2020

Manufacturing Digital Transformation in China

——Experience and Practice Path

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

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Digital Transformation Demand and Path

Use Cases in Vertical Industry and New Technology

Alliance of Industrial Internet in China

Digital transformation faced by Chinese Manufacturing

Improve the Efficiency

The economic downturn and rising labor costs

- From 2005 to 2015, China ’s labor costs increased 5 times[1]

Improve Quality and Value

More in to low-end manufacturing with low added value

- Per-capital industrial added value: China $2377; US $6434; Germany $ 8371[2]

Promote Business Model Innovation

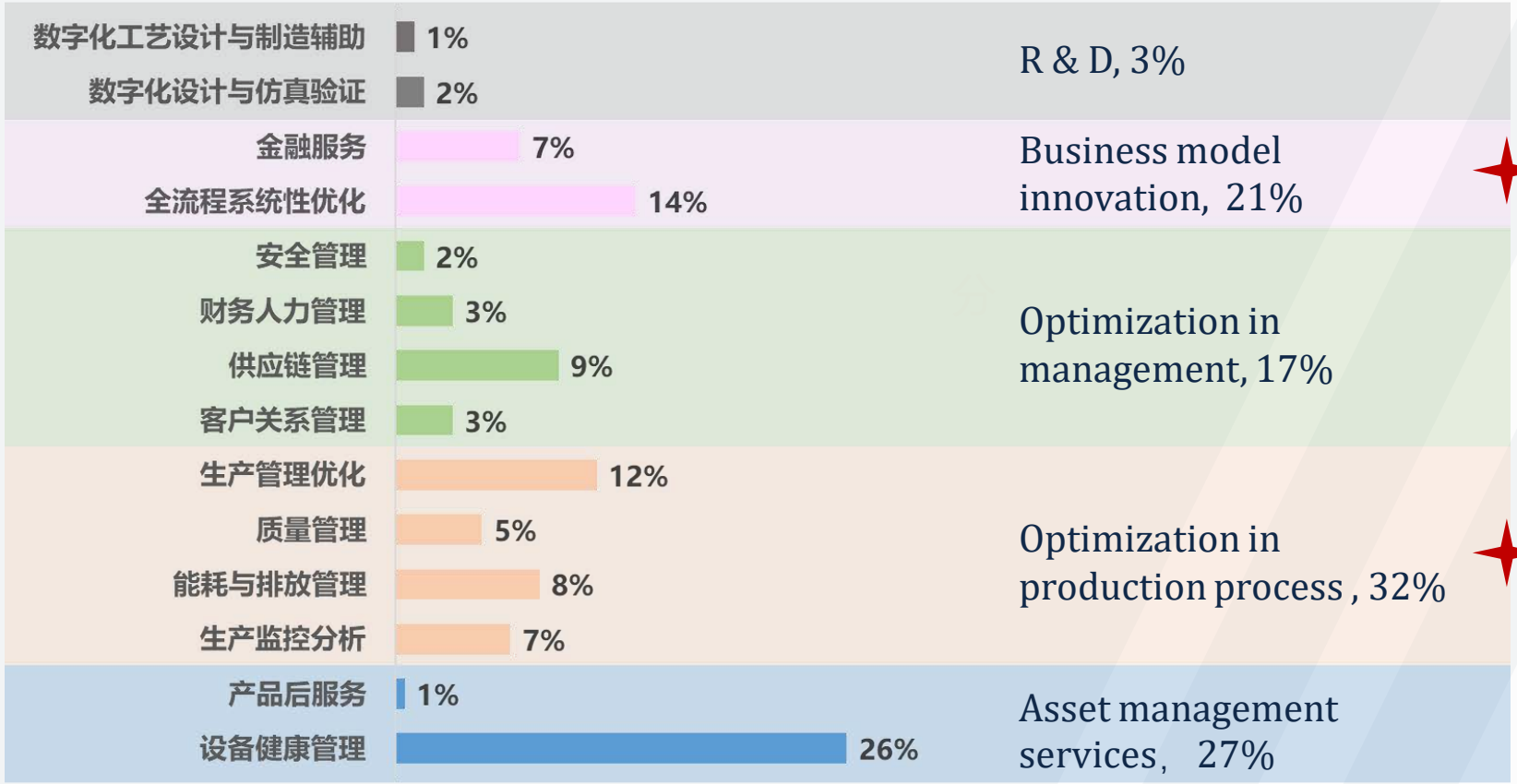
In particular, a large number of SME manufacturing need to integrate their capabilities into the socialized production system

- The average after-tax profit margin of Chinese manufacturing enterprises is 3.3%, 1/5 enterprises are negative[3]

[1]: <Global Manufacturing Competitiveness Index 2016>, Deloitte
[2]: World Bank, 2015
[3]: Chinese enterprise-labor force matching survey, 2017

Application Exploration in Digital transformation

——The Thinking Behind Data



- Finance lease
- Shared manufacturing
- .....

- Production yield
- Energy management
- Production monitoring analysis
- .....

Business Model Innovation Based on four “Connect”

Connect Users

Mass customization

Haier

The Haier COSMOPlat platform connects users and the whole process of production, sales and logistics, collect personalized customization from users, product and distribute on demand

Connect Factory

Resource allocation optimization

生意帮

Order reconstruction: More than 60 factories share the orders, revitalize idle equipment

Connect Logistics

Data-driven precision logistics services

Transfar 传化智联

Logistics platform: integrates the data from producers, logistics and warehouse, guarantee the security of the payment and the product

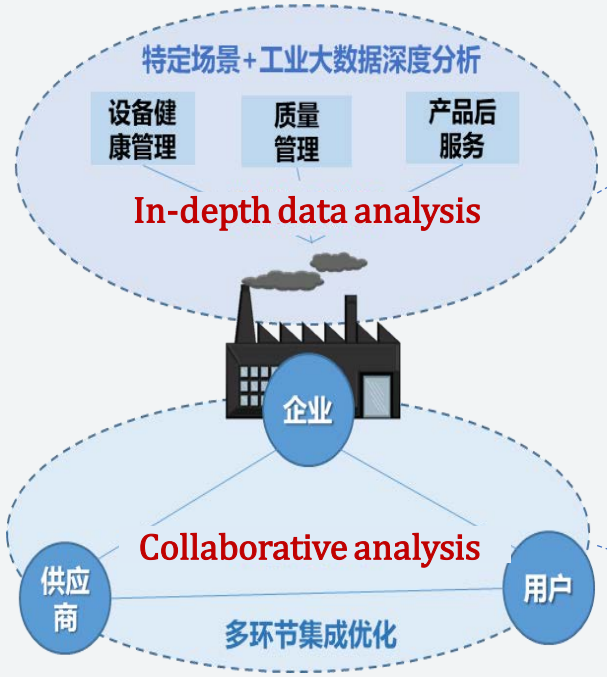
Connect Finance

Equipment + Finance/insurance

根云 ROOTCLOUD

Build an actuarial model based on machine operating data, Provide financial services such as risk guarantees and dynamic insurance pricing

Big Enterprises: Focus on High-value Applications



Focus on one or more application scenarios

ShaanGu

PHM in Shaanxi Drum Power, shorten the maintenance period by 33.3%, and reduce the cost of equipment by 42%

FOXCONN 富士康科技集团

PHM in machine tool, increase the life by 15%, and product yield increased by 30% 42%

Focus on collaboration among the value chains

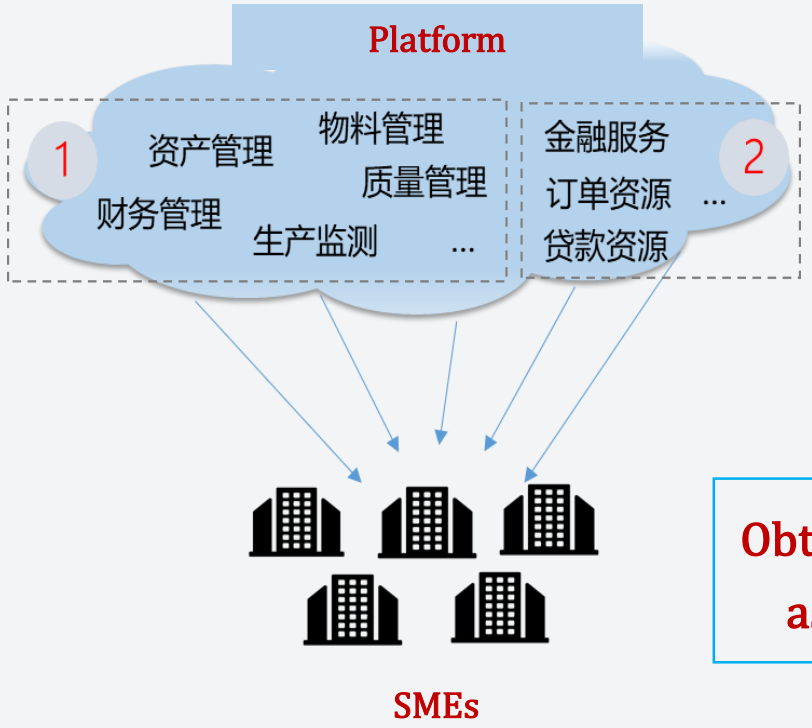
COMAC 中国商飞

Based on 5G to achieve multi-site remote collaborative, improve the efficiency by 10 times

SAIC 上汽集团 SAIC MOTOR

Use AI to optimize the whole logistics and response quickly, increase the economic benefits by 10%

SMEs: Acquire More Resources and Transformation by Low Cost



Low-cost in ERP, CAD, CRM……

浦惠智造 INCLUTION

MES by cloud to 400 enterprises, increase personnel efficiency by 20%, equipment efficiency by 25%, and save labor cost about RMB 60,000-240,000

Obtain Key Resources such as orders, financing…..

积微物联 WWW.JWELL56.COM

Provide online trading services for steel, annual steel trading volume exceeding RMB 70 billion

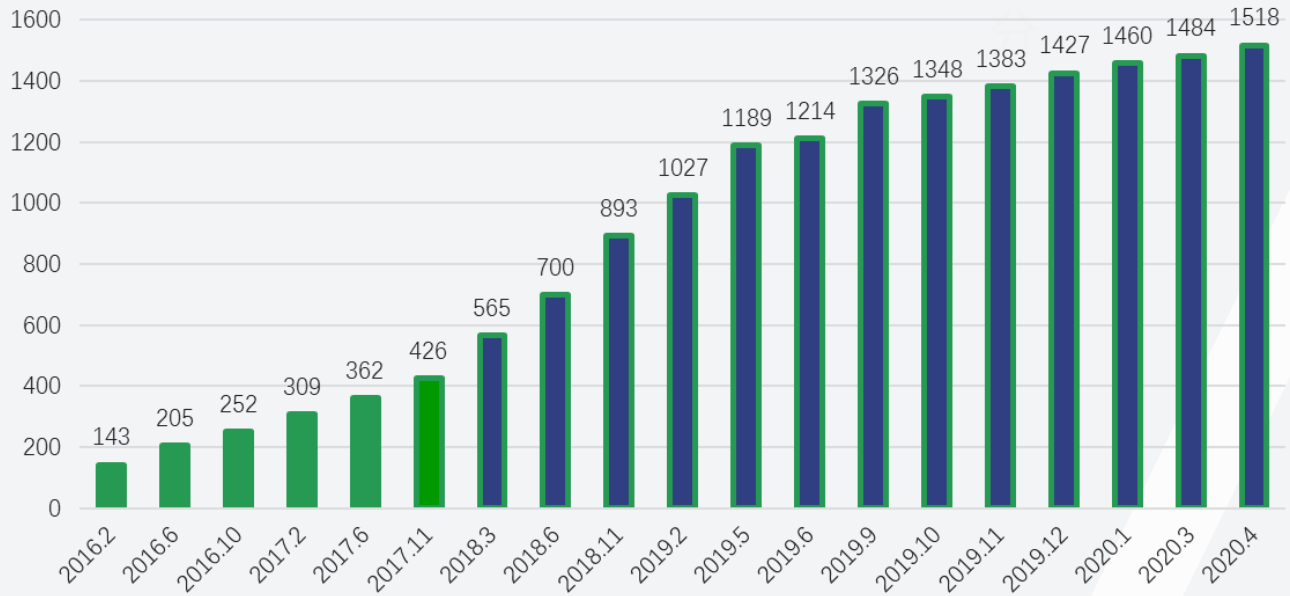
天正

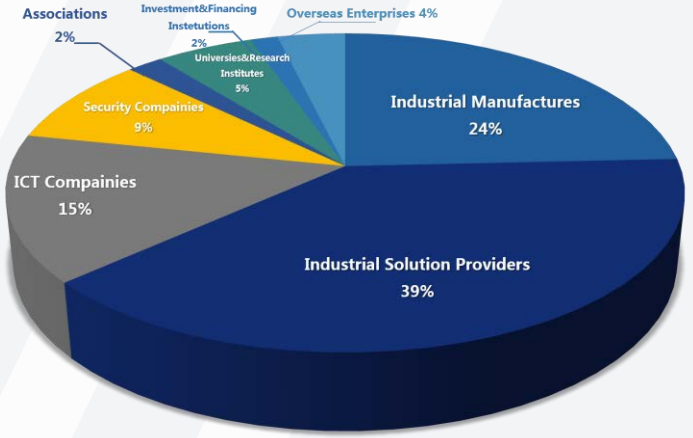
Describe the company's credit status based on equipment operation data, help 2000 enterprises with 2 billion yuan in credit

AII: Improve the Transformation and Upgrading of Manufacturing

Since 2016, the number of members has reached 1,518, including manufacturing, automation , ICT and other relevant enterprises or association

Chairman: CAICT





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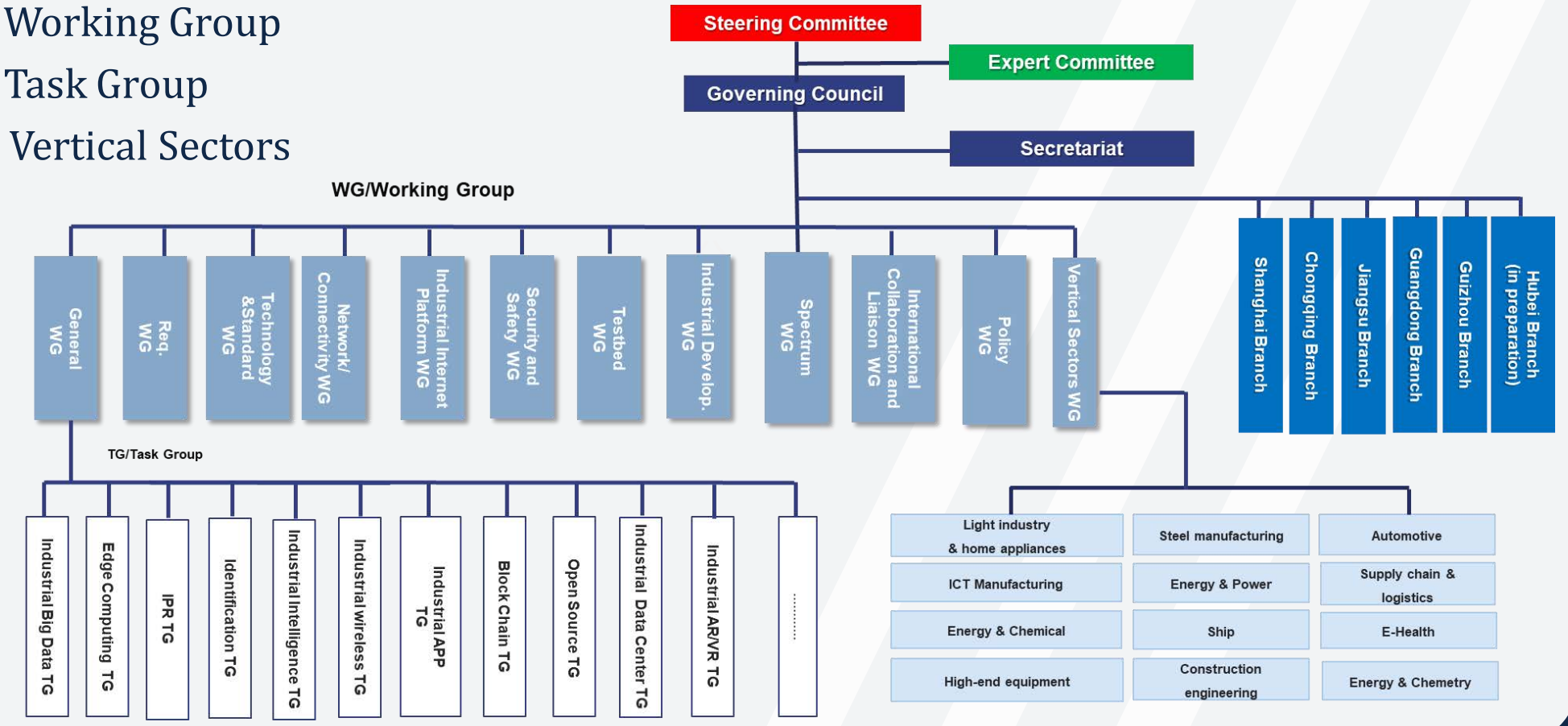
AII“13+12+X” Structure

13 Working Group

12 Task Group

X Vertical Sectors



What We Have Done ?

51 test beds

- 14 industrial Internet platform test beds
- 17industrial Internet new network and application test beds (TSN, industrial PON, NB-IOT, etc.)
- 9 industrial Internet new technology test beds (AI, edge computing, big data, blockchain, etc.)
- 11industrial Internet-driven smart factory/service test beds

78 excellent application cases

- 26 in production period
- 24 with industry internet platform
- 8 in product service
- 8 with big data
- 8 with security application

30 excellent network solutions

13 typical security solutions

50+ Reports

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13 Industrial Internet platform evaluation

What We Have Done ?

Industrial Big Data Innovation Competition （2017-2019）

2017： Wind Turbines PHM, by Goldwind Sci & Tech Co. Ltd， one of the world largest wind power equipment manufacture

2018： Two Topics in Cutting Tool wear Prediction, and Coil Throughput Forecast

2019： Prognosis of Rotor Parts Fly-off For Large Rotating Machines

5000+ *Participants*

50,000+ *Watch the Live*

150,000+ *Weibo reading*

Look Ahead: Digital Transformation Enters into Large-scale Promotion

Application will lead to technological innovation and industrial cooperation

Seize the opportunity of new technology: AI, 5G, Cloud, block chain……

Business model and value realization are the keys factor for sustainable development

Big enterprises and SMEs are two path in China

Thanks

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