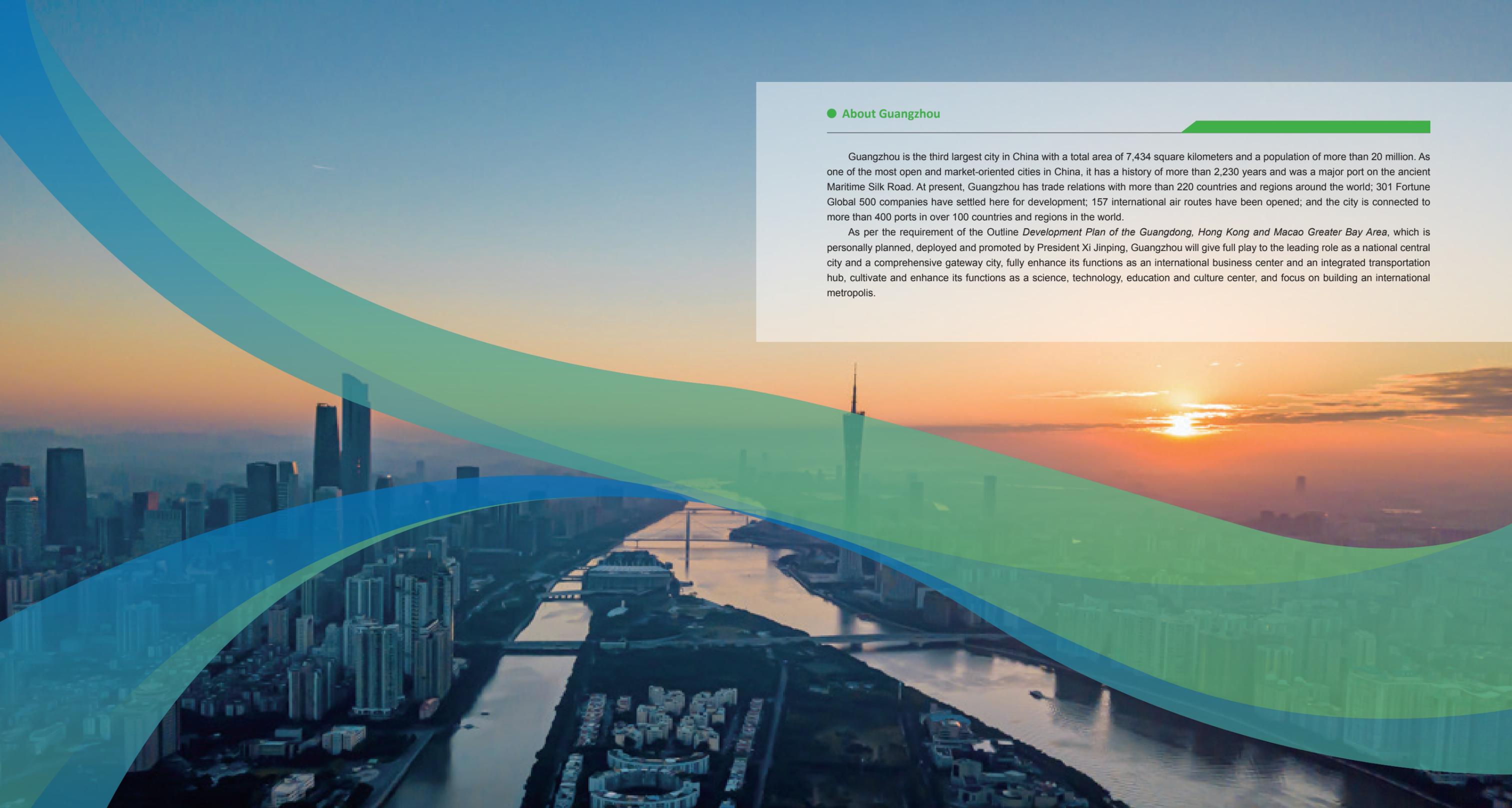




**SUMMARIES OF 45 CITY INITIATIVES
FROM THE 2018 GUANGZHOU INTERNATIONAL AWARD
FOR URBAN INNOVATION**

Nicholas You
in collaboration with
Elisa Silva, Enrique Silva and Belinda Yuen

Secretariat of Guangzhou International Award for Urban Innovation
Guangzhou Institute for Urban Innovation



● About Guangzhou

Guangzhou is the third largest city in China with a total area of 7,434 square kilometers and a population of more than 20 million. As one of the most open and market-oriented cities in China, it has a history of more than 2,230 years and was a major port on the ancient Maritime Silk Road. At present, Guangzhou has trade relations with more than 220 countries and regions around the world; 301 Fortune Global 500 companies have settled here for development; 157 international air routes have been opened; and the city is connected to more than 400 ports in over 100 countries and regions in the world.

As per the requirement of the *Outline Development Plan of the Guangdong, Hong Kong and Macao Greater Bay Area*, which is personally planned, deployed and promoted by President Xi Jinping, Guangzhou will give full play to the leading role as a national central city and a comprehensive gateway city, fully enhance its functions as an international business center and an integrated transportation hub, cultivate and enhance its functions as a science, technology, education and culture center, and focus on building an international metropolis.

● About Guangzhou Award

The Guangzhou International Award for Urban Innovation (the Guangzhou Award) is co-sponsored by the United Cities and Local Governments (UCLG), the World Association of the Major Metropolises (Metropolis) and the City of Guangzhou, aiming to recognise innovation in improving social, economic and environmental sustainability in cities and regions and, in so doing, to advance the prosperity and quality of life of their citizens. Being a biennial award, Guangzhou Award has held four cycles since 2012, with over 1,000 initiatives submitted, engaging more than 480 cities and local governments from over 90 countries and regions. Going forward, the Guangzhou Award will strive for becoming the global laboratory for urban innovation and city's library of guides to SDGs.

● About the Authors

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INTRODUCTION

This compilation of briefs is derived from the 2018 (4th cycle) of the Guangzhou Award for Urban Innovation. Urban innovation, in the context of the Award, consists of new policies, new strategies, new business models, new partnerships, new governance systems, and the use of new technologies. The Award is aligned with the 2030 Agenda for Sustainable Development, namely the Sustainable Development Goals and the New Urban Agenda. Together with its co-sponsors, UCLG and Metropolis, the purpose of the Award is to support city-to-city cooperation and peer learning.

The 4th cycle of the Award solicited 313 submissions from 70 countries. An independent Technical Committee of experts, reporting to the 7th UCLG-ASPAC Congress¹, assessed these submissions in two-stages. The first stage involved selecting 45 deserving initiatives; the second stage consisted of selecting a shortlist of 15.

All fifteen shortlisted cities were invited to an international learning conference held in Guangzhou, China in December 2018. This conference was designed to focus not just on WHAT the cities or regions achieved, but more importantly on the HOW, and on the lessons learned.

An independent jury of seven members was embedded in the audience of the Conference. After all the 15 shortlisted initiatives had made their presentations, the Jury decided on 5 award-winning initiatives.

In the interim period between award cycles, all fifteen shortlisted cities become the focus of case studies, are used as living practices in conferences, seminars and leadership development workshops, and are invited to host study tours by practicing professionals, city officials and the media.

We very much welcome your feedback on these briefs and your help in disseminating these compelling and often unique stories.

Nicholas You
Executive Director
Guangzhou Institute for Urban Innovation

^[1] United Cities and Local Government, Asia Pacific: "Innovation Driven Development for Sustainable Cities", Surabaya, 12-15 September 2018.

LIST OF 15 SHORTLISTED CITIES

(IN ALPHABETICAL ORDER OF THE COUNTRY)

No.	City / Local Government	Initiative
1.	Santa Fe, Argentina	Santa Fe's Western Urban Natural Reserve: Embracing the Hydroclimatic Risks
2.	Sydney, Australia	Green Square: From a Rich Industrial Past to a Vibrant, Sustainable and Connected Community
3.	Salvador, Brazil	- Environmental Recovery Program of the Canabrava Park - Caravana da Mata Atlântica
4.	Repentigny, Canada	A City for All
5.	Wuhan, China	The "Rebirth" of Urban Waste Dump – Ecological Treatment and Return of Plurality
6.	Yiwu, China	Innovating Foreign Service Initiatives to Build a Harmonious and Integrated Yiwu
7.	Santa Ana, Costa Rica	Santa Ana en Cleta: Active Mobility and Empowerment of Women
8.	Surabaya, Indonesia	Public Participatory in 3R Waste Management for Better Surabaya
9.	Milan, Italy	Milan Food Policy: An Innovative Framework for Making Urban Food System More Sustainable, Inclusive
10.	Guadalajara, Mexico	Citizen-Led Metropolitan Coordination of Guadalajara
11.	Utrecht, Netherlands	Localizing the SDGs through Multi-Stakeholder Partnerships
12.	Kazan, Russia	Innovative Social and Economic Development of the City of Kazan
13.	eThekweni, South Africa	- Incremental, Participatory, Programmatic Informal Settlement Upgrading Programme - Partnerships with the Private Sector to Achieve Sustainable Sanitation Service Provision
14.	Mezitli, Turkey	Mezitli Women Producers Market
15.	New York, United States	Global Vision Urban Action: New York City's Voluntary Local Review (VLR) of the Sustainable Development Goals (SDGs)

LIST OF 30 DESERVING CITIES

(IN ALPHABETICAL ORDER OF THE COUNTRY)

No.	City / Local Government	Initiative
1.	Brussels-Capital Region, Belgium	Canal Plan: An Innovative Planning Approach for the Brussels-Capital Region
2.	Dangbo, Benin	Valorization of Water Hyacinth in Compost
3.	Federal District, Brazil	Acting to Transform: Social Control and Transparency
4.	Vancouver, Canada	Northeast False Creek Plan
5.	Vaudreuil-Dorion, Canada	I AM.../Citizen Involvement, Culture and Sustainable Development
6.	Guangzhou, China	Guangzhou 12345 Government Service Hotline
7.	Nanning, China	Developing Beautiful South Pastoral Complex and narrowing urban-rural gap
8.	Hong Kong, China	T Park
9.	Bogota, Colombia	- Urban Transformations for Inclusion - www.sexperto.co Digital Platform for Information on Reproductive Health and Access to Health Service - Coexistence and Respect for Difference: A Social Inclusion of the Lesbian, Gay, Bi-sexual, Transgender
10.	Curridabat, Costa Rica	Date Tu Casa (Give Yourself a House)
11.	Senftenberg, Germany	The Lusatian Lakeland – Transformation with Structure, from a Mining Region to a Lake Landscape
12.	Isfahan, Iran	Specialized Hospital of Sick Buildings (Sustainable Doctor of Sick Buildings)
13.	Eilat, Israel	Eilat Solar
14.	Kfar Saba, Israel	Meeting a Common Challenge: Optimizing Energy Practices and Behaviors
15.	Bologna, Italy	Civic Imagination: Engaging Communities for a More Inclusive and Sustainable City
16.	Alor Gajah, Malaysia	Melaka World Solar Valley (MWSV)

SUMMARIES OF 45 CITY INITIATIVES

17.	Seberang Perai, Malaysia	Seberang Perai Upcycle Park
18.	Cuautla, Mexico	La Perseverancia: Solid Waste to Generate Electricity with a Social Benefit in Cuautla
19.	Ramallah, Palestine	weRamallah: Smart City Initiative
20.	Bucheon, Republic of Korea	Climate-Resilient City, Bucheon
21.	Busan, Republic of Korea	Gamcheon Culture Village's City Rejuvenation Project
22.	Seoul, Republic of Korea	Seoul's People-Centric Urban Regeneration Project as a Model of Sustainable Urban Growth
23.	Krasnoyarsk, Russia	Mayor's Labor Unit
24.	Ufa, Russia	<ul style="list-style-type: none"> - Interdepartmental System of Preventing Adolescent Suicides in Ufa City - Information and Control Center of Ufa City - Center of Temporary Accommodation (Emergency Fund) of Ufa City
25.	Singapore, Singapore	Master Planning of Punggol Eco-Town
26.	Catalonia, Spain	smartCATALONIA, Scaling the Smart City Concept to a Regional Initiative
27.	Zaragoza, Spain	100 Ideas Zaragoza
28.	Umea, Sweden	The Gendered City Tour – Challenging Power in Cities
29.	Eskisehir, Turkey	Eskisehir Urban Development Project
30.	Denver, United States	Solving Climate Change and Creating Green Spaces in Denver, Colorado, USA



SUMMARIES OF 15 SHORTLISTED CITIES



1 Santa Fe, Argentina

Santa Fe's Western Urban Natural Reserve: Embracing the Hydroclimatic Risks

The Argentine city of Santa Fe, population 400,000, developed an innovative approach to planning and risk management as a response to a devastating flood in 2015. A community-led program to massive flooding evolved into the Western Urban Natural Reserve project. Its objective is to transform 142 hectares of reservoirs into a protected natural area that is also incorporated into a system of green public spaces. It directly benefits more than 80,000 residents. It promotes environmental education and awareness and the improvement of quality of life. Also, it promotes economic and social development through labour training activities, the incorporation of informal waste collectors, the creation of community orchards and the construction of nurseries. The initiative is innovative because it integrates education, poverty reduction, social inclusion with water, land and natural resources management. The

environmental dimension is foregrounded as the key driver for risk management processes and the socio-economic improvement of the community.

The initiative is shortlisted because of its comprehensive approach considering green space, watershed management, and the role of ecological systems in lieu of hard infrastructure in the formation of an urban space and the mitigation of risk. The city is also commended for its citizen engagement in the design and advancement of the initiative.

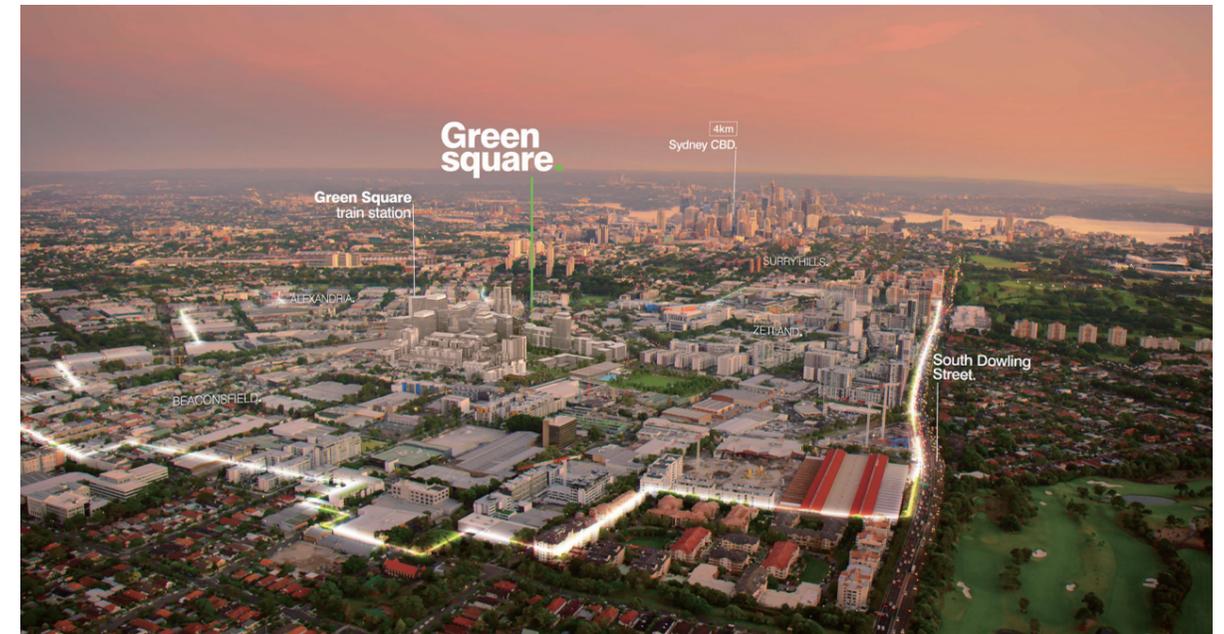
This initiative is highly relevant to SDG 11: Make cities and human settlements inclusive, safe resilient and sustainable and SDG 15: Improving resource efficiency, mitigation and adaptation to climate change, resilience to disasters and implement holistic disaster risk management.



New Urban Front and New Urban Land

2 Sydney, Australia

Green Square: From a Rich Industrial Past to a Vibrant, Sustainable and Connected Community



Green Square Urban Renewal Area in its regional context

Sydney is Australia's largest city with a population of 5 million people, while the municipality of the City of Sydney has a resident population of 233,217 over an area of approximately 30 square kilometers.

Green Square will be Australia's largest urban renewal project to date, to be supported by participating public and non-public stakeholders and aims to be the most liveable, resilient, lively, walkable, accessible, sustainable and unique area of the city for the benefit of its estimated 61,000 residents. It will host a socially and economically thriving town-centre, markets, festivals and world-class sporting and community facilities. It is supported by sustainable mobility infrastructure; a transit-oriented, high density development aiming to minimize its environmental footprint. Public policy and government funding for the project is committed and the private finance, legal, technical and logistical infrastructure strategy is well advanced, as is the monitoring and evaluation methodology to assess the project's performance against a range of social, economic, urban and environmental indicators that aim to show that

high density living can be compatible with high health and well-being outcomes for residents. Utilizing value-capture and public-private partnership approach, its economic sustainability is well supported and will transform the unused, flood-prone, swamp and other disused land while remaining proximate to a broader economic area and aims to produce 21,000 employment opportunities and Australia's largest storm water harvesting and treatment scheme.

The initiative adopts a holistic approach to innovation, scale and transferability to the project and the successful implementation of the project will deliver outcomes consistent with

- SDG 3: Ensure healthy lives and promote well-being for all ages;
- SDG 4: Ensure inclusive and equitable education and promote life-long learning opportunities for all;
- SDG 6: Ensure availability and sustainable management of water and sanitation for all; and
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

3 Salvador, Brazil

- Environmental Recovery Program of the Canabrava Park - Caravana da Mata Atlântica

The Brazilian city of Salvador, population 3 million, presents two linked projects that address environmental protection, remediation, reforestation, and education. It is advanced by the SECIS Sustainable City and Innovation Secretary to address the vulnerable situation of one of the most sensitive biodiversity locations in the world currently threatened by growing urbanization. In order to reverse this scenario, the “Caravana da Mata Atlântica” (a mobile classroom) was created with the purpose of encouraging greater awareness of the importance of preserving green spaces and environmental preservation. It is a holistic and comprehensive environmental protection project, that engages youth and targets traditionally marginalized and at-risk communities most affected by deforestation. A specialized team of the SECIS develops and implements projects such as tree planting activities, together with the

community. Other components of the project are the use of sludge as fertilizer in the reforestation process, and the conversion of a landfill into a public park.

This city initiative engages different partners including universities and elementary schools. It shows a capacity to be collaborative and flexible in order to advance the project’s higher goals. It demonstrates the ability to readdress harmful urban development through a comprehensive campaign of reforestation and the promotion of public space.

This initiative is highly relative to SDG 11: Make cities and human settlements inclusive, safe resilient and sustainable and SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.



Planting Trees

4 Repentigny, Canada

A City for All



Aerial View of the City

Repentigny is an off-island suburb of Montreal, Quebec, Canada. With a population of approximately 84,000, it is the home of many cultural festivities.

“A City for All” is a refreshing and exciting three-initiative proposal wrapped under one banner:

- The Citizens and Families initiative connects citizens and municipal staff with information quickly and effectively, a key characteristic of a smart city.
- The Youth initiative focuses on a multimedia lab housed in the city’s library, providing access to digital technologies focusing on creativity and expression. More than 18,000 teenagers using the facility since its opening.
- The Vulnerable People initiative provides assistance to citizens by telephone or the web linking to a wide range of social and community resources. To date, the data have shown that 30% of requests for assistance were in relation with basic needs: food, shelter and material as-

sistance, and 67% of the vulnerable persons were women.

Importantly, these initiatives are generating insights and data that will be used for future planning and development policies and goals.

The City of Repentigny was put on the shortlist for its broad vision and demonstrated actions to develop an inclusive city at a human scale and to enable innovation and creativity.

This proposal most strongly correlates with

- SDG 11: Make cities and human settlements inclusive, safe resilient and sustainable;
- SDG 4: Ensure inclusive and equitable education and promote life-long learning opportunities for all;
- SDG 5: Achieve gender equality and empower all women and girls; and
- SDG 3: Ensure healthy lives and promote well-being for all ages.

5 Wuhan, China

The "Rebirth" of Urban Waste Dump – Ecological Restoration Bridging the Social Gaps

Wuhan has a population of 10,890,000, a land area of 8,569 sq. km., and a population density of 78,787/sq. km. This innovation transforms one of the largest landfills in Asia, Jinkou Landfill in Wuhan, to be the most charming recreational park and ecological garden.

The restoration of Jinkou Landfill and the polluted Zhanggong Dyke solved the ecological and urban problem that have troubled Wuhan for decades. It created a 50.5 km long ecological belt, covering an area of over 170 sq. km. It reduces pollution and links up the once polluted Zhanggong Dyke to provide an urban forest park for pedestrians and bicyclists. Part of the site was used for the China International Garden Expo in 2015-2016. This project has made the 14 adjacent communities and the lives of 400,000 people more liveable, closing inequalities in the city. The project involves government departments as well as experts from 82 cities in China and 12 countries. This is the largest application of aerobiotic technology for landfill remediation and the biggest ecological bridge in China. It also uses an innovative way of crowd sourcing in raising funds in addition to the traditional way of funding the pro-

ject. It reduces inequalities and promotes social cohesion of nearby citizens by drastically improving their living environment. People has been mobilized to participate in the project.

The city initiative comes out as one of the finalists because of the impressive scale and impacts of the project and the innovative ways of implementing it. Other cities can learn from this project on how to turn and link polluted landfills and waterways into parks and pedestrian walkways and bicycle lanes, turning "gray belt" into "green belt" for improving the quality of life the city.

This initiative encompasses

- SDG 6: Ensure availability and sustainable management of water and sanitation for all;
- SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation;
- SDG 10: Reduce inequality within and among countries; and
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.



Jinkou Landfill before and after

6 Yiwu, China

Innovating Foreign Service Initiatives to Build a Harmonious and Integrated Yiwu



Yiwu International Trade Service Centre

The City of Yiwu (population: 2.2 million; population density: 2024 people per square km) in China is a major wholesale consumer goods and e-commerce centre in the country and the world. It is ranked as the world's largest wholesale market of consumer goods, exporting to over 200 countries. Every year, about 500,000 business people from overseas visit Yiwu while over 13,000 of them reside in Yiwu. Against the growing number of international people in the city, Yiwu has since 2016 implemented a suite of inclusive and innovative strategies to promote inclusion and sense of belonging including among overseas business people.

The strategies cover a wide range, from business to culture including the development of a first-in-China mediation of foreign-related business disputes by foreigners for foreigners, a one-stop service for all international trade examination and approval transactions, an international family programme to strengthen communication and community building between local and foreign residents, and the issue of a foreign merchant card to help foreigners ac-

cess public services that are provided to local Chinese, among others. The vision is to create a good business and living environment for both local and foreign residents, in particular, to promote mutual understanding and a better sense of integration. Yiwu has taken the bold measure of improving the living environment for foreigners as the yardstick to measure its improvement in living environment for all residents.

Yiwu was picked as one of the finalists for its forward-looking and all-inclusive approach towards integrating its diverse international community. In addressing the needs and living environment of the growing international population, Yiwu is highlighting what might be done towards achieving SDG 10 (Reduce inequality within and among countries) and SDG 16 (Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions for all) while promoting economic prosperity in a rapidly globalizing society.

7 Santa Ana, Costa Rica

Santa Ana en Cleta: Active Mobility and Empowerment of Women

The San Jose (Costa Rica) suburb of Santa Ana, population 57,000, has been shortlisted for its program, Santa Ana en Cleta, a project dedicated to the empowerment of Santa Ana's local population by teaching women how to ride a bike and how to use it as a means of transport. The initiative is considered a step towards the development of the "Active and Sustainable Mobility" program for the city of Santa Ana. The mobility program combines three specific areas: the empowerment of women, sustainable mobility and the strengthening of communities. The overall objective is to transform the mobility and road culture of the city of Santa Ana. The first stage of the project is focused on ways to encourage women, in particular within vulnerable communities, to use the bicycle as a means for personal and economic development. The project also seeks to improve the quality of the urban environment, citizen well-being,

health indicators, the recovery of public spaces, as well as and the right to use the city.

The project was recommended for being shortlisted for its focus on the promotion of alternative modes of transportation for women and the emancipatory potential of increased bicycle use. The program has a commendable educational program that not only links mobility to personal development, but also demonstrates ways that women can turn the bicycle into an accessible and dignified mode of daily transportation. Half of the world could benefit from this approach to women's mobility and inclusion.

This initiative is highly relative to SDG 5: Achieve gender equality and empower all women and girls and SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.



Empowered Woman Participant of the Workshops

8 Surabaya, Indonesia

Public Participatory in 3R Waste Management for Better Surabaya



Eco-friendly Living Lifestyle

Surabaya is Indonesia's second largest city and the capital of East Java Province with a population of 3.3 million and a population density close to 10,000 people per square kilometre. Against a background of increasing waste and the degradation of social, human health and environmental outcomes, the participatory 3R waste management was selected as one of the finalists because it contains several innovations:

Firstly, the breadth and depth of community engagement striving towards the program becoming a social movement was esteemed.

Secondly, the strong commitment to adopting international best-practice and technology in creating an economically sustainable waste management, monitoring and reporting system was also observed.

Finally, the initiative also has several areas of uncommon innovation, for example, the ability of residents to pay for their transit needs in empty plastic bottles. It is hoped that the ongoing change process will eventually disincentivize the use of plastic bottles as the program-movement develops in the future but recognized 3R's contribution to

- SDG 3: Ensure healthy lives and promote well-being for all ages;
- SDG 6: Ensure availability and sustainable management of water and sanitation for all;
- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all; and
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

9 Milan, Italy

Milan Food Policy: An Innovative Framework for Making Urban Food System More Sustainable, Inclusive

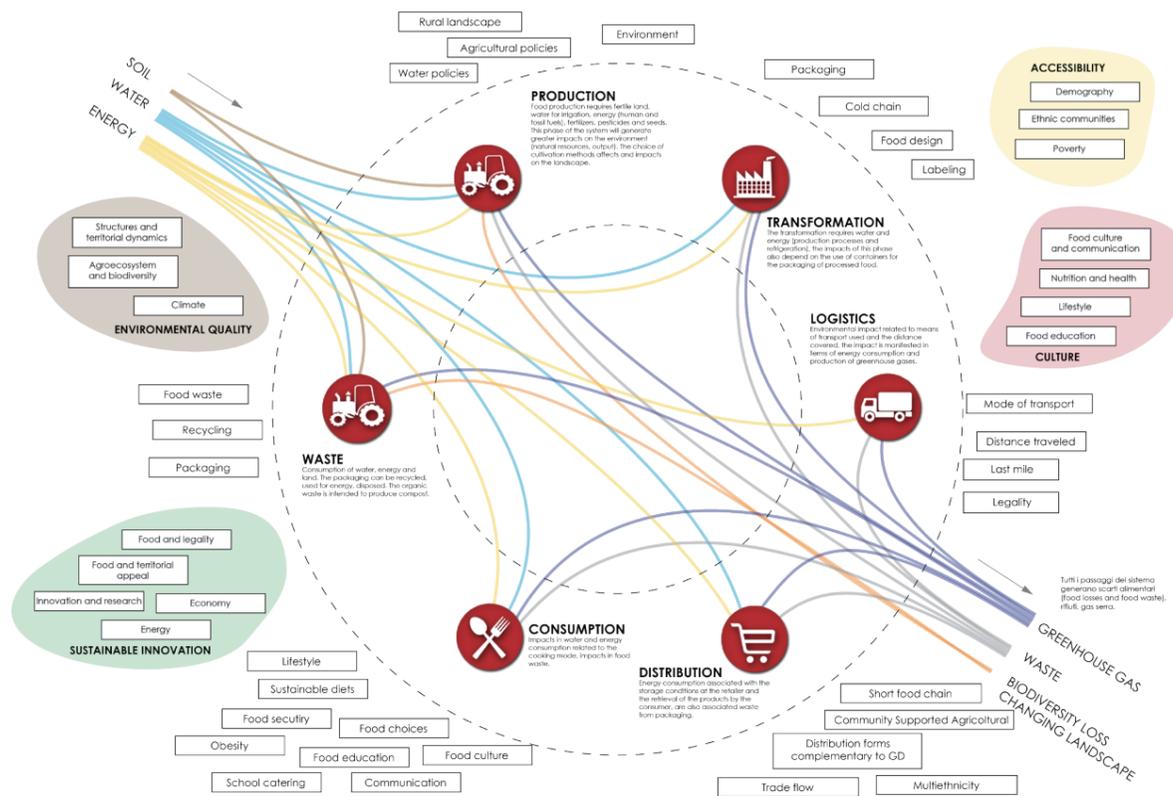
Located in northern Italy, Milan is the second most populous city in the country after Rome with a population of approximately 1,300,000 and population density of 7533 people per square kilometre. The city's primary sources of prosperity include trade, tourism, and the creative industry.

Milan's submission, "Milan Food Policy," is an innovative planning strategy integrating and implementing a "Food Cycle System" throughout the city. Also importantly, the initiative is strongly linking to social goals of improving health and well-being of citizens. To date, the policy has generated more than 40 initiatives related to reuse, recycling waste food and reducing food miles. The policy initiative additionally cooperates with other international organizations, including EUROCITIES Working Group Food, the EU Platform for Food Losses and Food Waste and the C40 Food System Network.

A key innovation in the "Milan Food Policy" initiative is a new model of urban governance which is based on an integrated cross-sectoral approach between public agencies, social organizations, and the private sector.

The initiative is presented as innovative for the Italian and European context. It is included in the shortlist because of its efforts in scaling the project through a holistic and integrated approach while stimulating local awareness, building public-private partnerships, and aligning municipal policies to SDG indicators.

The project facilitates the exchange of knowledge through community, local organization and international partners. The project emphasizes SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture and SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.



Milan Food System Assessment

10 Guadalajara, Mexico

Citizen-Led Metropolitan Coordination of Guadalajara



Discussions among Children

The Mexican State of Jalisco and the 9 municipalities comprising the metropolitan area of Guadalajara, population 4.5 million, decided to take a metropolitan approach to planning in lieu of the traditional scheme of fragmented planning and governance by individual municipalities. This planning reform was formalized into an institute called IMEPLAN (Metropolitan Institute of Planning), the first one of its kind for Mexico, and a rare example across Latin America. The central idea of IMEPLAN is to engage its citizens, experts and municipalities into participatory planning process at the metropolitan scale through collaborative roundtables, workshops and an educational curriculum. The activities encourage all stakeholders to imagine, innovate and plan at a metropolitan scale. It is focused on reducing the negative impacts of unplanned urban development. Part of

the initiative's merits was that it overcame traditional political forces that undermine metropolitan governance. The collaborative approach to envisioning IMEPLAN resulted in the participation of 9 municipalities and the passage of legislation that established the metropolitan body.

The initiative is a rare example of a community-led creation of a metropolitan authority charged with the planning and coordination of the city region. Even though the initiative is relatively new, it has gained traction in a short period of time with a strong focus on controlling sprawl.

This initiative is highly relevant to SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable, and SDG 12: Ensure sustainable consumption and production patterns.

11 Utrecht, Netherlands

Localizing the SDGs through Multi-Stakeholder Partnerships

The City of Utrecht, Netherlands, with a population of approximately 345,000, is the capital and most populous city in the province, and the fourth largest city in the Netherlands. Its ancient city centre features buildings and structures dating back to the High Middle Ages.

Utrecht is using the Sustainable Development Goals (SDGs) as a framework for local development to become a “Global Goals City”. The city is activating and cooperating with local stakeholders and connecting local initiatives and expertise with international developments.

In essence, Utrecht is localizing SDG indicators to measure and track its own public and private development performance. An integrated, interdisciplinary and multi-stakeholder approach will ensure that healthy citi-

zens live in a healthy environment and work in a healthy economy. The effort is hinged on raising local awareness, stimulating SDG-based local strategies, facilitating the exchange of knowledge, building public-private partnerships, and aligning municipal policies to SDG indicators.

Utrecht was shortlisted because of its effort and an all-encompassing framework for sustained action and the health of citizens, a prosperous future and effective urban management.

Utrecht’s initiative most strongly aligns with SDG 3: Ensure healthy lives and promote well-being for all ages and SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.



Climate Planet Square

12 Kazan, Russia

Innovative Social and Economic Development of the City of Kazan



Health City: FINA World FINA World Championship Opening Ceremony

The city of Kazan has a population of approximately 1,200,000 and is the sixth most populous city in Russia.

Kazan is addressing critical challenges of social and economic development through three progressive, innovative and pro-active initiatives.

The “Embracing Diversity” initiative celebrates Kazan’s multi-cultural and multi-ethnic cultural heritage. As a central hub connecting these diverse communities, “The House of Friendship of Nations” not only provides offices, libraries, conferences and concert facilities, but has also developed an internet portal bringing together the multitude of diverse associations throughout the city and region. The initiative ensures co-existence and tolerance to achieve peace and harmony, civil identity of minorities, and effective integration of migrants.

The “Environmental Development” initiative ensures universal access to safe, inclusive and accessible green parks and gardens.

The “Healthy City” initiative provides pathways to

healthy food for children and builds healthy lifestyles by increasing citizen’s exposure to sports culture, builds sports facilities, and modernizes healthcare facilities.

These evolutionary initiatives underpin social and economic development by harmonizing diverse populations, providing a sustainable environment and building a strong citizen base.

The whole city initiative corresponds to

- SDG 3: Ensure healthy lives and promote well-being for all ages;
- SDG 4: Ensure inclusive and equitable education and promote life-long learning opportunities for all;
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable; and
- SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions for all.

13 eThekweni, South Africa

- Incremental, Participatory, Programmatic Informal Settlement Upgrading Programme

- Partnerships with the Private Sector to Achieve Sustainable Sanitation Service Provision

eThekweni is a South African city of about 3,900,000 people with growth rate of 1.4% and population density of 1,523 people per square kilometre over an area of 2,556 square kilometre. It has comparative strength in industry, trade, tourism, creative industry, finance, manufacturing and transportation.

More than 220,000 households in eThekweni live in informal settlements characterized by overcrowding; disasters including fires and floods; poor access to basic services including water, sanitation, electricity and emergency access. In response to these challenges, eThekweni Municipality, is implementing two ambitious initiatives, informal settlement upgrading and partnerships with the private sector to achieving sanitation solutions.

The upgrading programme is a solution incorporating social and economic opportunities that transform settlements into truly liveable and sustainable neighbourhoods. With focus on urban infrastructure upgrading and job creation opportunities, the initiative will benefit 70,000 house-

holds within 6 years. The in-situ settlements upgrading initiative conforms proportionally to the Sustainable Development Goal 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) as it will enable residents to access social amenities like education and health services and contributes to social cohesion, spatial justice and urban integration.

The partnership program with private sector to achieving sanitation solution is a vibrant approach that is exploring often neglected critical parts of sanitation value chain in Africa, disposal, recycle and reuse. It focuses on improving the health indicators of the residents through safe sanitation practice, reduce annual budget of the municipal on sanitation, increase private sector's participation and earnings, and increase the capacity of the relevant government's institution on the concept of sanitation marketing. The design and implementation approach is a concrete fulfilment of SDG 6: Ensure availability and sustainable management of water and sanitation for all.



Small Business Taking Waste to the Processing Plant

14 Mezitli, Turkey

Mezitli Women Producers Market



Mezitli Women Producers Market

Mezitli Metropolitan Municipality is a fast-growing city in Mersin region of Turkey. It has a population of 187,536 and a 2.87% annual growth. Since 2014, Mezitli has been implementing a women's empowerment initiative that is anchored in a women-only market. The municipality has experienced rapid population growth due to internal migration as well as an influx of people from neighbouring Syria. This led to the need for economic projects as well as an inclusive approach to mitigate poverty as well as potential conflict. In this context, improving women's access to economic opportunities was identified as a priority.

Traditionally, women in the region have tended to be economically dependent on male relatives and husbands. This leads to lack of confidence and inability to make many life choices independently. Options for productive activities are often limited by lack of capital as well as an administrative environment that discourages women.

The women-only market is free (no fees) which makes entry easy for women. A wide range of products is sold, including farm produce from neighbouring rural areas as well as traditional handicrafts. Having a women-only market brings into one space women from different ethnic, edu-

cational and socio-economic backgrounds. This promotes exchange and mutual support that build women's confidence. The market is also used to organize women, educate them on production and marketing practice as well as informing them of their rights and encouraging them to participate in public life.

Since the initial model market started in 2014, seven more markets have been opened and the intention is to eventually have a women-only market in each of the 40 sub-districts of Mezitli. The municipality is also working on forming a women producers' cooperative that will be in charge of organizing the market.

This initiative is selected for its multi-pronged approach to gender equality and social inclusion. By providing a dedicated space for women to take part in economic activities outside the home, the initiative has raised women's, and families' economic status, empowered women to participate in public life and enhanced social cohesion.

This initiative responds to SDG 5: Achieve gender equality and empower all women and girls and Target 8 of SDG 11: Support positive economic, social and environmental links between urban, peri-urban and rural areas.

1 Brussels-Capital Region, Belgium

Canal Plan: An Innovative Planning Approach for the Brussels-Capital Region

Brussels-Capital Region, Belgium enjoys a population of 1,191,604. The Region is comprised of 19 municipalities, including the City of Brussels. A strategic area of the Region, the canal area covers 2,509 hectares and is home to nearly one fifth of the Region's population and 6,000 companies. However, the de-industrialisation of this area has created physical, economic, social and environmental challenges. As a response, the Region launched a 10-year strategic Canal Plan in 2015 and invested 12 million euros towards its implementation.

The objective of the Plan is to reinvigorate the economic activities of the area, create affordable housing with quality public spaces, develop functional diversity and promote high-density living. The Region relies on a particularly strong public-public partnership for the implementation. A dedicated project team has been established that is consisted of professionals from a variety of public agencies of the Region. The team is tasked with coordinating and monitoring relevant studies and project implementation.

The Plan is reintegrating the area to the city and removing the barriers created by the canal. So far, more than

130 studies and projects of various scales have been under development. These projects aim for increased housing affordability and public spaces as well as strengthened social and territorial cohesion. Examples include Europe's biggest integrated urban aquaponic farm and food market as well as the reconversion of an industrial brownfield into a mix-used quarter with public housing, parks and public amenities.

The Region adopts an innovative flexible and co-construction approach towards the implementation of the Plan. The dedicated team uses the data collected to evaluate the overall progress of the Plan and make flexible adjustments to the implementation. It also provides guidance to each project developer to ensure the projects are feasible and in line with the 3 principles of the Plan (functional diversity, densification and quality public space).

This initiative is particularly relevant to SDG 9: Resilient infrastructure, inclusive and sustainable industrialization and innovation; and SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

2 Dangbo, Benin

Valorisation of water hyacinth in compost

Dangbo is a West African city home to 66,055 people. Agricultural land in the city is faced with threats of overuse of artificial fertilizer and declining soil fertility. Indiscriminate use of chemicals in artificial fertilizer causes food poisoning and declining soil fertility fuels food insecurity. Various programmes and projects are initiated to tackle the problems and promote sustainable agriculture.

One of them is 'Valorisation of water hyacinth in compost: A magic compost for the farmers.' Carried out by the NGO JEVEV and supported by Dangbo City Council, the initiative transforms water hyacinth into compost. It begins

with the purpose of cleaning rivers and lakes that are contaminated by hyacinth in Ouémé, the second richest valley base in Africa following the Nile. The hyacinth causes seasonal eutrophication, as well as anoxia to fisheries. Turning water hyacinth into compost contributes to the preservation of the environment by purifying water of Ouémé's rivers and lakes and reducing the effect of ozone depletion caused by agricultural chemical inputs.

Hyacinth compost brings sustainable agriculture to Ouémé. Combining bio-fertiliser and bio-pesticide together, the compost improves the productivity of agricultural

land and contributes to the reforestation of the area by cutting chemical inputs.

The initiative creates a sustainable economy in the city. Water hyacinth is collected by the residents, and NGO JEVEV works out sales strategies of hyacinth compost with the community and sells the product to farmers, creating local job opportunities. With the healthy compost, 3,550 farmers now grow healthy food and Dangbo has become a supplier of organic produce.

The initiative is particularly relevant to

- SDG2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture;
- SDG8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all;
- SDG11: Make cities and human settlements inclusive, safe, resilient and sustainable; and
- SDG15: Life on land, in particular, in reversing land degradation.

3 Federal District, Brazil

Acting to Transform: Social Control and Transparency

The Federal District of Brazil hosts the federal capital of Brasilia, which is also the seat of government of the Federal District. It covers a territory of 5,802 kilometres and enjoys a population of 3+ million. This initiative serves two purposes of the Federal District for governance: to improve internal management and to promote public participation.

The District is incorporating risk management into the core of managerial responsibility. In so doing, the District hopes to prevent misconduct and corruption. Currently, it is being rolled out in seven departments. The District has also implemented an Internal Audit Capability Model within its governance system. The model borrows from internationally recognized experiences and provides a comprehensive guide to the departments on how to improve internal audit from a scale (or level) of 1 to 5. The Office of the Comptroller General is the only department past level 2.

To encourage public participation, the District realized the need to firstly keep the citizens in the know. Through websites and applications, the District provides its inhabitants with access to, among other information, government

revenue and spending, presented in a readily comprehensible way. These transparency instruments recorded 4.3 million visits in 2017. The District also invites inhabitants to voice their criticism and suggestions on public policies in its user-friendly ombudsman system OUV-DF. In 2017, more than 146,000 registrations were made and more than 80% of them were responded to within 20 days. With the Controllershship in the School programme, the District is looking to cultivate citizenship especially among its youth. The programme awards students and teachers for identifying the problems in their schools and coming up with solutions. By the end of 2017, over 5,000 students from 114 school have participated in this programme.

This initiative is closely linked to SDG11: Making cities and human settlements more inclusive, safe, resilient and sustainable; and SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

4 Vaudreuil-Dorion, Canada

“I AM...”: Citizen Involvement, Culture and Sustainable Development

The City of Vaudreuil-Dorion is part of Greater Montreal in southwestern Quebec. It is a result of a merger between two towns – Vaudreuil and Dorion. The City covers a territory of 72 square kilometres and enjoys a population of around 38,000.

In the past two decades, the population of the city more than doubled, immigration accounting for nearly half of the increase. These immigrants came from different backgrounds and represented a wide array of cultures. However, diversity did not always spell delight. This huge influx of immigrants led to a significant decline in the use of the French language and, furthermore, challenged the social cohesion of this small city. In an effort to mitigate the negative impact of the cultural diversity, the City launched the I AM initiative in 2009.

The initiative is implemented through a strong public-private-community partnership. The nature of it is seemingly simple: the City organises a variety of cultural activi-

ties and invites the residents to participate. Each activity is divided into a series of workshops. This creates a meeting place for the locals and the immigrants. They get to know and talk to each other, which would then promote an appreciation of the differences and a sense of belonging to the city. Annually since 2010, between 35 and 50 cultural activities are held reaching up to 20,000 participants. And every year, more than 100 workshops are organised without the involvement of the City. However, the initiative is not just about fostering the relationship between the inhabitants, but also about providing an opportunity to discuss how to make the city a better place to live. These activities have led to, for instance, the revitalization of the Harwood sector and the building of a new library.

The initiative is particularly relevant to SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

5 Vancouver, Canada

Northeast False Creek Plan

The City of Vancouver is a coastal seaport city on the mainland of British Columbia. It is the largest city in the province, with an area of 114 square kilometres and a population of 631,486 as of the 2016 census.

The Northeast False Creek (NEFC) area (approximately 58 hectares) is the last piece of undeveloped land along downtown Vancouver's False Creek waterfront. This area is located on the un-ceded traditional homelands of three First Nations (indigenous groups officially recognised by Canada as administrative units) and has been home to many Chinese and African immigrants. The failed freeway plan of the 1950s has disrupted the life of the First Nations and the Chinese residents and displaced the Black community settling in the area. After decades of service, the two viaducts – the only completed projects of the free-

way plan – have become vulnerable to seismic shocks and needs to be replaced. This is how the NEFC Plan has come into being.

The Plan has two major purposes: to reconcile with the groups affected by the freeway plan and to build a better place to live, work and play. The Plan will see the creation of a mixed-use waterfront in the next 20 years. Work is already underway to replace the seismically vulnerable viaducts with a new resilient street network that prepares for a once-in-two-millennium seismic event. After the completion of the Plan, NEFC can provide housing for 100,000+ new residents (including social housing for 3,300 people) and 6,000+ new jobs, with 13 hectares of newly-built and renovated parks and open spaces. A participatory planning approach is adopted, with special attention devoted to the

local First Nations, the Chinatown and the displaced Black community. The City engages in discussion with these groups for their feedback on the Plan and make sure their demands are duly represented. For instance, the Plan will create gathering places for the First Nations, conserve cultural heritage and assets in Chinatown and build a cultural centre as a focal point for the Black community where the

displaced once lived.

This initiative is particularly relevant to

- SDG9: Infrastructure, industry and innovation;
- SDG 10: Reduce inequalities; and
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

6 Guangzhou, China

Guangzhou 12345 Government Service Hotline Centre

Located in southern China, Guangzhou has a population of over 20.15 million and occupies more than 7434 km² making it one of the most densely populated cities in the world. Like many other older cities the municipal government developed strong “Silos” between and among governmental organizations and public institutions. In response to the reform policies of the Central Government and the Municipal Government of Guangzhou, Guangzhou 12345 Government Service Hotline was established as a coordinated mechanism to improve the quality of government service all of its inhabitants. It is appropriately called: “Co-construction, Sharing, Co-governance”.

The 12345 Government Service Hotline offers a 24/7 one-stop shop service with one easily memorized phone number with the purpose of providing “convenient, intelligent and efficient” service. It helps competent authorities to solicit people's suggestions, solve people's livelihood demands and channel their discontent to the appropriate professionals for on-the-spot resolution. The hotline adopts a large-scale, fully-integrated, single-track, closed-loop management system. It integrates 76 service hotlines of 51 municipal government departments including education, health care, transportation, water, electricity and gas supply, and community management. Besides, the platform has established an administrative information base which is updated on a real time basis and jointly maintained by all

departments. Regular training sessions and meetings are organized to exchange lessons from experience so as to facilitate and improve inter-departmental communications. The 12345 platform has become much more than just a hotline and one-stop-shop for public services. It represents a new governance model conceived from the start with citizen participation and user satisfaction in mind. Analysis of the types of complaints, suggestions and ideas made by the inhabitants of Guangzhou are used by the government departments to pre-empt issues and problems and to fine-tune government responsiveness and, most importantly, coordination between departments and jurisdictions for more complex issues.

This initiative is highly relevant to

- SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation;
- SDG 10: Reduce inequality within and among countries;
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable;
- SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

7 Hong Kong, China

T-Park

Hong Kong is a city with a population of 7,448,900, hosting 6,830 people per square kilometre. T-Park aims to turn waste into energy and develop a sustainable approach to manage urban waste. Rather than disposing of sludge in landfills, the Hong Kong Special Administrative Region opened T-Park in 2016 to incinerate the waste and preserve the scarce landfill space of the dense city.

'T' stands for 'transformations'. One is to turn waste into energy; the other is to drive positive changes in people's attitude and behaviour towards greener lifestyles. T-Park combines a variety of advanced and self-sustaining technologies into a single complex: sludge incineration, power generation, seawater desalination and wastewater treatment. Heat generated by incinerating sludge provides electricity for the park, and the surplus for households; de-

salinated seawater generates potable water and rainwater is collected for non-potable use. Wastewater from the entire facility is treated and reused for irrigation, flushing and cleansing purpose. In addition, recreational, educational and ecological facilities are built for the public to promote a green and sustainable lifestyle.

The initiative contributes to

- SDG 6: Ensure availability and sustainable management of water and sanitation for all; SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation;
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable;
- SDG 13: Take urgent action to combat climate change and its impacts.

8 Nanning, China

Developing Beautiful South Pastoral Complex and Narrowing Urban-Rural

Nanning is the capital of Guangxi Autonomous Region and has a population of 7 million. Nanning's urban development has created a large influx of its surrounding rural population into the city. As a result, many of the city's rural villages have turned into ghost villages with large plots of unattended land. To reverse this trend, the city's Xixiangtang District (area: 1,298 square kilometres, 69% rural) has undertaken to develop in 3 years the 70-square-kilometre Beautiful South Pastoral Complex, a pilot program that covers 10 villages and 57,000 rural residents representing 20 percent of the District's rural population.

This initiative focuses on developing 2,800+ hectares of well-serviced farmlands; creating a comprehensive agricultural system that includes farming, agro-processing, trade and agritourism. Doing so required improving the ecological system and enhancing public service delivery. This was primarily funded by the municipality to ensure that water, waste and eco-systems management were carried

out to the highest standards. This led in turn to investments by the private sector, especially in the areas of agro-industry, agri-business and tourism. Technical assistance for the initiative came from over 60 universities, research institutes, agricultural technology companies, economists, planners and tourism organisations.

The initiative has not only improved the overall environment of the local villages, but contributed to the infrastructural, cultural and economic resilience of the villages. The residents now enjoy improved road conditions, housing conditions, sanitation services, energy supply, communications technologies, etc. The initiative also preserves and promotes the local traditional cultures. Village cooperatives have been established to manage state-owned assets, helping to create jobs and provide a steady and predictable source of income for the residents. The development of themed villages provides extra income from tourism. Since its operation in 2017, the Complex has re-

ceived 1+ million visitors, generating some 70 million yuan (10.5 million US\$) of revenue.

This innovative urban initiative addresses the rural-urban divide of the New Urban Agenda and is of particular relevance to

- SDG 1: End poverty in all its forms everywhere;
- SDG 2: End hunger, achieve food security and im-

proved nutrition and promote sustainable agriculture;

- SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; and

- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

9 Bogota, Colombia

- Coexistence and Respect for Difference

- Urban Transformations for Inclusion

- sexperto.co: Digital Platform for Information on Reproductive Health and Access to Health Service

Bogota is the capital and largest city of Colombia, with an area of 1,587 square kilometres and a population of over 8 million. It is also the political, economic, administrative and industrial centre of the country. This inclusive initiative includes three programmes and targets slum-dwellers, the LGBTI community, and adolescents respectively.

The Urban Transformations for Inclusion programme is an effort to engage the residents of informal settlement – 27.3% of Bogota's population – to beautify the living environment with murals and other artful forms. The objective is to create the conditions for the inhabitants to take on an active role in the transforming their own neighbourhoods. Over 3,000 inhabitants have been trained in arts and crafts so far, and around 67,000 facades have been painted. The programme has also helped restore the trust of the residents in the administration marred by armed conflicts and organised crimes in these areas.

The Coexistence and Respect for Difference programme takes the form of a public policy to ensure social justice for the city's LGBTI (lesbians, gay, bisexual, transgender and intersexual) community. The city is the first Colombian city to do so even when there is no national policy in place. Under this policy, the city has undertaken a

series of actions, including care guides for victims of gender-based bullying in schools and legal support for discrimination cases. The city also organises the Week for Equality annually to convey messages of equality and respect, which has brought a positive influence on 100,000 people.

The digital platform of sexperto.co is an effort to reduce the high proportion of teen pregnancies. The website presents information on reproductive health and provides answers to frequently asked questions (anonymity guaranteed) in simple language. The website also recommends other services, such as free appointments in public clinics or the sexual abuse hotline. To date, the website has recorded 700,000+ visits from youths aged between 12 and 24. The rate of births given by teenage mothers has decreased from 17% (as of 2014) to 13%.

The initiative is particularly relevant to

- SDG 3: Ensure healthy lives and promote wellbeing for all for all ages;
- SDG 10: Reduce inequality within and among countries; and
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

10 Curridabat, Cost Rica

Date Tu Casa (Give Yourself a House)

Curridabat is a city of the San José Province in Costa Rica. It covers an area of 16 square kilometres and has a population of 65,000. This puts the population density of the city at more than 4,000 inhabitants per square kilometre. However, this high density is deceiving of the inefficient and unequal land use of the city: the city is divided into mainly single-use zones with some areas of very low residential density. The high housing price and lack of financing schemes have deprived many families of access to house ownerships. In an effort to change this situation, Curridabat has implemented the initiative of Date Tu Casa (Give Yourself a House).

With this initiative, the city hopes to bring together people with similar lifestyles and interest to build high-density apartment buildings. The initiative specifically targets the median-income households, as they earn enough money to no longer qualify for government financial support yet they do not earn enough to accede to bank mortgages. The city first asks interested residents to fill out a form with

an estimate of their income in addition to lifestyle questions. Based on this information, the municipality links the future neighbours with the owners of lots, engineers and legal representatives to start with a quotation and a preliminary design of a housing solution. More than 3,600 people have participated in the initiative, and 32 households have been identified to proceed in a first phase. The city is creating a financing model that adapts to the real capacity of each family and provides them with the necessary time to accumulate savings or increase income. This allows the families to opt for a final credit to purchase the house. The city is still exploring different scenarios, and the model will possibly include a new type of leasing system for housing, a rent-with-purchase option, trusts and project development funds.

The initiative is particularly relevant to SDG 10: Reduce inequalities; and SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

11 Senftenberg, Germany

The Lusatian Lakeland - Transformation with Structure, from a Mining Region to a Lake Landscape

Senftenberg (area: 127 square kilometres, population: 24803) is a town located in southern Brandenburg and in the southwest of the historic Lower Lusatia region. The Lusatia region, once a hub of lignite mining, suffered great loss of jobs as well as a damaged environment when the mining stopped in the 1990s.

Faced with the challenge of environmental remediation and economic recovery, the Lusatian region, the town of Senftenberg and the federal state of Brandenburg have motivated the Federal Republic of Germany to adopt the vision of the Lusatian Lakeland. This vision is to create Europe's largest artificial Lake District through the flooding of the opencast mining craters and building navigable channels to connect the crater-lakes. In so doing, the region is

to be converted into a tourist and business destination with a sound environment.

The development of the Lusatian Lakeland is being driven primarily in partnership with a state-owned company and a subsidiary of Senftenberg as well as the individual municipalities within the region. In such a large development area, good coordination between the different municipalities is key to the success of this initiative. For this purpose, multi-territory special-purpose associations have been formed. Standardised databases also prove valuable in facilitating cooperation between all stakeholders.

With this initiative, Senftenberg and the Lusatian region have undergone an enormous image change. Once known as the brown coal capital, Senftenberg is now a

popular tourist destination. The character of the destroyed landscape has given way to a large connected and strategically planned natural area that offers both development areas for conservation projects and sufficient space for business and recreational activities.

This initiative is particularly relevant to SDG 11: Make

cities and human settlements inclusive, safe, resilient and sustainable; and SDG 15: Life on land: protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

12 Isfahan, Iran

Specialised Hospital of Sick Buildings

Isfahan, an Iranian city enjoying a population of 2,094,867, was faced with the challenge of deteriorated urban buildings. The municipality found that it had been trapped in a dilemma: those buildings were in such bad conditions that they were not suitable for usage, but the government did not have capacity to destroy and rebuild all of them to acceptable standards.

Deteriorated buildings of the city covered more than 2,304.8 hectares, endangering a population of more than 2 million. Within 3 months, over 100 buildings caught fire due to poor conditions. Energy consumption rate of the deteriorated buildings was 6 times higher than the global standard while Isfahan, as an arid city, was facing a serious water and energy crisis. Under this scenario, Isfahan municipality decided to change their perspective viewpoint and treat urban buildings as living organisms of the city.

Isfahan set up a specialised hospital for sick buildings where 2,700 graduates were trained as specialists to give regular health check-ups to 300 buildings every month.

They monitor building condition, assess deficiencies and carry out renovations. The specialists also install energy-saving appliances to cut the energy consumption rate of buildings in Isfahan. In addition to building specialists, Isfahan municipality also trained 100 experts in its fire department in fire prevention.

With this paradigm shift, public authorities started to care about the health of buildings as they care about the health of the inhabitants. The end result is that the healthy buildings contribute to the health, safety and wellbeing of their inhabitants and, in this case, keep the urban tissue alive. In addition, the initiative created new jobs for recent graduates and additional sources of revenue for the building sector.

The initiative is highly relevant to the NUA and SDG 3: Health and wellbeing; SDG 8: Decent work and economic growth; and SDG 11: Making cities and human settlements inclusive, safe, resilient and sustainable.

13 Eilat, Israel

Eilat Solar

The Israeli city of Eilat covers an area of 98.76 square kilometres. It enjoys a population of 65,000. Together with the region of Eilat, the city and the region aim to be self-sufficient in clean energy. The two entities have already installed large scale solar farms. However, like many places in the world, most property owners in Eilat still do not have solar panels installed on their roofs despite the obvious

benefits. The main reason is a lack of understanding of the processes, permits, costs, pay-back periods, tariffs and technology of installation. This initiative aims to eliminate these barriers through a smart application.

The initiative started off with a series of technical and economic feasibility studies. Meetings were held with solar companies; preliminary mapping was done of the city's

roofs; and tests of the application were run. This free application serves as a one-stop shop for property owners that wish to have photo-voltaic technologies installed on their roofs. It provides users of the application with access to information and engineering data, so as to inform the property owner whether an installation on the property in question is feasible. The owner is also able to choose from a list of solar companies certified by the municipality as well as a list of financing entities and options. The application currently targets private property and will extend to public, commercial and shared buildings with future developments.

Eilat has spent an initial 200,000 euros developing the

application and starting the process. It is looking to license this application to other Israeli cities as a way to sustain the operation of the application. The city is also considering a 6 percent overhead charge from solar companies enrolled in the system.

This initiative is particularly relevant to

- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all;
- SDG 11: Making cities and human settlements inclusive, safe, resilient and sustainable; and
- SDG 13: Take urgent action to combat climate change and its impacts.

14 Kfar Saba, Israel

‘Meeting a common challenge: Optimising Energy Practices and behaviours’

Seated at the Central District of Israel, Kfar Saba holds a population of 109,149. The city had been aware that in order to maximise energy efficiency, technological advances must be accompanied by residents’ behavioural change. The Sustainability Department in the Kfar Saba Municipality initiated an action titled ‘Meeting a common challenge: Optimising Energy Practices and behaviour’ (MCC) in 2015. The initiative was co-funded by the city (20 percent) and EU Sustainable Urban Demonstration Energy Programme (80 percent), and engaged both Jewish and Arab communities.

The seeds for MCC were sowed by a group of active citizens under the framework of a citizen engagement forum facilitated by the municipality for urban sustainability. They undertook an initiative for disseminating Energy Management Systems in households in Israel. The pilot project increased public understanding of the Systems and motivated people to further engage in energy saving.

Originally, there were 6 municipal departments, 15 municipality units and 18 schools participated in MCC. Activities in the project locations included developing technological data monitoring systems, setting school curriculums and capacity building for achieving energy efficiency. MCC installed smart energy management systems in each

participating school and municipal building and trained ‘energy delegates’ to lead the transition in their institutions. MCC created a platform for non-expert users such as teachers, municipal employees and pupils to understand energy data and translate it into concrete actions. In the first year of the MCC programme, a reduction in 11 percent of the overall energy consumption was achieved and in the second year, 20 percent.

During the third year of the project, in addition to behavioural change, MCC also aimed at efficiency of electrical infrastructures of each building. Under the MCC framework, 1,000 households engaged in online energy management. According to the consumption data recorded by the online system, every household received a ‘social rank’, a competitive mechanism serving as an incentive to encourage energy saving. Participants were also recommended on how to improve their performances.

The initiative is highly relevant to SDG7: Ensure access to affordable, reliable, sustainable and modern energy; SDG11: Make cities and human settlements inclusive, safe, resilient and sustainable; and SDG 13: Combat climate change and its impacts.

15 Bologna, Italy

Civic Imagination: Engaging Communities for a More Inclusive and Sustainable City

Bologna is located in Northern Italy, with an area of 140 square kilometres and a population of over 380,000. The city thrives on its service sector, in particular creative industries and tourism.

Two major events in 2014 led to the implementation of this initiative. The residents of Bologna were demanding the right to manage abandoned public spaces, among others, as a way to improve their neighbourhoods. This was, however, not permitted by the existing municipal regulations. The year also witnessed a drastic 30% drop of voting turnout in the city’s regional elections. In view of this loss of interest in civic affairs, the municipality launched Civic Imagination. The objectives were to regain the trust of the citizens and to work with them to create a better living environment for all.

The initiative is overseen by the Vice Mayor and includes three key components: a regulation, Participation Laboratories and participatory budgeting. The regulation legalises the cooperation between the government and citizens for the regeneration and maintenance of public spaces and thus serves as the foundation for the initiative.

The city has also set up a Participation Laboratory in each of the six districts of Bologna. The Labs provide the venue and support needed for public meetings, during which the citizens can voice their needs and discuss issues like how to use resources. Another important element of the initiative is participatory budgeting. Starting from 2017, the city allocates a certain amount of its budget for public proposals of specific renovation projects and to implement those voted by the residents.

The initiative has contributed to the improvement of the city’s public spaces. More importantly, the initiative has strengthened social cohesion and engaged a large number of people. For instance, 2,500 people have participated in the Labs in 2017, including many city executives. The subsequent focus will be on involving more young people from high schools and universities in this process.

The initiative is particularly relevant to SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable; and SDG 16: Peace, justice and strong institutions.

16 Alor Gajah, Malaysia

Melaka World Solar Valley

Alor Gajah is a district located in the north-western part of the State of Melaka. It covers a territory of 660 square kilometres with around 200,000 inhabitants. The district has been an industrial area and is undergoing transformation. The ongoing construction of the Melaka World Solar Valley, an area representing 10% of the whole territory, is to become Malaysia’s first solar valley and hopefully, by the year 2020, a world-class urban area built on the fundamentals of green technologies.

The initiative is aimed at creating a sustainable urban system in Alor Gajah. This will be done through transitioning the area’s energy source from fossil fuels to renewable

energies – solar energy identified as the most feasible in this case – and promoting the application of green technologies as a driver of a more sustainable economy. The development of the Valley started in 2013 and is expected to finish in 2025. Current development has entered the second of the three phases and has completed a number of projects of public or private nature.

These projects have already yielded benefits for the local community. It is moving the local energy production and consumption towards a cleaner source, thus minimising the impact such practices have on the environment. In addition, the initiative has created jobs for the locals in

the field of green technologies and raised their awareness of sustainability. In view of the performance of these projects, the federal government has also agreed to provide a certain amount of funding for the implementation of the initiative. When it is completed, the Valley has the potential to become the centre of the photo-voltaic industry with a complete value chain, producing green-technology components, systems and talents for the whole of Malaysia.

This initiative is particularly relevant to

- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all;
- SDG 8: Decent work and economic growth;
- SDG 9: Infrastructure, industry and innovation;

and

- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

17 Seberang Perai, Malaysia

Seberang Perai Upcycle Park

Seberang Perai, formerly Province Wellesley, is a narrow hinterland on the Malay Peninsula. It lies opposite Penang Island together with which it forms the State of Penang. With an area of 738 square kilometres and a population of around 1 million, Seberang Perai constitutes three quarters of Penang's land mass and houses half of the state's population. Such a large population, however, produces a large amount of waste. Since of 2012, more than 500,000 tonnes of waste were generated, accounting for over 60% of the total waste generated in the state. Of the 500,000 tonnes of waste 70% went to landfill.

In order to reduce the amount of waste that goes to landfill and create a public space for leisure, the municipal council of Seberang Perai has launched the Upcycle Park initiative. As the title suggests, this initiative is to create a park with upcycled products. The park itself has been a conversion from a retention pond. The floor of the park comes from construction waste. The benches, tables, and decorative items are upcycled from used tyres, broken dustbins, plastic bottles, etc. Thanks to the financial support from private companies through their corporate

social responsibility programmes, investment from the municipal council has not been large. RM12,000 (less than USD3,000) has been spent on materials like paints for the upcycling of the waste. And as the process is done by the municipal staff, it has not incurred additional cost. Local residents have also contributed ideas of how they would like the park to be.

Opened in 2018, the park serves as the only recreational park for the 20,000+ inhabitants living nearby to take a stroll, have a picnic or do physical exercise. Although the reduction of the amount of waste that goes to landfill is limited, the initiative has raised people's awareness of the waste problem and inspired them, especially the children, to practice upcycling. The success of the initiative has also encouraged other local governments in Malaysia to take on a similar approach.

This initiative is particularly relevant to SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable; and SDG 12: Responsible consumption and production.

18 Cuautla, Mexico

La Perseverancia: Solid waste to generate electricity with a social benefit in Cuautla

Cuautla is in the south of Mexico with a population of 194,786, covering an area of more than 153 square kilometres. There is a waste landfill called "La Perseverancia" in Cuautla, Morelos. It receives an average of 950 tons of solid waste per day from 13 municipalities in the state of Morelos, as well as a fraction of the waste produced in Mexico City, the capital of Mexico. The challenges that "La Perseverancia" faced are the neglect on the part of social procedures for the final disposal of the solid wastes, which led to opposition from the neighbouring communities.

To resolve all these conflicting issues, the Cuautla municipality decided to launch a publicity campaign on the environmental and social benefits for upgrading the waste landfill "La Perseverancia", so as to involve public and private sectors and the public to take joint efforts towards solving the problem. The upgrading project is run by a company named Operadora de Ferrocarril y Manejo de Rellenos SA de CV. This project adopts Spanish technology to build gas-fired power plants. Some modifications and adaptations were made due to the climatological conditions of Cuautla. To extract biogas from organic waste, horizontal wells instead of vertical wells were employed. This ended up also being a cost saving device. After hav-

ing gained operational experience, additional generators were installed to increase the production of electricity from 1 megawatt to 2 megawatts with a vision of a growth of up to 4 megawatts of electricity production. The "La Perseverancia" landfill is open to the society with the hope that people who visit there can have a better perception and understanding of the gas extraction process and its benefits to the whole society.

Advanced technology and wide involvement of public, private and civil society sectors are the key factors that contribute to the success of this initiative. It turns the filthy waste into renewable, sustainable and clean green energy. This initiative is highly relevant to:

- SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all;
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable;
- SDG 13: Take urgent action to combat climate change and its impacts, and

SDG17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.

19 Ramallah, Palestine

weRamallah: Smart City Initiative

Ramallah is the capital of Palestine, with an area of 19 square kilometres and a population of 65,000+. Due to the political and security context of the area, many inconveniences have arisen for citizens of Ramallah: 4G technologies have not yet been applied; citizens and students living outside the city centre have difficult access to municipal services and education, leading to inequalities and social exclusion.

Ramallah Municipality launched this initiative as a solution to these challenges. The aim is to digitalise servic-

es so that citizens can get things done without their physical presence at specific locations. It started with improving the city's ICT infrastructure, including the deployment of fibre network in the city's main streets and municipal facilities such as libraries and parks. The ongoing second phase focuses on extending the network coverage to all of the city's streets and developing smarter solutions based on the ICT infrastructure, and the next phase will see the creation of many new B2B and B2C models to provide improved services.

The initiative has brought about a threefold benefit. For the municipal government, its procedures and processes become more digitalised, which contributes to improved processing, tracking and response. For the private sector, a crucial partner to the initiative, the improved ICT infrastructure creates many opportunities: there has been a surge in applications developed by private companies and individuals. For the citizens, the city's main streets and municipal buildings provide them with all-day-long free access to municipal e-services and limited free Wi-Fi access for other purposes. They also get to participate in public events that were previously unknown to them due to

lack of information channels.

The central government of Palestine is supportive of the initiative and is working to copy the success to other cities. It is particularly relevant to:

- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation;
- Goal 10: Reduced inequalities; and
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable.

20 Bucheon, Republic of Korea

Climate-Resilient City, Bucheon

Bucheon City is a satellite city of Seoul, the capital city of Republic of Korea, with a population of 870,000. With the development of urbanization, Bucheon has become the second most densely populated city after Seoul. The rivers were covered with asphalt to be used as roads and, as a result, the rivers turned into dry streams and water pollution became a serious issue. Bucheon became a city with the highest impermeable ratio in Korea resulting in frequent floods every year. The city experienced disasters resulting in 5,633 flood victims and property damages exceeding KRW 7.9 billion (USD 7 million) caused by heavy rain in 2010 and 2011 alone.

In order to reduce urban flood disasters caused by the heavy rainfall, Bucheon constructed a large-scale sewage storage tunnel (10m underground, 1.1km in length, and 4.3m in diameter) – a first in Korea. The sewer tunnel is equipped with rainwater storage function and is designed to manage heavy rains of 91mm per hour without flooding. As a result of restoration of the covered river, a green space has been created where there is a harmonious mix of ecology, culture and history for the benefit of all of Bucheon's inhabitants. This project has become a driving force of Bucheon City's Waterfront Road project. Bucheon Dulle-gil-trail was connected to the waterfront road to transform

Bucheon into a city of healing where pedestrians can enjoy the Blue (water) + White (wind) + Green (green space) + Gold (soil) walking. The treated waste water generated from the sewage treatment plant has been improved from grade 6 to grade 2 and is now used to maintain a steady flow in the river.

This project shows how a city can combat climate change by creating a sustainable "Water Cycle System" and combining advanced technology with the principles of sustainable development. It changes the urban paradigm and transforms the city from a growth-oriented and car-centred city to a people-centred city where nature and people can coexist while at the same time, going beyond simple restoration to create a sense of place and a cultural identity.

This initiative is highly relevant to

- SDG 5: Reduce deaths and number of people affected by disasters with particular focus on the poor and people in vulnerable situations;
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable; and
- SDG 13: Take urgent action to combat climate change and its impacts.

21 Busan, Republic of Korea

Gamcheon Culture Village's City Rejuvenation Project

The South Korean city of Busan covers an area of 770 square kilometres and has a population of 3.5 million people. Its rejuvenation project in Gamcheon has successfully turned a shanty town to one of the most famous tourist destinations in the city.

Gamcheon's history traced back to the Korean War when refugees settled here. Living conditions had always been bad. There was no sewer system or adequate water supply, and the sprawling expansion made the situation even worse. This led to the constant decrease of the village population – particularly the young population – and, consequently, a dilapidating village and a greying and vulnerable population. To revert this trend, the City of Busan worked with local residents and the artist community starting in 2009.

The initiative focused not only on renovating the village but also on revitalizing the local economy. On one hand, the City undertook infrastructure improvement, building a sewage system and natural gas pipeline network. This was coupled with amenity facilities such as a laundromat. On the other hand, the City injected an artful look – and ex-

perience – into the village while maintaining its historical continuity. As a result, the village has turned into a tourist attraction. The village hosts a variety of cultural events, including design competitions, gallery exhibitions and alley festivals. All of these re-activated the village's economy and created jobs for the villagers. There also established a village school, an urban regeneration academy and cultural programmes to boost community activities and ensure the sustainability of the initiative.

The initiative has greatly benefited the 8,000 (as of 2010) remaining villagers, in terms of both living conditions as well as educational and economic prospects. The Gamcheon Culture Village has become the most famous cultural brand in Busan and attracts 2 million visitors annually.

This initiative is particularly relevant to

- SDG 1: end poverty in all its forms everywhere;
- SDG 8: promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; and
- SDG 11: make cities and human settlements inclusive, safe, resilient and sustainable.

22 Seoul, Republic of Korea

Seoul's People-Centric Urban Regeneration Project as a Model of Sustainable Urban Growth

Seoul is the capital and largest metropolis of the Republic of Korea. With an area of a little more than 600 square kilometres, the City is inhabited by over 10 million people. This large population is a by-product of Seoul's rapid economic growth over the past decades, but it is not the only one. The side effects are apparent: destruction of natural and cultural heritage sites, ghettoization of urban centres, soaring housing prices and, consequently, housing shortage for low-income families and dismantlement of local communities.

To turn the tide, the City has changed its urban development policy from new developments to regenera-

tion projects and focuses on restoring local identities and achieving sustainable urban growth. In order to avoid the previous mistakes by top-down approaches to urban development, the City is shifting its strategy to encourage participation from the local inhabitants in every step of the way. In designing the regeneration plans, vigorous consultation processes are undertaken to make sure the projects truly accommodate the inhabitants' demands. Moreover, the City has appointed a number of leading residents in various areas as honorary deputy mayors. All relevant documents are subject to the review and approval of these honorary deputy mayors. During the implementation of

a project, the City takes care to vitalise community programmes. After the completion, the City monitors the performance periodically by conducting interviews and surveys with the residents, who can also go to an interactive website to discuss local issues.

Under the initiative, the City has pledged to 131 urban regeneration projects. One of these is the “Seoullo 7017” project. After 615 meetings with local residents, the City has decided in favour of transformation – over demolition

– of an old highway overpass into an elevated park with 24,000 plants. The transformed park now provides a place for relaxation in the centre of Seoul as well as a boom to the local businesses as the park receives 30,000 daily visitors on average.

The initiative is particularly relevant to SDG 10: Reduce inequalities, and SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

23 Krasnoyarsk, Russia

Mayor’s Labour Unit

Krasnoyarsk is the largest industrial and cultural centre of Eastern Siberia as well as the capital of Krasnoyarsk Territory, the second largest region in Russia by area. The city covers an area of 353 square kilometres and is home to 1,091,000 inhabitants.

Though the young generation takes up an important proportion of this population, there was no youth policy after the collapse of the Soviet Union. During the Soviet era, the young people had not had to worry about not being able to get a job as the youths of today do.

In view of this situation, the city has launched the initiative Mayor’s Labour Unit. This initiative recruits teenagers between the ages of 14 to 18 into the Mayor’s Labour Unit. During extracurricular time, the city convenes the Unit members and dispatches them for paid social services, for instance, cleaning the streets, hairdressing the pensioners or teaching the elderly how to use a computer. The purpose is to help these young people build up their work skills and to cultivate in them a sense a citizenship and responsibility. Aside from these training opportunities, the city offers the teenagers career guidance. Also, the Mayor

meets with these Unit members to discuss a wide range of topics, including the challenges the city is faced up with and what are possible solutions.

Since its launch in 2004, the initiative has been well received by the inhabitants. The popularity, however, could also mean a challenge to the city, as the budget can only cover a certain number of youth. The initiative provides a first experience of employment for 4,000+ teenagers annually and 100,000+ accumulatively. It has also benefitted many more people as the youth carry out meaningful social services. The yellow T-shirt they wear as uniform has become a cultural emblem of the city. Given the success of the initiative in the city, the initiative has been replicated to the whole of the Krasnoyarsk Territory and inspired other Russian cities.

The initiative is particularly relevant to SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; and SDG11: Make cities and human settlements inclusive, safe, resilient and sustainable.

24 Ufa, Russia

- Information and Control Centre
- Centre of Temporary Accommodation
- Interdepartmental System of Preventing Adolescent Suicides

Ufa is the capital city of the Republic of Bashkortostan, Volga Federal District, Russia and the industrial, economic, scientific and cultural centre of the republic. The city is situated on a territory of 700+ square kilometres with 1.1+ million inhabitants. This initiative covers three programmes that attend to the needs of its residents, particularly the vulnerable ones.

The Information and Control Centre of Ufa serves as a coordination centre for its residents’ requests for housing, emergency services or psychological assistance. The centre receives 3,500 such requests each day and the staff work incessantly lest they miss a single one of them. Each work shift includes 11 employees, including a crisis psychologist, a program expert and a driver. In view of its performance, the centre has been recognised as the best centre of the Volga Federal District three times.

The Centre of Temporary Accommodation is the only permanent unit in Russia to provide temporary accommodation as well as psychological and legal support for people who lose their permanent accommodation. The lodgers have to abide by the rules and pay for the housing and communal services. If they fail to find another accom-

modation within 6-12 months, they are allowed to prolong their stay on certain conditions. The work of the centre has been recognised at the federal level with awards, which has inspired many other Russian cities.

The Interdepartmental System of Preventing Adolescent Suicides addresses the soaring number of teenage suicides in the past few years. This programme is aimed at developing procedures and activities of social services to prevent such incidents, with a focus on training experts on preventive measures. Many training sessions have been held and a preventive model has been implemented. Two years after the launch of the project, the number of adolescent suicides and attempts have both decreased by over 25%. The city is also planning to make the internet safe for children, reducing their exposure to harmful content.

This three-pronged initiative demonstrates the city’s efforts to leave no one behind. It is closely associated with

- SDG 3: Ensure healthy lives and promote well-being for all at all ages; and
- SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable

25 Singapore

Master Planning of Punggol Eco-Town

Singapore, a city state with only 719-square-kilometres of land, is densely inhabited by 5+ million people. Planning is not just an option but an obligation. The planning of Punggol, a coastal town in the North-East Region, tells something of the city-state’s vision for its communities. Punggol used to be a rural village that lived on fishery, animal husbandry, catering and boating services. The masterplan of the town started in 1996 and evolved over

the years. In 2010, the town was chosen to become Singapore’s first eco-town. The vision is to create a sustainable waterfront town and a testbed for new ideas and technologies.

This initiative represents a highly collaborative and participatory model. The leading Housing and Development Board (HDB), together with other public agencies, formed the Inter-Agency Committee to provide strategies

and guidance for the development of the town. Resident feedback was collected through surveys and calls for ideas. A similar approach was adopted to get best designs through competitions from the private sector. R&D institutions were also engaged in the process to develop new technological solutions to be used in the town, which, if successful, will be applied in other towns and communities across Singapore.

So far, the initiative has seen the creation of a 4.2-kilometre man-made waterway through the town to connect two freshwater reservoirs; an extensive cycling network that covers 33 kilometres and is complimented by dual-tier bicycle parking system; and floating wetlands to improve water quality and biodiversity. Smart rainwater harvesting,

smart LED lighting and other smart solutions are also being applied for new public housing in the town. This initiative also contributes to raising people's ecological awareness, as HDB joins hands with other public agencies to advocate environment-friendly lifestyles including educational tours for residents and schoolchildren.

This initiative is particularly relevant to:

- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation;
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable; and
- Goal 13. Take urgent action to combat climate change and its impacts.

26 Catalonia, Spain

SmartCATALONIA, scaling the smart city concept to a regional initiative

The Catalonia region of Spain hosts 7,534,813 people. In October 2014, the regional government initiated smartCATALONIA to share best practices for addressing challenges, deploy urban solutions and sustain urban innovation across the region. In so doing, Catalonia has developed new business models and generated economies of scale by carrying out similar projects. In December 2016, the second edition of smartCATALONIA was launched and aligned with international frameworks such as the Sustainable Development Goals (SDGs) and the New Urban Agenda (NUA).

The Catalonia Government believes that digital technologies are essential tools to strength regional economic competitiveness, develop digital skills among residents, improve the environment and quality of life, etc. SmartCATALONIA was established to further the digital transition in the region's economy.

By forming a network of more than 50 cities and 350 private partners including research and technology centres, companies, start-ups and academia, the initiative gained public budgets from the Catalonia Government and municipalities as well as private investments in the form of solution development for initial testing. The project also

sourced European funding to develop projects in consortia.

Examples of smartCATALONIA projects:

- Catalonia smartLab: A network of urban laboratories to test and validate solutions in real environments, aiming to promote technology by providing access to infrastructures and equipment and enhance open innovation in cities by engaging them in pilot tests.
- Platform for Smart Region: A shared platform that integrates different cities' data and information.
- Parking App: An app for all cities within the region to streamline the payment process in parking zone without having to go to the metre.

The Observatory smartCATALONIA, consisting of municipalities, citizens, industries and research centres, was established to assess the development of different projects within the initiative, promote exchanges and synergies as well as catalyse solutions.

The initiative is highly relevant to SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; and SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

27 Zaragoza, Spain

100 Ideas Zaragoza

Zaragoza is the capital city of the Zaragoza province and of the autonomous community of Aragon, Spain. It covers a land area of 973 square kilometres. Its current population stands at around 665,000 and is on the decrease.

After the global financial crisis, Zaragoza's economy lapsed into stagnation: 70,000 jobs were lost in 2010 alone. This surge in unemployment damaged the trust of the inhabitants in the administration. In response, the city resorted to collaborative city-making and talent-nurturing to repair that trust and recover the local economy. That was when the 100 Ideas Zaragoza initiative came into being.

The specific goals of the initiative are to engage citizens in making improvements to the city, encourage entrepreneurship and job creation in emerging industries, and foster a culture of – tech-based in particular – creativity and innovation. The cycle of 100 Ideas Zaragoza includes four stages. The first stage is to solicit from the public ideas that make the city smarter and identify the best among them. The city then brings together relevant stakeholders to work on actual solutions based on the retained ideas. The next stage is to develop prototypes – physical prod-

ucts or digital services. Eventually, these prototypes are put on CrowdfundingZGZ, where the residents of Zaragoza can fund the implementation of these prototypes in real life. The successful ones also get funding from the city. So far, thousands of inhabitants have submitted or voted for proposals. One of those ideas that have become reality is an all-in-one citizen card. The former mobility card can now replace the functions of 15 previous cards and grants access to a wide range of public services.

The initiative has contributed to a paradigm shift of the city hall from the role of a “governor” to the one of a “facilitator”. By valuing the residents' ideas and bringing together various stakeholders to make those ideas a reality, the city is advancing towards a more engaged population and what they call the “zero waste of talent”. This initiative is closely associated with

- SDG 11: make cities and human settlements inclusive, safe, resilient and sustainable; and
- SDG 16: promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions for all.

28 Umea, Sweden

The Gendered City Tour – Challenging Power in Cities

Umea is the largest city north of the Stockholm-Uppsala region, sometimes referred to as the regional centre of northern Sweden. The city covers a territory of 32.2 square kilometres and has a population of 125,000. It is a university town as well as a centre of education and technical and medical research.

Over the years, the municipality has been trying to visualise the differences between female and male. The Gendered City Tour has proven the most effective. With this tour, the municipality hopes to demonstrate the achievements of the municipal government and NGOs on

gender equality and to draw the public's attention to the remaining challenges on this issue.

The Tour is organised in the form of a bus tour. Since its launch in 2009, the Tour has been under constant development. Currently, it takes the visitors to 25 “stops” – 25 integrated practices to make the city more gender inclusive. One such stop is the park Freezone, a collaboration between different agencies of the municipality, architecture firms and girls in the city. Its location in the city centre demonstrates the consideration of the concern of young women of unexpected encounters. In 2016, the municipali-

ty added an element of virtual reality into the Tour, in order to mainstream the issue among students of primary and secondary schools in particular.

This initiative has turned the city into a display of gender issues. To be able to see and experience – whether physically or virtually – has successfully raised the inhabitants' awareness of gender (in)equality. The initiative has also changed the mindset of how the city's public spaces and events should be planned: from a dominantly male

perspective to a more gender-inclusive perspective. This shift has in turn contributed to the understanding of inclusion on a broader sense: background, age, disability, etc.

This initiative is particularly relevant to

- SDG 5: achieve gender equality and empower all women and girls; and
- SDG 11: make cities and human settlements inclusive, safe, resilient and sustainable.

29 Eskisehir, Turkey

Eskisehir Urban Development Project

Eskisehir, the capital city of Eskisehir Province, is located in the north western part of Turkey and its population is 860,620. It covers an area of 13,653 square kilometres. The population of Eskisehir climbed sharply in recent years owing to its Social, economic, cultural, educational dynamism and its natural environment. The growing population over the past few years has led to an excessive number of vehicles, serious urban traffic jams and noise pollution. Therefore, Eskisehir Metropolitan Municipality started Eskisehir Urban Development Project to provide healthy, reliable and accessible urban spaces for people in 2002. This project includes Eskisehir Tram System Project (Component 1) and Eskisehir Porsuk River Rehabilitation Project (Component 2).

Component 1 is composed of 39 km of tram lines and 33 vehicles in the city centre with the aim to provide sustainable and people-oriented public transportation service, to lower the traffic accident rate, to increase traffic accessibility for people and to decrease the transport costs both in urban and rural areas. With the tram system, the idea of sustainable development took root in the city.

The scope of Component 2 is the rehabilitation of the 13 km Porsuk River bed and the renovation of the 9.5 km irrigation canal. The old bridges over the Porsuk River were too fragile to resist possible earthquakes. For this reason, the old bridges were replaced with new wider ones to facilitate pedestrian access. The work on the river has reduced flood risks, has improved the water quality and is now a clean and agreeable recreational space presenting a range of attractions and water sports. In addition, two big public parks filled with greenery were introduced in the downtown area. Eskisehir Urban Development Project has helped spur local economic development and social interaction and cohesion. Accessible and people-oriented transport and green spaces have helped lower energy consumption, pollution and enhance the use of public spaces.

This initiative is highly relevant to SDG 3: Ensure healthy lives and promote well-being for all ages; SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; and SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

57% of the city's greenhouse gas emissions. The initiative has two components: Energize Denver benchmarking ordinance and Green Building Policy.

Energize Denver benchmarking ordinance requires owners of buildings over 25,000 square feet (about 230 square metres) to annually benchmark and report their energy performance. Although other US cities are practicing energy benchmarking, Denver's approach turns out new, strict and effective. The city has gained the neutrality or support of large real-estate associations that typically might oppose such a policy after their extensive involvement in the transversal taskforce. Upon receiving the data, the city conducts quality checks to ensure buildings with accurate data pass into compliance. The data is published in real time. The best performers will be awarded while the non-compliant are fined. The city also send energy scorecards and educates tenants and brokers about the scores. So far, the city has achieved 90% of compliance rate of the city's 3,000 buildings.

The second component of the initiative is the city's Green Building Policy, an evolution of the voter-passed

Green Roof Ordinance. The ordinance requires all buildings to install a vegetated roof or solar panels. However, the Toronto-borrowed policy does not fit well into Denver. For instance, most existing buildings would be exempt because they cannot support the weight of such a roof. To honour the voters' decision, though, the city has established a taskforce to review the ordinance. The taskforce has brought together stakeholders for and against the ordinance to discuss and produce unanimous recommendations. The result of this review process is the new Policy, which has been passed by the City Council. It is also a rare case where the city gives its stakeholders such sort of authority.

This two-policy initiative is crucial to the reduction of the city's carbon footprint and is particularly relevant to

- SDG 7: ensure access to affordable, reliable, sustainable and modern energy for all;
- SDG 11: make cities and human settlements inclusive, safe, resilient and sustainable; and
- SDG 13: take urgent action to combat climate change and its impacts.

30 Denver, United States

Solving Climate Change and Creating Green Spaces

Denver is the capital and most populous (704,621 inhabitants as of 2017) municipality of the US state of Colo-

rado, with an area of 396 square kilometres. This initiative focuses on the buildings in the city, as they account for

CONCLUDING REMARKS

The shortlisted initiatives of the 2018 Guangzhou International Award for Urban Innovation, were selected for their outstanding contribution toward advancing the way our cities address pressing global issues. Although they recognize a wide range of complex and urgent challenges for cities, they tend to revolve around three main urban challenges.

The first is to address the need to increase the resilience of cities in the face of climate change, rising tides, increased vulnerability to flooding and excessive waste by engaging a wide spectrum of urban stakeholders including civil society, educational entities, minorities and disenfranchised youth to become stewardship of the land and promote the recovery of green corridors, public space, parks and reforestation, such as Santa Fe (Argentina) and Salvador (Brazil). The city of Guadalajara (Mexico) is addressing this challenge through the creation of one of the region's first urban and environmental planning agencies. Other cities have focused more on completely transforming their waste management through a combination of strategies to reduce, reuse and recycle resources including the production of waste energy as in the cases of Wuhan (China) and Surabaya (Indonesia), or improved management of food resources such as Milan (Italy).

Another significant challenge is that of increasing social inclusion and the recognition of vulnerable populations especially disenfranchised youth, impoverished women, people with disabilities, migrants and foreign workers, unemployed and homeless individuals. Notable examples are the public space and amenities initiative in Kazan (Russia) and Sydney (Australia), alternative mobility for women in Santa Ana (Costa Rica), dedicated women markets in Mezitli (Turkey), the promotion of a better business environment for local and foreign residents in Yiwu (China), informal settlement upgrading in eThekweni (South Africa).

And lastly, the use of the United Nations Sustainable Development Goals as standards against which cities are measuring their performance has been taken on by the cities of Utrecht (Netherlands) and New York (United States) and holding themselves accountable for their results vis-a-vis their constituencies and the United Nations itself. Increasing the disposition of cities to hold themselves accountable for how they perform in terms of environmental, social, and economic conditions is key toward instilling real change in the way cities operate and evolve over time.

Given the urban conditions of the selected projects all of them are engaged in implementing SDG 11: Make cities and human settlements inclusive, safe resilient and sustainable. Collectively they address nearly all other SDGs, notably SDG 3: Ensure healthy lives and promote well-being for all ages, SDG 4: Ensure inclusive and equitable education and promote life-long learning opportunities for all, SDG 5: Achieve gender equality and empower all women and girls, SDG 6: Ensure availability and sustainable management of water and sanitation for all, SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization

and foster innovation.

The Guangzhou International Award for Urban Innovation shines a much-needed light on the resourcefulness, optimism, and empathy of civic leaders around the world. The challenges facing the world's cities can drive one to paralysis and inaction: rising sea levels; drought-flood cycles; entrenched and debilitating social inequities; access to affordable housing. The list goes on, yet the Guangzhou International Award for Urban Innovation proves that there are many civic leaders taking action on these and many other issues under a range of social, political and economic conditions. This is heartening and inspiring, and that is what is so commendable about the Award. They not only provide a space for cities to highlight their initiatives and creativity, but also a platform that inspires others to take action and innovate to solve pressing problems. We should all follow closely how the 2018 Shortlisted and Deserving Cities evolve and help spark the next generation of urban innovations.

The 15 shortlisted submissions demonstrate how multi-partners and multi-stakeholder engagement can be activated and become a multiplier force to deliver holistic, integrated approaches to urban problems that address not one but several SDGs. The collective experience provided by these compelling initiatives serve as a timely reminder of the inter-connectedness of sustainable development and the need to seed and develop strong urban solutions and eco-systems that include and engage the community and the private sector to co-develop new, promising ideas for transformative innovations. Crucially, they provide examples of how we should not continue with a business-as-usual approach.