits from the inevitable urban expansion of Wuhan and opportunities for digital services and facilities transferred from Wuhan to the rural villages and their inhabitants.

The TRANS-URBAN-EU-CHINA Community of Communities (CoC) platform was deployed throughout the Summer School to help the students connect to the TRANS-URBAN-EU-CHINA experts in Europe. Using the CoC, ISCI invited a group of experts to be the opponents to the students' mid-term presentation. The comments of the external experts gave new perspectives to the students and teachers for the second half of the Summer School.

2.2.3 OUTCOMES AND LEARNING

The Summer School also allowed the TRANS-URBAN-EU-CHINA team to closely observe and interact with the planning policies of the municipality of Wuhan in balancing rural and urban development, identifying concrete challenges and opportunities for further development. During this interaction, knowledge gathered in the TRANS-URBAN-EU-CHINA project has been disseminated to local experts in Wuhan through lectures and student supervision by TRANS-URBAN-EU-CHINA experts.

The Summer School gave NTNU the opportunity to interact locally with WLSP as key stakeholder in Wuhan. Participation in the Summer School gave WLSP better insight in the TRANS-URBAN-EU-CHINA project and enabled them to develop the cooperation further. This led, amongst others, to the co-

organisation of an Expert Workshop and Knowledge Café in Autumn 2019 and to a secondment of 2 WLSP experts to NTNU for 3 months early 2020.

Similarly, interaction with Wuhan University during the Placemaking Week and Summer School further developed into cooperation on workshops, sharing of data and cooperation among staff members and with students.

2.3 WUHAN LIVING LAB WORKSHOPS (NOVEMBER 2019)

2.3.1 EVENT DESCRIPTION

A TRANS-URBAN-EU-CHINA team of experts from NTNU, IOER, TUD, CAS, AIT and EUR visited the city of Wuhan at the beginning of November 2019. This study trip was organised by the TRANS-URBAN-EU-CHINA team to extract data for their work packages and tasks.

Wuhan University Workshop and Knowledge Café (7 November 2019)

The study visit included an Expert Workshop and Knowledge Café with Wuhan University as an important local stakeholder. Established in 1893, it is the one of the oldest universities and a leading research institution in China. As a top-10 university in the country, Wuhan University is well known for its research within social science, remote control, survey engineering and hydraulic power. During this visit, the TRANS-URBAN-EU-CHINA team interacted with the Urban Innovation Lab research team based in the School of Design. The School of Design is a combination of architecture, urban planning, art, design and graphic centres.

WLSP Workshop (8 November 2019)

The TRANS-URBAN-EU-CHINA team including NTNU, IOER, TUD, AIT, CAS and EUR visited the Wuhan Land Use and Spatial Planning Research Centre (WLSP) on 8 November 2019 for a workshop regarding input and feedback to the TRANS-URBAN-EU-CHINA research. WLSP forms part of the Wuhan municipal land resources and planning bureau and is hence a key stakeholder for the Wuhan Urban Living Lab.

As a research institute WLSP mainly undertakes relevant studies on national, provincial and municipal land use, intensive land-use, classification and grading research, formulation and amendment of urban planning at different levels, land use planning for construction projects, spatial planning demonstration projects, feasibility studies on urban redevelopment projects and policy studies for relevant planning implementations.

2.3.2 TRANS-URBAN-EU-CHINA ACTIVITIES

Wuhan University Workshop and Knowledge Café (7 November 2019)

On 7 November, the TRANS-URBAN-EU-CHINA team organised a workshop and Knowledge Café.

In the morning session, academics from Wuhan University and the TRANS-URBAN-EU-CHINA team exchanged their research on urban studies. In the afternoon session, the TRANS-URBAN-EU-CHINA team conducted a Knowledge Café with the teachers and students at Wuhan University in order to explore and compare experiences of living in Wuhan as a city with more than one million residents.

In the workshop, the TRANS-URBAN-EU-CHINA team introduced the latest project updates, specifically those related to the development of the Wuhan Urban Living Lab. The Wuhan University Urban Innovation Lab (UIL) introduced their research activities, using Wuhan as their research base and data

source. For example, UIL has been investigating urban spatial features with dissymmetric mapping based on mobile phone data and developing a method of fast identification of urban sprawl based on k-means clustering with population density and local spatial entropy. Those studies all used Wuhan as research case study, which presents a very good match with the tasks in TRANS-URBAN-EU-CHINA WP4.

In the afternoon, NTNU and ISCI hosted a Knowledge Café which is a workshop in which people create new ideas via discussion and dialog and those new insights for innovative and novel experiments that will emerge from the interdisciplinary conversations at the workshop with the students and teachers at Wuhan University (TRANS-URBAN-EU-CHINA 2020). During the Knowledge Café, the following questions were introduced:

- How can we make Wuhan a better place for you?
- As a younger generation what is your idea of a more attractive city / campus / living area?
- What is good, and what is not working so well?

The discussion with the students showed that as the biggest university student population (more than 1 million) (UNIPAGE 2020) in the world, Wuhan need spending more efforts and resources in catalysing the talent advantage, while to make the city be a more liveable and attractive to its young students is critical.

WLSP Workshop (8 November 2019)

During the workshop, the TRANS-URBAN-EU-CHINA team presented the project and its preliminary outcomes and introduced the learnings of the fieldwork conducted in Wuhan thus far. WLSP presented its latest ongoing work with the visions, methods and plans of the new Master Plan of Wuhan (2017-2035) (Fangtianxia 2019), which will define the city development in the future.

The new Master Plan showed high ambitions to make Wuhan an Innovative City, Hub City and Safe City. In addition, the city will intensify its work with ecological assets to become an ecological waterfront city and liveable city. The urban spatial structure will be organised according to the "1331" model: 1 core city area (core area in Wuhan); 3 new sub-cities (Airport City, Optical City and Automotive City); 3 New Town Groups (Eastern, Western, and Southern town groups); and 1 future city (Yangtze/Changjiang New City). Wuhan city aims to create a 15-minute living cycle, enabling its residents to satisfy the major services for their daily lives within an area of a 15-minute bike ride. The new Master Plan also specifies measures on how to develop industrial layouts, ecological features and cultural heritage conservation for the city.

After the meeting with WLSP, the TRANS-URBAN-EU-CHINA team visited the East Lake, a waterfront recreational park recently developed by Wuhan Municipality. The study tour showed how the Wuhan municipality convinced the different stakeholders in the areas of East Lake to work together for creating a free waterfront recreational park for the local residents and outside visitors.

2.3.3 OUTCOMES AND LEARNINGS

Wuhan University workshop and Knowledge Café (7 November 2019)

The workshop with Wuhan University gave the TRANS-URBAN-EU-CHINA team the opportunity to engage in direct dialogue with local scholars from the Wuhan Living Lab. The UIL research activities have been built upon the big data of Wuhan, which forms an excellent match with the tasks in Work Package 4. The Knowledge Café has given first-hand feedback from the young university students, who are the representatives of 10% of the city population, on what is their ideal liveable city of Wuhan in the future.

WLSP Workshop (8 November 2019)

Via the meeting with WLSP, the TRANS-URBAN-EU-CHINA team got a chance to observe how government officials manage the city development. The development of the new Master Plan (2017-2035) has richly demonstrated Wuhan's main ambitions for the next 15 years. The East Lake tour provided useful information on how a typical project is initiated and managed by the local government in China. These experiences have given the TRANS-URBAN-EU-CHINA team insight in the priorities and measures the local government will put in place in order to reach the goals, which provide important anchoring points for its own research with the Wuhan ULL.

2.4 WLSP STAFF EXCHANGE TO NTNU (JANUARY – MARCH 2020)

2.4.1 EVENT DESCRIPTION

Based on the Urban Living Lab cooperation, WLSP and NTNU signed a Memorandum of Understanding (MoU) to promote research cooperation on sustainable urban development. The MoU enabled staff members of WLSP to spend 3 months at NTNU, Department of Architecture and Planning, for training and cooperation. In the end of 2019, two WLSP staff members (Mr. TANG Yun and Miss LI Min) arrived in Trondheim for a 3-month secondment, including urban planning courses, cooperation on TRANS-URBAN-EU-CHINA and other projects as well as study visits. Due to COVID-19, the original plan to visit several Norwegian municipalities unfortunately had to be cut short. Instead, they participated and presented their work in several digital meetings instead.

2.4.2 TRANS-URBAN-EU-CHINA ACTIVITIES

The two WLSP staff members cooperated with NTNU on the TRANS-URBAN-EU-CHINA project during their stay in Trondheim. The NTNU team organised several meetings for them for exchange ideas on how to initiate and scale up Urban Living Lab activities in Wuhan.

When the COVID-19 outbreak happened in Wuhan, the WLSP guests became the bridge between Wuhan and the TRANS-URBAN-EU-CHINA team. They shared critical insights in health-promoting measures for Wuhan, implemented by the municipality, as well as other types of activities to boost the resilience of the city and its residents during and after the COVID-19 outbreak. Specific examples included public space in the city that can easily be transformed into other functions, a chain of public health units at local neighbourhood scale that are small but fully equipped and smart city infrastructures such as online payment, a public information data sharing system and smart transportation.

2.4.3 OUTCOMES AND LEARNING

The staff visit of WLSP to NTNU unfortunately could not follow the original plan due to the COVID-19 pandemic. However, the staff exchange enabled an effective communication with the Urban Living Lab in Wuhan as the epicentre of the COVID-19 pandemic, creating an extreme stress test for social integration. Having WLSP staff on site that could explain and interpret the context of local measures was highly valuable. It also enabled the TRANS-URBAN-EU-CHINA team to learn from the WLSP staff on a day-to-day basis, how the urban planners in Wuhan were forced to rethink urban resilience and social integration during the pandemic.

2.5 ONLINE INTERVIEW WITH WUHAN UNIVERSITY (MARCH 2020)

2.5.1 EVENT DESCRIPTION

TRANS-URBAN-EU-CHINA Living Lab Wuhan became the first city in the world to be in lockdown due to the COVID-19 outbreak. The continuous (digital) cooperation with local Wuhan stakeholders enabled the TRANS-URBAN-EU-CHINA team to get direct insight in how the lockdown impacted the city and its inhabitants. In order to structure some of this information, NTNU undertook an interview with three colleagues from the Urban Innovation Lab at Wuhan University. The digital interviews took place on 25 March 2020.

2.5.2 TRANS-URBAN-EU-CHINA ACTIVITIES

The following three staff members of the Urban Innovation Lab at Wuhan University were interviewed. The staff members have given their written consent to have their names mentioned in the report and have approved the description of the interview as portrayed in this report:

Lingbo LIU, Lecturer, Department of Urban Planning Deputy Director | Laboratory Centre Hao WU, Lecturer, Department of Graphics and Digital Technologies Yang YU, Lecturer, Department of Urban Planning

Based on their personal experiences during the pandemic in Wuhan and analysis of social media, the interviewees responded that before the lockdown, the hospitals in Wuhan had already received several COVID-19 infections, and the doctors had already paid attention to this disease. At that time there was still no overload of the medical care system. Panic among the citizens of Wuhan occurred only on a small scale. The lockdown of Wuhan (the city has been in lockdown since 23 January 2020) came as a surprise to many and accelerated panic among the citizens of Wuhan. However, in general, the city was experienced as well prepared after the lockdown. The main functions of the city were still running, especially the logistics such as grocery supplies. The lockdown had two stages. During the first stage, which took place at the end of January to the middle of February 2020, people at high risk to be infected in Wuhan got SMS messages in which the government recommended them to stay at home. Non-infected people could go out for daily supplies via walking, bicycling or using cars, while public transportation was shut down. During the 2nd stage, which started after the middle of February, the municipality announced a strict and mandatory curfew. All citizens staying in their homes could get their supplies via online shopping and assistance of the community level government. A large amount of temporary hospitals (mostly mobile cabin hospitals) were put into use in Wuhan, which enabled COVID-19 infected citizens to be hospitalized. This reduced the panic and citizens' complaints on social media.

According to the interviewees, two measures have effectively helped to stop the spread of the virus and stabilized the moods of citizens in Wuhan after the lockdown of the city. One was the strict stayat-home rule, supported by the local community management. The municipality of Wuhan appointed a person responsible for each community, even for each apartment building. These were neighbourhood level government employees. Residents could get daily supplies via China's advanced online shopping system and groceries could be delivered home. The community level person responsible ensured that everyone would remain at home. In addition, they monitored the situation, discovered new infections and reported them to the authorities. They also informed the residents of the status of the neighbourhood including which buildings were potentially infected. The second effective measure was to build a group of temporary hospitals, which enabled all the infected to be hospitalized. After the erection of the temporary hospitals, the research team of the Urban Innovation Lab measured a substantial decrease in messages for help on social media.

The Urban Innovation Lab used data gathered from social media to map the distribution of the COVID-19 epidemic in Wuhan. Around the middle of February 2020, Chinese social media Weibo (comparable to Twitter) launched a hashtag for online calls for help. Originally, a lot of messages were posted on Weibo asking for help due to COVID-19. The Urban Innovation Lab gathered information regarding calls for help in Wuhan and inserted them into the map of Wuhan, to show in which areas citizens would have a higher chance of getting infected. They posted the distribution on WeChat (another popular social media platform in China) and shared the COVID-19 risk map of Wuhan with the public. They also used demographic data and medical care resources in Wuhan to analyse how the virus had become an epidemic.²

2.5.3 OUTCOMES AND LEARNING

The interviews gave the TRANS-URBAN-EU-CHINA team insight in on-site responses by the city of Wuhan in different stages of the pandemic and citizens' corresponding responses. They also showed how local researchers used their professional knowledge to help citizens and the authorities to fight against the pandemic. While this situation was very different from the original Urban Living Lab planned in Wuhan, it did provide highly relevant insights in social integration as a measure to build resilience.

2.6 UN-HABITAT WORLD URBAN FORUM SPECIAL EVENT FOR WUHAN (FEBRUARY 2020)

2.6.1 EVENT DESCRIPTION

The 10th session of the UN-Habitat World Urban Forum (WUF) took place in Abu Dhabi on 8-13 February 2020. WUF was initiated by UN-Habitat in 2001. It aims to be a "non-legislative technical forum in which experts can exchange views in the years when the UN-Habitat Governing Council does not meet" (UN-Habitat 2020). The original programme included several sessions hosted by Wuhan and other Chinese stakeholders. However, due to COVID-19 almost all delegations from China cancelled their trip to Abu Dhabi. As the city and stakeholders of Wuhan are close cooperation partners of UN-Habitat, WUF decided to host a special event to support Wuhan in its fight against COVID-19.

2.6.2 TRANS-URBAN-EU-CHINA ACTIVITIES

NTNU joined the WUF special event for Wuhan, on behalf of the TRANS-URBAN-EU-CHINA project. During the event, all participants were asked to present their cooperation with Wuhan and express their best wishes for recovery. This made it possible for NTNU to briefly present the TRANS-URBAN-EU-CHINA project and its work with social integration, using Wuhan as an Urban Living Lab. In the presentation, NTNU expressed solidarity with the city of Wuhan and its citizens and shared experi-

² The articles of the research are available online (in Chinese):

https://mp.weixin.qq.com/s/KPKBveZwXQRx-7q8oL6ntw https://mp.weixin.qq.com/s/d6bav_uVO4wXcUjrA4jt9A https://mp.weixin.qq.com/s/9hkhzclsVyfeiLucDmZBoA https://mp.weixin.qq.com/s/eRVkRN8ARIk66EKA2QaQ_Q_

ences of Wuhan's extending warm hospitality to the TRANS-URBAN-EU-CHINA consortium with a dynamic community and a strong willingness to cooperate. The event was recorded and shown on local and social media in Wuhan.

2.6.3 OUTCOMES AND LEARNING

The TRANS-URBAN-EU-CHINA consortium has established a good relationship with Wuhan stakeholders. At a critical time in Wuhan, this event provided a chance to express the project's solidarity with Wuhan.

2.7 ONLINE WORKSHOPS WITH WUHAN STAKEHOLDERS

Due to the COVID-19 outbreak worldwide, the TRANS-URBAN-EU-CHINA project has not managed to perform its on-site workshops with local stakeholders to test the results of the different work packages. Instead, the project has decided to organise a series of online workshops and webinars in which the work packages will be able to present their results to, and gain feedback from, local stakeholders in the Urban Living Labs, amongst others in Wuhan. The workshops will be held in the period of July-September 2020. Their results will be added to this report, and an updated version of the document will be made available in autumn 2020.

3 TIANJIN

Tianjin is a coastal metropolis in northern China and one of the nine national central cities of China. In terms of urban population, Tianjin is the fourth largest city in China, after Shanghai, Beijing, and Guangzhou, and it is the largest coastal city in northern China with a total population of 15,621,200 (WIKIPEDIA 2018 a). The city's GDP reached 1.86 trillion Yuan in 2017, ranked sixth amongst China's cities (China Daily 2018). Tianjin also has economic and technological development zones. Amongst these zones in Tianjin is the Tianjin Port Free Trade Zone, the largest free trade zone in northern China. It lies 30 kilometres from Tianjin city, less than 1 kilometre from the wharf and 38 kilometres from Tianjin Binhai International Airport (WIKIPEDIA 2018 a; TRANS-URBAN-EU-CHINA 2019)

Tianjin became TRANS-URBAN-EU-CHINA's Urban Living Lab in May 2018, with an official launch ceremony during the 2018 EU-China Forum on Sustainable Urban Development. In October 2018, NTNU and CCUD visited Tianjin for discussing the action plan of the Tianjin Living Lab with local stakeholders. In May 2019, during the 2019 EU-China Forum on Sustainable Urban Development, TRANS-URBAN-EU-CHINA experts had a joint workshop with local stakeholders from the Tianjin Free Trade Zone on how to develop the area into a more liveable and mixed-use physical environment in which people would want to live, not only work. The workshop in May 2020 was cancelled due to COVID-19.

3.1 EU-CHINA FORUM ON SUSTAINABLE URBAN DEVELOPMENT (MAY 2018)

3.1.1 EVENT DESCRIPTION

The 2018 EU-China Forum on Sustainable Urban Development was hosted by CCUD (China Centre for Urban Development), an agency under the National Development and Reform Commission (NDRC) and TRANS-URBAN-EU-CHINA partner. The Forum took place on 18 May in Tianjin, is organised on an annual basis and has become a meeting place for European and Chinese city representatives, experts,

corporate leaders as well as other stakeholders from EU and China to exchange ideas around sustainable urbanization. The annual forum has become one of the measures for implementing the joint declaration on the EU-China partnership on urbanization signed in 2012 with its cooperation platform for matching practical cooperation projects. The 2018 Forum was co-hosted by the Tianjin Port Free Trade Zone, a new urban extension in Tianjin with mixed use of housing and industry.

3.1.2 TRANS-URBAN-EU-CHINA ACTIVITIES

At the recommendation of CCUD, the Tianjin Port Free Trade Zone approached the TRANS-URBAN-EU-CHINA team for discussing the possibility to make the Free Trade Zone an Urban Living Lab in the project. A series of initial meetings were organised to introduce the TRANS-URBAN-EU-CHINA project and the Tianjin Port Free Trade Zone and to discuss joint interests. After having established a mutual agreement to use the Tianjin Port Free Trade Zone as Living Lab, Tianjin was formally launched as the first TRANS-URBAN-EU-CHINA Living Lab by the project coordinator, Living Lab members and Tianjin leaders during a public ceremony organised within the 2018 EU-China Forum.

3.1.3 OUTCOMES AND LEARNING

The Tianjin Port Free Trade Zone became the first TRANS-URBAN-EU-CHINA Living Lab, which was a milestone for the project. It was a unique opportunity to be able to launch the Living Lab in public already during the 2018 Forum in the presence of high-level European and Chinese decision makers. The details of the specific activities the Living Lab would include, and how to interact with local residents and professional stakeholders, were yet to be developed.

3.2 STUDY TRIP TO TIANJIN (OCTOBER 2018)

3.2.1 EVENT DESCRIPTION

On 19 October, TRANS-URBAN-EU-CHINA partners NTNU and CCUD made a study trip to the Tianjin Port Free Trade Zone and met with the key stakeholders of the Tianjin ULL, Mr. ZHENG Jian and Mr. ZHOU Nan of the Tianjin Free Trade Zone Administrative Committee. During this visit, the TRANS-UR-BAN-EU-CHINA team further developed and discussed concrete plans for the Tianjin Living Lab.

3.2.2 TRANS-URBAN-EU-CHINA ACTIVITIES

After the official launch of the Living Lab, the Tianjin Free Trade Zone Administrative Committee had organised facilities for a Living Lab office with exhibiting and working space for the TRANS-URBAN-EU-CHINA team on site. It was a priority to attract investments from industry and to get businesses established in the area to the Administrative Committee. While the facilities were highly appreciated, the industry priorities did not align with the ambition of the TRANS-URBAN-EU-CHINA project.

The TRANS-URBAN-EU-CHINA team hence engaged in additional discussions with the Administrative Committee to better understand the ambitions for the Tianjin Port Free Trade Zone and to identify common ground for further cooperation. This common ground was found in the upgrading of the physical environment of the Free Trade Zone, workspaces as well as housing and outdoor areas, to make the area more attractive for staff members to work and live in and to attract more foreign companies.

3.2.3 OUTCOMES AND LEARNING

The outcome of this study trip was a common understanding between the TRANS-URBAN-EU-CHINA team and the Tianjin Living Lab staff regarding the main priorities and challenges the Living Lab could address. Based on this common understanding the 2019 activities at the Tianjin Living Lab were planned, including an on-site workshop with local companies and residents to discuss how to improve spatial quality in the Free Trade Zone.

3.3 TIANJIN STAKEHOLDER WORKSHOP (MAY 2019)

3.3.1 EVENT DESCRIPTION

The 2019 EU-China Forum on Sustainable Urban Development took place on 17 May 2019 in Tianjin. TRANS-URBAN-EU-CHINA partners NTNU, CCUD, EUR, AIT, ISCI, TJU-CIUC and CAUPD joined the forum. During the forum, NTNU presented updates regarding the Tianjin Living Lab, EUR introduced the EU-China city cooperation and the updates on reference cities in Europe, and AIT presented their work in a session on the future of EU-China smart cities.

On 18 May, the TRANS-URBAN-EU-CHINA team organised a joint workshop with representatives of the Free Trade Zone administration, with companies who have their branch offices in the Free Trade Zone and residents as well as expert representatives of JPI Urban Europe projects. The workshop was organised in the form of a Knowledge Café with interactive discussions in mixed groups. During the workshop the participant groups discussed the spatial quality of the Free Trade Zone as a working and living environment and potential measures to upgrade the area. The group discussions during the workshop were supported by TRANS-URBAN-EU-CHINA's Community of Communities (CoC) (TRANS-URBAN-EU-CHINA 2020).

3.3.2 TRANS-URBAN-EU-CHINA ACTIVITIES

The workshop started with a brief introduction of the TRANS-URBAN-EU-CHINA project and the purpose of the workshop in creating socially inclusive cities in Europe and China. The Tianjin Port Free Trade Zone presented the current planning of the area, which clearly showed that the area currently is designed as a traditional industry park rather than a mixed use area in which it is comfortable to live. It was built for motorised traffic rather than people and lacks most daily life facilities.

After the introductions, the participants were divided into mixed groups to discuss three pertinent questions:

Group discussion 1: What are the challenges you experience in the physical environment of the Free Trade Zone?

- When you are in the industry park, what makes you feel uncomfortable?
- What is the worst industry park you have visited and why it is the worst?
- Could this worst case example happen in this industry park? If yes, how?

Group discussion 2: What is the ideal living and working space in this industry park?

- What would be your ideal space for working and living in this industry park?
- What is the best industry park you have visited?
- Can the best practices of the other industry parks be copied to this industry park? If yes, how?

Group discussion 3: How to transform the problem space into an ideal living and working place?

- What kinds of actions would be required to make the problem space into an ideal place?
- Can the TRANS-URBAN-EU-CHINA Living Lab help to improve the space? If yes, how to do it?

Based on the discussion, the TRANS-URBAN-EU-CHINA team learned that the planning of the Free Trade Zone emphasised industrial activities and had less considerations for the people who would live in this area. After years of development, more and more employees from the companies in the Free Trade Zone are choosing to live in this area as it reduces commuting time; this has increased the pressure to the current facilities in the Free Trade Zone to deliver a suitable living environment.

Furthermore, the living environment in the Free Trade Zone was designed in the assumption that everyone would drive a car, making it difficult for pedestrians to walk on the street and to get their daily supplies in an area of walkable distance.

The TRANS-URBAN-EU-CHINA team and Tianjin Port Free Trade Zone Administrative Committee agreed that the Tianjin Living Lab would be able to contribute to uncover the challenges and opportunities for making the Free Trade Zone a more liveable and mixed-use environment and to propose potential solutions and approaches for working with the local community of stakeholders to co-create such a living and working environment.

3.3.3 OUTCOMES AND LEARNING

Via the workshop, the TRANS-URBAN-EU-CHINA team gained first-hand feedback from local stakeholders of the Tianjin Living Lab. Based on these feedbacks, the project will analyse how the work being developed in the TRANS-URBAN-EU-CHINA work packages will be relevant for the Tianjin stakeholders, and how it can be translated to local context for use in the Free Trade Zone. The workshop also demonstrated the value of mixed group discussions among experts and stakeholders as a pathway towards developing hands-on ideas for a sustainable social inclusive city.

4 XIONG'AN

The Xiong'an New Area is a state-level new area about 100 kilometres southwest of Beijing in the Baoding area of Hebei province. Established in April 2017, its main functions will be to serve as a development hub for the Beijing-Tianjin-Hebei (Jingjinji) economic triangle as well as becoming the new host for non-capital functions that are currently situated in Beijing. This will include offices of selected government agencies, research and development facilities and state-owned enterprises (WIKIPEDIA, 2018 b). The China Academy for Urban Planning and Design (CAUPD) is responsible for developing the Master Plan for the Xiong'an New Area and is working on designing its digital planning platform (TRANS-URBAN-EU-CHINA 2019).

With TRANS-URBAN-EU-CHINA partner CAUPD being in a central role regarding the development of the Xiong'an area, this area was proposed as an extra-ordinary Living Lab for the TRANS-URBAN-EU-CHINA project. The urban area does not yet exist and there are no local stakeholders with which to cooperate; however, this is a good opportunity for the TRANS-URBAN-EU-CHINA project to give input to the planning of the Xiong'an area regarding important principles for socially inclusive cities.

4.1 CHINA-EU CONFERENCE ON SUSTAINABLE URBANISATION (DECEMBER 2018)

4.1.1 EVENT DESCRIPTION

The development of the Xiong'an New Area was chosen as the core theme of the EU-China Conference on Smart City Development, hosted by CAUPD in December 2018. The construction of the Xiong'an New Area is of national significance and will support similar initiatives planned for the Shenzhen Special Economic Zone and the Shanghai Pudong New Area.

The first China-EU Conference on Sustainable Urbanisation was held at CAUPD on 26 October 2017 aiming to gather and present information that could help shape the development of the Xiong'an New Area. The second high-level China-EU Conference on Sustainable Urbanisation was held in Beijing on 12 December 2018. The focus of this conference was "Smart City Development in Xiong'an New Area".

4.1.2 TRANS-URBAN-EU-CHINA ACTIVITIES

The conference, hosted by TRANS-URBAN-EU-CHINA partner CAUPD, started with an overview of the status of the Xiong'an New Area Planning process presented by CAUPD president Baojun YANG. Director General Jean-Eric Paquet of the European Commission Directorate-General for Research and Innovation reviewed the EU-China cooperation on sustainable urbanization. Experts from the URBAN-EU-CHINA and TRANS-URBAN-EU-CHINA projects presented their preliminary results and potential recommendations towards the Xiong'an New Area.

During a roundtable discussion, EU-China experts shared their recommendations on how to use the planning of the new area as an instrument for dealing with environmental crisis, using resources efficiently and effectively in order to protect our planet. Xiong'an as national role model has adapted this vision, which will be a new practice in China.

In the afternoon, three parallel sessions were held around the challenges of green ecological sharing, culture-enabled social inclusive cities and key technologies for a digital urban planning platform. Almost all TRANS-URBAN-EU-CHINA partners participated in this conference and made active contributions to the presentations, roundtable discussion and parallel sessions.

4.1.3 OUTCOMES AND LEARNING

The Xiong'an Conference showcased the latest process of the project which also gathered the key players who implement the projects in Xiong'an New Area. The conference provided a public stage for the TRANS-URBAN-EU-CHINA team to present its preliminary findings and to become more familiar with other experts' opinions on this national role model. Equally important were the preparatory meetings with CAUPD to shape the programme and to discuss the scope and structure of prioritised topics for the roundtable discussions and parallel sessions.

5 JINGDEZHEN

Jingdezhen is a prefecture-level city in North-Eastern Jiangxi province with a total estimated population of 1,654,000 (2016) (CITY POPULATION 2018). Jingdezhen is known as the "Porcelain Capital" because it has been producing pottery for 1,700 years, and the city has a well-documented history that stretches back over 2,000 years. Jingdezhen is an attractive destination for tourists in the Northern Jiangxi Province. The majority of the city's tourist attractions are linked to the ceramics for which it is famous (WIKIPEDIA, 2018c). Jingdezhen is an important industrial and commercial base in the North-Eastern part of Jiangxi and achieved a GDP of 85 billion RMB in 2016 (HKTDC RESEARCH, 2018) (TRANS-URBAN-EU-CHINA 2019).

The TRANS-URBAN-EU-CHINA team has organised two workshops with the local and regional authorities in Jingdezhen coordinated by CAUPD. The first joint workshop took place on 5 September 2018 in the Forbidden City in Beijing. During this meeting, the TRANS-URBAN-EU-CHINA project and Jingdezhen Municipality signed a cooperation agreement to make Jingdezhen a TRANS-URBAN-EU-CHINA Living Lab.

The second event took place in Jingdezhen on 17-18 Oct 2018. A group of TRANS-URBAN-EU-CHINA partners organised a study visit to Jingdezhen to learn more about the city and to meet local and regional decision makers. The study visit to Jingdezhen included a workshop between TRANS-URBAN-EU-CHINA partners and Jingdezhen municipality as well as site visits to potential locations for a Living Lab office and other sites of interest in the city and region.

5.1 FORBIDDEN CITY WORKSHOP WITH JINGDEZHEN MUNICIPALITY (SEPTEMBER 2018)

5.1.1 EVENT DESCRIPTION

In the week of 3-7 September 2018, the TRANS-URBAN-EU-CHINA project organised its first consortium meeting and workshop in Beijing, hosted by CAUPD. During this week, CAUPD organized a workshop with leaders from Jiangxi Province and Jingdezhen. The workshop was held in the Forbidden City on 5 September 2018.

The workshop aimed to conclude an agreement with Jingdezhen municipality to become the 2nd TRANS-URBAN-EU-CHINA Living Lab. In addition to TRANS-URBAN-EU-CHINA experts, the workshop was attended by the Vice Minister of the Chinese Ministry of Housing and Urban Rural Development, by the deputy head of the EU Delegation to China, Chris Wood, as well as by leaders of CAUPD.

5.1.2 TRANS-URBAN-EU-CHINA ACTIVITIES

During the workshop the cooperation agreement was signed, and Jingdezhen was officially announced as a TRANS-URBAN-EU-CHINA Living Lab. The agreement specified that Jingdezhen would explore the approaches and pathways to make a digital strategy for Jingdezhen as a platform to display its rich long history and to interact with the world via modern technology. It was the ambition of Jingdezhen to accelerate the urban transformation from a traditional ceramic industrial city to a city of tourism and cultural and creative industry. The municipality of Jingdezhen hoped that TRANS-URBAN-EU-CHINA could help to make that happen.

5.1.3 OUTCOMES AND LEARNING

The workshop helped the project to identify the second Urban Living Lab and to create a common understanding with local and regional decision makers regarding priorities for the Living Lab cooperation. The concrete collaboration activities that would take place in the Living Lab were not yet identified but were discussed during a follow-up study visit to Jingdezhen in October.

5.2 STUDY TRIP AND WORKSHOP IN JINGDEZHEN (OCTOBER 2018)

5.2.1 EVENT DESCRIPTION

A TRANS-URBAN-EU-CHINA team of representatives from NTNU, CAUPD and POLITO, as well as representatives from the EU Delegation to China, the European Union Chamber of Commerce in China and the Royal Danish Embassy in Beijing had a study visit to Jingdezhen on 17-18 October 2018. During the study visit the TRANS-URBAN-EU-CHINA team had a workshop with local and regional decision makers in Jingdezhen to discuss concrete cooperation activities and topics.

5.2.2 TRANS-URBAN-EU-CHINA ACTIVITIES

During the study tour the TRANS-URBAN-EU-CHINA team visited important landmarks in and around Jingdezhen, including the site of the Living Lab office, a heritage building that at that point in time was being refurbished.

For the cooperation on the Jingdezhen Living Lab, both the old town of Jingdezhen with heritage and cultural creative businesses and Changnan, the new expansion area of Jingdezhen, are relevant for cooperation as they relate to different work packages of the TRANS-URBAN-EU-CHINA project. The cooperation will be facilitated by TRANS-URBAN-EU-CHINA partner CAUPD.

During the workshop partners from Europe presented their experiences regarding Living Labs, urban regeneration to improve liveability and inclusiveness and how to include cultural and natural heritage in an overall sustainability strategy for the city.

CAUPD discussed their more comprehensive cooperation plans with Jingdezhen at that time, including:

- Creating a cultural city index for Jingdezhen
- Organizing a high-level EU-China forum in Jingdezhen
- Helping Jingdezhen to build a Living Lab office in the old town
- Building a digital Jingdezhen platform to promote the city for city management and citizen participation and engagement
- Developing a smart neighbourhood/town in Jingdezhen

Jingdezhen municipality presented their vision to become a green sustainable city. This includes a dual focus: to protect the heritage and history district in the old town as well as developing the Changnan New Area. While the city needs an expansion area it also wants to protect the natural environment, both within and outside of the city.

These priorities were discussed as important topics of cooperation for the Jingdezhen Living Lab linking to multiple work packages of the TRANS-URBAN-EU-CHINA project related to community building and heritage conservation, urban expansion and regeneration, smart eco-city development and a smart data to inform urban strategies.

5.2.3 OUTCOMES AND LEARNING

The study trip and workshop gave the TRANS-URBAN-EU-CHINA team the opportunity to gain insight in the priorities of Jingdezhen officials and to discuss concrete activities for further cooperation. The location of the Living Lab office was settled. However, shortly after this visit, there was a political shift among Jingdezhen officials. The new decision makers could unfortunately not prioritise the already established cooperation agreement, and further Living Lab activities were hence not operationalised.

6 WENJIANG (CHENGDU)

The Wenjiang district is one of the 11 districts of Chengdu, the capital city of the Sichuan province with a population of 522,600 and an area of 277 square kilometres (Baidu 2018). Wenjiang is located at the west of Chengdu and used to be an independent county in the municipality of Chengdu. In 2002, Wenjiang became a district of Chengdu. The 2018 annual GDP reached 54.5 billion RMB, an increase of 8.8% compared with 2017 (Baidu 2018).

Wenjiang aims to become a high-quality liveable city. In recent years, it has explored a reform of neighbourhood level governance and has experimented with involving local communities and other local stakeholders to join the management of the community.

TRANS-URBAN-EU-CHINA partner Tsinghua University co-hosted an international conference on community building in Wenjiang in August 2019 and invited several project partners to join the event. This gave the TRANS-URBAN-EU-CHINA team the opportunity to observe and participate in the local practice of government-initiated multi-stakeholder community building.

6.1 INTERNATIONAL FORUM AND WORKSHOP ON COMMUNITY PLANNING (AUGUST 2019)

6.1.1 EVENT DESCRIPTION

The 2019 International Forum and Workshop on Community Planning took place in Chengdu (Wenjiang) on 29-30 August 2019 with Community Building for A Healthy & Inclusive City as a core theme. The event was organized by the Urban-Rural Community Development and Governance Committee of Chengdu Wenjiang District CPC Committee.

During the event, the challenges, opportunities and development visions of community development and governance were discussed, including key concepts such as community planning, healthy community and inclusive community. The conference is a summary of the recent projects in Wenjiang regarding community building, co-creation of neighbourhood public space and experimental measures of creating multi-stakeholder partnerships.

6.1.2 TRANS-URBAN-EU-CHINA ACTIVITIES

TRANS-URBAN-EU-CHINA Work Package 1 "Community building and placemaking in neighbourhoods" was actively involved in the preparation and implementation of this event. WP1's research activities perfectly matched with the ongoing practices in Wenjiang on community building and involving local inhabitants and other stakeholders on decision making in neighbourhood level governance.

WP1 co-lead Tsinghua University engaged in intensive cooperation with district of Wenjiang regarding the reform and innovation of governance at neighbourhood level, and WP1 helped Wenjiang to cocreate healthy, comfortable, home-feeling, easily accessible public spaces in the neighbourhood. The WP1 team also contributed to create partnerships between government, property management companies and local residents in the management of the living environment in the community.

6.1.3 OUTCOMES AND LEANRING

The Wenjiang conference on community building showcased the ongoing movement of reform on neighbourhood governance and enabled the TRANS-URBAN-EU-CHINA members to contribute to this experiment. The conference brought together many experts in this field to meet each other and exchange ideas about community building, neighbourhood placemaking and multi-stakeholder partnerships.

6.2 INTERNATIONAL COMMUNITY URBAN DESIGN COMPETITION (AUGUST 2019)

6.2.1 EVENT DESCRIPTION

The 2019 International Competition for Creative Design of Community Life Space in Chengdu (Wenjiang) aimed to attract talents from all over the world to provide Wenjiang with the theoretical and practical support to achieve high-quality urban-rural community development and high-efficiency governance in the new era. The competition was announced in May 2019 with the deadline 31 July 2019.

The competition encompassed the urban design of 15 sites located in 11 communities in Wenjiang. The sites were composed of streets/squares, community centres and neighbourhood public spaces. The participants were tasked with delivering a space where the interaction between neighbours could take place encouraging participatory design among community members.

6.2.2 TRANS-URBAN-EU-CHINA ACTIVITIES

On 29 August, the TRANS-URBAN-EU-CHINA team, including Tsinghua, POLITO, TUD, CASTED and NTNU, participated as jury members to evaluate competition proposals. In the morning, the jury members were taken to the 15 sites for a short study visit in order to understand the context of the sites.

The jury members were divided into 3 groups. Each group assessed 10 proposals selected from a total of 100 design proposals. The jury selected 1 proposal for the best design award, 4 proposals for the most valuable design prize and 8 proposals for the most potential design prize. The jury was composed of architects and urban designers in addition to social scientists, government officials and community building innovators.

6.2.3 OUTCOMES AND LEARNING

The competition gathered good ideas and possible solutions for placemaking in local communities. This formed an excellent source of information for WP1. By being part of the jury, the TRANS-URBAN-EU-CHINA team was also able to discuss in-depth with Chinese experts and to learn different opinions and practices within community-based placemaking.

6.3 EXPERTS-COMMUNITY STAKEHOLDERS' WORKSHOPS (AUGUST 2019)

6.3.1 EVENT DESCRIPTION

The TRANS-URBAN-EU-CHINA team was invited to three parallel workshops for experts-community discussion on multi-stakeholder partnerships and neighbourhood governance on 31 August. The workshops took place in the local community centres. In addition to the invited experts, government officials of the neighbourhood, managers from the neighbourhood property management company and representatives of local inhabitants joined the workshops. Three types of neighbourhoods were represented: commercial residential areas after 2015, commercial residential areas before 2015 and villages.

6.3.2 TRANS-URBAN-EU-CHINA ACTIVITIES

During the workshop, the TRANS-URBAN-EU-CHINA team joined discussions on how to create effective partnerships between different stakeholders and could gain first-hand insights regarding challenges in the new types of neighbourhoods. The workshop has uncovered a range of challenges.

The commercialization of the housing market in China, which gave people an opportunity to trade housing in the market, started in the 1990s. Since then, China has been in a process of fast urbanization, which had significant impacts on traditional neighbourhood relationships that used to be based on blood and working relationships.

In the urban area of Wenjiang as well as in other Chinese cities, this new neighbourhood relationship mostly came into being in communities where residents bought housing from real estate developers. Such communities typically are new neighbourhoods built by real estate developers in recent years. People move to the neighbourhood almost at the same time, and they never met or knew each other before.

Some of the issues that were addressed, were that the property management company was not designated by the community but provided by the developer. The neighbourhood level government (community committee) had less capacity to deal with all the cases and issues in the neighbourhood. The property management company responsible for the maintenance of the living environment lacked funding to perform their tasks.

These and other challenges were discussed by the community representatives and experts to identify potential solutions creating more socially inclusive communities.

6.3.3 OUTCOMES AND LEARNING

The workshops have brought to the surface the challenges the reform of the housing market has created and allowed the TRANS-URBAN-EU-CHINA team to discuss how the situation could be improved to secure the rights of residents in a close partnership between government, property managers and residents.

7 SUMMARY OF ULL ACTIVITIES

The following table shows an overview of the interactions between the Urban Living Lab's and TRANS-URBAN-EU-CHINA work packages (table 1):

| No. | Name of the activity | Date | ULL city | Local Stakeholders in- volvement | Type of activity | WPs involve- ment |
|-----|--|-------------------|------------|---|--|----------------------|
| 1 | 2018 UN-HABITAT Placemaking week in Wuhan | Dec 2018 | Wuhan | Researchers, stu- dents, local commu- nities, city admin- istration, real estate developer | Conference, fieldwork, workshop and training course | WP 2, 3, and 5 |
| 2 | UN-HABITAT Summer school in Wuhan | Aug 2019 | Wuhan | Researchers, stu- dents, local commu- nities, city admin- istration, | Fieldwork, Summer School, and Knowledge Café | WP 1, 4 and 5 |
| 3 | Wuhan Living Lab workshops | Nov 2019 | Wuhan | Researchers, stu- dents, local commu- nities, city admin- istration, real estate developer | Fieldwork, workshop and Knowledge Café | WP 1-5 |
| 4 | WLSP staff exchange to NTNU | Jan-March 2020 | Wuhan | city administration | Training course, and workshop | WP 1 and 5 |
| 5 | 2020 World urban forum special event for Wuhan | Feb 2020 | Wuhan | Researchers and city administration, | Workshop | WP 5 |
| 6 | online interview with Wuhan University | Mar 2020 | Wuhan | Researchers | Online inter- views | WP 5 |
| 7 | 2018 EU-China Forum on Sus- tainable Urban Development | May 2018 | Tianjin | city administration, researchers, | Conference | WP 2 and 5 |
| 8 | TRANS-URBAN-EU-CHINA study trip to Tianjin | Oct 2018 | Tianjin | city administration | Fieldwork | WP 5 |
| 9 | TRANS-URBAN-EU-CHINA Tian- jin stakeholder workshop 2019 | May 2019 | Tianjin | Researchers, local communities, city ad- ministration, indus- tries | Workshop and Knowledge Café | WP 1, 4, 5 |
| 10 | 2018 EU-China conference on Smart City Development in Xiongan New Area | Dec 2018 | Xiongan | Researchers, city ad- ministration, national ministries and indus- tries | Conference | WP 1-5 |
| 11 | International community plan- ning conference | Aug 2019 | Wenjiang | Researchers, stu- dents, local commu- nities, city admin- istration, property manager | Conference | WP 1 and 5 |
| 12 | International community urban design competition | Aug 2019 | Wenjiang | Researchers, local communities, city ad- ministration | Workshop | WP 1 and 5 |
| 13 | Experts-community workshops | Aug 2019 | Wenjiang | Researchers, local communities, city ad- ministration, real es- tate developer/man- agement | Workshop | WP 1 and 5 |
| 14 | Jingdezhen municipality- TRANS-URBAN-EU-CHINA work- shop in forbidden city | Sep 2018 | Jingdezhen | Researchers, city ad- ministration, national ministries and indus- tries | Workshop | WP 1-5 |
| 15 | TRANS-URBAN-EU-CHINA study trip and second ground work- shop in Jingdezhen | Oct 2018 | Jingdezhen | Researchers, city ad- ministration, local community and in- dustries | Fieldworks and workshop | WP 1 and 5 |

Table 1. Overview of ULL activities and interactions with TRANS-URBAN-EU-CHINA work packages

Table 2 shows the number and frequency of cooperative activities between the TRANS-URBAN-EU-CHINA project and each Living Lab with Wuhan having the most intensive Living Lab interaction, Tianjin and Wenjiang with medium interaction and Jingdezhen and Xiong'an low levels of interaction.

| ULL City | Activities (times) | Level of interaction |
|------------|--------------------|----------------------|
| Wuhan | 6 | High |
| Tianjin | 3 | Medium |
| Jingdezhen | 2 | Low |
| Xiongan | 1 | Low |
| Wenjiang | 3 | Medium |

Table 2. Frequency of activities in each ULL city

When structured according to the type of interaction, workshops with local stakeholders and decision makers have been the most frequent type of activity followed by local fieldwork and public conferences (table 3)

| Type of activity | Times of the activity |
|------------------|-----------------------|
| Conference | 4 |
| Fieldwork | 5 |
| workshop | 9 |
| Training course | 2 |
| Online interview | 1 |
| Knowledge café | 2 |
| Summer school | 1 |

| Table 3. | Type of | activity i | in ULL | cities |
|----------|---------|------------|--------|--------|
|----------|---------|------------|--------|--------|

Table 4 gives an overview according to the involvement of the types of stakeholders that participated in the ULL activities: researchers, city administration, local community, industries, real estate developers, students, property managers and national ministries. Researchers, city administrations and local communities have been the target group with the most frequent participation in the ULL activities.

| Type of stakeholders | Times of participation |
|-----------------------|------------------------|
| researchers | 13 |
| city administration | 14 |
| local community | 8 |
| industries | 4 |
| real estate developer | 4 |
| students | 4 |
| property manager | 1 |
| national ministries | 2 |

Table 4. Stakeholder participation in ULL activities

Structured according to the involvement of the TRANS-URBAN-EU-CHINA work packages in the ULL activities, WP1-4 have all been actively involved (table 5).

| WP | Times of involvement |
|----|----------------------|
| 1 | 7 |
| 2 | 6 |
| 3 | 5 |
| 4 | 6 |

Table 5. WP 1-4 participation to ULL activities

8 CONCLUSIONS

This preliminary report shows that creating and managing Living Labs in China is a long-term process that requires extensive hands-on engagement. Interests and priorities need to be continuously realigned, and there is a chance that the Living Lab disappears due to political shifts or other societal developments. The final version of this report, to be submitted in December 2020, will include the results of the digital ULL Expert Workshops held between June and September 2020, reflections from the individual Work Packages regarding their interactions with the ULLs, and a comparative analysis of these experiences with the scientific literature in this field.

In order to make the Living Lab robust engaging in intensive cooperation with multiple stakeholders in the same area is recommended. In fact, stakeholder participation was identified as the main driver for creating successful Living Labs. In the TRANS-URBAN-EU-CHINA project this included clarifying expectations with local decision makers and stakeholders, upholding a continuous dialogue in order to support mutual understanding, aligning the Living Lab in local priorities to build trust and accountability and anchoring the work in local universities and research organisations. Engaging a local partner or stakeholder that can facilitate the cooperation with local stakeholders is a necessity.

Despite these challenges, the TRANS-URBAN-EU-CHINA Living Lab work in five Chinese cities, as described in this report, clearly showcases the highly valuable potential of Living Labs as meeting arenas to support socially integrative cities where participants can experiment with practical ideas and solutions towards a more inclusive and sustainable every-day life. As such, Living Labs are not just local temporary testbeds. They can trigger changes in local community practices in the longer term.

Our main recommendation is therefore to create the Living Lab as a flexible structure that is able to absorb the (changing) interests and priorities of local decision makers and stakeholders and to continuously secure that the Living Lab remain relevant for all parties involved. This is a complex long-term process that requires ample resources in terms of time, people, capital and patience – and stretches far beyond the scope of one individual three-year project. During the final 6 months of the TRANS-URBAN-EU-CHINA project additional efforts will therefore be made to secure the continued cooperation with the most successful Living Labs beyond the project's lifetime.

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