

Shenzhen Transformed

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SHENZHEN DEVELOPMENT BRIEFING

UVA / SZU- MARCH 2017

02



SUSTAINABILITY AND
CHINA'S 5 YEAR PLAN



URBANISATION
TRENDS



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China's Five-Year Plan

04

The Five-Year Plan is a blueprint that details the government's main policy goals and development initiatives for a period of five years.

- 13th Five-Year Plan adopted on 15 March 2016.
- The Plan outlines China's goals, principles and targets for its development through to 2020. They are heavily weighted to environmental protection and sustainable development
- This is the first Five-Year Plan to be developed under President Xi Jinping's leadership and the first since China's economy entered the "new normal" pace of economic growth.



Source: www.cneenergy.org

Accelerated Development of
Functional Regions

Support for Clean Production and
a Low Carbon Economy

Resource Conservation

Environmental Protection

Harmonized Development
Between Nature and Mankind

China's 13th Five-Year Plan

05

Eco-Protection Zones Established

01/09/2016



China will set up several national ecological experimental zones to carry out reforms in the "ecological civilisation" in a bid to improve the environment damaged by fast-paced development in the past three decades.

The guideline, issued by the ruling Communist Party of China (CPC) and the Cabinet aimed at carrying out reforms on "ecological civilisation system," state-run Xinhua news agency reported on August 23.

According to targets set in the guideline,

Accelerated Development of Functional Regions

- Define the key functions (e.g. ecological conservation, agricultural, industrial) of certain geographical regions

More Development Zones to Foster Innovation

23/06/2016



Two more national-level development zones shall be built to encourage innovation, as the country seeks to foster new engines for growth.

The government has approved the establishment of two "national innovation demonstration zones" in Fujian province and Anhui province respectively, according to a statement released after the State Council's executive meeting on June 8, chaired by Premier Li Keqiang.

Similar zones, including Beijing's Zhongguancun, and Shanghai's Zhangjiang high tech zone, have

China's 13th Five-Year Plan

06

China Sets Targets for Local Renewable Energy Use

03/16/2016



China has set specific targets on non-hydroelectric renewable energy consumption for local governments in a bid to improve its energy structure, according to a guideline released by the National Energy Administration (NEA) on Thursday.

By 2020, non-hydroelectric renewable energy should account for between 5% and 13% of total electricity consumption for provinces, municipalities and autonomous regions, and non-fossil fuel sources for primary energy

Advanced Technology Waste-to-Energy Plant Planned for Shenzhen

02/18/2016



Image: gottliebpaludan

The winning design of what is set to be the "largest waste-to-energy plant in the world" has been announced. Shenzhen East Waste-to-Energy Plant will take a distinctive circular form. It was designed by Schmidt Hammer Lassen Architects and Gottlieb Paludan Architects.

Support for Clean Production and Low Carbon Economy

- "Energy revolution"
- Shift to renewable energy
- Support recycling and low-carbon transportation systems
- Control emission by strengthening regulation and supervision

China's 13th Five-Year Plan

07

China Working on Tiered Agricultural Water Pricing

04/05/2016



China has begun to reorganize and improve its irrigation and water conservation facilities to promote a tiered water pricing mechanism encouraging more economical water use by farmers.

Wang Aiguo, a senior official from the Ministry of Water Resources, addressed that China would establish a water pricing mechanism that could better reflect water costs with water prices higher for cash crops that yield high added value and for livestock breeding.

Water Trading Targets Resource Conservation

05/07/2016



China's regional water trading programs have been practised in seven provincial areas in the north and northwest. With a foreseeable future of severe water shortage, a national platform for water trading is however in urgent need.

The China Water Exchange commenced on June 28, allowing water trading between different areas and users nationwide. Meanwhile, it will also provide consultation, technical evaluation and intermediary services.

Resource Conservation

- Promote conservation among industries and consumers, emphasizing on water resources

China's 13th Five-Year Plan

08

Beijing to Adopt World's Strictest Vehicle Emissions Standard

02/06/2016



Chinese capital Beijing will newly implement the world's strictest vehicle emission standard by next year to reduce hazardous hydrocarbon emissions.

The latest standard, Beijing VI, covers light vehicles, heavy vehicles and heavy motors.

Planned to be enforced on December 1, 2017, the standard aims to reduce the city's vehicle emissions pollution by 20 to 30 percent by 2022..

Environmental Protection

- Reform environmental governance structure, e.g. set up a pollution permit system
- Preserve and restore natural environments

China's Coal City to Replace Gas Taxis with Electric

11/05/2016



The northern Chinese city of Taiyuan is aiming to replace all its gasoline-powered taxis with electric vehicles by the end of 2016 to cut emissions.

Shanxi's capital started to gradually scrap its 8,292 conventional taxis in February. More than 3,000 electric taxis are now in business on the roads in Taiyuan, according to an official from the city's traffic management office.

The new taxis can run 400 km on a full charge,

China's 13th Five-Year Plan

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China's Nature Reserve Wins Top UNESCO Conservation Award

03/25/2016



A Chinese nature reserve has been conferred with a top UNESCO award for using innovative solutions in tackling problems related to environmental conservation, ecology and sustainable development.

The Chinese nature reserve Wudalianchi in northeastern Heilongjiang province was given the Michel Batisse Award at the 4th World Congress of Biosphere Reserves in Peruvian capital Lima.

China to Improve City Planning

11/04/2016



China's Vice Premier Zhang Gaoli has urged local authorities to improve the way in which they plan their urban environments.

In a meeting with provincial leaders and officials, Zhang underscored the principles adopted during a national city planning conference and called for improvements to be made across the board.

Aimless expansion should be avoided, he said, and cities should be designed with their local characteristics in mind, Zhang said.

Harmonized Development Between Nature and Mankind

- Incorporate ecological concerns in urban planning and management of agricultural areas

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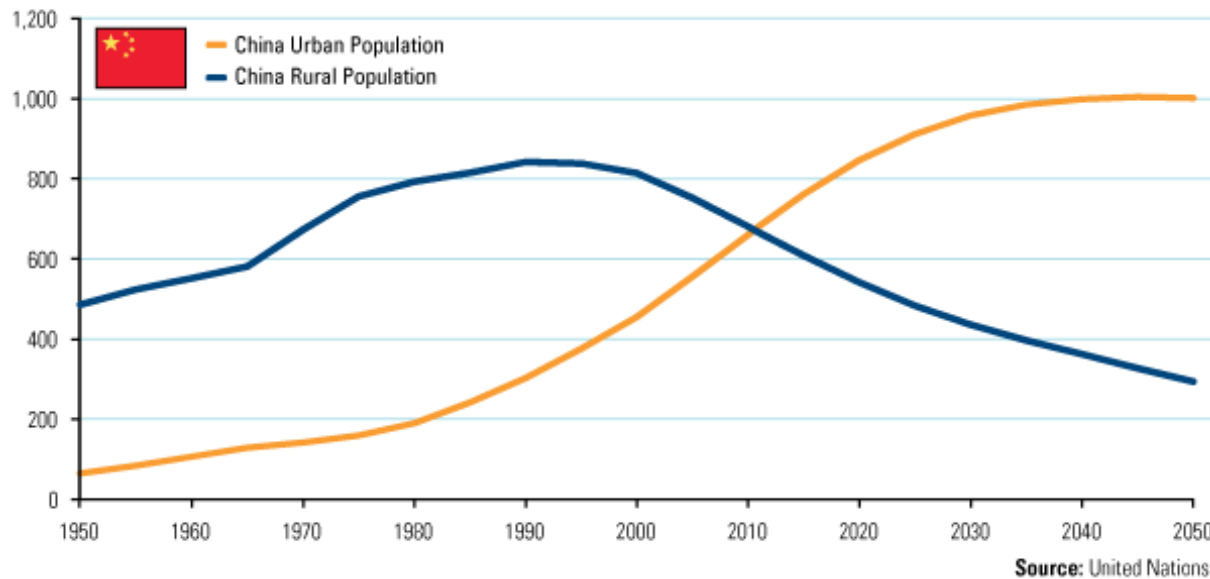


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Urbanisation Trends

China's Urban Residency Reform to Benefit Property Sales in Third Tier Cities

Urban and rural population projection in millions



China is urbanising

56% of the total population lived in urban areas by 2015, a dramatic increase from 26% in 1990

Most developed countries' urbanisation rates are above 70%

UK 79.6%

China aims to urbanise 70% of the population by 2025 (900 million people),

Estimated that 300 million Chinese now living in rural areas will move into cities by 2025.

Creation of at least 1 trillion yuan in annual investment opportunities in building water supplies, waste treatment, heating and other public utilities in the cities.

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Urbanisation Trends

Population distribution by city size varies across major areas in 2014

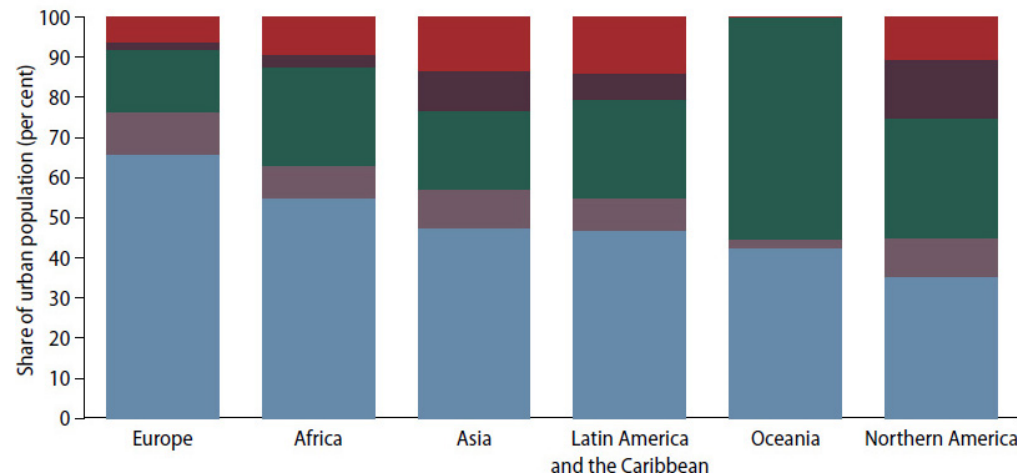
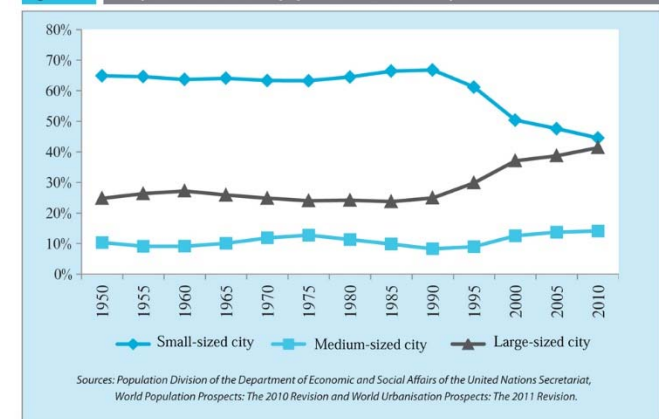
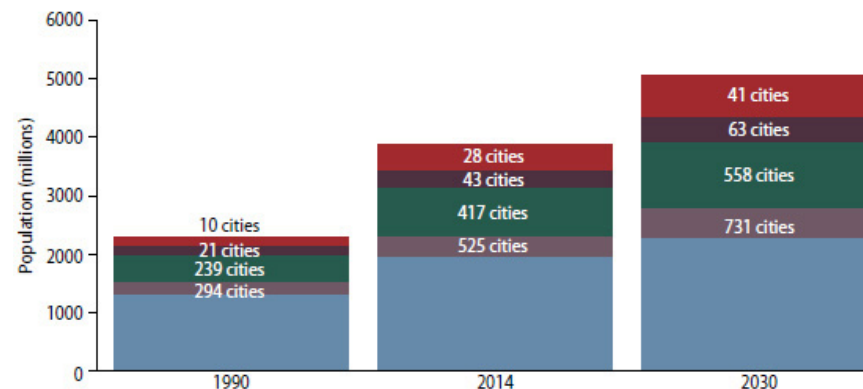


Figure 1.8 Proportion of the urban population in different city sizes



Global urban population growth is propelled by the growth of cities of all sizes



- Megacities of 10 million or more
- Large cities of 5 to 10 million
- Medium-sized cities of 1 to 5 million
- Cities of 500 000 to 1 million
- Urban areas smaller than 500 000

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Urbanisation Trends



Beijing-Tianjin-Hebei cluster



Yangtze Delta cluster



More than 20 urban agglomerations have been classified in order to provide strategic level guidance on development goals, infrastructure construction and function orientation.

- providing development direction for networks and infrastructure,
- promoting city-specific features and regional positioning
- emphasizes inter-operability and collaborative development.

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Battle of the Bridges



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Battle of the Airports

Airport	Existing Statistics		Planned Capacity	
	passengers / annum	cargo (tonnes)	passengers / annum	cargo (tonnes)
Hong Kong ¹	2 runways		3 runways	
	60 million	4,000,000	97 million by 2030	8,900,000 By 2030
Guangzhou ²	3 runways		3 runways (planned 5 runways)	
	50 million	1,300,000	80 million by 2018	2,500,000 by 2018
Shenzhen ³	2 runways		3 runways	
	35 million	930,000	52 million by 2025	2,000,000 by 2025
Macau ⁴	1 runway			
	5 million	26,000	6 million Currently	250,000 Currently
Zhuhai ⁵	1 runway			
	2 million	16,000		
PRD ⁶	9 runways		13 runways	
	150 million	6,500,000	200 million by 2020	



Hong Kong



Guangzhou



Shenzhen



Macau



Zhuhai

Urbanisation Trends

- 长约**387**km,总投资约**593**亿元。
- 广州与茂名之间的铁路运行时间将由**5**小时以上缩短至**2.5**小时左右,茂名到江门只需**1**个多小时,跨过珠江口到深圳也不超过**3**小时。
- 通车时间应该可以提前到**2017**年**10**月左右。



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Shenzhen Transformed

Most competitive city economically in China*,
passed Hong Kong in an overall economic competitiveness ranking in 2014,

Shenzhen
Hong Kong,
Shanghai,
Guangzhou
Taipei.

*Chinese Academy of Social Sciences (CASS)

2016 GDP up 9%

- 1.95 trillion yuan (\$284 billion) (Similar to HK)

R&D spending highest/capita in China

4.05% GDP

(Hong Kong 0.73%)



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Britcham - 2017 Shenzhen Trends and Predictions -

So many world unknowns currently

“Expect the Unexpected”

Economy Overview

highest economic output per unit
area among mainland cities

Lowest energy and water
consumption on the mainland.

ranks fourth in terms of **sustainable**
competitiveness

ranks sixth for **livability**

Expensive - Highest housing price-
to-income ratio in China.

Average population age the
lowest of all China cities.

Population growth is the **highest**
among China's four first-tier cities.

Recent data indicates Shenzhen
has overtaken Guangzhou as the
third-largest city in China and is
expected to soon surpass
Shanghai.

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Cultivating events, showcasing innovation.
Shenzhen has held the Shenzhen Maker Faire since 2012

startups
mass entrepreneurship and innovation
innovation-based, high value-added industries
tech hub

Transformation

As one of the pioneers in China's new economy, Shenzhen has been reinventing itself...

The "Silicon Valley of hardware" integration of innovation and manufacturing has made Shenzhen a rising incubator of innovative technology businesses.

Following central government's 2014 initiative to encourage mass entrepreneurship and innovation, Shenzhen has been striving to provide a platform for new companies.

Relatively low levels of traffic and air pollution compared with other major Chinese cities like Beijing and Shanghai also serve as an advantage to entice new businesses.

Huawei
Tencent
DJI

Shenzhen Transformed

2016

3,363 foreign-funded companies registered in Qianhai,
(**55 % of new-added foreign-owned enterprises in Shenzhen**)
1,894 from Hong Kong



innovative, offers efficient markets, globally connected.

The Qianhai and Shekou Area of Shenzhen in the China (Guangdong) Pilot Free Trade Zone opened in 2015

**finance,
modern logistics,
information and technology services
professional services.**

Development intended to lead Shenzhen and PRD to transform from the world's factory to a major player in the innovation space.

Qianhai FTZ

Qianhai is a new area where both the central and local government intend to cultivate innovation to drive China's economic growth

Qianhai has a number of unique supportive business incentives including various subsidies and tax breaks and hong kong legal framework.

Continually introduced and amended making it complex to keep up.

- facilitate innovation in the modern service industry
- hub of modern service development
- A pilot area for cooperation between mainland China and Hong Kong
- A facilitator in the industrial reform and sustainable economic development of the Pearl River Delta.

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Featured Tall Building One Shenzhen Bay, Shenzhen



Shenzhen's ability to attract talent due to the jobs being offered by internet and finance companies headquartered in the area has pushed up economic growth and property prices,

21 Shenzhen surpassed Beijing and Shanghai last year to become the most expensive housing market on the mainland,

Real Estate Market

Residential

market put on 50% value last year.

- Market now flat after govt calming interventions

Commercial

- Investment funds moving into commercial space
- Huge quality of grade A office coming on line from 2016 onwards: Ping An Tower; Houhai
- Relocation of corporate HQ's from Beijing such as Alibaba

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Museum of Contemporary Art & Planning Exhibition (MOCAPE)



Victoria and Albert Museum
(Open in 2017)



Antuo Hill Folk Culture Museum
(Commencing 2017)



Layers of Culture

New emphasis on development of culture and tourism promotion

- Civic building generation;
- Heritage protection;
- International image and overseas promotion;
- Park building.

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Mobility Revolution

E- taxis

E-buses

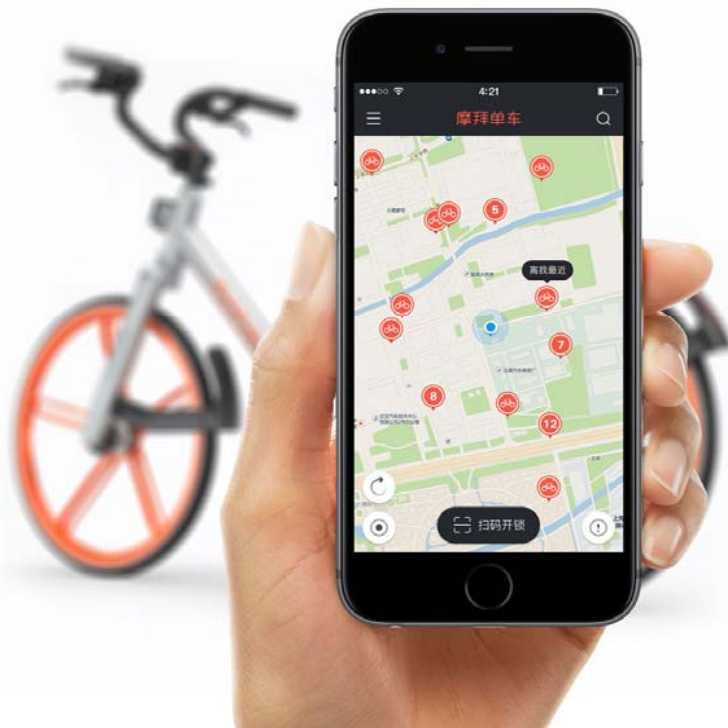
E – bikes

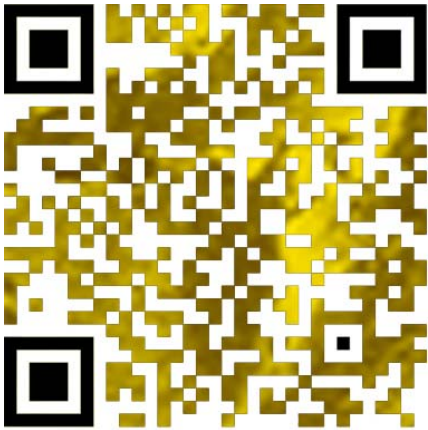
E - charging points

High speed train

Four GPS based public bike platforms arrived.

- Mobike
- Bluegogo
- Ofo
- Xiaoming





sustainable design solutions
related to

land use,
construction
and
quality of life

We troubleshoot, assess and manage
project feasibility, design and delivery



established in 1996

Hong Kong
Shenzhen

Feasibility+
Planning +
Design +
Construction+
Management+
Troubleshooting

The Hong Kong
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large scale public
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