4th ITU Green Standards Week

Sustainable Smart City Development Strategies and Practices Based on Regional Characteristics.

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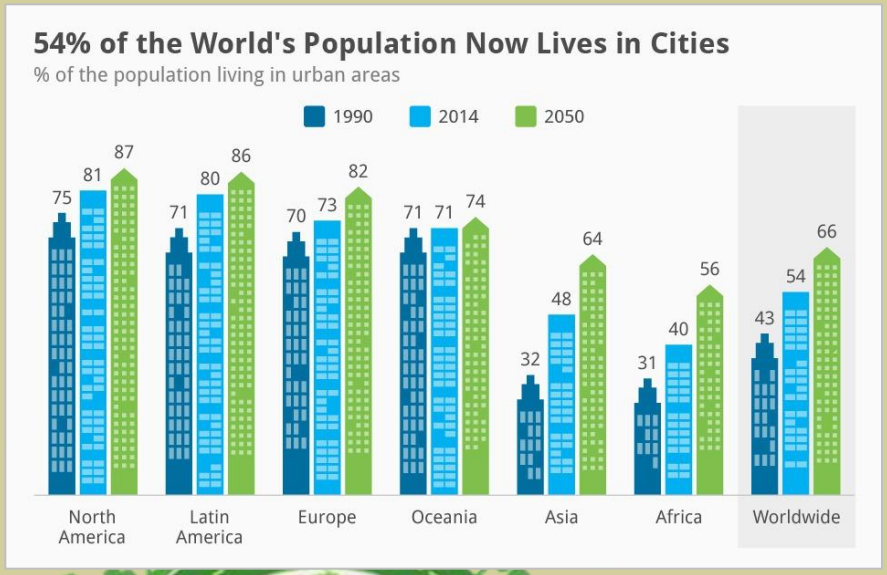
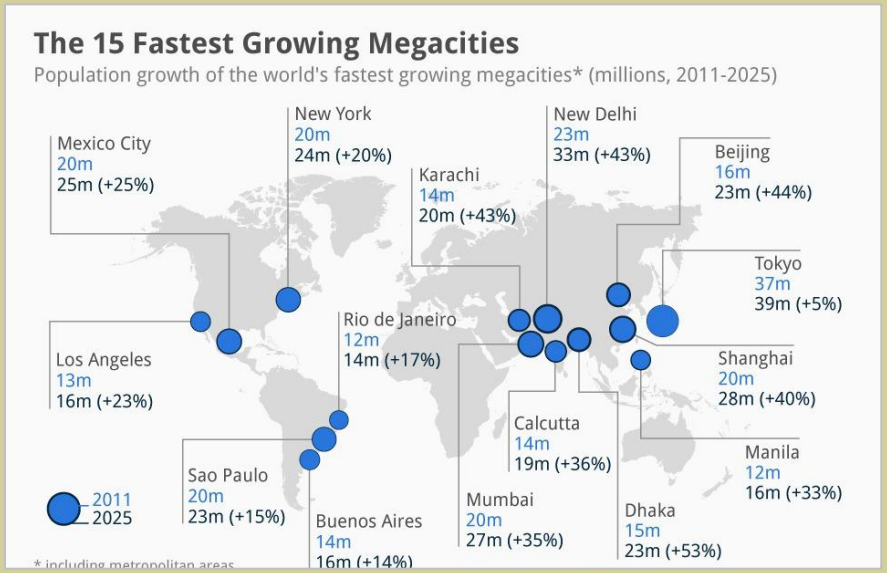
Introduction: Rapid Urbanization

Rapid urban population growth : in 2014 the proportion of the world's urban population reaches 54%

- The latest United Nations report shows that the world's rural population "urbanization" process is still accelerating
- The global urban population was just 30 percent In 1950, and this percentage is expected to rise to 66% in 2050.
- Nearly 50 percent of all the cities in the world has a population less than 500,000, while in every eight urban people in the world, there is one living in one of the largest 28 cities.



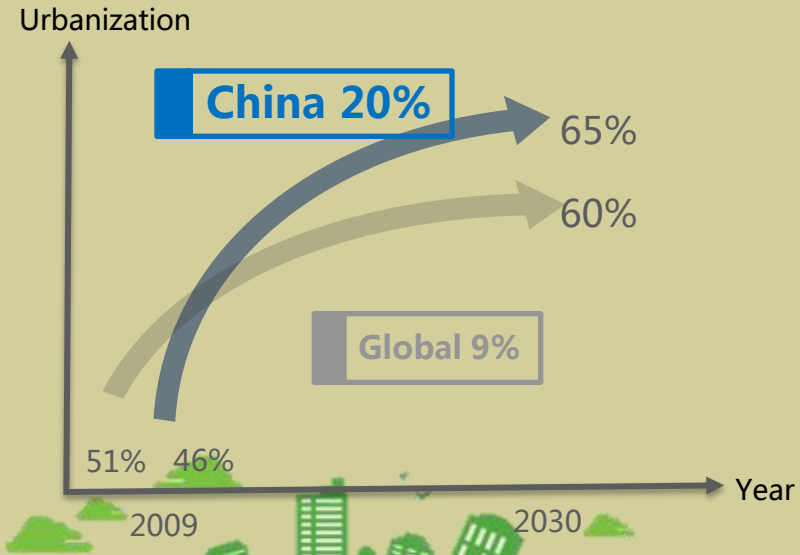


Introduction: Rapid Urbanization

In 2014, China's urban population will exceed 50%. Cities face a huge challenge.

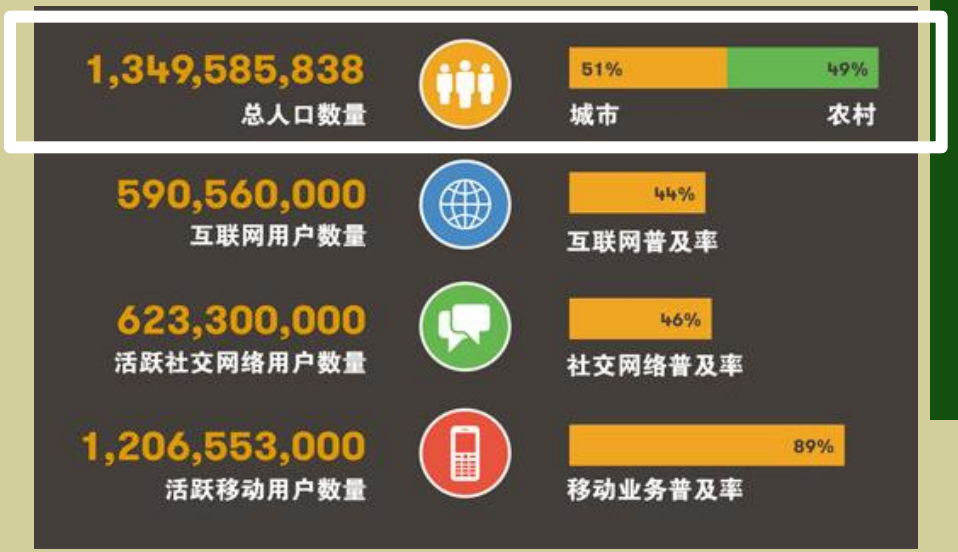
- Currently the consumption level of an urban resident is roughly equivalent to that of three rural residents. If urbanization increases by one percentage , there will be 13 million people from the rural area coming into the cities. The total household consumption will increase by 120 billion RMB;
- One percentage increase in urbanization brings an annual investment demand increase of 6.5 trillion RMB.

China's urbanization rate



The urbanization process cost China 40 years, while it cost the Western countries somewhere between 200 and 400 years.

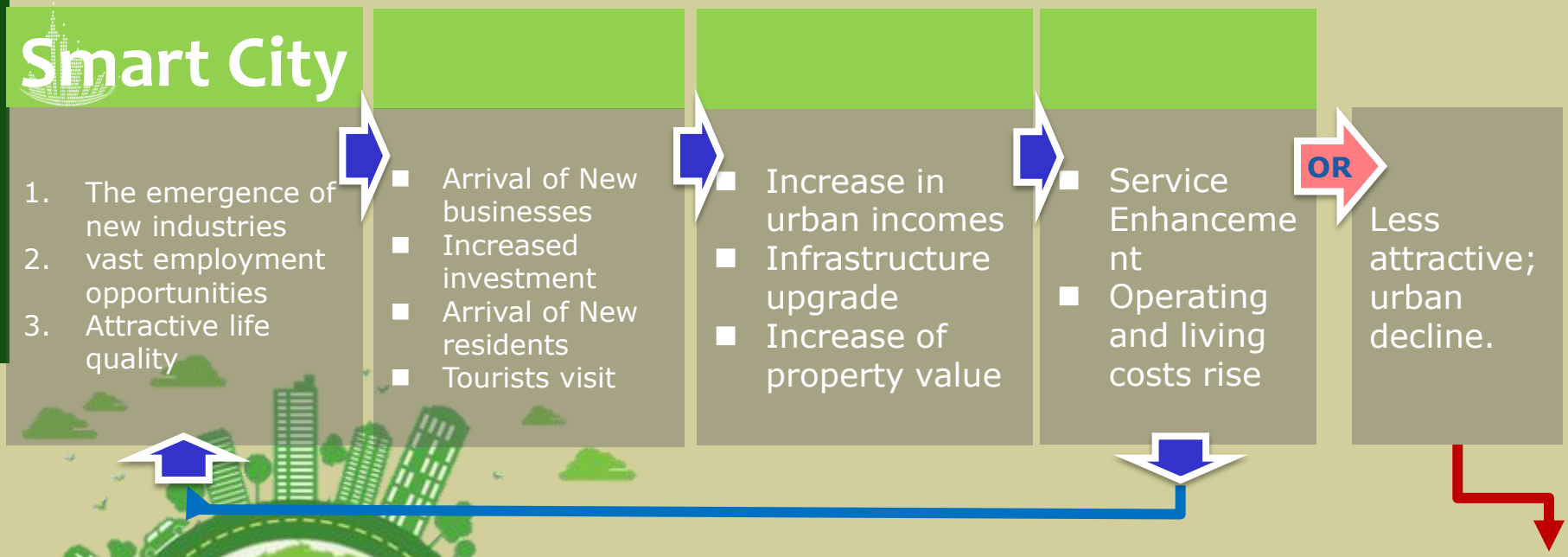
China's urban population in 2014



In 2014, Urban population is exceed 50%.

Smart city construction is an important means to solve the problems of urban development

- Upgrade the industrial structure of the city, urban environmental improvement, attract residents and practitioners is the most important factor in the balanced development of the city.
- The city has never stopped the pace of change ...
- **Re-urbanization**: Facing the aging of the economic structure and the decrease of the population, the old cities actively adjust the industrial structure, develop high-tech industry and the tertiary industry, and actively develop recessed downtown areas to attract young professionals back to the cities.



Smart City Construction itself is also facing the problem of sustainability

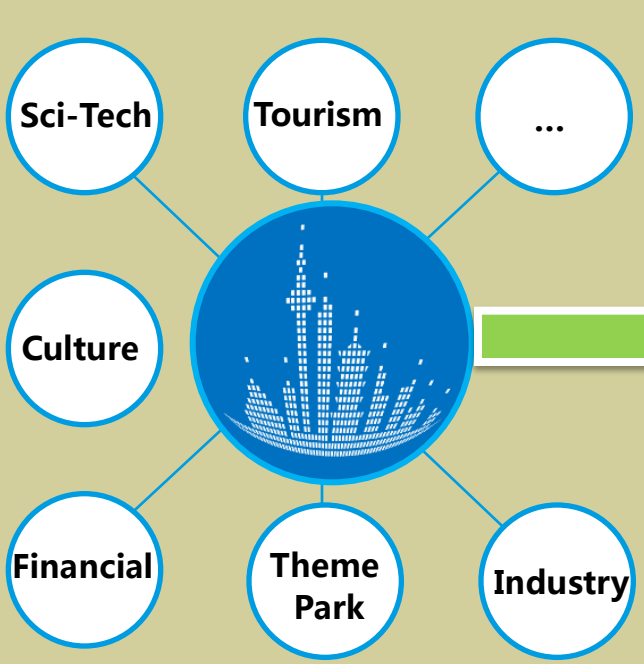
- Messy and disorderly construction
- Green environmental issues, pollution
- Intensive problem, redundant construction
- Sustainability issues

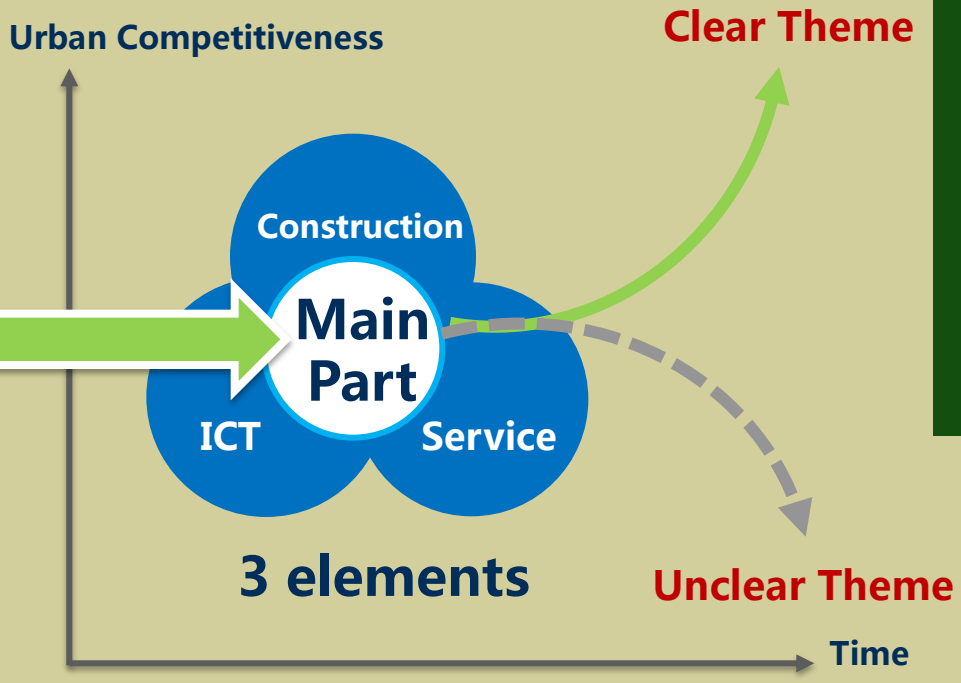
Theme is the key to building a smart city

To ensure the continued competitiveness of the city, the construction of smart city needs to establish the theme of urban development, and start differential competition with the help of communications and information technology.

Establish a development theme

Differential competition



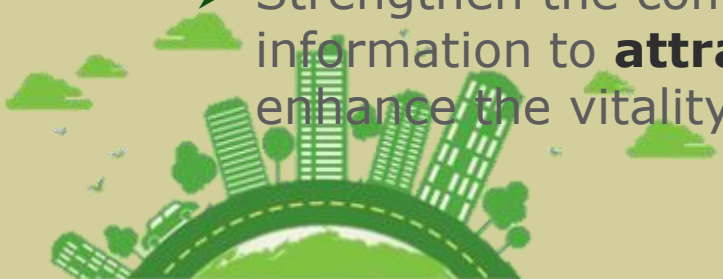


Regional characteristics is basic to determine the development themes

- **Urban Region**
  - An integral part of local city
- **Differences among the regions**
  - Size, location and transportation, education and culture, resources and infrastructure, industry focus
- **Discover RC → Determine the theme**
  - **Planning long-term**: building a solid and intensive information foundation
  - **Resources are concentrated**: the establishment of a new growth point of the city
  - **Industry in Order**: formation of an integral urban complex
  - **Development Coordination**: division of comprehensive and balanced functional blocks.
  - **Sufficient Communication**: forming a balanced, symmetrical, smooth information flow

Goal of a sustainable smart city

- Direction: Detours, avoid the wrong way;
- Construction: achieve a green, environmentally friendly process and operation
- Management: Achieve intensive and efficient system operation
- People: provide a comfortable and convenient life
- City itself: achieve sustainable development
  - Sustainable Construction and Operations
  - Strengthen the communication among people, goods, and information to **attract the younger generation** and enhance the vitality of the city.



One Strategy for One City

- Help city to establish the theme of industrial development
- Establish smart city operations center;
- Construction principles: Informationization as the carrier, safety and security as the basis;

Smart Industries	Smart Livelihood
Smart City Management	
City-level data sharing and exchange platform and the industrial basic database	
City Optical Network	Operations (Management Services) Center / Cloud Computing Center

Regional-Characteristics-Based Construction

1. Planning and design based on Regional Characteristics
   - Regionalization → Positioning → specific planning, specifically design
2. Development of overall industrial standards
   - Under a unified and scalable structure, conduct intensive and standardized construction
   - Standards available for the construction process and quality
3. Construction of Green Communication Infrastructure
   - Unified, standard, and secure network carrying intelligence applications
   - Construct scalable green network: Reduce infrastructure costs and improve the efficiency of urban information and communication
4. Implementation of Sustainable Operational Smart Applications
   - Intensive construction of **intelligent applications of various industries** based on the green communication networks
   - unified construction of **intelligent operations center** based on the various intelligent application systems.

Planning and design based on Regional Characteristics

1. Regionalization

- division from the perspective of administration and resources centralization and plan holistically

2. Positioning

- Function positioning based on the characteristics of different divisions;
- Including: size, regional transportation, culture, infrastructure, industry focus

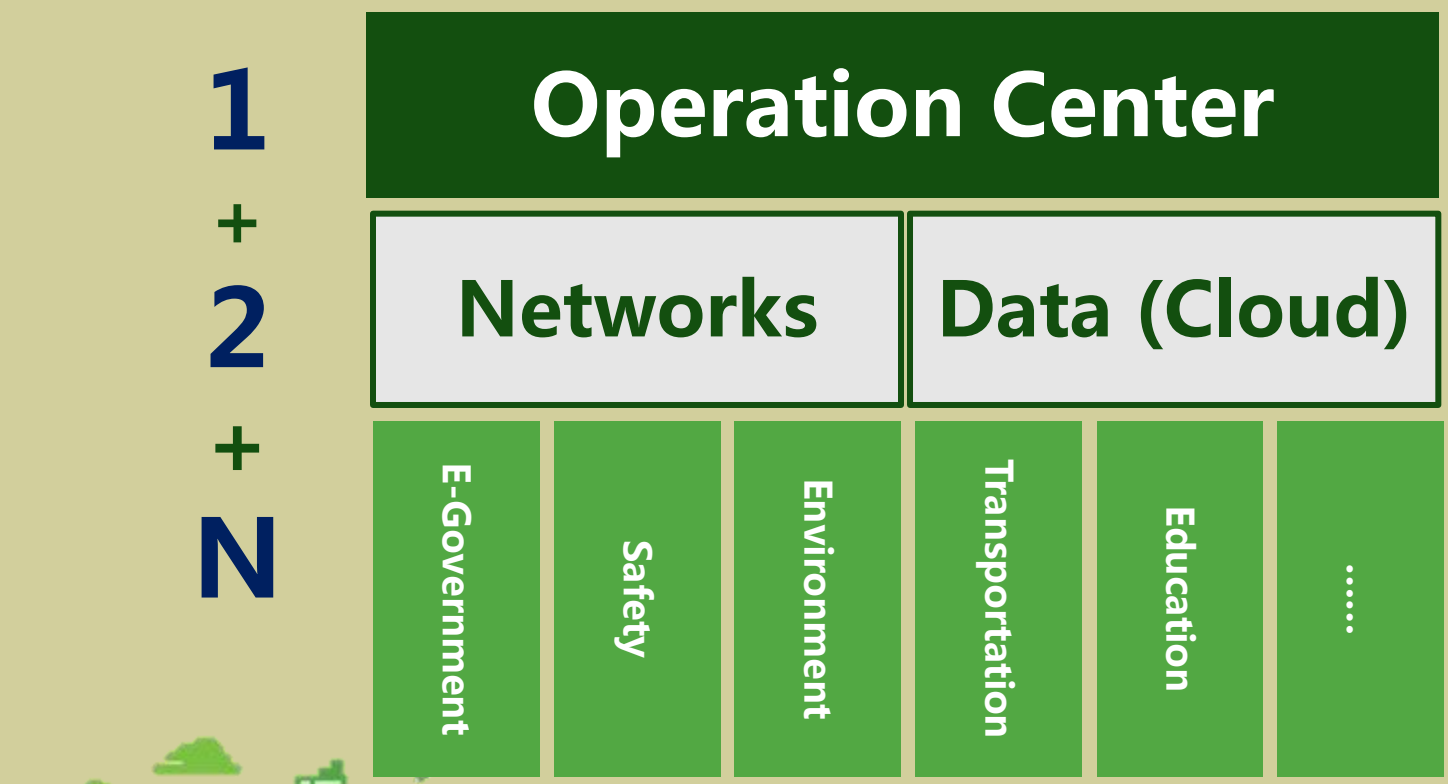
3. Specifically design

- Based on the holistic plan, specifically design based on characteristics
- Including: plan, technology, operations, etc.

Planning and design based on Regional Characteristics

- **Positioning**
- City upgrades
- New (Build) vs Old (Re-urbanization)
- Block groups
- Features:
  - Size
  - Geographical and transportation features
  - Industry focus
- Use the experience of other countries for reference

Regionalization-Based Smart City Construction – "1+2+N" Solutions



Regionalization-Based Smart City Construction

Smart Government

Smart Education

Smart Public Facilitis

Smart Tourism

Smart Environment Procetion

Smart Police

Smart Tranportation

Smart Security

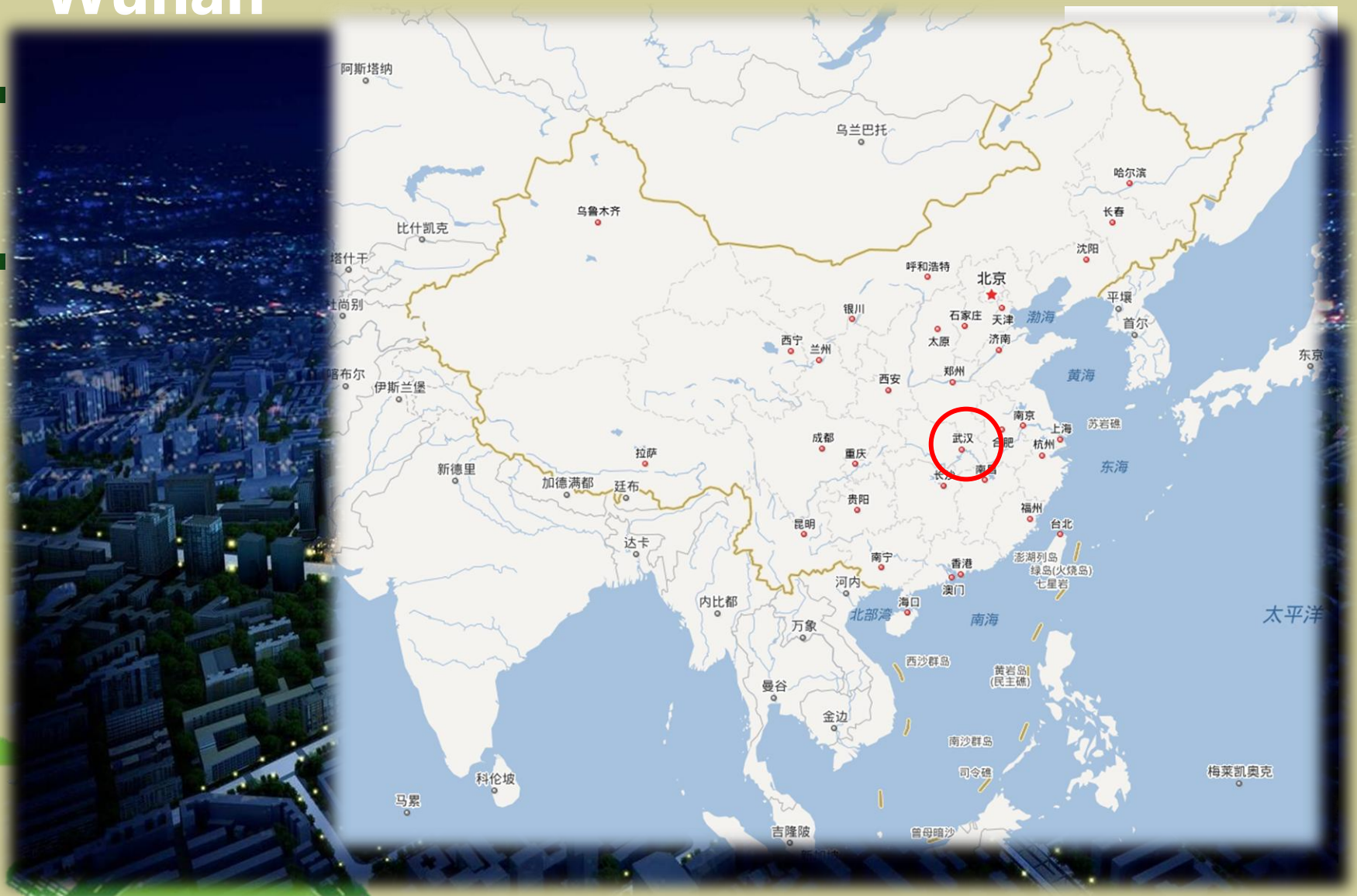
Smart Business

Smart Community

Smart Medical Treatment

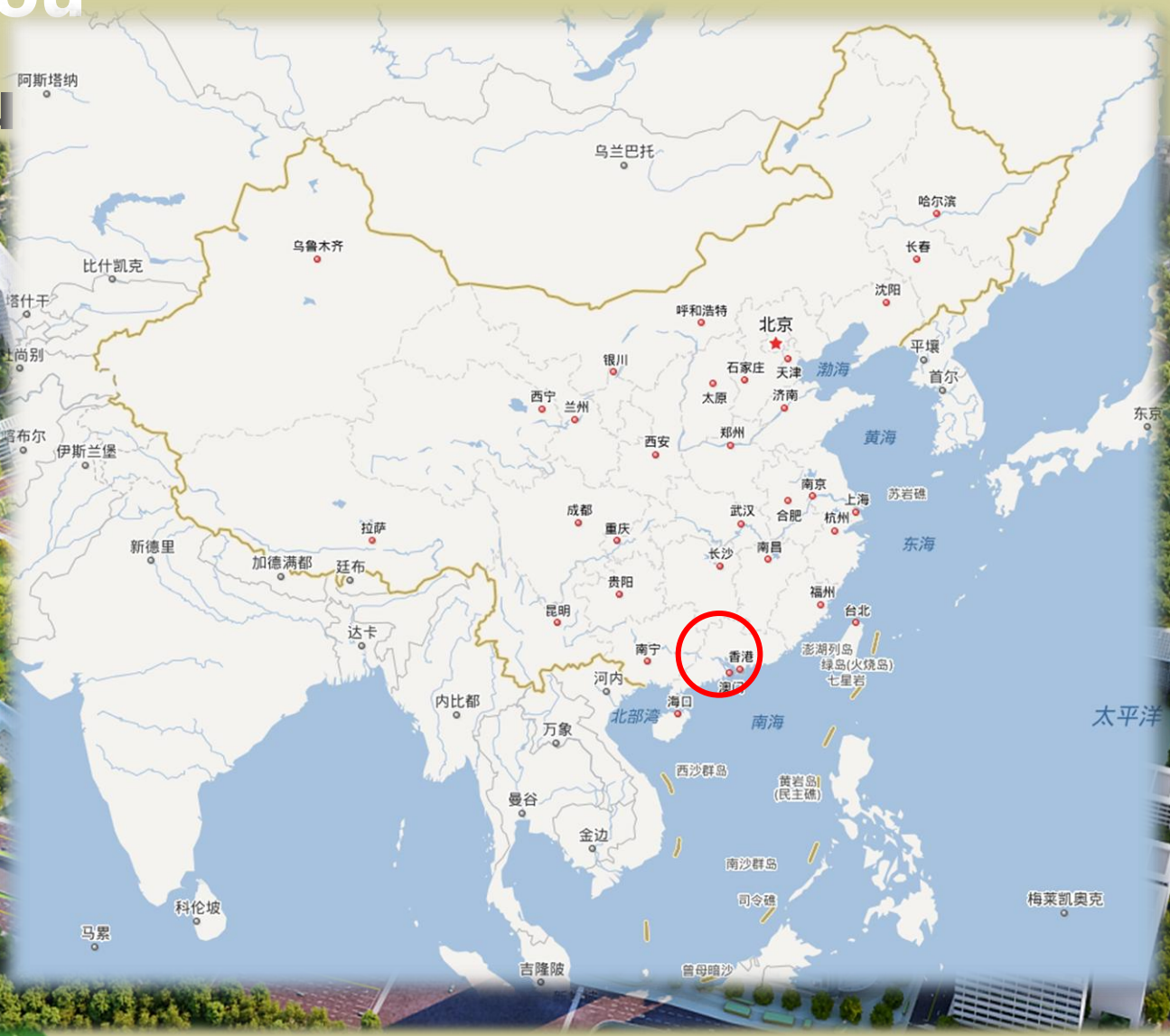
ICT

Sustainable Smart City Practices: Wuhan



Sustainable Smart City Practices: Guangzhou

- Smart Bu



Future

- **A smart city should be:**

  green, smart, sustainable developing

  - Suitable for living, traveling and working;
  - Keep developing itself;
  - Better than better~!

- **A smart city should be a city:**

  of the people, and for the people!

  - Should not forget each citizen, make the people feel safe, comfortable and have room for personal development and performance;

HUAWEI

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Thank you !

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