

Sharing Knowledge Shaping Cities

CENTRE FOR LIVEABLE CITIES
ANNUAL REPORT 15/16



CENTRE FOR LIVEABLE CITIES

Set up in 2008 by the Ministry of National Development and the Ministry of the Environment and Water Resources, the Centre for Liveable Cities' mission is to distil, create and share knowledge on liveable and sustainable cities. CLC's work spans four main areas — Research, Capability Development, Knowledge Platforms, and Advisory. Through these activities, CLC hopes to provide urban leaders and practitioners with the knowledge and support needed to make our cities better.

Connect with CLC



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Cover Image

Members of the public enjoying the recreational green space at Marina Barrage in the heart of the city.

Image credit: "Kites at Marina Barrage" (CC BY 2.0) by briantf

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Message from the
Advisory Board
Chairman
Liu Thai Ker



Singapore celebrated 50 years of nationhood in 2015. Though a relatively young nation, we have many good stories to share about our transformation from a backward society into a modern metropolis.

For these reasons, CLC has been making efforts to document lessons from our journey of urban development. We have also become more actively engaged in the exchange of knowledge with other cities in the hope of playing an active part in making contributions to urban development around the world. It seems fitting therefore, that the theme of this Annual Report should be *Sharing Knowledge, Shaping Cities*.

Research continues to drive our work. It provides a more solid basis for our training and advisory programmes, as well as knowledge sharing through events, publications and digital media.

Further, in the process of documenting Singapore's urban planning stories and studying the experiences of other cities, CLC has formed partnerships with established organisations such as the Development Research Center of the State Council in China and the Seoul Institute, as well as engaged in thought-provoking interactions with a large number of visiting practitioners and academics.

Slowly and steadily, CLC has come to be held in high regard as a credible partner for capability building and a trusted advisor on urban development issues. From assisting Andhra Pradesh

in planning and developing its new capital city, CLC is now working with the government of Sri Lanka to examine urban development issues. Our collaboration includes sharing insights from Singapore's development model as well as equipping senior policy leaders and infrastructure specialists with key competencies in integrated master planning and urban development.

CLC continues to play an active role in the exchange of knowledge on cities. The 2015 World Cities Summit Mayors Forum brought 65 mayors and city leaders together in New York City. On the same occasion, 37 participants took part in the Young Leaders Symposium, to discuss Innovative Cities of Opportunity, to debate the critical issues of rising urban population and to exchange other insights and experiences.

Looking to the future, CLC is delighted to have participated in "The Future of Us" exhibition, held in Singapore from December 2015 to March 2016. The exhibition not only attempted to paint a vision of the city's future but also encouraged our citizens to take stronger ownership in the shaping of our future.

I would like to thank the Advisory Board, stakeholders, partners and staff for their sterling contributions and efforts in nurturing CLC to become an increasingly respectable institution on a global scale, in research and knowledge exchange on liveable and sustainable cities. I hope you will enjoy reading this annual report.

The past year has been a busy and productive time for the Centre for Liveable Cities. As Singapore marked its 50th year and moved into a new phase of growth, CLC continued to build on past efforts to study Singapore's urban transformation and to explore what liveability and sustainability mean for us and other cities in the future.

In **Research**, our ongoing work to document Singapore's urban development journey resulted in the publication of four new books and the completion of another six to be published in the coming year.

We focused also on collaborative research with an emphasis on application. CLC partnered with the Seoul Institute to hold a Seoul-Singapore Symposium, and co-organised a workshop and symposium on "Biophilia and the Future of Sustainable Cities" with Singapore's National Parks Board. Together with the Lee Kuan Yew Centre for Innovative Cities, we hosted the Cities Roundtable. As part of the Rockefeller Foundation network of 100 Resilient Cities, CLC also participated in a "resilience garage" in 2015 and organised an agenda-setting workshop to discuss Singapore's resilience priorities in 2016.

Our Visiting Fellowship Programme hosted 10 distinguished researchers and practitioners who shared their expertise and collaborated on research with us. These included Seoul Institute President Dr Kim Soo-Hyun and Dutch Special Envoy for International Water Affairs Henk Ovink.

Demand for our **Advisory** services grew, both internationally and locally. In Sri Lanka, we tailored a special programme to help enhance the country's public service organisational excellence by cultivating a whole-of-government approach in urban planning and governance. CLC experts shared key principles and best practices from Singapore's experiences to address Sri Lanka's challenges relating to water supply management, flood alleviation and waste management.

We extended our **Capability Development** programmes to a wider audience, both locally and internationally. Senior officials from China and India participated in our flagship Temasek Foundation Leaders in Urban Governance programme.

Our **Knowledge-sharing Platforms** played a key role in disseminating knowledge and extending our networks. We held fruitful discussions and heard inspiring stories from like-minded friends and partners at the World Cities Summit Mayors Forum and Young Leaders Symposium in New York City. We also hosted a series of public lectures in which eminent speakers shared thoughts and insights on their fields of work, among them former Netherlands Prime Minister Professor Jan Peter Balkenende and former Singapore Chief Defence Scientist Professor Lui Pao Chuen.

Our work continued to be accessible through our publications, website and social media channels. Urban Solutions magazine, which shares city leaders' insights and practices, addressed the themes of resilience and building with nature, and

featured interviews with New York Mayor Bill de Blasio and Andhra Pradesh Chief Minister Chandrababu Naidu.

Looking ahead, CLC will continue to build on our research work as well as extend our knowledge-sharing platforms, advisory services and capability development programmes. We look forward to reporting on the World Cities Summit, the biennial highlight for city leaders, urban development practitioners and allied professionals; as well as our collaborations with established partners such as the Urban Land Institute and the Development Research Center of the State Council in China.

As always, our plans and achievements are possible only because of our people. CLC has grown significantly over the last 12 months, and I deeply appreciate the way in which my colleagues have come together to make things work and get things done. I would like to thank the team for their unflinching dedication and can-do spirit.

I am also grateful for the valuable support of the CLC Advisory Board, Distinguished Advisors, stakeholders, fellows, experts and partners. Our work is enriched by their collective expertise and wisdom and sustained by their generous friendship.

I hope this report captures the essence of CLC's work to distil, create and share knowledge on liveable and sustainable cities, and the commitment and energy with which we continue to move forward.



Message from
Executive Director
Khoo Teng Chye





Our People

Advisory Board

As at 31 March 2016

CLC's Advisory Board comprises members with vast experience and are leaders in their respective areas of expertise.



Dr Liu Thai Ker CHAIRMAN
Senior Director, RSP Architects
Planners & Engineers Pte Ltd

Previous

Former Chairman, National Arts Council
Former CEO and Chief Planner,
Urban Redevelopment Authority



Alan Chan Heng Loon
CEO, Singapore Press
Holdings Ltd

Previous

Former Permanent Secretary
of Transport



Lee Tzu Yang
Member, Council of
Presidential Advisers
Chairman, The Esplanade Co Ltd

Previous

Former Chairman, Shell Companies
in Singapore



Prof Kishore Mahbubani
Dean, Lee Kuan Yew School of
Public Policy, National University
of Singapore

Previous

Former Permanent Secretary
for Foreign Affairs



Choo Chiau Beng
Chairman, M1 Ltd

Previous

Former Chief Executive Officer,
Keppel Offshore & Marine



Prof Heng Chye Kiang
Dean, School of Design and
Environment, National University
of Singapore

Previous

Former Head, Department of
Architecture, School of Design
and Environment, National University
of Singapore



Dr Tan Chin Nam
Chairman,
Temasek Management Services

Previous

Former Permanent Secretary
for Information, Communication
and the Arts



Tan Gee Paw
Chairman, PUB, Singapore's
National Water Agency

Previous

Former Permanent Secretary of
the then Ministry of the Environment



Dr Aline Wong
Chancellor, SIM University

Previous

Former Senior Minister of State
for Health and Education

Distinguished Advisors

As at 31 March 2016

Our Distinguished Advisors comprise prominent retired politicians and former senior civil servants who have played an integral role in Singapore's urban development.

We work with them to enhance CLC's intellectual development, by tapping their wealth of knowledge and experience through interviews, lectures and roundtable discussions.



Alan Chan Heng Loon

CEO, Singapore Press Holdings Ltd

Previous

Former Permanent Secretary of Transport



S Dhanabalan

Member, Council of Presidential Advisers

Previous

Former Minister for National Development



Ngiam Tong Dow

Adjunct Professor, Lee Kuan Yew School of Public Policy, National University of Singapore

Previous

Former Permanent Secretary for National Development



J Y Pillay

Rector, College of Alice & Peter Tan, National University of Singapore
Chairman, Council of Presidential Advisers

Board Member, Financial Intelligence Authority, Vatican City State

Previous

Former Permanent Secretary for National Development



Peter Ho

Chairman, Urban Redevelopment Authority
Senior Advisor, Centre for Strategic Futures

Previous

Former Head of Civil Service



Lim Chee Onn

Senior International Advisor, Ascendas-Singbridge Pte Ltd

Previous

Former Minister without Portfolio, Prime Minister's Office



Dr Tan Chin Nam

Chairman, Temasek Management Services

Previous

Former Permanent Secretary for Information, Communication and the Arts



Tan Yong Soon

Adjunct Professor, Lee Kuan Yew School of Public Policy, National University of Singapore

Previous

Former Permanent Secretary for the Environment and Water Resources



David Lim Tik En

Director, Economic Development Innovations Singapore Pte Ltd

Previous

Former Acting Minister for Information, Communications and the Arts



Mah Bow Tan

Chairman, Global Yellow Pages Limited

Previous

Former Minister for National Development



Dr Aline Wong

Chancellor, SIM University

Previous

Former Senior Minister of State for Health and Education



Philip Yeo

Chairman, Economic Development Innovations Singapore Pte Ltd
Chairman, SPRING Singapore

Previous

Former Permanent Secretary for Defence

Fellows

As at 31 March 2016

CLC Fellows are distinguished individuals who are affiliated to CLC and have contributed significantly to its mission.

CLC Fellows enhance the quality of CLC's knowledge products and capability development programmes.



Dr Paul Cheung

Professor of Social Policy and Analytics, Lee Kuan Yew School of Public Policy, National University of Singapore

Previous

Former Director, United Nations Statistics Division

Former Chief Statistician to the Government of Singapore

Former Director, Population Planning Unit



Chionh Chye Khye

Previous

Former Executive Director of the Council for Estate Agencies

Former Deputy Secretary (Eco-City Project Office)

Former Chief Executive Officer, Building & Construction Authority



Dr Ngiam Tong Tau

Chairman, Sky Urban Solutions Holdings Pte Ltd

Previous

Former Chief Executive Officer, Agri-Food and Veterinary Authority



Andrew Tan

Chief Executive, Maritime and Port Authority of Singapore

Previous

Former Chief Executive Officer of the National Environment Agency



Lim Neo Chian

Chairman, Ascendas Hospitality Trust

Deputy Chairman, Agri-Food and Veterinary Authority

Deputy Chairman, Gardens by the Bay

Previous

Former Chief of Army, SAF

Former Chairman, Jurong Town Corporation



Low Sin Leng

Senior Advisor, Sembcorp Development Ltd

Chairman, Nanyang Academy of Fine Arts

Previous

Former Group CEO, Sembcorp Industries Ltd



Prof Tan Kong Yam

Professor of Economics, Nanyang Technological University

Co-Director, Asia Competitiveness Institute, Lee Kuan Yew School of Public Policy, National University of Singapore

Previous

Former Chief Economist to the Government of Singapore



Prof Leo Tan Wee Hin

Director (Special Projects), Faculty of Science, National University of Singapore

Professor, Department of Biological Sciences

Previous

Former Director, National Institute of Education

Former Director, Singapore Science Centre



Prof Lui Pao Chuen

Advisor, National Research Foundation

Previous

Former Chief Defence Scientist, Ministry of Defence



Prof Neo Boon Siong

Dean, Nanyang Business School
Canon Endowed Chair Professor of Business

Previous

Former Director, Asia Competitiveness Institute, Lee Kuan Yew School of Public Policy, National University of Singapore

Panel of Experts

As at 31 March 2016

To cater to the needs of future consultancy projects, CLC assembles a pool of domain experts and practitioners in the fields of technical knowledge and expertise related to CLC's work. CLC Experts are an invaluable resource to CLC

in its capacity to act as a knowledge platform and urban incubator. Based on the requirements of specific projects, CLC taps their expertise that are relevant to active projects or advisory roles.

Chan Yoon Kum

Senior Advisor, PUB, Singapore's National Water Agency

Previous

Former Deputy Chief Executive Officer, PUB

Choy Chan Pong

Senior Advisor (Urban Planning Excellence Department), Urban Redevelopment Authority

Foo Chee See

Former Director (DGPs, Concept Plan and Development Control), Urban Redevelopment Authority

Foong Chee Leong

Former Director General (Meteorological Services), National Environment Agency

Former Head (Pollution Control Department), National Environment Agency

Goh Hup Chor

Former Deputy Chief Planner, Urban Redevelopment Authority

Jeffrey Ho

Senior Director (Master Planning), Surbana Jurong Consultants Pte Ltd

Joseph Hui

Principal Consultant (NEA International), National Environment Agency

Khoo Seow Poh

Deputy CEO, National Environment Agency

Er Lau Joo Ming

Senior Advisor, Ministry of Health Holdings

Professor (Adjunct), Nanyang Technological University

Previous

Former Managing Director of HDB Building Research Institute

Former Deputy Chief Executive Officer of HDB Building Group

Pamelia Lee

Former Senior Director (Special Projects & STB Consultancy), Singapore Tourism Board

Prof Lee Sing Kong

Vice President (Alumni and Advancement), Nanyang Technological University

Director, Centre for Research & Development in Learning (CRADLE), Nanyang Technological University

Managing Director, NIE International (NIEI)

Dr Leong Chee Chiew

Deputy CEO (Professional Development & Services Cluster) and Commissioner of Parks & Recreation, NParks

Leung Yew Kwong

Principal Consultant, KPMG

Lim Chin Chong

Former Group Director (Customer Services Group), JTC

Loh Ah Tuan

Former Deputy CEO/Director-General, National Environment Agency

Wilfred Loo

Senior Vice President (Planning), Jurong Consultants Pte Ltd

Donald Low

Associate Dean (Research and Executive Education) and Associate Professor (Practice), Lee Kuan Yew School of Public Policy, National University of Singapore

Linda Low

Senior Research Fellow, Lee Kuan Yew School of Public Policy, National University of Singapore

Low Tien Sio

Deputy CEO, Sentosa Development Corporation

Previous

Former Deputy Chief Executive, Land Transport Authority

Prof Gopinath Menon

Senior Research Fellow, Centre for Infrastructure Systems, School of Civil and Environmental Engineering, Nanyang Technological University

Previous

Former Chief Transport Engineer, Land Transport Authority

Ong Geok Soo

Former Advisor, Chairman's Office, JTC
Former ACEO, JTC

Ong Seng Eng

Former Director (Waste and Resource Management), National Environment Agency

P Teva Raj

Senior Director (Municipal Landscapes Division), NParks

Mohinder Singh

Advisor, LTA Academy

Previous

Former Dean, LTA Academy

Former Director (Research and Planning), Land Transport Authority

Benedict Tan

Senior Advisor, BCA

Previous

Former Deputy Chief Executive Officer, Building & Construction Authority

Tan Choon Shian

Principal and CEO, Singapore Polytechnic

Previous

Former Deputy Managing Director, Economic Development Board

Tan Tian Chong

Deputy Managing Director (Built Environment Research and Innovation Institute), Building & Construction Authority

Tony Tan Keng Joo

Senior Advisor, Surbana International Consultants Pte Ltd

Previous

Former Chief Architect, Housing & Development Board

Tan Siang Leng

Former CEO, Building & Construction Authority

Tan Yok Gin

Deputy Chief Executive (Operations), PUB, Singapore's National Water Agency

Margaret Teo

Former Assistant Chief Executive (Development & Leisure), Singapore Tourism Board

Wong Kai Yeng

Urban Planning Advisor, Economic Development Innovations Singapore Pte Ltd

Previous

Former Group Director (URA International), Urban Redevelopment Authority

Former Director (Planning and Policy), PUB

Yap Chin Beng

Deputy Chief Executive Officer (Estate & Corporate), Housing & Development Board

Yap Kheng Guan

Former Senior Director, PUB, Singapore's National Water Agency

Er Yeo Yek Seng

Deputy Chief Executive (Economic Regulation), Energy Market Authority

Marc Boey Kok-Leong

Director, Special Projects & Operations (Property Services), Far East International, Far East Organization

Previous

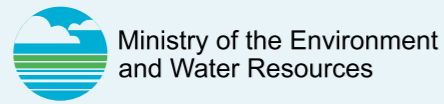
Former Group Director (Land Sales & Administration), Urban Redevelopment Authority

Stakeholders

As at 31 March 2016

The CLC Stakeholders Steering Committee comprises CEOs of relevant agencies. The purpose of the Committee is to guide and support CLC in achieving greater alignment. Stakeholder agencies are also encouraged to leverage the growing network and knowledge base of the CLC to advance their respective agency's mission. At the same time, CLC seeks to augment the stakeholder agencies' knowledge base and open up more economic opportunities for Singapore.

Parent ministries



Stakeholder agencies



Staff

As at 31 March 2016

Khoo Teng Chye
Executive Director

Isabelle Tay
PA to Executive Director

Sophianne Araib
Director

Aw Tuan Kee
Director

Dr Limin Hee
Director

Gene Tan
Creative Director (Singapore Future Exhibition)

Adeline Lim Soo Wah
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Lim Swee Keng
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Amanda Ong Hwee Fang
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Asiah bte Mohd Shah
Senior Assistant Executive

Adjunct Staff

As at 31 March 2016

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Assoc Prof Pow Choon Piew
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CLC-WCS Advisor

Triena Ong
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Designer



World Cities Summit Mayors Forum and Young Leaders Symposium 2015

WORLD CITIES SUMMIT

LIVEABLE AND SUSTAINABLE CITIES.
INNOVATIVE CITIES OF OPPORTUNITY

9-10 June, 2015

ORGANIZERS

World Cities Summit

Urban Management Authority

SPONSORS

SIEMENS

ARCADIS

ALCOM

VORNADO

The World Cities Summit Mayors Forum 2015 in session.

Dr. Osama Albar
Mayor

ia
LLIN
Colombia

Leaders Point to Opportunities and Innovation

From 8–10 June 2015, 65 mayors and city leaders from 59 cities and 35 countries gathered in New York City for the World Cities Summit Mayors Forum 2015. The Mayors Forum was chaired by Singapore's Minister of State for National Development, Desmond Lee, and hosted by New York City Mayor Bill de Blasio.

With the theme of "Liveable and Sustainable Cities: Innovative Cities of Opportunity", mayors and city leaders at the Forum debated the critical priorities for rising urban populations, and exchanged insights and experiences — from spontaneous innovations to well-planned interventions, and surprising successes.



"In as much as Singapore profiles ourselves by sharing our experience with these cities, we are also taking the opportunity to learn from other cities because we must never stop learning from the good points and bad points from other cities."

Desmond Lee
Minister of State for National Development,
Singapore

The World Cities Summit Mayors Forum is an annual by-invitation-only event for mayors and city leaders. Together with the Lee Kuan Yew World City Prize, it is a key highlight of the biennial World Cities Summit, organised by Singapore's Centre for Liveable Cities and the Urban Redevelopment Authority.



"[We] pledge over the next 10 years to bring 800,000 New Yorkers out of poverty... [and] holding ourselves accountable, we believe we'll move things on a grand scale... All of us have to do things on a bolder scale than ever before because we are more central than ever before, because the demands are greater than ever before."

Bill de Blasio
Mayor of New York City



2015 Mayors Forum Declaration

We, the mayors and leaders representing 59 cities convened at the 6th World Cities Summit Mayors Forum in New York City, together with our partners, endeavour to promote equitable, liveable and sustainable cities by:

1. Undertaking long-term planning of our cities and ensuring sustainable implementation, so as to make good, effective use of finite resources;
2. Supporting a culture of integrity in urban governance, to engender public trust and equity in the development of our cities;
3. Promoting an inclusive, equitable economy that offers the opportunity for all our people to live and work with dignity and security;
4. Working towards providing affordable homes for all, in order to give city-dwellers a stake in the prosperity and stability of their cities;
5. Planning and building accessible and sustainable transport networks, as a city's transport network can either impede its growth, or accelerate its development;
6. Building resilience in our cities through systems and frameworks, to deal with chronic stresses and acute shocks such as infrastructure strain, climate change, natural calamity, and civil strife;
7. Promoting institutional capacity building, skills development and future sensing, to sustain competitiveness in cities;
8. Working with communities, stakeholders and the private sector to build cities that are fair and inclusive, as participation promotes a sense of ownership, giving residents a sense of pride and a stake in the city's future; and
9. Sharing our ideas, experiences, and solutions with fellow mayors and city leaders and continuously learn from one another.

All information is correct as at 31 March 2016.

Challenges and Opportunities

Mayors and city leaders at the World Cities Summit Mayors Forum 2015 considered key issues and challenges — ranging from housing to mobility and competitiveness. Overall, their concerns and insights reflected the priority they placed on promoting equity and increasing opportunity.



Mayor of Fukuoka Soichiro Takashima (centre) and his interpreter (left) in discussion with Mayor of Auckland Len Brown (right).

Housing & Economic Development

Access to housing is deeply connected to inclusive economic development, and cities to support affordable housing, revitalise neighbourhoods, improve quality of life and diversify local economies

Promoting entrepreneurship and improving access to opportunity can empower previously disadvantaged groups

"Richer, double-income families are leaving the city... and replaced by poorer citizens, mostly immigrants... so we're struggling with the question: Should we invest more in affordable housing? Because we are fuelling a process that is not good for the city."

Bart De Wever
Mayor of Antwerp

Transportation & Mobility

Transportation networks can be the largest impediment to cities' growth or the expeditor of their success

Innovation in transport and mobility can address inequality; provide access to centres of commerce; connect cities to wider urban and economic regions; and position untapped neighbourhoods for local development and employment

"Having a car is (still) making a statement like: 'I have arrived'... We have to look at trying to get a good transport system going, but there is also the need to change the mindset of the populace, so that they don't become car-centric."

Haji Abang Abdul Wahap bin Haji Abang Julai
Commissioner of Kuching North

Education & Competitiveness

Address the growing skills gap to combat income inequality — so that large portions of the population can have careers with opportunities for advancement

Identify the skills employers need today and predict future workforce demands, to develop real-time strategies to strengthen the city's workforce and foster the growth of promising sectors

"Every time there is a shift from one form of production to another... it is the role of government to try and smooth that transition, and to protect those most vulnerable to the costs associated with it. Cities are uniquely positioned to do that."

Anthony Shorris
First Deputy Mayor of New York City

Sustainability & Resilience

Initiatives that conserve energy, reduce waste, increase the resiliency of the built environment and of the community, and promote economic sustainability — these will determine the future of many cities

The idea of resilience should expand to include social resilience, by recognising individual differences and involving more citizen participation

"On social cohesion, Bangkok is one of those places where the temple, mosque and church are situated next to each other... we have adopted a strategy to recognise the identity, characteristics and culture of each community."

Dr Vallop Suwandee
Chairman of Advisors to Governor of Bangkok

Young Leaders Call for Solidarity in Global Agenda

Held alongside the World Cities Summit Mayors Forum was the World Cities Summit Young Leaders Symposium 2015, where 37 young leaders from 23 cities and 2 international organisations came together as part of a growing community that is shaping the global urban agenda.

The Symposium provided Young Leaders from government, academia and industry a unique platform to engage closely on three key issues — connectivity, social sustainability and smart cities. Together, the Young Leaders sought to bridge the gap in mindset and aspiration in city development between the local and the global spheres. The Symposium also presents an opportunity for Young Leaders to seed new collaborations, form new friendships and strengthen old ones.



“Whoever innovates in finance, will win the next battle. Governments are not spending enough and they are not spending enough because they are not getting enough. One possible solution is the innovation in financial markets.”

Pang Yee Ean
CEO, Surbana International Consultants Pte Ltd



PwC Partner and Global Leader for Cities and Local Government Hazem Galal (left) and Director General of the Abu Dhabi Urban Planning Council Falah Al Albabi (right) exchanging greetings at the Symposium.



Deputy Executive Director of UN-HABITAT Dr Aisa Kirabo Kacyira (left) in discussion with CEO of Surbana International Consultants Pte Ltd Pang Yee Ean (right).

1 Connectivity: *Integration of International & Domestic Priorities*
While cities have to meet basic needs, they must also show residents why they need to buy-in to the global agenda. Cities need to look outward, to respond to mega-trends such as labour and capital mobility, and how liveability powers employment.

Why “sister cities”?
Cities are going far and wide to extend their partnerships. Adelaide in Australia, has five sister cities, including Qingdao in China — a vastly different culture — which itself has 26 sister cities. Having sister cities is just one partnership model and more of such connectivity will be crucial in fostering the capacity to respond to global challenges.



President of 100 Resilient Cities at The Rockefeller Foundation Michael Berkowitz addresses the room.



Chief of Innovation & Performance at the City of Pittsburgh Debra Lam makes a point to her fellow Young Leaders.

The World Cities Summit Young Leaders Symposium is an annual by-invitation-only event for young leaders from both public and private sectors related to urban development and governance. The Symposium is a highlight of the biennial World Cities Summit, organised by Singapore’s Centre for Liveable Cities and the Urban Redevelopment Authority.

2 Social Sustainability: *Narrowing Inequality for Urban Resilience*

Sustainable infrastructure encompasses affordability — if residents rely on subsidies, the infrastructure will become an unsustainable running cost to the city. Building infrastructure may bring visible improvements more quickly, but only people-centred initiatives are sustainable.

Abu Dhabi’s “estidama”
Abu Dhabi, in the United Arab Emirates, has a 2030 vision that includes measures such as mandating sustainability provisions for new urban developments, and mitigating the stress on infrastructure from the projected growth in residents from 1.4 million to 2.5 million by 2030. The government has localised the climate change agenda and mandated “estidama” (sustainability) requirements in all new developments, reducing energy consumption by as much as 64%.

3 Smart Cities: *Technology, Governance & Partnerships*
Cities can act more like the private sector — putting in place the people and technology needed to become smart cities. This means having an effective community feedback loop, to stay close to understanding what the people really want.

India’s Palava Greenfield City
Palava near Mumbai, India, is a greenfield city, where its smaller scale allows developers to exercise more flexibility and innovation — such as card-based, cashless transactions (concurrently reducing corruption), and creating walkable communities. The private sector is helping to provide affordable housing, where market economics, corporate reputation, quality and price competitiveness balance the profit and social good.



Sri Lanka Urban Planning and Governance Programme

CLC Experts Mr Wong Kai Yeng and Mr Yap Kheng Guan being briefed by officials from the Sri Lanka Land Reclamation & Development Corporation on the flood management plans for Colombo.

Shaping a More Liveable Sri Lanka

"We believe that this cooperation will offer the Sri Lankan government valuable insights from Singapore's development model, and work towards enhancing their competencies in these areas."

Kong Wy Mun
CEO, Singapore Cooperation Enterprise



Er Karunasena Hettiarachchi, Secretary, Ministry of Urban Development, Water Supply and Drainage, Government of Sri Lanka and Kong Wy Mun, CEO of Singapore Cooperation Enterprise signing to collaborate on the Urban Planning & Governance Programme in Sri Lanka. From left: Er Rohan Seneviratne, Project Director (Metro Colombo Urban Development Project), Ministry of Urban Development, Water Supply and Drainage, Rauf Hakeem, Honourable Minister for the Ministry of Urban Development, Water Supply and Drainage, Er Karunasena Hettiarachchi, Kong Wy Mun, Benedict Chong, CEO of Temasek Foundation and Julian Goh, then-Director of Centre for Liveable Cities.

The Seeds of Partnership

It all began at the inaugural Temasek Foundation Leaders in Urban Governance Programme (TFLUGP), CLC's flagship international programme which started in 2012 with sponsorship from Temasek Foundation (TF). Rohan Seneviratne, Additional Secretary from the Ministry of Defence and Urban Development (MDUD) of Sri Lanka, had led a team of two Sri Lankan Mayors to Singapore for the inaugural programme, and finding the programme helpful, had recommended that his Secretary Gotabaya Rajapaksa also attend the subsequent run in 2013.

CLC and MDUD continued to keep in close contact after both runs, with MDUD regularly furnishing CLC with updates of the projects and action plans they had discussed at TFLUGP. Then in April 2014, a team comprising officers from CLC, TF and Singapore Cooperation Enterprise (SCE), together with Dr Leong Chee Chiew, DCEO (NParks) who was invited to deliver a lecture to MDUD officials, visited Colombo to view the implementation progress of the Beira Lake rejuvenation project and housing for slum dwellers at Dematagoda, first proposed at TFLUGP.

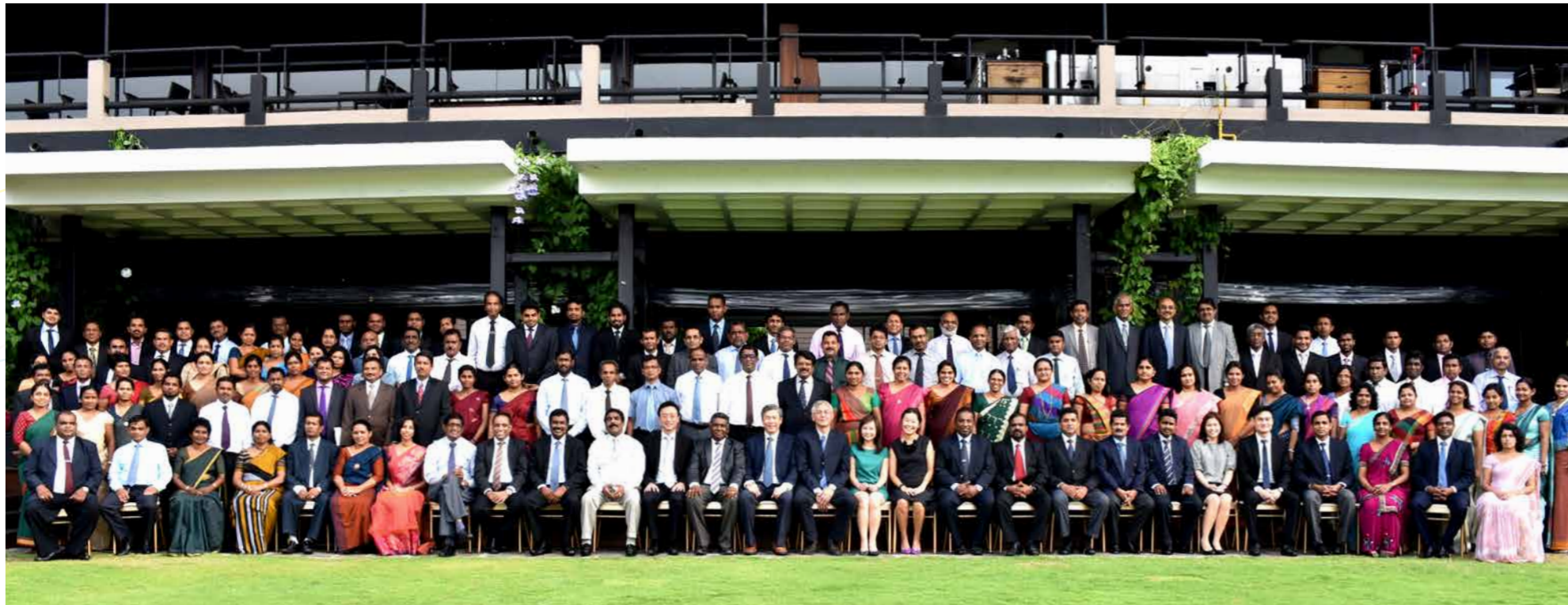
It was then that CLC, TF and SCE made a courtesy call to MDUD to demonstrate our intention to further our relationship beyond TFLUGP, a move warmly received by MDUD, who requested further assistance in: Integrated Master Planning and Government Land Sales, Developing Water Infrastructure & Formulating Green Master Plan and Public Housing Design Guidelines and Community Building in Towns. This thus gave CLC the impetus to develop a new programme specially tailored to address the needs of Sri Lanka: the Sri Lanka Urban Planning & Governance Programme.



Sri Lankan officials brief the Singapore team on the construction of the Colombo Lotus Tower along the Beira Lake waterfront. The Sri Lankan team had first discussed urban regeneration of the Beira Lake area at the inaugural Temasek Foundation Leaders in Urban Governance Programme (TFLUGP) in 2012.



The Colombo Lotus Tower under construction at the Beira Lake waterfront.



Participants and speakers from the first workshop held in Colombo City from 6–8 April 2015.

The Sri Lanka Urban Planning and Governance Programme

Comprising six workshops — five in Colombo and one study visit to Singapore, the programme is holistically designed to equip senior policy leaders and infrastructure specialists with key competencies in integrated master planning and urban development, drawing principles from Singapore's experiences. The end goal is to help enhance Sri Lanka's public service organisational excellence by cultivating a whole-of-government approach in urban planning and governance.

To better demonstrate how to apply the Singapore urban systems approach to actual

on-ground projects, CLC and SCE also sought out urban challenges which could be brought to implementation stage. Besides sharing on best practices and dynamic governance skillsets, CLC experts also went on site to better understand challenges within the local context.

The workshops fleshed out issues and addressed challenges faced by Sri Lanka's leaders and policymakers in their current urban planning and governance. As of February 2016, the Singapore partners have conducted three workshops, training up to 242 Sri Lankan civil servants.



CLC Experts brought to view the recently completed improvement works at Beddagana Wetland Park.

Overall Approach of Programme

Overview of Singapore's development model



Lectures by Singapore urban development experts



Cases from Sri Lanka — **Understanding** of challenges & setting of goals



Discussions on applicability of Singapore's principles for Sri Lanka



Formulate action plans if principles are translatable



Participants to further **train** peers in Sri Lanka

Drawing lessons from Singapore

With an overview of Singapore's high-density high-liveability urban model, Sri Lankan officials and CLC Experts discussed and deliberated key guiding principles from Singapore's urban transformation in relation to Sri Lanka's development. For instance, the Sri Lankan officials appreciated some striking lessons in:

- Preparing and effectively implementing a comprehensive development guide;
- Ensuring economic sustainability in the lifecycle of urban development projects;
- Working in an integrated and close way with key stakeholders including relevant government agencies, the private sector and the public.

So far, the participants have gained an in-depth understanding of the integrated approach of urban planning and management, applying lessons drawn from Singapore's experience and translating these into key principles to Sri Lanka's context.

"Urban management is a challenge that many countries in Asia face today, with cities growing at a very fast pace. We hope this training will be useful in encouraging knowledge sharing between public officials from Singapore and Sri Lanka, and foster networks of cooperation between both countries."

Benedict Cheong
CEO, Temasek Foundation



Sri Lankan officials explaining the operation of the weir upstream of the Thalangama Tank, as part of the Madiwela East Diversion Scheme for flood management.



CLC Expert Marc Boey discussing with Sri Lankan participants the finer points of structuring land sales programmes.



CLC Expert Mr Yeo Meng Tong (NParks) discussing with participants the design and infrastructure implementation issues of parks.

Reflections from participants

"[we need] a strong coordination system amongst all the relevant agencies in order to prepare one single comprehensive master plan for everyone to follow."

"... we need to find ways of making heritage conservation self-financing and attractive to the private investors at the same time."

"[we] need to focus more on human capacity development... there is a need to build up [our] capacity and also to do more research-based planning."

"[A] powerful administrative framework in the approval procedure [means there is] no influence for any procedure; everybody is treated at the same level."

Connecting CLC Experts with Sri Lanka



Marc Boey Kok-Leong

Director, Special Projects & Operations (Property Services), Far East International, Far East Organization

Mr Boey joined URA in 1998 and has vast experience in planning and policy work. He was responsible for Singapore's Land Sales Programme, overseeing property research and property market policies. He was also the Controller of Housing, and was responsible for licensing housing developers and protecting home-buyers' interests. Marc was a Council Member of the Council for Estate Agencies from 2010–2013. As of 2014, Marc has been involved in Far East Organization's overseas investment and development strategies to conceptualise bids for government and private tenders. He is also responsible for Customer Service and other special projects in Singapore.



Chuah Hock Seong

CEO, Singapore Garden City Pte Ltd (wholly owned company of the National Parks Board, also known as NParks) and Associate Director, Centre for Urban Greenery & Ecology (CUGE)

Mr Chuah joined NParks in 1979 and has vast experience in parks and greenery planning and management. He has been providing training for in-house staff, foreign delegates as well as the landscape industry. He has also been invited to speak at international conferences in China, India and UAE. He received the Commendation Medal in 2002 and Public Administration Medal (Silver) in 2006 from the Singapore Government for his dedication and contribution to public service.



Wong Kai Yeng

Director / Partner, JenEon Consultants Pte Ltd and InnoSpring Pte Ltd

Mr Wong has years of experience in land development and planning and infrastructure consultancy. He helped to formulate master and urban plans for cities such as Tianjin Eco-City, Guangzhou, Nantong, Nanjing, Qatar and Mumbai. When he was with URA, he helped to develop Singapore's Concept Plan, Master Plan and Development Guide Plans, and set up the URA International unit to share URA's planning experience and expertise internationally.



Yap Kheng Guan

Adjunct Professor, Nanyang Technological University

Mr Yap joined PUB, Singapore's National Water Agency until his retirement in 2012. He played a major role in formulating drainage policies and technical measures, and was responsible for several water projects such as the Singapore River cleanup, Marina Barrage and ABC Waters. He also set up the 3P Network department in PUB which has set new standards in government for public communication and outreach. He was also PUB's spokesman for local and international press, and broadcasting reports. He is now contributing his expertise at Nanyang Technological University.



Yeo Meng Tong

DCEO, Singapore Garden City Pte Ltd and Director (Design, Research & Development), NParks

Mr Yeo joined NParks in 1988 and has designed and developed many major parks in Singapore including the master planning of park connectors. He has also done landscape master planning for cities such as Tianjin Eco-City and Guangzhou Knowledge City. He is now involved in parks of the future, green space optimisation and greenery master planning and design in overseas cities.



Seoul-Singapore Symposium and Lecture

People enjoying the water
of Cheonggyecheon, Seoul.
Image credit: "Stream Of People"
(CC BY-NC-ND 2.0) by lets.book

Creating People-Centric Cities

Seoul-Singapore Symposium

CLC partnered the Seoul Institute to conduct a Seoul-Singapore Symposium in Singapore in October 2015 to distil useful learning points for Singapore from Seoul's urban development experience. The symposium drew 35 Singapore policymakers and urbanisation experts, and featured speakers Seoul Institute President Dr Kim Soo-Hyun and Transport Research Fellow Dr Ko Joonho.

Seoul's experience offers Singapore many lessons on shaping people-centric cities due to the several similarities between both cities.

Both are high-density cities that experienced rapid development after the 1950s but are facing a general decline in economic growth in recent years. Both cities are also beginning to contend with the changing needs of an ageing population.

In addressing these new challenges, Seoul's urban policies have been shaped from an increasingly people-centric angle, especially under the leadership of Mayor Park Won Soon. Seoul's approach to policy innovations has also captured interest from other cities.



Dr Kim Soo-Hyun speaking at the symposium.

"[Urban planning] designed by elite groups and professionals [may not] reflect the desire of citizens. I think participation means that plans should be based on citizens' intentions and desires, even though the process or the result could be crude. Professionalism versus politically accumulated consensus, it's quite different... in Seoul, we are in the process of finding the right way."

Dr Kim Soo-Hyun

Questions from the Symposium

Liveability in high-density context

"How does Seoul enhance its living environment within a high-density context? And what are the roles of the government, the people and the private sector in this respect?"

People-oriented urban mobility

"How did Seoul manage its transition away from a car-dependent transport system towards a multi-modal, people-friendly system? What are some enablers to reclaim cities back for the people?"

Public engagement & sharing

"How does Seoul carry out public engagement in its urban planning process? And how does it ensure that such engagement processes are constructive?"



"If the timing is suitable and if the removal of transportation infrastructure can satisfy the citizens' various requests, we would like to consider not only projects like Cheonggyecheon but also other projects that give space back to the citizens such as reducing roads or closing roads during some hours."

Dr Ko Joonho

About Seoul Institute

Established by the Seoul Metropolitan Government in 1992, the Institute's goal is to establish a medium-term to long-term vision for the city and propose social policies on welfare, culture, education, and industries as well as urban management policies on city planning, transportation, safety and the environment.

Lessons from Seoul: Planning by People, for People

Mayor of Seoul Park Won Soon once remarked, "In Seoul, citizens are the mayors... No matter how good a job government does to involve the ideas of its citizens, we cannot expect to solve all of the complex problems we face using the perspective of just one expert or the skills of just one sector." The Seoul government is strongly committed to taking in citizens' inputs as part of policymaking, and is changing the way they plan for the city by including a more deliberative participation process from the ground up. This approach is demonstrated in Seoul Vision 2030, the first city master plan that involved citizens throughout the planning process.

Seoul was, however, not indiscriminate in involving its citizens in urban policies. In areas that required stronger public leadership to achieve policy objectives, Seoul was not afraid to set the vision and to lead the transformation in an engaging and collaborative manner.

A good example is the Seoul Transport Vision 2030, which aimed to transform Seoul's previously car-centric transport system and infrastructure into a more people-centric one. The transport plan involved sustained investments by the government in public transport, as well as projects to reclaim road space to improve the walking and cycling environment. Although the latter required tough decision-making by the government to achieve the objectives of discouraging driving and encouraging more sustainable transport modes, the result of these efforts is evident in the successes of the Cheonggyecheon Restoration project and Yonsei-ro Transit Mall.

Seoul was able to balance the needs of the various stakeholders without compromising its vision, by adopting a collaborative and communicative approach comprising stakeholder-led project committees and other forms of engagement.

Citizens are the mayors: Engaging people in the process



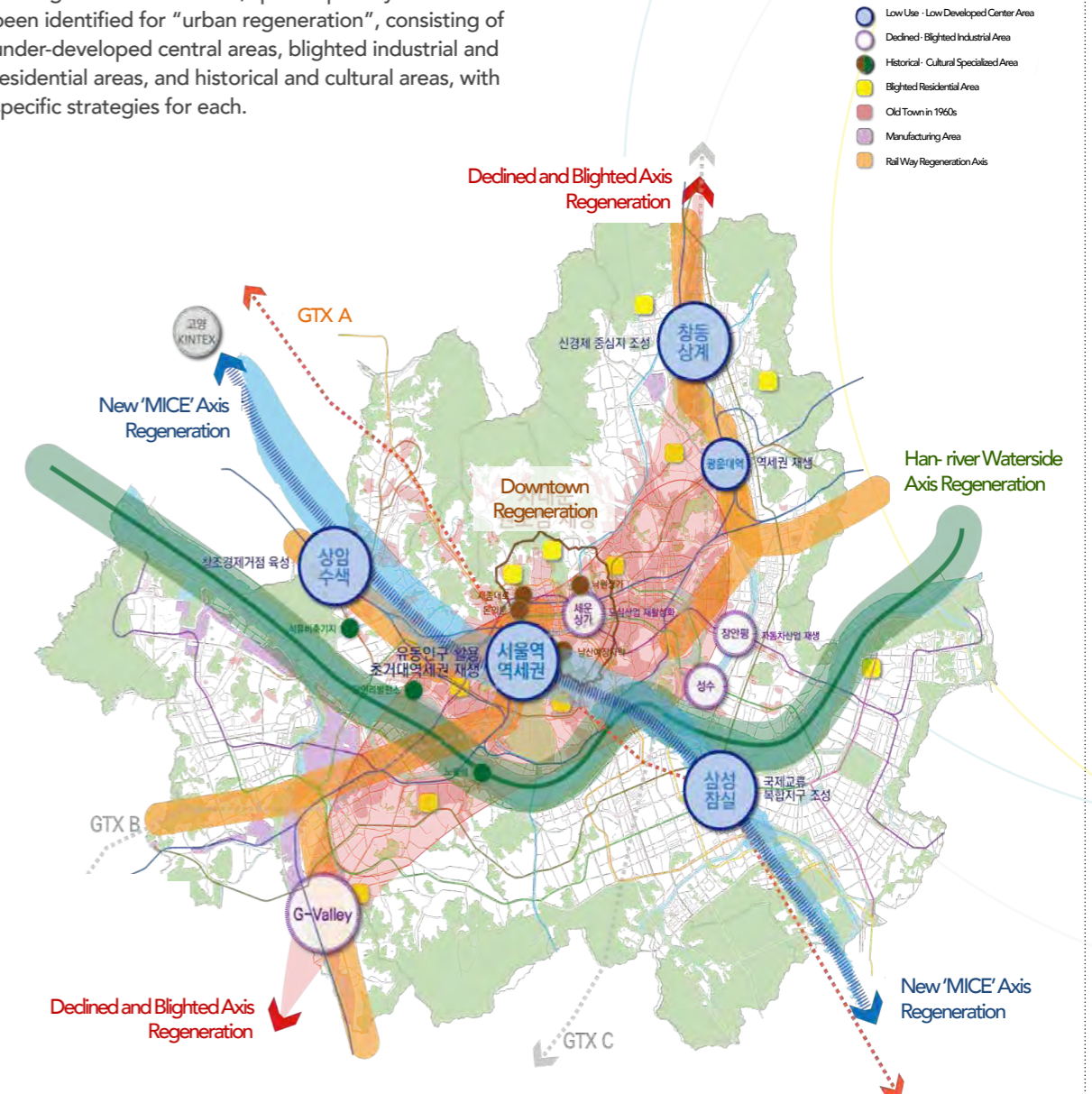
Active Involvement of citizens in the planning process of the 2030 Seoul Plan. Image credit: Seoul Institute.

In 2013, the Seoul Metropolitan Government announced its new vision for 2030: "A happy city based on communication and consideration". This was crystallised with intense citizen input over a two-day marathon. The vision also informs the 2030 Seoul Plan, the long-term urban development plan devised through comprehensive reviews by experts as well as ordinary citizens.

Where citizens were previously only informed of concept maps, the 2030 Seoul Plan called for participation from hundreds of citizens in its planning process. In this way, citizens know the boundaries in new development and re-development, and are able to identify gaps. Information on development plans and minutes of government meetings are also publicly available. In all, about 450 citizens were consulted and participated in the planning process for the 2030 Seoul Plan.

Small is good: Targeting areas for urban regeneration

Seoul's combination of an ageing population, long-term population decline and modest growth conditions is expected to create complex urban issues. For example, large-scale demolition and comprehensive redevelopment that was commonplace from the 1970s to the 1990s are no longer feasible. Instead, specific priority areas have been identified for "urban regeneration", consisting of under-developed central areas, blighted industrial and residential areas, and historical and cultural areas, with specific strategies for each.



Areas of priority for urban regeneration in Seoul. Image credit: Seoul Institute.

From road to river: Prioritising people-centric infrastructure

The Cheonggyecheon Restoration project, while generally positioned as a heritage urban space restoration project, propelled the city government to decisively accelerate efforts in transforming its mobility paradigm — away from car reliance. The project was successful in that travel mode share for private cars was reduced from 21% before the project to 15% in 2007, while the share of public transport and active travel increased accordingly. The government took the opportunity to further discourage driving with increased parking fees and tougher laws on illegal parking while enhancing the capacity of buses and subways to encourage ridership.



Image credit: "Seoul-Restoration site 02" (CC BY-SA 3.0) by Erik Möller



Image credit: Seoul Metropolitan Government.

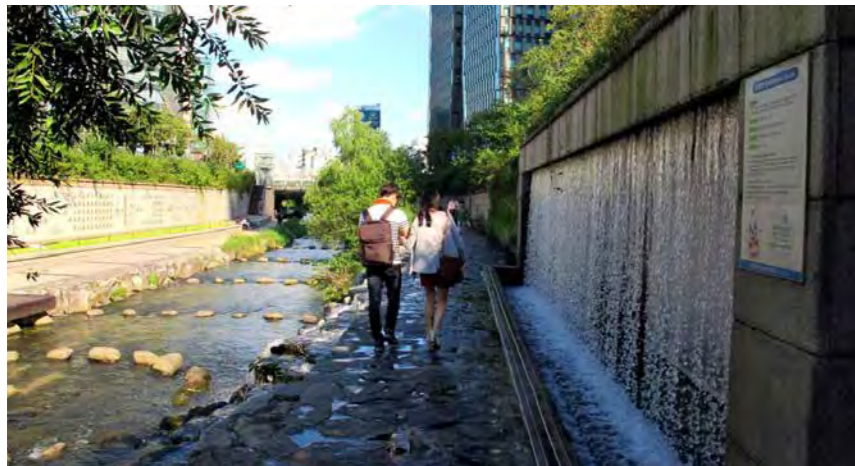


Image credit: "cheonggyecheon restoration in Seoul" (CC BY 2.0) by carlospardo

Before its restoration, Cheonggyecheon was covered by an elevated highway. Pedestrians are now able to interact directly with the public space.

Public Lecture: Can Seoul Escape Its Legacy of Over-development?

To share the experience of Seoul with the wider public in Singapore, Dr Kim also gave a CLC Public Lecture titled "Seoul's Achievements and Challenges: Beyond Development-Dependent City" on 19 October 2015. Dr Kim identified four challenges confronting traditionally development-reliant East Asian Metropolises: low economic growth rates, low birth rates, new social conflicts, and low development demand.

What can cities in such a predicament do? Dr Kim outlined some strategies. For one, he believed that the "creative economy [will be] a new growth engine", based on the abundance of talented workers, the co-existence of traditional and modern culture and the sustaining of

manufacturing. He also expounded on Seoul's priorities of citizen participation, extending welfare services and improving the quality of life and the revitalisation of the city without depending on large construction projects.

Dr Kim is optimistic about Seoul escaping the legacy of over-development and its associated problems because of its dynamism and its ability to learn from its past failures and successes. These factors are certainly learning points for other cities facing the same challenges. "A city is alive, like a living organism, because of the people living there. People are the owners of the city, not simply customers. As long as people live, the city will revive."



Dr Kim Soo-Hyun shared about Seoul's strategies to overcome the challenges of over-development.





The Future of Us Exhibition

The Future Express
The Future Express
The Future Express
The Future Express

The Future Express
DECEMBER 2030
EDITION 01

THE STORY OF US



THE HAND BUILT TH...

BRICKS, ICE BALLS, SONGKONS, OLD SHOES, EVEN PARROTS PROVIDE A LITTLE TO MANY WHO SHARE HOPES FOR A BETTER LIFE

The Future Express
The Future Express
The Future Express
The Future Express
The Future Express
The Future Express
The Future Express

SINGAPOREAN
SINGAPOREAN
SINGAPOREAN
SINGAPOREAN

The Future Express
EDITION 01

THE MEANING OF BEING SINGAPOREAN



FORUM

WILL WE STILL HAVE HAWKER CENTRES?
WILL THERE BE MORE THAN ONE WAY FOR OUR KIDS TO SUCCEED?
CAN LIFE ACTUALLY GET BETTER AFTER 60?

SINGAPOREAN
SINGAPOREAN
SINGAPOREAN
SINGAPOREAN
SINGAPOREAN
SINGAPOREAN
SINGAPOREAN

THE NEXT CHAPTER
THE NEXT CHAPTER

The Future Express
EDITION 01

THE NEXT CHAPTER

PM Lee asks Singaporeans to get involved and write the next chapter of the Singapore story together as one.



TRENDING STORIES

100%
The buildings in...
100%
The buildings in...
100%
The buildings in...

THE NEXT CHAPTER
THE NEXT CHAPTER
THE NEXT CHAPTER
THE NEXT CHAPTER
THE NEXT CHAPTER
THE NEXT CHAPTER
THE NEXT CHAPTER

Headlines of the past, present and future greet visitors as they enter the The Future of Us exhibition.

Imagining the Future of Singapore

Singapore launched the *The Future of Us* exhibition from December 2015 to March 2016. With creative direction from CLC, visions of the city's future were distilled and showcased to encourage citizens' ownership of the future.

Together with various partner organisations, the CLC team reviewed and consolidated 15,000 ideas from the public through multiple platforms such as public campaigns, group dialogues, interview sessions and social media channels.

Four main areas concerns for the future emerged:

- Sustainability of the environment
- Transportation
- Caring for the community
- Desire to create an inclusive society

A total of 1,286 guides, volunteers and staff took part in the exhibition, which attracted 389,161 visitors and 13,274,051 views, likes and comments online.



The garden location at Marina Boulevard enabled the exhibition to be set in an unbroken space, creating a seamless narrative and visitor experience between the four domes. Image credit: "The Future of Us" (CC BY-NC-SA 2.0) by chooyutshing



The space outside the exhibition was transformed into an inclusive play area for visitors to enjoy.

Four protagonists and their dreams

Four characters were created to help visitors relate to the challenges of the future, and to imagine possible future solutions through urban innovations.

Yixin

Designer, 30

Her ambition is to design universally accessible spaces, products and environments. She envisions "multi-generation play spaces" in the city. In her vision, design has enabled peoples of all ages and abilities to work, live and play together, without barriers. Yixin's dream reflects the increasing desire for inclusive designs and architecture amongst Singaporeans to accommodate people of all abilities. We strive to portray urban design possibilities for a better-designed future.



Ravina

Horticulturist, 38

Her ambition is to grow more plants in the city. Ravina envisions a "sky farm" city. In her vision, green urban solutions, such as the hydraulic farm, produce vegetables for consumption using minimal resources. This results in a city with low carbon outputs. Ravina's dream of a sky farm city addresses the increasing interest amongst Singaporeans on environmental issues—in particular, we are addressing future urban farming possibilities for the "grow-your-own-food" movement.



Faizal

Entrepreneur, 22

His ambition is to allow city dwellers to share rides, so as to reduce road congestions and air pollution. Faizal



aims to create a transport-accessible city, where people seek to have access to, rather than ownership of, vehicles. Faizal's dream reflects the growing concerns that many Singaporeans have towards transport and mobility issues. We hope to present the various transport innovations for a more mobile urban future.



Joseph

Social worker, 45

His ambition is to create a strong network of social support. Joseph's vision is to create a caring society. In his vision, a strong support network enables swift response to accidents and medical emergencies, and gives people of all abilities opportunities to give and receive help. Joseph's dream highlights the increasing demand for caregivers and community solutions in the face of an ageing population. We wish to portray a strong volunteer network through community innovations to address these needs.

"We tend to think that technology today tends to be divisive, and so we hope that technology in the future will be integrative and bring people together instead."

Syafaah and Haniesa

students, Madrasah Wak Tanjong

Stepping into the future

Staged at Marina Boulevard along Singapore's iconic Marina Bay area, the exhibition was housed in four domes with various interactive formats.

Visitors to the exhibition experienced the four domes seamlessly and sequentially: the Theatre of Generations; Symphony of the City; Home Tomorrow; and Blue Skies.

In the Theatre of Generations, a 360-degree short film showed a time-lapse of Singapore's different generations, from 1965 to 2030. The narrative featured the hopes and dreams of these generations — many of them similar — and how past generations have inspired their young.

1 Theatre of Generations



"It was an eye opener for us as the two year-olds were completely immersed in the experience... [they] understood the exhibition and chatted non-stop on the way back to the centre."

Nirmala Murugaian
Principal, Street11 Preschool & Nursery

A large wraparound media screen depicted imagined visions of the city in Symphony of the City. Showcasing features such as water taxis, vertical farms, a floating hawker centre and an underground Science City, visitors were able to envision Singapore's urban future.

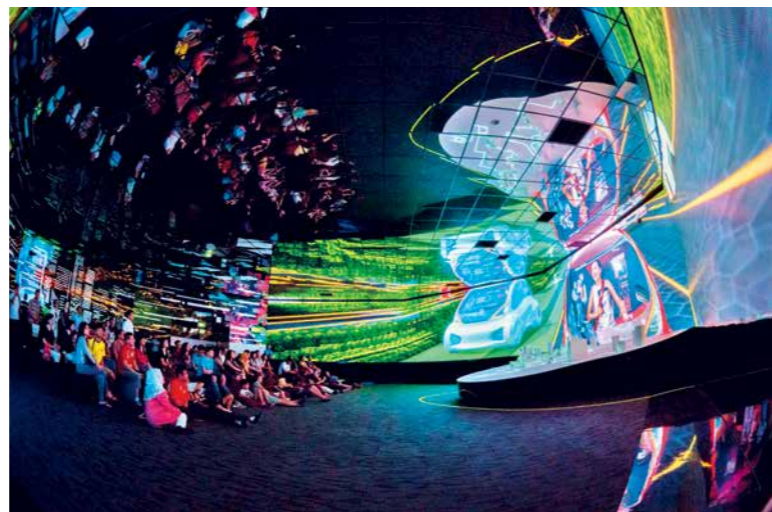
At the third dome, Home Tomorrow, visitors were able to have a glimpse of urban living in the future, where urban innovations ranging from healthcare, technology, learning, sustainable living and agriculture were embedded into citizens' everyday lives.

Finally, visitors were able to pen their hopes and dreams for Singapore at the "wishing well" in the Blue Skies dome. These were directly projected onto the top of the dome to create inspiring word clouds.

"I like the involvement of people sharing their dreams... in this exhibition, the population is taking ownership in determining and setting what the future of Singapore ought to be."

Professor Lee Sing Kong
Director, NIE International

2 Symphony of the City



Four themes from "SGfuture Conversations"

A Caring Community
"How do we make SG100 a more caring and cohesive society, one where we care for and value one another, and work together for the Common Good, regardless of who we are?"

A Cleaner, Greener and Smarter Home
"How do we envision SG100 as a better home and living environment for all of us?"

A Learning People
"How do we continue to find opportunities to learn and improve ourselves to take charge of our future?"

A Secure and Resilient Nation
"How can we build a resilient and secure nation, in the face of security threats?"

3 Home Tomorrow



4 Blue Skies



Continuing the conversation

With the "Future of Us" exhibition as a launch pad, a public engagement series called **"SGfuture Conversations"** was organised together with government ministries and statutory boards.

Here, Singaporeans came together and shared their views and ideas for the future through focused discussions and dialogues. Participants were encouraged to go a step further — by embarking on projects themselves or in partnership with government. Through this engagement, government agencies aim to establish the tone of their subsequent citizen engagement efforts.

Over 5,000 participants took part in more than 90 SGfuture sessions during the exhibition period.



SGfuture Conversations provided a platform for Singaporeans to share their ideas and commit to bringing about change.

Research UPDATES

	FY13	FY14	FY15
URBAN SYSTEMS STUDIES			
Completed	3	7	4
Published	2	3	3
FORWARD-LOOKING RESEARCH			
Completed	2	2	2
Published	1	1	1
Workshops/Roundtables	-	-	4
INSIGHTS			
Completed	4	3	5
INTERVIEWS			
Completed	57	32	48

A Collaborative Approach to Urban Systems Research

CLC's research comprises two key thrusts: to distil knowledge through documentation of Singapore's transformation into a highly liveable and sustainable city within the last 50 years, as well as to build upon this knowledge to create urban solutions that will address current and future challenges for Singapore and other cities.

There are valuable lessons to be learnt from both our past and the experiences of other cities around the world. Through our documentation of Singapore's development using an integrated urban systems approach, CLC recognises that Singapore has always learnt from others and still looks abroad for ideas. CLC continues to build collaborations with our research partners to deepen our knowledge of urban systems and to develop urban solutions that address emerging urban challenges that cities face.



Biophilia and the Future of Sustainable Cities

Many experts today are espousing the benefits of biophilic cities — cities that work hard to foster positive connections with nature by placing it at the centre of its design practices. To study how biophilic solutions could be incorporated into the city, CLC and Singapore's National Parks Board invited an illustrious panel of local and international speakers to share on the subject. A series of lectures, roundtable discussions and workshops were held from 14 to 16 October 2015 to distil the findings and to make a case for expressions of nature in cities. Through the various sessions and discussions, attendees learnt about the value of biophilia and biophilic design in enhancing personal wellbeing and fostering social connections, as well as various strategies for injecting biophilic design elements into the city. Using Singapore as an example, the experts also examined Singapore's efforts in biophilic design, and proposed new possibilities for biophilic cities of the future, while keeping in mind the role of biophilia in enhancing quality of life for all people.



“Biophilia and biophilic design is more about a new consciousness towards nature, rather than a technique or economic case for a design built environment.”

Professor Stephen Kellert

After the symposium, workshop participants were able to immediately put into practice the biophilic design theories they had learnt. Under the guidance of Professor Stephen Kellert, Professor Timothy Beatley and Professor Peter Newman, the participants visited four case study sites and brainstormed potential biophilic implementations tailored to the specific needs of each site.

Through the Symposium and workshops, it is clear that the benefits of a biophilic city are undeniable. As Singapore continues to create its own brand of tropical biophilic urbanism through its research, the benefits of biophilia can eventually be extended to all Singaporeans and other cities to enjoy.



Local and international experts spoke on the benefits of having natural environments in cities. From left: Professor Peter Newman; Professor Timothy Beatley; Professor Stephen Kellert; Dr Limin Hee (moderator); Dr Lena Chan; Mr Khew Sin Khoon; Mr Leonard Ng and Professor Tay Kheng Soon.

Symposium Experts

Kenneth Er

CEO, National Parks Board (NParks)

Mr Er began his career in NParks and has been involved in the planning, implementation and management of parks and streetscapes in the city. He was later involved in the review of legislation pertaining to parks and greenery infrastructure, agri-veterinary issues, and building and construction in the Ministry of National Development. Mr Er served as Chief Operating Officer of Gardens by the Bay before his current appointment as CEO of NParks.

Stephen Kellert

Tweedy Ordway Professor Emeritus of Social Ecology and Senior Research Scholar, Yale University

Professor Kellert is interested in how societies can provide learning and social support to develop interactions with nature that contribute to human wellbeing. Alongside a framework for applying biophilic design approaches, he highlights the importance of a consciousness and ethic toward the natural world. He has won multiple awards for his more than 150 publications on environmental conservation and sustainable design and development.

Timothy Beatley

Teresa Heinz Professor of Sustainable Communities, Department of Urban and Environmental Planning, School of Architecture, University of Virginia

Professor Beatley is an eminent authority on sustainability in cities. He developed the principles of Green Urbanism, which focus on how cities can develop to be beneficial to both people and the environment. Professor Beatley is a strong advocate for cities to move towards the emerging practice of biophilic urbanism. He has also written and co-authored more than fifteen books on these subjects.

Peter Newman

Professor of Sustainability, Curtin University

Professor Newman proposes that biophilic urbanism is a disruptive innovation that will enter the mainstream and open significant market opportunities globally. He believes that cities can go beyond landscaping by employing biophilic tools to create urban habitats for biodiversity and human wellbeing. Professor Newman is also known for his research and contributions to revolutionising the transport system in Perth, shifting the city's away from 'automobile dependence'.

Dr Lena Chan

Group Director (Professional Development & Services), National Biodiversity Centre, National Parks Board

Dr Lena Chan serves as group director at the National Biodiversity Centre, NParks. She leads a team of 30 officers who are responsible for a diverse range of expertise relevant to biodiversity conservation. She is also a National Focal Point for the Convention on Biological Diversity (CBD).

Leonard Ng

Managing Director, Atelier Dreiseitl Singapore

Mr Leonard Ng is the Managing Director at Atelier Dreiseitl Singapore. His design interest lies at the intersection of man and his environment, with the aim of finding a long-term sustainable balance between them. Mr Ng's approach involves extensive collaboration with diverse professions to develop holistic landscape-based solutions that engage and educate users while respecting the environment.

Tay Kheng Soon

Adjunct Professor, Department of Architecture, National University of Singapore

Professor Tay is a practising architect and adjunct professor at National University of Singapore's Department of Architecture. He was president of the Singapore Institute of Architects and founding member and chairman of SPUR (Singapore Planning and Urban Research). Professor Tay is also a member of the advisory panel of the Government Parliamentary Committee on National Development, and a member of the advisory panel of the Singapore Institute of Policy Studies.

Khew Sin Khoon

President and CEO, CPG Corporation and Co-Founder of ButterflyCircle

Mr Khew is the President and CEO of CPG Corporation, a Singapore-based consultancy firm. He has worked on many landmark projects including Gardens by the Bay, Khoo Teck Puat Hospital, and numerous institutional and healthcare projects in Singapore and overseas. Mr Khew also co-founded ButterflyCircle, an online community of butterfly enthusiasts, and has collaborated with NParks on species-recovery projects and the nationwide Butterfly Count.

Research and Collaboration with Visiting Fellows

The CLC Visiting Fellowship is a programme for distinguished researchers and practitioners to undertake research in their areas of expertise and interests. The programme allows CLC to exchange knowledge on sustainable and liveable cities and strengthen our ties with like-minded researchers and practitioners, in the joint effort to create and share solutions in response to future challenges.



Dr Wei Jianing Aug 2015

Research fellow and Inspector, Department of Macroeconomic Research, Development Research Center of the State Council, People's Republic of China.

Dr Wei and CLC researchers discussed the concept paper for the first CLC-DRC publication. He also gave a lecture at MAS on China's economy and met with several government agencies. Dr Wei was also part of the Chinese delegation that participated in the MFA City EXCEL programme.

Dr Kim Soo-Hyun Oct 2015

President, Seoul Institute.

The Seoul Institute was established by the Seoul Metropolitan Government in 1992, to extend professional research to municipal administration matters and improve the quality of life.

Dr Kim described Seoul's recent people-centred approach to development, in the lecture "Seoul's Achievements and Challenges: Beyond Development-Dependent City". He also led the Korean team in the Seoul-Singapore Symposium held on 21 October, where they discussed urban governance and mobility.



Prof Michael Norton Jul 2015

Professor of Business Administration, Harvard Business School.

Prior to joining HBS, Prof Norton was a Fellow at the MIT Media Lab and MIT's Sloan School of Management. His research is on behavioural economics.

Prof Norton delivered a CLC lecture, "Trust and Transparency in Service Provision". He met several government agencies representatives involved in "customer-facing" roles, to discuss transparency and efficiencies in government processes.



Prof Peter Rowe Aug 2015

Aug 2015

Raymond Garbe Professor of Architecture and Urban Design, Harvard Graduate School of Design. Prof. Rowe has served as principal investigator and advisor to cities in the US, China, Korea and Spain.

Prof Rowe gave a lecture on "Urban Intensities: Contemporary Housing Types and Territories" and wrote an essay on how Singapore's verdant aspects shape its national narrative. He also met with strategic and planning departments of various government agencies in Singapore.



Prof Eric Klinenberg Nov-Dec 2015

Professor of Sociology and Director of the Institute for Public Knowledge, New York University.

Prof Klinenberg was part of a roundtable on social resilience and isolation. He also gave a CLC lecture on "Adaptation: Cities and the Challenges of Climate Change". His essay on social infrastructure as the missing ingredient in urban resilience was featured in CLC's Urban Solutions #7.



Profs Susan and Norman Fainstein

January 2016

Prof Susan Fainstein is the author of *The Just City*. She is Senior Research Fellow at Harvard University's Department of Urban Planning and Design.

Prof Norman Fainstein is Professor Emeritus of Sociology and Urban Studies at Connecticut College. He is founding Editor of *Ethnic and Racial Studies*.

The Fainsteins made a site study to Little India and consulted on CLC's research on the location. They also had a discussion with Singapore's Minister of National Development Lawrence Wong.



April Rinne

Jan 2016

Director, World Wide Web Foundation.

Ms Rinne was elected Young Global Leader by the World Economic Forum in 2011.

Ms Rinne conducted workshops as well as two public lectures on the sharing economy, including a CLC lecture on "Unlocking the Social Value of the Sharing Economy". Ms Rinne's fellowship was jointly offered by the CLC, the Centre for Strategic Futures (Prime Minister's Office), and the Civil Service College.



Prof Geoffrey West

Mar 2016

Distinguished Professor and Past President, Santa Fe Institute.

A theoretical physicist, Prof West is one of the leading scientists working on scientific modelling of cities.

Prof West delivered a CLC Lecture on "Growth, Innovation, Economies of Scale and the Pace of Life: Developing a Quantitative, Predictive Science of Cities, Companies and Sustainability". He took part in a roundtable on scaling laws and city performance in relation to Singapore and consulted on CLC's research.



Henk Ovink

Mar 2016

Special Envoy for International Water Affairs, Kingdom of the Netherlands.

Prior to his appointment as Special Envoy, Mr Ovink was Senior Advisor to the US Presidential Hurricane Sandy Rebuilding Task Force.

Mr Ovink shared insights to the billion-dollar "Rebuild by Design" challenge under the Obama administration, and participated in roundtables on marine spatial planning. He gave a CLC lecture on "Singapore and The Netherlands: Innovators Driven by Scarcity".



Capability Development & Advisory UPDATES

	FY13	FY14	FY15
TOTAL PARTICIPANTS			
No. of programme participants	469	453	601
INTERNATIONAL PROGRAMMES			
No. of programmes conducted	8	8	8
Average rating	4.5	4.5	4.68
LOCAL PROGRAMMES			
No. of programmes conducted	7	8	8
Average rating	4.4	4.4	4.49

From Knowledge to Practice

Practice-Oriented Training to Translate Ideas into Reality

As Singapore's foremost public training provider in the Infrastructure and Environment (I&E) sector, CLC conducts local and international training programmes that encourage participants to apply principles from Singapore's urban development experience to current challenges faced by their cities. Our training programmes equip city leaders to tailor innovative solutions for their cities through practical sessions with local experts as well as study visits that seek out global best practices.

In the year, CLC conducted 16 local and international programmes. These training programmes brought participants on various learning journeys around Singapore and other cities to witness first-hand the urban solutions already in place. Through the lens of our Liveability Framework and Urban Systems Studies research, CLC also deepened participants' understanding of the challenges and solutions in creating liveable cities.



CLC's training programmes are practice-oriented, involving action plan discussions and study visits.

Developing Leaders in Urban Solutions

6th Leaders in Urban Governance Programme (LUGP)

Twenty-five officers participated in the 6th Leaders in Urban Governance Programme (LUGP) from September to October 2015, a key milestone programme for Director-level officers under the Public Sector Leadership Programme (PSLP). This intensive four-week course provides participants with insights into the underlying principles behind Singapore's urban development and allows focused dialogue on current issues and challenges. Participants also went on a study trip to New York City to glean lessons from the city's experience and strategies in urban development.



LUGP participants were able to engage deeply with one another on current issues and challenges.

Insights from New York City

5 – 9 October 2015



Visitors to Times Square enjoying free WiFi provided by Times Square Alliance and Yahoo!. Image credit: "Yahoo! & Times Square Alliance Free WiFi" (CC BY 2.0) by Yahoo Inc

Times Square Alliance has achieved tremendous success in transforming the old Times Square of 1992 which was chaotic and riddled with crime to the Times Square of today. Image credit: "Times_Square-FLKR" (CC BY-ND 2.0) by argusfoto.

Citizen activism often comes to the fore when public agencies are unable to react in time. In New York City, "Business Improvement Districts" (BIDs) — statelegislated non-profit organisations that deliver public services to specific neighbourhoods to supplement what the government provides — have had significant impact on the economic development of the districts they champion. The Singapore delegation met with two BIDs — Times Square Alliance and Downtown Brooklyn Partnership — to better understand how they have helped to transform Times Square and Downtown Brooklyn into the vibrant districts of today, thereby demonstrating how community-led developments and initiatives can successfully complement the government's efforts to build a more liveable city.



EDGE participants on their learning journey to the Rail Corridor in spite of the rain.

8th Executive Development and Growth Exchange (EDGE) Programme

CLC's Executive Development and Growth Exchange (EDGE) Programme targets promising mid-level officers, predominantly from the Infrastructure and Environment (I&E) sector. The three-week programme equips participants with a deeper understanding of Singapore's underlying development principles through dialogues and discussions on CLC's Urban Systems Studies, as well as integrated learning journeys to places such as Cleantech Park, Punggol Waterway, the Rail Corridor and TOUCH Seniors Activity Centre. Participants also took part in an overseas study trip to learn how other cities addressed challenges that Singapore faces in an innovative way.

Eye on Tianjin and Hong Kong

26 July – 1 August 2015



EDGE participants at a community park in Hua Ming Residential, Tianjin Binhai New Area.

CLC brought the 33 participants on a study trip to Tianjin and Hong Kong where they had dialogues with government agencies and stakeholders — with themes ranging from housing, transport, migration and ageing.

Tianjin: Active ageing through engaged learning

At Tianjin University for the Elderly, seniors can take up courses of their interest — something they might have sacrificed in their youth for their families. All teaching staff are retirees, giving them a space to remain productive and engaged. While not all seniors will remain in the workforce after retirement age, this avenue gives them an opportunity to maintain quality of living in their later years.

Hong Kong: Labour migration and free movement

Hong Kong's Immigration Policy Department maintains an open immigration policy to facilitate tourist and business movement. Several policies are also in place to attract and retain talent in Hong Kong. They include the General Employment Policy, the Admission Scheme for Mainland Talents and Professionals, and the Quality Migrant Admission Scheme, targeting different profiles that are valuable to the workforce.



Challenges for the city: Public officers play key role

City Executive Leaders (City EXCEL) Programme

In five groups over 2015, 123 public officers in Singapore's Infrastructure and Environment sector took part in the City EXCEL programme, jointly organised by CLC and BCA Academy. The one-week intensive course challenged participants to examine infrastructural and urban challenges ahead for Singapore through CLC's Liveability Framework. Participants also had the opportunity to learn firsthand from the accounts of urban practitioners from government, industry and the community.



2nd MFA City Executive Leaders Programme (MFA City EXCEL)

In August 2015, CLC hosted 30 city leaders and senior government officials in the MFA City EXCEL programme, a collaboration between the Ministry of Foreign Affairs and CLC under the Singapore Cooperation Programme. A practitioner-oriented programme that shares principles of Singapore's integrated approach to high-density and high-liveability city making, participants are invited to identify urban solutions and develop a 12-month action plan adapted to the context of their respective cities.

Participants on a learning journey to the Singapore River and Marina Bay.

Shaping Leaders of Liveable Cities

4th Temasek Foundation Leaders in Urban Governance Programme

Supported by Temasek Foundation, CLC's Temasek Foundation Leaders in Urban Governance Programme invited 20 city leaders to Singapore in May 2015. This annual flagship five-day mayoral programme gathers Asian city leaders and senior government officials to learn about Singapore's urban strategies through the CLC Liveability Framework. Delegates worked closely with Singapore's urban pioneers and expert practitioners to formulate a series of action plans to tackle urban challenges in their respective cities.

At a glance

- 20 city leaders and senior government officials
- 7 cities, 6 countries
- Cambodia, China, India, Indonesia, Malaysia and Vietnam
- Panel of 11 experts (Singapore)
- 3 World Bank specialists

City leaders shared their urban challenges in areas such as sustainable environment, transport and housing. During the training, the Singapore panel of experts helped draw out useful lessons from the city's urban development experiences. CLC will continue to work closely with these experts to guide city leaders in formulating plans for their respective cities, and will provide support as these cities implement their plans over the course of one year.

City leaders from TFLUGP visited Punggol Waterway Park to gain a first-hand understanding of Singapore's efforts in managing a sustainable environment.



12 Cities
6 Countries

BANGLADESH

Dhaka South City Corporation
Dhaka North City Corporation
Khulna City Corporation
Narayananganj City Corporation

CAMBODIA

Phnom Penh City Hall

CHINA

China National Smart City Joint Lab, Ministry for Housing and Urban-Rural Development
Development Research Center of the State Council of China
China Executive Leadership Academy Pudong

PHILIPPINES

Philippines Department of Transportation and Communications

SOUTH AFRICA

Guateng Province Department

VIETNAM

Ho Chi Minh Department of Planning and Architecture
Da Nang City Hall

Knowledge Platforms

UPDATES

	FY13	FY14	FY15
CLC LECTURE SERIES			
No. of lectures	14	10	22
Average no. of attendees	223	178	131

WORLD CITIES SUMMIT MAYORS FORUM			
No. of participating city and provincial leaders	56	128	65
No. of participating cities and provinces	52	124	59
No. of participating countries	29	44	35

WORLD CITIES SUMMIT			
No. of delegates in attendance	n.a.	1,169	n.a.
No. of participating countries	n.a.	67	n.a.

Sharing Knowledge and Strengthening Partnerships

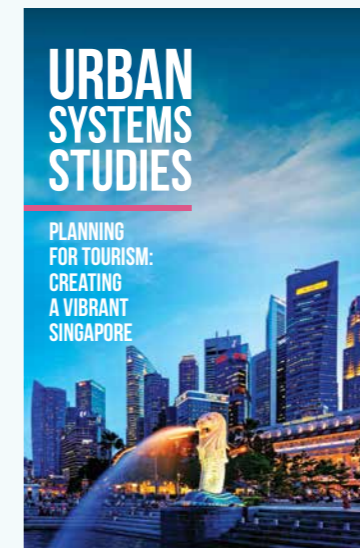
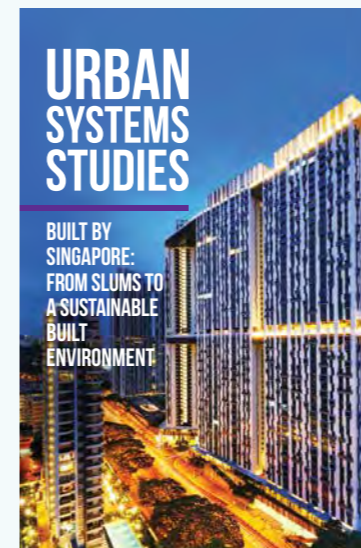
In sharing knowledge about liveable and sustainable cities, CLC continues to employ various platforms to engage and inform a growing network of local and international city leaders and practitioners.

2015 saw the World Cities Summit Mayors Forum and Young Leaders Symposium being organised in North America for the first time, further extending the discussion on creating liveable and sustainable cities to a new group of leaders and experts in governance and urban development.

CLC also sought to deepen its exchange of knowledge with China through the signing of Memorandums of Understanding with the National Development and Reform Commission, and the Development Research Center of the State Council of the People's Republic of China.

CLC's Singapore-based audience also remained up-to-date on the latest ideas and developments from around the world. City leaders and experts brought their expertise and experiences to our shores through CLC's 22 public lectures that spanned topics such as governance, water management, biophilia and smart city initiatives.

This knowledge remains accessible to audiences through our publications, website and social media, including content such as exclusive interviews available through **Urban Solutions**, CLC's biannual magazine and our **YouTube Channel**. CLC's publications such as our **Urban Systems Studies** book series are available for download from our website. CLC is also active in social media through our **Facebook page** and **Better Cities**, our monthly newsletter, in which CLC shares the latest ideas on what it takes to make cities liveable.



The latest titles in CLC's Urban Systems Studies (USS) book series are now available as free e-versions online, thus reaching a wider range of audiences from around the world.

CLC LECTURE SERIES HIGHLIGHT
 Cities, Governance
 and Sustainability



Former Prime Minister of the Netherlands Professor Jan Peter Balkenende described how good governance, complemented by an active civil society, is critical for a system of checks and balances in city development.

With a growing need to meet users' needs without depleting the planet's resources, Professor Balkenende believes that the core value of sustainability will become more important to business strategies and planning.

"Today we say growth is part of human nature. A sportsman wants to reach the gold medal at the Olympic Games. A researcher wants to realise the best research results. An entrepreneur wants to discover new markets. Growth is a part of human nature, but not at all costs, so it must be sustainable growth."

Professor Jan Balkenende

CLC LECTURE SERIES HIGHLIGHT
 Urban Systems
 Engineers Needed!



Singapore has in over 50 years transformed its downtown city, created new towns in the suburbs and an industrial city in the western region.

The growth of its people and vehicles has challenged the traditional practice of segregating users of land. Tight integration of different uses on the same piece of land will lead to higher level of liveability. Singapore's former Chief Defence Scientist Professor Lui Pao Chuen, now Advisor to the National Research Foundation, shared how a new breed of urban system engineers is needed for Singapore.

"[Integration of] people, organisations and society is the soft system and that's the most difficult part. Integration of land, infrastructure and technology systems is the second part and if you got the first part right, the second part will be natural... If you don't invest the money to grow the people, to find the people, all these are gone."

Professor Lui Pao Chuen

URBAN SOLUTIONS HIGHLIGHT

Interview: New York City Mayor Bill de Blasio



Image credit: "NYC Mayor Bill de Blasio" (CC BY 2.0) by @KevinCase.

In an exclusive interview for issue #7, *Urban Solutions* asked Mayor Bill de Blasio about urban resilience, the issue's theme, including how individuals and communities can strengthen it. He observed that community organisations had played a critical role during Hurricane Sandy, as New York City's first-line of communication with dispersed communities. These groups have since been more deeply integrated into emergency response plans, to tap the goodwill of every neighbourhood.

"... there is no substitute for person-to-person contact in crises... bringing help to New Yorkers' doorsteps is the most effective way to reach people — not waiting for them to come to the government."

Bill de Blasio
Mayor of New York City

URBAN SOLUTIONS HIGHLIGHT

Roundtable: Biophilia: the Future of Sustainable Cities?



From left: Professor Stephen Kellert, Professor Timothy Beatley, Professor Peter Newman.

"The more levels of connection we have with nature, the more benefits and values we obtain from it, ecologically as well as economically."

Professor Stephen Kellert

"Biodiversity appreciation is not selective — if you enjoy the butterfly, you must accept the caterpillar."

Khew Sin Khoon

As part of a symposium co-organised with Singapore's National Parks Board, *Urban Solutions* helped assemble a roundtable of foreign experts and local practitioners to discuss how biophilia, or human affiliation to nature, can make cities more sustainable. Published in issue #8, the article presented a lively debate of diverse models, from Mexico City rooftop food gardens, guerrilla street gardens in Australia, and incorporating nature in Brazilian favelas, to the rich agricultural, food, and design culture fostered by rural-urban integration in Italy's Bologna region.

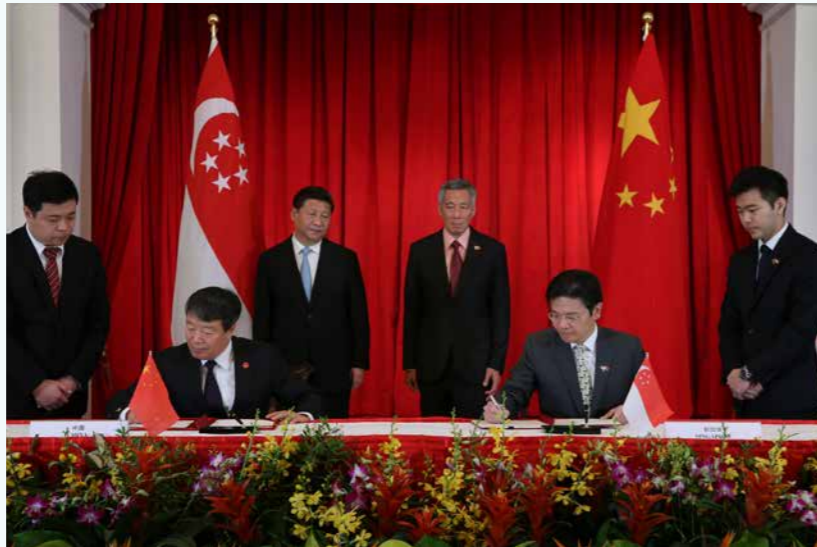


From left: Khew Sin Khoon, Professor Tay Kheng Soon.

Forging New Partnerships with China

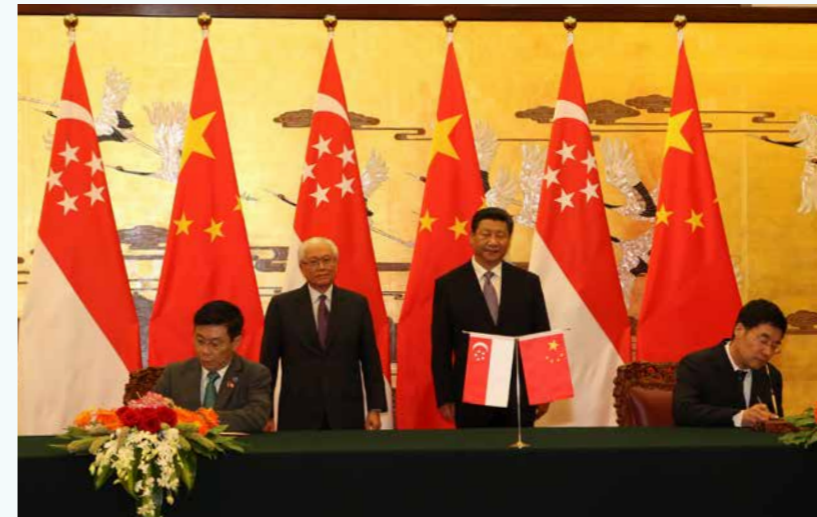
The year saw a number of significant agreements forged with the People's Republic of China. As part of the Ministry of National Development of Singapore, CLC is working closely with its Chinese partners in research and training on the subject of city and urban development.

MOU between Ministry of National Development of Singapore and National Development and Reform Commission of the People's Republic of China (NDRC)



In November 2015, MND inked a new agreement with NDRC, China's central planning ministry and approving authority for large-scale infrastructure projects. The scope of collaboration includes visiting fellowships, study visits, research and publications, capability development, advisory, conferences and events. To share CLC's research, the Centre will contribute chapters on Singapore's urban and social governance in NDRC policy publications. These will be circulated to ministries, provincial and city-level governments, research institutes and think tanks in China. CLC has contributed a chapter on ageing in NDRC's annual publication on social development, to be published in end-2016.

Minister for National Development Lawrence Wong (second from right) and NDRC Minister Xu Shaoshi (second from left) signing the Memorandum of Understanding in Singapore, witnessed by Prime Minister Lee Hsien Loong (third from right) and President Xi Jinping (third from left) as part of President Xi's state visit to Singapore. Image credit: Ministry of Communications and Information of Singapore.



Senior Minister of State Lee Yi Shyan (extreme left) and DRC Executive Vice Minister Zhang Junkuo (extreme right) signing the Memorandum of Understanding in Beijing, witnessed by President Tony Tan (second from left) and President Xi Jinping (second from right) as part of President Tan's state visit to China.

MOU between Ministry of National Development of Singapore and Development Research Center of the State Council of the People's Republic of China (DRC)

In July 2015, MND formalised its partnership with DRC, a state-level think tank and ministry. The agreement will see both countries engaging in visiting fellowships, study visits, research, publications, conferences and events.

To date, CLC and DRC have co-written and published Challenges and Reforms in Urban Governance — Insights from the Development Experience of China and Singapore. The Chinese edition <<城市发展的挑战与改革-中国与新加坡的发展经验>> was launched at the China Development Forum in Beijing on 19 March 2016. The English version was launched at World Cities Summit 2016 in Singapore.



Chinese Mayors Training Programmes

CLC was appointed to organise a two-week training programme for 20 senior Chinese officials in October and November 2015. This is part of the high-level collaboration between Singapore's Ministry of Foreign Affairs of Singapore (MFA) and China's Central Organisation Department (COD).

The Chinese officials came to learn about Singapore's experience in urbanisation and city management. A key area of interest was the CLC Liveability Framework — based on Singapore's experience in developing a highly dense yet highly liveable city.

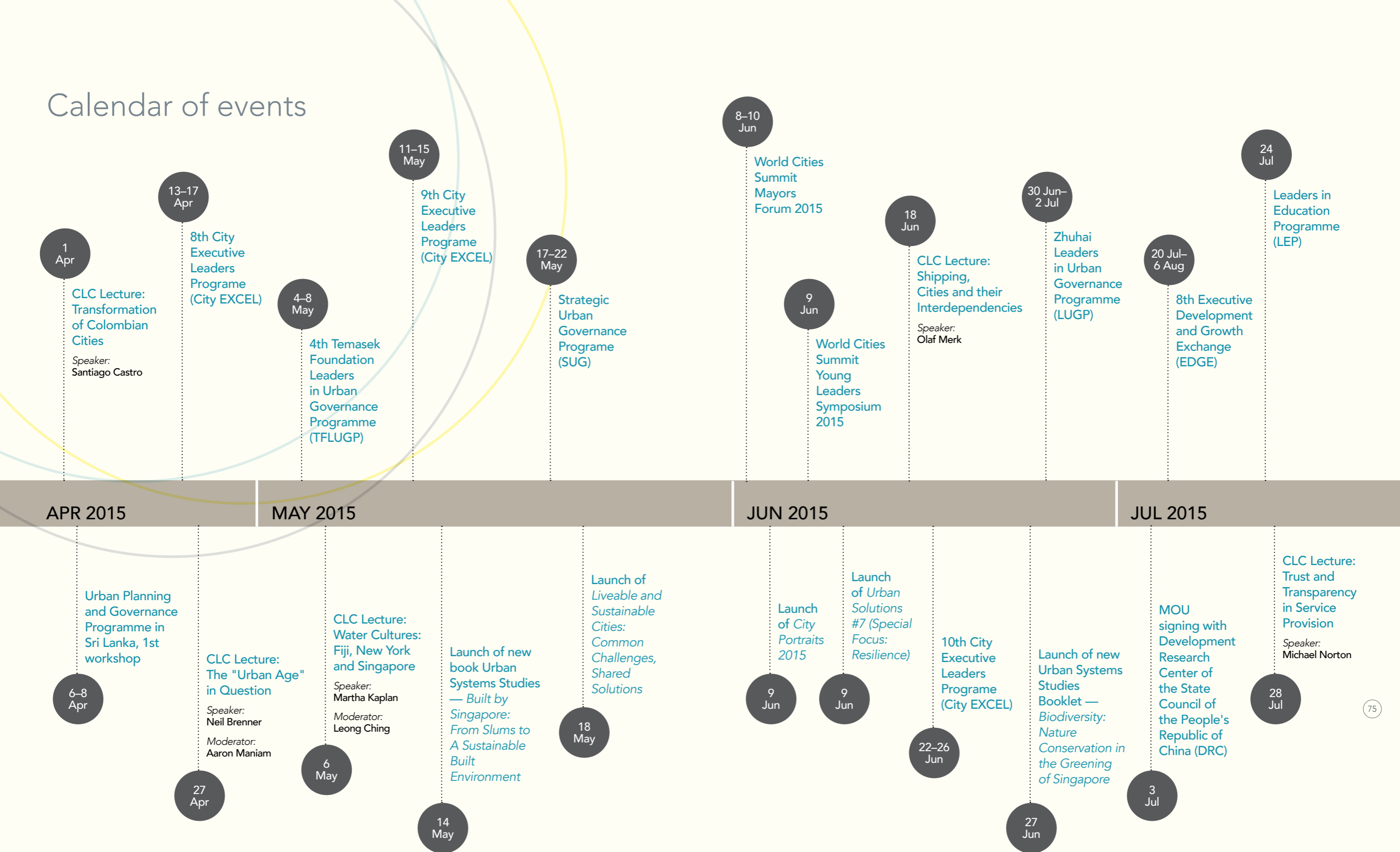
Participants were equipped with practice-oriented knowledge in urban development, and also learnt to apply principles from the programme to challenges faced by their respective cities and organisations.

Given the positive feedback from the participants on high quality content and programme delivery, CLC was reappointed to conduct training for Chinese mayors in June and July 2016.



Senior Chinese officials pose for a group photo at Marina Barrage during the two-week training programme.

Calendar of events



APR 2015

MAY 2015

JUN 2015

JUL 2015

1 Apr

CLC Lecture: Transformation of Colombian Cities
Speaker: Santiago Castro

13-17 Apr

8th City Executive Leaders Programme (City EXCEL)

4-8 May

4th Temasek Foundation Leaders in Urban Governance Programme (TFLUGP)

11-15 May

9th City Executive Leaders Programme (City EXCEL)

17-22 May

Strategic Urban Governance Programme (SUG)

8-10 Jun

World Cities Summit Mayors Forum 2015

9 Jun

World Cities Summit Young Leaders Symposium 2015

18 Jun

CLC Lecture: Shipping, Cities and their Interdependencies
Speaker: Olaf Merk

30 Jun-2 Jul

Zhuhai Leaders in Urban Governance Programme (LUGP)

20 Jul-6 Aug

8th Executive Development and Growth Exchange (EDGE)

24 Jul

Leaders in Education Programme (LEP)

6-8 Apr

Urban Planning and Governance Programme in Sri Lanka, 1st workshop

27 Apr

CLC Lecture: The "Urban Age" in Question
Speaker: Neil Brenner
Moderator: Aaron Maniam

6 May

CLC Lecture: Water Cultures: Fiji, New York and Singapore
Speaker: Martha Kaplan
Moderator: Leong Ching

14 May

Launch of new book Urban Systems Studies — Built by Singapore: From Slums to A Sustainable Built Environment

18 May

Launch of Liveable and Sustainable Cities: Common Challenges, Shared Solutions

9 Jun

Launch of City Portraits 2015

9 Jun

Launch of Urban Solutions #7 (Special Focus: Resilience)

22-26 Jun

10th City Executive Leaders Programme (City EXCEL)

27 Jun

Launch of new Urban Systems Studies Booklet — Biodiversity: Nature Conservation in the Greening of Singapore

3 Jul

MOU signing with Development Research Center of the State Council of the People's Republic of China (DRC)

28 Jul

CLC Lecture: Trust and Transparency in Service Provision
Speaker: Michael Norton

17–21 Aug

2nd MFA City Executive Leaders Programme (City EXCEL)

14 Sep–9 Oct

6th Leaders in Urban Governance Programme (LUGP)

4 Sep

CLC Lecture: Auckland on the World Stage

Speaker: Len Brown
Moderator: Euston Quah

16 Sep

CLC Lecture: Cities, Governance and Sustainability

Speaker: Jan Peter Balkenende
Moderator: Lee Tzu Yang

22–23 Sep

Singapore Resilience Garage with Roland Kupers

14 Oct

CLC Lecture: Biophilia and the Future of Sustainable Cities

Speakers: Stephen Kellert, Timothy Beatley, Peter Newman, Khew Sin Khoon, Tay Kheng Soon

19 Oct

CLC Lecture: Seoul's Achievement and Challenges: Beyond Development-Dependent City

Speaker: Kim Soo-Hyun
Moderator: Cho Im Sik

26 Oct–6 Nov

2nd MFA Senior Chinese Officials Study Visit

21 Oct

Seoul Singapore Symposium

AUG 2015

SEP 2015

OCT 2015

27 Aug

CLC Lecture: Urban Intensities: Contemporary Housing Types and Territories

Speaker: Peter Rowe
Moderator: Richard Hassell

7–11 Sep

11th City Executive Leaders Programme (City EXCEL)

14 Sep

CLC Lecture: The City: Past, Present and Future

Speaker: Luis Bettencourt

21 Sep

CLC Lecture: Urbanisation: Global Trends and China's Challenges

Speaker: Li Jiange
Moderator: Deng Yong Heng

5–9 Oct

Urban Planning and Governance Programme in Sri Lanka, 2nd workshop

14–16 Oct

Biophilia and the Future of Sustainable Cities Symposium and Workshops

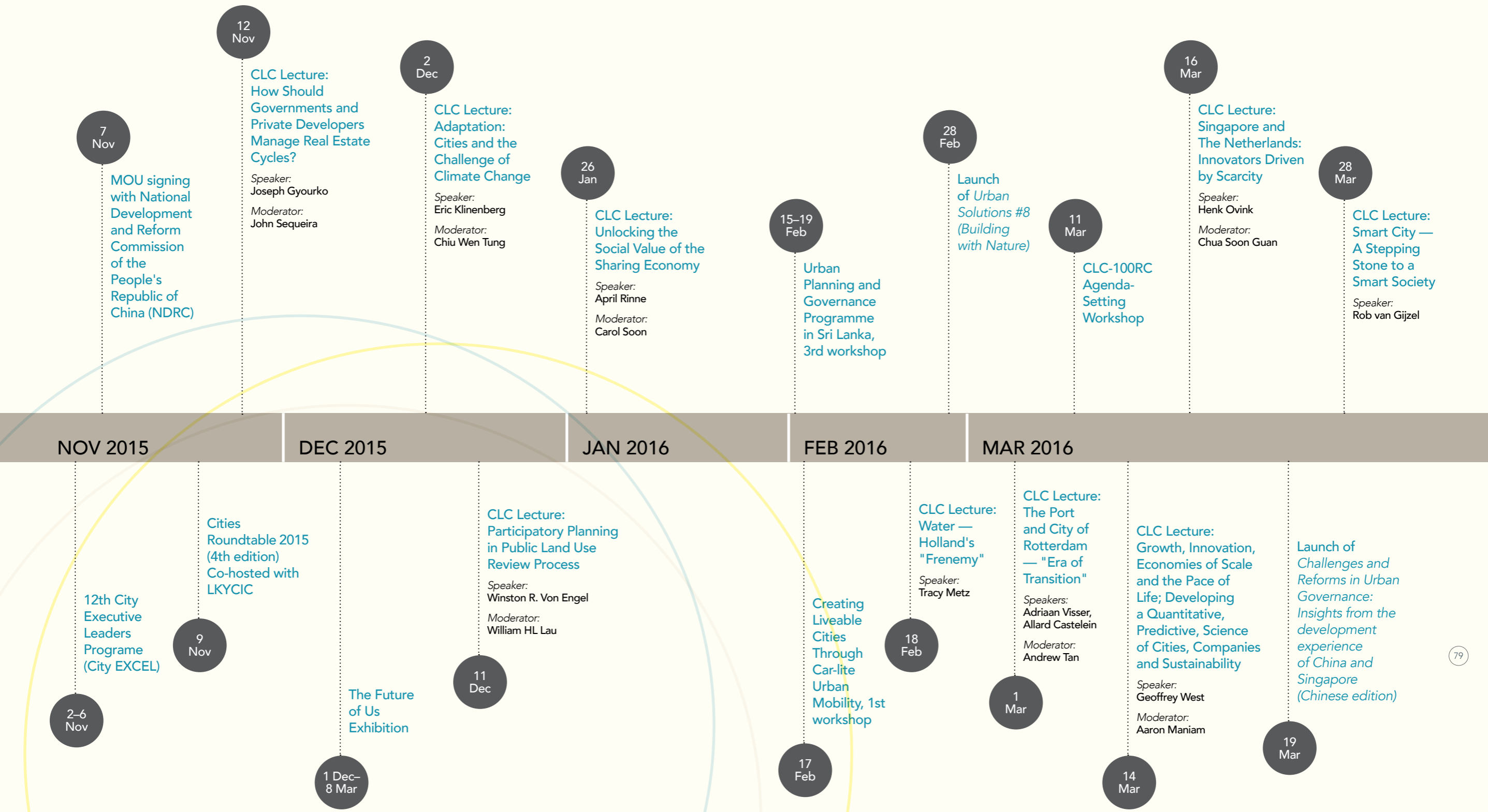
20 Oct

Launch of new book *Urban Systems Studies — Tourism: Creating A Vibrant Singapore*

22 Oct

CLC Lecture: Urban Systems Engineers Needed!

Speaker: Lui Pao Chuen
Moderator: Chan Eng Soon



7 Nov

MOU signing with National Development and Reform Commission of the People's Republic of China (NDRC)

12 Nov

CLC Lecture: How Should Governments and Private Developers Manage Real Estate Cycles?

Speaker: Joseph Gyourko
Moderator: John Sequeira

2 Dec

CLC Lecture: Adaptation: Cities and the Challenge of Climate Change

Speaker: Eric Klinenberg
Moderator: Chiu Wen Tung

26 Jan

CLC Lecture: Unlocking the Social Value of the Sharing Economy

Speaker: April Rinne
Moderator: Carol Soon

15-19 Feb

Urban Planning and Governance Programme in Sri Lanka, 3rd workshop

28 Feb

Launch of Urban Solutions #8 (Building with Nature)

11 Mar

CLC-100RC Agenda-Setting Workshop

16 Mar

CLC Lecture: Singapore and The Netherlands: Innovators Driven by Scarcity

Speaker: Henk Ovink
Moderator: Chua Soon Guan

28 Mar

CLC Lecture: Smart City — A Stepping Stone to a Smart Society

Speaker: Rob van Gijssel

NOV 2015

DEC 2015

JAN 2016

FEB 2016

MAR 2016

2-6 Nov

12th City Executive Leaders Programme (City EXCEL)

9 Nov

Cities Roundtable 2015 (4th edition) Co-hosted with LKYCIC

1 Dec-8 Mar

The Future of Us Exhibition

11 Dec

CLC Lecture: Participatory Planning in Public Land Use Review Process

Speaker: Winston R. Von Engel
Moderator: William HL Lau

17 Feb

Creating Liveable Cities Through Car-lite Urban Mobility, 1st workshop

18 Feb

CLC Lecture: Water — Holland's "Frenemy"

Speaker: Tracy Metz

1 Mar

CLC Lecture: The Port and City of Rotterdam — "Era of Transition"

Speakers: Adriaan Visser, Allard Castelein
Moderator: Andrew Tan

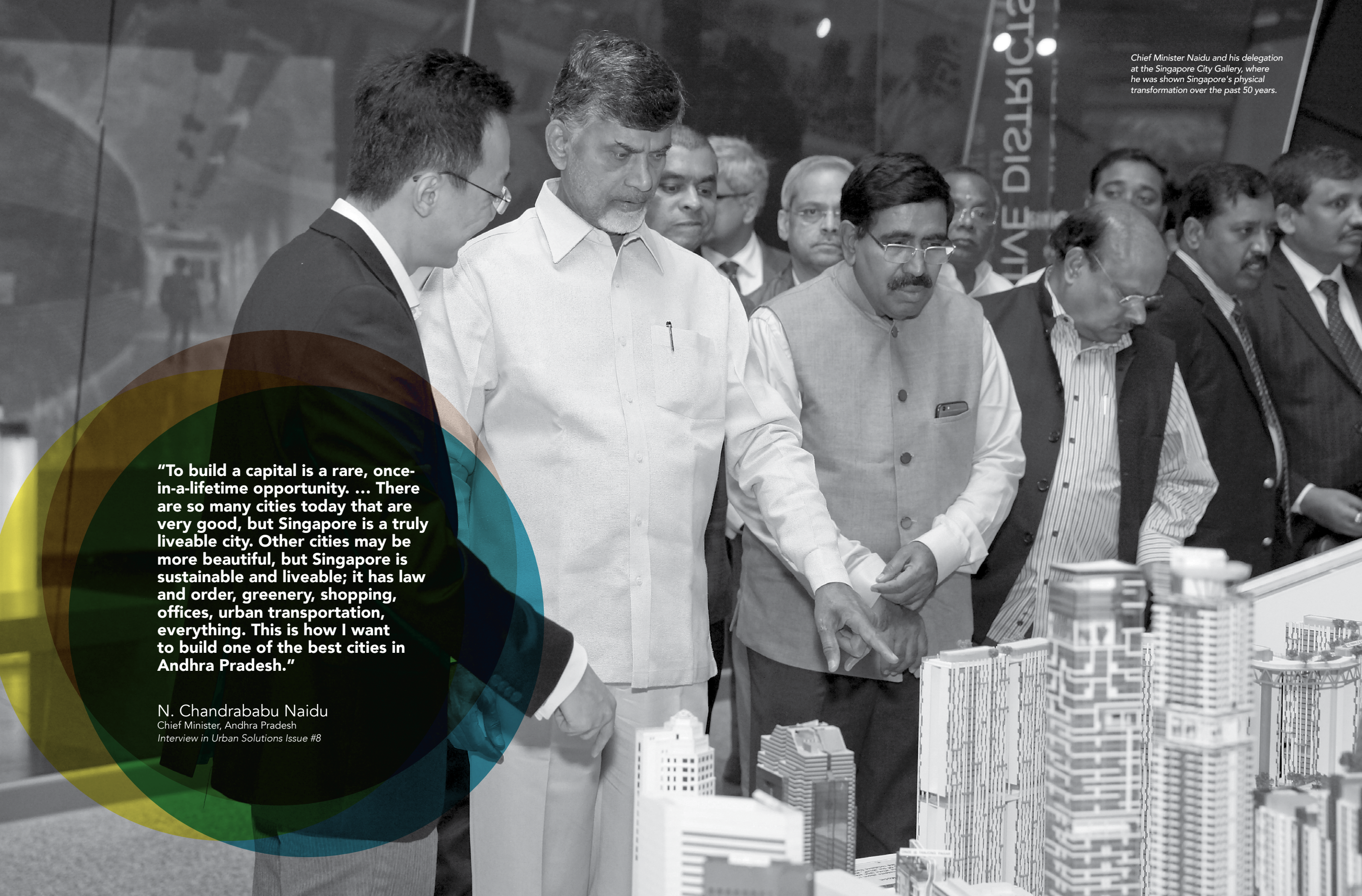
14 Mar

CLC Lecture: Growth, Innovation, Economies of Scale and the Pace of Life; Developing a Quantitative, Predictive, Science of Cities, Companies and Sustainability

Speaker: Geoffrey West
Moderator: Aaron Maniam

19 Mar

Launch of Challenges and Reforms in Urban Governance: Insights from the development experience of China and Singapore (Chinese edition)



Chief Minister Naidu and his delegation
at the Singapore City Gallery, where
he was shown Singapore's physical
transformation over the past 50 years.

"To build a capital is a rare, once-in-a-lifetime opportunity. ... There are so many cities today that are very good, but Singapore is a truly liveable city. Other cities may be more beautiful, but Singapore is sustainable and liveable; it has law and order, greenery, shopping, offices, urban transportation, everything. This is how I want to build one of the best cities in Andhra Pradesh."

N. Chandrababu Naidu
Chief Minister, Andhra Pradesh
Interview in Urban Solutions Issue #8