



MINISTERO DELL'AMBIENTE  
E DELLA TUTELA DEL TERRITORIO E DEL MARE



Consolato Generale d'Italia  
Shanghai



POLITECNICO  
DI TORINO



# **WORKSHOP SHANGHAI 2035**

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## **striving for the excellent global city**

**A contribution to the  
Sino-Italian Center for Sustainability  
(SICES)**

**2019 Jan 09**

**Tongji University – Yunchou Building**

Gaining momentum from the international efforts towards sustainable development in cities all around the world, the Sino-Italian Center for Sustainability is a catalyst of innovative research excellence in green economy. It is a place where Italian and Chinese Universities, research centers, start-ups and companies can co-work, create, dialogue, liaise and boost their success in the development of highly innovative solutions for sustainable development, especially in urban areas. The establishment of the Sino-Italian Center for Sustainability (SICES) arises from the cooperation framework between the Italian Ministry for the Environment, Land and Sea (IMELS) and Tongji University (Tongji).

## Background Shanghai 2035

## Goals Shanghai 2035

## Scope of the workshop and working programme

The Shanghai Master Plan 2016-2035 (Hereafter referred to as “Shanghai 2035”) is organized and prepared by Shanghai Municipal People's Government and is approved by the State Council. It serves as the basis and official document for city planning, construction and management within the jurisdiction of Shanghai. It is also an important document to guide the future development of Shanghai, and a development blueprint to realize “Better City, Better Life”.

### **More Dynamic: An Innovation City**

Responding to the need of building a national innovation system, Shanghai will fully play the role of leading city serving the Yangtze River Economic Zone and a bridgehead of the Belt and Road Initiative. Shanghai will become a science and technology innovation center with global influence and competitively lead to build the world-class Yangtze River Delta Urban Agglomerations.

### **More Attractive: A Humanistic City**

In consideration of an aging and more diversified population, Shanghai, a city beaming with stylish charm, resorts to the unswerving quality improvement so as to be a happy and healthy humanistic city boasting complete culture governance, high approval from its citizens with active participation and profound cultural heritages.

### **More Sustainable: An Eco-City**

In the face of the global climate change and development bottlenecks due to environmental and resource constraints, Shanghai is committed to becoming a more adaptable and resilient eco-city as well as a benchmark for international megacities in terms of green, low-carbon and sustainable development by developing pilot spaces and infrastructures.

Within the SICES initiative, Politecnico di Torino and Tongji University jointly organize a workshop that will produce a position paper on “Shanghai 2035” during a 4 months kick-off research, to be presented at the final seminar as a base for discussion and future research activities. The position paper will include and armonize the contributions that Politecnico di Torino together with the other Universities that are part of SICES can bring to the collaboration with Tongji University in the interest of Shanghai Municipality's sustainable and resilient development.

Shanghai 2035  
Striving for the excellent global city

2019 Jan 09

Tongji University - Yunchou Building - SICES

08:30 - 09:00

**Registration and Welcome Coffee/Tea**

09:00 - 10:15

**Welcome and opening remarks**

**Welcome to SICES:**

- Vice President, Lei Xinghui, Tongji University
- Cons. Gen. Michele Cecchi, Consulate General of Italy in Shanghai

**Opening Remarks on Shanghai 2035**

- Director Shi Min, Shanghai Municipal Bureau of Ecology and Environment, International Cooperation Division

**Introduction to the Workshop**

- Prof. Patrizia Lombardi, deputy-rector of Politecnico di Torino

10:15 - 10:30

**Prof. Zheng Shiling, Tongji University, Keynote Speech on Shanghai planning towards 2035**

10:30 - 11:00

**Coffee Break, Group Photo**

11:00 - 12:00

**Session 1:**

**Eco-City development, Low-Carbon and Healthy way of life**

**Vision in 2035: Shanghai municipality aims at reducing its carbon emissions by about 5% of the peak value. To this end, a number of initiatives are envisaged, including: energy efficiency, the use of renewable energy sources, improvement of carbon sink capacities of the urban areas, and common spaces planning for healthy and low-carbon way of life. For instance, there will be 23% forest coverage throughout the city, the park space per capita will be 13m<sup>2</sup> and the water surface ratio of rivers and lakes will be 10.5%.**

**Expected outcomes:** The session will discuss the key international trends in urban regeneration, urban energy planning, low-carbon solutions and in common spaces design and healthy places. It will also focus on the Shanghai path towards a sustainable city.

**Moderator**

- Prof. Giorgia Giovannetti (Università di Firenze)

**Panelists**

- Director Hu Jing, Shanghai Academy of Environmental Science, low-carbon division
- Prof. Michele Bonino (Politecnico di Torino)
- Proff. Tessa Matteini and Nicoletta Setola (Università di Firenze)

**Q&A**

12:00 - 13:30

**Lunch**

13:30 - 14:30

**Session 2:**

**Enhance protection of Air, Water and Soil Environment**

**Vision in 2035: Air quality: control Pm2.5 at around 25mcg/m3. Water quality: highly concentrate on water environment improvement. Soil: 100% of both polluted farmland and polluted land in Shanghai will be reclaimed so that it might become the support of healthy ecosystems and sustainable food production.**

**Expected outcomes:** This session will discuss on new trends, opportunities and criticalities in the deployment of innovative technologies for monitoring and improving the quality of air, water and soil environment. Further, a focus will be proposed on energy technologies and methodologies that might tap these issues at their roots - including energy planning and energy harvesting solutions from waste.

**Moderator**

- Director Hu Jing, Shanghai Academy of Environmental Science

**Panelists**

- Prof. Romano Borchiellini (Politecnico di Torino)
- Prof. Maurizio Talamo (Roma2 — Tor Vergata)
- Prof. Yang Dianhai (Tongji University)

**Q&A**

14:30 - 15:30

**Session 3:**

**"Safe, Convenient, Green, Efficient and Economic" Transportation System**

**Vision in 2035: Shanghai municipality will concentrate on building a safe, reliable, green and efficient public transportation system so as to reduce traffic and pollution from private commuting (e.g. build intercity lines, urban lines, and regional lines in a length of more than 1,000km each; public transportation will account for over 50% of main transportation; green transportation will account for 85%; 60% rail transit stations in the inner areas of the main city will have 600m land coverage). Furthermore, smart and intelligent systems of traffic monitoring and regulation will be enhanced.**

**Expected outcomes:** This session will focus on smart transport solutions for more sustainable urban mobility, and will propose a specific event to be organized by in 2019 on this topic.

**Moderator**

- Prof. Chen Kangli (Tongji University)

**Panelists**

- Prof. Claudio Melchiorri (Università di Bologna)
- Prof. Ma Wanjing (College of Transportation Engineering, Tongji University)
- Prof. Zaimin Zhong (Deputy-Dean, School of Automotive Study, Tongji University)

**Q&A**

15:30 - 16:00

### Coffee break

16:00 - 16:10

### Wrap-up: The Learning Process

This workshop results from a distributed process, carried out during the last three months by two young researchers who spent time and effort in focusing the Session contents and kicking off SICES activities.

- Dr. Alice Dal Gobbo (Politecnico di Torino)
- Dr. Alessandro Colangelo (Politecnico di Torino)

16:10 - 16:20

### The future of SICES: an assessment – AAIC (Associazione degli Accademici Italiani in Cina)

- Prof. Alberto Batinti

16:20 - 17:00

### Round Table – Lessons Learnt / What Next?

**Expected outcomes:** After a general overview of the lessons learnt from the workshop and their impacts on sustainable urban planning, each University from SICES Scientific Committee will give a general overview of the thematic areas to which it will be able to contribute in the interest of realising Shanghai 2035 Master Plan objectives. The session will then be able to reflect over the future role of SICES as an organic and integrated research centre.

#### Moderator

- Prof. Roberto Pagani, Consulate General of Italy

#### Panelists

- Prof. Fabrizio Bonani, Politecnico di Torino
- Prof. Giorgia Giovannetti, Università di Firenze
- Prof. Claudio Melchiorri, Università di Bologna
- Prof. Maurizio Talamo, Università Tor Vergata, Roma2
- Prof. Zhong Ninghua, Tongji University
- Prof. Yang Dianhai, Tongji University
- Prof. Chen Kangli, Tongji University

#### Q&A

17:00 - 17:10

### Closing remarks

17:10 - 17:30

### Aperitivo

## The workshop: scientific and policy relevance

Urban contexts in every corner of the planet, albeit in different ways, are the mirror of the global energy paradox. A continuous flow of goods and services satisfies the needs of citizens while creating an opposite flow of detrimental effects. Over the centuries, cities have become the centers of economic and cultural activities contributing on average to more than 75 per cent of a country's Gross Domestic Product (GDP). At the same time, they require an uninterrupted supply of energy, water and material resources, producing waste and emitting atmospheric pollutants and greenhouse gases in turn. Cities consume about 75% of global primary energy mostly in building and mobility sectors while accounting between 50% and 60% of the world's total greenhouse gases. Urban air pollutants emissions are an invisible killer contributing, worldwide, to more than 5% of all deaths because of the 80% of people living in urban areas not complying with World Health Organization (WHO) air quality requirements.

The international community has committed to imperative actions to make cities more sustainable and resilient to climate change. Nowadays, cities can be seen as the landmarks where the convergence of emerging technology clusters can steer a transformative change of our societies towards the sustainable development goals (SDGs). Sustainable Development Goal 11 is indeed entitled "Make cities and human settlements inclusive, safe, resilient and sustainable".

China has committed to follow the path towards sustainable cities. In accordance with relevant decisions of the Conference of the Parties in Paris, China's intended nationally determined contributions highlight cities as a major target for enhanced actions on climate change mitigation and adaptation. Claimed interventions concern first with embracing new patterns of urbanization that integrate low-carbon development concepts in the entire process of urban planning, construction and management. In addition, the reduction of carbon intensity in urban areas is a goal to be achieved through the promotion of green buildings and transport. Policies aim at strengthening the role of cities as carbon sinks promoting voluntary tree planting by all citizens and continuing the implementation of key ecological programs. Finally, China has the goal to foster a low-carbon way of life that engages citizens towards sustainable consumption patterns, also important for promoting health. Especially, in order to bolster innovative low-carbon development growth patterns, China intends to advance and conduct low-carbon pilots in provinces and cities. One relevant example of those policies is the Shanghai 2035 plan, which aims at reducing air pollution to achieve at least 80 percent of the days in a year with good air quality by 2030 thus prioritizing actions that create co-benefits between health and wellbeing and other city policies.