



Workshop on Environmental Readiness for E-commerce: Economic, Legal and Institutional Factors

E-commerce Readiness and Risk Management

—Experience from China

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Outline

- **I. Infrastructure readiness**
- **II. Scalable risk management**
- **III. Impediments**

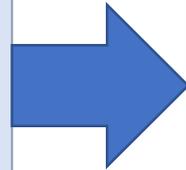
I. Infrastructure readiness

For the trade of goods and services

- Tangible/Intangible
- Onsite/Offsite

Delivery

- Online(instantly)
- Offline(physically)



Electronic means

- Exhibit(posted, TV, Internet...)
- Negotiate(By phone, Internet...)
- Reach agreement

Payment

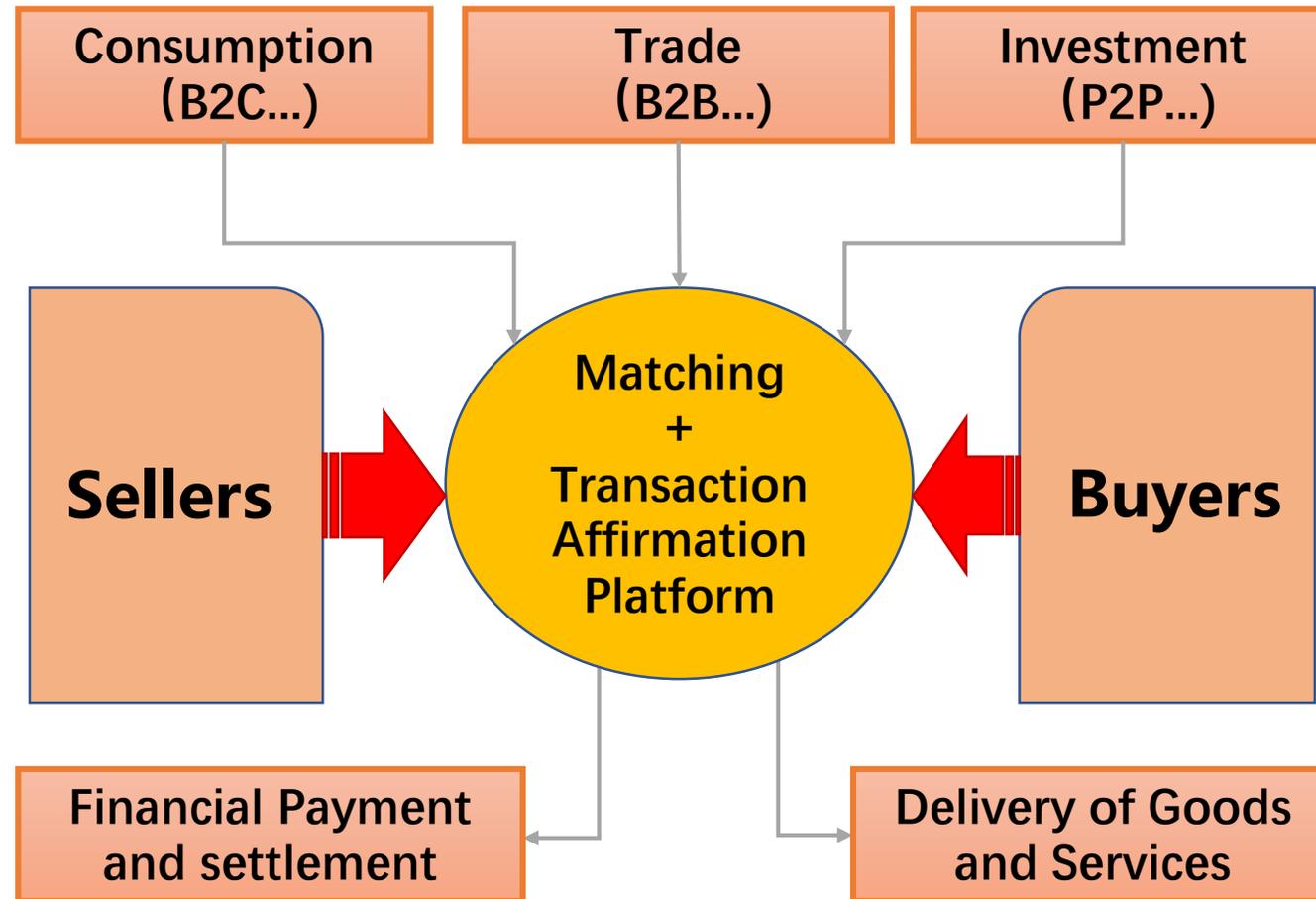
- Online banking(RTGS-BEPS)
- Mobile payment (RT-RPS)



Settlement of the trade

- "FoP" —Free of payment
- "DvP" —Delivery vs. payment
- "DaP" —Delivery after Payment
- "PaD" —Payment after delivery

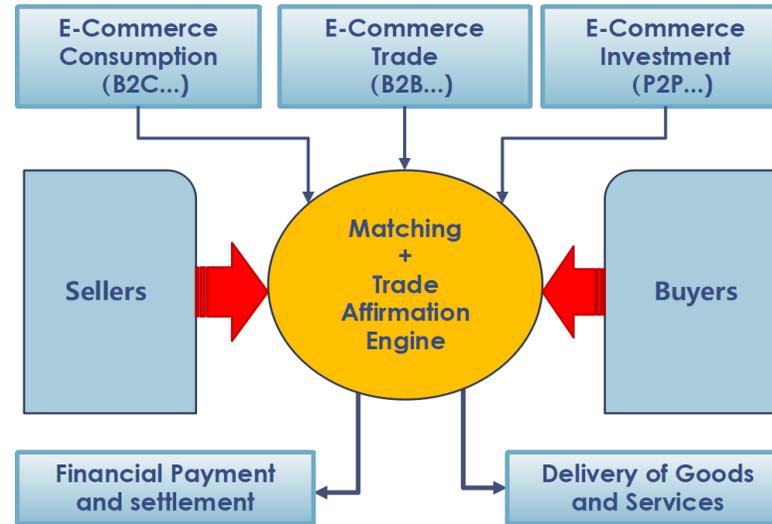
- No need for a sophisticated infrastructure readiness
- To formulate a "self-evolvement" and "positive spiral"



Sources: Jianming Ni, AFDI China, 2018

1) IT infrastructure

2) Legal infrastructure



Sources: Jianming Ni, 2018; China, 2018

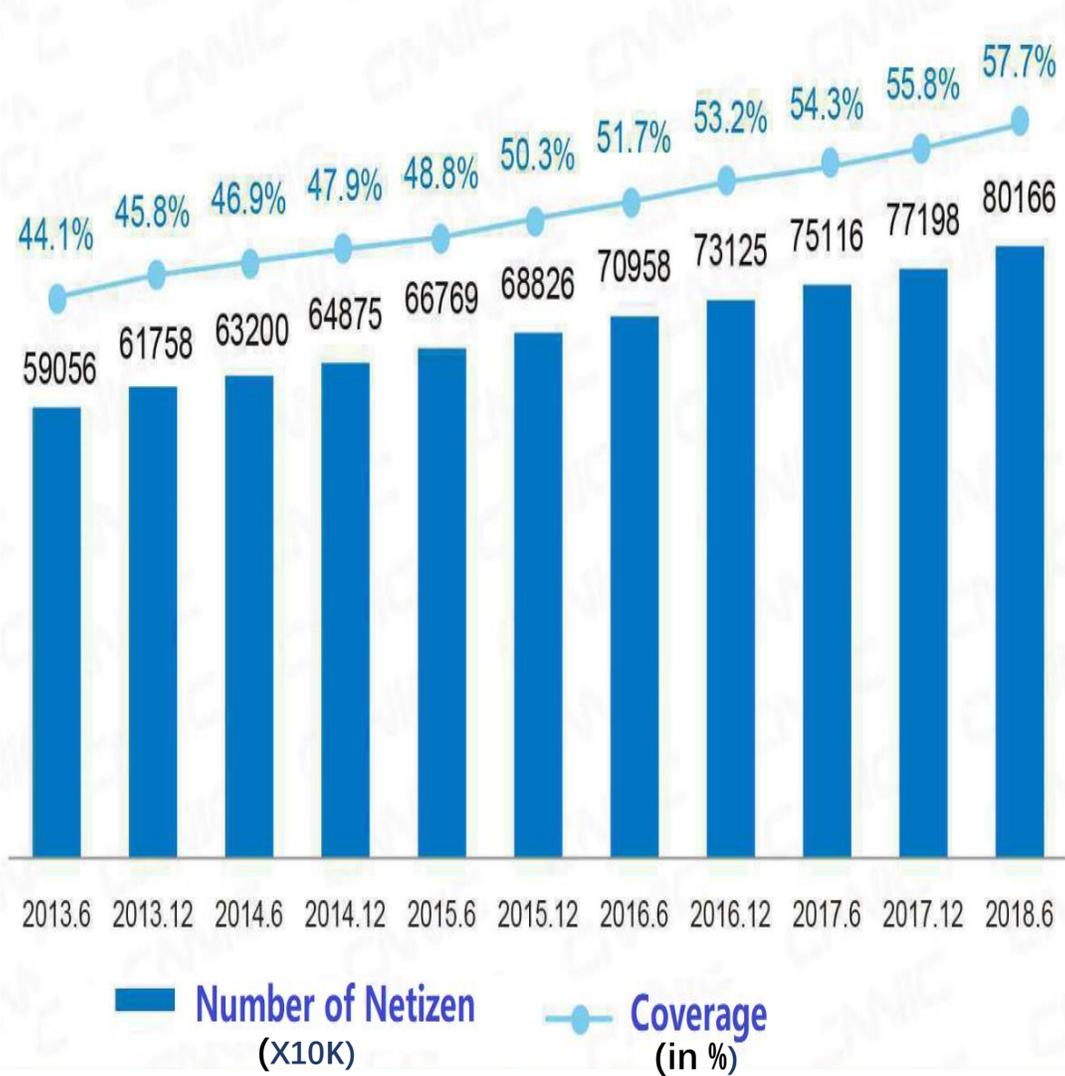
3) Financial infrastructure

4) Facilities and logistics infrastructure

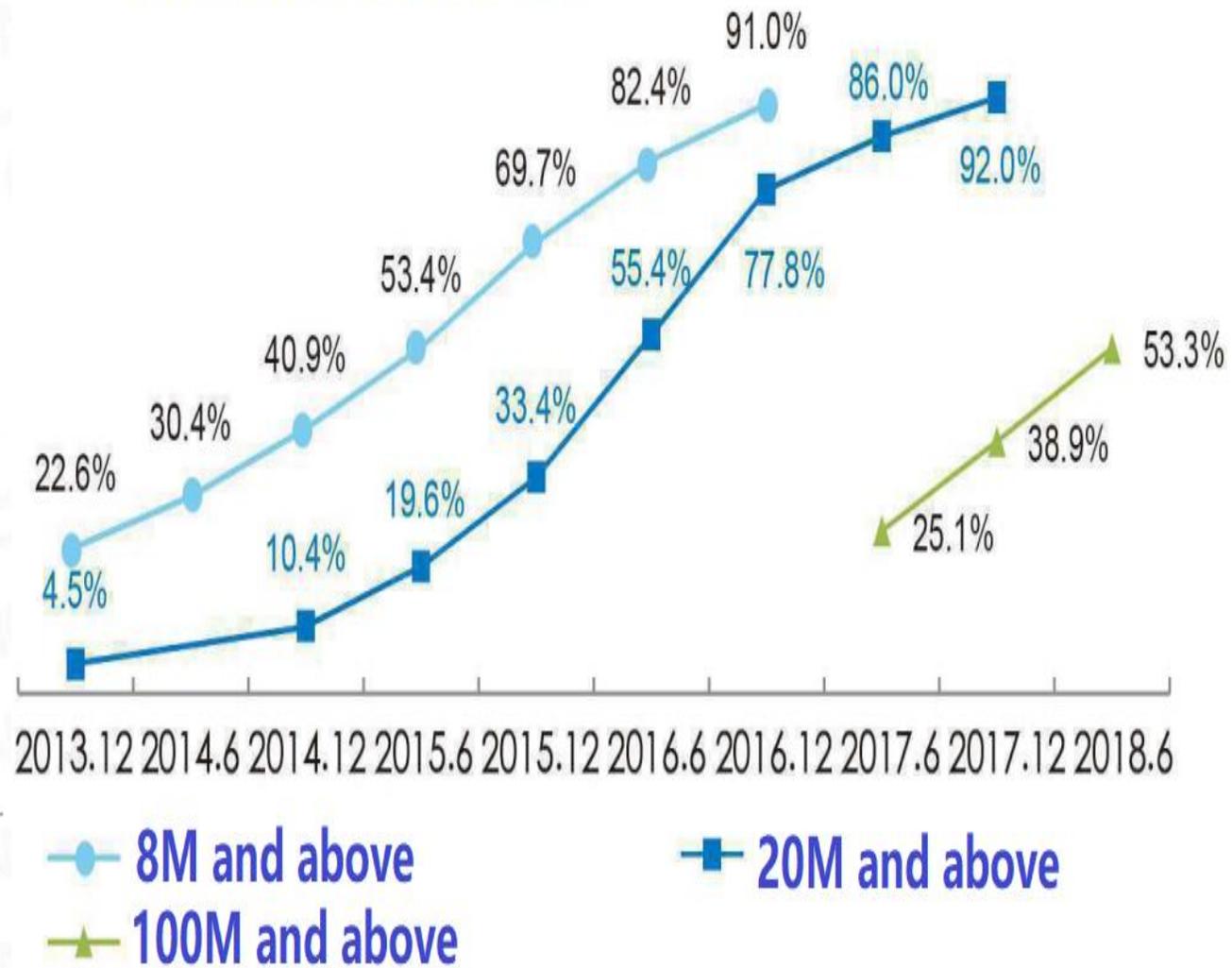
.....Trade policy and others?

- 1) IT infrastructure
 - **Hardware**——Servers、 Proxy Servers、 Load Balancers、 Firewalls 、 Encryption Devices
 - **Software**——API、 Database Servers 、 Middleware、 Content Mgt. Systems、 Web Analytics tools
 - **Telecom and digital technologies**——Cloud Services; Broadband; Data Centers; IoT (Internet of Things)

Number of Netizen and Coverage(in percentage of population)

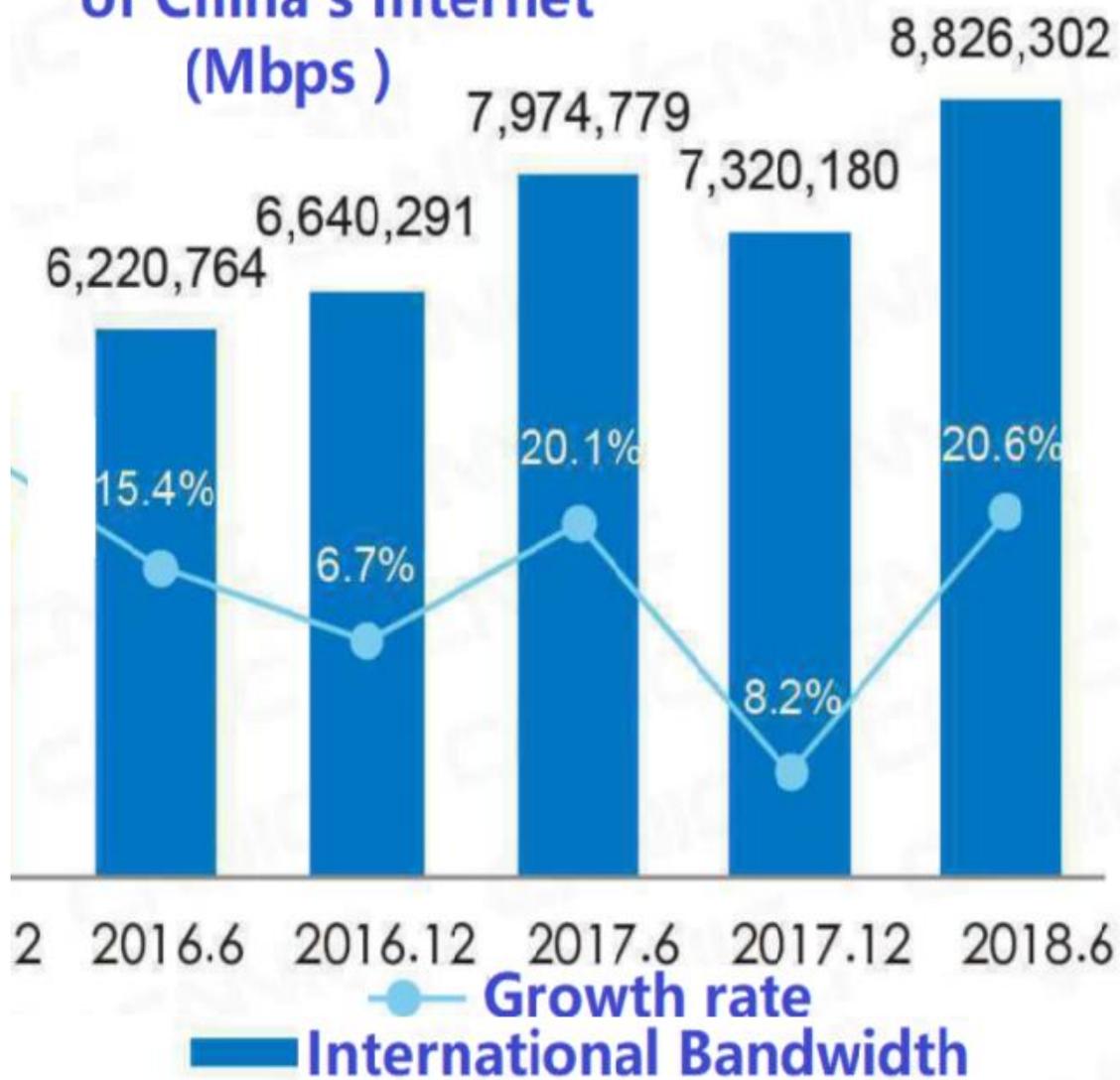


China Broadband Users

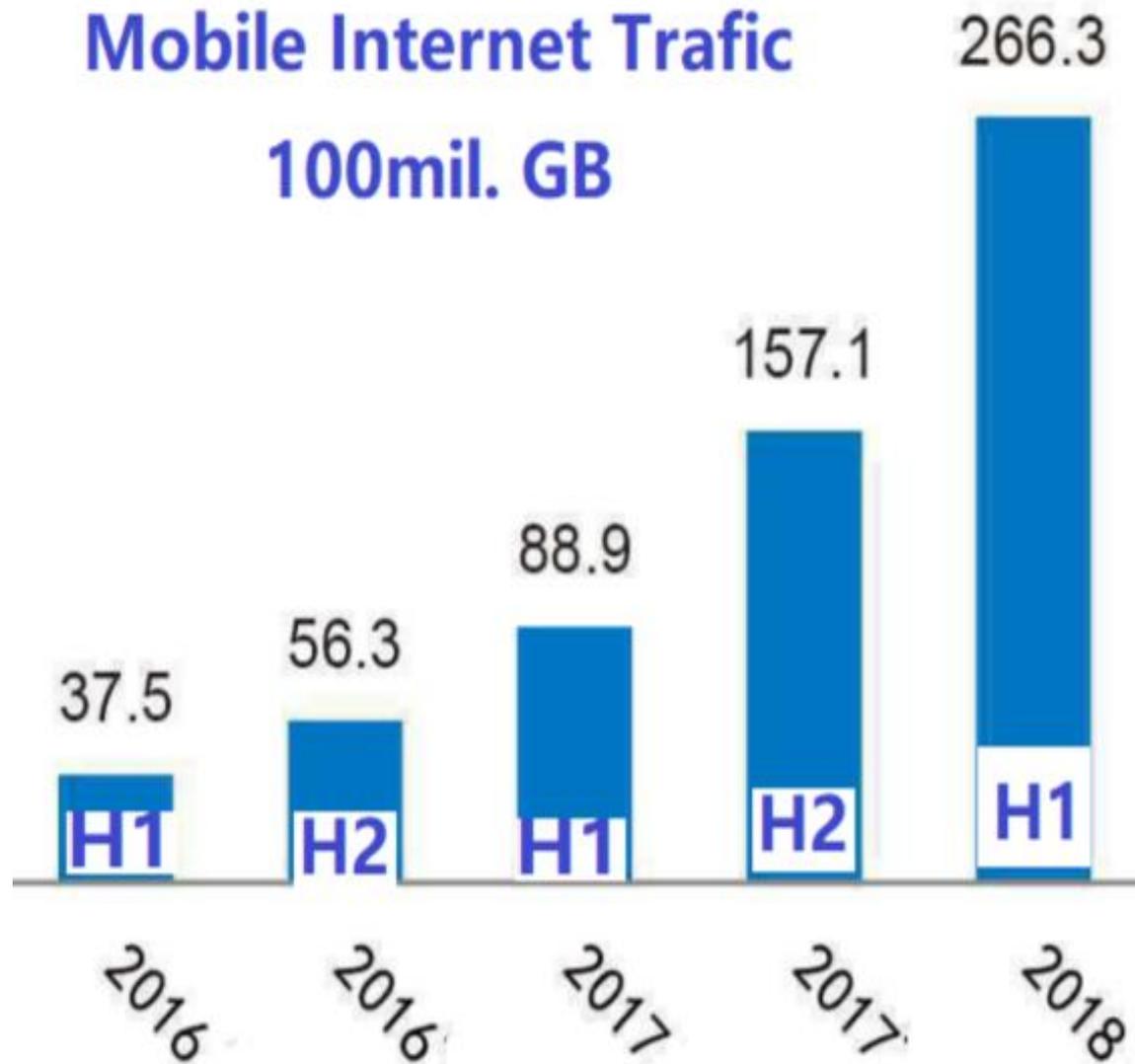


* Sources: CNNC, China Internet Network Information Center, 2018

International Bandwidth of China's Internet (Mbps)



Mobile Internet Traffic 100mil. GB

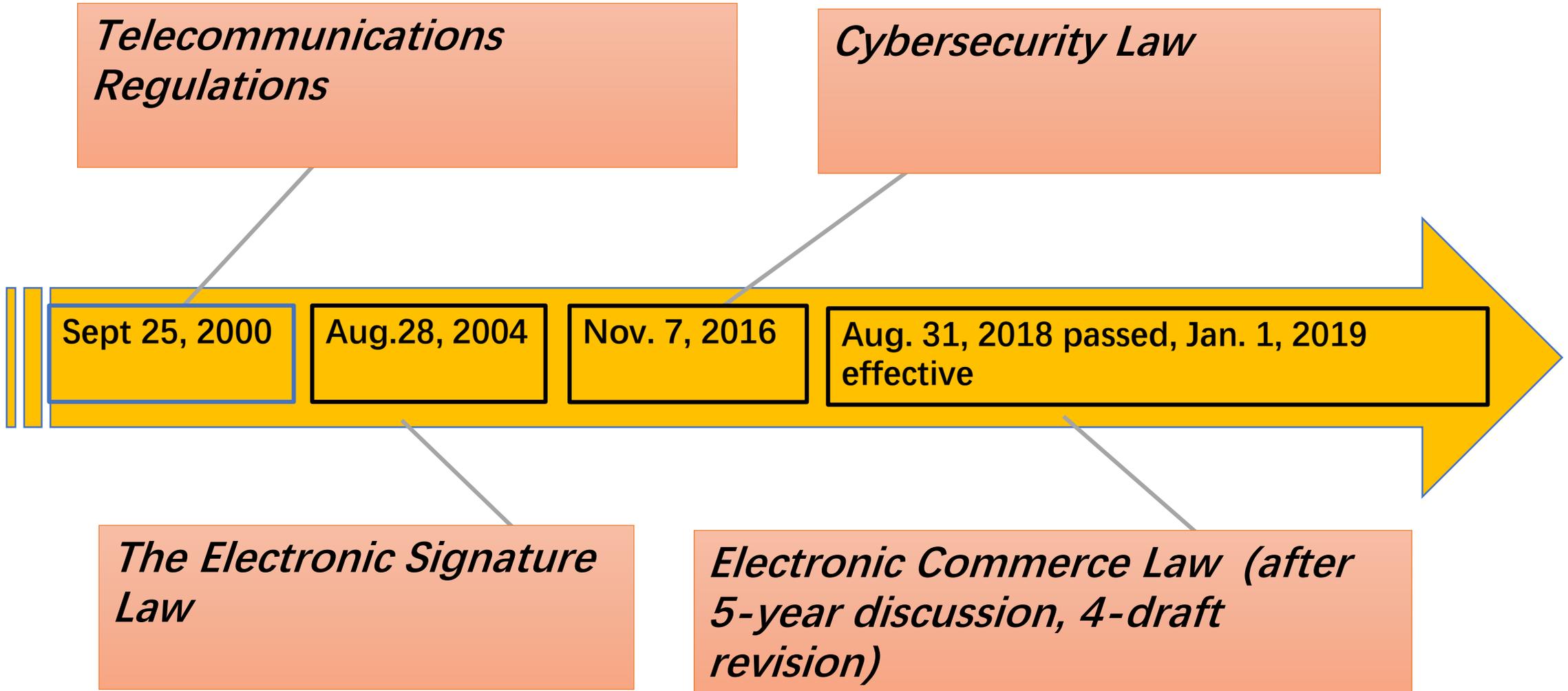


* Sources: CNNC, China Internet Network Information Center, 2018

2) Legal infrastructure

- **Authentication** of online transaction contract and electronic signature
- **Protection** of consumers' data and privacy, resolution of dispute, and prevention of cybercrime
- **Regulation** of e-commerce content, currency convertibility, tax and cloud computing policy

United Nations Convention on the Use of Electronic Communications in International Contracts (passed on Nov 23, 2005 ; China signed on Jul. 6, 2007)



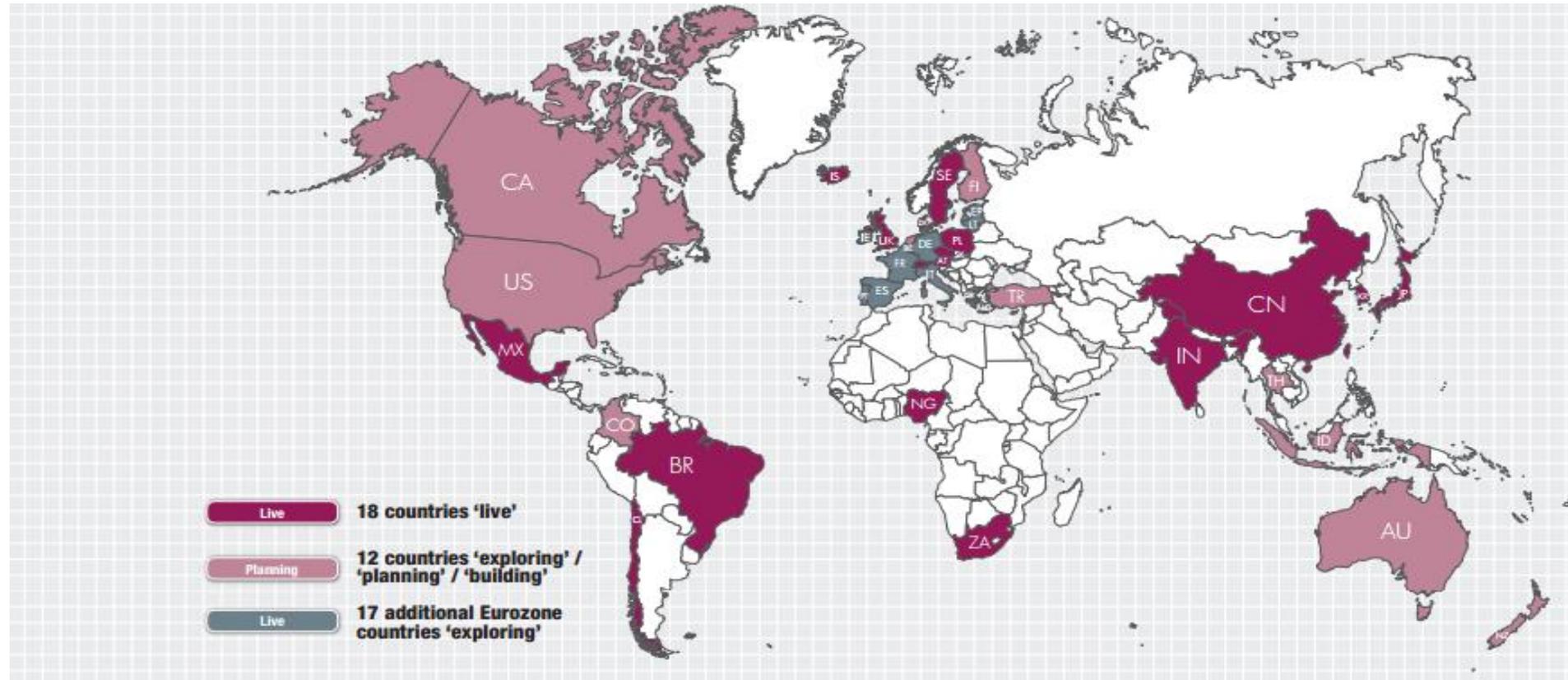
3) Financial infrastructure

- **Financial policy and regulation** (Currency convertibility, tax and accounting, etc.)
- **Payment and settlement arrangement and systems**
(Online/mobile payment
 - ✓ Central bank
 - ✓ Commercial banks
 - ✓ Third parties as financial intermediaries

18 RT-RPS (Real Time Retail Payment System)

VS.

79 RTGS (Real time Gross Settlement System)



Source: SWIFT, 2015

4) Facilities and logistics infrastructure

- Facilities
 - Fixed installation facility
 - Operations facility
- Logistics infrastructure
 - Third-party logistics companies (3PLs)
 - Warehousing and Distribution Centers
 - Supply chain networks

Facilities

- ❑ Fixed asset and
- ❑ Transportation investment
China High Speed Train network; Village-to-Village project……



Logistics infrastructure

- ❑ No. of 3PLs :
Around 50 nation-wide
Thousands of regional
- ❑ Sample companies:



Hema: 30-Min fresh sea food delivery



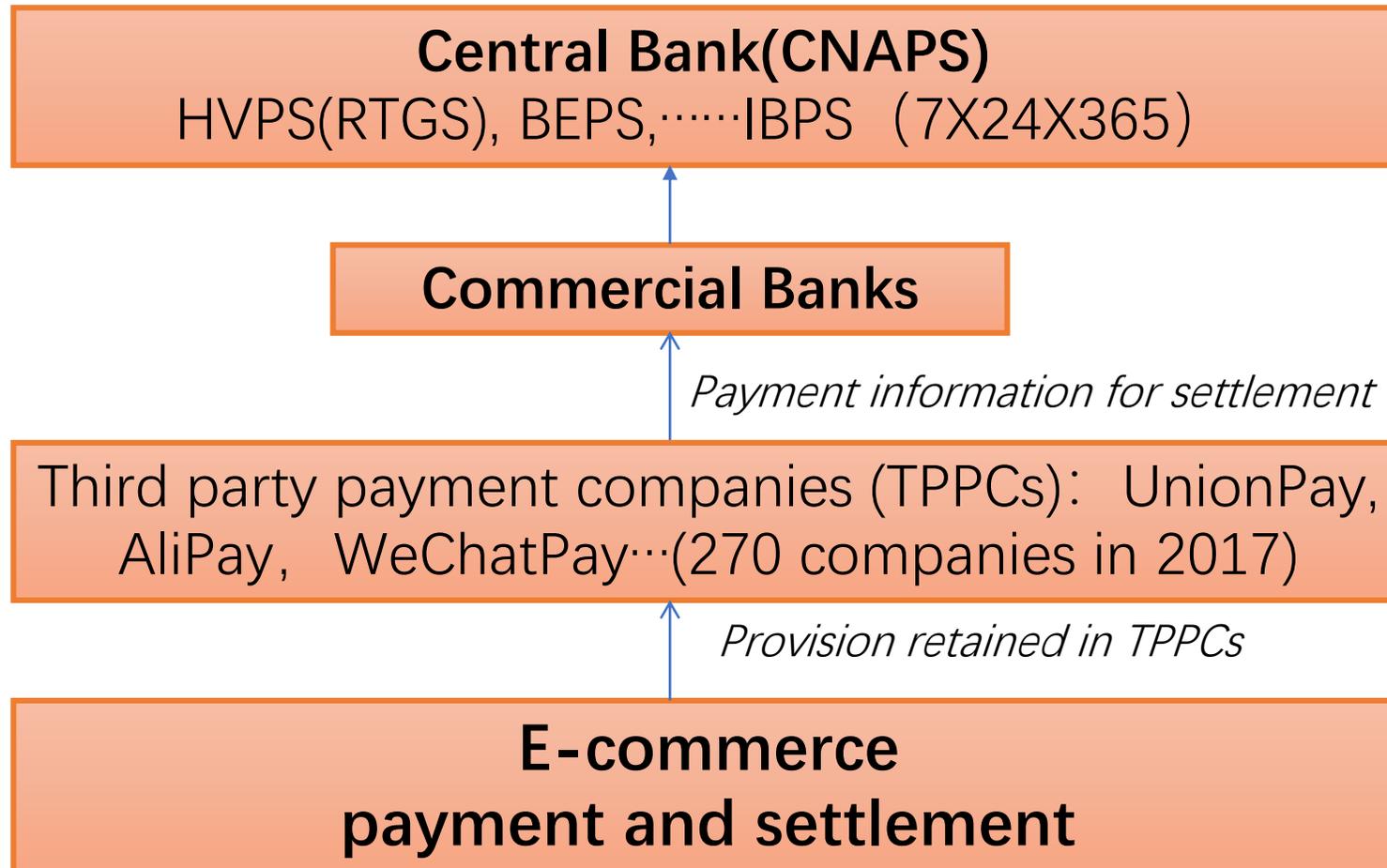
JD.com: overnight electric appliance delivery



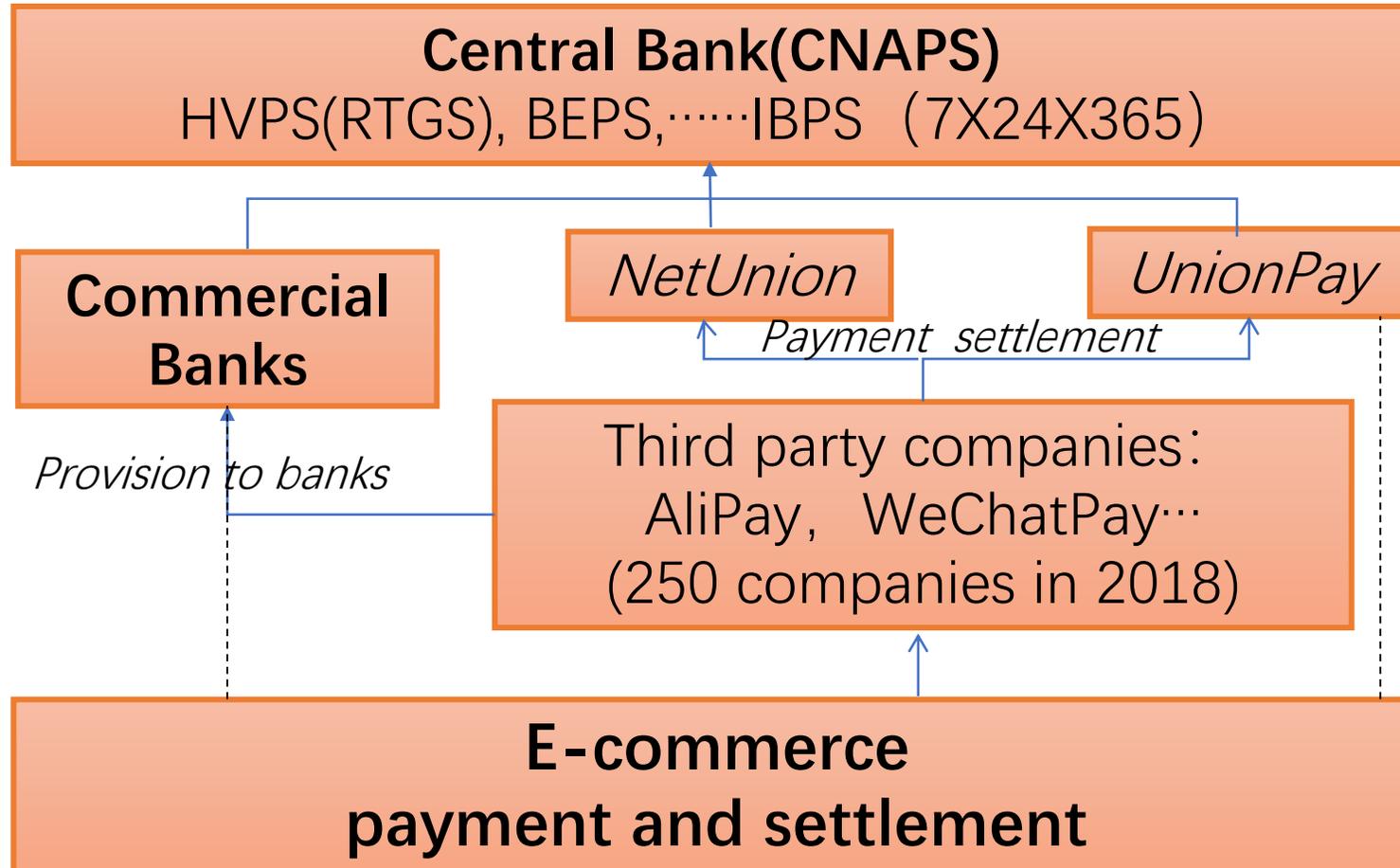
Ele.me: 30-Min food delivery

II. Scalable risk management

Financial infrastructure——before Jun 30, 2018



Financial infrastructure——After June 30, 2018



Personal banking account			Mobile Payment
Type I (Account Card and number)	<ul style="list-style-type: none"> Opened for full functions; On-site ID recognition 	<ul style="list-style-type: none"> one account with a bank only no transferring or outstanding limit 	For safety reason, not fit for online payment binding
Type II (Electronic account number)	<ul style="list-style-type: none"> For wealth products Mgt. online payment Can be remotely opened 	<ul style="list-style-type: none"> More accounts allowed Normally no cash withdrawal Daily consumption cap RMB10000 Yuan Binding to type I account No outstanding limit 	Fit for binding to secured online and mobile payments. e.g., NFC based Unionpay, Applepay
Type III (Electronic account number)	<ul style="list-style-type: none"> For online or mobile payment can be remotely opened 	<ul style="list-style-type: none"> one account with a bank only Daily consumption and fee payment cap RMB5000 yuan Outstanding no more than RMB1000 yuan Transferring to un-binding accounts is restricted 	Fit for high frequency, small amount mobile payments. e.g. QR based WeChatpay, Alipay

Scalable risk management for QR payments

**Static QR
codes
Payment**

**once for all printed out
and displayed QR codes
that customers can scan
to pay**

**RMB500 yuan per day per
person**

**Dynamic QR
codes
payment**

**An editable code that can
be modified constantly to
change the information
embedded in the QR code.**

Three transaction caps:

- RMB1,000 yuan**
- RMB5,000 yuan, or**
- one can set new caps on
individual basis.**

III. Impediments

□ Domestic E-Commerce

□ Cross-border E-commerce?

- ◆ Policies——Tax, currency convertibility

- ◆ Technologies——Cloud service policy

- ◆ Capital Investment——Cross border payment and settlement system; 3PPs; 3PLs services

□ *5-Goal in “**Belt and Road**” Initiative*

- ◆ Policy co-ordination

- ◆ Facilities connectivity

- ◆ Unimpeded trade

- ◆ Financial integration, and

- ◆ People-to-people bonds

Thank you!

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