



To Build a Smart City Focusing Economy and Living ——2 Case Studies in Ningbo, China

Ningbo Municipal Government, China

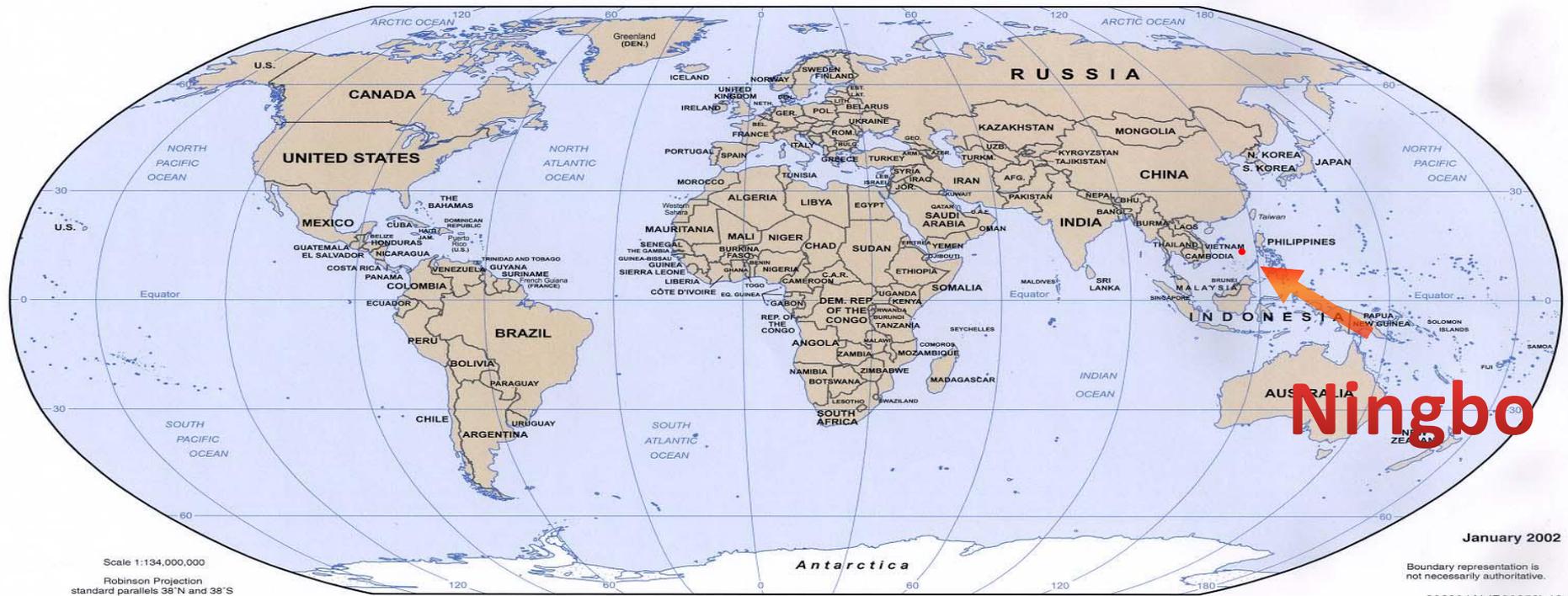
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Introduction of Ningbo City

Location, Area, and Population



Governing **11 counties**(county-level cities, or districts).
The total area is **10,000 km²**, population is **5.77 millions**.
Among them, the area is **285 km²**, population **2.26 millions** in the central area .



A City of Culture



Hemudu Culture Ruins

The Ruins are Neolithic and world famous, with a history of over 7000 years. They are the one of the earliest formation of the Neolithic Age found in China



Tiantong Temple

The temple was constructed in Jin Dynasty , which is a famous temple of Zen Buddhism, the 2nd temple among the 5 temples of Zen Buddhism. It is with a history of over 1700 years.



Tianyi Pavilion

It is the earliest existing private library in China as well as the oldest library in Asia with a history of over 440 years.



A Port to the World

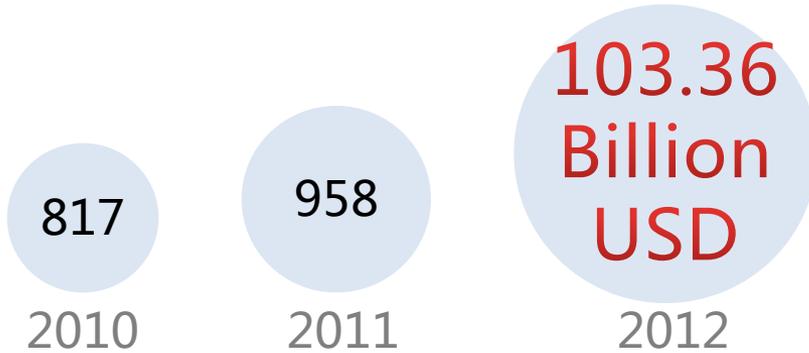


The cargo and container throughput of Ningbo Port reached **453 million tons** and **15.67 million standard containers**, ranking the **5th** and **6th** respectively in the world

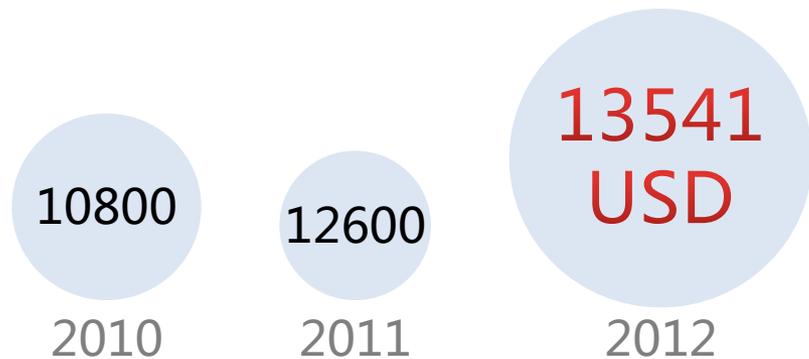


Economic Power

2010-2012 GDP



2010-2012 GDP Per Capita



Ningbo is the economic center of the southern Yangtze River Delta area, ranking at the top in the national economy.



Rapid Economic Growth

The private economic sector in Ningbo is well developed. GDP accounts for **70%** of the total.



Ningbo is quite a manufacturing city. Owns **20** out of 190 of the national export-brands ranking at the top throughout the nation



Ningbo is an Export-oriented economy city. In 2012, **95%** of the economy is externally oriented.



Ningbo is a fast developing city. The rate of urbanization has reached **69%**.



Goals, Ideas and Approaches of Ningbo Smart City Development

Urbanization Issues



Economic development mode and industrial structure need to be transformed



inadequate infrastructure



pollution, global warming and unsustainable resources



The quality of the public service provided by government and the administrative efficiency need to be upgraded



Aspects around social insurance, education, sanitation and safety are far from perfect



Strategy

May. 2010

The strategy was raised on the 'Informatization and City Development' forum of World Expo 2010 in Ningbo

Sep. 2010

Ningbo Municipal Government issued the Decision to plan the construction of a smart city.

Feb. 2011

The twelfth Five-Year Plan of Ningbo includes the strategy to accelerate the construction of smart city

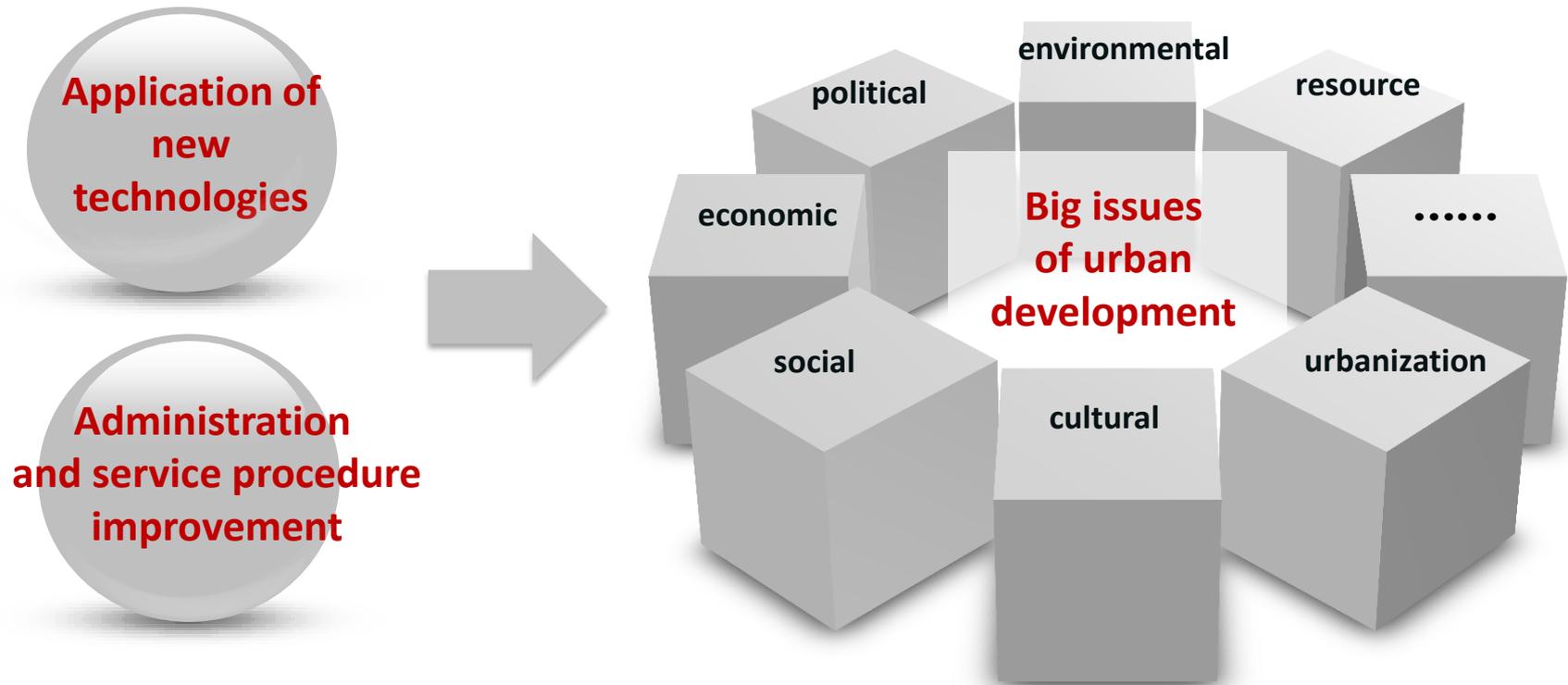
June.2011

The issuance of 'Accelerating Smart City Construction Action 2011-2015'

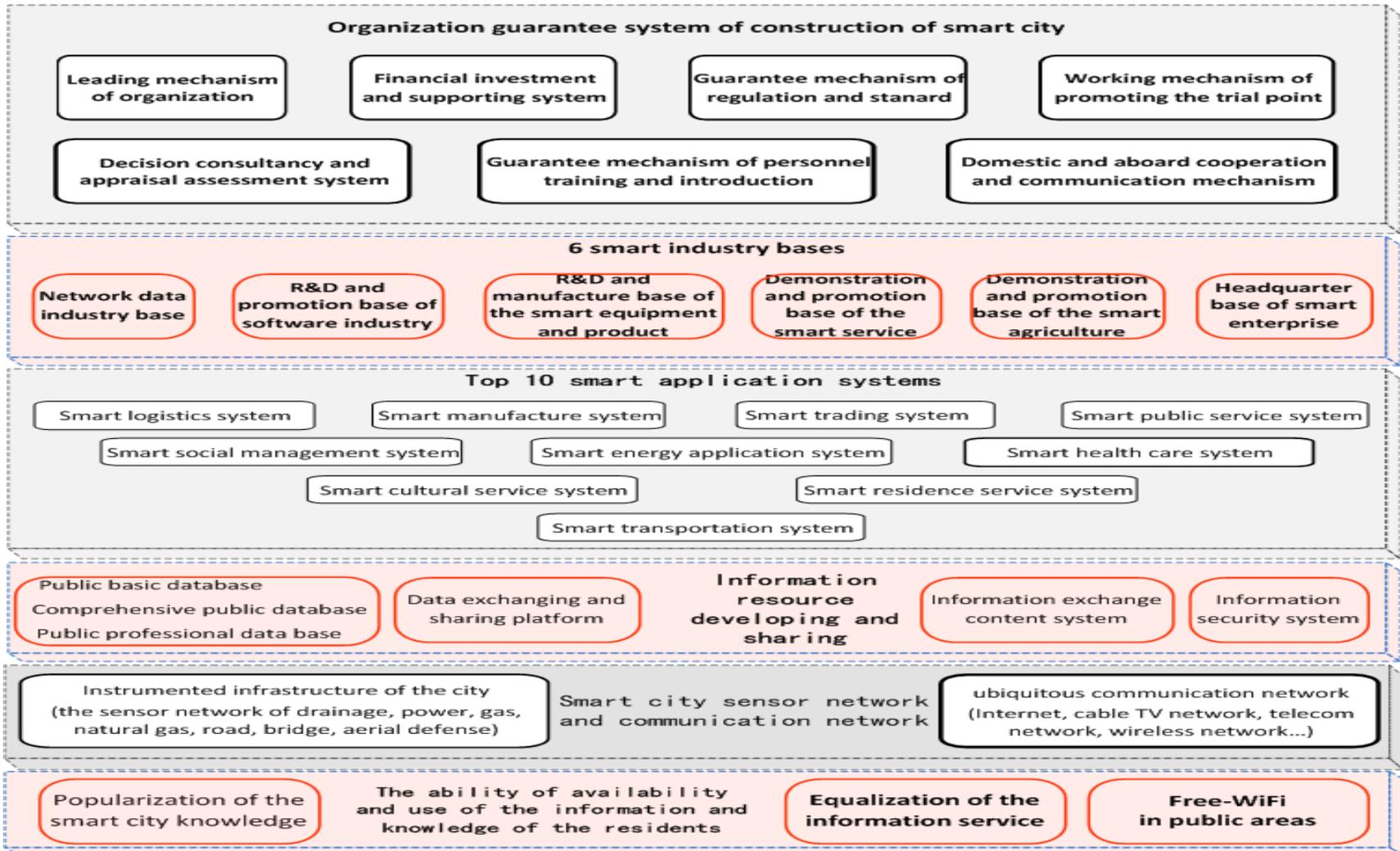


Goals

Relieve and Solve the 'Urban Diseases'



Ideas



Honors

City of Informatization
Excellence Achievements
China 2011



Leading Smart City
China 2011



Top 50 Informatization Cities
China 2012
Top 10 Cities Propelling Smart City
Development China 2012

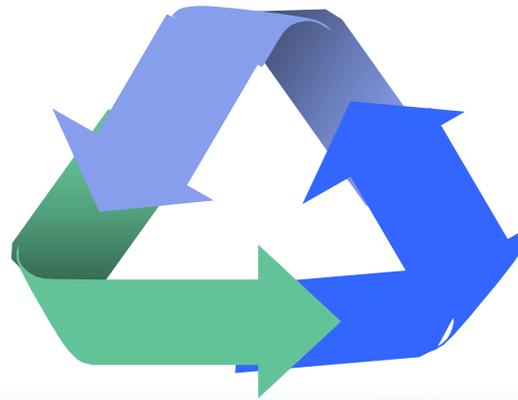


1st, Infrastructure Building

Higher than the national standards, the government has endeavored to improve infrastructure of the internet and telecommunication, enhance the construction of government cloud computing centre and fundamental database, strengthen the co-construction and sharing system of information resources. A framework of 'big internet, big data, big platform and big sharing' is coming into being.

Government Cloud
Computing

Optical Network City



Wireless City



2nd, Smart Application System

According to the ideas of setting up experimental units first and then expanding to the entire city, an application system of smart, economic and socially beneficial needs to be built initially.

Smart Economy (manufacture, trade, energy etc.)

Smart living (hospitalizing, education, transportation, tourism etc.)

Smart application system

Smart City Management (administrative examination and approval, social administration etc.)

Smart Public Services (81890 citizen assistance info system, geographical info, demographic, resources, living info service etc.)



3rd, Development of Smart Industries

The government introduces and nurtures smart industries based on the idea of mutual propelling and contribution between smart system construction and smart industry development. Governmental, industrial and academic cooperation and leagues establishment have been highlighted.

Smart Industries Development

1

Focus on two major industrial bases



2

Build a sharing platform



3

Advance the merge of industrialization and informationization





Sponsored by:

- Ministry of Industry and Information Technology
- The State Administration of Radio Film and Television
- Chinese Academy of Sciences
- Chinese Academy of Engineering
- China Telecom Group
- China Mobile Group
- China Unicom Group
- People' s Government of Zhejiang Province

Executed by: Ningbo Municipal Government



Some facts about 2011-2013 China Smart Expo, Ningbo

	Cooperation Item	Total signed amount	Enterprise in exhibition	Visitor
1st term	16	1.04 billion USD	310	Over 52000
2nd term	23	1.45 billion USD	300	Over 56000
3rd term	23	2.09 billion USD	310	60000 or so



第三届中国（宁波）智慧城市技术与应用产品博览会 SMART CITY EXPO CHINA 2013

主办单位：工业和信息化部 国家新闻出版广电总局 中国科学院 中国工程院
中国电信集团公司 中国移动通信集团公司 中国联合网络通信集团有限公司
浙江省人民政府

支持单位：中国航天科工集团公司 中国电子科技集团公司

承办单位：宁波市人民政府



Opening Ceremony, Smart City Expo. China, 2013, Ningbo.



Prof. Pan are delivering speech on the summit forum, Smart City Expo. China, 2013, Ningbo.



Ningbo Municipal Government are signing cooperation agreement with SAP, on Smart City Expo. China, 2013, Ningbo.

4th, Environmental Optimization

Optimize the environment for constructing the smart city through system-mechanic innovation



Two Case Studies in the Areas of Economy and Living

Case 1: Smart Health Care System

Background



**The Health system
cannot meet the
demands**



**Difficult and
Expensive to See
Doctors**



**Unequal
Resources
Distribution**

Achievements

1 Save time by online registration

The online hospital registration system in Ningbo gets over 20 hospitals involved, reducing the waiting time for more than 60%.

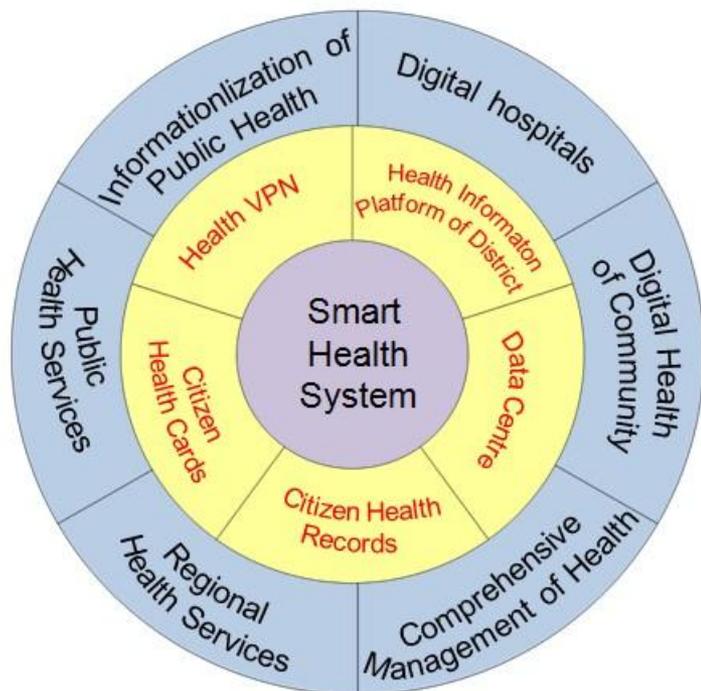
2 Increase the diagnostic level through online consultation

The government has established 37 digitalized community clinics, 8 regional video image system and 3 regional Clinical Laboratory Medical Devices. Ningbo hospitals have established remote joint consultation with famous Hospitals in Hangzhou and Shanghai

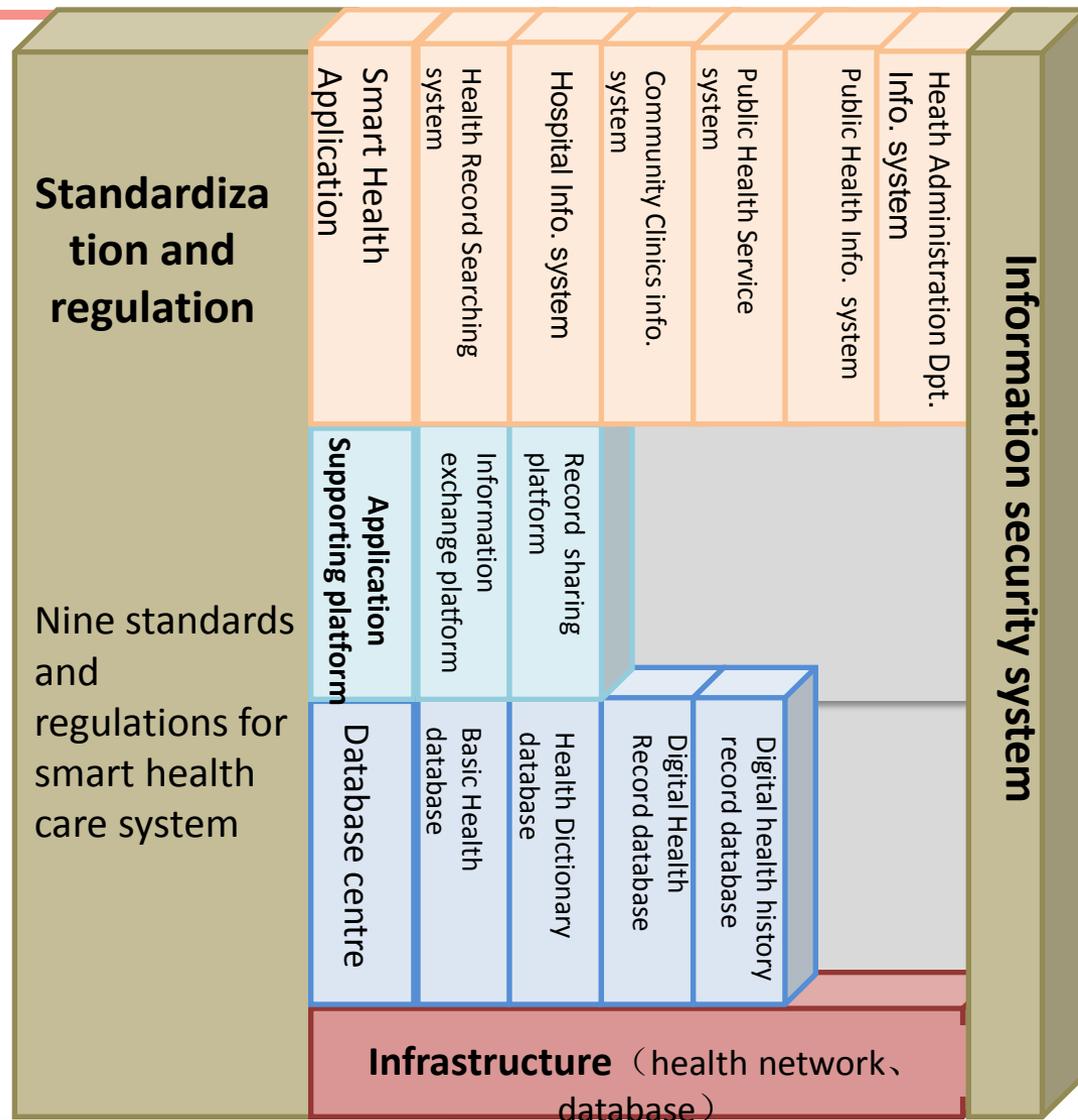
3 Share health records through sharing platform

5 million health records have been built with rate of standardized records over 65%.

Ideas of Construction



Framework: five integration and six tasks



new progress

Approaches

1. Enhance the organizing guarantee

Established smart health care system coordination group
The Health Bureau organized a leaders' group for smart health care system

2. Defined the contents and tasks

Notice on speeding up the construction of smart health care system in Ningbo
Completed 7 smart health care project proposals

3. Lay emphasis on standards and regulations

Set up a series of standards and regulations, including 'Work Programme on the construction of the Ningbo Smart Health Care System', 'Standard Specifications on Ningbo Smart Health Care System', 'Catalogues of the standards of the Ningbo Smart Health Care System'

4. Highlighting openness in construction

With the idea of mutual propelling and contribution between smart system construction and smart industry development, Established cooperation with Huawei, EastSoft and King Tang software Companies etc.



Case 2: Ningbo Credit

Background

- 1 The utility ratio of companies' credit information is low due to limited openness.
- 2 The government cannot fully understand the overall situation of companies credit as credit information has not been intergrated.
- 3 The credit information of many enterprises is not transparent. The penalty for losing credit is unclear.

Achievements

1 Improve the efficiency of decision making

Real-time receiving of specific information on the industry developments in the entire city.

2 Improve the fairness of tax raising

Local Tax Bureau issued notices to more than 20,000 companies for delayed taxation. It increased the fairness of taxation as well as increased fiscal income for local government

3 Establish joint rewards and punishment mechanism

Established joint rewards and punishment mechanism according to the lowest credit level of the company.

4 Increase the efficiency of examination and approval

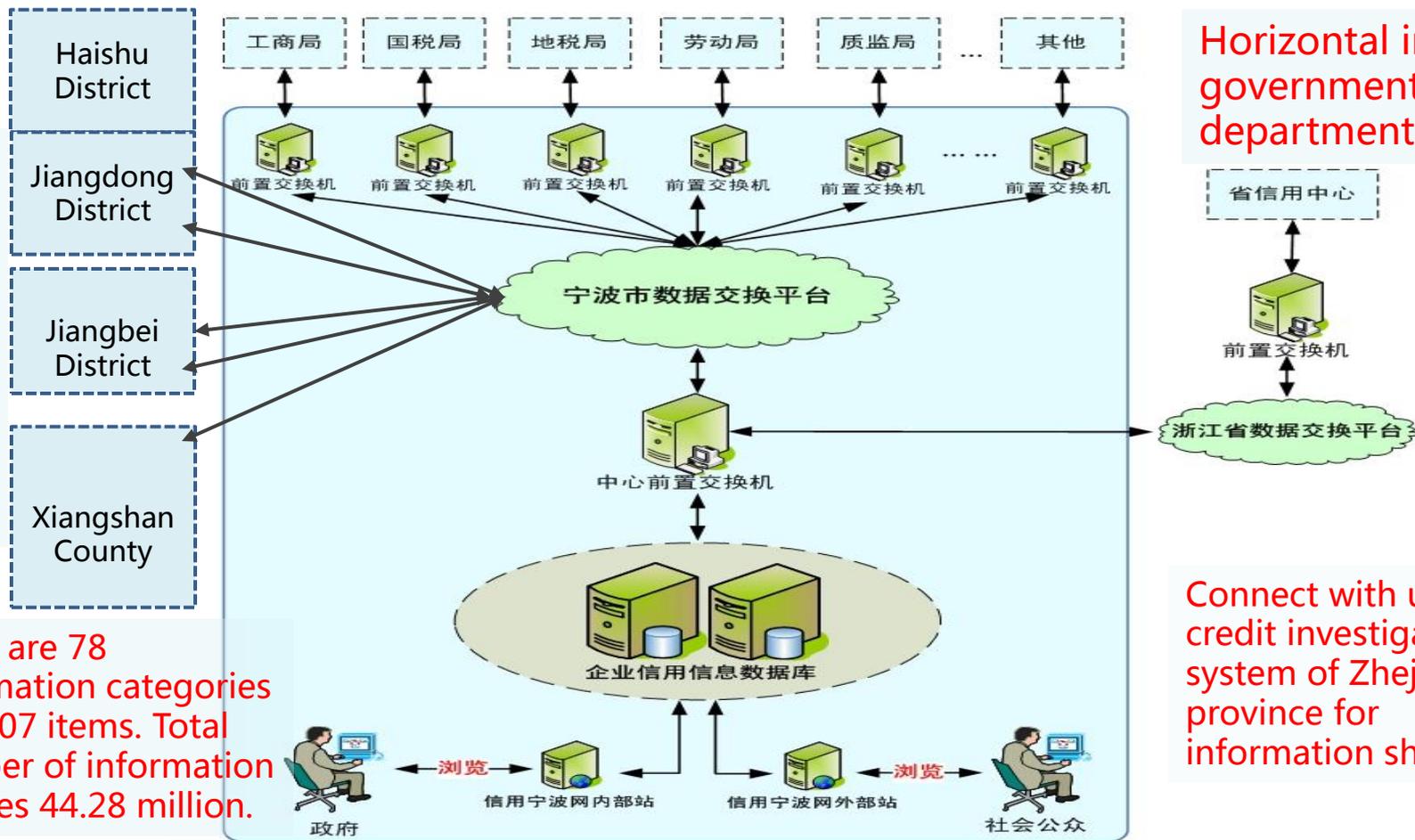
Enterprise registration takes less than an hour as apposed to a couple of days before.

5 Improve the government service level

The general public could search relevant information such as basic information, annual check and honors obtained of the company to avoid frauds.

Ideas of Construction

Build up a network for system integration, information sharing and business collaboration.



Horizontal index: 23 government departments

Vertical index: 11 districts and counties

There are 78 information categories and 507 items. Total number of information reaches 44.28 million.

Connect with united credit investigation system of Zhejiang province for information sharing

Approaches

Organization & leadership

Established a leader group consisting of the city mayor and members from 34 relevant departments

Policy guarantee

In 2002, the government promulgated a regulation of 'Enterprise Credit Information Management 'to regulate the collection, publishing, investigation and evaluation of enterprise credit information. In 2012, the 'Enterprise Credit Information Monitoring and Social Responsibility Evaluation Methods' was put into effect

Potential Collaborations with Germany

Potential collaboration



Smart City construction is very complex and sophisticated. Apart from a few achievements, the construction is still on its initial phase.

The idea of combining the wisdom worldwide to build a smart Ningbo city, is essential for our success. Stick to openness and cooperation all the time. Have established project cooperation with IBM, MicroSoft, SAP, TATA etc.

We sincerely hope to seek potential opportunities for cooperation with Germany companies and research institutions for building smart city. Welcome to Ningbo Week in Germany held in Dusseldorf next week.





Thank you!

