

BIG DATA IN CHINA

From concepts to implementation

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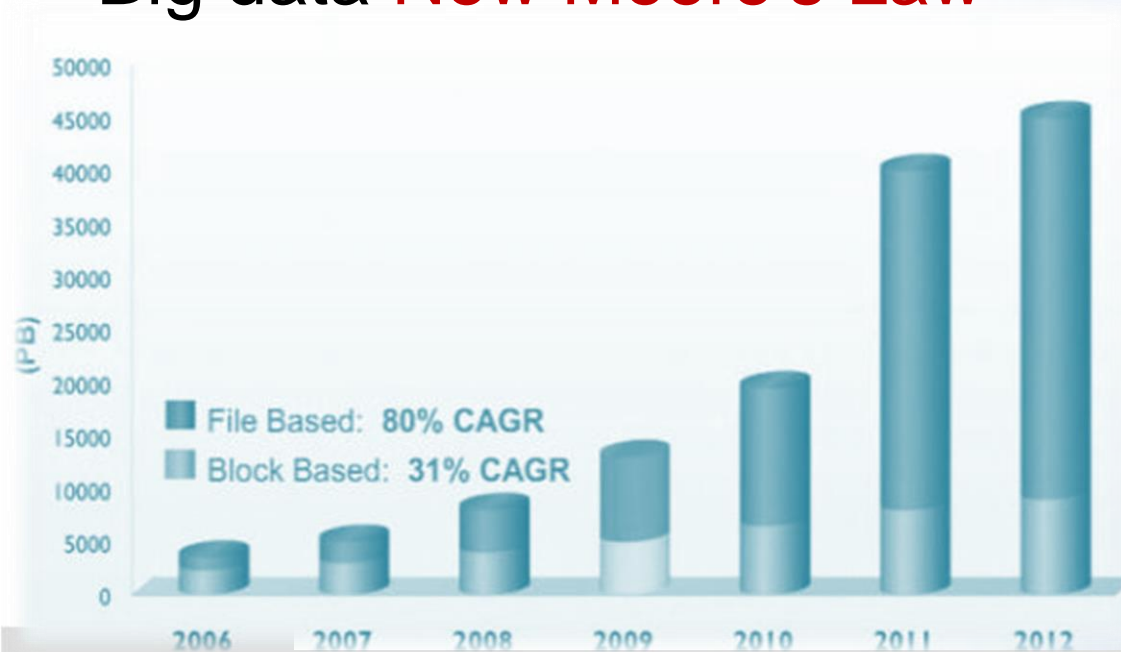
Future Landscape in China

01 Understanding Big Data

Big data age has already come...

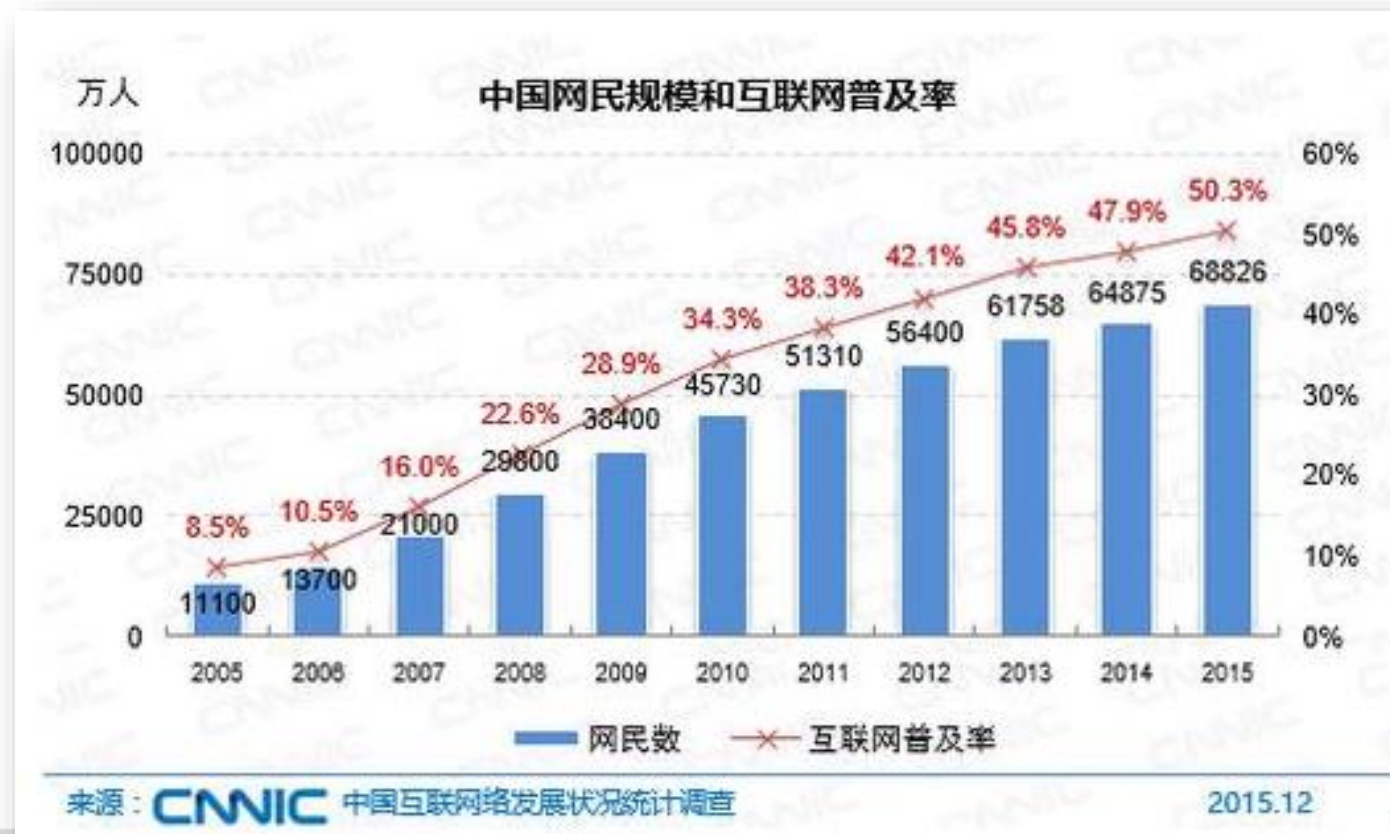
IDC:

- Global data volume will be 50 Times to ZB Level by 2020
- 85% is unstructured data
- Big data **New Moore's Law**



Wave of big data in china

- CNNIC reported (2015) : internet users amount to 688 million, mobile users amount to 590 million
- Half of the Chinese people have access to the Internet



Wave of big data in china

- During double 11 network shopping day 2015, the turnover topped to 91.2 billion, in which mobile deals accounted 68%, is 62.6 billion
- Order quantity added up to 467 million, electronic order was more than 120 million
- It's a **HUGE** big data **Market** with great **Potential** in China



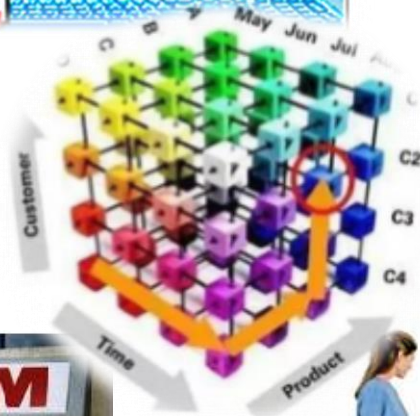
What is big data?

A general **concept** refers to datasets whose size is beyond the ability of typical database software tools to capture, store, manage, and analyze



Big data is everywhere, everything can be datafied

- Big data is everywhere
 - Web data, e-commerce
 - purchases at department/grocery stores
 - Bank/Credit Card transactions
 - Social Network
- Everything can be datafied
 - Behaviors
 - Information
 - Location
 - Interests...

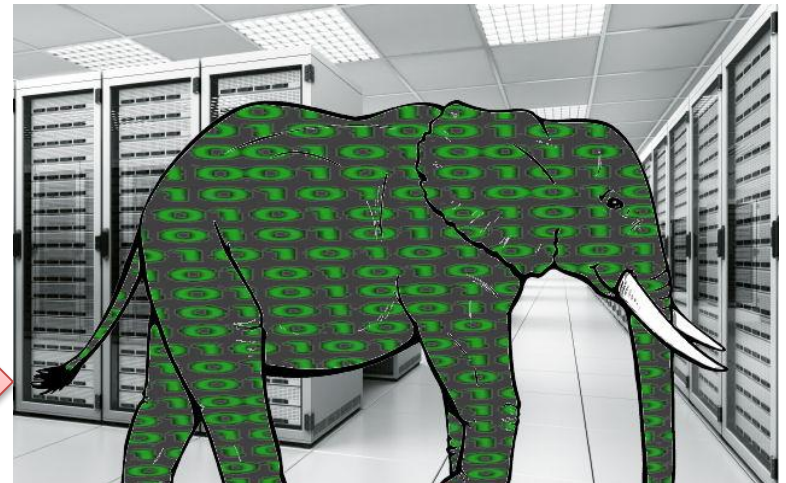
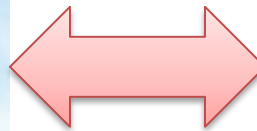


Two Key Points of Big Data

- **Data Refine:** driving value from big data
- **Data Recreate:** creating a synergy effect by combining big data with other corporate data



Data refine



Data recreate

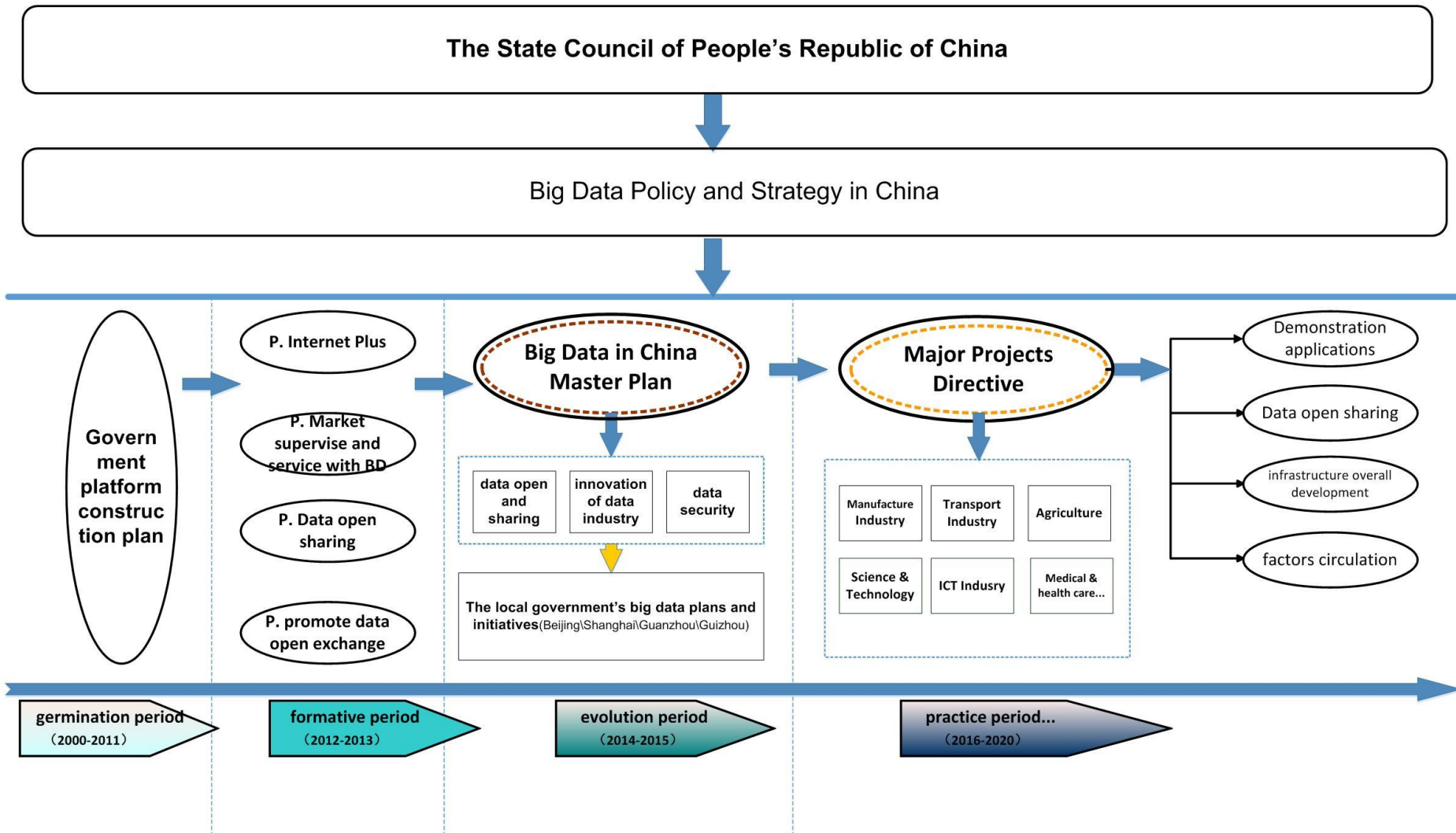
Big Data: The next frontier for innovation competition, and productivity

- **How** are the policies and strategies about in china?
- **What** are the roadmap and current status?
- **Why** 2013 was named as China's starting year?
- **Where** are the prospects and challenges?



02 China's Strategy and Action

National Picture of Big Data in China



Big Data Master Plan in China

- Formalised by the State Council CN in Aug.2015
- Objective: an national plan and framework to promote the development and application of big data
- Major tasks:
 - Promote data open and sharing
 - Promote the innovation of data industry
 - Insure the data security
- Period: 2015-2020

Directive of Implementation in China

- Formalised by the state council CN in Jan. 2016
- **Objective:**
 - to accelerate the implementation of Master Plan
 - to promote the development and applications of big data
- **Major projects:**
 - Big data demonstration application project
 - Big data open and sharing project
 - Big data infrastructure overall development project
 - Big data factors circulation engineering
- Period: 2016-2020



Roadmap of BIG Data In china

- **Phase I: germination period** (2000-2011)
 - Massive Data Processing Research Projects
 - National Government Platform Construction Plan
- **Phase II: formative period** (2012-2013)
 - 2013: China's starting year
 - Development of big data concept
 - Definition of Internet Plus and guidelines
- **Phase III: evolution period** (2014-2015)
 - 2015: National Master Plan
 - Local government actions
- **Phase IV: practice period** (2016-2020)
 - 2016: Major projects Directive
 - Major projects in every industry

Actions of the Academic and Social groups

- **Alliance of big data**
 - Shanghai maritime big data alliance
 - Beijing big data alliance
- **Exchange center for big data**
 - Big data exchange center in Shanghai
 - Big data exchange center in Guizhou province
- **Big data research center**
 - Chinese academy of sciences big data national laboratory
 - WTI big data laboratory

Big data exchange centers in China

- Big data exchange industry is gradually developing



03 Some Typical Cases in China

Fighting crime with Big Data

- Databases: population, illegal crime, immigration, hotel information Internet cafes, vehicle/driver, a fugitive, stolen vehicles and other information
- Big data applications – 3 seconds locked the suspect



“God's Mill Grinds Slow But Sure”

—— Mencius

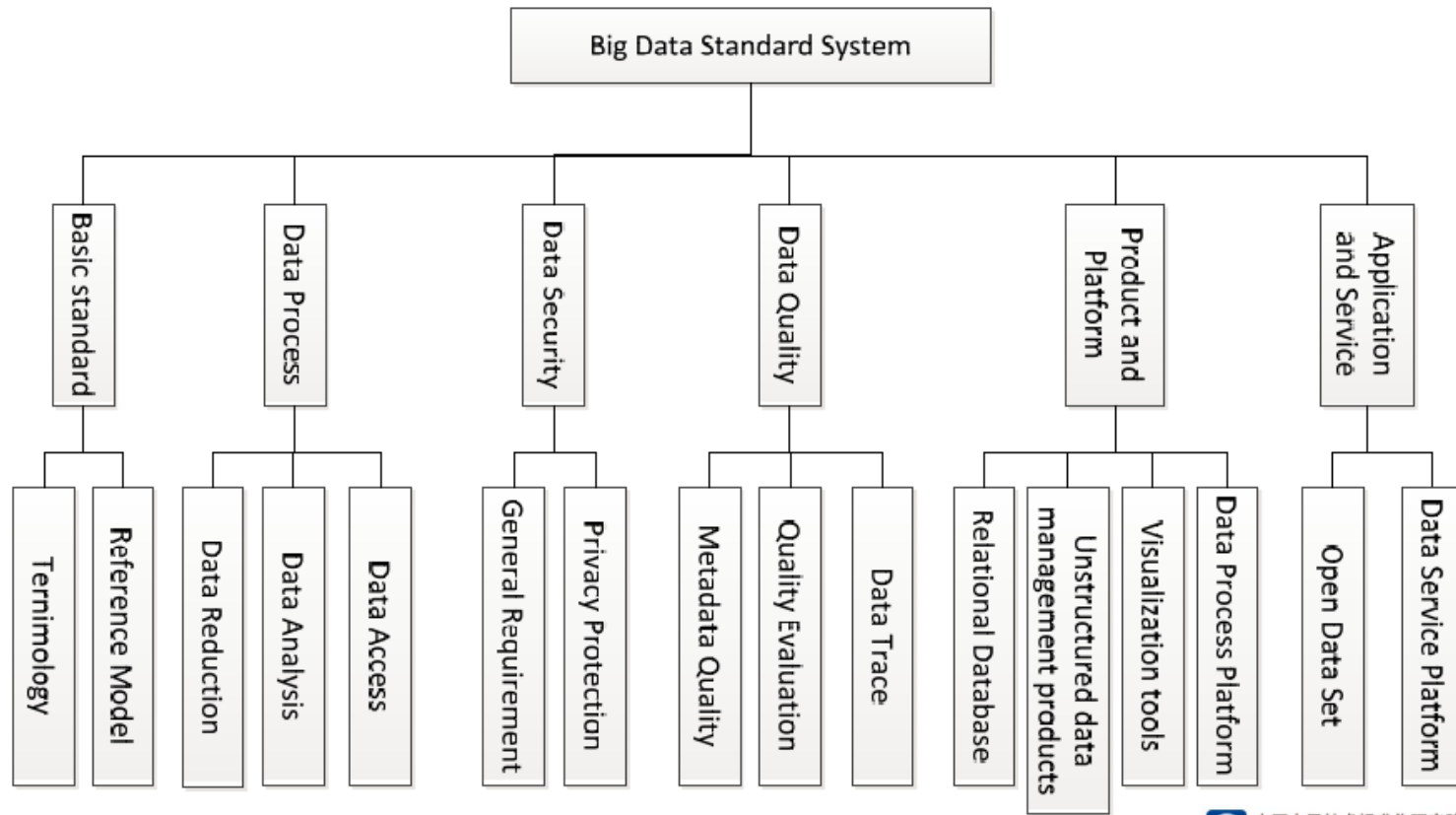
Baidu map - Travel migration dynamic throughout the country

- About the popular cities of immigration and emigration, as well as the **hot** Spring Festival transportation route
- Traffic resource scheduling and management, to better the traffic alert and response
- **Technology**
 - GPS + IP positioning
 - base station positioning
- **Date source**
 - the map users
 - third-party applications



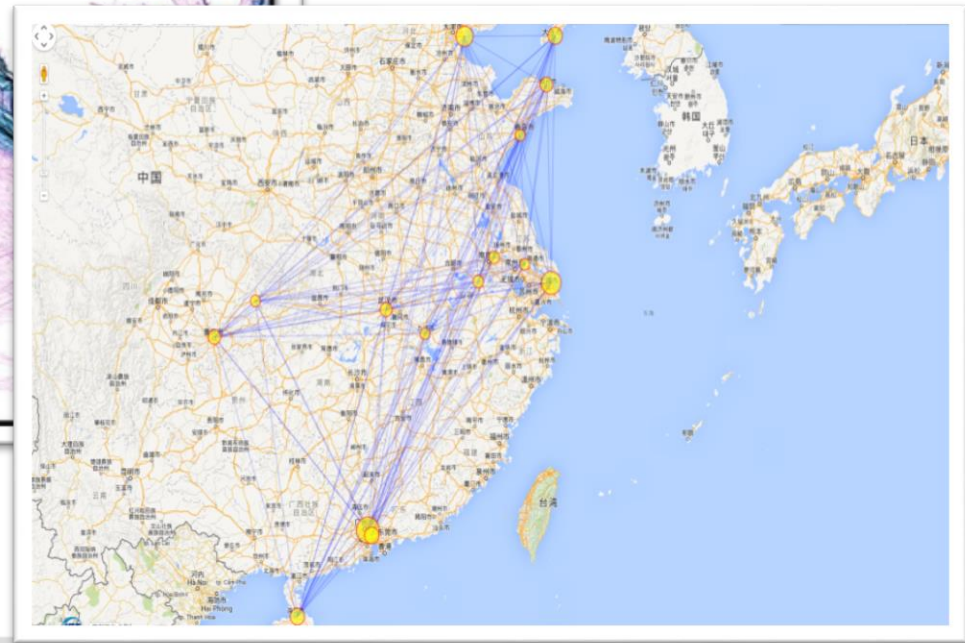
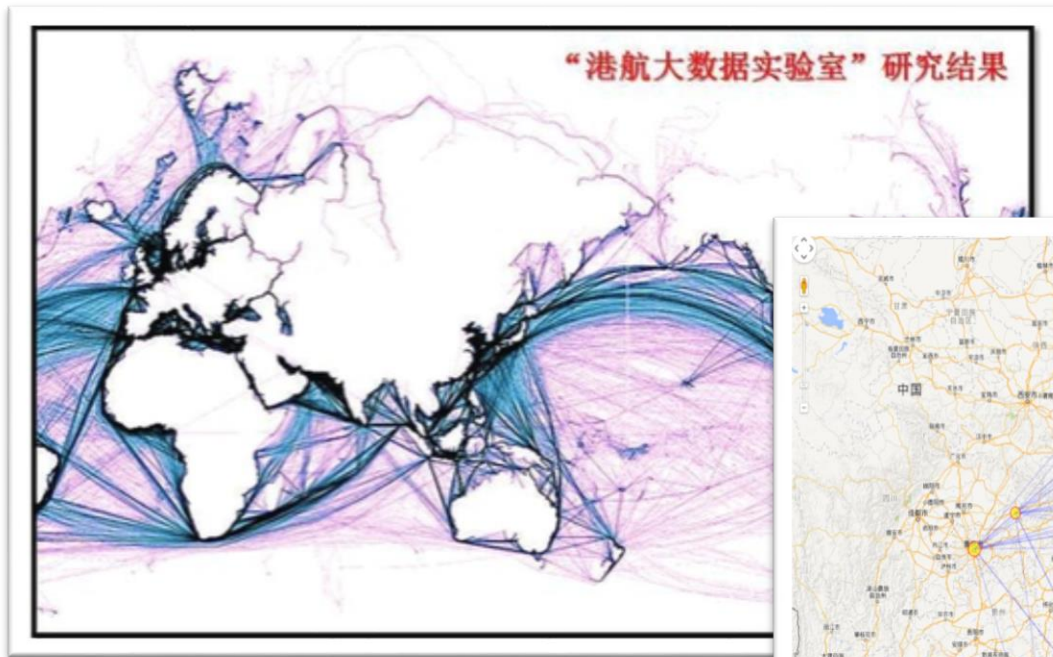
Big data standardization framework

Big data standard system framework



Maritime big data - Maritime dynamic analysis

- Marine energy consumption and air pollution emissions
- A typical route analysis
- Line fitting analysis



04 Future Landscape in China

Current Status in China

- Big data industry is developing rapidly
- Regional imbalance
 - economically developed regions much better
 - eastern coastal cities much better than inland cities
- Development imbalance
 - public sectors such as public security, finance, transportation are much better
 - the agriculture, manufacturing industry are relatively backward

Conclusions

- Big data in China is a **hot issue**, although promising, but it is still in its infancy
- Cross-border fusion and multidisciplinary cross is inevitable, there needs an **ecosystem** for big data industry in china.
- In the next 5 to 10 years, under the framework of master plan, China's big data industry will see a **great breakthrough**
- Need more **exchange and cooperation**

Thank you for your attention

For more information:



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