

Made in China 2025 and Industrial Internet

Haihua LI

lihaihua@caict.ac.cn

Chairperson, General WG, AII

Deputy CTO, TSRI, CAICT

- **Made in China 2025**
- **Intelligent manufacturing**
- **Industrial Internet**
- **AII (Alliance of Industrial Internet)**

Made in China 2025

“Made in China 2025” (May 8, 2015) 30 years, 3-steps strategy

Action Guidance for
the first 10 years

1

2025

Shifting China from a big
manufacturing country to a
strong one by the year 2025

2

2035

China being able to compete
with developed manufacturing
powers by 2035

3

100 years anniversary

Transforming China into a leading
manufacturing power by the year
2049

Ten Key Sectors

1. **New information technology**
2. **Numerical control tools and robotics**
3. **Aerospace and aeronautical equipment**
4. **Ocean engineering equipment and high-tech ships**
5. **Modern railway equipment**
6. **Energy saving and new energy vehicles**
7. **Power equipment**
8. **Agricultural machinery**
9. **New materials**
10. **Biological medicine and medical devices**

high-end equipment + big innovation direction + industrial foundation

Nine tasks & five major programs

No.	Nine tasks	Main Achievements (2017.3)
1	Improving manufacturing innovation	• 2 National Innovation Center(Power Battery, Additive Manufacturing) • 226 projects for comprehensive and standardized trial • 109 smart manufacturing pilot programs • 51national low-carbon industrial parks • 57 high-risk pollutant reduction programs • 8pilot cities / 3 city clusters • Region-specific guidelines • 11 key milestone projects In 2016, the penetration rate of applying digital R&D tools for enterprises reached 61.8% and the digitalization of key processes reached 33.3%
2	Integrating information technology and industry	
3	Strengthen the industrial base	
4	Fostering Chinese brands	
5	Enforcing green manufacturing	
6	Promoting breakthroughs in 10 key sectors	
7	Advancing restructuring of the manufacturing sector	
8	Promoting service-oriented manufacturing and manufacturing-related service industries	
9	Internationalizing manufacturing	

Five Major Programs

construction of
national
manufacturing
innovation centers

Intelligent
Manufacturing

Consolidation
of industrial
foundation

green
manufacturing

high-end
equipment
innovation

- **Made in China 2025**

- **Intelligent manufacturing**

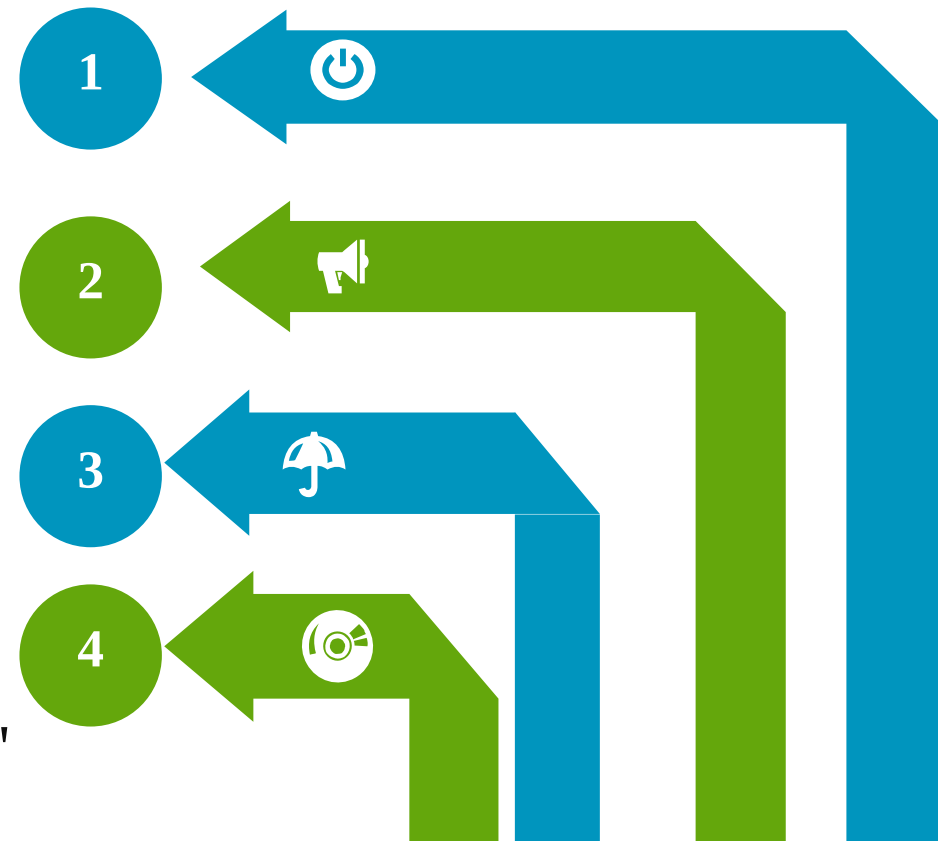
- **Industrial Internet**

- **AII (Alliance of Industrial Internet)**

Intelligent Manufacturing

MIIT main actions :

-  Published "guidelines for the implementation of Intelligent Manufacturing **Project** (2016~2020)"
-  Intelligent Manufacturing **Standardization** Work
-  Intelligent manufacturing **pilot demonstration**
-  Published " intelligent manufacturing **development planning** (2016~2020)"



Intelligent Manufacturing

guidelines for the implementation of Intelligent Manufacturing Project

5 kinds of equipment:

- CNC machine tools and robots
- Additive manufacturing equipment
- Sensing and control equipment
- Assembly and inspection equipment
- Intelligent logistics equipment

3 foundations:

- Standard
- Communication infrastructure
- Industrial software

5 modes:

- Digital workshop
- Intelligent factory
- Personalized customization
- Collaborative manufacturing
- Remote operation & maintenance

10 Key Sectors

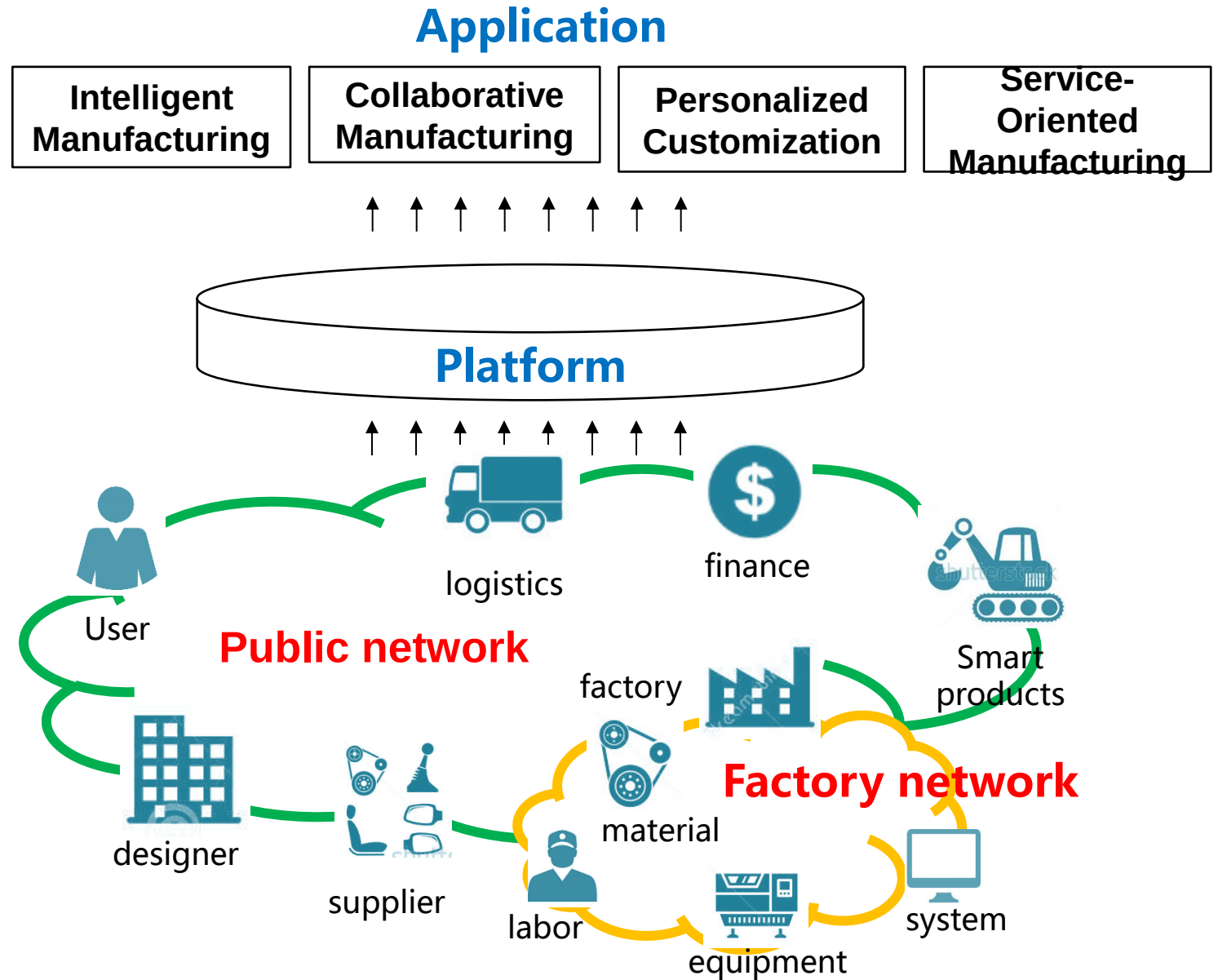
Mentioned in 2025

Contents

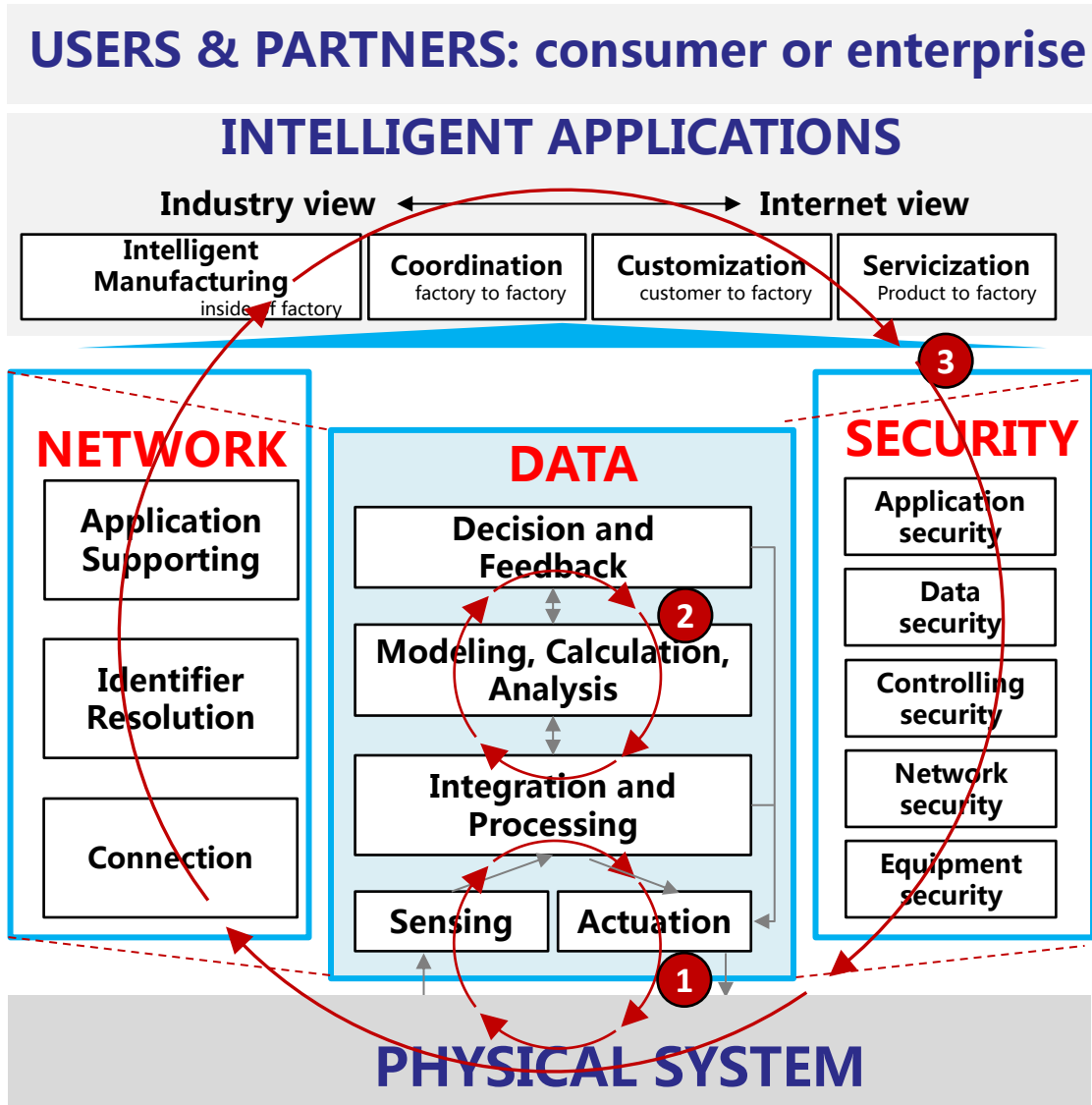
- **Made in China 2025**
- **Intelligent manufacturing**
- **Industrial Internet**
- **AII (Alliance of Industrial Internet)**

Connotation of Industrial Internet

Industrial internet is the **key comprehensive information infrastructure** for industrial intelligent development, and is a kind of **industry and application ecology** generated from the all-round deep integration of the Internet and the new generation information technology with the industrial system



Architecture of Industrial Internet



- “**NETWORK**” is the basis for interconnection
- “**PLATFORM**” is the core to form industrial intelligences
- “**SECURITY**” is the prerequisite for development of Industrial Internet

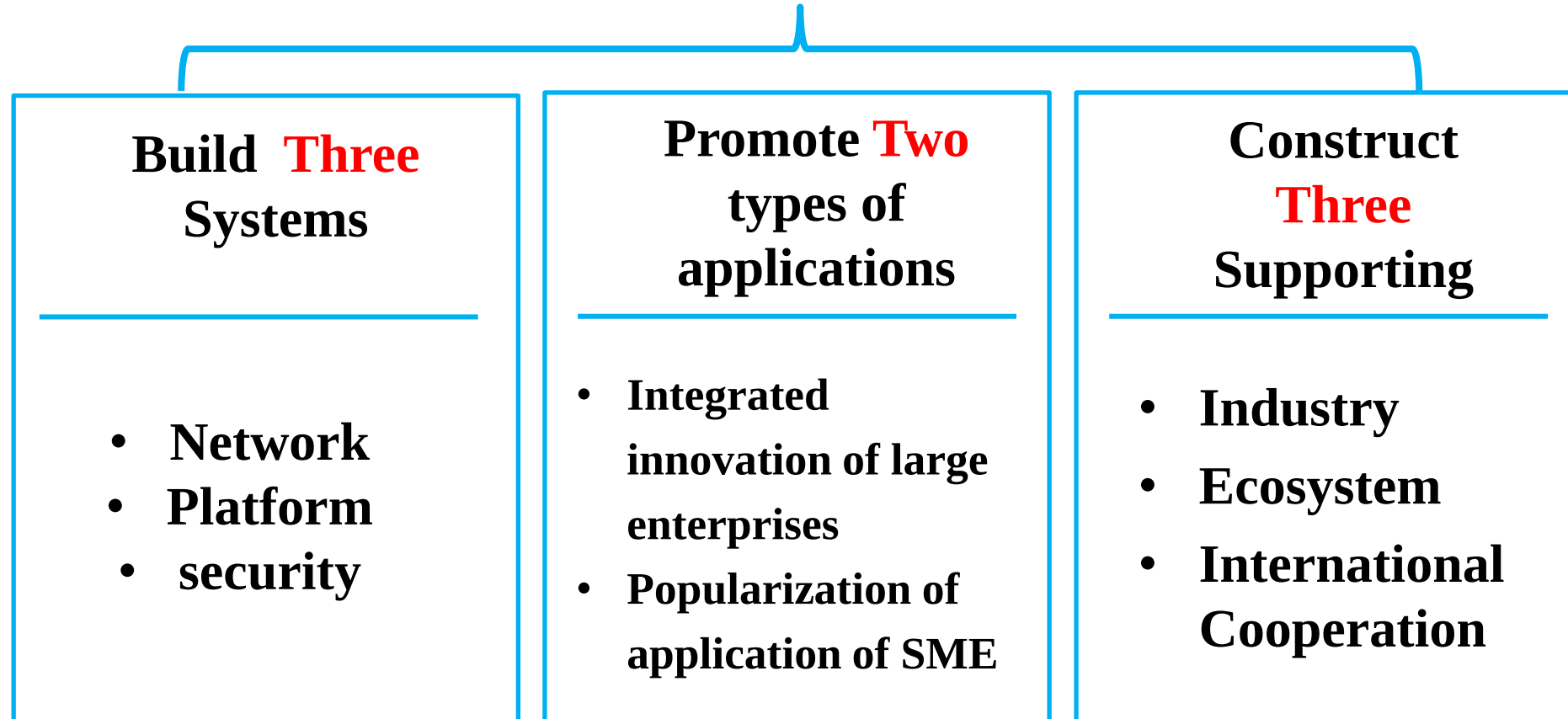
THREE CLOSED – LOOP OPTIMIZATION:

- equipment operation optimization
- enterprise management optimization
- ecosystem optimization

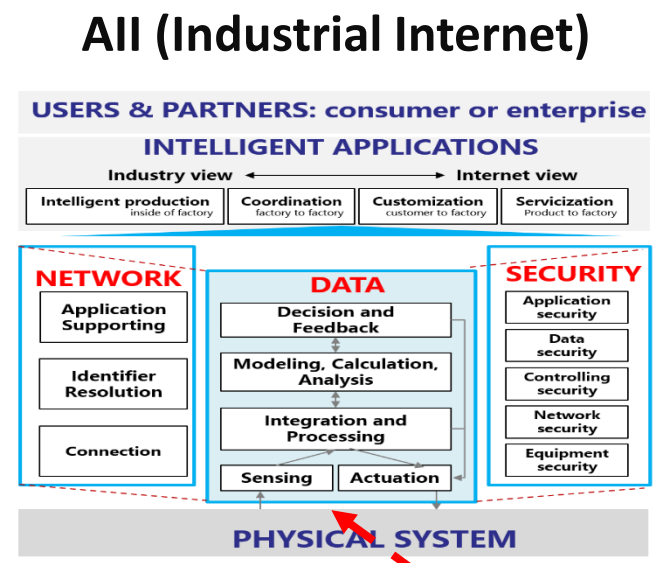
Guidance of industrial internet development to deepen Internet + advanced manufacturing

Three Steps Goal: by 2025, 2035 and the middle of this century

“323” Action



Our perspective on IIC, 14.0, AI(Industrial internet), Intelligent manufacturing

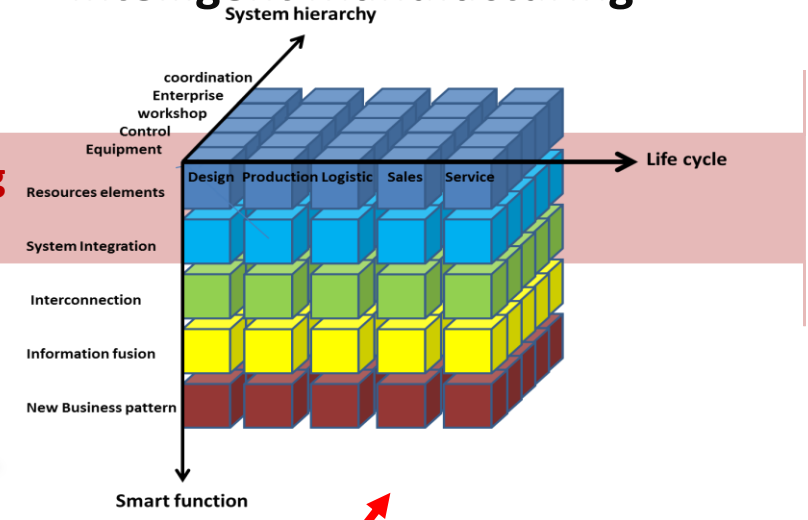


horizontal perspective

Energy Manufacturing Transportation...

Manufacturing Sector

Intelligent Manufacturing



Similar

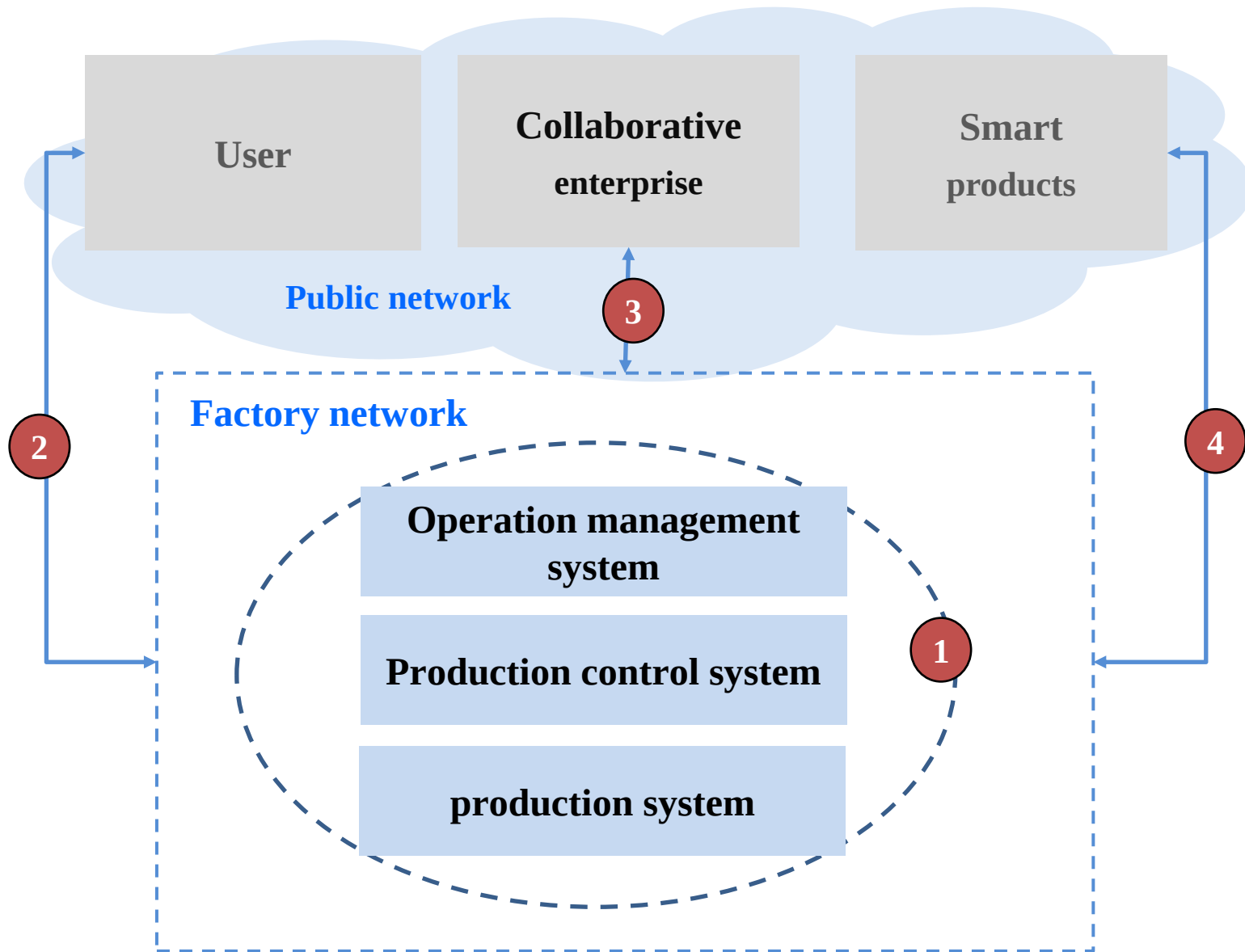
Similar



Contents

- **Made in China 2025**
- **Intelligent manufacturing**
- **Industrial Internet**
- **AII (Alliance of Industrial Internet)**

FOUR categories of industrial internet models

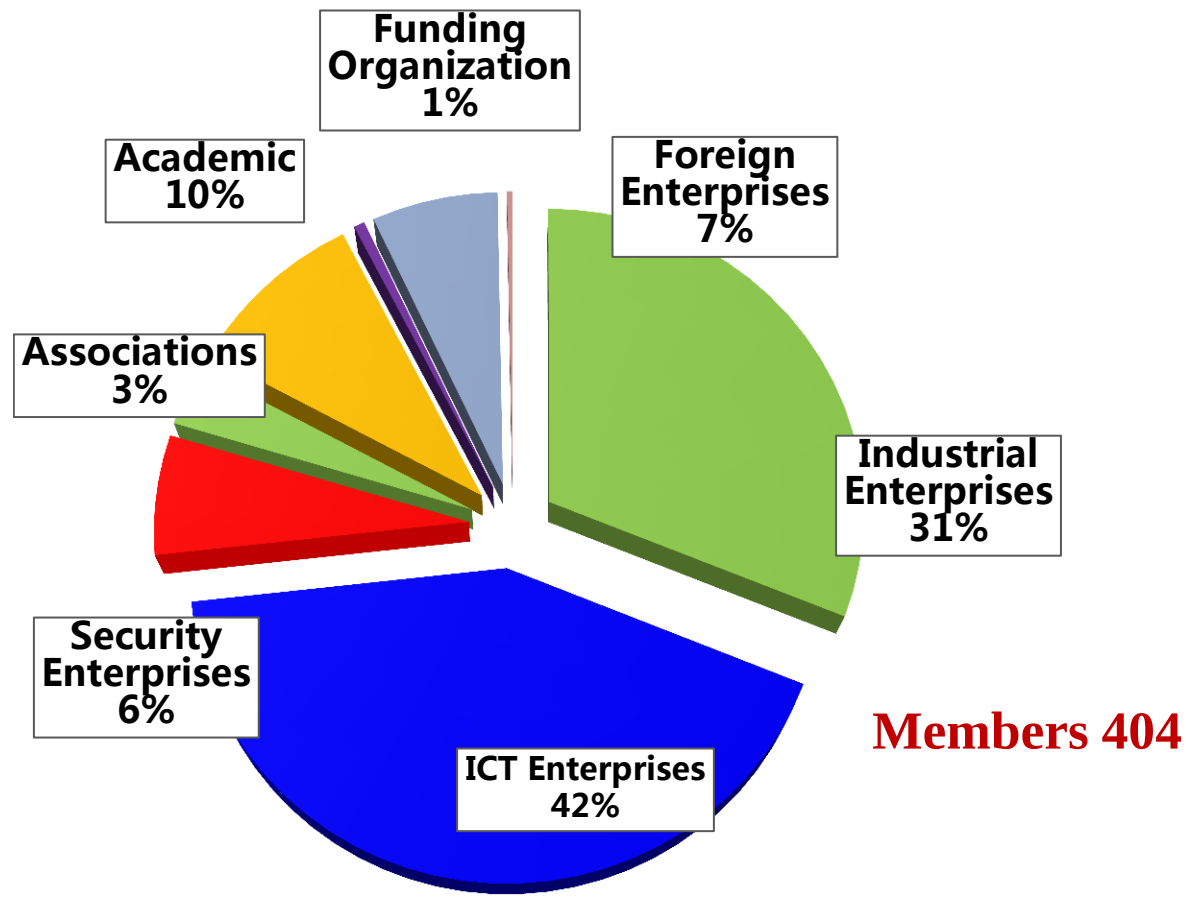


4 modes

1. **Intelligent Manufacturing** (inside of factory)
2. **Personalized Customization** (customer to factory)
3. **Collaborative Manufacturing** (factory to factory)
4. **Service-Oriented Manufacturing** (product to factory)

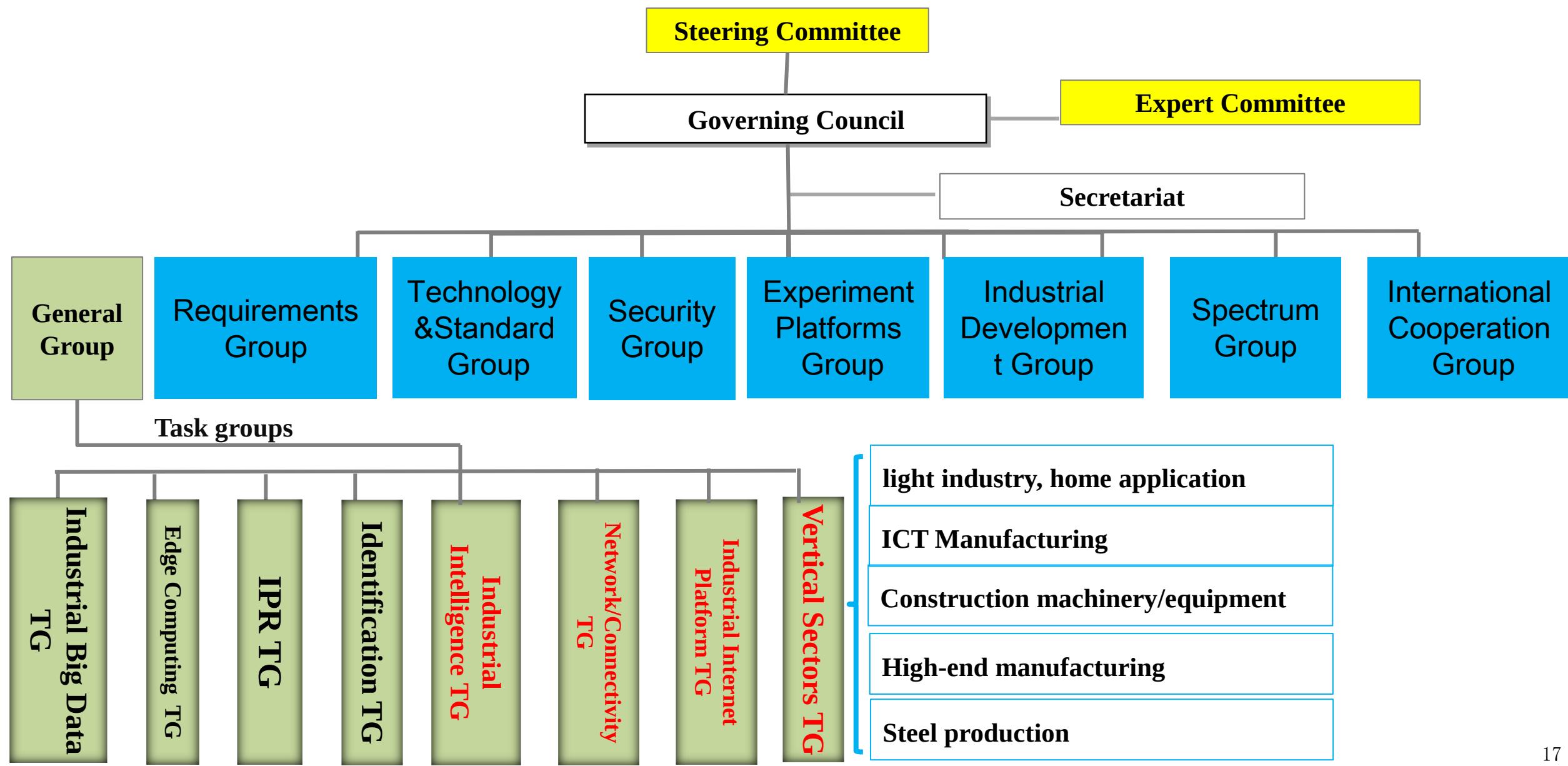
Alliance of Industrial Internet (AII)

Established on **FEB. 1, 2016**. Under the guidance of industrial internet architecture, AII carry out technical R&D, standard development, test verification, application demonstration, security monitoring, international cooperation, etc.



- 10 technical report, i.e Industrial Internet Architecture v1.0, Industrial Internet Standard System v1.0 , Industrial Internet Platform white paper...
- 20 testbeds, 25 best practices

Structure of AII (8 working Groups + X task Groups)



2017 工业互联网峰会

INDUSTRIAL INTERNET SUMMIT 2017

2017年2月20-21日 北京国际会议中心

指导单位：工业和信息化部
主办单位：中国信息通信研究院 工业互联网产业联盟

1600+ participants, 66 speakers, 17 showcasts
Welcome you @ Beijing, 2018 February 1~2





工业互联网产业联盟
Alliance of Industrial Internet

CAICT 中国信通院

国家高端专业智库 行业创新发展平台

Thanks for Your Attentions!



工业互联网产业联盟
Alliance of Industrial Internet

<http://www.aii-alliance.org/>

Mail : aii@caict.ac.cn

Wechat : 工业互联网产业联盟

